



Agenda
Hearing Examiner Meeting
Thursday, July 27, 2017
City Hall Council Chamber | 505 Swift Boulevard

Hearing Examiner: Gary McLean

Liaisons: Staff Liaison Development Services Manager Simon

Public Hearing – 6:00 p.m.

Public Hearing Explanation:

New Business – Public Hearing:

1. SMP2017-100 - A shoreline substantial development special use permit for the construction of the Duportail Street bridge across the Yakima River. Applicant: Richland Public Works Department
2. Z2017-103 - A change in zoning on the plat of Sunshine Ridge located at the north end of Sunshine Ridge Road from Badger Mountain South to R1-12 Single Family Residential. Applicant: Dennis Sawby Construction, LLC

Adjournment

The next Hearing Examiner Meeting is As Needed

This Meeting is broadcast live on CityView Channel 192 and online at CI.RICHLAND.WA.US/CITYVIEW

Richland City Hall is ADA accessible with special parking and access available at the entrance facing George Washington Way. Requests for sign interpreters, audio equipment, and/or other special services must be received 48 hours prior to the Hearing Examiner Meeting by calling the City Clerk's Office at 942-7388.



HEARING EXAMINER AGENDA ITEM COVERSHEET

Meeting Date: 07/27/2017

Agenda Category: New Business – Public Hearing

Prepared By: Shane O'Neill, Senior Planner

Subject:

SMP2017-100 - A shoreline substantial development special use permit for the construction of the Duportail Street bridge across the Yakima River. Applicant: Richland Public Works Department

Department:

Community & Development Services

Recommended Motion:

Approval subject to one condition as contained in the staff report

Summary:

A Shoreline Substantial Development Special Permit to allow construction of the Duportail Street Bridge

Attachments:

1. Staff Report

**CITY OF RICHLAND DEVELOPMENT SERVICES DIVISION
STAFF REPORT TO THE HEARING EXAMINER**

GENERAL INFORMATION:

PROPOSAL NAME: Duportail Street Bridge

LOCATION: The north and south ends of Duportail Street nearest to the Yakima River, Richland, WA
Benton County tax parcel ID #'s: 1-15982000006000, 1-16981000003000 & 1-16984000003001, Township 9 North, Range 28 East, Sections 15 & 16, W.M.

APPLICANT: City of Richland

FILE NO.: SMP2017-100 & EA2017-07

DESCRIPTION: A Shoreline Substantial Development & Special Use Permit to construct a 4 lane bridge over the Yakima River connecting the north and south portions of Duportail Street including associated improvements.

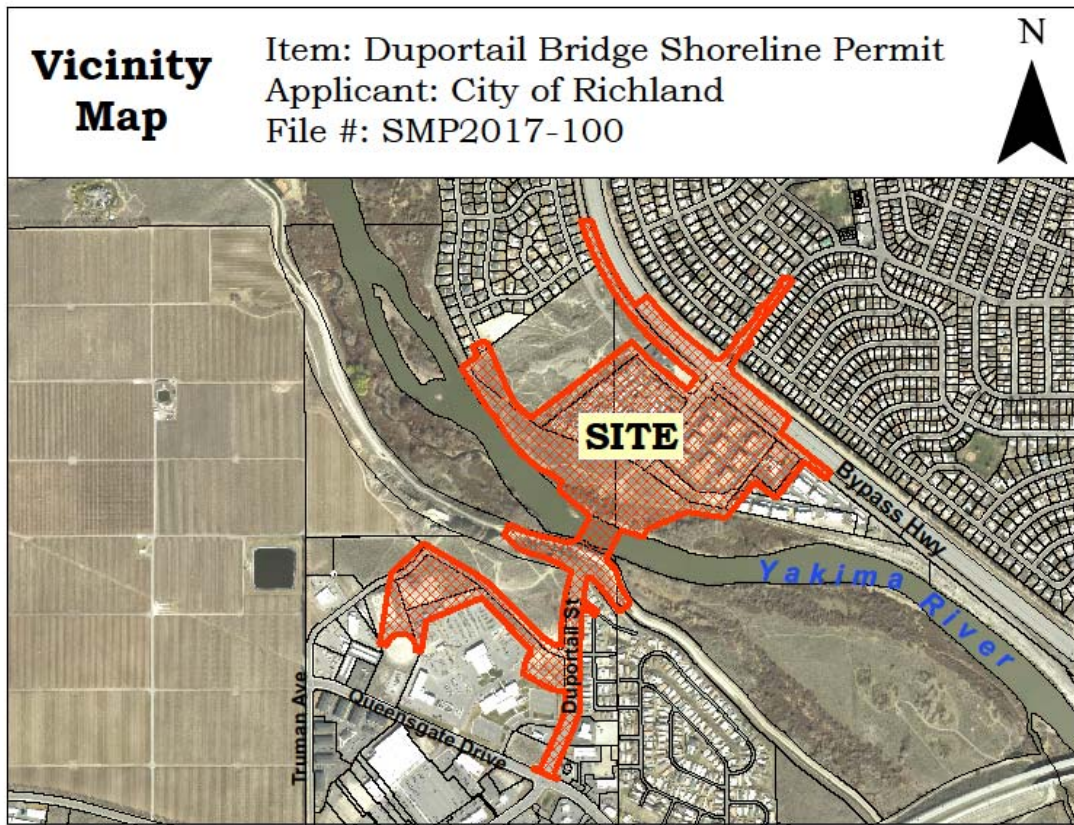
PROJECT TYPE: Type 2 Shoreline Substantial Development Permit

HEARING DATE: July 27, 2017

REPORT BY: Shane O'Neill, Senior Planner

**RECOMMENDED
ACTION:** Approval

Figure 1 - Vicinity Map



DESCRIPTION OF PROPOSAL

Richland Public Works Department is requesting approval of a Shoreline Substantial Development & Special Use Permit to:

- Construct a new four-lane bridge including pedestrian/bicycle pathways extending over the Yakima River;
- Extend Tanglewood Drive eastward approximately 700 feet east and 1,700 feet west of Duportail Street;
- Install a traffic signal at the intersection of Duportail Street and Tanglewood Drive;
- Upgrade the intersection of Duportail Street and SR 240;
- Build a new access road to connect the Shoreline Village apartment complex and the Desert Streams Bible Church to Tanglewood Drive; and
- Replace an existing water main onto the proposed bridge.

The project will also include other improvements as follows:

- Reconfigure the parking lot for the existing boat launch site;

- Install sidewalks where needed to create a seamless pedestrian network in the project area; and
- Designate one nature trail and restore all remaining disturbed areas with native vegetation.

It is important to note here that the project description above includes, generally, a full scope of bridge construction project activities to occur within the geographic footprint of the Area of Potential Effect (APE) as addressed in the associated Environmental Assessment (Exhibit 4). However, for the purposes of this Shoreline Substantial Development and Special Use Permit review the respective project area and project components are significantly reduced in scope. Shoreline permit review applies only to land areas lying within and up to a distance of 200 feet on either side of river shoreline(s). Figure 4 illustrates the effective land area subject to shoreline permit review.

SITE HISTORY

Many years ago, river shores in this location were acquired by the Army Corps of Engineers to serve as flowage easements serving the McNary Dam construction project on the Columbia River. Installing dams on the Columbia River had the effect of increasing water levels on the Columbia River and into portions of the Yakima near the confluence. That is why there is currently no development within the subject shoreline areas. These areas are protected from development, by way of Federal land ownership, that would potentially be subject to catastrophic flood damage.

SITE DESCRIPTION & ADJACENT LAND USES

Land areas lying within 200-feet of the Yakima River along the north shoreline vary in vegetative composition; generally being more heavily vegetated toward the southeast and appearing more arid with lower stature plants to the northwest. The exact location of the bridge footprint on the north shore contains a small forest with trees approximately fifty (50) feet in height. Approximately 170-feet inland of the trees the vegetation significantly diminishes to grasses, weeds and some remnant sagebrush.

Beyond the 200-foot shoreline buffer area on the north shore lay two multi-family residential apartment complexes, one on either side of Duportail Street. Directly north/northwest of the apartments is a 21-acre parcel of vacant land; directly north of which is the single-family residential subdivision of Tanglewood.

Albeit a similar vegetative composition on the south shoreline of the Yakima in this location, the area containing riparian vegetation occupies a much narrower strip of shoreline. Approximately 63 feet in from the water's edge lies a Columbia Irrigation District irrigation canal and flume. The land on the south shore is significantly steeper than that of the north shore. Lands surrounding the project site on the south shore are predominantly vacant with the exception of the City View mobile home community on the east side of Duportail Street.

EXISTING ZONING

Shoreline areas of the site are zoned as follows:

Site Zoning

- | | |
|-------|---|
| North | - NOS (Natural Open Space), AG (Agriculture) & R-1-10 (Single Family Residential) |
| South | - NOS |

Project areas lying within 200-feet of the shoreline (see Fig. 4) are overlain by the following zoning designations:

Surrounding Zoning

- | | |
|-------|--------------------------|
| North | - C-LB & R-1-10 |
| East | - C-LB & NOS |
| South | - C-LB |
| West | - NOS & AG (Agriculture) |

The stated purposes of the Natural Open Space (NOS) zone (as set forth in RMC 23.30.010) is as follows:

- B. The natural open space use district (NOS) is a special use classification intended to provide area for the retention of publicly owned, natural open spaces that, due to their proximity to wetlands, shorelines, floodplains or critical habitat areas, are too sensitive for intensive use or development. This zoning classification is intended to be applied to those portions of the city that are designated as natural open space under the city of Richland comprehensive plan.*

The stated purposes of the Agriculture (AG) zone (as set forth in RMC 23.14.010) is as follows:

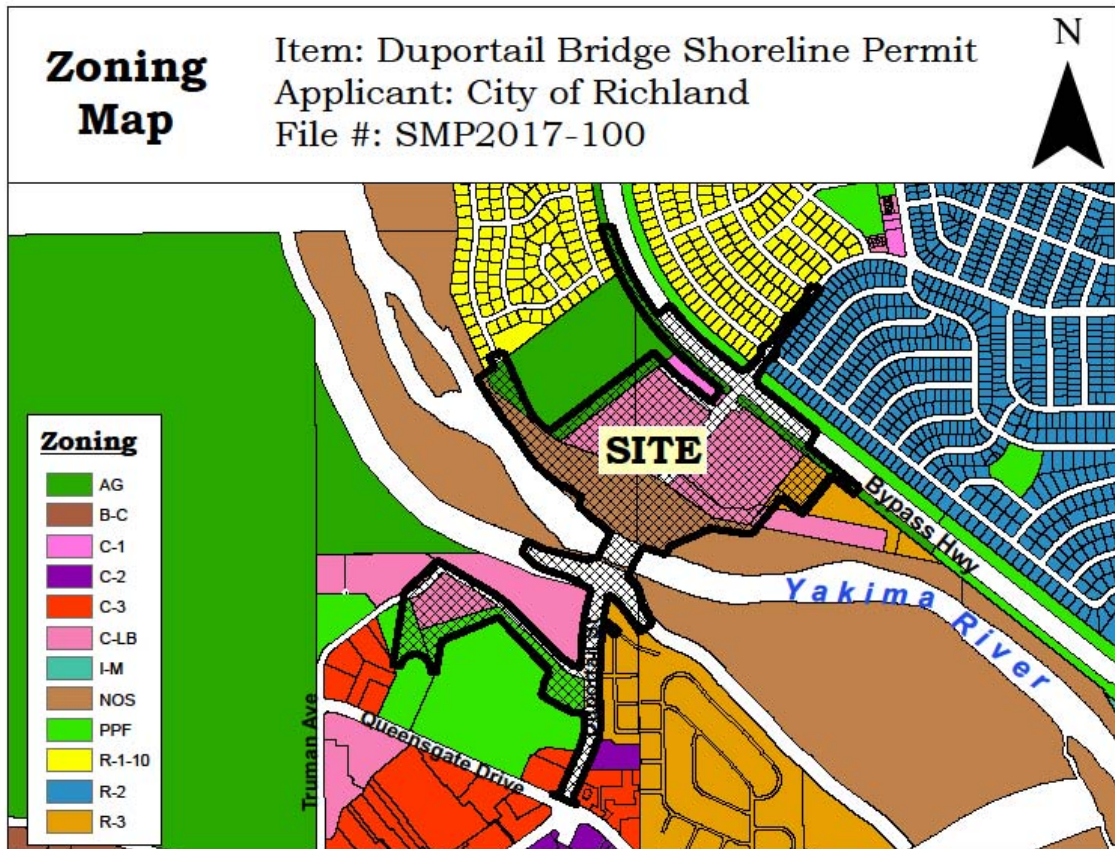
- A. The agricultural use district (AG) is a primary zone classification permitting essentially open land uses such as grazing lands or pasture, agriculture, and development of part-time small tract farming and other compatible uses of an open nature such as a cemetery, park, and recreational or similar uses on land which has favorable combinations of slope, climate, availability of water, or soil conditions. This zoning classification is intended to be applied to some portions of the city that are designated as agriculture or as urban reserve under the city of Richland comprehensive plan.*

The stated purposes of the Single Family Residential (R-1-10) zone (as set forth in RMC 23.18.010) is as follows:

- B. The single-family residential – 10,000 (R-1-10) is a residential zone classification requiring a low density of population, providing protection against hazards, objectionable influences, building congestion, and lack of light, air, and privacy. Certain essential and compatible public service facilities and institutions are permitted in this district. This zoning classification is*

intended to be applied to some portions of the city that are designated low-density residential (zero to five dwellings per acre) under the city of Richland comprehensive plan.

Figure 2 – Zoning Map



COMPREHENSIVE PLAN

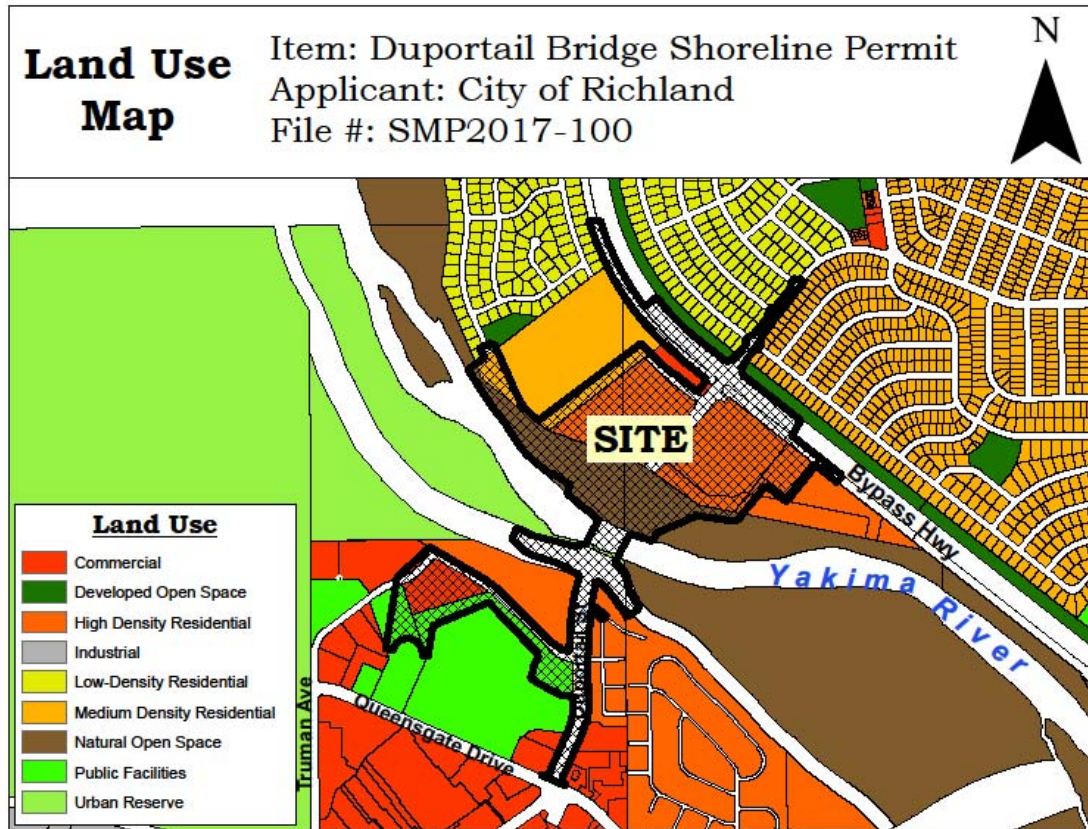
The comprehensive plan designates the applicable shoreline areas for Natural Open Space on the north shore and as Urban Reserve on the south shore. Purpose statements for each land use designation are as follows:

Natural Open Space – The Natural Open Space category includes lands intended to remain as long-term undeveloped open space with limited public access. This category primarily includes lands associated with the Yakima River floodplain and islands in the Columbia River.

Urban Reserve – The Urban Reserve designation is assigned to lands that are to be held in reserve during the 20-year planning period of the comprehensive plan. A significant amount of the land in this designation is in agricultural use. Uses of land

designated Urban Reserve are intended to be temporary to provide the City a basis to evaluate future needs for additional land in other land use designations.

Figure 3 – Comprehensive Plan Land Use Map



The following Comprehensive Goals & Policies have been selected in support of the subject proposal:

(City) Land Use Goal 5:

The City will encourage efficient use and location of municipal and public facilities such as transportation centers, utility facilities, schools, parks and other public uses.

Policy 2 – The City will ensure that public facilities are of a scale compatible with surrounding areas.

Policy 3 – The City, through its land use plan and development regulations, will ensure that public facilities are specifically located to be compatible with existing and planned surrounding land uses.

Land Use Goal 6:

The City will protect and conserve its natural resources and critical lands and provide public access based on ability of the resource to support the use.

- Policy 1 – The City will make all public river shoreline accessible to the public, subject to regulation protecting public safety, sensitive habitat areas and wildlife.
- Policy 2 – The City will encourage development of water-oriented recreational, cultural and related commercial facilities in certain Columbia River locations to enhance and diversify Richland's community recreational resources and its attractiveness to tourists.
- Policy 3 – Except as addressed in Policy 2, the City will protect the natural riparian areas along the Yakima River and the riparian area along the Columbia River so as not to diminish the quality of the shoreline environment.
- Policy 4 – In cooperation with appropriate agencies, the City will identify and regulate the use of wetlands, essential habitat areas and other critical lands within the urban growth area.

Within the Transportation Element of the City's Comprehensive Plan there are several goals and policies supporting the concept of the subject project proposal:

Transportation Goal 1:

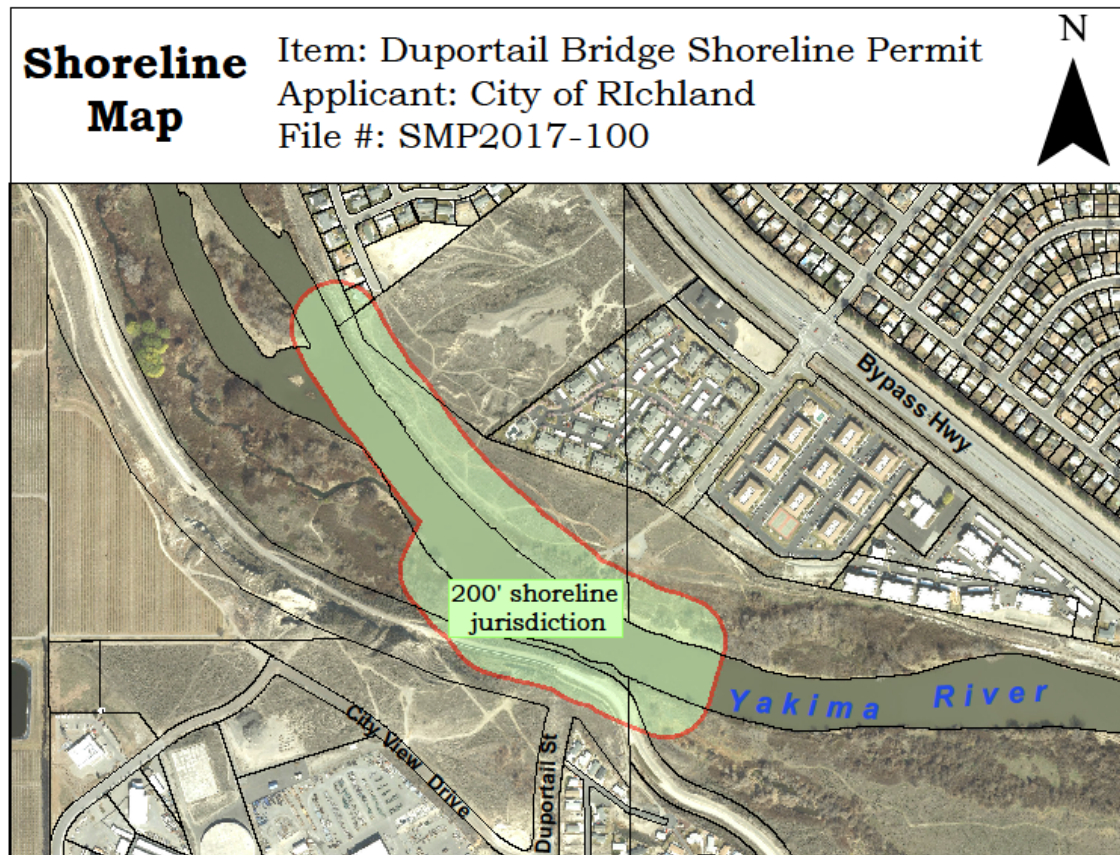
- Policy 1 states that the City will coordinate planning and operation of transportation facilities with programs to optimize multi-modal transportation programs.

Transportation Goal 6:

- Policy 1 states that the City will support increased use of multi-modal transportation including bicycle trails.
- Policy 2 states that the City will coordinate planning efforts for non-motorized modes of travel with other jurisdictions and develop an integrated area-wide plan for non-motorized travel modes that ensure continuity of routes.

SHORELINE MASTER PROGRAM

Figure 4 – Shoreline Map



Adopted in 2016, the City's Shoreline Master Program (SMP) (RMC Title 26) is the guiding document regulating development proposals along Richlands shorelines of statewide significance. Shoreline management regulations are intended, in part, to protect ecological functions of shoreline natural resources while allowing for planning of public facilities and utilities correlated with other shoreline uses. The SMP assigns various environmental designations to the different reaches of shorelines within the City. Each environmental designation is associated with a unique purpose and set of use regulations.

The SMP assigns the Recreation Conservancy environmental designation to shoreline areas on both the north and south shores of the Yakima River in the areas relative to the bridge construction project. The stated purpose of the Recreation Conservancy environment is *"to satisfy some community needs for low-intensity recreation uses with minimal modification of the shoreline character. The intensity of recreational uses should be designed to avoid alteration of existing vegetation as much as feasible and introduce low levels of human use"* (RMC 26.10.021).

The Recreation Conservancy environmental designation is assigned to public lands on shorelines which have been modified by past human uses or activities but retain a range of ecological functions such that low intensity uses are most appropriate (RMC 26.10.022). Images taken from the north shore of the river at the recreational access point are inserted below to illustrate the existing condition of the subject riparian habitat. Additional shoreline images are provided on page 50 of the Environmental Assessment (Exhibit 4).



SHORELINE MANAGEMENT POLICIES

Shoreline management policies associated with the Recreation Conservancy environments are as follows:

26.10.023 Management Policies

- A. Management plans for these lands shall strike an appropriate balance between enjoyment of these areas and limiting potential adverse effects to aquatic areas, the land, associated vegetation, and wildlife. Some areas have the character of natural open space and shall receive a higher level of protection.

- B. A use with associated levels of human activity that would degrade the ecological functions or natural character of the shoreline area should not be allowed.
- C. The following new uses are not allowed in the Recreation Conservancy Environment:
 - 1. Commercial uses, except for low-intensity activities which enhance public enjoyment of the land
 - 2. Industrial uses.
 - 3. Residential use.
 - 4. Recreation uses requiring more than minor modification of shoreline vegetation and topography.
 - 5. In-stream structures of a magnitude that would alter natural geo-hydraulic processes or be a substantial visual intrusion to users of the area.
 - 6. Roads, parking areas and utility corridors and facilities that can be feasibly located outside of shorelines.
- D. Scientific, historical, cultural, educational, research uses, and low-intensity recreational access uses including paved trails for regional trail systems or handicapped access may be allowed provided that no significant ecological impact on the area will result. For the most part, soft surface trails should be employed.
- E. All activities or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions is not allowed.
- F. Utility facilities should be located and designed to minimize impact on scenic views or aesthetic qualities and minimizes environmental impact.

The SMP (RMC 26.30.100) specifically speaks to transportation facilities proposed along shorelines in the form of twelve (12) criteria; they are:

26.30.100 Transportation

- A. Roads and Bridges
 - 1. Development of new roads or substantially expanded existing roads shall demonstrate the need for a shoreline location and that no feasible upland alternative outside the shoreline is available;

The primary goal of the proposed bridge is to alleviate congestion on the I-182 and SR 240 corridors in Richland, to improve emergency vehicle response times to currently underserved areas of town and to improve mobility for bicycle and pedestrian users from the south side of the Yakima River to the north side. Page 19 of the Environmental Assessment (Exhibit 4) contains the three other alternatives considered and page 21 illustrates their locations. Due to the nature of the project goals in its current context it is inherent to the project that all reasonable alternatives also include installing public infrastructure spanning the Yakima River at some location. For that reason there exists no feasible alternative to affecting the shoreline environment to some degree.

2. Roads shall cross shoreline areas by the shortest, most direct route feasible to minimize impacts, unless such route would cause significant adverse impacts based on specific local features.

As illustrated on page 15 of the Environmental Assessment (Exhibit 4), the proposed bridge will have an elevated span of approximately 775 linear feet and is designed with a slight curve to align with the existing ends of Duportail Street. There are no unnecessary detours available for elimination to achieve a more succinct route across the river.

3. The project configuration, design, and related features will minimize alteration of Sensitive Area buffers, avoid impacts on bird and wildlife movement as much as is feasible, fit the existing topography as much as feasible, and minimize alterations to the natural or existing vegetation.

Vertical clearances of 40-feet and 70-feet have been provided between the bridge and the existing river shores. Of the four sets of support piers used to erect the bridge, two sets will be placed within the river. Engineers have designed the bridge to minimize the intrusion of bridge features and construction methods on the shoreline environments. Vertical clearances will provide ample room for fowl, mammals and fish to pass under the bridge, and to allow future growth of riparian vegetation.

In order to mitigate for the possible loss of habitat, the project proposes to restore 0.71 acres of currently disturbed areas and potentially enhance up to 22.6 acres of temporarily disturbed areas through the planting of native species (see Fig. 11, Exhibit 4). These native shrubs will provide a food source and shelter for wildlife species.

To minimize impacts on fish, all in-water work will take place within the designated in-water work period (July 1 to Sept. 30). A fisheries biologist will be present to ensure no fish are present within the footprint of the bridge during the placement and removal of sandbags, piles and caissons.

4. New transportation facilities shall be located and designed to avoid the need for shoreline stabilization where feasible. Where demonstrated to be necessary to protect an existing facility that is in imminent danger of loss or substantial damage, new or expanded structural shore stabilization shall provide mitigation of impacts resulting in no net loss of shoreline ecological functions. In cases where substantial shore stabilization is required, relocation of roads further from the shoreline may be required.

Shorelines and their embankments will not undergo embankment stabilization. Geologic testing of the underlying substrate has verified the lands' ability to support the bridge without altering the existing embankments.

5. New or expanded roads will provide public access in accordance with Section 26.20.050 and where they afford scenic vistas, pedestrian viewpoints will be provided.

Since its conception the bridge design has undergone some modifications such as the application of pedestrian and bicycle pathways onto both sides of the bridge in order to eliminate the need for pedestrians and cyclists to cross Duportail Street once past the bridge. Generally increasing pedestrian facilities will bolster accessibility by all pedestrians including those with limited mobility.

The project as a whole will enhance opportunities for everyone including handicapped persons, to enjoy shorelines of the Yakima River by way of promoting ease of travel and visibility across the river corridor.

6. Wetlands shall be avoided whenever feasible. If avoidance is not feasible, bridges shall be utilized when crossing wetlands to avoid obstructing movement of surface and groundwater unless it can be demonstrated that fill and compensatory mitigation will produce equal or greater ecological functions.

Impacts on wetlands have been minimized to the greatest extent possible. Stream flows of the Yakima River will not be diverted or altered outside of the existing river channel. Use of a bridge to cross the river is the least intrusive method to do so.

7. Road crossings of streams shall utilize bridges rather than culverts to the maximum extent feasible.

The proposed method of river crossing is a bridge. Culverts are not proposed.

8. Private access roads or driveways providing ingress and egress for individual single-family residences or lots shall be limited to the minimum allowed by the Fire Code.

Within the purview of this review which is relative to the effect of the bridge on shorelines, there are no access points proposed to residential lots. Within the 200-foot shoreline buffer there are no residential properties. Criterial # 8 is generally not applicable.

9. Bridges shall be designed and built of sufficient lateral and vertical clearance to allow the unimpeded passage of flood flows and debris. In wide streamways, bridges shall employ the maximum length of clear spans feasible with pier supports that produce the minimum deflection feasible. Bridge approaches in floodways of any stream shall be

constructed on open piling or other measures to allow free water movement.

Vertical clearances of 40-feet and 70-feet have been provided between the bridge and the existing river shores. Of the four sets of support piers used to erect the bridge, two sets will be placed within the river. The bridge is designed to span 160 feet between piers (see page 15 of Exhibit 4). Engineers have designed the bridge to minimize the intrusion of bridge features and construction methods on the shoreline environments. Vertical clearances will provide ample room for flood stage stream flows to pass beneath the bridge without causing diversion or displacement. Stream flows of the Yakima River will not be altered or diverted outside of the existing river channel.

10. Landscape planting is required along all shoreline roads, parking, and turnout facilities to:
 - a. Provide buffers between pedestrian and auto users;
 - b. Enhance the shoreline driving experience; and
 - c. Enhance and complement potential views of shoreline areas.

The elevated roadway does not present a feasible opportunity to install vegetation between pedestrians and vehicle traffic. Plantings on the bridge would only serve to obscure the view of surrounding shoreline environments. Vegetative restoration will take place in areas disturbed by construction activities.

11. The City shall not vacate any public right-of-way in a shoreline location until adopting a Comprehensive Public Access plan for the area showing that the subject right-of-way cannot be used as a contributing element in that plan. The City shall vacate a public right-of-way abutting a body water only in compliance with RCW 35.79.035, which allows vacations of streets abutting bodies of water only when:
 - a. The vacation will enable acquisition of the property for public purposes;
 - b. The street or alley is not suitable for certain purposes (e.g., port, park, education); or
 - c. The vacation will enable implementation of a public access plan.

Relative to shoreline buffers, right-of-way vacations along shoreline areas are not an anticipated component of the bridge project.

12. In order to improve public access to the shoreline the City shall acquire and/or retain abandoned or unused road or railroad rights-of-way for public access to and/or along the water.

No such abandoned or unused road or railroad rights-of-way exist within the project vicinity which would be available to contribute to the purpose of public shoreline access. This opportunity does not exist within 200 feet of the shoreline relative to the project vicinity.

Additionally, the Use Table (26.30.011) of the Shoreline Master Program indicates roads not serving shoreline uses in the Recreation Conservancy environment require Special Permit review and approval prior to their location. The following criteria applicable to SMP Special Permit review are provided:

26.50.050 Special Use Permit

- A. Certain uses are indicated in the use chart as being permitted subject to the granting of a special use permit. The purpose of a special use permit is to provide greater flexibility in administering the use regulations of the shoreline program to accommodate certain uses which, by nature of use, intensity, or impact on an area, cannot be permitted outright within a shoreline environment in a manner consistent with the policies of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by local government or the Department of Ecology to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the act and the local master program. (A Special Use permit is the same as a Conditional Use in WAC 172-27-160.)
- B. Applications for special use permits for development on shorelines shall be considered a request for site plan approval and shall also be required to observe the permit application review procedure set forth in this program.
- C. Applicants shall disclose as part of the permit process:
 - 1. Any applicable federal, state or local regulatory permit requirements; and
 - 2. The status of any contact with those agencies having permit jurisdiction over the proposed project and status of any permit applications.

Applicable Federal, State and local agency correspondence and memos are provided in the appendices of the Environmental Assessment document provided herein as Exhibit 4. Statements regarding associated outside agency permits are provided below:

- US Army Corp of Engineers 404 Permit, application has been submitted and city staff are responding to additional information requests from the USACE.
- Washington Dept. of Ecology Nationwide Permit, correspondence with US Army Corp of Engineers determines the project falls under the Nationwide Permit.
- Washington Fish and Wildlife Hydraulic Permit Approval, application has been submitted and the city is awaiting issuance.

- Washington Department of Natural Resources Aquatic Use Authorization, the city is coordinating with DNR to acquire an easement. They will not issue the easement until all permits are acquired; it will be the last permit received.
- City of Richland Shoreline Permit and Floodplain Development Permit, application has been submitted and the city is responding to additional information requests.

D. Uses which are classified in this master program as special uses may be authorized provided that the applicant demonstrates all of the following:

1. That the proposed use is consistent with the policies, regulations and standards of RCW 90.58.020 and this master program;

RCW 90.58.020 sets forth the following:

"The legislature declares that the interest of all of the people shall be paramount in the management of shorelines of statewide significance. The department, in adopting guidelines for shorelines of statewide significance, and local government, in developing master programs for shorelines of statewide significance, shall give preference to uses in the following order of preference which:

- (1) Recognize and protect the statewide interest over local interest;*
- (2) Preserve the natural character of the shoreline;*
- (3) Result in long term over short term benefit;*
- (4) Protect the resources and ecology of the shoreline;*
- (5) Increase public access to publicly owned areas of the shorelines;*
- (6) Increase recreational opportunities for the public in the shoreline;*
- (7) Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary."*

In response to the criteria above staff offers the following response(s):

Of the identified alternatives (page 21, Exhibit 4) the Duportail Bridge is the most direct and least impactful option thereby minimizing the effects on shorelines of statewide significance. Construction pads/staging areas have been placed outside of heavily vegetated shoreline areas to the greatest extent feasible to lessen the need for riparian vegetation restoration and to preserve the natural shoreline condition. Bridge building is costly infrastructure. The City has chosen the more expensive bridge over alternates involving more extensive ground disturbing activities for roadway clearing. In this way preference is being placed on the long-term preservation of shoreline resources over potentially cost-saving alternatives which may also be completed in shorter timeframes. Additionally, shoreline management standards encourage the use of bridges and identifies them as the preferred method of waterway crossing. The new bridge will invite thousands of travelers through a scenic area of the Yakima River corridor that is

currently inaccessible by vehicle. In that way the new bridge will provide a new area for the public to enjoy scenic vistas of the Yakima River shoreline. In this case recreational opportunities may not be significantly increased but existing recreation opportunities will be carefully preserved.

2. That the proposed use will not interfere with the normal public use of public shorelines;

The bridge structure together with the construction methods have been designed to maintain the existing shoreline access on the north bank of the Yakima River. Plans indicate that some of the walking trails in the vicinity of the river access point may be disturbed during construction but that they will be promptly restored and revegetated with native plant species. Once completed, the bridge will not interfere with customary public access to the river shore.

3. That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and shoreline master program;

The bridge is identified in the City's Comprehensive Plan as a planned minor arterial roadway. Bridges and roads are located throughout the city in all zoning districts and within all land use designations. Bridges and roads facilitate ease of access to properties thereby promoting their uses which are regulated by the Zoning Code and Comprehensive Plan. From a zoning standpoint rights-of-way are generally not considered a land use as they are located outside of parcel boundaries. From the standpoint of the Shoreline Master Program roads and bridges are a transportation use requiring detailed review. As explained throughout this report, staff views the bridge to be compatible with and not materially detrimental to shoreline environments. The bridge will transport travelers 30' to 70' over the river; lessening direct impacts such as noise, dust, fumes and vibrations on sensitive shoreline areas. This quality of the bridge aligns with the purpose and intent of the Natural Open Space zone and land use designation.

4. That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and

NEPA review of the project resulted in a Finding of No Significant Impact (FONSI, Exhibit 7). This determination is based on a lengthy environmental assessment included in this report as Exhibit 4. Richland adopted the NEPA determination document and issued a Determination of Non-Significance to satisfy SEPA requirements.

5. That the public interest suffers no substantial detrimental effect.

Facilitating ease of vehicle transport, qualified by level of service (LOS), is a common goal generally shared by most cities and towns that aim to accommodate growing populations. Over the past 20 years we estimate that Richland has experienced an approximate 1.5 - 2% annual population increase. The proposed bridge will directly contribute to increasing the level of service at critical roadway intersections currently experiencing extreme congestion throughout the day. This is

a traffic flow benefit that will be experienced by a significant sector of the city's residents. Inversely, the bridge is a public infrastructure project not aimed at preferentially benefitting anyone over the general population.

Staff has not identified any detrimental effects of the bridge as they relate to shoreline resources and environments, the loss of which will be a detriment to the community. Upon completion the bridge will fit harmoniously into a scenic shoreline area without causing loss of habitat.

- E. In the granting of all special use permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if special use permits were granted for other developments in the area where similar circumstances exist, the total of the special uses shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment.

Pages 110 – 113 of the Environmental Assessment (Exhibit 4) address the foreseeable cumulative impacts of the project.

- F. Other uses which are not classified or set forth in the applicable master program may be authorized as special uses provided the applicant can demonstrate consistency with the requirements of this section and the requirements for special uses contained in the master program.

This staff report serves to demonstrate the ways in which the proposed bridge project is consistent the applicable criteria of the SMP, Zoning Code and Comprehensive Plan. Staff responses to each SMP criterion are specifically addressed above.

- G. Uses which are specifically prohibited by the master program may not be authorized pursuant to either subsection (1) or (2) of this section.

Roads not serving shoreline related uses, is a use specifically listed in the Shoreline Master Program as one requiring special permit review and approval. The use is not prohibited by the SMP.

PUBLIC NOTIFICATION TIMELINE:

Application Date	June 15, 2017
Combined Notice of Application & Hearing Mailed	June 20, 2017
Combined Notice of Application & Hearing Posted	June 20, 2017
Combined Notice of Application & Hearing Published	June 18, 2017
Public Hearing	July 28, 2017

A combined notice of application, SEPA determination and notice of hearing was provided through posting of the property, mailing of notice to property owners within 300 feet of the site and publication in the *Tri-City Herald* newspaper. Copies of the notices and affidavits are included in Exhibit 2 – Notices and Affidavits. No written comment(s) were received by the City in response to project noticing.

UTILITY AVAILABILITY

Water

Currently a 36-inch water main serving all portions of Richland lying south of the Yakima River, extends underground across the river in the same location as the proposed bridge. Due to its location within the Yakima River channel this concrete water main is subject to frequent scouring making the facility vulnerable to damage during high-flow events. For this reason construction of the proposed bridge includes installing a new water main to be integrated into the bridge infrastructure; thereby abandoning the existing water main. This feature of the project will provide increased reliability and ease of maintenance for a critical municipal utility serving a large section of Richland's population.

Sewer

Sanitary sewer service facilities will not be affected by this project. Sewer systems are in-place on either side of the Yakima River; those facilities will not be affected or altered as part of the bridge construction project.

Electrical Power

As with sewer, a new electrical power transmission line is designed to be integrated into bridge infrastructure. Currently 12.47KV double circuit overhead power lines span across the Yakima River in-line with the proposed location of the bridge. Electrical power in this case is transmitted from the substation on the south side of the Yakima River to the north into central Richland. These overhead lines will be removed and replaced with an electrical power line placed in conduit attached beneath the bridge. The bridge will also be fitted with an additional electrical conduit to allow additional electrical line to be added in the future.

Ancillary project components include undergrounding the existing overhead power lines on Duportail Street extending beyond the project boundaries. Transitioning to underground power lines will have the effect of beautifying the project vicinity.

TRANSPORTATION

Richland is planning to serve the growing infrastructure needs of the city by constructing an additional bridge over the Yakima River, connecting Duportail Street south of the Yakima River to Duportail Street north of the Yakima River. This will improve traffic transportation efficiency, emergency vehicle response times and non-motorized transportation.

Highway I-182 is currently the only one of three crossings over the Yakima River that services new developments on the south side of the river. There are two other crossings, SR 224 in the north part of Richland, and SR 240 to the south of the City. However, to take one of these routes would be lengthy and time consuming. The SR 224 crossing and the I-182 crossing are roughly 3-miles apart. SR 240 crosses south

of I-182. Residential and retail developments southwest of the city center have created a need for more cars to travel over the I-182 Bridge. The I-182 Bridge is increasingly being used as a route for local trips from the city center to the newer developments. The need for local trips to use I-182 is anticipated only increase as development and population rise. The proposed Duportail Bridge has been identified through extensive transportation analysis as the most effective solution to the current roadway connectivity limitations experienced between central and south Richland (see Appendix A of the Duportail Street Bridge Environmental Assessment, Exhibit 4).

Within the scope of review for the shoreline development permit at hand transportation is somewhat of a moot issue. The effective shoreline areas under review here are not used for transportation. The addition of a vehicle transportation route across the Yakima River as identified in the city's Comprehensive Plan will contribute to fulfilling long-term transportation goals. Vehicle transportation patterns will gain efficiency by way of the new bridge. Placement of the bridge will maintain human and wildlife river corridor movement routes.

NEPA & SEPA

The use of Federal funding sources used to pay for the bridge project operates as a trigger requiring compliance with the National Environmental Policy Act (NEPA). NEPA environmental impact evaluation activities for this project began in 2012 and carried on until the current time when this report was prepared. As with many environmental reviews for large public infrastructure projects an abundance of detailed information has been prepared for which a lengthy trail of associated agency correspondence exists. For the record, a general summary of the environmental review process is described below.

- In 2012, a NEPA Environmental Assessment (Exhibit 4) was prepared as a collaborative effort between Widener & Associates, Berger ABAM Engineers and the City of Richland.
- On May 29, 2013 a Finding of No Significant Impact (FONSI) (Exhibit 7) was issued.
- On May 29, 2013 said FONSI was adopted to fulfill Washington State Environmental Policy Act (SEPA) legislative requirements at the State level and a Determination of Non-Significance (DNS) was issued (Exhibit 8).
- Following the series of actions describe above which concluded in 2103, project activities were put on hold in order to secure project funding.
- In early 2016 funding was secured and the project was re-initiated subject to 22 relatively minor design modifications described in the Environmental Assessment Reevaluation (Exhibit 5).
- On May 25, 2017 the Federal Highway Administration issued a memo (Exhibit 5) confirming that in consideration of the minor project design modifications the project still meets the original intent of their FONSI determination and that said FONSI remains valid.

- On June 15, 2017 the City adopted the above referenced FONSI (Exhibit 7) to fulfill SEPA requirements.
- On June 15, 2017 under SEPA the City of Richland issued a Determination of Non-Significance (DNS) (file # EA2017-07) (Exhibit 11) with a fourteen day comment period expiring on June 29, 2017.

Agency correspondence memos from: The Federal Highway Administration, The Department of the Army Corps of Engineers, FEMA, the Department of Archaeology & Historic Preservation (DAHP), the Washington State Department of Fish and Wildlife, the U.S. Department of Fish and Wildlife Service, the National Oceanic and the Atmospheric Administration National Marine Fisheries Service are provided in appendices B & C of the 2013 Environmental Assessment (Exhibit 4).

ANALYSIS

Components of the bridge project are described on page 2 of this report. The analysis of the proposed bridge can be adequately addressed in the context of criteria set forth in the Shoreline Master Program (RMC Title 26).

With regard to the shoreline substantial development permit application, the project conforms to the criteria established for the review of shoreline permit applications as follows:

A. Conformance with the Shoreline Management Act of 1971, as amended

Richland's Municipal Code states that the purpose of Richland's shoreline program is to implement the Shoreline Management Act of 1971. Therefore, if a project is compliant with the City's shoreline regulations, it would also be compliant with the State Shoreline Management Act. This analysis will focus on how the project conforms to the City's recently adopted updated Shoreline Master Program.

B. General conformance with the goals for the shoreline program, the general development policies for the plan elements, and the applicable policy statements for the use activity and the shoreline environment

The policies contained in the Shoreline Master Program (SMP) associated with the Recreation Conservancy environment place priority on recreational land uses such as public parks. The proposed pedestrian trail widening project, given its incorporation into an existing public park, supports and improves an SMP permitted land use by enhancing enjoyment opportunities of the public recreational facility. Policies of the SMP encourage active recreation in locations with less intact ecological functions, such as Howard Amon Park, within areas designated as recreation environment. The trail meanders across both waterfront and recreation environments.

SH Goal 1

Economic Development: *The City will allow private and public shoreline development that will enhance the standard of living for the residents of the City of Richland with minimal disruption of the natural environment, giving priority to those developments which are economically dependent upon their location and use of the shorelines, and including other developments which provide an opportunity for a substantial number of people to enjoy the shorelines.*

The proposed bridge meets the intent of Goal SH-1 in that it will enhance the standard of living for many residents by facilitating ease of transport between a relatively dense residential sector of central Richland and a newly developed and continuously expanding commercial area of south Richland. As documented in the Environmental Assessment (Exhibit 4) and as indicated in the FONSI determination, the presence of a new bridge crossing the Yakima River in the proposed location will have an insignificant impact on the natural environment. Additionally, lands abutting shorelines on-site are held by Federal agencies which are unlikely to initiate economic development proposals. In that way constructing a bridge in that location will not displace a potential shoreline dependent land use. This is especially true for the south shore where the land slopes sharply from the end of Duportail Street toward the river shore, placing significant constraints on any direct access or development of any kind. On the north shore lies a State Dept. of Fish and Wildlife recreational river access point, strictly meeting the intent and purpose of the Recreation Conservancy environment, proposed to remain intact and operational even during bridge construction.

SH Goal 2

Shoreline Use: *Assure that the shoreline areas of Richland are used in a manner which provides for appropriate distribution and integration of activities, giving priority to developments and other activities that are particularly dependent upon their location on or use of shorelines and water resources as well as those which provide an opportunity for substantial numbers of people to enjoy the shorelines, and which are planned and designed to minimize impact on shoreline environments.*

Bridge construction crossing the Yakima River will route thousands of people through a shoreline area with open vistas of the river corridor that is currently unavailable for general enjoyment by the public. Routing a substantial number of people over the Yakima will provide a new opportunity for residents to experience and enjoy the natural beauty of Richlands shoreline areas without setting foot on the sensitive riparian habitat.

SH Goal 3

Conservation: *Assure that uses and activities in shorelines are designed and conducted to protect and restore ecological functions of the shoreline scenic resources, and non-renewable natural resources while assuming continued proper management of renewable resources.*

Two of the six bridge piers will be placed within the ordinary high-water mark; all other bridge piers will be outside of the river channel. As indicated in the U.S. Fish & Wildlife memo dated July 2, 2012 (page 167, Exhibit 4) the proposed in-water bridge features are unlikely to impact the endangered Bull Trout population. Bridge construction methods have been revised to eliminate vibratory pile driving which would have potentially resulted in incidental take of protected fish species. The U.S. National Oceanic and Atmospheric Administration memo dated October 10, 2012 (Appendix F, Exhibit 4) indicates that based on the Biological Opinion prepared by the National Marine Fisheries Service, the proposed bridge *“is not likely to jeopardize the continued existence of Middle Columbia River steelhead and is not likely to adversely modify designated critical habitat for the steelhead.”*

The above referenced statements of minimal impact to fisheries is a good indication that placement of the bridge will not deteriorate ecological functions of the shoreline. Because fish are sensitive to environmental changes occurring in and near waterways they are often used as indicator species to evaluate the general health of the surrounding ecosystem. And because credible Federal agencies specializing in the biological assessment of aquatic ecosystems have stated that the bridge is unlikely to have a significant negative impact on fish populations it may be inferred that the same is true for other species living in the vicinity which are dependent on the health of shoreline environments.

SH Goal 4

Public Access: *The City will maintain and improve existing public access and provide additional safe, convenient, and diversified access to and through publicly owned shorelines of the City of Richland compatible with aims of achieving equitable distribution of public usage with minimal adverse effects on natural features or areas of the shoreline, and which recognize the impacts on private property.*

Bridge construction logistics have been designed to maintain the existing recreational river access point on the north shore throughout the construction process. Some of the existing foot trails will be partially disturbed but will be restored by project completion thereby minimizing adverse effects on shoreline features.

C. Compliance with the applicable environment regulations

Recreation Conservancy management policies are included on pages 9 & 10 of this report. The following is provided in response to said policies: The proposed project achieves a balance between public enjoyment/use of the shoreline while limiting adverse impacts on aquatic lands and their resources. Placement of the bridge is not anticipated to degrade ecological functions or the natural character of the affected shoreline area. The proposed transportation facility and associated construction methods have been designed to minimize impacts on shoreline and in-stream natural resources.

D. Compliance with the applicable use activity regulations

Transportation analyses have identified the need to connect the south and central parts of Richland outside of existing highways. These two sectors of the community are divided by the Yakima River. Regardless of the specific location proposed to achieve the connection, crossing the Yakima River remains a necessary aspect of achieving the transportation goal. For this reason the application demonstrates there is no upland alternative (see page 21, Exhibit 4) location outside of the shoreline available that would complete the needed connection. The 744 linear foot bridge is a direct river crossing which is shortest and most direct route feasible; thereby minimizing environmental impacts to shoreline environments. Inclusion of pedestrian facilities on either side of the bridge will afford scenic vistas and viewpoints to future bridge users.

Management policy #7 strongly urges the use of bridges at waterway crossings to the maximum extent possible. This policy implies that bridges are the preferred method of waterway crossing due to their lower potential to create negative environmental impacts. The proposed bridge strongly aligns with the intent of policy #7 in that it has been designed to provide approximately 40-feet and 70-feet of vertical clearance above river grade. Ample vertical clearance allows passage of flood stage water flows and accommodates future growth of riparian vegetation.

E. Consideration of the recommendations and comments of the Richland Parks and Recreation Commission as the proposed development will affect and be affected by the goals and objectives of City plans for parks, trail and open spaces

The Duportail Bridge is a capital facilities project not affecting lands owned or managed by the Parks Department. The river access point together with the unimproved foot trails along the north river shore are owned and managed by the State Department of Fish and Wildlife. For that reason review of the proposal by the City Parks and Recreation Commission is not applicable in this case.

F. General conformance with the provisions of the Richland comprehensive plan

The project is consistent with the land use designations contained in the comprehensive plan and is consistent with the City's land use goals and policies as mentioned in the discussion above. The Transportation Element (TE) of the Comprehensive Plan includes a Street Functional Classification map which identifies the proposed bridge as a proposed minor arterial roadway. Constructing the bridge will implement a long-standing goal contained in the Comprehensive Plan.

The applicable Comprehensive Plan goals and policies are referenced on pages 6 & 7 of this report.

G. Consideration of provisions for facilities and improved designs to accommodate and encourage use by the physically handicapped

Since its conception the bridge design has undergone some modifications such as the application of pedestrian and bicycle pathways onto both sides of the bridge in order to eliminate the need for pedestrians and cyclists to cross Duportail Street past the bridge. Generally increasing pedestrian facilities will bolster accessibility by all pedestrians including those with limited mobility.

The project as a whole will enhance opportunities for everyone including handicapped persons, to enjoy shorelines of the Yakima River by way of promoting ease of travel and visibility across the river corridor.

H. Compliance with the State Environmental Policy Act (SEPA)

- On June 15, 2017 under SEPA the City of Richland issued a Determination of Non-Significance (DNS) (file # EA2017-07) (Exhibit 8) with a fourteen day comment period expiring on June 29, 2017.
- On June 15, 2017 the City adopted the above referenced FONSI to fulfill SEPA requirements (Exhibit 7).

I. Compliance with applicable provisions of the Richland Municipal Code

The site is currently zoned NOS, R-1-10 and AG, however capital facilities transportation projects such as the proposed bridge, are generally acceptable land uses not subject to zoning considerations as they are viewed as serving the community at large. Roadways and bridges are located throughout the community in all zoning districts. A bridge in the proposed location is no different than other roadways and should be viewed as a common and acceptable land use in all zones.

In summary, the proposed project is consistent with the provisions of the City's Shoreline Master Program and zoning regulations.

PROPOSED CONDITION(S) OF APPROVAL

Staff is recommending the following condition(s) of approval be attached to the substantial development permit to ensure that the project conforms to all applicable City codes and standards:

1. The Duportail Bridge shall be constructed in conformance with design details included in the Duportail Street Bridge Environmental Assessment (Exhibit 1) dated February 2013 and as amended pursuant to the Duportail Street Bridge Environmental Assessment Reevaluation (Exhibit 2).

SUGGESTED FINDINGS AND CONCLUSIONS

Staff recommends approval of the Shoreline Substantial Development Permit (SM2017-100) to construct a public bridge over the Yakima River connecting the north and south ends of Duportail Street, subject to one proposed condition of approval (listed above), and based on the following:

1. Public notice of application and hearing was provided in accordance with the requirements of the Richland City code;
2. The Street Functional Classification System Map (T-1) in the Transportation Element of the City of Richland Comprehensive Plan indicates the location of the proposed bridge a the location of a proposed arterial collector street;
3. Land Use Goal 5 in the Comprehensive Plan encourages efficient use and location of municipal and public facilities such as transportation centers, utility facilities, schools, parks and other public uses;
4. Land Use Goal 5, Policy 2 calls to ensure that public facilities are of a scale compatible with surrounding areas;
5. Land Use Goal 5, Policy 3 calls for the City to ensure that public facilities to be compatible with existing and planned surrounding land uses;
6. The Federal Highway Administration is the lead agency for National Environmental Policy Act (NEPA) compliance;
7. The project was reviewed under NEPA for which a Finding of No Significant Impact (FONSI) was issued on May 29, 2013;
8. On June 15, 2017 the City adopted the NEPA Environmental Assessment, FONSI and Re-evaluation of the Environmental Assessment and issued a Determination of Non-Significance to fulfill SEPA requirements;
9. The property located within the jurisdictional limits of the Yakima River and is therefore subject to the provisions of the Richland Shoreline Master Program

and requires the issuance of a Shoreline Substantial Development Permit/Special Permit;

10. Public notice of the application and the public hearing was provided as required under Richland City code and other public agencies were given an opportunity to review the application;
11. The site is located within the Recreation Conservancy environment as identified in the Richland Shoreline Master Program;
12. The application is consistent with the policies contained in the Shoreline Master Program relating to roadways not serving shoreline dependent uses in the Recreation Conservancy environment;
13. The application demonstrates consistency with the Recreation Conservancy environment use regulations contained in RMC Section 26.10.020;
14. The Duportail Bridge has been in the City's Capital Improvement Plan since 2008;
15. The proposed project is consistent with the City's comprehensive plan;
16. The City's Comprehensive Plan Land Use element contains several goals and policies supporting the proposed bridge project; including: Goal 1, Policies 1 & 2; Goal 6, Policies 1, 2, 3 & 4;
17. The City's Comprehensive Plan transportation element contains several goals and policies supporting the proposed bridge project; including: Goal 1, Policy 1; Goal 6, Policies 1 & 2;
18. The proposed project has been reviewed by outside agencies which have previously commented on design details of the project;
19. The project is consistent with the provisions of Richland's Shoreline Master Program, its comprehensive plan and zoning regulations and should be approved; and
20. Based on the above findings and conclusions, approval of the Shoreline Substantial Development Permit request would be in the best interest of the community of Richland.

EXHIBIT LIST

1. JARPA Application Form
2. Notices & Affidavits
3. Site Photos
4. Environmental Assessment
5. Duportail Reevaluation/FWHA Memo
6. NEPA Adoption Form
7. Signed FHWA FONSI
8. Duportail Bridge DNS
9. Duportail Bridge Project Maps



WASHINGTON STATE

Joint Aquatic Resources Permit Application (JARPA) Form^{1,2} [\[help\]](#)

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELOW.



US Army Corps
of Engineers
Seattle District

AGENCY USE ONLY

Date received:

Agency reference #: _____

Tax Parcel #(s): _____

Part 1—Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [\[help\]](#)

Duportail Street Bridge

Part 2—Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

West, Julie

2b. Organization (If applicable)

City of Richland

2c. Mailing Address (Street or PO Box)

840 Northgate Drive

2d. City, State, Zip

Richland, WA 99352

2e. Phone (1)

(509)942-7461

2f. Phone (2)

2g. Fax

2h. E-mail

jwest@ci.richland.wa.us

¹Additional forms may be required for the following permits:

- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at <http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx>.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

²To access an online JARPA form with [\[help\]](#) screens, go to

http://www.epermitting.wa.gov/site/alias_resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx.

For other help, contact the Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.

Part 3—Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [\[help\]](#)

3a. Name (Last, First, Middle)			
Widener, Ross L			
3b. Organization (If applicable)			
Widener and Associates			
3c. Mailing Address (Street or PO Box)			
10108 32 nd Avenue W Suite D			
3d. City, State, Zip			
Everett, WA 98204			
3e. Phone (1)	3f. Phone (2)	3g. Fax	3h. E-mail
(425)503-3629	(425)348-3059	()	rwidener@prodigy.net

Part 4—Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- ☒ Same as applicant. (Skip to Part 5.)
- ☐ Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- ☐ There are multiple upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- ☐ Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
4b. Organization (If applicable)			
4c. Mailing Address (Street or PO Box)			
4d. City, State, Zip			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail

Part 5—Project Location(s)

Identifying information about the property or properties where the project will occur. [\[help\]](#)

- ☐ There are multiple project locations (e.g. linear projects). Complete the section below and use [JARPA Attachment B](#) for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]			
☐ Private ☐ Federal ☒ Publicly owned (state, county, city, special districts like schools, ports, etc.) ☐ Tribal ☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)			
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]			
Duportail Street at the Yakima River			
5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]			
Richland, WA 99352			
5d. County [help]			
Benton			
5e. Provide the section, township, and range for the project location. [help]			
¼ Section	Section	Township	Range
	9, 15, 16	9N	28E
5f. Provide the latitude and longitude of the project location. [help]			
Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)			
46.26989 N Lat / -119.30633 W Long			
5g. List the tax parcel number(s) for the project location. [help]			
The local county assessor's office can provide this information.			
5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]			
Name	Mailing Address	Tax Parcel # (if known)	
City of Richland	PO BOX 190	116981020001000, 115982020149000	
	Richland, WA 99352-0190	115982020154000, 116984000003001 116984020002002	
The Hills Mobile Home Park	PO BOX 551	116984020003001	
	Prosser, WA 99350-0551		
Columbia Irrigation District	10 E. Kennewick Ave.	115983000004000	
	Kennewick, WA 99336		
Government - Corps of Engineers	Not Provided	116981000004000, 115983000001000	
		116981000003000, 115982000006000	

5i. List all wetlands on or adjacent to the project location. [help]
No wetlands are located in the project area.
5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]
Yakima River
5k. Is any part of the project area within a 100-year floodplain? [help]
☒ Yes ☐ No ☐ Don't know
5l. Briefly describe the vegetation and habitat conditions on the property. [help]
The site consists primarily of landscaped vegetation, shrub-steppe species, and forested riparian vegetation along the Yakima River. The shrub-steppe vegetation consists mainly of big sagebrush, common rabbitbrush (<i>Chrysothamnus nauseosus</i>), common yarrow (<i>Achillea millefolium</i>), redstem filaree (<i>Erodium cicutarium</i>), Munro's globemallow (<i>Sphaealcea munroana</i>), and Foxtail barley (<i>Hordeum jubatum</i>), while vegetation within the riparian corridor consists of silver maple (<i>Acer saccharinum</i>), black locust (<i>Robinia pseudoacacia</i>), silverberry (<i>Elaeagnus commutata</i>), prairie rose (<i>Rosa woodsii</i>), hedge bindweed (<i>Calystegia sepium</i>), and reed canarygrass (<i>Phalaris arundinacea</i>).
5m. Describe how the property is currently used. [help]
The project area is primarily undeveloped open space where the new bridge will be located. The new road will be extended to tie into existing roads which are surrounded by residences at both the southwest and northeast ends of the project and a City facility on the southwest end. Land use designations in the immediate area are primarily agriculture/high density residential, public facility, and commercial.
5n. Describe how the adjacent properties are currently used. [help]
Surrounding land use include medium density residential, low density residential, and urban reserve. Current zoning designations include single family residential, multiple family residential, limited business, natural open space, agriculture, business/commerce, and public parks and facilities. Properties on the south side of the Yakima River in the general vicinity include large box stores, strip malls, a mobile home park, and City of Richland offices. The properties on the north side of the river are single and multifamily residences.
5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [help]
Structures on the property include the CID Canal located immediately adjacent to and on the south side of the Yakima River, and utility lines (overhead power, sanitary sewer, water).
5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]
To access the site on the south side of the Yakima River, take exit 3 off I-182 and turn north onto Queensgate Dr. for approximately 0.43 mile. Turn right onto Duportail St. To access the site on the north side of the Yakima River, take exit 4 off I-182 and head north on By Pass Hwy (SR 240) until Duportail St (approximately 1.04 miles).

Part 6—Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [\[help\]](#)

The project will construct a new four-lane bridge with sidewalks over the Yakima River connecting existing segments of Duportail Street. Construction of the bridge will involve installation of temporary gravel crane pads within the Yakima River. Other project elements include:

- Extension of Tanglewood Drive eastward approximately 700 feet east and 1,700 feet west of Duportail Street
- Installation of traffic signals at the intersections of Duportail Street with Tanglewood Drive and City View Drive.
- Upgrade the intersection of Duportail Street and SR 240 including regrading approximately 500 feet of SR 240 in each direction.
- Build a new access road to connect the Shoreline Village apartment complex and the Laborers Union to Tanglewood Drive.
- Replace water main onto the new bridge and install additional water line under SR 240.
- Reconfigure the parking lot for the existing boat launch site.
- Install sidewalks where needed to create a seamless pedestrian network in the project area.
- Replacement of the Columbia Irrigation District Canal under the bridge.
- Designate one nature trail and restore all remaining disturbed areas with native vegetation.

6b. Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

The purpose of the proposed project is to alleviate congestion on the I-182 and SR 240 corridors in the City of Richland, to improve emergency vehicle response times to currently underserved areas of town, and improve mobility for bicycle and pedestrian users from the south side of the Yakima River to the north. The proposed new connection over the Yakima River would be a faster, more direct route in some cases. The proposed new connection over the Yakima River can be used for a more direct route to shopping, employment, or other purposes. An additional north-south crossing in the City of Richland aims to improve mobility, and will substantially reduce the number of local trips within the SR 240 and I-182 corridor areas. This project is needed to serve the growing infrastructure needs of the city.

6c. Indicate the project category. (Check all that apply) [\[help\]](#)

- | | | | | |
|--------------------------------------|--|--|--|--|
| ☐ Commercial | ☐ Residential | ☐ Institutional | ☒ Transportation | ☒ Recreational |
| ☐ Maintenance | ☐ Environmental Enhancement | | | |

6d. Indicate the major elements of your project. (Check all that apply) [\[help\]](#)

- | | | | |
|---|--|--|--|
| ☐ Aquaculture
☐ Bank Stabilization
☐ Boat House
☐ Boat Launch
☐ Boat Lift
☒ Bridge
☐ Bulkhead
☐ Buoy
☐ Channel Modification | ☐ Culvert
☐ Dam / Weir
☐ Dike / Levee / Jetty
☐ Ditch
☐ Dock / Pier
☐ Dredging
☐ Fence
☐ Ferry Terminal
☐ Fishway | ☐ Float
☐ Floating Home
☐ Geotechnical Survey
☐ Land Clearing
☐ Marina / Moorage
☐ Mining
☐ Outfall Structure
☐ Piling/Dolphin
☐ Raft | ☐ Retaining Wall (upland)
☒ Road
☐ Scientific Measurement Device
☐ Stairs
☒ Stormwater facility
☐ Swimming Pool
☒ Utility Line |
|---|--|--|--|

☐ Other:

6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [\[help\]](#)

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

To construct the new four-lane bridge, in-water work will be limited to the placement of the isolation berm and construction of rock pads for crane access. All in-water work will take place during the in-water work windows agreed upon by the Washington Department of Fish and Wildlife (WDFW); July 1st to September 30th. This will also eliminate any backwater effects that would result if the river channel was restricted in the winter.

The crane pad constructed during the first in-water work window will be placed in order to facilitate construction of drilled shafts, columns, and cross beam. Construction of this crane pad will require approximately 2 weeks of work. Based on flow conditions, BMPs will be installed as practical. A supersack berm or equivalent will be constructed in order to isolate the area and contain the fill material. It is anticipated the sacks will be installed concurrent with the placement of the berm so as to provide an escape route for fish. Silt curtains may be used to contain any turbid water.

A qualified biologist will be available for the removal of any fish located in the isolated area prior to any further work if conditions allow. Dewatering may occur as needed while materials are being placed to prevent turbidity impacts. Once these elements are in place, eight reaction piles will be installed with a vibratory hammer and impact proofed through the rock pads to stabilize the drilling equipment. An oversized temporary casing will be installed through this pad to facilitate shaft construction. It is anticipated that during shaft construction two large cranes, vibratory hammer, impact hammer and leads, forklift, dump trucks, baker tanks, shaft casings, rebar cage, pump truck and concrete delivery trucks will occupy the work pad. After shaft construction is complete the equipment used to construct the columns and cross beam will probably be limited to a service crane, pump truck, concrete delivery trucks and materials delivery trucks. Removal of the work pad will occur for approximately 3 weeks in September prior to the end of the in-water work window (September 30th). The purpose of the 1.5 feet of streambed mix is to provide a separation between the existing bottom channel and rip rap / quarry spall work pad. The rip rap will be removed until the only material being brought up by the excavator is streambed mix. This will ensure that all angular material is removed.

It is anticipated that the shaft and column work will be complete and the cap beam formed prior to the end of the window. However, a temporary oversized casing shoring may be installed with drilling or vibratory methods to accommodate pier construction in the dry beyond the in-water work window. This oversized casing shoring will be removed to the mudline during the second in-water work window.

Once shafts and footings are in place, the columns will be placed on top of piers 2, 3, 4 and 5. The columns at a given pier will support a concrete cap beam. Ten concrete girders will then be placed on each span on top of the cap beams and abutment walls. A concrete deck will then be formed on top of the girders. Equipment used for these activities includes cranes, a launching truss, forklifts, concrete trucks and pump trucks. Bridge approach construction will involve constructing fill slopes, grading, laying base course, paving, striping and signing. Approach work will involve the use of bulldozers, excavators, dump trucks, front loaders, forklifts, concrete trucks, asphalt pavers and rollers, and cranes.

During the second in-water work window, a gravel pad will be placed to provide access for cranes and a girder launcher to erect girders at Span 2 and 3. This pad will be constructed by the same process as the work pad in the first in-water work window and will require work for approximately 2 weeks in July. During the first phase of the in-water work window the girders for span 2 will be set. The crane will occupy the west portion of the pad to pick the southern end of the girder off the girder delivery truck and place it onto the launcher. The launcher will be used to move the girders across the river into position for final pick onto span 2 by a crane sitting on a land work trestle at span 1 and the large crane on the pad. After the span 2 girders are set, the large crane on the work pad will reposition to the eastern half of the work pad near pier 3. The girders will be set beginning from the most westerly girder and proceeding east. The girders will be delivered from the north and the large crane on the work pad and a crane located near pier 4 will be used to set them in place. If time allows a service crane will then occupy the east half of the work pad and will support the forming and pouring of the of a portion of the span 2 intermediate diaphragms, all span 3 intermediate diaphragms and the pouring of the span 3 deck. On the south embankment under the bridge, between the CID canal and the river, a

retaining wall will be constructed in connection with the Pier 2 bridge foundation. Pier 2 spread footing will be supported on micro-piles drilled into the rock substrate.

As part of the proposed project an existing waterline, which runs under the Yakima River, will be relocated. Two 24-inch waterlines were previously included to be constructed on the bridge. A third 24-inch waterline has now been added to the project to meet the forecasted demands of the community. The existing waterline will be abandoned in place.

Other work will involve grading a portion of SR 240, the widening of the existing segments of Duportail Street on both sides of the proposed bridge, installation of sidewalks, reconfiguring the existing boat launch parking area and nature trail, modifications to a portion of the CID Canal, constructing infiltration trenches, installation of utilities, and replacing a waterline. All of this work will be landward of the floodplain. In addition, Tanglewood Drive will be extended on the northeast bank to intersect the new Duportail Street; a portion of this will be within the 100-year flood plain.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [\[help\]](#)

- If the project will be constructed in phases or stages, use [JARPA Attachment D](#) to list the start and end dates of each phase or stage.

Start Date: January 2018 End Date: December 2020 ☐ See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [\[help\]](#)

\$42 million

6h. Will any portion of the project receive federal funding? [\[help\]](#)

- If yes, list each agency providing funds.

☒ Yes ☐ No ☐ Don't know FHWA and FEMA

Part 7–Wetlands: Impacts and Mitigation

☐ Check here if there are wetlands or wetland buffers on or adjacent to the project area.

(If there are none, skip to Part 8.) [\[help\]](#)

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [\[help\]](#)

☐ Not applicable

7b. Will the project impact wetlands? [\[help\]](#)

☐ Yes ☐ No ☐ Don't know

7c. Will the project impact wetland buffers? [\[help\]](#)

☐ Yes ☐ No ☐ Don't know

7d. Has a wetland delineation report been prepared? [\[help\]](#)

☐ Yes ☐ No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [\[help\]](#)

☐ Yes ☐ No ☐ Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [\[help\]](#)

- If Yes, submit the plan with the JARPA package and answer 7g.
- If No, or Not applicable, explain below why a mitigation plan should not be required.

☐ Yes ☐ No ☐ Don't know

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [\[help\]](#)

7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [\[help\]](#)

Activity (fill, drain, excavate, flood, etc.)	Wetland Name ¹	Wetland type and rating category ²	Impact area (sq. ft. or Acres)	Duration of impact ³	Proposed mitigation type ⁴	Wetland mitigation area (sq. ft. or acres)

¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.

² Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

³ Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

⁴ Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [\[help\]](#)

7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [\[help\]](#)

Part 8—Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, "waterbodies" refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [\[help\]](#)

☒ Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [\[help\]](#)

☐ Not applicable

To minimize adverse impacts to the aquatic environment and wildlife, all in-water work will occur within the designated work period of July 1st to September 30th. A fisheries biologist will be present to ensure no fish are present within isolated areas prior to any further work if conditions allow.

To minimize impacts to water quality during crane pad construction, turbidity will be monitored regularly and silt curtain may be used. The isolation berms may reduce water flow through the crane pads to contain turbid water and materials will be specified to have limited fine material. Appropriate sediment and erosion control BMPs such as silt fences, straw bales, catch basin protection, erosion control blankets, mulching, matting, and seeding will be installed prior to any earthmoving activities take place, or as necessary, and will be maintained throughout construction. All temporarily disturbed areas will be restored with native vegetation. Finally, the project will comply with the Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasures (SPCC) plan prepared for it.

8b. Will your project impact a waterbody or the area around a waterbody? [\[help\]](#)

☒ Yes ☐ No

8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [\[help\]](#)

- If Yes, submit the plan with the JARPA package and answer 8d.
- If No, or Not applicable, explain below why a mitigation plan should not be required.

☐ Yes ☒ No ☐ Don't know

Twenty trees will be planted in order to minimize impacts due to the removal of trees in the riparian area. Trunks of trees removed will be placed and anchored along the banks of the river. No angular material will be left below ordinary high water from the gravel pads. The project will consolidate braided trails into one designated location and enhance up to 22.6 acres of temporarily disturbed vegetation by planting native species.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g you do not need to restate your answer here. [\[help\]](#)

N/A

8e. Summarize impact(s) to each waterbody in the table below. [\[help\]](#)

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Isolation sacks and dewatering pump Work window 1	Yakima River	Below OHWM	Temporary	860 CY	10,270 square feet
Construction of gravel pad Work window 1	Yakima River	Below OHWM	Temporary	3,490 CY	13,760 square feet
Placement of Crane mats/plates	Yakima River	Below OHWM	Temporary	---	7,930 square feet
Isolation sacks and dewatering pump Work window 2	Yakima River	Below OHWM	Temporary	980 CY	11,370 square feet
Construction of gravel pad Work window 2	Yakima River	Below OHWM	Temporary	5,100 CY	16,880 square feet.
Placement of Crane mats/plates	Yakima River	Below OHWM	Temporary	---	8,940 square feet
Drilled Shafts	Yakima River	Below OHWM	Permanent	3 entirely below, one partially below OHWM	455 square feet
Reaction Piles	Yakima River	Below OHWM	Temporary	13 piles below OHWM	45 square feet

¹ If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.

² Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.

³ Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.

8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [\[help\]](#)

For the work window 1 gravel pad, approximately 1,000 cubic yards of streambed mix will be placed as a 1.5-foot foundation followed by 2,490 cubic yards of light loose rip rap or quarry spalls in order to create a stable surface for the crane. The area between the side slope of the rock pads and supersack work isolation will be filled with approximately 860 cubic yards of streambed mix around the discharge hose from the discharge pump to eliminate open areas of water that could become a fish trap.

The work window 2 gravel pad will be created with approximately 1,300 cubic yards of streambed mix as a foundation followed by 3,800 cubic yards of light loose riprap or quarry spalls. The area between the side slope of the rock pads and supersack work isolation will be filled with approximately 980 cubic yards of streambed mix.

8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [\[help\]](#)

No excavation will occur directly within the waterbody. Material will be removed from within the casing for the in-water shafts which will also be within the footprint of the crane pad during construction. The material will be contained in trucks that are adequately sealed to prevent spillage and hauled to an approved upland disposal location. No excavation will be required below ordinary high water of native materials for the crane pads. All angular material from the crane pads will be removed at the end of the in-water work window in which they are placed. A small amount of the streambed mix from each crane pad will remain in place after construction.

Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [\[help\]](#)

Agency Name	Contact Name	Phone	Most Recent Date of Contact

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? [\[help\]](#)

- If Yes, list the parameter(s) below.
- If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: <http://www.ecy.wa.gov/programs/wq/303d/>.

☐ Yes ☒ No

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [\[help\]](#)

- Go to <http://cfpub.epa.gov/surf/locate/index.cfm> to help identify the HUC.

170300030709

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [\[help\]](#)

- Go to <http://www.ecy.wa.gov/water/wria/index.html> to find the WRIA #.

WRIA 37: Lower Yakima River

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [\[help\]](#)

- Go to <http://www.ecy.wa.gov/programs/wq/swqs/criteria.html> for the standards.

☒ Yes ☐ No ☐ Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help]
☐ Urban ☐ Natural ☐ Aquatic ☒ Conservancy ☐ Other: _____
9g. What is the Washington Department of Natural Resources Water Type? [help]
☒ Shoreline ☐ Fish ☐ Non-Fish Perennial ☐ Non-Fish Seasonal
9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [help]
If No, provide the name of the manual your project is designed to meet.
☒ Yes ☐ No
Name of manual: _____
9i. Does the project site have known contaminated sediment? [help]
If Yes, please describe below.
☐ Yes ☒ No
9j. If you know what the property was used for in the past, describe below. [help]
The area has been used for agriculture or open vacant space.
9k. Has a cultural resource (archaeological) survey been performed on the project area? [help]
If Yes, attach it to your JARPA package.
☒ Yes ☐ No
9l. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]
Bull trout (Columbia river DPS) and Steelhead trout (Middle Columbia River DPS) are listed under the ESA. They are known to migrate through the project area. Measures described in 8a will help avoid or minimize potential impacts to these species.
9m. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [help]
WDFW PHS List indicate that in addition to the species identified above in 9l, Chinook salmon, Coho salmon, rainbow trout, black-tailed jackrabbit, and Townsend's ground squirrel may be present in the project vicinity. Habitats listed on the PHS list include waterfowl concentrations and biodiversity areas.

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)

- ☐ A copy of the SEPA determination or letter of exemption is included with this application.
- ☒ A SEPA determination is pending with the City of Richland (lead agency). The expected decision date is August 2018.
- ☐ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [\[help\]](#)
- ☐ This project is exempt (choose type of exemption below).
- ☐ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?

- ☐ Other: _____
- ☐ SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [\[help\]](#)

LOCAL GOVERNMENT

Local Government Shoreline permits:

- ☒ Substantial Development ☐ Conditional Use ☐ Variance
- ☐ Shoreline Exemption Type (explain): _____

Other City/County permits:

- ☒ Floodplain Development Permit ☐ Critical Areas Ordinance

STATE GOVERNMENT

Washington Department of Fish and Wildlife:

- ☒ Hydraulic Project Approval (HPA) ☐ Fish Habitat Enhancement Exemption – [Attach Exemption Form](#)

You must submit a check for \$150 to Washington Department of Fish and Wildlife, unless your project qualifies for an exemption or alternative payment method below. **Do not send cash.**

- ☐ \$150 check enclosed. Check # _____
- ☐ My project is exempt from the application fee. (Check appropriate exemption):
- ☐ HPA processing is conducted by applicant funded WDFW staff. Agreement # _____
- ☐ Mineral prospecting and mining
- ☐ Project occurs on farm and agricultural land.
(Attach a copy of current land use classification recorded with the county auditor, or other proof of current land use)
- ☐ Project is modification of an existing HPA originally applied for, prior to July 10, 2012. HPA # _____

Washington Department of Natural Resources:

- ☐ Aquatic Use Authorization
- Complete [JARPA Attachment E](#) and submit a check for \$25 payable to the Washington Department of Natural Resources.

Washington Department of Ecology:

- ☒ Section 401 Water Quality Certification

FEDERAL GOVERNMENT

United States Department of the Army permits (U.S. Army Corps of Engineers):

- ☒ Section 404 (discharges into waters of the U.S.) ☒ Section 10 (work in navigable waters)

United States Coast Guard permits:

- ☐ Private Aids to Navigation (for non-bridge projects)

Part 11—Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [\[help\]](#)

11a. Applicant Signature (required) [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. Jew (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. Jew (initial)

Julie West

Applicant Printed Name

Julie West

Applicant Signature

5-22-17

Date

11b. Authorized Agent Signature [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Ross Widener

Authorized Agent Printed Name

Ross Widener

Authorized Agent Signature

5/22/17

Date

11c. Property Owner Signature (if not applicant) [\[help\]](#)

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

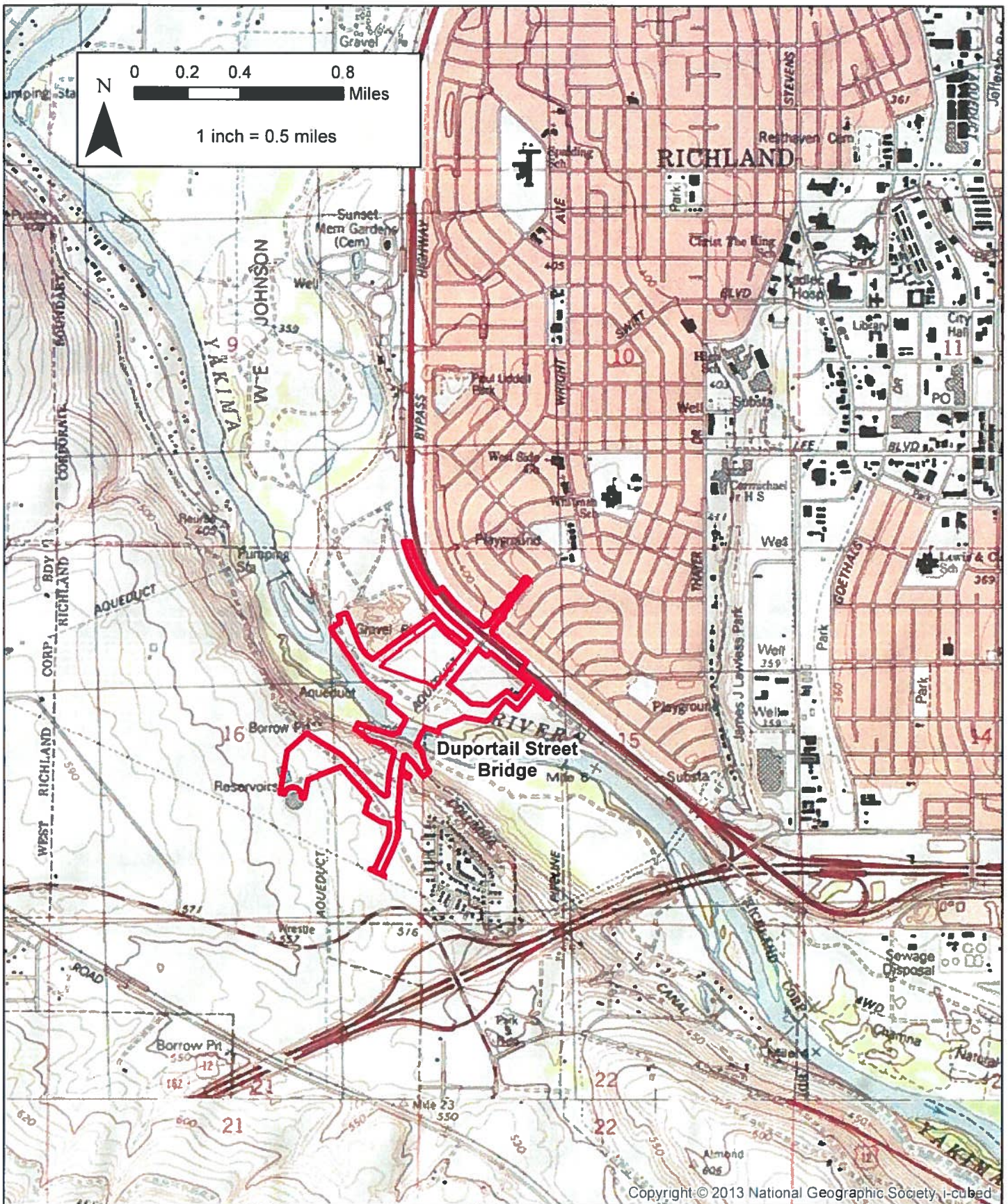
Property Owner Printed Name

Property Owner Signature

Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 09/2016



Copyright © 2013 National Geographic Society, i-cubed

REFERENCE #

APPLICANT: City of Richland

LOCATION: Duportail Street

LAT/LONG: 46.26389N/119.30633W

IN: Yakima River

ADJACENT PROPERTY OWNERS

1. City of Richland
2. US Army Corps of Engineers
3. Columbia Irrigation District

PROJECT: Duportail Street Bridge

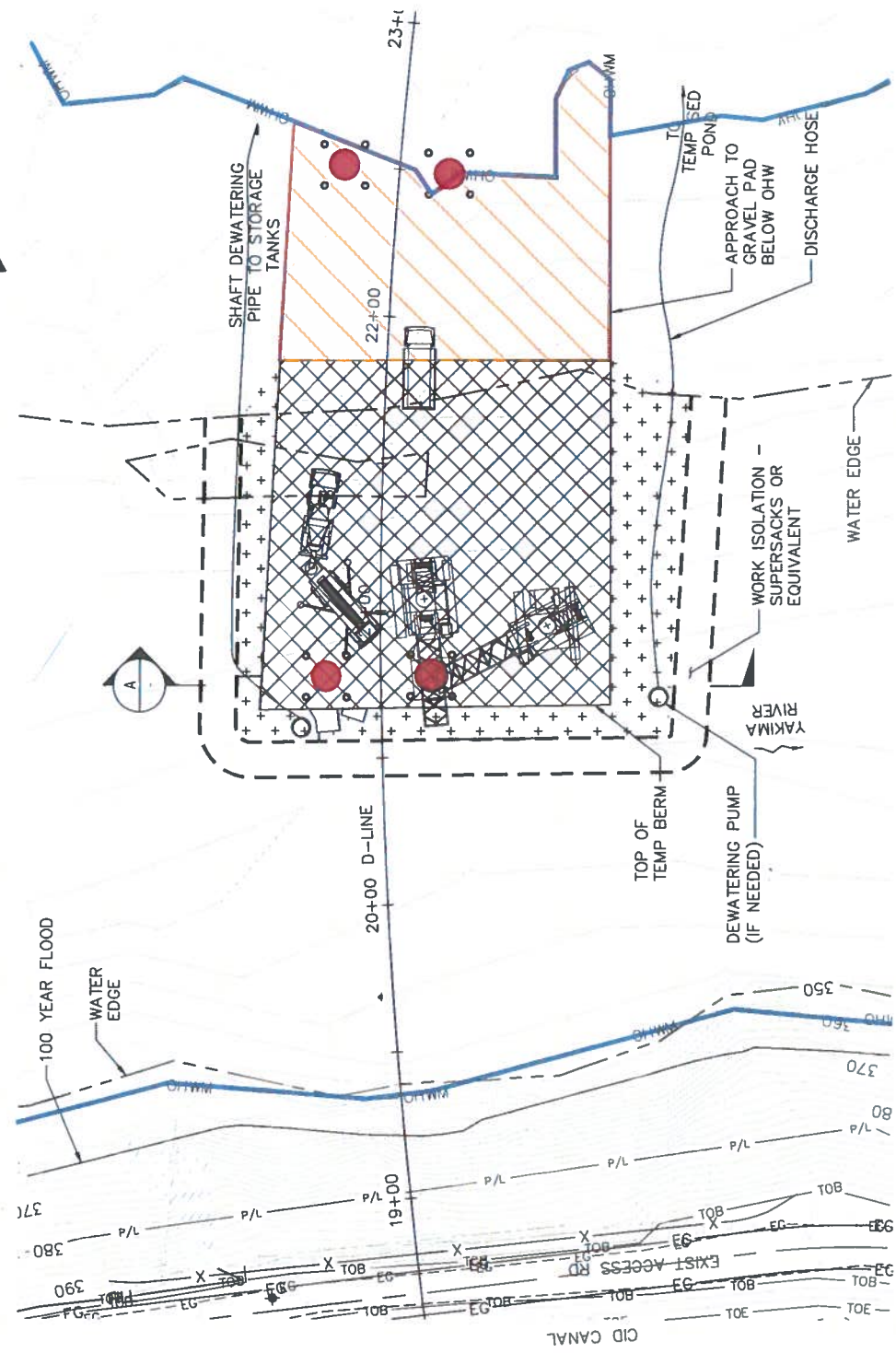
AT: Richland

COUNTY: Benton

PAGE 1 of 8

DATE: May 16, 2017

SEC. 15 & 16, T.9N., R.28E.
CITY OF RICHLAND



PLAN

TOTAL IMPACT AREA
BELOW THE OHWM

Legend

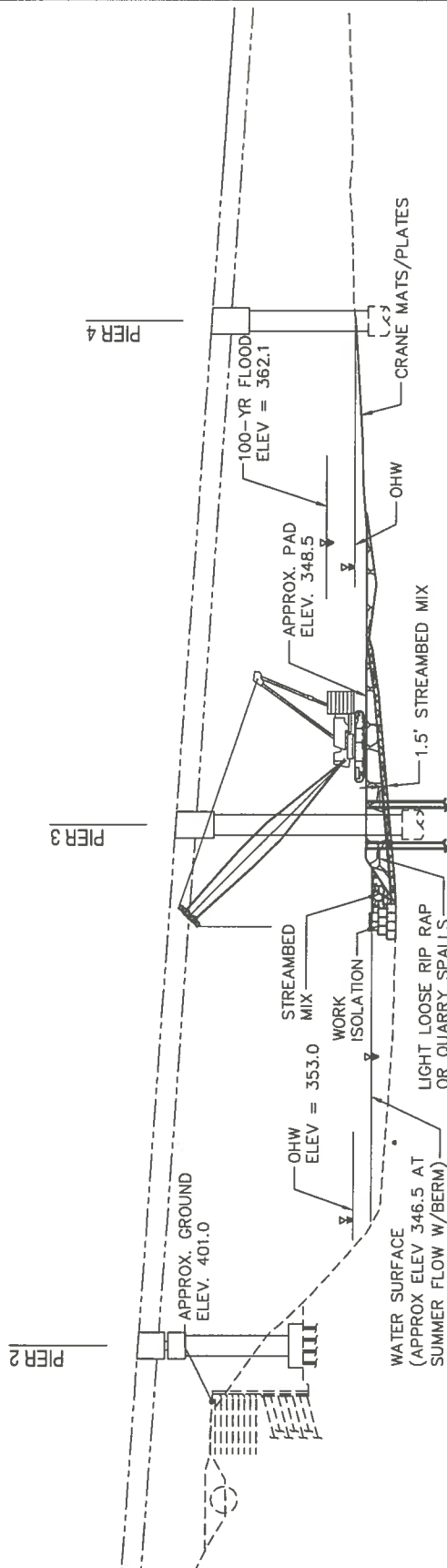
- 455 sqft 12'-0" SHAFT CAISSON
- 45 sqft * REACTION PILE
- 13,760 sqft WORK BERM
- 7,930 sqft CRANE MATS/PLATES
- 10,270 sqft DEWATERING AND ISOLATION SACKS

YAKIMA RIVER
DATUM HORIZONTAL NAD 83
VERTICAL NAVD 88
46.26389 N LAT / 119.30633 W LONG



BRIDGE & WORK BERM
FISH WINDOW #1

DUPORTAIL STREET BRIDGE
CITY OF RICHLAND

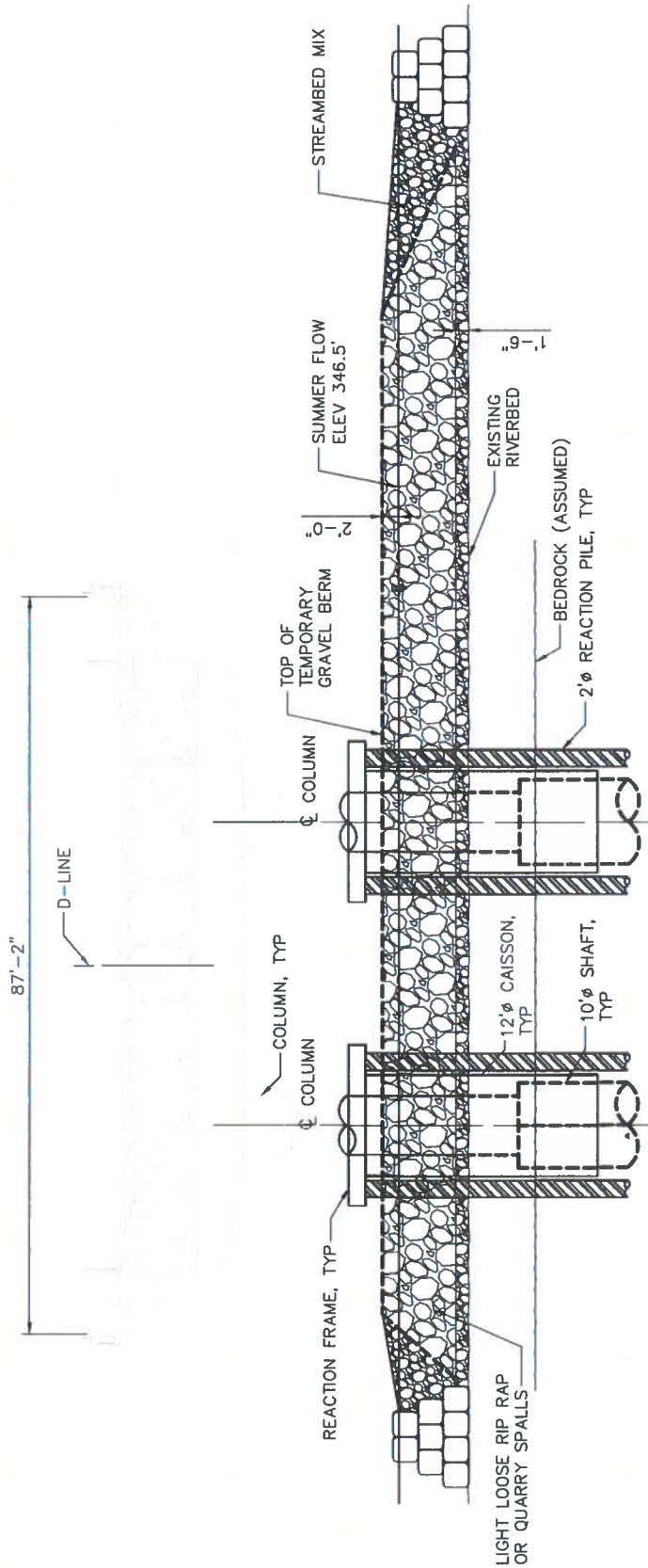


ELEVATION

YAKIMA RIVER
DATUM HORIZONTAL NAD 83
VERTICAL NAVD 88
46.26389 N LAT / 119.30633 W LONG



BRIDGE & WORK BERM
FISH WINDOW #1
DUPORTAIL STREET BRIDGE
CITY OF RICHLAND

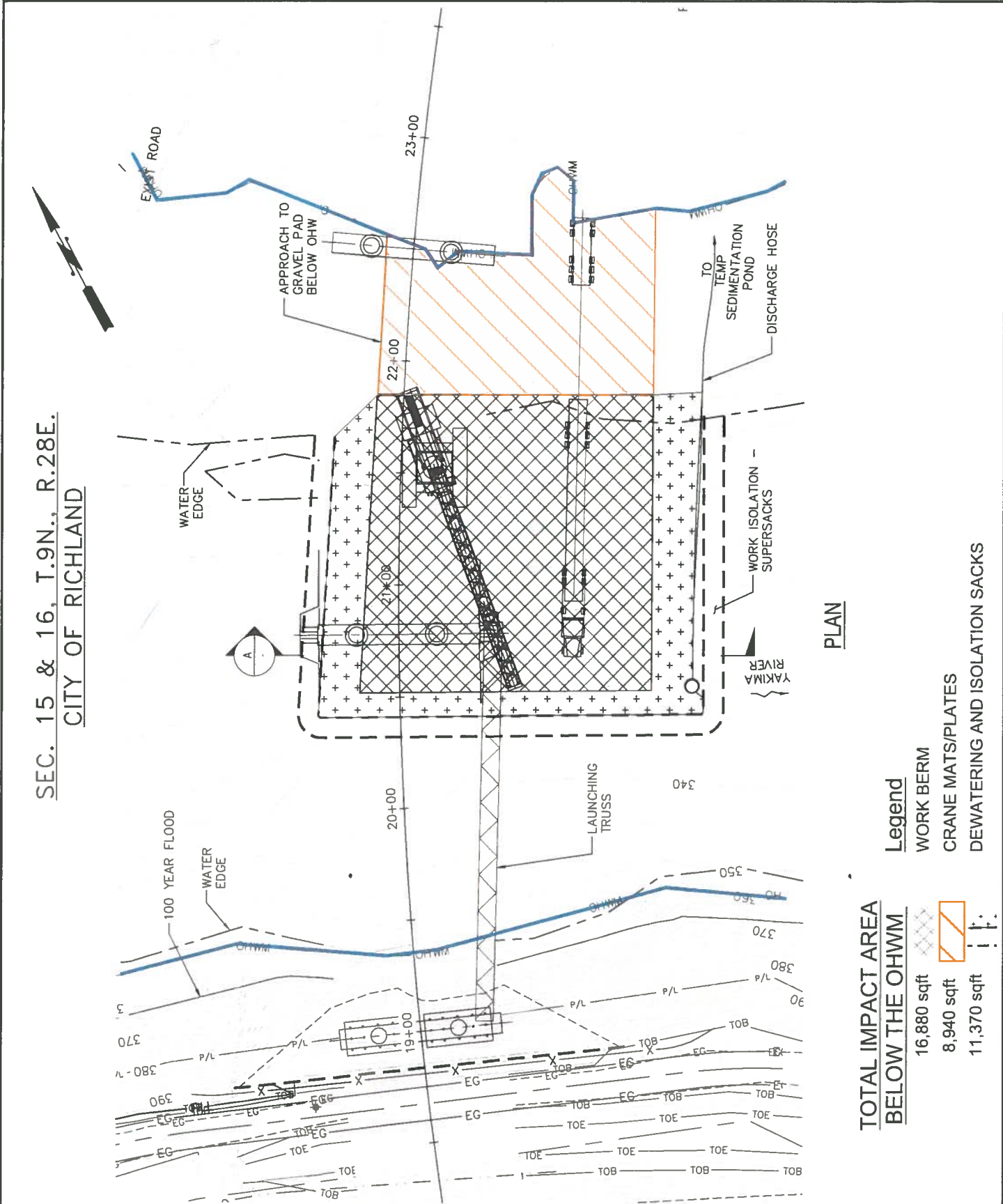


A PIER 3 - ELEVATION
LOOKING AHEAD ON STATION

YAKIMA RIVER
DATUM HORIZONTAL NAD 83
VERTICAL NAVD 88
46 26389 N LAT / 119.30633 W LONG



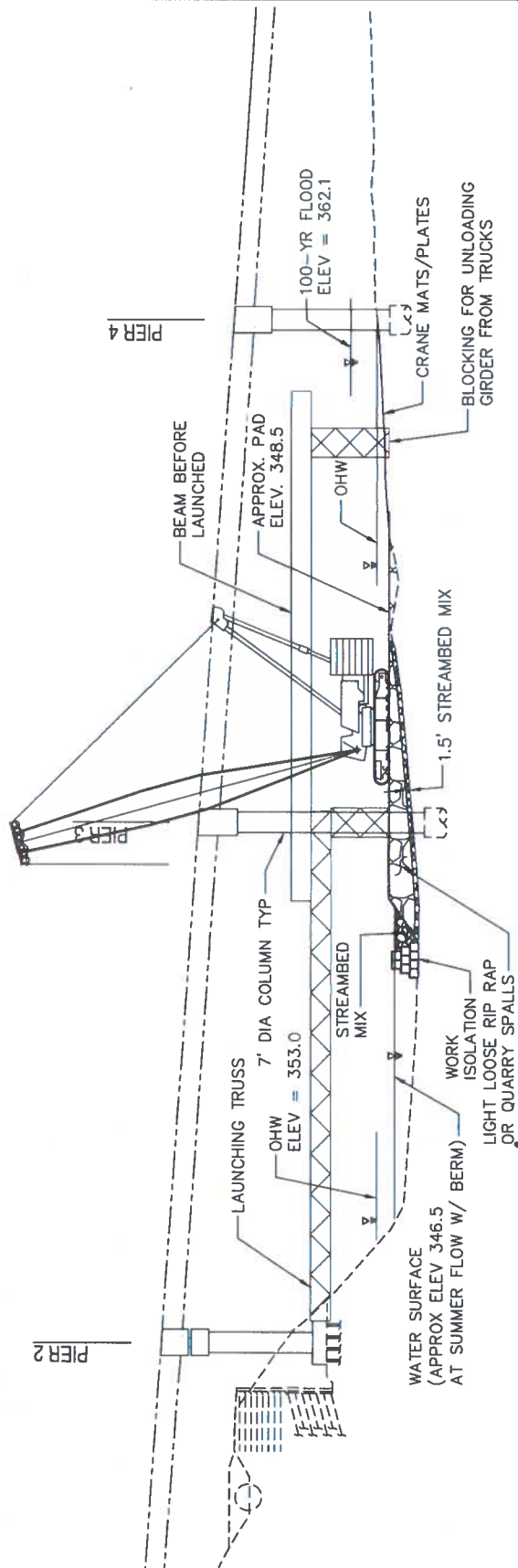
BRIDGE & WORK BERM
FISH WINDOW #1
DUPORTAIL STREET BRIDGE
CITY OF RICHLAND



YAKIMA RIVER
DATUM HORIZONTAL NAD 83
VERTICAL NAVD 88
46.26389 N LAT / 119.30633 W LONG



BRIDGE & WORK BERM
FISH WINDOW #2
DUPORTAIL STREET BRIDGE
CITY OF RICHLAND

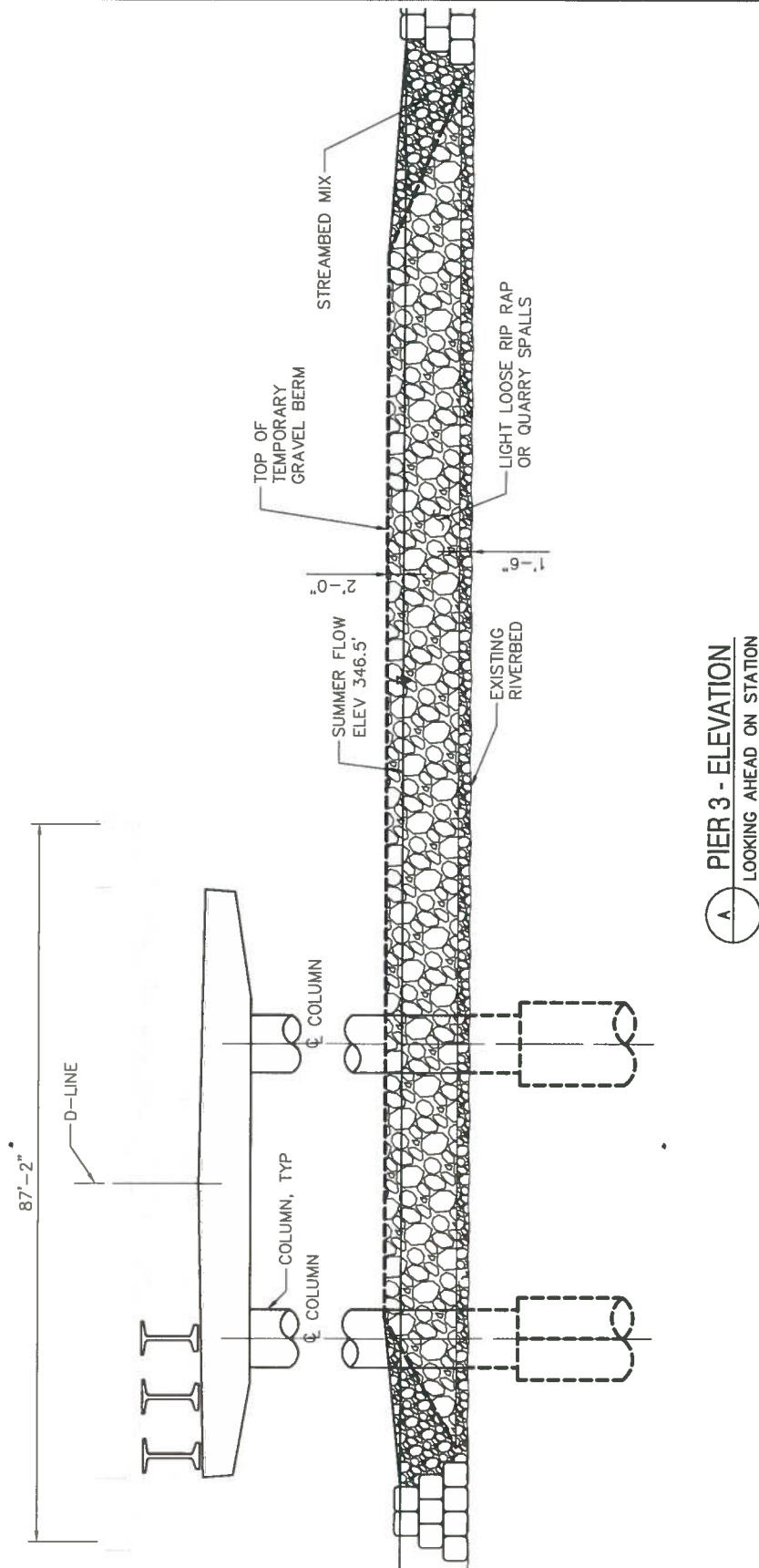


ELEVATION

YAKIMA RIVER
DATUM HORIZONTAL NAD 83
VERTICAL NAVD 88
46.26389 N LAT / 119.30633 W LONG



BRIDGE & WORK BERM
FISH WINDOW #2
DUPORTAIL STREET BRIDGE
CITY OF RICHLAND



PIER 3 - ELEVATION
LOOKING AHEAD ON STATION

YAKIMA RIVER
DATUM HORIZONTAL NAD 83
VERTICAL NAVD 88
46.26389 N LAT / 119.30633 W LONG



BRIDGE & WORK BERM
FISH WINDOW #2

DUPORTAIL STREET BRIDGE
CITY OF RICHLAND

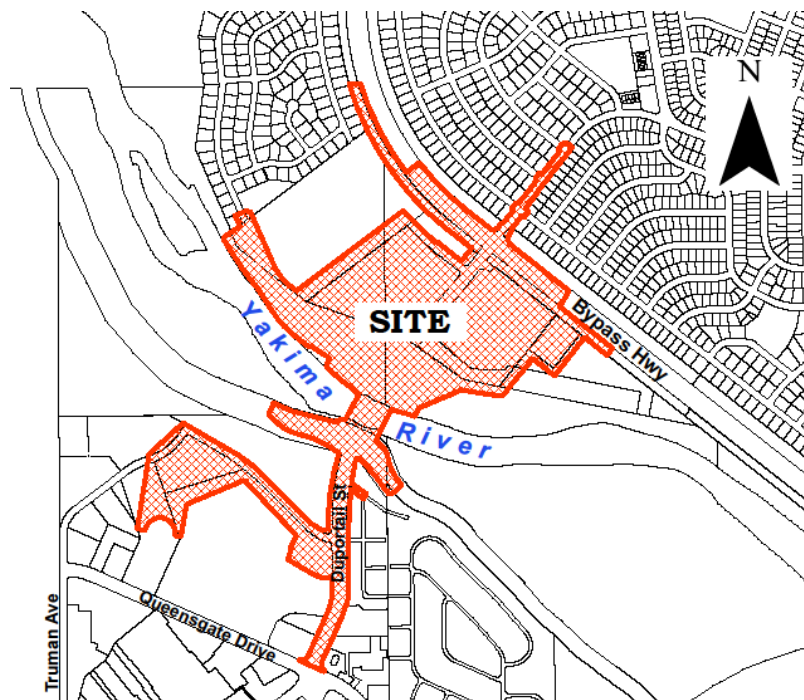
**CITY OF RICHLAND
NOTICE OF APPLICATION, PUBLIC HEARING &
DETERMINATION OF NON-SIGNIFICANCE**

Notice is hereby given that the City of Richland Public Works Department has submitted an application for a Shoreline Special Use Permit to: construct a new four lane bridge with independent bicycle lanes and sidewalks across the Yakima River; extend Tanglewood Drive eastward approximately 700 feet east and 1,700 west of Duportail Street; install a traffic signal at the intersection of Duportail Street and Tanglewood Drive; upgrade of the intersection of Duportail Street and SR 240; construct a new access road to connect Shoreline Village apartment complex and Desert Streams Bible Church to Tanglewood Drive; construct three water mains attached to bridge; remove and replace a steel irrigation flume; construct a sound wall along Duportail Street fronting The Hills Mobile Home Park; reconfigure a parking lot for an existing boat launch and designation of a single nature trail and restoration of disturbed areas with native vegetation.

A public hearing on the Shoreline Substantial Development Permit will be held before the Hearing Examiner on **July 27, 2017** at 6:00 p.m. in the Council Chambers, 505 Swift Blvd., Richland WA 99352.

Notice is finally given that the City of Richland on June 15, 2017 issued a Determination of Non-Significance (DNS), SEPA File No. EA2017-07 for the shoreline development application. The City of Richland has determined that this proposal does not have a probable significant adverse impact on the environment. This decision was made after adoption of a NEPA environmental assessment and other information on file with the lead agency. This information is available to the public on request. This DNS is issued under WAC 197-11-340; the lead agency will not act on this proposal for 30 days from the date of legal notice publication.

Any person desiring more information, to express views or to be notified of any decisions pertaining to these applications or the DNS should notify Shane O'Neill, Senior Planner, 840 Northgate Drive, Richland, WA 99352. Ph. 509-942-7587, soneill@ci.richland.wa.us.



AFFIDAVIT OF POSTING

STATE OF WASHINGTON)
) ss.
COUNTY OF BENTON)

COMES NOW, **Rick Simon**, who, being first duly sworn upon oath deposes and says:

1. I am an employee in the Planning & Development Department for the City of Richland.

2. On the 20th day of June, 2017, I posted the attached NOTICE OF PUBLIC HEARING, File Number SMP2017-100 at the following locations:

At the end of the improved Duportail Street right-of-way, adjacent to 2550 Duportail Street
At the end of the improved Duportail Street right-of-way adjacent to the Hills Mobile Home Park



Print Name: Rick Simon

SIGNED AND SWORN to before me this 10th day of March, 2017 by RICK SIMON.



Signature of Notary

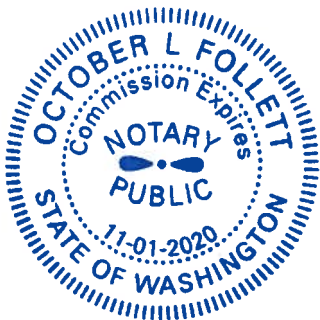
October L. Follett

Printed Name

Notary Public in and for the State of Washington,

Residing in Benton County

My appointment expires: 11-1-2020



AFFIDAVIT OF MAILING

STATE OF WASHINGTON)
) ss.
 COUNTY OF BENTON)

COMES NOW, Kathy Anderson, who, being first duly sworn upon oath deposes and says:

1. I am an employee in the Planning & Development Department for the City of Richland.
2. On the 20th day of June, 2017, I mailed a copy of the attached NOTICE OF APPLICATION, PUBLIC HEARING & DETERMINATION OF NON-SIGNIFICANCE to the attached list of individuals via regular USPS or E-mail on the date indicated above. The Notice of Public Hearing is related to 1125/1127 McPherson Avenue.

Kathy L. Anderson
 Signed Name: Kathy Anderson

SIGNED AND SWORN to before me this 20 day of June, 2017 by Kathy Anderson.



Cynthia Lynn Somers
 Notary Public in and for the State of Washington,
 Residing at Kennewick WA
 My appointment expires: July 10, 2020
Cynthia Lynn Somers
 Printed Name

Looking Northwest



Looking Northeast

Approx. Bridge
Location

Looking East



Looking South

Duportail Street



Looking West



ENVIRONMENTAL ASSESSMENT

Prepared in compliance with the National Environmental Policy Act of 1969

Duportail Street Bridge Project:

City of Richland, Washington



February 2013

This page intentionally left blank for printing purposes.

Environmental Assessment

Duportail Street Bridge Project

Submitted pursuant to 42 U.S.C. 4332(2)(c)

by the

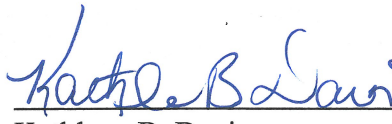
U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation
South Central Region Local Programs Office

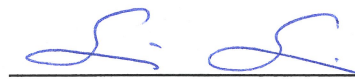
and

City of Richland

2/20/13
Date of Approval


Kathleen B. Davis
Director, Highways and Local Programs
Washington State Department of Transportation

2/20/2013
Date of Approval


Liana Liu, P.E., P.T.O.E.
Area Engineer
Federal Highway Administration
Washington Division

2/14/2013
Date of Approval


Pete Rogalsky, P.E.
Public Works Director
City of Richland

Cooperating agencies for the project include:

United States Army Corps of Engineers
201 North Third Avenue
Walla Walla, WA 99362

Federal Emergency Management Agency
Region X
130 228th Street SW
Bothell, WA 98021

The following persons may be contacted for additional information concerning this document:

Liana Liu, P.E., P.T.O.E.
Area Engineer
Federal Highway Administration
Washington Division
711 S. Capitol Way, Suite 501
Olympia, WA 98501
(360) 753-9553

Kathleen B. Davis
Director,
Highways and Local Programs
Washington State Department of Transportation
P.O. Box 47331
Olympia, WA 98504-7331
(360) 705-7871

Pete Rogalsky, P.E.
Public Works Director
City of Richland
840 Northgate Drive
Richland, WA 99352
(509) 942-7500



Title VI

The City of Richland ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding the City of Richland's Title VI Program, you may contact the City's Title VI Committee at (509) 942-7385.

Americans with Disabilities Act (ADA) Information

If you would like copies of this document in an alternative format – large print, Braille, cassette tape, or on computer disk, please call (509) 942-7385. Persons who are deaf or hard of hearing, please call the Washington State Telecommunications Relay Service, or Tele-Braille at 7-1-1, Voice 1-800-833-6384, and ask to be connected to (509) 942-7385.

This page intentionally left blank for printing purposes.

Executive Summary

The City of Richland is proposing to construct a bridge over the Yakima River, connecting sections of Duportail Street. The project is referred to as the Duportail Street Bridge Project in this summary.

Where is the Project?

The Duportail Street Bridge Project is located in Richland, Washington. The project connects portions of Duportail Street on the north and south side of the Yakima River. The project continues from City View Drive on the south side of the Yakima River to State Route (SR) 240 on the north side of the river.

What is the Project?

The main construction elements to the Duportail Street Bridge Project are as follows:

- Construct a new four-lane bridge and a pedestrian/bicycle path on the upriver side of the bridge.
- Extend Tanglewood Drive eastward approximately 700 feet east and 1,700 feet west of Duportail Street.
- Install a traffic signal at the intersection of Duportail Street and Tanglewood Drive.
- Upgrade the intersection of Duportail Street and SR 240.
- Build a new access road to connect the Shoreline Village apartment complex and the Desert Streams Bible Church to Tanglewood Drive.
- Replace water main onto the new bridge.

The project will also include other improvements as follows:

- Reconfigure the parking lot for the existing boat launch site.
- Install sidewalks where needed to create a seamless pedestrian network in the project area.
- Designate one nature trail and restore all remaining disturbed areas with native vegetation.

Nexus- Who are the Lead, Cooperating, and Participating Agencies?

The lead agencies for the project are:

United States Department of Transportation, Federal Highway Administration, Washington Division
711 S. Capitol Way, Suite 501, Olympia, WA 98501

Washington State Department of Transportation, South Central Region Local Programs Office,
P.O. Box 12560, Yakima, WA 98909

The proponent of the project is:

The City of Richland, 505 Swift Blvd, Richland, WA 99352

Cooperating agencies for the project include:

United States Army Corps of Engineers, 201 North Third Avenue, Walla Walla, WA 99362
Federal Emergency Management Agency Region X, 130 228th Street SW, Bothell, WA 98021

Participating agencies include:

Department of Fish and Wildlife 1701 S. 24th Avenue, Yakima, WA 98902

Department of Ecology, 15 West Yakima Ave -- Suite 200, Yakima, WA 98902-3452

Department of Natural Resources, Southeast Region, 713 Bowers Road, Ellensburg, WA 98926

The letters sent from Federal Highway Administration to participating and cooperating agencies can be found in Appendix C.

Why are we proposing this project?

The project has been proposed in order to:

- Alleviate congestion on the I-182 and SR 240 corridors in the City of Richland.
- Improve emergency vehicle response times to currently underserved areas of town.
- Improve mobility for bicycle and pedestrian users.
- Replace the City's water pipeline serving the south side of the river.

When would construction begin, and how long would it take?

Construction is anticipated to start in late 2015. It is expected to take approximately 500 days and be completed in 2016.

How would the project affect the environment?

Based on this analysis, the project will not have substantial environmental impacts. Negative effects have been avoided where possible. Identified effects have been minimized through design and mitigation measures. The following discussion highlights the major findings.

Land Use Planning and Policies –

Affected Resources

Small pieces of land will be acquired for this project and permanently changed from the existing use to transportation use. These conversions will not require relocations or changes in land use designations to entire parcels. Existing land uses will continue to occur on the parcels to be affected by project acquisition.

Construction Impacts

Noise and traffic delays will be experienced by adjacent residences, businesses, and local street system users. These effects will last only as long as construction. No long-term development impacts are anticipated.

Why No Effect

The project is consistent with the City of Richland's Comprehensive Plan. No changes in current land uses or zoning will occur. The project will not affect the rate of development occurring in the area.

Section 4(f)/Recreational Resources

Affected Resources

The United States Army Corps of Engineers (USACE) owns property on the north bank of the Yakima River. There is a public boat launch facility located on this property maintained by the Washington Department of Fish and Wildlife (WDFW).

Construction Impacts

Staging will occur on portions of the USACE property resulting in removal of vegetation and temporary closure and detour of trails. The WDFW boat launch will remain open during the majority of construction in order to maintain the community's access to the Yakima River.

Why Effects are Minimal

The project has been designed to create more contiguous open space in riparian areas while maintaining recreational use. The bridge design was lengthened to improve wildlife passage on the north bank of the river. New roadway has been consolidated to areas near existing and proposed urban development away from the Yakima River. Any riparian areas disturbed during construction will be replanted with native species. Restoration will occur to currently disturbed riparian areas in order to mitigate for possible loss of habitat.

Transportation Efficiency –

Affected Resources

Traffic reductions are anticipated along SR 240 and I-182 due to shifts in travel patterns. Local automobile traffic will be able to use the new bridge and avoid these roadways, leaving regional and commercial truck traffic on the highways.

Approximately 40 on-street parking spots currently exists along Duportail Street on the north side of the Yakima River. These spaces will be removed during construction and not restored after project completion.

Construction Impacts

Sidewalks and shoulders will be temporarily closed and detoured at various times to allow construction activity to take place. Similarly, the paths on both sides of the river will be closed and detoured during bridge construction to provide safe passage. Closure of lanes that results from construction could increase delays and congestion. Access for private and emergency vehicles will be maintained to all residences and businesses during construction.

Why Effects are Minimal

The improved pedestrian and bike facilities will provide transportation alternatives to the surrounding community and can potentially reduce the number of cars for local trips.

Creating an additional crossing of the Yakima River will improve the connection between the east and west sides of the city, improving transportation efficiency and mobility. Traffic related congestion and delays will be reduced and more opportunities for non-motorized travel will be provided.

Adequate on-site parking will exist for the apartment complexes within designated parking lots.

Public Services and Utilities –

Affected Resources

Emergency response times in the area are long due to the limited crossings over the Yakima River. It is 4.5 miles to the City View Drive and Duportail intersection from the existing fire station via I-182, the most direct route. The existing overhead power lines are vulnerable to damage from weather events. The existing waterline located within the Yakima River is likely to fail as the pipe is over 50 years old and must be continually protected from scour.

Construction Impacts

Temporary disruptions in some utility services will be experienced during relocations. Any outages are anticipated to be short-term and intermittent. Groundbreaking and pile driving activities may inadvertently disrupt utilities. Alternative water supply lines will be established prior to any breaks in service to ensure that fire departments can handle all calls during construction periods. Access for private and emergency vehicles will be maintained to all residences and businesses during construction.

Why No Effect

Power lines will be removed from overhead and placed in conduit on the bridge. The existing 36-inch waterline that is the sole source of domestic water to all of the residents and businesses in southern Richland will be replaced with pipes on the proposed bridge. A reduction in emergency response times will occur as a direct route will be provided to the currently underserved areas of Richland. The project will provide benefits to utilities and public services.

Surface Water, Water Quality, and Hydrology–

Affected Resources

The construction of the project could impact the Yakima River during in-water and over-water work. Stormwater from the project could also reach the Yakima River. The proposed increase in impervious surfaces will increase the quantity of stormwater runoff.

Construction Impacts

During project construction, stormwater flows have the potential to carry sediments into the Yakima River. There is a risk for a hazardous material spill to take place. The installation and removal of piles and caissons may produce a temporary increase in turbidity levels in the Yakima River.

Potential impacts to surface waters during construction will be abated with an approved Temporary Erosion Sediment Control (TESC) plan and Spill Prevention Control and Countermeasures (SPCC) plan.

Why Effects are Minimal

All stormwater from new and replaced impervious surface will be infiltrated. The proposed project will provide treatment for all but 0.56 acres of pollutant generating impervious surface before infiltration.

Noise –

Affected Resources

Area residents will experience increased noise levels from the new and widened roadway. Existing sound levels in the Riverpointe and Shoreline Village Apartments on the north side of the river are influenced by the proximity to SR 240. The sound levels were modeled ranging from 50-65 dB(A). Sound levels in the Hills Mobile Home Park are lower as the existing section of Duportail Street is used only by local traffic. The current levels were modeled between 45-59 dB(A).

Construction Impacts

In order to remain in compliance with the City of Richland code, construction will only occur between the hours of 7 a.m. and 9 p.m. Pile-driving equipment will primarily utilize a vibratory hammer – which has lower peak decibel values – and only use an impact hammer to proof-test piles. Sound levels generated during construction may reach levels of up to 110 dB(A) during proof-testing of piles. Pile driving will take place for 120 days.

Why Effects are Minimal

A 534-foot long, 16-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park north of City View Drive. A 420-foot long, 12-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park south of City View Drive. The proposed noise wall will shield all impacted receivers. Noise levels are increasing near SR 240 regardless of the proposed project. Several receivers had a larger increase in noise levels under the No Build Alternative than under the proposed conditions.

Visual Quality-

Affected Resources

The project will result in permanent changes to the visual environment for Duportail Street users, residents, pedestrians, and bicycles. Changes will also occur for hikers, and boaters. The project will create views of a new roadway as well as increase glare and artificial lighting from the proposed streetlights along Duportail Street.

Construction Impacts

The project will temporarily disrupt the visual harmony of the natural area due to grading and vegetation removal. Equipment being used for construction will also be visible over the river and in the project area neighborhoods.

Why Effects are Minimal

New structures will receive color and texture treatments to minimize the effect. Over time, the visual quality of the study area will improve as landscaping and other vegetation matures and softens the appearance of retaining walls, noise walls, other structures associated with the project, screening various project features from affected viewers.

Lower wattage lamps and maximum pole spacing of street lamps will be incorporated where possible. All lights will utilize reflectors and hoods to direct lighting onto the bridge and roadways.

Cultural and Historic Resources –

Affected Resources

Three sites have been identified within or near the project. A previously recorded lithic site exists with a reported location northwest of the road corridor. A segment of a recorded canal recommended eligible for the National Register of Historic Places by the Department of Archaeology and Historic Preservation is within the project area. One lithic flake was found buried within the upper 15 cm of soil during the present assessment.

Construction Impacts

Excavation on the north side of the Yakima River will be approximately five feet. Excavation on the south side of the Yakima River will be deeper at eight feet. Drilled shafts for the piers and abutments will be placed to a depth of 35 feet. An Unanticipated Discovery Plan will be prepared to establish a protocol to protect cultural resources if they are encountered during construction.

Why Effects are Minimal

The bridge will be built over the canal and its structural supports will not impact the canal. The project proposes to enclose the canal within the project area as requested by the Columbia Irrigation District (CID). The Washington State Department of Archaeology and Historic Preservation (DAHP) determined that no adverse effects to the canal will occur due to the proposed improvement.

Vegetation, Wildlife, Fish, and Aquatic Resources-

Affected Resources

Species listed under the Endangered Species Act which are known to occur in the project area include the Columbia River distinct population segment (DPS) of Bull trout (*Salvelinus confluentus*) and the Middle Columbia River DPS of Steelhead trout (*Oncorhynchus mykiss*). Both Bull trout and Steelhead trout are known to migrate through the project area.

The project could potentially affect aquatic resources within an area 0.63 miles upstream and 0.56 miles downstream of the proposed bridge; wildlife could be temporarily affected within a 1.68 mile radius from proposed pile driving activities; and vegetation could be affected within the area of proposed earthmoving activities.

The proposed project would permanently displace approximately 11.1 acres of vegetation (landscape, shrub-steppe, and forested/scrub-shrub riparian vegetation). The removal of vegetation may result in habitat degradation increasing localized competition for resources.

Artificial lighting from proposed streetlights could potentially affect wildlife in the project area by altering predator/prey relationships.

Construction Impacts

The project will require the installation of piles to support a temporary work bridge from which the permanent structure will be constructed. Some of these piles will be driven within the Yakima River. The installation and removal of piles and caissons may

produce a temporary increase in noise and turbidity levels. These activities could potentially impact species by frightening fish and wildlife within the project area.

Several measures will be used to minimize impacts. To minimize impacts to fish, all in-water work will take place within the designated in-water work period (July 1st to September 30th). Underwater noise will be minimized using a bubble curtain or sandbags.

It is expected that any increases in sedimentation and turbidity will be in compliance with the Department of Ecology (DOE) water quality standards. Several measures will be used during in-water work to minimize negative effects from turbidity. To prevent sedimentation from entering the river, erosion control Best Management Practices (BMPs) will be installed. Measures will also be in place to prevent spills and contamination.

Why Effects are Minimal

Only pedestrian level lighting will be used along the pathway for the length of the bridge. Lower wattage lamps and maximum pole spacing of street lamps will be incorporated where possible. All lights will utilize reflectors and hoods to direct lighting onto the bridge and roadways. This will reduce the amount of light cast into the river and riparian area under the bridge.

The project has been designed to create more contiguous open space in riparian areas. The bridge design was lengthened to improve wildlife passage on the north bank of the river. New roadway has been consolidated to areas near existing and proposed urban development away from the Yakima River. Any riparian areas disturbed during construction will be replanted with native species. Restoration will occur to currently disturbed riparian areas in order to mitigate for possible loss of habitat.

Where can project information be found?

Project information can be found on the City of Richland's website, at:
<http://www.ci.richland.wa.us/index.aspx?nid=487>

What are the next steps?

The Federal Highway Administration (FHWA) will use this Environmental Assessment (EA) to determine whether a finding of no significant impact (FONSI) will be prepared under the National Environmental Policy Act (NEPA), or if greater environmental review is needed in the form of an environmental impact statement (EIS). This document was developed by the City of Richland under direction from FHWA. The City also intends to use this evaluation to make a determination under the State Environmental Protection Act (SEPA).

This page intentionally left blank for printing purposes.

Table of Contents

EXECUTIVE SUMMARY	VII
TABLE OF CONTENTS	XV
1 PURPOSE AND NEED FOR ACTION	1
1.1 WHERE IS THE PROJECT LOCATED?	1
1.2 WHAT ARE THE EXISTING CONDITIONS IN THE PROJECT AREA?	1
1.3 WHAT IS THE PURPOSE OF THE PROJECT?	9
1.4 WHY IS THE DUPORTAIL STREET BRIDGE PROJECT NEEDED?	9
1.4.1 Improve the City's arterial street network connectivity to reduce the amount of local trips on SR 240 and I-182	9
1.4.2 Reduce emergency response times on the south side of the river	10
1.4.3 Improve non-motorized access	10
1.4.4 Exposed 36-inch waterline	10
2 ALTERNATIVES	13
2.1 WHAT IS THE PROPOSED PROJECT?	13
2.1.1 Duportail Bridge	13
2.1.2 Tanglewood Drive	13
2.1.3 Sidewalk/Trail Connection	13
2.1.4 Noise Walls	13
2.2 WHY WAS THE PROPOSED PROJECT CHOSEN FROM THE ALTERNATIVES?	13
2.3 WHAT IS THE NO BUILD ALTERNATIVE?	14
2.4 WHAT ARE THE OTHER ALTERNATIVES CONSIDERED BUT REJECTED?	19
3 AFFECTED ENVIRONMENT	23
3.1 LAND USE	23
3.1.1 What does land use mean and why is it important?	23
3.1.2 How were land use and potential effects in the study area identified?	23
3.1.3 What existing land uses are in the project study area?	23
3.2 SECTION 4(F) AND 6(F) LANDS	29
3.2.1 Does Section 6(f) of the Land and Water Conservation Fund Act Apply?	29
3.2.2 What is Section 4(f)?	29
3.2.3 What Section 4(f) resources are located within the project area?	29
3.3 TRANSPORTATION	30
3.3.1 How was transportation identified in the project area?	30
3.3.2 How was the analysis completed?	30
3.3.3 What are the current traffic conditions?	31
3.3.4 What are the current traffic safety concerns?	31
3.3.5 What facilities are available for pedestrian and bicyclists?	32
3.3.6 What transit routes operate in the study area?	32
3.4 PUBLIC SERVICES AND UTILITIES	32
3.4.1 How were public services and utilities in the project study identified and evaluated?	32
3.4.2 What public services and utilities are located in the project study area?	32

3.5	SURFACE WATER, WATER QUALITY, AND HYDROLOGY	33
3.5.1	What are water resources?.....	33
3.5.2	How were water resources evaluated for the project?	33
3.5.3	Are wetlands present in the project study area?	33
3.5.4	What water resources are present in the project study area?	33
3.5.5	What are the groundwater conditions in the area?	33
3.5.6	What stormwater facilities are in the area?	34
3.6	FLOODPLAIN.....	34
3.6.1	What is the floodplain?	34
3.6.2	How is the floodplain regulated?.....	35
3.6.3	How was the floodplain evaluated for the project?	35
3.7	NOISE	35
3.7.1	What is noise?	35
3.7.2	How were noise levels evaluated for the project?	36
3.7.3	What are the current noise levels in the project study area?.....	37
3.8	VISUAL QUALITY	41
3.8.1	What is visual quality?	41
3.8.2	How were visual resources in the project study area identified and evaluated?.....	41
3.8.3	What is the existing visual quality of the area and who are the primary viewers?	42
3.9	CULTURAL RESOURCES	43
3.9.1	What are historical or cultural resources?	43
3.9.2	How were historical and cultural resources evaluated for the project study area?	44
3.9.3	What historic or cultural resources are located within the project study area?	44
3.10	VEGETATION, WILDLIFE, FISH, AND AQUATIC RESOURCES.....	45
3.10.1	How were vegetation, wildlife, fish, and aquatic resources identified in the project study area? ...	45
3.10.2	What vegetation, wildlife, fish, and aquatic resources were found in the project study area?	45
3.11	GEOLOGY AND SOILS	53
3.11.1	How were geology and soils evaluated for the proposed project?	53
3.11.2	What are the characteristics of the geology and soils in the project study area?	53
3.11.3	Are there any unique geologic features in the project study area?	54
3.12	SOCIAL ELEMENTS, ECONOMICS AND ENVIRONMENTAL JUSTICE	59
3.12.1	What regulations govern the analysis of social elements, economics, and environmental justice?	59
3.12.2	What types of data were analyzed for the project?.....	59
3.12.3	What is the character of the project study area?	59
3.12.4	What community and social services are found in the project study area?	60
3.12.5	Environmental Justice	61
3.12.6	Economics.....	63
3.13	AIR QUALITY	67
3.13.1	Is air quality a concern in the project study area?	67
3.13.2	How was air quality evaluated in the project study area?	67
3.14	HAZARDOUS MATERIALS	67
3.14.1	How were hazardous materials identified in the project study area?	67
3.14.2	Are there any sites in the project study area that could have contamination risks?.....	67
3.15	ENERGY.....	68
3.15.1	How was energy use evaluated for the project area?.....	68
3.15.2	What is the current energy use?	68

4	ENVIRONMENTAL CONSEQUENCES.....	69
4.1	LAND USE	69
4.1.1	What temporary effects to land use may potentially occur?.....	69
4.1.2	What long-term effects to land use may potentially occur?	69
4.1.3	What effects to land use might result if the project was not built?.....	70
4.1.4	What measures are proposed to minimize negative effects to land uses during construction?	70
4.1.5	What measures are proposed to minimize negative effects to land uses once the project is built? ..	70
4.2	SECTION 4(F).....	77
4.2.1	Will the project result in a use of any of the Section 4(f) Resources?.....	77
4.2.2	What measures to minimize harm to Section 4(f) Resources have been included in the project? ..	77
4.2.3	What is the result of this Section 4(f) analysis?	78
4.3	TRANSPORTATION	79
4.3.1	What temporary effects to traffic may potentially occur as a result of the project?	79
4.3.2	What long-term effects to traffic may potentially occur?.....	79
4.3.3	How might the project affect pedestrians and bicyclists?	79
4.3.4	What effect to traffic may result if the project was not built?	80
4.3.5	What measures are proposed to minimize the potential effects during construction?.....	80
4.4	PUBLIC SERVICES AND UTILITIES	81
4.4.1	What temporary effects to public services and utilities may potentially occur?	81
4.4.2	What long-term effects to public services and utilities may potentially occur?	81
4.4.3	Would public services and utilities be affected if the project were not built?	81
4.4.4	What measures are proposed to minimize the negative effects to public services during construction?	82
4.4.5	What measures are proposed to minimize negative effects to public services and utilities?.....	82
4.5	SURFACE WATER, WATER QUALITY, AND HYDROLOGY	82
4.5.1	What temporary effects to water resources may potentially occur?	82
4.5.2	What long-term effects to water resources may potentially occur?.....	82
4.5.3	What effects to water resources might result if the project was not built?	83
4.5.4	What measures are proposed to minimize the negative effects to water resources during construction?	83
4.5.5	What measures are proposed to minimize negative effects to water resources once the project is built?.....	84
4.6	FLOODPLAIN.....	84
4.6.1	What long-term effects to the floodplain may occur?	84
4.6.2	What effects to the floodplain might result if the project was not built?.....	84
4.6.3	What measures are proposed to minimize negative effects to the floodplain once the project is built?.....	84
4.7	NOISE	85
4.7.1	What temporary effects to noise levels may potentially occur?	85
4.7.2	What long-term effects to noise levels may potentially occur?.....	86
4.7.3	How would noise levels be affected if the project were not constructed?.....	87
4.7.4	What measures are proposed to minimize negative noise effects during project construction?.....	87
4.7.5	What measures are proposed to minimize negative effects once the project is built?.....	87
4.7.6	Why will noise walls not be constructed in other areas?.....	87
4.8	VISUAL QUALITY	91
4.8.1	What temporary effects to visual resources may potentially occur?	91
4.8.2	How might people be affected by visual changes as a result of the project ?.....	91
4.8.3	How might visual resources be affected if the project were not constructed?.....	92
4.8.4	What measures are proposed to minimize negative effects to visual resources during construction?	92
4.8.5	What measures are proposed to minimize negative effects to visual resources once the project is built?.....	92

4.9	CULTURAL RESOURCES	92
4.9.1	What temporary effects to historic properties may potentially occur?	92
4.9.2	What long-term effects to historic properties may potentially occur?	92
4.9.3	How might historic properties be affected if the project were not built?	92
4.9.4	What measures are proposed to minimize effects to historic properties?	92
4.10	VEGETATION, WILDLIFE, FISH, AND AQUATIC RESOURCES	93
4.10.1	What temporary effects to vegetation, wildlife, fish, and aquatic resources may potentially occur?	93
4.10.2	What long-term effects to vegetation, wildlife, fish, and aquatic resources may potentially occur?	93
4.10.3	How might vegetation, wildlife, fish, and aquatic resources be affected if the project were not built?	94
4.10.4	What measures are proposed to minimize negative effects to vegetation, wildlife, fish, and aquatic resources during construction?	94
4.10.5	What measures are proposed to minimize negative effects to vegetation, wildlife, fish, and aquatic resources once the project is built?	95
4.11	GEOLOGY AND SOILS	99
4.11.1	What hazards are associated with the geology and soils in the project study area?	99
4.11.2	What temporary effects to geology and soils may potentially occur?	99
4.11.3	What long-term effects to geology and soils may potentially occur?	99
4.11.4	Might there be effects to or from geology and soils in the project study area if the project were not constructed?	99
4.11.5	What measures are proposed to minimize negative effects to or from geology and soils during construction?	99
4.11.6	What measures are proposed to minimize effects to geology and soils once the project is built?	100
4.12	SOCIAL ELEMENTS, ECONOMICS AND ENVIRONMENTAL JUSTICE	100
4.12.1	What temporary effects to communities, neighborhoods, and businesses may potentially occur?	100
4.12.2	Will existing properties, residences, or businesses be acquired or displaced by the project?	100
4.12.3	How might minority and/or low-income populations be disproportionately affected by project construction activities?	101
4.12.4	How might economics in the area be affected by project construction?	101
4.12.5	What measures are proposed to minimize negative effects to communities, neighborhoods, and businesses during construction?	102
4.12.6	How might communities, neighborhoods, and businesses be affected once the project is built?	102
4.12.7	How might communities, neighborhoods, and businesses be affected if the project were not built?	103
4.12.8	What measures are proposed to minimize negative long-term effects to communities, neighborhoods, and businesses?	103
4.13	AIR QUALITY	104
4.13.1	What temporary effects to air quality may potentially occur?	104
4.13.2	What long-term effects to air quality may potentially occur?	104
4.13.3	How would air quality be affected if the project were not constructed?	104
4.13.4	What measures are proposed to minimize the negative effects to air quality during construction?	104
4.13.5	What measures are proposed to minimize the negative effects to air quality once the project is built?	104
4.14	HAZARDOUS MATERIALS	104
4.14.1	What effects to hazardous materials may potentially occur during construction?	104
4.14.2	What effects related to hazardous materials would occur if the project were not built?	104
4.14.3	What measures are proposed to minimize negative effects?	105

4.15	ENERGY.....	105
4.15.1	What effects to energy may potentially occur?	105
4.15.2	What effects to energy would occur if the project were not built?	105
4.15.3	What measures are proposed to minimize negative effects?	105
4.16	INDIRECT EFFECTS	105
4.16.1	What are indirect effects?	105
4.16.2	Would the Duportail Street Bridge Project result in any indirect effects?	105
4.17	CUMULATIVE EFFECTS	106
4.17.1	What are cumulative effects?	106
4.17.2	Would the Duportail Street Bridge Project contribute to any cumulative effects?	106
4.17.3	What actions other than the Duportail Bridge Project are included in the cumulative effects analysis?	107
4.17.4	What resources were evaluated for cumulative effects?	111
4.17.5	What effect would the transportation improvements from the Duportail Street Bridge Project have on greenhouse gas emissions?	112
4.17.6	What measures are proposed to minimize cumulative effects?	112
4.18	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES	112
4.18.1	What irreversible and ir retrievable resources would be committed to the project?	112
4.19	RELATIONSHIP OF SHORT-TERM USES OF ENVIRONMENT AND LONG-TERM BENEFITS	112
4.19.1	What are the tradeoffs between short-term losses of environmental resources and long-term benefits from the project?	112
5	MITIGATION	114
5.1	LAND USE	114
5.2	SECTION 4(F)	114
5.3	NOISE	114
5.4	VISUAL	115
5.5	VEGETATION, WILDLIFE, FISH, AND AQUATIC RESOURCES	115
5.6	SURFACE WATER, WATER QUALITY, AND HYDROLOGY	115
6	PUBLIC INVOLVEMENT	116
6.1	HOW WAS THE DUPORTAIL STREET BRIDGE PROJECT DEVELOPED?	116
6.2	COMMENTS AND COORDINATION	116
6.2.1	What public involvement has occurred?	116
6.2.2	How have government agencies been involved?	118
6.2.3	How have Native American Tribes been involved?	119
6.2.4	What future public involvement is planned?	119
7	LIST OF PREPARERS.....	119
	REFERENCES.....	121
	APPENDIX A – DISCIPLINE REPORTS.....	127
	APPENDIX B – PROJECT MAPS	129
	APPENDIX C – AGENCY COORDINATION	135
	APPENDIX D – SECTION 106 CONCURRENCE	151
	APPENDIX E – SECTION 4(F) <i>DE MINIMIS</i> CONCURRENCE	155
	APPENDIX F – ESA CONSULTATION DOCUMENTATION	165
	APPENDIX G – SCOPING COMMENTS NOVEMBER 5, 2008	225

List of Figures

Figure 1:	Vicinity Map.....	3
Figure 2:	Richland Street System	5
Figure 3:	Existing Conditions	7
Figure 4:	Existing Yakima River Crossings	11
Figure 5:	Duportail Street Bridge –Bridge Plan & Elevation	15
Figure 6:	Project Configuration	17
Figure 7:	Project Alternatives	21
Figure 8:	Comprehensive Plan Land Use Designations	25
Figure 9:	Zoning Designations.....	27
Figure 10:	Receiver Locations	39
Figure 11:	Vegetation to be Removed/Restored	51
Figure 12:	Regional Geology	55
Figure 13:	Soil Designations.....	57
Figure 14:	Environmental Justice Study Area	65
Figure 15:	Property Acquisitions	71
Figure 16:	Traffic Controls	75
Figure 17:	Benefited Receivers.....	89
Figure 18:	Types of Illumination	97
Figure 19:	Cumulative Effects Study Area	109

List of Tables

Table 1:	Level of Service Criteria for Signalized Intersections	31
Table 2:	Common Noise Sources and Corresponding Decibel Measurements.....	36
Table 3:	FHWA Noise Abatement Criteria	37
Table 4:	Aquatic Species potentially present within the project study area	46
Table 5:	Terrestrial Species potentially present within the project study area	47
Table 6:	Vegetation potentially present within the project study area	48
Table 7:	Vegetation found within the Study Area.....	49
Table 8:	Race Demographic Data for Census Tracts 103 and 108.3- 2010 Census.....	61
Table 9:	Income Demographics Data for Census Tracts 103 and 108.3 - 2000 Census	61
Table 10:	School Demographic Data.....	62
Table 11:	Occupation and Industry in the Duportail Street Project Study Area	64
Table 12:	Sites Identified by the Department of Ecology.....	68
Table 13:	Proposed Property Acquisitions	73
Table 14:	Typical Construction Equipment Noise Levels	85
Table 15:	Summary of results for the Existing, No Build 2032, and Build 2032 conditions	86

List of Photos

Photo 1:	Existing condition, facing northwest (upriver)	43
Photo 2:	View from the south side of the Yakima River looking northeast at the existing northeastern portion of Duportail Street.....	50
Photo 3:	View from the northeast side of the Yakima River looking south toward the existing southern portion of Duportail Street.....	50
Photo 4:	Proposed bridge, facing northwest (upriver)	91

Acronyms and Abbreviations

ADA	Americans with Disabilities Act
APE	Area of Potential Effect
BFE	Base Flood Elevation
BGS	Below Ground Surface
BMPs	Best Management Practices
CID	Columbia Irrigation District
CESCL	Certified Erosion and Sediment Control Lead
CLOMR	Conditional Letter of Map Revision
CY	Cubic Yard
DAHP	Washington State Department of Archaeology and Historic Preservation
dB	Decibel
DNR	Washington State Department of Natural Resources
DOE	Washington State Department of Ecology
DPS	Distinct Population Segment
EA	Environmental Assessment
EFH	Essential Fish Habitat
EJ	Environmental Justice
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRMs	Flood Insurance Rate Maps
GIS	Geographic Information System
LOS	Level of Service
NWI	National Wetlands Inventory
NEPA	National Environmental Policy Act
NOAA-Fisheries	National Oceanic and Atmospheric Administration – Fisheries Department
NPS	National Park Service

NRHP	National Register of Historic Places
ROW	Right-of-way
SHPO	State Historic Preservation Office
SPCC	Spill Prevention Control and Countermeasures
SR	State Route
TESC	Temporary Erosion Sediment Control
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VE	Value Engineering
W	Watt
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife
WSDOT	Washington State Department of Transportation

1 Purpose and Need for Action

1.1 Where is the project located?

The project area is located along Duportail Street on the south-west side of the Yakima River, to Duportail Street on the north-east side of the river. The legal geographic description within which the project is located is: Township 09 North, Range 28 East, Sections 15 and 16, Benton County, Washington. Please refer to the vicinity map provided in Figure 1.

1.2 What are the existing conditions in the project area?

The Yakima River bisects the existing Duportail Street, resulting in two roads named Duportail Street that dead end on each side of the river. The intersection of Duportail Street and Queensgate Drive is surrounded by new commercial and retail development. Moving north along Duportail Street, a mobile home park is located along the east side of the street and the west side of the street is vacant land and areas for recreational use. Duportail Street picks up again on the north side of the Yakima River, and is lined on both sides by apartment complexes to its intersection with SR 240. Single-family residences lie on either side of Duportail Street north of SR 240 to the project terminus, approximately at the intersection of Duportail Street and Birch Avenue.

The existing southern portion of Duportail Street is a 4-lane road, with a center turn lane, as well as curb, gutter and sidewalks. The existing northern portion of Duportail Street is a 2-lane roadway with left-hand turn lanes at its intersection with SR 240, and includes curbs, gutter and sidewalks. City View Drive is an unimproved, 2-lane gravel roadway. Riverstone Drive is a 2-lane roadway with incomplete sidewalks, curb and gutter to the south and shoulders to the north. SR 240 is a 6-lane roadway with left-hand turn lanes and shoulders. The intersection of SR 240 and Duportail Street is signalized and a single-track railroad line crosses Duportail Street approximately 75 feet south of the SR-240 intersection. Refer to Figures 2 and 3 for an overview of existing conditions within the project area.

This page intentionally left blank for printing purposes.

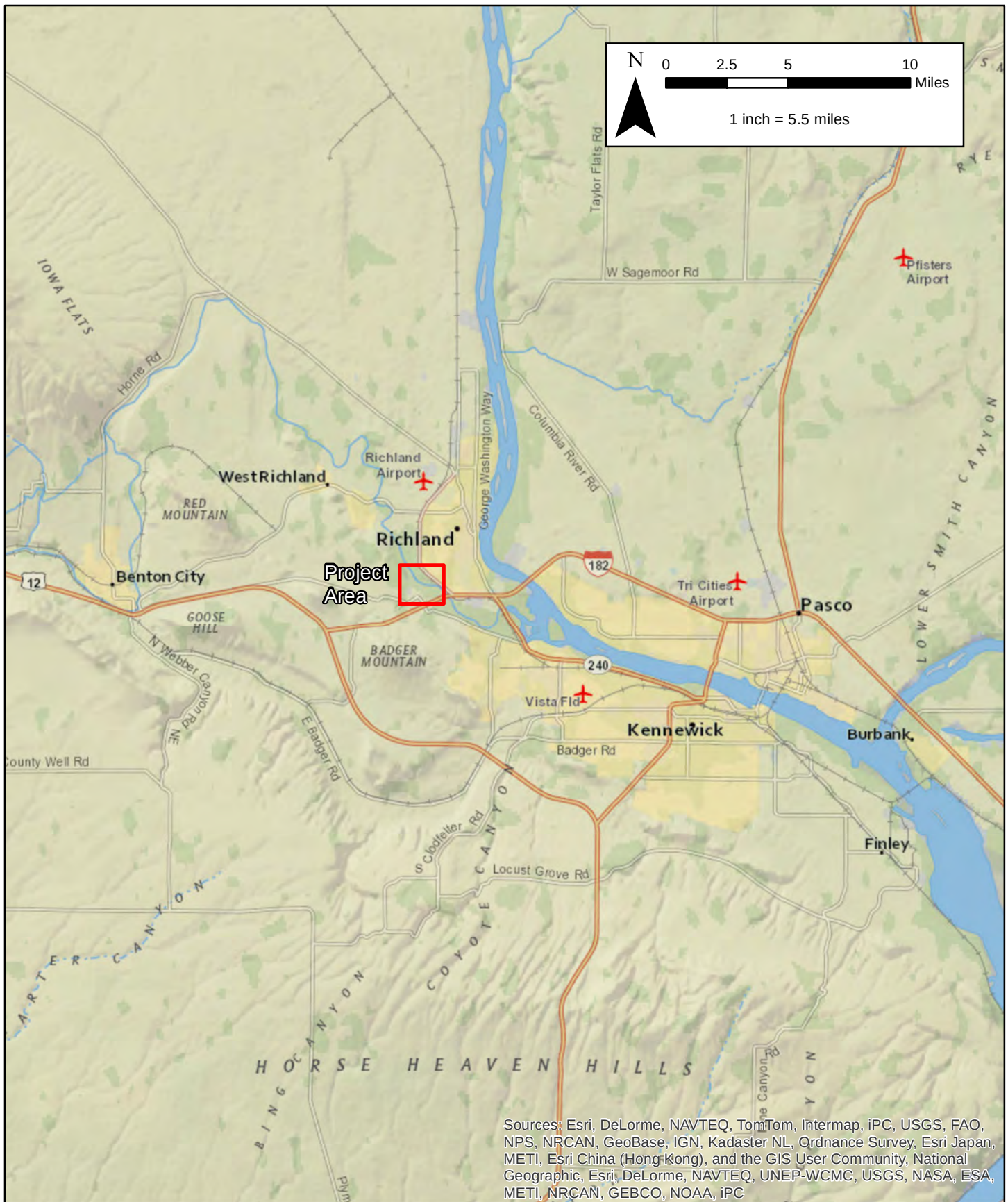


Figure 1: Vicinity Map

This page intentionally left blank for printing purposes.



Figure 2 - Richland Street System

- Project Limits
- Duportail Street Bridge

Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.



Figure 3: Existing Conditions
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

1.3 What is the purpose of the project?

The purpose of the proposed project is to alleviate congestion on the I-182 and SR 240 corridors in the City of Richland, to improve emergency vehicle response times to currently underserved areas of town, and improve mobility for bicycle and pedestrian users from the south side of the Yakima River to the north. A new fire station is planned at the approximate location of the intersection of Duportail Street and City View Drive. The proposed new connection over the Yakima River for emergency vehicles using Duportail Street would be a faster, more direct route in some cases.

The proposed bridge will include a multi-purpose trail. This will create a safe crossing for non-motorized traffic, as the speed limit for the proposed bridge is 35 mph. The proposed new connection over the Yakima River can be used for a more direct route to shopping, employment, or other purposes. An additional north-south crossing in the City of Richland aims to improve mobility, and will substantially reduce the amount of local trips within the SR 240 and I-182 corridor areas.

Water conveyance will be constructed on the proposed bridge, via two 24” pipes converging into one 36” pipe at each end of the bridge. The current deteriorating 36” waterline located under the Yakima River will be valved out of service and abandoned in place. A previous commitment has been made by the City of Richland to replace the waterline and the city has received a grant from the Federal Emergency Management Agency (FEMA) to reduce vulnerabilities to the waterline.

1.4 Why is the Duportail Street Bridge Project needed?

The City of Richland is planning to serve the growing infrastructure needs of the city by constructing an additional bridge over the Yakima River, connecting Duportail Street south of the Yakima River to Duportail Street north of the Yakima River. This will improve traffic and transportation efficiency, emergency vehicle response times and non-motorized transportation. Improvements are also needed for the City’s water pipeline in this area, which is now exposed in places and susceptible to damage or vandalism. The new bridge will address the four specific infrastructure needs discussed below.

1.4.1 Improve the City’s arterial street network connectivity to reduce the amount of local trips on SR 240 and I-182

I-182 is currently the only one of three crossings over the Yakima River that services the new developments on the south side of the river. Residential and retail developments southwest of the city center have created a need for more cars to travel over the I-182 Bridge. The I-182 Bridge is increasingly being used as a route for local trips from the city center to the newer developments. The need for local trips to use I-182 is anticipated only to increase as development and population rise.

1.4.2 Reduce emergency response times on the south side of the river

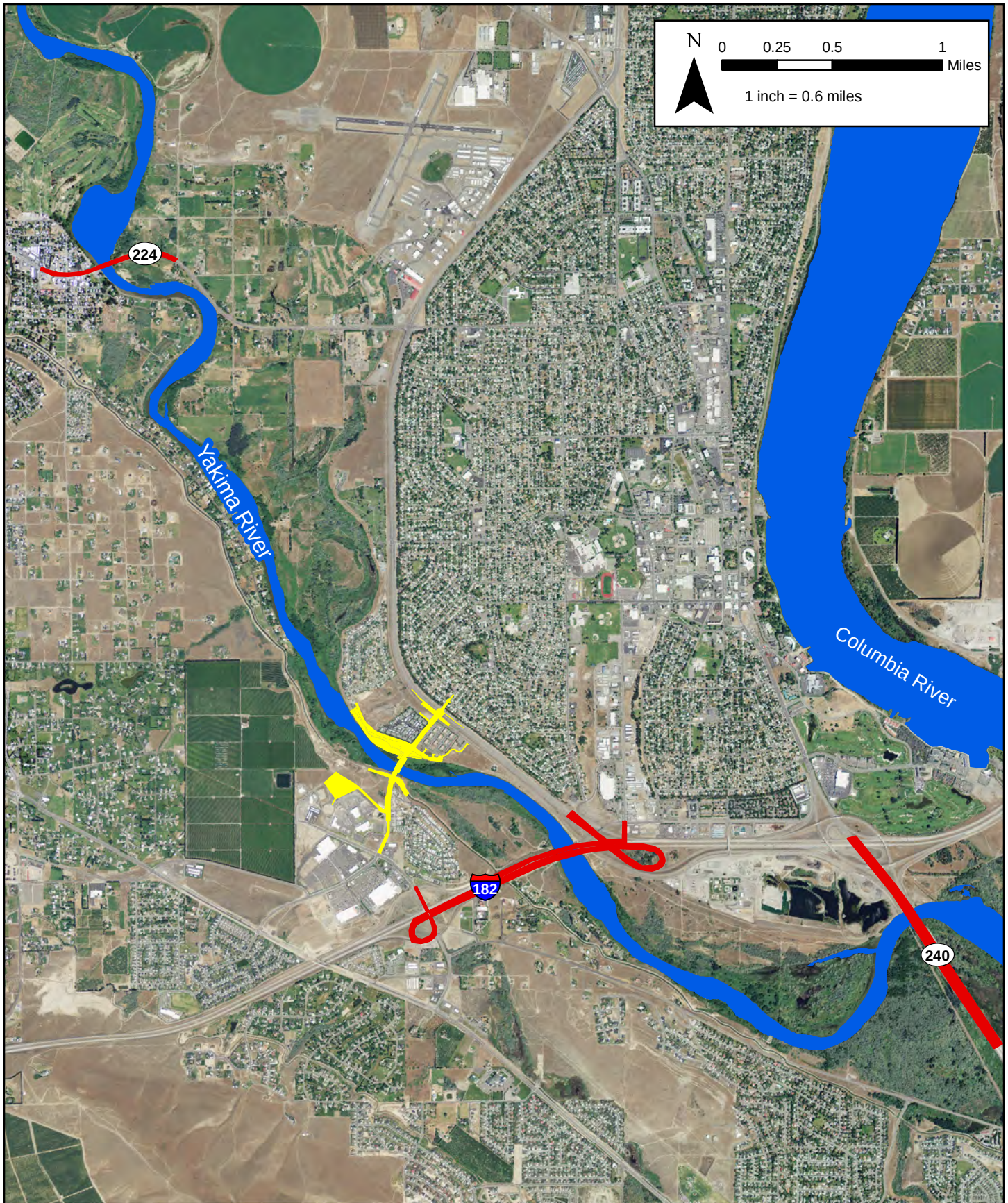
Currently, I-182 is the only crossing over the Yakima River in the City of Richland that services the new developments on the south side of the river. There are two other crossings, SR 224 in the north part of Richland, and SR 240 to the south of the city, however to take one of these routes would be lengthy and time consuming. The SR 224 crossing and the I-182 crossing are roughly 3 miles apart. SR 240 crosses south of I-182. See Figure 4 for the locations of these crossings. Emergency vehicles needing to cross the river must choose between crossing to the north or crossing to the south, which extends response times to locations located between the existing crossings.

1.4.3 Improve non-motorized access

The three existing crossings over the Yakima River in the City of Richland lack bicycle and pedestrian access that meet the current design standards. Due to their distance from residential areas, these crossings do not provide easy access for many pedestrian or bicycle destinations. This creates substantial challenges to non-motorized transportation users that desire to cross the river.

1.4.4 Exposed 36-inch waterline

The existing 36-inch waterline that is the sole source of domestic water to all of the residents and businesses in southern Richland crosses the Yakima River near Duportail Street. The waterline is exposed underwater in places as it crosses under the river, leaving the waterline susceptible to potential damage and vandalism.



- █ Existing Crossings
- █ Proposed Crossing

Figure 4: Existing Yakima River Crossings
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

2 Alternatives

2.1 What is the Proposed Project?

2.1.1 Duportail Bridge

The proposed Duportail Bridge will consist of two 11-foot travel lanes in both directions, as well as a 12-foot pedestrian/bicycle path on the upriver side of the bridge (Figure 5). Just as the travel lanes will provide a more direct route for residential traffic, emergency vehicles and public transportation, the 12-foot trail on the bridge will provide a more direct route for non-motorized transportation from the city center to the Queensgate area.

2.1.2 Tanglewood Drive

The Tanglewood Drive extension will be constructed paralleling the Yakima River on the north bank. The roadway will terminate in a cul-de-sac approximately 700 feet to the southeast of the intersection with Duportail Street, and will be extended 1,700 feet northwest to intersect with the existing segment of Tanglewood Drive. The roadway will consist of two 11-foot asphalt lanes, two 2-foot asphalt shoulders and a 5-foot concrete sidewalk on the north side. A new signal will be installed at the intersection of Tanglewood Drive and Duportail Street. Traffic from the Tanglewood subdivision will be routed to this new intersection.

2.1.3 Sidewalk/Trail Connection

A 12-foot wide pedestrian/bicycle path will be installed on the upriver side of the bridge and sidewalks will be installed where needed along Tanglewood Drive, Riverstone Drive, and Duportail Street to create a seamless network in the project area. The pedestrian/bicycle path will have grades no greater than seven percent and will meet Americans with Disabilities Act (ADA) standards.

2.1.4 Noise Walls

Two noise walls will be installed as part of the proposed project. A 534-foot long, 16-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park north of City View Drive. A 420-foot long, 12-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park south of City View Drive. Refer to Section 4.7 for more information.

Refer to Figure 6 for approximate locations of the aforementioned activities.

2.2 Why was the proposed project chosen from the alternatives?

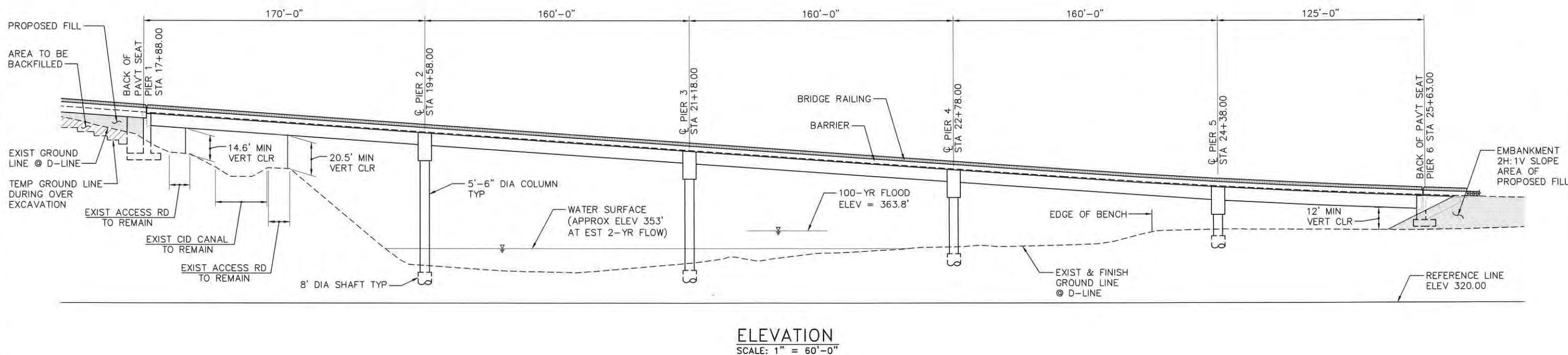
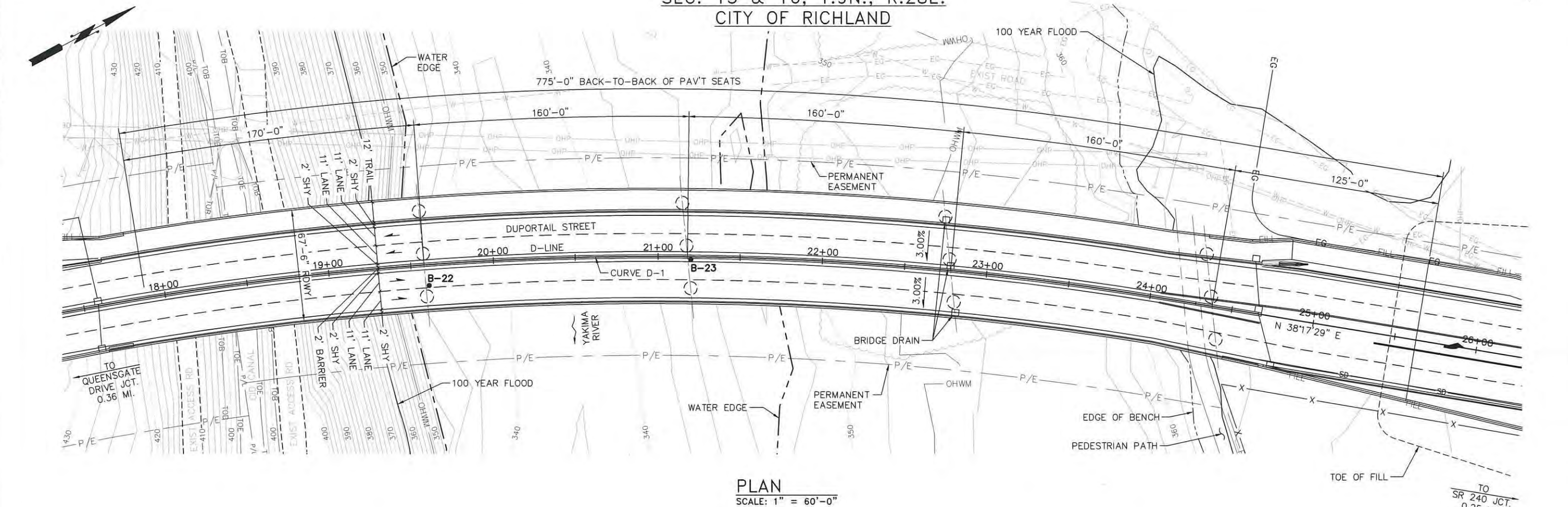
The construction of the proposed project will meet all of the conditions of the purpose and need. The proposed project will minimize the potential environmental impact as the majority of the area has been previously disturbed by development. The other potential alternatives would cross through larger lengths of undeveloped land including potential wetland.

2.3 What is the No Build Alternative?

NEPA requires that the No Build alternative be included and evaluated in this Environmental Assessment (EA). This approach is used to establish an existing and future baseline for comparing the effects associated with the proposed project. Under the No Build Alternative, no construction would occur. Existing roadways and sidewalks, the CID canal, the Port of Benton railroad crossing, the Washington State Department of Fish and Wildlife (WDFW) boat launch/parking area, and the United States Army Corps of Engineers (USACE) natural areas (all areas between the north bank of the Yakima River and the proposed Tanglewood Drive extension) would not be affected. The existing waterline, located within the Yakima River would likely fail as the pipe is already over 50 years old and must be continually protected from scour. Therefore, the waterline would likely be replaced as part of a separate project.

The No Build Alternative does not include improvements that would increase roadway capacity or reduce congestion on feeder streets to I-182 or other surface streets in the City of Richland. Traffic congestion on I-182 and surface streets would remain if not worsen with time. Emergency response times would not be improved. Pedestrian and bicycle safety in the project area would not be improved.

SEC. 15 & 16, T.9N., R.28E.
CITY OF RICHLAND



MARK	REVISION DESCRIPTION	BY	APP.	DATE

BergerABAM
33301 9th Avenue South, Suite 300
Federal Way, Washington 98003-2600
(206) 431-2300 Fax: (206) 431-2250



DRAWN BY LWC
DESIGN BY GAB
CHECK BY CHK
PROJ MGR CWS

Figure 5: Duportail Street Bridge
Plan and Profile

This page intentionally left blank for printing purposes.

CUT/FILL WITH NEW ROADWAY AND SIDEWALKS

DUPORTAIL BRIDGE

ROADWAY WITH SIDEWALKS

ROAD WIDENING WITH SIDEWALKS

ROAD WIDENING

TEMPORARY WORK BRIDGE

CID CANAL MODIFICATIONS

RAISE RAILROAD TRACKS

EMBANKMENT

CONTRACTOR STAGING AND UTILITY UPGRADES

CONTRACTOR STAGING - USACE PROPERTY

BOAT LAUNCH PARKING

CORPS PROPERTY LINE (CITY OF RICHLAND GIS)

TRAIL

AREA A

CONTAINED ON PARCELS 1-1698-400-0003-001, 1-1698-402-0003-002 & 1-1698-400-0002-004 (ALL OWNED BY CITY OF RICHLAND)

AREA B

PARCEL 1-1698-100-0003-000 (OWNED BY ARMY CORPS OF ENGINEERS)

AREA C

PARCEL 1-1598-200-0006-000 (OWNED BY ARMY CORPS OF ENGINEERS)

MARK	REVISION	DESCRIPTION	BY	APP.	DATE

BergerABAM

33301 9th Avenue South, Suite 300
Federal Way, Washington 98003-2600
(206) 431-2300 Fax: (206) 431-2250

Richland

DRAWN BY LWC

DESIGN BY NAS

CHECK BY NAS

PROJ MGR CWS

Figure 6: Project Configuration

This page intentionally left blank for printing purposes.

2.4 What are the other alternatives considered but rejected?

Alternative 1: I-182/Aaron Drive

Alternative 1, I-182/Aaron Drive, would have involved expansion of the I-182 Interstate. Alternative 1 has the alignment remaining unchanged from existing conditions. Alternative 1 is anticipated to improve mobility around the existing facilities and provide access to the recently developed areas around Queensgate. This alternative would not reduce local trips on SR 240 and I-182 or reduce emergency response as no new river crossing would be created.

Alternative 3: Bridge at Swift Boulevard

Alternative 3, the Swift Boulevard corridor, would have constructed a bridge over the Yakima River at Swift Boulevard. This Alternative would have substantial environmental impacts to the Yakima River, wetlands, and wildlife. Furthermore, the Swift corridor provides direct access to the City View commercial area, but no new access to the downtown area or the south Richland residential area. The Swift Boulevard corridor would provide little congestion improvement.

Alternative 4: Bridge at Goethals Drive

Alternative 4, the Goethals corridor would also have substantial environmental impacts to the Yakima River, wetlands, and wildlife. The Goethals corridor serves the residential area well by extending the Goethals Drive to Keene Road, but this alternative does not provide a direct connection to the City View area outside Central Richland. Furthermore, the Goethals corridor provided little congestion improvement.

Refer to Figure 7 for approximate locations of these alternatives.

This page intentionally left blank for printing purposes.

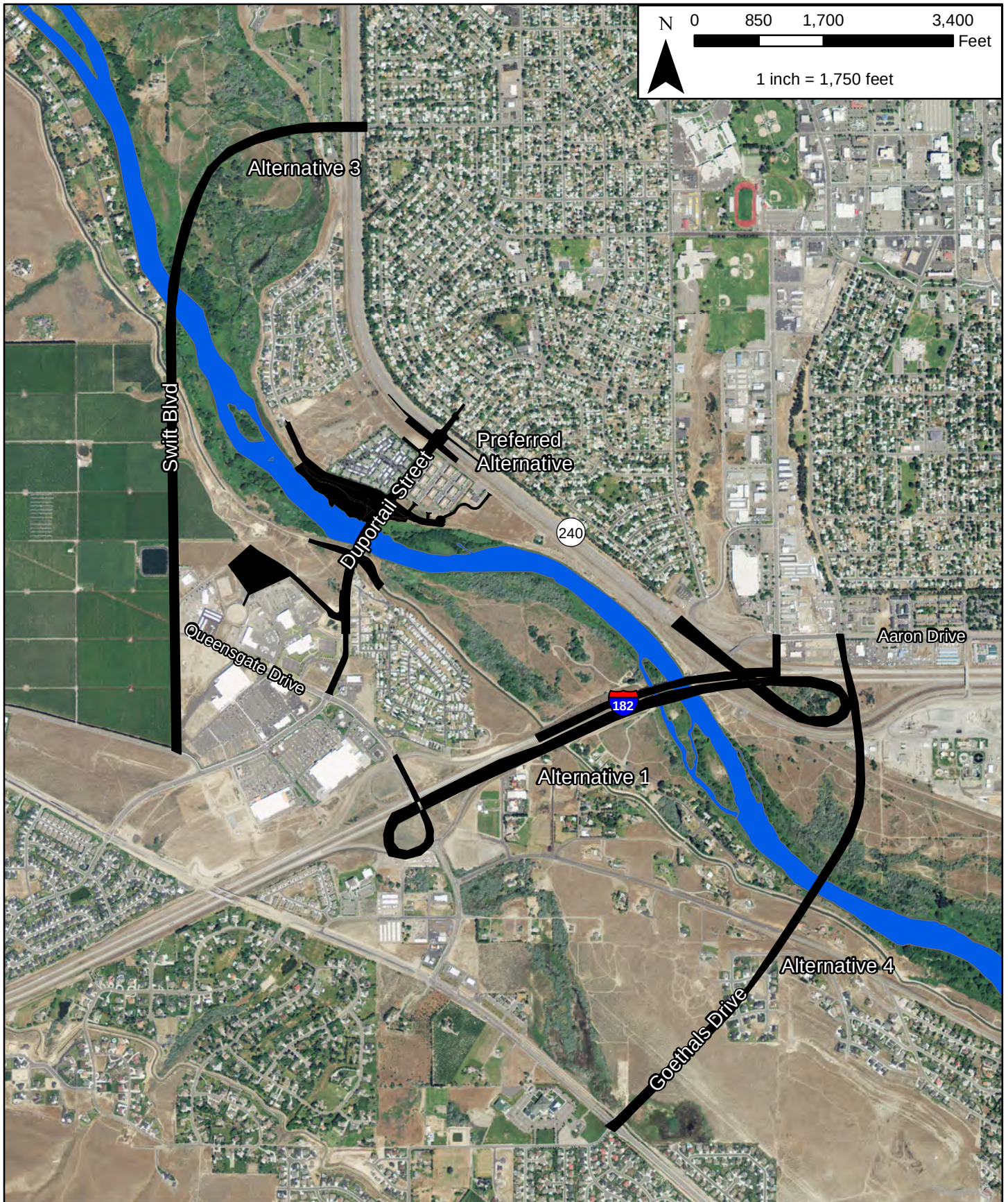


Figure 7: Project Alternatives
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

3 Affected Environment

3.1 Land Use

3.1.1 What does land use mean and why is it important?

Land use within a community indicates where people live, work, shop, and participate in community activities. Local governments plan for land uses according to the community's long-range vision and goals.

3.1.2 How were land use and potential effects in the study area identified?

Land use in the study area is regulated through regional and local land use and transportation plans. Local plans are implemented through development regulations. The project's consistency with regional and City of Richland land use and transportation plans was determined by assessing whether these changes support the planned growth and meet the needs of the community.

3.1.3 What existing land uses are in the project study area?

The land use study area is roughly bounded by Queensgate Avenue to the west, I-182 to the south, Cottonwood Drive to the east, and Swift Boulevard to the north. The study area is entirely within the city limits of Richland, and therefore City of Richland comprehensive land use and zoning regulations apply (City of Richland 2008). See Figure 2.

The City of Richland Comprehensive Plan includes a transportation element that identifies projects needed to address projected traffic volumes. Projects are chosen which support the goals and policies in the comprehensive plan. Land use designations and transportation elements are also coordinated to meet the City's goals. The Duportail Street Bridge project is included within the 2006-2025 transportation program. The inclusion of the Duportail Bridge project in the Comprehensive Plan also allowed for previous public involvement. During the creation of the plan, open houses were conducted for the public to comment on the plan before approval. A SEPA Environmental Impact Statement was also prepared and released to the public for comment.

The primary land use designations in the immediate area of the project are agriculture/high density residential (10.1+ dwellings/acre)/public facility/ and commercial. Other land uses in the study area include, but are not limited to: medium density residential/low density residential/ and urban reserve. Refer to Figure 8 for locations of land use designations within the study area.

Current zoning in the study area consists of single family residential, multiple family residential, limited business, natural open space, agriculture, business/commerce and public parks and facilities. Refer to Figure 9 for locations of zoning designations within the study area.

The south side of the Yakima River is dominated by large box stores and strip malls. A mobile home park and the City of Richland offices are also located here. Development on the north side of the river is dominated by multi-family residential use. Single-family residences are located north of the project area. The majority of the development in the project area was completed since 2004. Development that occurred prior to this year includes the City of Richland offices as well as the Riverpointe Apartments and the adjacent church.

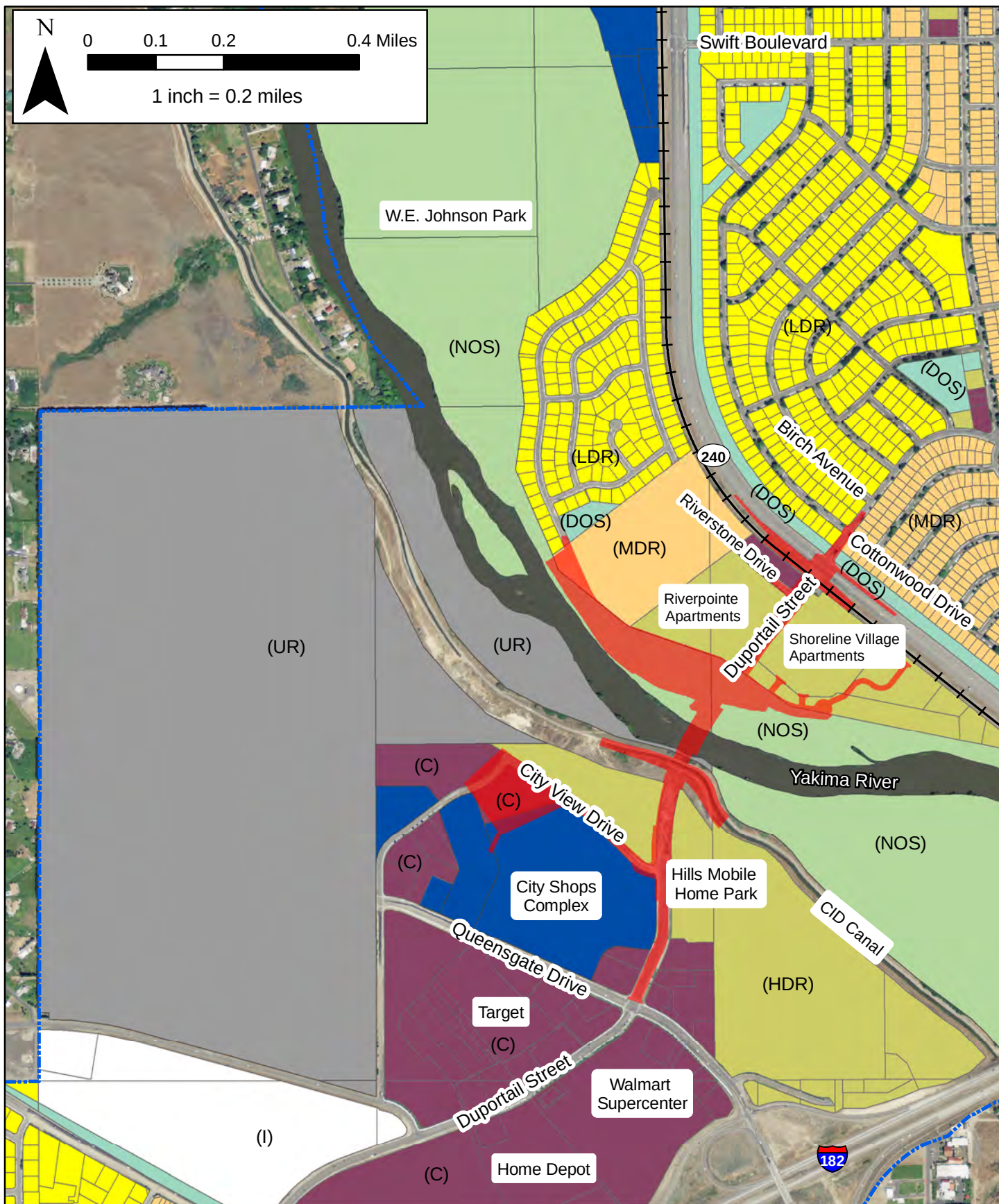


Figure 8: Comprehensive Plan Land Use Designations

Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

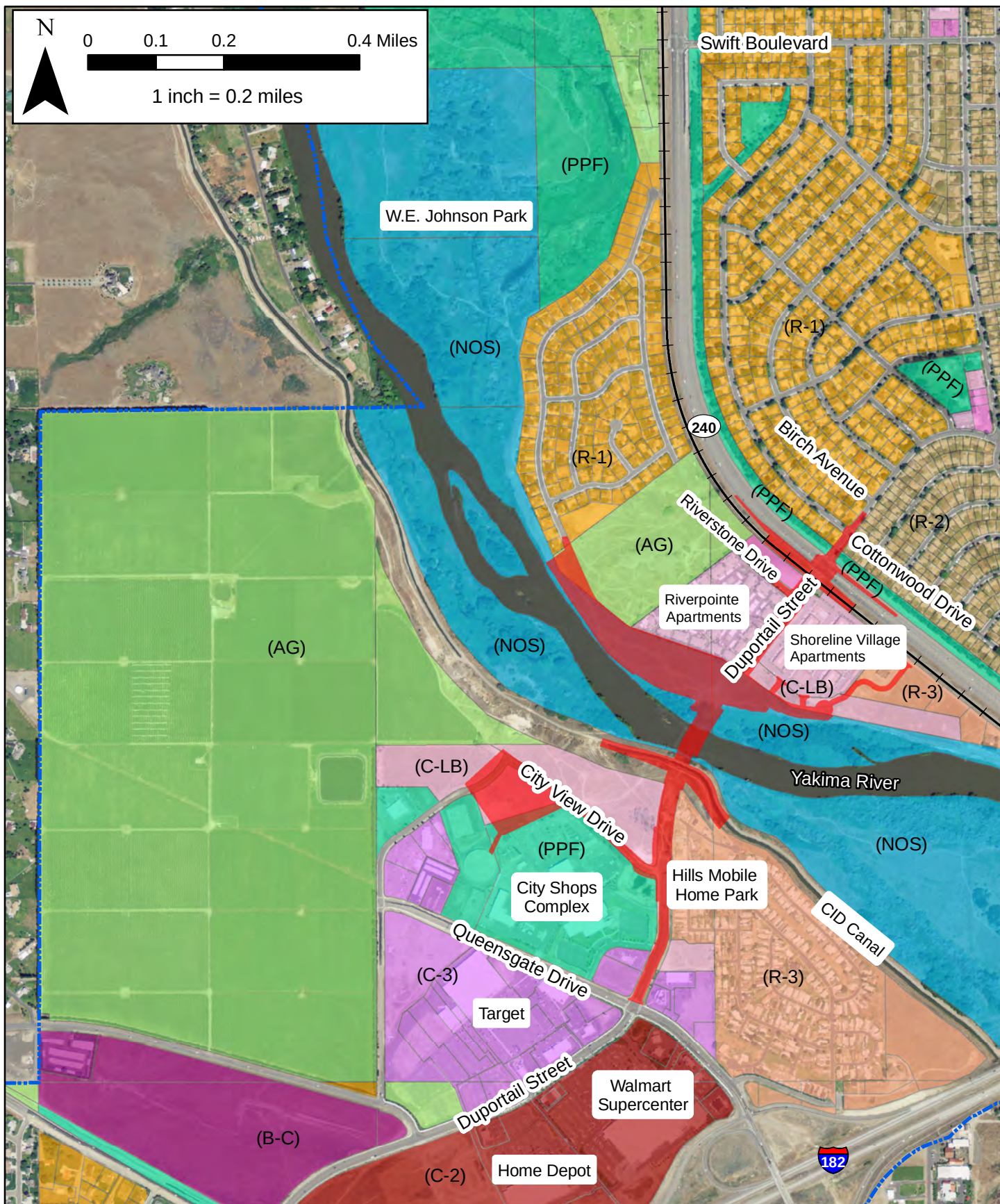


Figure 9: Zoning Designations

Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

3.2 Section 4(f) and 6(f) Lands

3.2.1 Does Section 6(f) of the Land and Water Conservation Fund Act Apply?

Section 6(f) of the Land and Water Conservation Fund Act prohibits the conversion of property acquired or developed with grants provided by this act to a non-recreational purpose without the approval of the Department of Interior's National Park Service (NPS). Therefore, where a Section 6(f) land conversion is proposed for a highway project, replacement land is necessary and the NPS's position on the land transfer must be documented. There are no 6(f) properties in the project area.

3.2.2 What is Section 4(f)?

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project:

... requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- There is no prudent and feasible alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the United States Department of the Interior and, as appropriate, the United States Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

3.2.3 What Section 4(f) resources are located within the project area?

The United States Army Corps of Engineers (USACE) property is managed as Intensive Wildlife Management (USACE 1995). This property is located on the northeast bank of the Yakima River. According to the USACE's McNary Master Plan, “intensive wildlife management lands are defined as lands that are set aside for wildlife management because of their inherent value as wildlife habitat, or because of their potential for specific management practices of an intensive nature that have been or will be

implemented to improve and/or maintain habitat beneficial to desirable forms of wildlife (both game and nongame).” The designation as wildlife management qualifies the property for Section 4(f) protection as a publicly-owned wildlife refuge.

The WDFW boat launch and parking area also qualify for Section 4(f) protection as a publicly-owned recreation area. The parking lot is located at the current terminus of Duportail Street on the northeastern bank. The boat launch and parking lot are on the USACE property and have been leased by the WDFW.

The CID Canal was evaluated as an historic property when the City of Richland proposed the replacement of a short length in West Richland as part of a bridge replacement project (Boreson 1993a). Based on this cultural resources assessment, FHWA determined that the CID is eligible for the National Register of Historic Places (NRHP) and the State Historic Preservation Officer (SHPO) concurred (Boreson 1993b). The eligibility of the canal for the NRHP qualifies the canal for Section 4(f) protection as an historic site. This canal passes through the project area parallel to the Yakima River on the southern bank.

The City of Richland maintains the By-Pass Shelterbelt Park, which contains a paved trail, benches, water fountains, and a sound wall. The designation of this park qualifies the property for Section 4(f) protection. The park passes through the project area at the intersection of Duportail Street and SR 240.

3.3 Transportation

3.3.1 How was transportation identified in the project area?

The study area for the transportation analysis includes the immediate project area and surrounding intersections and ramps in which traffic volumes increase by 10 or more percent with the construction of the Duportail Bridge. These included Duportail Street/Cottonwood Drive intersection, SR 240/Duportail Street intersection, Duportail Street/Riverstone Drive intersection, and the Duportail Street/Queensgate Drive intersection as well as the interchange ramps from eastbound I-182 to northbound SR 240 and from southbound SR 240 to westbound I-182 (FHWA 2011).

3.3.2 How was the analysis completed?

The transportation discipline team analyzed the Duportail Street areas on either side of the Yakima River and related transportation systems under future conditions in order to identify potential effects on the transportation system and to assess transportation performance. Refer to the Transportation discipline report in Appendix A for traffic modeling information.

Signalized intersection level of service (LOS) is a method of measuring traffic congestion. It is defined in terms of the average total vehicle delay of all movements through an intersection and quantifies driver discomfort, frustration, and lost travel time. Table 1 shows LOS criteria for signalized intersections, as described in the *Highway Capacity Manual* (Transportation Research Board, Special Report 209, 2000).

Table 1: Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (sec/veh)	General Description (Signalized Intersections)
A	≤10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

The intersection LOS standard adopted by the City of Richland, Benton-Franklin Regional Council, and the Washington State Department of Transportation (WSDOT) is LOS D.

3.3.3 What are the current traffic conditions?

The City of Richland is bounded by the Columbia River to the east, SR 240 to the west, Hanford Site to the north, and I-182 to the south. These features limit the access to and from the central part of Richland. Currently the south end of the City of Richland contains two choke points through which 75,000 vehicles per day pass. The first choke point is located at Aaron Drive, a feeder street to I-182. The second is located at George Washington Way, a feeder street to Aaron Drive (Figure 2). These choke points affect vehicles travelling between the city center and the Queensgate neighborhood on the southwest side of the Yakima River.

The four intersections studied in the project area and immediate surroundings as well as the two interchange ramps currently meet both State and City of Richland LOS standards.

The northern segment of Duportail Street has three housing developments. The Shoreline Village Apartments are located east of Duportail Street. The Riverpointe Apartments are located adjacent to Duportail Street to the west and are currently accessed via Riverstone Drive and Coulee Drive. An additional tract of single-family homes is located north of these apartments and does not have direct access to SR 240. This housing tract now uses Riverstone Drive to access Duportail Street, near the intersection with SR 240.

The southern segment of Duportail Street is lined with vacant land on the west side of the street. The eastern side of the street is the Hills Mobile Home Park, which has access to Duportail Street at its intersection with City View Drive.

3.3.4 What are the current traffic safety concerns?

Currently emergency response times to the south side of the river are lengthy. It is 4.5 miles to the City View Drive/Duportail Street intersection from the existing fire station via I-182, the most direct route.

A single-track railroad line crosses Duportail Street approximately 75 feet south of the SR 240 intersection. Traffic will not be stopped between SR240 and the railroad tracks. The traffic signal and railroad crossing control systems will be interconnected in order to eliminate this possibility. Pre-emption devices mounted on the rail will change the traffic signal at SR 240 to clear the traffic from the tracks before the train reaches the crossing.

3.3.5 What facilities are available for pedestrian and bicyclists?

Currently sidewalks exist on Duportail Street at both ends of the project location. Variable width shoulders provide some dedicated space for bicyclists. Extensive walking/running/bicycling paths exist on both banks of the Yakima River; however, bicyclists and pedestrians do not have facilities that meet the current design standards over the three existing Yakima River crossings. These crossings include I-182, SR 224 in the north part of Richland, and SR 240 to the south of the city.

3.3.6 What transit routes operate in the study area?

Ben Franklin Transit currently serves the greater Richland area. Route 25 runs every 30 minutes Monday-Friday and hourly on Saturday along Cottonwood Drive to the north of the proposed bridge. Routes 39 and 110 run hourly along Queensgate Drive south of the study area (Ben Franklin Transit 2012).

3.4 Public Services and Utilities

3.4.1 How were public services and utilities in the project study identified and evaluated?

Public services were identified through various websites and the City of Richland's parcel data. Utilities such as water, solid waste collection, sewer, storm sewer, electric power, natural gas, petroleum, telephone, and telecommunications were identified through coordination with utility providers. Once services and utilities were located within the project area they were mapped and their locations were verified during field visits.

3.4.2 What public services and utilities are located in the project study area?

Public services located within the project area included the Richland Fire Department, Richland Police Department, Benton County Emergency Management, Lewis and Clark Elementary School, Marcus Whitman Elementary School, White Bluffs Elementary School, Carmichael Middle School, Enterprise Middle School, Hanford High School, Richland High School, Tanglewood Park, W.E. Johnson Park, Riverview Preserve, and Richland Parks & Facilities. Utilities included electricity, natural gas, telephone service, cable, water, sewer, garbage, and the CID (FHWA and WSDOT 2011f).

Emergency response times in the area are long due to the limited crossings over the Yakima River. It is 4.5 miles to the City View Drive and Duportail intersection from the existing fire station via I-182, the most direct route. Access to the Richland parks are limited by the deficiencies and locations of the bike and pedestrian facilities on the existing river crossings. The existing overhead power lines are vulnerable to damage

from weather events. The existing waterline located within the Yakima River is likely to fail as the pipe is over 50 years old and must be continually protected from scour.

3.5 Surface Water, Water Quality, and Hydrology

3.5.1 What are water resources?

Surface water is water that is collected and stored in natural occurring bodies of water, such as lakes, streams, rivers, wetlands, or oceans. The term surface water also includes manmade storage systems, such as detention ponds.

3.5.2 How were water resources evaluated for the project?

Surface water resources in the project area were identified by collecting and reviewing maps and government reports. The surface water discipline team acquired background information for the project through coordination with City of Richland engineers, geographic information system (GIS) mapping provided by the City of Richland, as-built drawings, and a survey that was conducted for the project. The National Wetlands Inventory (NWI) was referenced for possible wetlands in the project area (USFWS 2009).

3.5.3 Are wetlands present in the project study area?

The NWI shows a palustrine forested seasonally flooded wetland along the north bank of Yakima River in the project area. A site investigation was conducted by Christina Neff of Widener and Associates on September 28, 2010 in order to determine if any wetlands above the ordinary high water mark were present. No wetlands were identified within the project area. A test pit was dug within the riparian area dominated by woods' rose (*Rosa woodzi*). No indicators of hydric soil were present, and no soil saturation or standing water were found within 14 inches of the surface. See the wetland determination form and study area map in Appendix A.

3.5.4 What water resources are present in the project study area?

The Yakima River is the main source of hydrology for the project area with a drainage area of approximately 6,150 square miles (YSPB 2004). The Yakima River flows in a southeast direction through the project area outletting into the Columbia River approximately 5.3 miles to the southeast.

The CID canal is also located within the project area on the south side of the Yakima River. A diversion dam 13 miles upstream directs water from the Yakima River into the canal.

3.5.5 What are the groundwater conditions in the area?

No wells or wellhead protection zones are within the project area. No groundwater was encountered during geotechnical test pits conducted in June 2008. The test pit depths varied from just over 5 to 12 feet below ground surface (bgs). The local well reports from the DOE Well Log Images were reviewed. This well data indicates that the groundwater table varies from approximately 35 bgs to more than 100 feet bgs. On the northeast side of the Yakima River, the closest well data indicates that the regional

groundwater table largely coincides with Yakima River water levels (Shannon and Wilson 2010).

3.5.6 What stormwater facilities are in the area?

North Side of the River

South of SR 240 along Duportail Street, stormwater is collected at the curb line in grated inlets. From the grate inlets, the stormwater is piped to swales located on the west side of Duportail Street for infiltration and evaporation. Water from the area south of Cottonwood Drive sheet flows south across SR 240 where it is infiltrated on the south side of SR 240. From Birch Avenue to Cottonwood Drive, stormwater is collected at Cottonwood Drive in two dry wells with no outlets.

Stormwater flows overland to the Yakima River from south of the existing cul-de-sac on Duportail Street. A portion of this runoff is able to infiltrate due to moderate slopes.

South Side of the River

Along the portion of Duportail Street between Queensgate and the cul-de-sac near City View Drive, the stormwater is collected at the curb in grated inlets located on both sides of the roadway. Stormwater south of City View Drive is conveyed to an infiltration pond on the southwest corner of the City View Drive/Duportail Street intersection. An emergency overflow from the pond connects to the grated inlets at City View Drive. Stormwater from the intersection of Duportail Street/City View Drive along with the stormwater north of City View Drive is collected and connected to an underground pipe system that daylights approximately 500 feet northwest of the intersection of City View Drive/Duportail Street. From the outfall, the stormwater flows downhill, reaching the Yakima River before infiltration.

North of Duportail Street's intersection with City View Drive stormwater flows overland, eventually reaching the Yakima River. Due to the steep slopes to the north, most of this runoff flows to the river before infiltration.

3.6 Floodplain

3.6.1 What is the floodplain?

Floodplains are areas prone to periodic inundation and are generally associated with streams, rivers, or lakes. FEMA maps substantial floodplains that have at least a 1 percent probability of flooding in a given year, defined as the Base Flood Elevation (BFE). The BFE is the elevation to which floodwaters are anticipated to rise during this flood event and define the limits of Zone A on Flood Insurance Rate Maps (FIRMs). These FIRMs are used to indicate FEMA-delineated floodplains (Zone A) and floodways. A FEMA floodway is the channel of the river and adjacent land area that must be reserved in order to discharge the flood event without increasing the BFE. The Yakima River floodplain has been mapped by FEMA.

3.6.2 How is the floodplain regulated?

The Washington Administrative Code (WAC) 220-110-070(1)(h) indicates that abutments, piers, piling, sills, approach fills, etc. associated with new structures should not cause a backwater rise exceeding 0.2 feet in the floodplain. FEMA regulations require that the bridge should cause no rise within the regulatory floodway. The City of Richland will not have a more stringent regulation; therefore, it is assumed that new development will not cause a measurable rise in BFE.

3.6.3 How was the floodplain evaluated for the project?

A *Bridge Hydraulics and Scour Assessment* (WEST Consultants, Inc. 2009) written for the project was used as well as regulations, and maps from the City of Richland to identify the existing and potential future floodplain effects within the study area. A backwater analysis was done to determine how the project would displace water during the 100-year flood event.

3.7 Noise

3.7.1 What is noise?

Noise is defined as unwanted sound (Maekawa and Lord. 1994; Bell et al. 1996; Berglund et al. 1996). Noise is recognized as having both a physical and a psychological component. The physical component is set, while the psychological component (the degree of annoyance) depends on the listener as well as the frequency and time of the varying pattern of the sound. Low frequency (particularly man-made) and impulse sounds are thought to result in higher levels of annoyance (Hall et al. 1981; Maekawa and Lord 1994; Bell et al. 1996; Berglund et al. 1996). Impulse sounds are sharp sounds that last for short periods such as whistles or horns.

When measuring noise, the decibel (dB) scale is used to describe and quantify the noise levels experienced by a receiver. The threshold of human hearing is at 0 dB. Generally, a 3 dB increase is barely perceptible to human listeners. A 6 dB increase corresponds to a doubling of the sound; however, a 10 dB increase is necessary for the sound to be perceived as being twice as loud (FHWA 1995; Maekawa and Lord 1994; Boeker and Van Grondelle 1995). Refer to Table 2 for examples of typical sound sources and typical decibel levels.

Table 2: Common Noise Sources and Corresponding Decibel Measurements

Source	Decibels	Description
Large rocket engine (nearby)	180	Pain threshold
Jet take-off (nearby)	150	
Pneumatic riveter	130	
Jet take-off (60 meters)	120	
Construction noise (3 meters)	110	
Subway train	100	
Heavy truck (15 meters) and Niagara Falls	90 80	Constant exposure endangers hearing
Average factory	70	
Normal conversation (1 meter)	60	
Quiet office	50	
Quiet Library	40	
Soft whisper (5 meters)	30	
Rustling leaves	20	Very quiet Barely audible
Normal breathing	10	
Hearing threshold	0	

Source: Tipler 1976

3.7.2 How were noise levels evaluated for the project?

Sound levels for the ‘Existing 2009’, ‘No Build 2032’ and ‘Build 2032’ conditions were compared with the FHWA / WSDOT standards and criteria. Sound levels were derived from the FHWA approved noise model, TNM 2.5. Calculations generated by the model were verified using field measurements in accordance with FHWA and WSDOT requirements.

Sound levels were recorded at three sites along the project corridor. Refer to Figure 10 and the data sheets provided in the Noise Report in Appendix A. Traffic data was also collected in the field to validate the model (Widener and Associates 2010). It was determined that the noise model was functioning properly, in accordance with WSDOT requirements.

Noise regulations and guidelines for federally funded highway projects in Washington are established by the WSDOT and the FHWA. These regulations require that projects evaluate the noise impacts to receivers including residential properties. The noise level at which abatement is required varies depending on the property use. The project proponent is required to consider mitigation options when the proposed project meets or exceeds FHWA /WSDOT standards and criteria in the future build condition. See Table 3.

Table 3: FHWA Noise Abatement Criteria

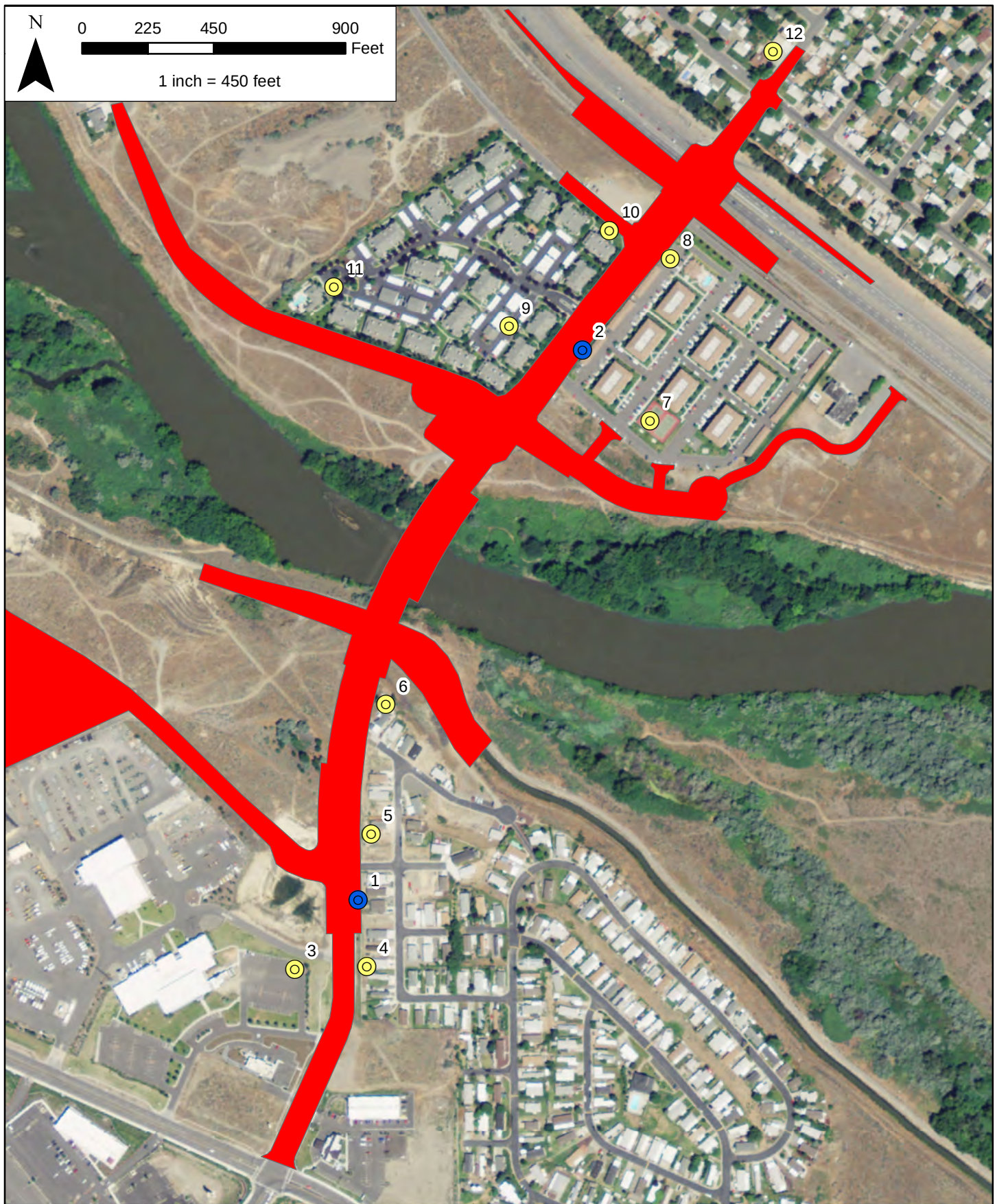
Activity Category	L_{eq}(1h) dB(A)	Description of Activity Category
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	-	Undeveloped lands.
E	52 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: 23 C.F.R. Part 772

3.7.3 What are the current noise levels in the project study area?

Existing sound levels at the Riverpointe and Shoreline Village Apartments on the north side of the river are influenced by the proximity to SR 240. The sound levels were modeled ranging from 50-65 dB(A). Sound levels in the Hills Mobile Home Park are lower as the only noise source is the existing section of Duportail Street, which is used by local traffic. The current levels were modeled between 45-59 dB(A).

This page intentionally left blank for printing purposes.



 Project Area

Receivers

 Receiver

 Validation Point

Figure 10: Receiver Locations

Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

3.8 Visual Quality

3.8.1 What is visual quality?

Visual quality is inherently subjective; therefore, objective descriptions are used to quantify the visual assessment. In general, people see the world through their own eyes and what is “seen” is influenced to a large degree by personal values, expectations, and interests. Three criteria used to perform an evaluative appraisal of the landscape visual quality are: vividness, intactness, and unity. Expert evaluations based on the three criteria have proven to be good predictors of the visual quality using the following sample equation:

$$\text{Visual Quality} = \frac{\text{Vividness (of Land, Vegetation, Water, Ephemeral, and Human)} + \text{Intactness} + \text{Unity}}{3}$$

Each of the three criteria is independent; each is intended to evaluate one aspect of visual quality.

Definitions of these terms are:

Vividness: The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern.

Intactness: The integrity of visual order in the natural and man-built landscape, and the extent to which the landscape is free from visual encroachment.

Unity: The degree to which the visual resources of the landscape join to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or compatibility between landscape elements.

The visual quality was documented based on the methodology in the *Visual Impact Assessment for Highway Projects* (FHWA 1988).

3.8.2 How were visual resources in the project study area identified and evaluated?

Within each landscape unit, views were continuously analyzed and rated for vividness, intactness, and unity of landform, vegetation, water, short-lived, and human built elements (FHWA and WSDOT 2011e).

Visual effects were analyzed from two viewpoints: the view from the road and the view toward the road. The analysis describes both the character of the visual experience along Duportail Street as well as the effect of the project upon the viewer. The analysis complies with the guidelines outlined in the Washington State Department of Transportation (WSDOT) *Environmental Procedures Manual*, Section 459, “Visual Impacts, Light, and Glare” (WSDOT 2010).

The existing conditions were analyzed by visiting the project vicinity and the surrounding area multiple times. During these site visits, potential viewers and viewsheds were documented for the existing conditions. Visual resources at selected viewpoints were also documented and photographed during the site analysis. In subsequent site visits, additional background materials such as maps, aerial photographs, and City of Richland planning and policy documents were reviewed. Comments from the public meeting gathered during the scoping phase were reviewed, with consideration given to community concerns regarding key views and concerns regarding light, shadow, and glare.

3.8.3 What is the existing visual quality of the area and who are the primary viewers?

Six individual viewpoints were used to assess visual quality within the study area. A small number of residences have views of the Yakima River but this is limited by the terrain and existing development. Views to the north from the bridge location are also broken by existing power lines, lowering their visual quality. Streetlights have been installed on the existing portions of Duportail Street which creates glare and uplighting in surrounding areas.

Primary viewers to the area include motorists, cyclists, pedestrians, and residents (FHWA and WSDOT 2011e). One of the largest viewer groups of the proposed project will be motorists along Duportail Street. Duportail Street is anticipated to be used as mainly a commuter route, and frequent viewers will include local residents, commuters, and recreational users.

Residents in the study area are the most likely to be affected by the proposed project. Topography, fences, and landscape buffers separate most residents abutting Duportail Street from the right-of-way (ROW). Many of the residents in the apartment complexes immediately abutting the Duportail corridor are oriented away from the roadway. However, some residents in the Hills Mobile Home Park, Shoreline Village Apartments and Riverpointe Apartments may have moderate to high sensitivity to changes to the viewshed, given the proximity and location of the proposed bridge. Residents in the area are likely accustomed to relatively small amounts of residential traffic and the sight of the Yakima River and riverbanks. See Photo 1 for a view of the river from the proposed bridge location.

Photo 1: Existing condition, facing northwest (upriver)



3.9 Cultural Resources

3.9.1 What are historical or cultural resources?

Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. As part of the Section 106 process, FHWA and WSDOT work with consulting parties including the SHPO (ie. DAHP) and Native American Tribes.

Historic properties are listed in or eligible for listing in the NRHP and may be buildings or other structures, objects, districts, archaeological sites, or traditional cultural properties. Section 106 also applies to historic properties that have not yet been listed or formally determined to be eligible for listing on the NRHP, including eligible properties that have not yet been discovered or evaluated.

Based on existing archaeological data for this area, the types of unrecorded pre-contact cultural resources that might be present in the general area could include the remains of habitation or burial sites, stone artifacts, trails, or similar features. These could represent a range of domestic, subsistence, and ceremonial activities. Historic-period cultural resources would likely be related to domestic or agricultural activities.

The Yakama Nation, the Wanapum Tribe, as well as the Confederated Tribes of the Umatilla include the project limits as part of their Usual and Accustomed area. The Yakama did not express a special interest in the project when contacted for the purposes

of cultural resource protection. The Umatilla and Wanapum Tribes did express an interest in cultural resources and both received copies of the cultural resource assessment.

3.9.2 How were historical and cultural resources evaluated for the project study area?

Cultural Resources Consultants, Inc. (CRC) conducted a cultural resources assessment to identify any cultural resources within the defined area of potential effect (APE). Assessment consisted of review of project plans, related reports, and other information in order to estimate the potential for as yet unidentified archaeological deposits. The Department of Archaeology and Historic Preservation's WISAARD database was searched for listings within the project vicinity.

Field investigations were conducted by Jake Shapley and James Schumacher, CRC archaeologists, in the summer of 2009. Field investigations included pedestrian survey, examination of available soil exposures, and excavation of shovel probes. Pedestrian survey transect spacing varied across the project area, with an average of 5-10 meters, and covered uninundated and accessible areas (Shapley and Schumacher 2009).

3.9.3 What historic or cultural resources are located within the project study area?

Two previously recorded cultural resource sites are present within or near to the project APE. One was an archaeological lithic isolate (Steinmetz 1998), located southwest of the APE's potential trail reconstruction region. The other was a portion of a CID irrigation canal built in 1893, which was recommended eligible for the NRHP by FHWA in 1993.

The archaeological lithic isolate was recorded during 1998 survey of the McNary Reservoir conducted by the Cultural Resource Protection Program of the Confederated Tribes of the Umatilla Indian Reservation (Dickson 1999; Steinmetz 1998). The lithic artifacts were recorded as an isolated find, since the project defined an archaeological site as consisting of a minimum of ten artifacts within 30 meters of each other (Dickson 1999; Shapley and Schumacher 2009). This isolate is not eligible for listing on the NHRP.

The historic CID Canal was recorded when replacement of a short length of the canal in West Richland was proposed as part of a bridge replacement project (Boreson 1993a). The canal was determined eligible for the NRHP by the SHPO. A portion of the canal has been replaced with modern metal trough to link to unconnected ditch segments. A concrete footing for this trough had a date of December 23, 1985 ("12/23/85") incised in regular block numerals into its top; presumably this is the date of its installation.

One previously unidentified pre-contact lithic isolate was recorded within the APE as a result of this assessment. This isolate is not eligible for listing on the NRHP.

3.10 Vegetation, Wildlife, Fish, and Aquatic Resources

3.10.1 How were vegetation, wildlife, fish, and aquatic resources identified in the project study area?

In an effort to identify wildlife species of special status, aquatic resources and vegetation, pertinent literature was reviewed. This included:

- Aerial photographs.
- Topographic maps.
- National Oceanic and Atmospheric Administration-Fisheries Department (NOAA Fisheries) species list (NOAA 2009).
- United States Fish and Wildlife Service (USFWS) species list (USFWS 2010a).
- Washington State Department of Natural Resources (DNR) Natural Heritage Information System species list (DNR 2009a).
- WDFW Species of concern in Washington State (WDFW 2009b).
- Washington Gap Analysis (WDFW 1997).
- WDFW's Priority Habitat and Species list and map (WDFW 2008 and 2009a).
- Washington Natural Heritage Program's self-service list and GIS datasets (DNR 2009b and c).

Biologists conducted field reviews to evaluate the potential impacts of the project. The purpose of these site visits was to assess aquatic and terrestrial habitat features in the area.

3.10.2 What vegetation, wildlife, fish, and aquatic resources were found in the project study area?

Species listed under the Endangered Species Act of 1973 (ESA) which are known to occur in the project area include the Columbia River distinct population segment (DPS) of Bull trout (*Salvelinus confluentus*) and the Middle Columbia River DPS of Steelhead trout (*Oncorhynchus mykiss*) (NOAA 2002). Both Bull trout and Steelhead trout are known to migrate through the project area.

Critical habitat for both the Columbia River DPS of Bull trout (USFWS 2010b) and the Middle Columbia River DPS of Steelhead trout (NOAA 2005) has been designated in the project area.

Essential fish habitat (EFH), as defined under the Magnuson-Stevens Fishery Conservation and Management Act (NOAA 1996), has been designated within the project area. The Pacific salmon management unit within the Lower Yakima River includes Chinook (*Oncorhynchus tshawytscha*) and Coho salmon (*Oncorhynchus kisutch*).

Additional species of special status potentially present within the project area include those listed in the following tables. Priority Species are fish and wildlife species requiring protective measures and/or management actions to ensure their survival.

Priority Species Criterion shown in the tables below include:

- 1) State-Listed and Candidate Species.
- 2) Vulnerable Aggregations.
- 3) Species of Recreational, Commercial, and/or Tribal Importance.

Table 4: Aquatic Species potentially present within the project study area

Common Name	Scientific Name	Federal Status	State Status	Priority Species Criteria
Bull trout Columbia River DPS	<i>Salvelinus confluentus</i>	Threatened	Candidate	1, 2, 3
California floater	<i>Anodonta californienis</i>	Species of Concern	Candidate	1
Giant Columbia spire snail (pebble snail)	<i>Fluminicola columbiana</i>	Species of Concern	Candidate	1
Leopard dace	<i>Rhinichthys falcatus</i>	None	Candidate	1
Margined sculpin	<i>Cottus marginatus</i>	Species of Concern	Sensitive	1
Mountain sucker	<i>Catostomus platyrhynchus</i>	None	Candidate	1
Pacific lamprey	<i>Lampetra tridentata</i>	Species of Concern	None	3
Redband trout	<i>Oncorhynchus mykiss gairdnerii</i>	Species of Concern	None	3
River lamprey	<i>Lampetra ayresi</i>	Species of Concern	Candidate	1
Steelhead trout Middle Columbia DPS	<i>Oncorhynchus mykiss</i>	Threatened	Candidate	1
Umatilla dace	<i>Rhinichthys umatilla</i>	None	Candidate	1
Western brook lamprey	<i>Lampetra richardsoni</i>	Species of Concern	None	-
White sturgeon	<i>Acipenser transmontanus</i>	None	None	2, 3

Table 5: Terrestrial Species potentially present within the project study area

Common Name	Scientific Name	Federal Status	State Status	Priority Species Criteria
American white pelican	<i>Pelecanus erythrorhynchos</i>	None	Endangered	1, 2
Bald eagle	<i>Haliaeetus leucocephalus</i>	Species of Concern	Sensitive	1
Black-crowned night-heron	<i>Nycticorax nycticorax</i>	None	None	2
Black-tailed jackrabbit	<i>Lepus californicus</i>	None	Candidate	1
Burrowing owl	<i>Athene cunicularia</i>	Species of Concern	Candidate	1
Cavity nesting ducks: Wood duck, Barrow's goldeneye, Common goldeneye, Bufflehead, and Hooded merganser	<i>Aix sponsa</i> , <i>Bucephala islandica</i> , <i>Bucephala clangula</i> , <i>Bucephala albeola</i> , and <i>Lophodytes cucullatus</i>	None	None	3
Columbia clubtail	<i>Gomphus lynnae</i>	Species of Concern	Candidate	1
Chukar	<i>Alectoris chukar</i>	None	Non-native	3
Eastern WA breeding concentrations of Grebes and Cormorants	<i>Podicipedidae</i> , and <i>Phalacrocoracidae</i> ,	None	None	2
Eastern WA breeding Terns	<i>Laridae</i>	None	None	2
Eastern WA breeding occurrences of Phalaropes, Stilts, and Avocets	<i>Scolopacidae</i> <i>Recurvirostridae</i> and <i>Recurvirostridae</i>	None	None	2
Elk	<i>Cervus elaphus</i>	None	None	3
Ferruginous hawk	<i>Buteo regalis</i>	Species of Concern	Threatened	1
Golden eagle	<i>Aquila chrysaetos</i>	None	Candidate	1
Great blue heron	<i>Ardea herodias</i>	None	None	2
Loggerhead shrike	<i>Lanius ludovicianus</i>	Species of Concern	Candidate	1
Long-eared myotis	<i>Myotis evotis</i>	Species of Concern	None	2
Pallid Townsend's big-eared bat	<i>Corynorhinus townsendii pallascens</i>	Species of Concern	Candidate	1
Prairie falcon	<i>Falco mexicanus</i>	None	None	3
Pygmy rabbit Columbia River DPS	<i>Brachylagus idahoensis</i>	Endangered	Endangered	1
Ring-necked pheasant	<i>Phasianus colchicus</i>	None	Non-native	3

Rocky Mountain mule deer	<i>Odocoileus hemionus hemionus</i>	None	None	3
Roosting concentrations of: Big-brown Bat, Myotis bats and Pallid Bat	<i>Eptesicus fuscus</i> , <i>Myotis</i> spp., and <i>Antrozous pallidus</i>	None	None	2
Sage sparrow	<i>Amphispiza belli</i>	None	Candidate	1
Sage thrasher	<i>Oreoscoptes montanus</i>	None	Candidate	1
Sagebrush lizard	<i>Sceloporus graciosus</i>	Species of Concern	Candidate	1
Striped Whipsnake	<i>Masticophis taeniatus</i>	None	Species of Concern	1
Townsend's ground squirrel	<i>Spermophilus townsendii</i>	Species of Concern	Candidate	1
Tundra swan	<i>Cygnus columbianus</i>	None	None	2, 3
Vaux's swift	<i>Chaetura vauxi</i>	None	Candidate	1
Waterfowl concentrations	<i>Anatidae</i>	None	None	2, 3
Western grebe	<i>Aechmophorus occidentalis</i>	None	Candidate	1, 2
Whitetailed jackrabbit	<i>Lepus townsendii</i>	None	Candidate	1, 3

A rare plant survey was performed throughout the areas proposed for vegetation removal. Table 6 lists the plant species potentially present. Within the shrub-steppe areas, biologists walked parallel transects spaced 5 to 10 meters apart. Portions of the riparian area were not surveyed due to the uniformity of the coverage and the unlikelihood of herbaceous vegetation growing below the dense layer of shrubs (FHWA and WSDOT 2011g).

Table 6: Vegetation potentially present within the project study area

Common Name	Scientific Name	Federal Status	State Status	Presence
Common northern sweet grass	<i>Anthoxanthum hirtum</i>	None	Of Potential Concern	Historically Present
Gray cryptantha	<i>Cryptantha leucophaea</i>	Species of Concern	Sensitive	Historically Present
Great Basin gilia	<i>Aliciella leptomeria</i>	None	Threatened	Historically Present
Pauper milk-vetch	<i>Astragalus misellus</i> var. <i>pauper</i>	None	Sensitive	Historically Present
Piper's daisy	<i>Erigeron piperianus</i>	None	Sensitive	Possibly Present

No vegetative species of special status were found within the study area. The proposed project is located within the Big Sagebrush- Bluebunch Wheatgrass (*Artemisia Tridentata-Agropyron spicatum*) zone of the Shrub-Steppe major vegetation area (Franklin and Dyrness 1973). Vegetation within the majority of the project area consists of landscaped vegetation; however, areas of both shrub-steppe and forested riparian vegetation occur within the undeveloped portion of the project. These undeveloped areas are not currently bisected by a road but are disturbed by the existing boat launch and utilities as well as the adjacent urban development. See Figure 11 and Table 7 for vegetation found within the study area. Refer to Photos 2 and 3 as well as the Aquatic Resources, Wildlife, and Vegetation Discipline Report in Appendix A for photos of habitats.

Table 7: Vegetation found within the Study Area

Common Name	Scientific Name	Native Status
<u>Shrub-steppe Vegetation</u>		
Big sagebrush	<i>Artemisia tridentata</i>	Native
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	Native
Common yarrow	<i>Achillea millefolium</i>	Native
Redstem filaree	<i>Erodium cicutarium</i>	Introduced
Munro's globemallow	<i>Sphaeralcea munroana</i>	Native
Foxtail barley	<i>Hordeum jubatum</i>	Native
<u>Riparian Corridor Vegetation</u>		
Silver maple	<i>Acer saccharinum</i>	Introduced
Black locust	<i>Robinia pseudoacacia</i>	Introduced
Silverberry	<i>Elaeagnus commutata</i>	Introduced
Woods' rose	<i>Rosa woodsii</i>	Native
Hedge false bindweed	<i>Calystegia sepium</i>	Native
Spotted ladythumb	<i>Polygonum persicaria</i>	Introduced
Reed canarygrass	<i>Phalaris arundinacea</i>	Introduced

Photo 2: View from the south side of the Yakima River looking northeast at the existing northeastern portion of Duportail Street



Photo 3: View from the northeast side of the Yakima River looking south toward the existing southern portion of Duportail Street



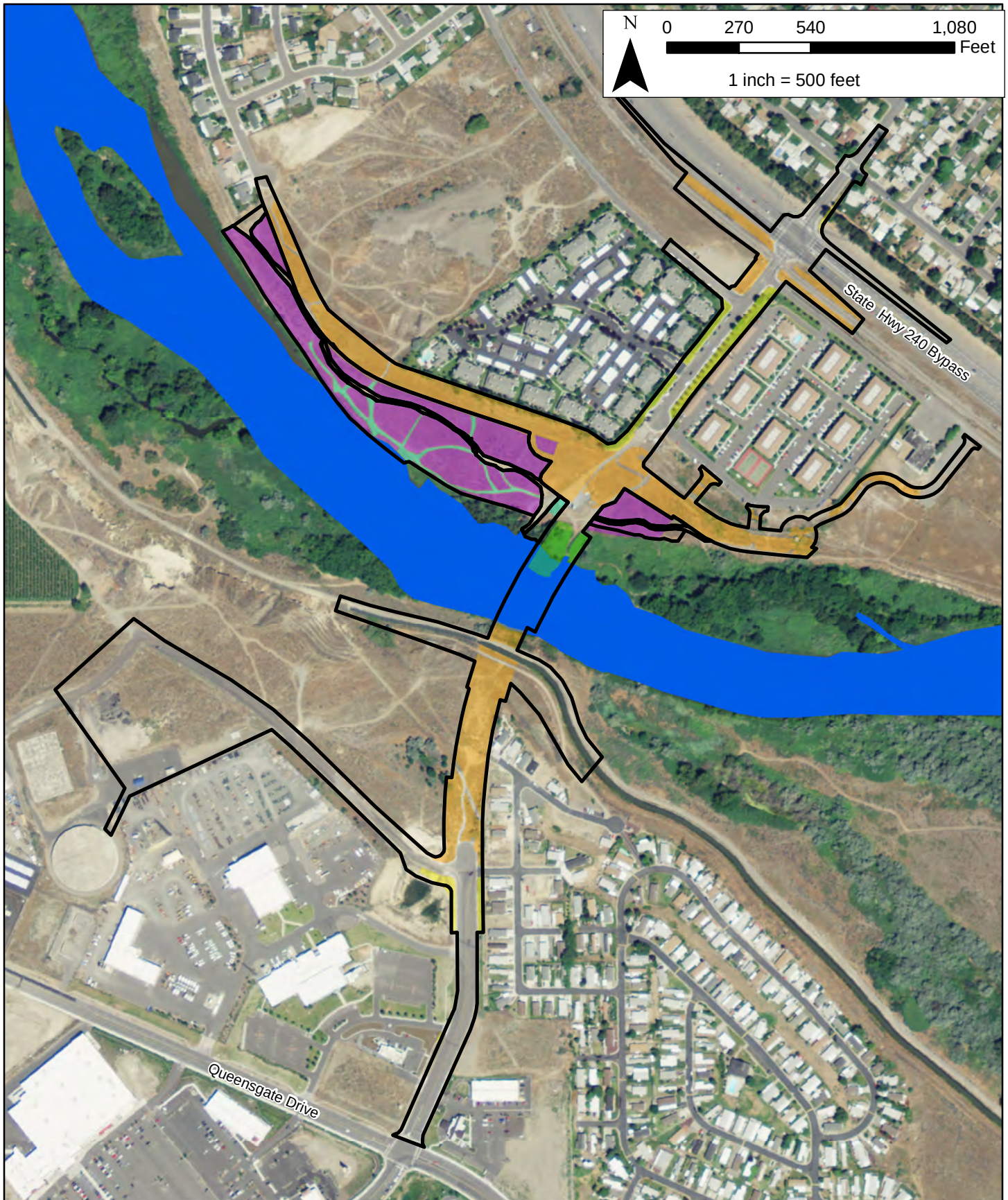


Figure 11: Vegetation to be Removed/Restored

Duportail Street Bridge Project
City of Richland

- | | |
|--|--|
| Yakima River | Project Area |
| Landscape vegetation to be permanently removed | Areas to be restored with steppe-shrub vegetation |
| Steppe-shrub vegetation to be permanently removed | Potential areas of vegetation to be temporarily removed and replanted |
| Riparian vegetation to be permanently removed | |

This page intentionally left blank for printing purposes.

3.11 Geology and Soils

3.11.1 How were geology and soils evaluated for the proposed project?

Data was gathered to understand geology in the project area. Geologic maps, topographical information, and field exploration provided information about the subsurface conditions.

Observations of soil/rock exposures, cut and fill slopes, evidence of slope instability, erosion areas, and vegetation were made. The locations of mapped hazard and critical areas, or areas with environmental constraints, were identified from City and County regulatory maps (Shannon and Wilson 2010).

3.11.2 What are the characteristics of the geology and soils in the project study area?

The terrain of the Columbia Plateau is almost uniformly arid. It contains coulees, scablands, and other phenomena characteristic of a rush of glacial waters across the land surface with isolated basalt features.

In the Pasco Basin including the Richland area, sediment deposits were laid down between about 3.5 and 8.5 million years ago. The tan and red-brown finer-grained materials are comprised of sand, silt, and clay.

Based on regional geologic mapping of the area, the project alignment is immediately underlain by alluvium, silt and sand, and gravel of the outburst flood deposits, as well as a basalt formation (Shannon and Wilson 2010). Refer to Figure 12.

Soils within the project area were identified in the Natural Resources Conservation Service Web Soil Survey (NRCS 2010). The project alignment crosses four soil units: Burbank loamy fine sand on 2 to 15 percent slopes, Finley fine sandy loam on 0 to 2 percent slopes, Pasco silt loam on 0 to 2 percent slopes, and Quincy loamy sand on 0 to 30 percent slopes. Refer to Figure 13.

- Burbank loamy fine sand is a mixture of alluvium and windblown sand. It is excessively drained, has a rapid permeability.
- Quincy loamy sand is comprised of windblown sand that originates from granite, basalt and quartzite. It is excessively drained, has a rapid permeability, and has a very slow runoff.
- Finley fine sandy loam is old alluvial material derived from loess and basalt. It is well drained and has a moderately rapid permeability.
- Pasco silt loam is alluvium deposited in pond depressions. It is somewhat poorly drained and has moderate permeability.

3.11.3 Are there any unique geologic features in the project study area?

Geologic reconnaissance along the Yakima River's south slope confirms the mapped information. A basalt formation is located at the southern end of the proposed bridge while the northern end is located on alluvium. The remaining project area is sand, silt, and gravel flood deposits.

An unnamed fault that is at least 1.6 million years old generally follows the Yakima River through the project alignment area (Reidel 1994). This fault is likely associated with the nearly parallel Rattlesnake Hills fault system located approximately 1½ miles southwest of the project.

An area of artificial fill approximately 280 feet long and parallel to the river is located northwest of the project alignment and downslope of the north canal access road. The fill was placed along the slope to repair erosion that occurred several years ago. The artificial fill consists of sand and gravel layered with geofabric. Additionally, a smaller slope area was reconstructed to the northwest of the larger area and a narrow, thin layer of fill was located on the northern, downhill sides of the canal access roads (Shannon and Wilson 2010).

Reference: Reidel, S.P. and Fecht, K.R., 1994, Geologic Map of the Richland 1:100,000 Quadrangle, Washington, Washington Division of Geology and Earth Resources, Open File Report 94-8, Plate 1.

Richland

Proposed Bridge Location

Qa

Qfg(4)

Qa

Qfg(2) QPLcg

Qfs(1)

Qa

Qa

Mv(sih)

Qfg(4)

Qa

Qfs(3)

Qa

QPLcg

Qfs(2)

Mv(sih)

Ql

Geologic Units

 	Qa	Alluvium
 	Ql	Loess
 	Qfs	Outburst flood deposits, silt and sand
 	Qfg	Outburst flood deposits, gravel
 	QPLcg	Gravel (Pleistocene to Pliocene)
 	PLMc	Ringold Formation
 	Mv(sih)	Columbia River Basalt Group, Saddle Mountains Basalt, Ice Harbor Member

0 750 1,500 3,000 Feet

N



Duportail Street Bridge
Richland, Washington

Figure 12:
Regional Geology

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

This page intentionally left blank for printing purposes.



- | | |
|---|---|
|  Project Area |  Burbank loamy fine sand |
|  Pasco silt loam |  Pits |
|  Quincy loamy sand |  Water |
|  Finley fine sandy loam | |

Figure 13: Soil Designations
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

3.12 Social Elements, Economics and Environmental Justice

3.12.1 What regulations govern the analysis of social elements, economics, and environmental justice?

Title VI of the Civil Rights Act of 1964 states that minorities are to have equal rights, specifically in federally assisted programs. In time it was found that minorities, as well as low-income populations, were less able to represent their community interests against the impacts of infrastructure improvement projects. These projects, due to the need for less expensive property acquisition, would often cause disproportionate impacts to minority and low income neighborhoods while providing benefits for other people.

In February of 1994, President Clinton signed Executive Order 12898, requiring that federal funds not be used in such a way that would create high adverse and disproportionate impacts on minority or low income populations (EJ populations).

A disproportionate high and adverse effect on EJ populations is defined in FHWA Order 6640.23 and Department of Transportation Order 5610.2(a) as an effect that:

- 1) Is predominately borne by a minority population and/or low-income population, or;
- 2) Will be suffered by the minority population and/or low income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non low-income population.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 establishes a policy for the fair and equitable treatment of individuals and businesses displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance. The primary purpose of this act is to minimize the hardship of displacement as a result of programs and projects designed for the benefit of the public.

3.12.2 What types of data were analyzed for the project?

In order to assess social and economic conditions within the area, statistical data was reviewed including 2000 and 2010 Census data, local school district information, and employment information. Individuals familiar with the area were also interviewed to assess the potential for minorities or low-income populations to be present within the study area, and what community relationships might be at work. This included assessment of apartments on the northeast side of the Yakima River, as well as a mobile home park and new employment centers on the southwest side of the river (FHWA and WSDOT 2011a).

3.12.3 What is the character of the project study area?

The project study area is roughly bounded by Swift Boulevard to the north, Keene Road and an agricultural field to the west, Interstate 182 to the south, and Thayer Drive to the east. The WSDOT guidance on Environmental Justice suggests a ½-mile radius from centerline, making sure to include complete neighborhoods. The study area north of the bridge is included in Census Tract 103. South of the bridge was included in Census Tract

108.03 Block 1 in 2000. The boundary was not changed for the 2010 Census, but it is now designated as Block 2. Refer to Figure 14.

On the north side of the Yakima River, the existing Duportail Street cul-de-sac is used for access to the river and adjacent riparian areas. Trails going past the cul-de-sac appear large enough to support boat launching, and lead to likely launch points downstream of rapid currents. The cul-de-sac also provides access to several other trails, likely used for hiking, bird watching, and access to the river for fishing.

The northeastern segment of Duportail Street has three housing developments. The Shoreline Village Apartments are located south of Duportail Street and has 9 complexes each with approximately 24 units. The Riverpointe Apartments are located adjacent to Duportail Street to the north and has 20 complexes of approximately 12 units each. It is currently accessed via Riverstone Drive and Coulee Drive. An additional housing tract of approximately 150 single-family homes is located north of these apartments and does not have direct access to SR 240. This housing tract now uses Riverstone Drive to access Duportail Street, near the intersection with SR 240. Combined, there are 456 multi-family housing units and approximately 150 single-family housing units using this segment of Duportail Street to access the road network. See Figure 9.

There is no known combined association of residents and/or owners, official or otherwise. Transit now serves nearby areas via routes on Queensgate Drive and Cottonwood Drive. No routes currently stop on SR 240 or Duportail Street.

On the south side of the Yakima River, the Hills Mobile Home Park is located on the east side of Duportail Street. The mobile home park has no known lot owner's or member's association. The mobile home park is not split by Duportail Street, and has a number of access roadways with speed bumps. This indicates that the roads have lower traffic speeds and are walkable. The mobile home park also has a central common space and facility. These are signs that the community has ways to develop a sense of cohesion (FHWA and WSDOT 2011a).

Existing sections of Duportail Street were constructed with sidewalks although it is unlikely these areas meet the current standards of the ADA.

3.12.4 What community and social services are found in the project study area?

Recent retail and other commercial development near the intersection of Queensgate Drive and Duportail Street has created new shopping, employment, and recreational opportunities. Some of the retail services are discount stores, presumably of value to low-income populations as well as others. These businesses also employ many people, including minorities and low-income populations. There are no businesses specifically serving the needs of Hispanic or other minority populations.

There is one known religious facility within the project area, the Desert Streams Bible Church, located immediately southeast of the Shoreline Village apartments. There are no senior centers or other group oriented facilities or services along either segment of

Duportail Street. Multi-family housing tracts within the area appear to have recreational and common areas. These could certainly be used for religious or social services, but are not specifically reserved for such purposes (FHWA and WSDOT 2011a).

3.12.5 Environmental Justice

According to the 2010 Census data, within the study area, the majority of the population in the study area is considered non-minority, and is 85 percent white. Hispanics make up the largest minority group, consisting of 6.5 percent of the population in the study area. American Indian, Black, Asian and persons identifying themselves as “other” race or more than one race make up the remaining 8.5 percent of the population living near the project. According to the 2008-2010 American Community Survey, 12.1 percent of those in Richland, Washington, spoke a language other than English at home.

The 2010 Census data shows minority population overall in the study area has increased approximately 5 percent from the 2000 census data used in the Environmental Justice report. Black or African American individuals increased from 1 percent to 1.4 percent while Hispanics have grown from 5 percent to 6.5 percent. Asians increased from 2 percent to 2.7 percent. See Table 8.

Table 8: Race Demographic Data for Census Tracts 103 and 108.3- 2010 Census

Race Category	Individuals/Total Population	Percent
White	4898/5777	85
Hispanic or Latino	374/5777	6.5
Black or African American	83/5777	1.4
American Indian	60/5777	1
Asian	154/5777	2.7
Native Hawaiian	14/5777	0.2
Other/Two or more	194/5777	3.3

The 2000 Census data was still used to determine the low-income population within the study area as this data was not released with the 2010 Census. Within the study area, 6 percent of the population is considered low-income. While the 2010 Census Data does not have updated information, the American Community Survey includes 2008-2010 information for the entire City of Richland. Both families and individuals who are below the poverty level have increased, from 5.7 to 7.6 percent and 8.2 to 9.4 percent, respectively from the 2000 estimates. See Table 9.

Table 9: Income Demographic Data for Census Tracts 103 and 108.3- 2000 Census

Population in Study Area	Population Below Poverty Level	Percent of Population Below Poverty Level
3,344	202	6

While the percentage of minority populations in the study area has increased slightly from the 2000 Census data used in the Environmental Justice report, the magnitude of potential impacts and benefits from the proposed project remain the same. It is not

expected that the population below the poverty level in the study area has increased substantially since the 2008-2010 American Community Survey. The small changes in demographics since the approval of the report do not change the conclusions that were reached.

Minority populations are known to live and work near both existing segments of Duportail Street within the project footprint. None of the apartment complexes within the study area are Section 8 housing units. Section 8 housing has been approved for construction within the project area.

According to the Richland School District and National Center for Education Statistics, students within the northeast segment of Duportail Street attend the following schools:

- Lewis & Clark Elementary School, located at 800 Downing Street.
- Carmichael Middle School, located at 620 Thayer Drive.
- Hanford High School, located at 450 Hanford Street.
- Marcus Whitman Elementary School at 1704 Gray Street.*

* included for comparison as the students who attend it come from a neighborhood that is adjacent to the northeastern project limits.

Students within the southwest segment of Duportail Street attend the following schools:

- White Bluffs Elementary School, located at 1250 Kensington Way.
- Enterprise Middle School, located at 5200 Paradise Way.
- Richland High School, located at 930 Long Avenue.

The following table (Table 10) summarizes the demographic data available for these schools.

Table 10: School Demographic Data

School Name / Total Enrollment	Percent Low- Income	Percent White	Percent Black	Percent American Indian	Percent Asian	Percent Hispanic
Lewis & Clark Elementary School / 444	45.9	73.9	4.0	1.8	8.3	11.9
White Bluffs Elementary School / 624	10	88.5	0.5	1.0	4.0	6.1
Marcus Whitman Elementary School / 416	52.9	83.4	2.4	1.4	2.2	10.6
Carmichael Middle School / 827	28.0	82.6	2.7	1.3	5.2	8.2
Enterprise Middle School / 776	16.9	85.8	1.9	0.9	4.5	6.8
Hanford High School / 1377	15.7	81.7	2.8	1.0	7.3	7.3
Richland High School / 1956	17.7	85.7	3.0	0.5	4.0	6.8

Data from the National Center for Education Statistics indicates that there is potentially a larger low-income population in the study area than the 2000 Census data shows. Low-income students were determined using enrollment in the Free and Reduced Lunch Program. The higher numbers of low-income students are in elementary schools, which suggest that demographics have changed since the 2000 Census. District wide in 2008, two percent of children enrolled in public school were participating in an English language learner program.

Secondary sources, which are other groups or organizations that measure or monitor demographics in order to provide services, include organizations such as the Benton-Franklin Community Action Committee. This group conducts an annual 'Point In Time' spot-survey of homeless households and individuals throughout the two county region to find trends in homelessness and the resulting need for services. Their most recent survey in 2009 found a total of 24 households, or families, were homeless in the City of Richland. A similar distribution was found for homeless individuals. There have been no sightings of homeless persons in the project area, nor is there any evidence of homeless persons within the project area.

The above secondary-source information infers low likelihood of encountering homeless populations in the project area. However, no inference can be drawn in regards to where homeless populations reside within the City of Richland.

3.12.6 Economics

According to the Washington State Employment Security Department, the unemployment rate in the Kennewick-Pasco-Richland metropolitan area averaged 7.9 percent in 2011.

The 2010 Census was used to determine the occupations and industries providing employment within the project area. The main occupations in the area are management, business, science, and art occupations, which account for more than half of the employment in the area. The main industries include professional, scientific, management, administrative, and waste management services (24.9 percent) and educational services, health care, and social assistance (24.6 percent) (United States Census Bureau 2012). See Table 11.

Table 11: Occupation and Industry in the Duportail Street Project Study Area

	Estimated Number	Percent
Employed civilian population 16 years and over	5526	100
Occupation		
Management, business, science, and arts occupations	2283	52
Service occupations	617	11
Sales and office occupations	1391	25
Natural resources, construction, and maintenance occupations	492	9
Production, transportation and material moving occupations	236	4
Industry		
Agriculture, forestry, fishing, hunting, and mining	36	0.7
Construction	580	10.5
Manufacturing	296	5.4
Wholesale trade	69	1.2
Retail trade	589	10.7
Transportation, warehousing, and utilities	300	5.4
Information	20	0.4
Finance, insurance, real estate, rental, and leasing	336	6.1
Professional, scientific, management, administrative, and waste management services	1376	24.9
Educational services, health care, and social assistance	1362	24.6
Arts, entertainment, recreation, accommodation, and food services	289	5.2
Other services, except public administration	223	4.0
Public administration	133	2.4

In the project area, the intersection of Queensgate Drive and Duportail Street is surrounded by new commercial and retail development. The large box stores and businesses in the associated strip malls provide service jobs.

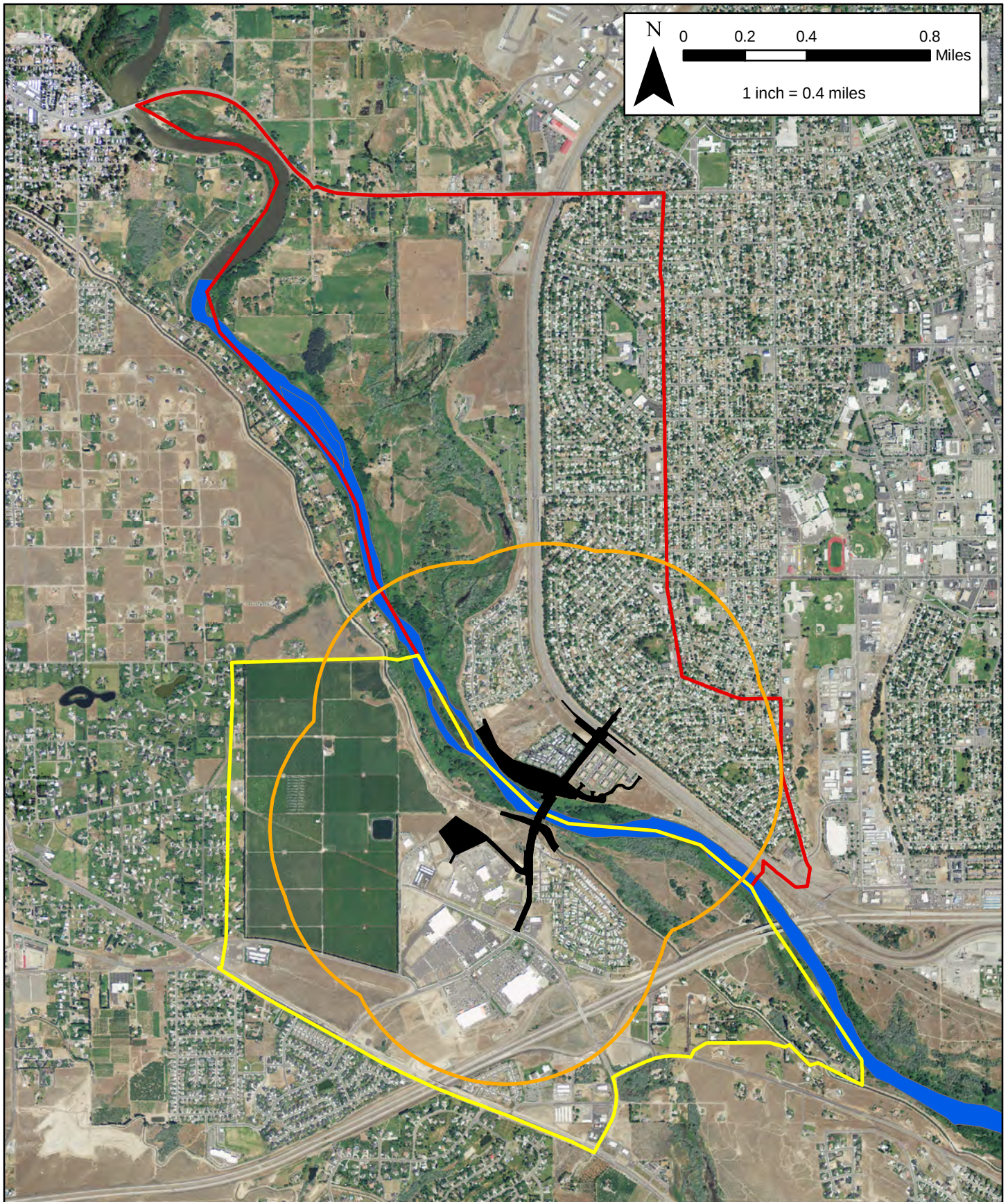


Figure 14: Environmental Justice Study Area

Duportail Street Bridge Project
City of Richland

-  Project Area
-  Census Tract 108.03 Block 2 (2010 Census)
-  0.5 Mile Radius
-  Census Tract 103
-  Yakima River

This page intentionally left blank for printing purposes.

3.13 Air Quality

3.13.1 Is air quality a concern in the project study area?

The project area is not located within any non-compliance or maintenance areas for any pollutant regulated by the National Ambient Air Quality Standards, established by the U.S. Environmental Protection Agency under the Clean Air Act.

3.13.2 How was air quality evaluated in the project study area?

The project has been listed in the Transportation Improvement Plan, showing that it conforms to the State Implementation Plan and meets regional conformity for air quality. A project level quantitative air analysis is not required by 40 CFR 93.125 and WAC 173-420-120 as the project is not located within a designated “non-attainment” or “maintenance” area.

3.14 Hazardous Materials

3.14.1 How were hazardous materials identified in the project study area?

The DOE Facility/Site Atlas was searched in order to identify potential sources of contamination within 0.5 miles of the project area (DOE 2011a).

3.14.2 Are there any sites in the project study area that could have contamination risks?

The existing Port of Benton railroad tracks that run parallel to SR 240 could be a potential source of contamination. The large circular tank visible west of the project area is a water storage tank. Sites identified by the DOE in the project vicinity and the potential for contamination at each site are listed below. None of these sites are within the project area or will be impacted by project activities. None have confirmed soil or groundwater contamination.

Table 12: Sites Identified by the Department of Ecology

DOE Site Facility #	DOE Site/Facility Name	Description	End Date
69952451	7 Eleven Store 2301 14428	UST	-
3850011	AT&T Wireless Johnson Park	Haz Chem Rpt	9/16/03
4218144	Home Depot HD4746	Hazwaste Planner Haz Chem Rpt Hazwaste	- 1/1/08 1/22/07
33461447	Copeland Lumber Yards Richland	UST	-
22885684	Mildred Lawrence	UST	-
57319138	Mirastar 2Go 62051	UST	-
1574215	Target Store 2314	Hazwaste	-
9612736	Benton County Vactor Waste	Storage and Handling	-
34495361	Walmart Supercenter 3261	Hazwaste Planner Hazwaste	-

Haz Chem Rpt-Businesses that store 10,000 pounds or more of a hazardous chemical or 500 pounds or less, depending on the chemical, of an extremely hazardous chemical on site at any one time must report annually.

Hazwaste- Facilities that generate any quantity of a dangerous waste.

Hazwaste Planner- Facilities that report under the Emergency Planning/Community Right-To-Know Act or that generate more than 2,640 pounds of hazardous waste per year, and must prepare Pollution Prevention Plans.

Storage and Handling- Facilities that handle solid waste on an interim basis.

UST- Any one or combination of underground storage tanks (including connecting underground pipes) that is used to contain regulated substances and has a tank volume of ten percent or more beneath the surface of the ground.

3.15 Energy

3.15.1 How was energy use evaluated for the project area?

The traffic discipline team analyzed the Duportail Street areas on either side of the Yakima River and related transportation systems under future conditions in order to assess transportation performance. The energy use in the project area is directly correlated to the vehicle miles travelled and time vehicles remain idling.

3.15.2 What is the current energy use?

Residents in the area going to school, work, and shopping areas, dominate the vehicular travel in the area. Residents on the north side of the Yakima River on Duportail Street must travel two miles to reach the existing shopping including Target and Walmart on the south side of the river. Cars travelling from the city center to the Queensgate neighborhood on the southwest side of the Yakima River get caught in choke points on Aaron Drive and George Washington Way. The congestion created at these choke points increases vehicle idling time and therefore increases energy consumption.

4 Environmental Consequences

4.1 Land Use

4.1.1 What temporary effects to land use may potentially occur?

This project will have unavoidable short-term effects on surrounding land uses from construction and construction staging. The project may limit enjoyment of outdoor activities or events. Construction effects would include increased noise levels from construction equipment, changes in access to individual properties, increased dust from vegetation removal/grading, and work zone traffic control measures. Staging areas will be located within property owned by the City and the USACE as well as ROW. See Figure 6 for staging locations. The project is expected to take approximately 500 days but impacts would occur sporadically over the course of construction. No changes in land use are expected due to these minor effects.

Businesses located north of the intersection of Duportail Street and Queensgate Drive may be subject to temporary changes in access and work zone traffic control measures. This includes fast food restaurants, a bank, and other various businesses within a strip mall. The majority of these businesses also have access from Queensgate Drive that will be unaffected by the project.

4.1.2 What long-term effects to land use may potentially occur?

The project proposes to convert approximately 4.75 acres from Natural Open Space to a transportation land use. See Figure 8. This has been reduced since the approval of the Land Use Discipline Report due to elimination of a previously proposed stormwater pond.

The project will not have any substantial effects on land uses in the study area. Small pieces of land will be acquired for this project and permanently changed from the existing use to transportation use. These conversions will not require relocations or changes in land use designations to entire parcels. Existing land uses will continue to occur on the parcels to be affected by project acquisition.

Small design changes have resulted in new temporary easements and altered the quantities of property acquisition proposed since the approval of the Land Use Discipline Report. See Table 13 and Figure 15 for details of current proposal.

Use of the restricted intensive wildlife management land for the proposed project will be authorized since the project is providing “a demonstrated public need in those instances where no reasonable alternative is available” (USACE 1995). Access driveways for the Shoreline Apartments and a private driveway for the church are being relocated to use the future traffic signal to get onto Duportail Street. The extension of Tanglewood Drive will be provided for the Riverpointe Apartments and other housing to access Duportail Street via the signalized intersection. The public street of Riverstone Drive will be converted to

right turns only. Access to Duportail Street from City View Drive will not be altered. The relocation of the boat launch parking lot will not change the use of the area. See Figure 16 for locations of access changes.

4.1.3 What effects to land use might result if the project was not built?

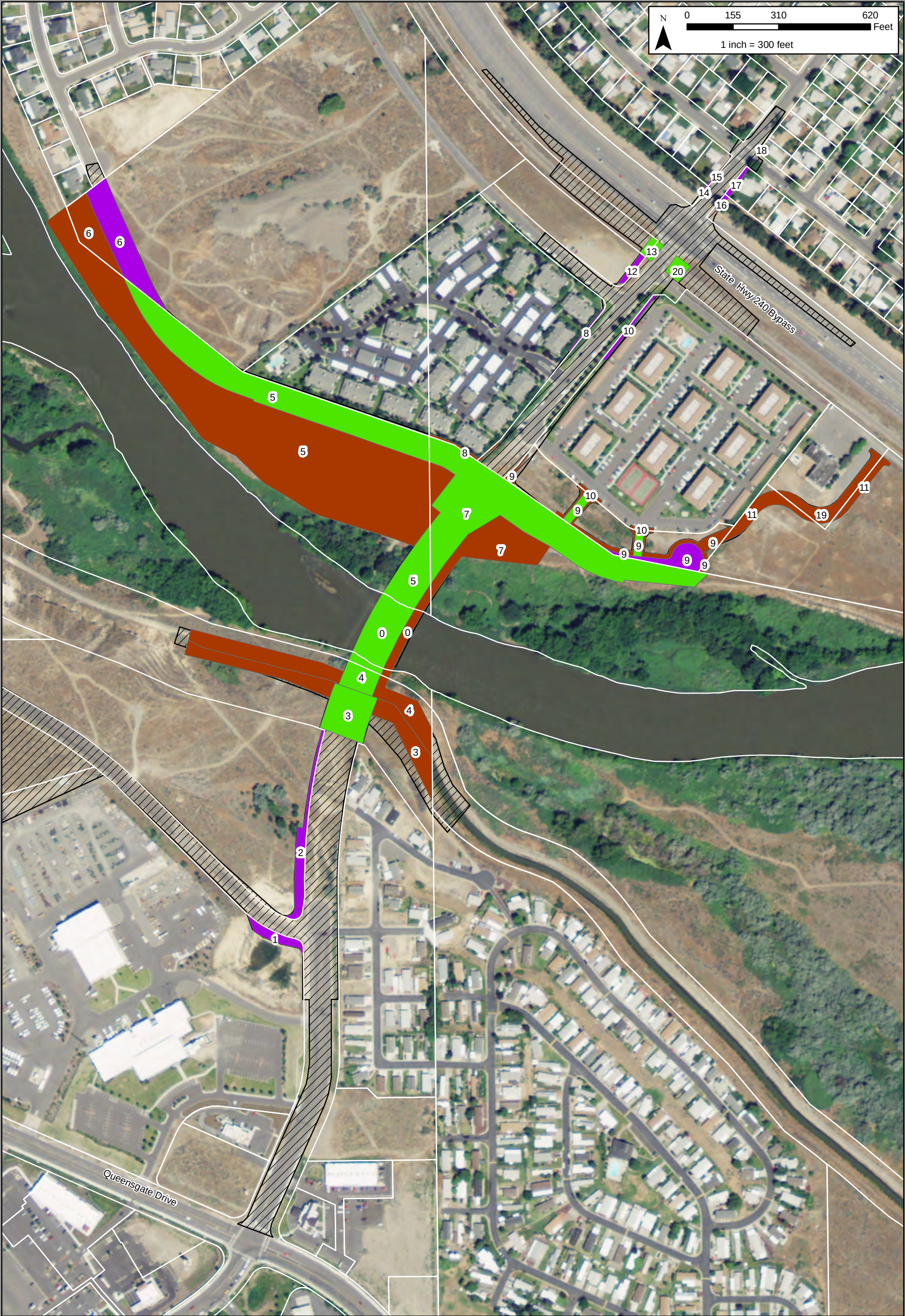
No changes in land use would occur as part of the No Build Alternative.

4.1.4 What measures are proposed to minimize negative effects to land uses during construction?

A Transportation Management Plan will be prepared and implemented, requiring the contractor to post signs showing detour routes during any required lane closures.

4.1.5 What measures are proposed to minimize negative effects to land uses once the project is built?

Any vegetation altered or removed within the intensive wildlife management area will be mitigated by restoration of a degraded area near the project site. With the exception of the one designated trail, all areas disturbed will be revegetated with native shrub-steppe vegetation post construction. This will create more contiguous open space while still allowing recreational use.



- Parcel Boundaries
- Proposed ROW
- Proposed Permanent Easement
- Proposed Temporary Easement
- Project Area

Figure 15: Property Acquisitions
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

Table 13: Proposed Property Acquisitions

Ownership ID (see figure 15)	Parcel #	Owner	Total Area (acres)	Total Value	ROW (acres)	Easement (acres)
1	116984020002002	City of Richland	29.95	\$2,703,180	0.15	
2	116984000003001	City of Richland	16.06	\$1,377,340	0.23	-
3	115983000004000	Columbia Irrigation District	11.93	-	-	0.58 (P), 1.14 (T)
4	116981000004000	US Army Corps of Engineers	20.00	\$60,000	-	0.55 (P), 1.19 (T)
5	116981000003000	US Army Corps of Engineers	20.00	\$60,000	-	3.23 (P), 6.90 (T)
6	116981000001000	Spencer Family Living Trust	23.35	\$404,530	0.76	0.40 (T)
7	115982000006000	US Army Corps of Engineers	40.00	\$120,000	-	3.04 (P), 1.04 (T)
8	115982000002002	Riverpointe Apartments	6.88	\$13,174.350	0.02	0.03 (T)
9	115982011748012	James Halford*	2.13	\$196,200	0.43	0.13 (P), 0.22(T)
10	115982000002005	Yuksel Co.	11.41	\$17,199,850	0.07	0.05 (P)
11	115982011748011	River Trails Club, LLC*	9.13	\$830,400	-	0.38 (T)
12	115982000002003	Timberline Capital Inc.	1.74	\$189,490	0.06	-
13	103983020342000	Bureau of Land Management	15.56	\$356,970	-	0.07 (P)
14	115982020149000	City of Richland	8.80	\$412,950	0.01	-
15	115982020100001	Michael W. Gallien	0.26	\$115,410	0.01	-
16	115982020154000	City of Richland	4.41	\$216,730	0.02	-
17	115982030169001	Justin T. Stoker	0.28	\$165,640	0.04	-
18	115982030162001	Dajana Doutlik	0.14	\$100,080	0.01	-
19	115982011748009	Laborers Union No 348 Temple ASA*	2.01	\$486,000	-	0.36 (T)
20	No Number Assigned	Port of Benton	1.61	-	-	0.07 (P)

P= Permanent, T= Temporary
* Changes to the parcel number and total areas have occurred since the approval of the Land Use Discipline Report on 3-28-11.

This page intentionally left blank for printing purposes.



Figure 16: Traffic Controls
Duportail Street Bridge Project
City of Richland

- | | | | |
|--|-----------------|---|--------------------|
|  | Existing Signal |  | Right Turn Only |
|  | New Signal |  | Proposed Alignment |
| | |  | Yakima River |

This page intentionally left blank for printing purposes.

4.2 Section 4(f)

4.2.1 Will the project result in a use of any of the Section 4(f) Resources?

Staging will occur in portions of the USACE property. This will result in the removal of vegetation, temporary closure and detour of trails. Increased noise levels will also occur within this area during construction. Portions of the proposed bridge will be located on the USACE property. These will include approach fill and bridge piers. A portion of the Tanglewood Drive extension also will occur on the property. Since land from this Section 4(f) resource will be within a permanent easement in order to be incorporated into the transportation project, there is a use of the property.

Temporary closures of the boat ramp may be necessary during construction on the north bank to ensure public safety. The WDFW boat launch will remain open during the majority of construction in order to maintain the community's access to the Yakima River. The WDFW will be notified of any temporary closures of the facilities. Better access to waterfront trails will be provided by the project. Access to the boat launch will be maintained with the relocated parking lot. Since land from this Section 4(f) resource will be incorporated into the transportation project, there is a use of the property.

Upgrades to the CID canal will be conducted outside of the irrigation season in order to eliminate any potential breaks in service. The bridge will be built over the canal and its structural supports will not impact the canal. The project proposes to enclose the canal within the project area as requested by the CID. Since land from the canal will be incorporated into the transportation project, there is a use of this resource. DAHP has determined that the project will have no adverse effect on this historic resource.

The project will require 0.08 acres of right-of-way purchase from the By-Pass Shelterbelt Park at the SR 240 and Duportail Street intersection. The incorporated land will be used for the construction of sidewalks along Duportail Street. In addition to these permanent impacts, temporary impacts may occur during construction. Since land from the park will be incorporated into the transportation project, there is a use of this resource.

4.2.2 What measures to minimize harm to Section 4(f) Resources have been included in the project?

Erosion control BMPs, such as silt fences, straw bales and/or catchbasin liners will be installed before any earthmoving activities take place and will be maintained throughout construction. All areas disturbed by staging will be revegetated with native shrub-steppe vegetation post construction.

Temporary noise will be minimized using the following measures:

- Minimize construction noise by turning off engines when not in use.
- Mufflers will be utilized on noise-generating equipment and vehicles.
- Construction will only occur between the hours of 7 a.m. and 9 p.m.

Several design parameters were included in order to minimize effects to the USACE property including:

- The proposed bridge was lengthened from 650 feet to 775 feet to improve wildlife passage.
- 12-foot minimum clearance will be provided from the bridge over the northern riverbank.
- Only pedestrian level lighting will be installed along the bridge.
- The proposed stormwater pond was replaced with infiltration trenches.
- No street lighting is proposed along Tanglewood Drive except for the intersection with Duportail Street.
- The existing braided trails will be consolidated into one designated trail.
- Tanglewood Drive was designed at the northern property line to consolidate development and maximize the distance to the Yakima River.
- Separation between Tanglewood Drive and the rest of the USACE property will be created by landscaping or a cable railing.

Any vegetation altered/removed within the intensive wildlife management area will be mitigated by restoring currently degraded portions of the area near the project site. With the exception of the one designated trail, all areas currently disturbed or disturbed due to staging activities will be revegetated with native shrub-steppe vegetation post construction. This will create more contiguous open space while still allowing recreational use. See Figure 11 for areas of restoration.

4.2.3 What is the result of this Section 4(f) analysis?

FHWA has determined that with the proposed mitigation, the project's uses of Section 4(f) resources are *de minimis* and therefore no Section 4(f) Evaluation is required.

The USACE concurred with the FHWA *de minimis* determination (USACE 2011).

The WDFW agreed on February 24, 2012 that the project will have only a *de minimis* use of the public boat launch facility (WDFW 2012).

On June 3, 2010, the DAHP determined that the project will have no adverse effects to the canal (DAHP 2010). FHWA has determined that the project will have a *de minimis* use of this resource.

The Richland Parks Department agreed on December 21, 2012 that the project will have no adverse effects to the By-Pass Shelterbelt Park. FHWA has determined that the project will have a *de minimis* use of this resource.

4.3 Transportation

4.3.1 What temporary effects to traffic may potentially occur as a result of the project?

Construction-generated traffic will be created by the project consisting primarily of daily commutes by construction workers and periodic delivery and removal of materials. This will not measurably increase traffic volumes on local roads. Any closure of lanes that results from construction could increase delays and congestion. Additionally, sidewalks and shoulders will be temporarily closed and detoured at various times to allow construction activity to take place. Similarly, the paths on both sides of the river will be closed and detoured during bridge construction to provide safe passage.

4.3.2 What long-term effects to traffic may potentially occur?

A reduction in emergency response times will occur as a direct route will be provided to the currently underserved areas of Richland. The project will reduce the route distance from the existing fire station to the City View Drive and Duportail Street intersection by 1.6 miles. This is anticipated to reduce response times by approximately 2-3 minutes.

Traffic reductions are anticipated along SR 240 and I-182 due to shifts in travel patterns. Local automobile traffic will be able to use the new bridge and avoid these roadways, leaving regional and commercial truck traffic on the highways.

All intersections will meet the LOS standard for AM and PM peak hour in 2012 under the project. The intersection of SR 240/Duportail Street is expected to meet the standards after project completion until 2022. Under project conditions in 2032, the intersection is anticipated to operate below the LOS standard during the weekday PM peak hour. The intersection operations at SR 240/Duportail Street would require a fourth eastbound through lane on SR 240, regardless of the completion of this project, in order to meet acceptable LOS standards in 2032. Duportail Street/Queensgate Drive and Duportail Street/Cottonwood Drive are anticipated to operate below LOS standards during the weekday AM and PM peak hour. These expected conditions are further described in the Transportation Discipline Report in Appendix A.

Once the bridge is completed, it will be possible for new bus routes to be created or existing bus routes modified to provide a connection to downtown Richland from the Queensgate neighborhood.

Approximately 40 on-street parking spots currently exist along Duportail Street on the north side of the Yakima River. These spaces will be removed during construction and not restored after project completion. Adequate on-site parking exists for the apartment complexes within designated parking lots. Sufficient parking will remain for all businesses and residences along the project corridor.

4.3.3 How might the project affect pedestrians and bicyclists?

Mobility will be improved for bicycle and pedestrians through the creation of a new crossing over the Yakima River that meets the current ADA standards. Safety will also

be improved by the reduction in traffic congestion and creation of a seamless sidewalk network within the project area.

4.3.4 What effect to traffic may result if the project was not built?

As no construction activities or change in use would result from the No Build Alternative, no temporary impacts to traffic are anticipated.

If the project is not constructed, traffic congestion would continue to get worse as traffic volumes continue to grow over time. The congestion would get worse sooner than if the project is constructed. Resulting conditions would increase delay for both local commuting traffic and regional traffic destined to areas outside of Richland and the Tri-Cities area. Traffic volumes at SR 240/Duportail Street and Duportail Street/Queensgate Drive are anticipated to exceed their respective intersection capacity without any changes in lane configuration. This would result in a decrease in intersection safety. In addition, growing traffic volumes would elevate potential hazards for pedestrians and bicyclists who share roadways with vehicular traffic.

4.3.5 What measures are proposed to minimize the potential effects during construction?

Access for private and emergency vehicles will be maintained to all residences and businesses during construction. The contract will be written in such a way that ensures that the contractor conforms to all applicable federal and local traffic standards and rules. A traffic control plan will be as required in the specifications or included in the plans, implemented by the contractor throughout the construction period, and monitored by the City.

The construction traffic control plan will include the following measures:

- Adequate off-street parking will be provided for construction-related vehicles through the construction period.
- Access to existing residences in the area will be maintained at all times.
- Pedestrian and bicycle access will be maintained during project construction where safe to do so. If construction encroaches on a sidewalk or shoulder, a safe detour will be provided.
- Construction warning signs will be posted in advance of the construction area and at any intersection that provides access to the construction area.
- Construction signage and work zone traffic control will be provided that complies with standards set forth in the *Manual on Uniform Traffic Control Devices* (Federal Highway Administration 2009) and/or City standards.
- If lane closures occur, local fire and police departments will be notified of construction locations and alternative evacuation and emergency routes, to maintain response time during construction periods.
- Written notification will be provided to appropriate contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads will be used to access construction sites.

4.4 Public Services and Utilities

4.4.1 What temporary effects to public services and utilities may potentially occur?

The project will have temporary effects on public services and utilities due to activities such as earthmoving, grading, bridge construction, and paving. Temporary disruptions in some utility services will be experienced during relocations. Any outages are anticipated to be short-term and intermittent. Groundbreaking and pile driving activities may inadvertently disrupt utilities.

Increased police security may be needed at construction sites and staging areas to prevent theft, vandalism, or trespass.

4.4.2 What long-term effects to public services and utilities may potentially occur?

The project will provide a long-term benefit to public services within the study area as emergency service providers will be able to respond faster. Additionally, driving less distance will benefit everyone who accesses public services via private vehicles.

Better access to waterfront trails will be provided by the project. The relocated parking lot will maintain access to the boat launch.

Power lines will be removed from overhead and placed in conduit on the bridge reducing their vulnerability. The existing 36-inch waterline that is the sole source of domestic water to all of the residents and businesses in southern Richland will be replaced with pipes on the proposed bridge. The current deteriorating 36" waterline will be valved out of service and abandoned in place.

4.4.3 Would public services and utilities be affected if the project were not built?

The No Build Alternative would not require any construction; therefore, it would not cause temporary impacts during construction. The No Build Alternative would not improve traffic efficiency moving from the City of Richland's center to outlying areas or on surface streets.

Plans for a future fire station at the northeast corner of Duportail Street and City View Drive would remain even if the project is not constructed. Without the proposed Duportail Bridge, emergency vehicles would have to rely on the existing, more distant crossings. Therefore, the No Build Alternative would not provide any long-term benefits to emergency service providers or the general public traveling within the study area.

The existing waterline, located within the Yakima River is likely to fail as the pipe is already over 50 years old and must be continually protected from scour. Under the No Build Alternative, this waterline would continue to scour until it ultimately fails or is replaced as part of a separate project. Power lines would remain vulnerable to weather events.

4.4.4 What measures are proposed to minimize the negative effects to public services during construction?

A utility plan will be prepared consisting of:

- Existing, potential temporary and new locations for utilities.
- Sequence and coordinated schedules for utility work.
- Requirements for advanced notification of any service disruptions.

The utility plan will be reviewed by and discussed with affected utility providers prior to the start of construction. In areas with potential conflicts, the depths of underground utilities will be field verified prior to construction. Neighborhoods will be notified of utility interruptions from scheduled construction activities in those areas.

Alternative water supply lines will be established prior to any breaks in service to ensure that fire departments can handle all calls during construction periods. The city will notify and coordinate with police departments to implement crime prevention principles. A health and safety plan will be in place for the construction activities. This will minimize the potential for on-site accidents or an increased need for emergency medical aid from the fire department.

4.4.5 What measures are proposed to minimize negative effects to public services and utilities?

After construction is complete, the project will provide long-term benefits related to public services and utilities, such as:

- Reduced miles traveled for emergency service providers and everyone travelling to public services.
- Utility relocations to bridge and underground conduit.
- Improved sidewalk connectivity and pedestrian/bike path on the bridge.
- Increased recreational opportunities including improvements to the boat launch parking lot and trail construction under the bridge.

4.5 Surface Water, Water Quality, and Hydrology

4.5.1 What temporary effects to water resources may potentially occur?

During project construction, stormwater flows have the potential to carry sediments into the Yakima River. There is a risk for a hazardous material spill to take place. The installation and removal of piles and caissons may produce a temporary increase in turbidity levels in the Yakima River by stirring up sediments.

4.5.2 What long-term effects to water resources may potentially occur?

The level of stormwater treatment to be provided by this project fulfills the requirements of the WSDOT's 2008 Highway Runoff Manual (WSDOT 2008). The proposed project will infiltrate all of the stormwater generated from impervious surfaces within the project. The project proposes the installation of infiltration trenches parallel to Tanglewood Drive as well as Duportail Street on the south side of the Yakima River. The proposed project will provide treatment prior to infiltration for all except 0.56 acres of pollutant generating impervious surface, both new and replaced. The total impervious surface at the end of

the project will be 11.56 acres. The net increase in impervious surface will be 6.86 acres; 5.75 of which will be pollutant generating. Less than five percent of stormwater will be untreated prior to infiltration.

Stormwater from Riverstone Drive, Tanglewood Drive and Duportail Street will be collected via curb/gutter, flow into catchbasins and continue to infiltration trenches. Trenches will treat runoff from approximately 7.14 acres of impervious surface. Stormwater from impervious surface northeast of SR 240 (0.56 of which is pollutant generating) will enter catchbasins. This stormwater will eventually drain to two existing dry wells that have no outlet where it will be infiltrated. Stormwater flows from all impervious surfaces within the project area will be infiltrated due to highly permeable soils.

4.5.3 What effects to water resources might result if the project was not built?

The potential for the aging irrigation canal to fail increases as time passes and no upgrades are made to the canal.

No effects to the Yakima River would occur if the project were not built.

4.5.4 What measures are proposed to minimize the negative effects to water resources during construction?

Potential impacts to surface waters during construction will be abated with an approved Temporary Erosion Sediment Control (TESC) plan and Spill Prevention Control and Countermeasures (SPCC) plan. Both of these plans will be constantly revised and amended during construction as staging, equipment, and phasing changes. A Certified Erosion and Sediment Control Lead (CESCL) will be on site.

Measures will be included in the contract to minimize the potential for hazardous materials reaching the Yakima River. No hazardous materials will be stored on USACE lands. All mobile equipment to be refueled and/or stored overnight on USACE lands will be done so over 300 feet from the Yakima River, in a secondary containment berm. These measures will also protect most riparian areas as the majority occurs on the north side of the river on USACE lands. Outside of USACE lands, refueling operations will be conducted at least 100 feet from any open water. All equipment will be checked daily for leaks and any necessary repairs made prior to the start of work.

In order to prevent sedimentation from entering the Yakima River, BMPs, such as the installation of silt fences, straw bales and catchbasin liners will be implemented prior to any earthmoving activities. Vegetation buffers will be maintained between construction areas and the Yakima River to filter out sediments. High visibility fencing will be installed to identify sensitive areas within 100 feet of the clearing limits of the project in order to prevent unintentional impacts.

Several measures will be used during over and in-water work to minimize negative effects. A containment structure, such as chain link fence covered in plastic or filter fabric, will be attached under the length of the temporary work bridge to prevent debris from falling into the river. Qualified personnel will be on-site monitoring turbidity. Piles

from the temporary work bridge will be pulled up at a rate that will minimize turbidity impacts. During removal of material from within the casing for the drilled shafts, precautions will be taken to make sure material doesn't spill into the water. Trucks transporting this material will be adequately sealed to prevent spillage.

4.5.5 What measures are proposed to minimize negative effects to water resources once the project is built?

In general, an increase in impervious surfaces greatly increases the quantity of stormwater runoff. The use of infiltration facilities on this project will mitigate this effect. The proposed project will provide treatment for all but 0.56 acres of pollutant generating impervious surface. The untreated stormwater will be released to two existing drywells that have no outlet. It will therefore infiltrate before reaching the Yakima River.

4.6 Floodplain

4.6.1 What long-term effects to the floodplain may occur?

The Duportail Bridge will require the placement of piers within the floodway of the Yakima River. The project will also impact approximately 45,000 square feet within FEMA Zone A. Approximately 500 square feet will be required for the placement of piers 2, 3, and 4, and an approximately 44,500 square feet for the construction of Tanglewood Drive. The project proposes to add 1,105 cubic yard (CY) of fill and remove 615 CY of native materials within Zone A. It is anticipated the proposed project will result in a backwater rise of 0.06 feet in areas upstream of the bridge during the 100-year flood. The potential inundation predicted by the model could only create changes to riparian areas. This rise is less than one inch and will not create a noticeable change in inundation to any property.

4.6.2 What effects to the floodplain might result if the project was not built?

The No Build alternative will not result in any changes to the floodplain, as no structures will be built. The existing deteriorating waterline will still be replaced. This may require excavation within the floodplain.

4.6.3 What measures are proposed to minimize negative effects to the floodplain once the project is built?

As the proposed project includes installing piers in the floodway of the Yakima River, mitigation was evaluated for the expected backwater rise. The hydraulic and scour analysis explored two alternatives: (1) consider modifying the river channel to offset the backwater rise, or (2) remap the floodplain and, following community approval, submit a Conditional Letter of Map Revision (CLOMR) to FEMA.

When considering modifications to the river channel to offset the expected backwater rise, the areas of potential mitigation were constrained by geography and habitat concerns. Removal of large amounts of riparian vegetation would be detrimental to wildlife habitat. Modification of the steep south bank had the potential to de-stabilize the bank. The hydraulic and scour analysis simulated a number of alternatives using the proposed bridge model and none eliminated the backwater rise.

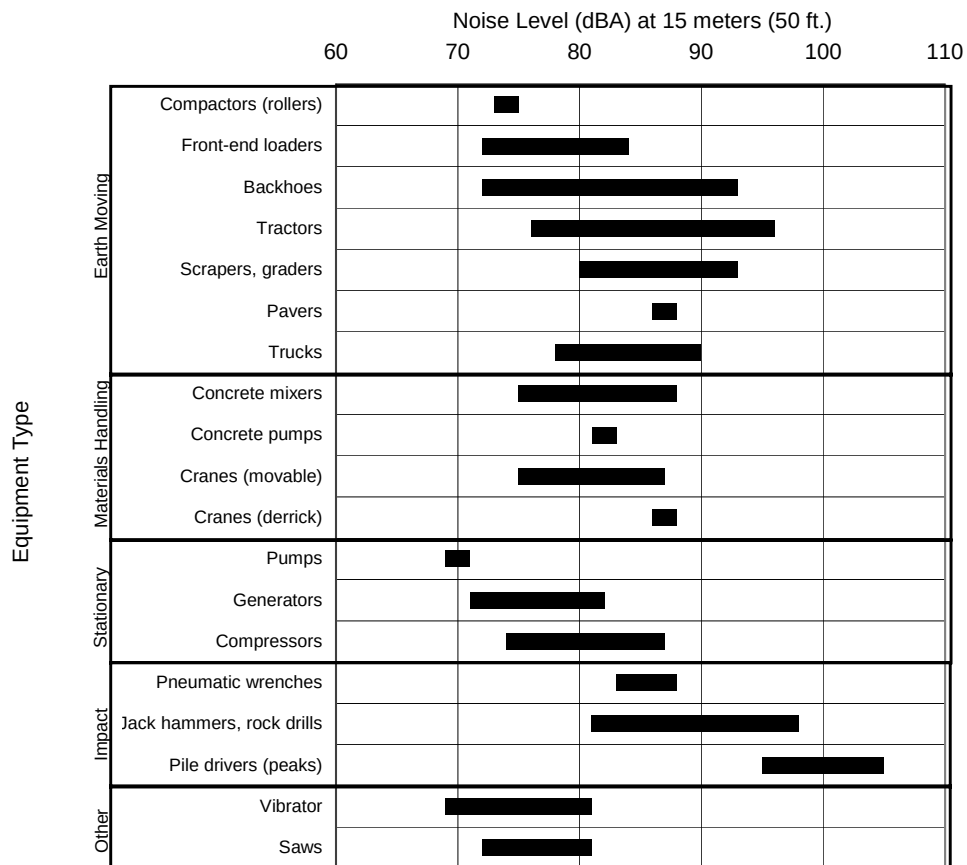
From the results of the hydraulic and scour analysis, it was concluded that the better approach was to submit a CLOMR to FEMA. The floodplain of the Yakima River through the bridge reach was remapped. A CLOMR has been submitted to FEMA requesting they revise the FEMA designated floodplain. A copy of the CLOMR application can be found in the Floodplain Discipline Report included in Appendix A (FHWA and WSDOT 2011b). Once the bridge is constructed, the City will submit a Letter of Map Revision to FEMA based on “as built” bridge drawings. Once FEMA approves this and City ordinances are changed to reference the revised FIRMs, FEMA will make the revised maps effective.

4.7 Noise

4.7.1 What temporary effects to noise levels may potentially occur?

Sound levels generated during construction may reach levels of up to 110 dB(A) during proof-testing of piles. Table 14 depicts typical construction equipment sound levels 50 feet from the source. Construction equipment sounds decrease about 6 dB(A) with every doubling of distance.

Table 14: Typical Construction Equipment Noise Levels



Source: EPA, 1971 and WSDOT, 1991.

The closest residences are located over 250 ft from any impact pile driving activities. Sound levels at residences are therefore not expected to exceed 95 dB(A). Impact and vibratory pile driving will occur for 120 days.

4.7.2 What long-term effects to noise levels may potentially occur?

The '2032 Build' scenario predicts that five of the twelve receivers modeled will experience a substantial increase over the existing condition. Three of these exceed the noise level criteria under the '2032 Build' condition as well. Receivers 1 and 2 are the validation points for the model which are within the proposed new roadway. Both show a substantial increase in noise levels but do not represent residents or locations that require assessment of noise walls.

The change in elevation of Duportail Street from the existing condition will result in a reduction in noise levels at receivers 7 and 8. See Figure 10 for receiver locations and Table 15 for predicted noise levels.

Table 15: Summary of results for the Existing, No Build 2032, and Build 2032 conditions

Receivers		Existing (2009) LAeq1hr	No Build (2032) LAeq1hr	Build (2032) LAeq1hr	dB(A) Increase over Existing	Impact Approach Noise Level Criteria	Impact Substantial Increase Criteria
Number	Name/Description						
1	Site 1 Duportail (south-east)	59.6	67.5	70.3	10.7	66	10
2	Site 3 Duportail (north-west)	56.6	58.7	68.5	11.9	66	10
3	Parking Lot	51.0	57.8	59.5	8.5	71	10
4	Residence 1	53.4	61.0	64.7	11.3	66	10
5	Residence 2	54.1	62.0	66.5	12.4	66	10
6	Residence 3	44.6	49.6	58.2	13.6	66	10
7	Tennis Court	53.4	55.7	51.9	-1.5	66	10
8	Apartment Parking Lot	65.0	68.9	64.9	-0.1	66	10
9	Apartment Parking Lot 2	53.6	56.9	56.6	3.0	66	10
10	Apartment Lawn	61.7	65.6	62.8	1.1	66	10
11	Apartment Parking (Tanglewood)	49.2	52.9	56.9	7.7	66	10
12	Cottonwood Dr. Residence	60.0	63.6	62.9	2.9	66	10

-  - Impacted Receiver (substantial increase)
-  - Impacted Receiver (both sound level and substantial increase)

4.7.3 How would noise levels be affected if the project were not constructed?

Noise levels in the area would continue to increase due to the increased traffic and development in the area. The Shoreline Village Apartment parking lot exceeded the noise level criteria only under the No Build Alternative due to increased traffic on SR 240. Several others had a larger increase under the No Build Alternative than under the proposed conditions. Over time, noise near Duportail Street and SR 240 is anticipated to increase approximately 4 dB above existing.

4.7.4 What measures are proposed to minimize negative noise effects during project construction?

The construction noise is exempt from the City of Richland's municipal code between the hours of 7 am and 9 pm and is not required to be mitigated. However, there are some simple techniques that can be put into place to reduce the noise impacts for nearby residents or people passing by the construction area:

- Minimize construction noise by turning off engines when not in use.
- Mufflers will be utilized on noise-generating equipment and vehicles.
- In order to remain exempt from the City of Richland code, construction will only occur between the hours of 7 a.m. and 9 p.m.
- Pile-driving equipment will primarily utilize a vibratory hammer – which has lower peak decibel values – and only use an impact hammer to proof-test piles.

4.7.5 What measures are proposed to minimize negative effects once the project is built?

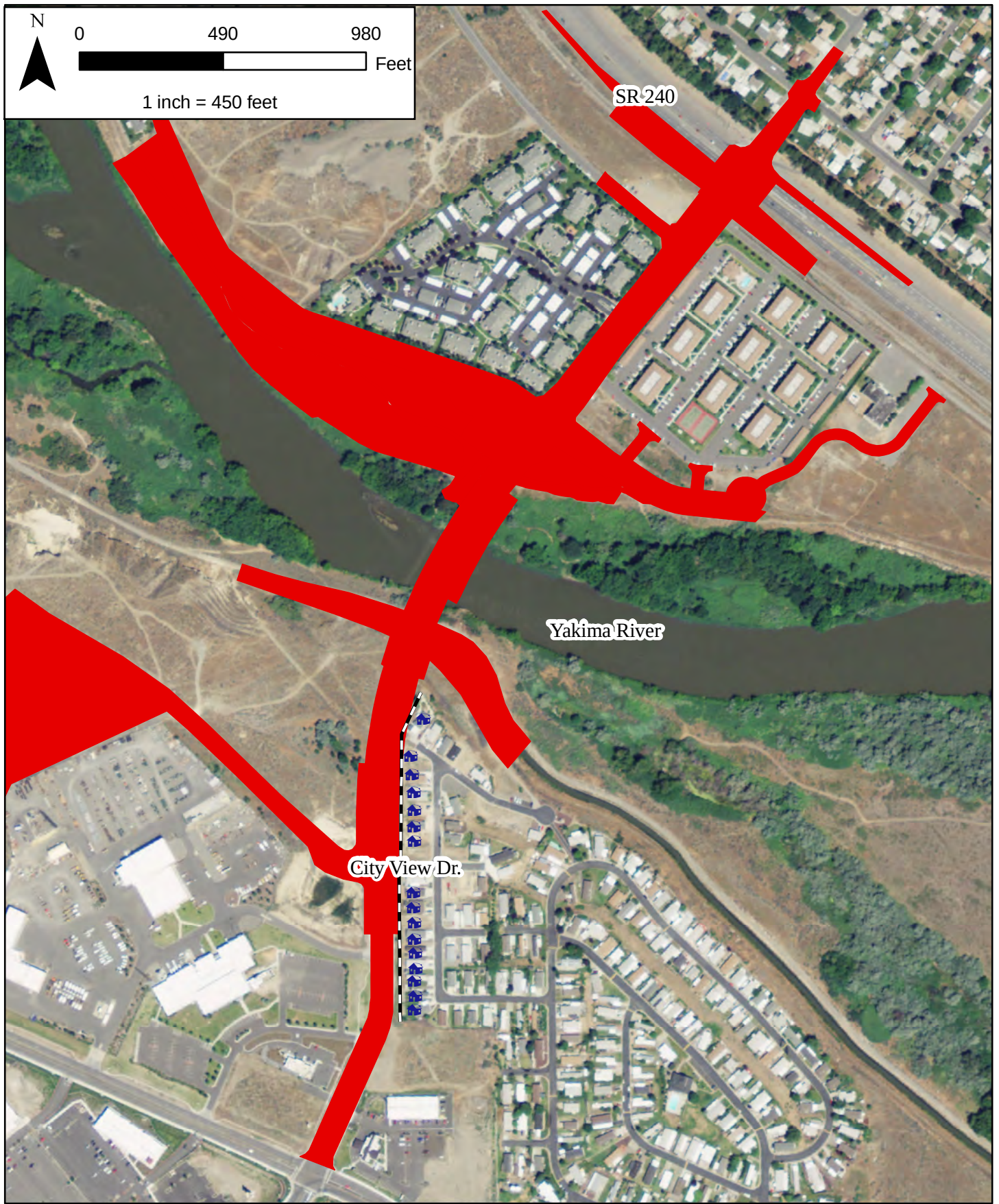
Two noise walls were determined to be a reasonable and feasible measure in order to minimize negative effects to nearby residences. A 534-foot long, 16-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park north of City View Drive. A 420-foot long, 12-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park south of City View Drive. These walls will provide a minimum 10.4 dB(A) sound reduction to residences within the park, minimizing exposure to increased noises from the Duportail Street project. See Figure 17 for the location of these walls and receivers that will be benefited.

The proposed noise walls described in this document are based on current design information. As the project design is refined, the vertical and horizontal alignment of the road may shift which could change the height and placement of the walls. Once the noise wall locations and heights are finalized, property owners adjacent to the proposed noise walls will be polled to gauge support for the noise walls. Final dimensions and decisions to build noise walls are therefore subject to change.

4.7.6 Why will noise walls not be constructed in other areas?

No other receivers had noise levels that approached or exceeded the noise abatement criteria in 23 CFR 772, so no other areas required consideration of noise abatement.

This page intentionally left blank for printing purposes.



-  Project Area
-  Barrier
-  Benefited Receiver

Figure 17: Benefited Receivers
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

4.8 Visual Quality

4.8.1 What temporary effects to visual resources may potentially occur?

This project will have unavoidable short-term effects on viewers from construction and staging. The project will temporarily disrupt the visual harmony of the natural area due to grading and vegetation removal. Equipment being used for construction will also be visible over the river and in the project area neighborhoods.

4.8.2 How might people be affected by visual changes as a result of the project ?

The project will result in permanent changes to the visual environment for Duportail Street users including pedestrians and bicyclists. Changes will also occur for residents in the area, hikers, and boaters. The potential effects on views associated with the project will be as follows:

- View of new travel lanes and roadway for Duportail Street users.
- Greater visibility to distant visual resources such as the Yakima River and Tri-Cities area will be available from Duportail Street crossing the bridge.
- Views of two noise barriers, one approximately 420 feet long and 12 feet high and another approximately 534 feet long and 16 feet high along the eastern edge of the Duportail Street ROW outside of the Hills Mobile Home Park.
- Increased glare and artificial lighting from new streetlights on Duportail Street.

Area residents as well as hikers and boaters will have a view of a new, large structure where previously there was none. See Photo 4 for a view of the proposed bridge.

Photo 4: Proposed bridge, facing northwest (upriver)



This view looks northwest across the proposed bridge approximately at the halfway point when crossing the bridge. The view looks across both north and southbound travel lanes, up the Yakima River.

4.8.3 How might visual resources be affected if the project were not constructed?

The No Build Alternative would not change existing visual quality in the study area.

4.8.4 What measures are proposed to minimize negative effects to visual resources during construction?

This project will have unavoidable short-term effects on viewers from construction and construction staging.

4.8.5 What measures are proposed to minimize negative effects to visual resources once the project is built?

The City of Richland will ensure landscaping and screening for illumination is included in the proposed project. Utilities such as electricity will be moved to the bridge. In addition, new noise walls and retaining walls will have customized aesthetic design treatments to soften the look and feel of these new structures. This will include applying texture and color to reduce apparent scale. Light fixtures will be shielded to minimize glare and uplighting. Vegetation will be replaced to provide screening.

4.9 Cultural Resources

4.9.1 What temporary effects to historic properties may potentially occur?

No temporary effects to historic properties are anticipated.

4.9.2 What long-term effects to historic properties may potentially occur?

The bridge will be built over the historic canal and its structural supports will not impact the canal. As requested by the CID, the existing concrete canal segment will be strengthened by lining it with concrete 50 feet upstream and downstream of the bridge. This will not detract from its visual or material characteristics that support NRHP eligibility, nor will it compromise the 99.04 percent of the canal's length outside the project area. The DAHP concurred with the FHWA determination of "no adverse effect" to historic properties on June 3, 2010.

4.9.3 How might historic properties be affected if the project were not built?

There would be no construction or operational impacts to historic properties under the No Build Alternative.

4.9.4 What measures are proposed to minimize effects to historic properties?

Excavation on the north side of the Yakima River will be approximately five feet. Excavation on the south side of the Yakima River will be deeper at eight feet. Drilled shafts for the piers and abutments will be placed to a depth of 35 feet. Excavation has the potential to reveal unknown cultural resources. An Unanticipated Discovery Plan will be prepared for the project. This plan will describe the notification process and the

appropriate work stoppage in the event of a discovery of cultural resources during construction. This will minimize effects to unknown cultural resources.

4.10 Vegetation, Wildlife, Fish, and Aquatic Resources

4.10.1 What temporary effects to vegetation, wildlife, fish, and aquatic resources may potentially occur?

The project may temporarily affect species of special status, EFH, ESA listed species, and critical habitat during construction of the project. It is anticipated that project activities may result in behavioral effects to fish due to potential increases in turbidity and noise during pile driving activities and the installation and removal of piles and caissons.

Impact pile driving can produce intense sound pressure waves that can injure and kill fish. Sound pressure levels can also cause temporary behavioral changes such as darting/startling or other behavior associated with stress. Fish may be frightened away from the project area forcing them to forage in other areas. It is anticipated that both physical and behavioral effects may occur to fish due to potential increases in underwater vibrations during impact pile driving activities. During impact pile driving, behavioral changes may result within 0.63 miles upstream and 0.56 miles downstream of the proposed bridge. Physical injuries may occur within 400 feet of the pile due to cumulative sound exposure levels. Impact pile driving will be the highest noise generating construction activity.

Increased underwater vibrations may result during vibratory pile driving activities. This could result in behavioral changes within 0.13 miles of the proposed bridge. Vibratory pile driving will be the second highest noise generating construction activity. No physical injuries are expected to occur during vibratory pile driving.

4.10.2 What long-term effects to vegetation, wildlife, fish, and aquatic resources may potentially occur?

The new bridge may affect species of special status, EFH, ESA listed species, and critical habitat. This could occur through potential increases in shading of the Yakima River, channel modifications resulting from the placement of piers, and roadway fill within the riparian area. Additionally vegetation removal, artificial lighting, increased traffic noise, and vehicle collisions may affect wildlife.

The placement of drilled shafts for the proposed Duportail Street Bridge foundation will result in the loss of 189 square feet of aquatic habitat.

The proposed bridge may result in shading impacts over an approximate 23,300 square foot area. This shading may result in fewer food sources and available refuges from predators. This impact is thought to be discountable as this area is generally dry, being inundated only when the river reaches the OHWM.

The proposed project will require the permanent clearing of 9.34 acres of shrub-steppe vegetation, 0.52 acres of riparian vegetation, and 1.24 acres of landscaped vegetation. Typical vegetation found in these areas was described in Section 3.10.2.

Roads are known to draw reptiles because the heat on the roadway surface appeals to the coldblooded animals. This attraction to roads puts reptiles at risk for collisions with vehicles (Clark 2005). Roadway collisions are also known to increase mortality rates of mammals and insects (FHWA 2012a).

Artificial lighting is known to impact wildlife in a variety of ways. These changes could potentially alter predator/prey relationships. Many species of bats are attracted by the increased number of insects around streetlights. The insects attracted to the light are also prey for birds (Rich and Longcore 2006). Artificial lighting may also encourage species typically awake during the day to continue hunting during night hours leaving reptiles and small mammals at risk to increased predation (Rich and Longcore 2006).

Floodlighting has been known to deter some bats from foraging grounds. The slower flying broad winged species of bats such as myotis bats are known to avoid lights. These bats may be at a higher risk of predation by birds because of their flight habit and the higher visibility provided by the lights (Jones 2000). The introduction of artificial lights along the bridge and roadway may result in a loss of foraging territory.

Juvenile fish also avoid artificial light because their eyes are unable to adjust quickly to changes in light. Fish within areas of artificial light are unable to distinguish images and are subject to increased predation (Mueller and Simmons *et. al.* 2008).

Traffic along the new route is expected to raise background noise within the area from approximately 55 dbA to 69 dbA. Increased traffic noise may interfere with the auditory signals birds or bats utilize to locate prey and feed.

The bridge and roadways will be constructed where there is currently open space. This increase in vehicles may result in increased wildlife/vehicle collisions.

4.10.3 How might vegetation, wildlife, fish, and aquatic resources be affected if the project were not built?

There would be no construction or operational impacts to vegetation, wildlife, and fish under the No Build Alternative.

4.10.4 What measures are proposed to minimize negative effects to vegetation, wildlife, fish, and aquatic resources during construction?

High visibility fencing will be installed along sensitive areas within 100 feet of the clearing limits of the project to prevent unintentional impacts.

To minimize impacts to fish, all in-water work will take place within the designated in-water work period (July 1st to September 30th). A biologist will be present to ensure no

fish are present within the footprint of the bridge during the placement and removal of sandbags, piles, and caissons.

Underwater noise will be minimized using several methods. A bubble curtain will be placed around any pile in greater than 2 feet of water prior to any impact pile driving. In 2 feet of water or less, sandbags will be hand placed to form a cofferdam around all piles being driven or removed. A biologist will be on site monitoring noise levels during all impact pile driving.

Several measures will be used during in-water work to minimize negative effects from turbidity. Piles from the temporary work bridge will be pulled up at a rate that will minimize turbidity impacts. During removal of material from within the casing for the drilled shafts, precautions will be taken to make sure material does not spill into the water. Trucks transporting this material will be adequately sealed to prevent spillage. Qualified personnel will be on-site monitoring turbidity to ensure compliance with the DOE's Section 401 water quality standards.

To prevent sediment from entering the river, erosion control BMPs, such as silt fences, straw bales, and catchbasin liners will be installed. Installation will occur before any earthmoving activities take place and will be maintained throughout construction. A containment structure, such as chain link fence covered in plastic/filter fabric, will be attached under the length of the temporary work bridge to prevent debris from falling into the river.

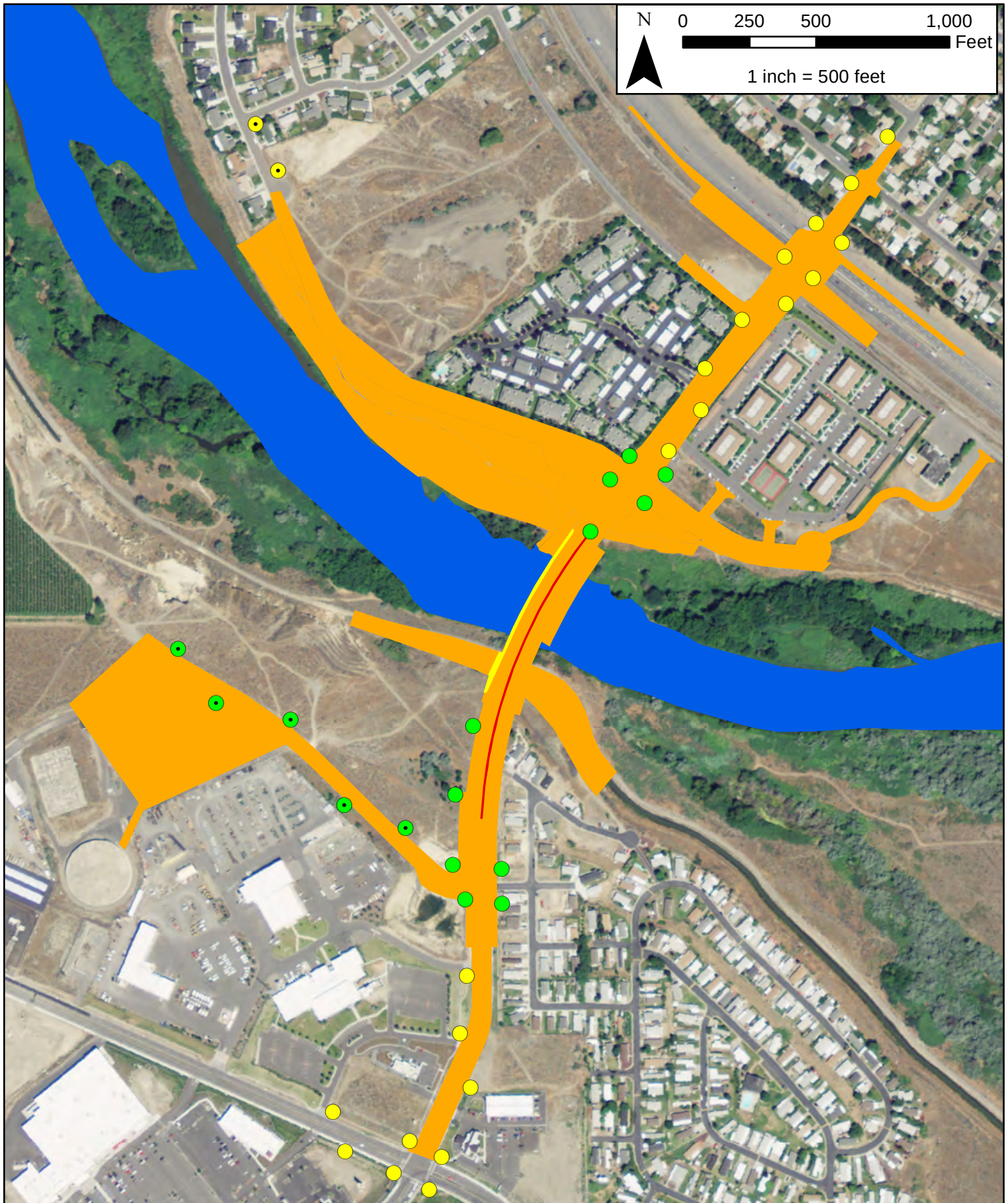
The following measures will be used to prevent spills and contamination. An SPCC Plan will be prepared by the contractor and approved by the FHWA prior to the initiation of construction. All equipment will be checked daily for leaks and any necessary repairs shall be made prior to commencement of work. No hazardous materials will be stored on USACE lands. All mobile equipment to be refueled and/or stored overnight on USACE lands will be done so over 300 feet from the Yakima River, in a secondary containment berm. Outside of USACE land, refueling operations will be conducted at least 100 feet from any open water body. All waste materials will be fully contained, and disposed of offsite in accordance with federal, state, and local laws.

4.10.5 What measures are proposed to minimize negative effects to vegetation, wildlife, fish, and aquatic resources once the project is built?

The bridge will be elevated, providing a safe passage for wildlife through an approximate 300-foot wide migration corridor beneath the bridge. New roadways have been consolidated to areas near existing and proposed urban development to limit the possibility of increased vehicle collisions.

In order to mitigate for the possible loss of habitat, restoration will occur to 0.71 acres of currently disturbed areas. Potentially up to 22.6 acres of temporarily disturbed areas will also be enhanced through the planting of native species. See Figure 11. These native shrubs will provide food and shelter for wildlife species.

Only pedestrian level lighting will be used along the pathway for the length of the bridge. This will reduce the amount of light cast into the riparian area under the bridge. Lighting along Tanglewood Drive and City View Drive will be limited to 100 Watt (W) lighting and utilize the maximum pole spacing for residential and collector roads where possible. In accordance with safety standards, Duportail Street will require 200 W street lighting along the roadway and at intersections. Lower wattage lamps and maximum pole spacing of street lamps will be incorporated where possible. All lights will utilize reflectors and hoods to direct lighting onto the bridge and roadways, avoiding light spillage to the waterway and riparian areas. See Figure 18.



- Project Area
- Existing 100W Street Lamp
- Existing 200W Street Lamp
- Proposed 100W Street Lamp
- Proposed 200W Street Lamp
- Bridge Median Barrier

Figure 18: Types of Illumination
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

4.11 Geology and Soils

4.11.1 What hazards are associated with the geology and soils in the project study area?

Soils in the project area are susceptible to wind and water erosion. The majority of the project area is located on floodplain sediments, which are subject to settling if heavy fill material is placed on top of existing soils.

No slope instability was observed in the project corridor; however, the slope between the CID canal access road and the southern edge of the Yakima River is steep and the upper portion contains loose fill.

4.11.2 What temporary effects to geology and soils may potentially occur?

Earthmoving activities will leave soils exposed to erosion during construction activities. Increased dust from exposed soils during vegetation removal and grading may occur.

4.11.3 What long-term effects to geology and soils may potentially occur?

The steep hill on the southern bank of the Yakima River will be excavated as much as eight feet. Additionally, fill will be required for the Tanglewood Drive extension and a portion of Duportail Street on the north side of the river. These changes will help reduce embankment and bridge profile slopes.

Fill within the floodplain could cause settlement of existing soils. The greatest settlements will likely coincide with the largest fill heights.

The design of the bridge foundations must consider the potential scour from the Yakima River to maintain long-term stability.

4.11.4 Might there be effects to or from geology and soils in the project study area if the project were not constructed?

There would be no construction or operational impacts to soils or geology under the No Build Alternative.

4.11.5 What measures are proposed to minimize negative effects to or from geology and soils during construction?

Construction BMPs will be used to reduce erosion from areas with cuts, fills, and/or excavations. TESC plans will be prepared for approval in accordance with BMPs included in the current WSDOT Highway Runoff Manual.

Silt fences and straw bales will be placed to filter sediment from surface water runoff. Embankment slopes will be covered with jute or other netting as well as mulching or hydroseeding. Graded and cleared areas will be hydroseeded or mulched to minimize erosion and encourage re-vegetation. Parking and staging areas for vehicles and equipment will be covered with a gravel work pad where appropriate to prevent dust and

erosion of the existing soils. Truckloads will be covered in order to minimize material being spilled onto roadways.

Dust will be minimized by applying water to disturbed areas and unpaved surfacing as needed, depending on weather conditions.

4.11.6 What measures are proposed to minimize effects to geology and soils once the project is built?

In order to increase the stability of embankment fills, construction will be done in stages. Geotextile fabric will be placed at the base of the embankment and within the fill in order to stabilize the area during construction. The stability of the fill increases over time as soils bind together.

A lightweight material will be used to construct the fill embankments. Because the soils in the floodplain could be susceptible to settling if standard fill were used, the lighter material will allow the existing soil to support the embankments required for the project.

The northeast portion of the Duportail Street-Tanglewood Drive intersection will be constructed with retaining walls. The remaining embankments are anticipated to be graded to a 3:1 slope. The amount of retaining wall has been greatly reduced since the Geology and Soils Discipline Report was approved. This design change occurred as a result of the bridge being lengthened 125 feet which provided the opportunity for flatter embankments.

A detailed slope stability study will be performed during the project design phase. If additional mitigation for slope stability is necessary, improvements may be made to the soils beneath and adjacent to the embankments.

Drilled shafts will be used to create the piers and abutment foundations of the bridge. These shafts will be anchored to bedrock, far below the possible scour generated by the Yakima River. A casing will be used around the hole for the drilled pier in order to prevent the upper loose sands and gravel material from caving in during construction.

4.12 Social Elements, Economics and Environmental Justice

4.12.1 What temporary effects to communities, neighborhoods, and businesses may potentially occur?

Temporarily increased noise and dust will be experienced by the surrounding neighborhoods. No vehicular detours are expected; however, some lane closures may be needed. Transit routes will not be detoured during construction, but pedestrian access to the bus stops may be detoured at various times.

4.12.2 Will existing properties, residences, or businesses be acquired or displaced by the project?

No displacements will result from the proposed project.

Acquisition is necessary in several locations for the construction of Duportail Street. The first area is near the intersection with SR 240. Acquisitions will be necessary along Duportail Street both north and south of SR 240. Acquisition of undeveloped land near the existing cul-de-sac north of the river will also be necessary. Property owned by the City of Richland will be used for ROW near the intersection of Duportail Street and City View Drive south of the river.

Acquisition is also necessary for the construction of Tanglewood Drive. The first locations are at the end of the existing portion of the road constructed in the developed housing tract. There are also acquisitions needed south of the Shoreline Village Apartments adjacent to the USACE property.

Additional property will be leased from the USACE (FHWA and WSDOT 2011a). See Figure 15 and Table 13.

The new intersection of Tanglewood Drive and Duportail Street will have a traffic signal. Access driveways for the Shoreline Apartments and a private driveway for the church are being relocated to use the new traffic signal to get onto Duportail Street. The public street of Riverstone Drive will be converted to right turns only.

4.12.3 How might minority and/or low-income populations be disproportionately affected by project construction activities?

During construction, everyone in the project area will have to adjust their daily routine due to noise increase and lane closures. When completed, the proposed bridge will provide a benefit to residents living in the project area. The construction effects will not affect any population more than another.

4.12.4 How might economics in the area be affected by project construction?

The construction of the proposed project will provide temporary job creation and economic stimulus to the area. Jobs created by the project occur in different time periods over the course of project development and construction. Direct construction jobs would be limited to the two- year construction period.

In addition to the estimated 180 direct construction jobs created, the project will indirectly create approximately 35 jobs. These would include materials and services needed for the project. Architecture and engineering jobs account for approximately one-third of this employment. Jobs in the area will also be induced in other portions of the economy including food services and other service sector businesses. This induced employment is estimated at 60 jobs (City of Richland 2009). Any jobs created are expected to end within six months of project completion.

4.12.5 What measures are proposed to minimize negative effects to communities, neighborhoods, and businesses during construction?

Noise will be minimized by restricting construction to daytime hours, between 7:00 AM and 9:00 PM. This should also avoid or minimize the need for supplemental lighting. Pile-driving equipment will primarily utilize a vibratory hammer – which has lower peak decibel values – and only use an impact hammer to proof-test piles. Mufflers will also be utilized on noise-generating equipment and vehicles.

Dust will be minimized by applying water to disturbed areas and unpaved surfaces as needed, depending on weather conditions. Odors will be minimized by keeping volatile chemicals in sealed containers when not in use, periodic removal of wastes, and by keeping idling of equipment to a minimum.

The effects from construction related traffic will be minimized by staging equipment and delivery vehicles away from residential driveways. Work zone traffic control will be provided to assure safe and orderly passage of traffic and pedestrians. Improvements to the intersections and nearby changes to access will be staged so as to maintain access to properties and businesses.

No vehicular detours are expected; however, some lane closures may be needed. If a lane were closed during construction, a traffic control plan would be prepared for approval by the City.

The WDFW boat launch will remain open during the majority of construction in order to maintain the community's access to the Yakima River. The WDFW will be notified of any temporary closures of the facilities to the public.

4.12.6 How might communities, neighborhoods, and businesses be affected once the project is built?

Traffic, traffic noise, and air pollution will be the primary operational effects on people who work or live near the existing segments of Duportail Street. The overall effect of the project will be beneficial to communities as it will reduce congestion and reduce vehicle miles traveled. Part of the impact will be the change in traffic patterns, due to the construction of a roadway that did not previously exist. The roadway will allow for the possibility of a new public transit route to serve more people efficiently. Additionally, sidewalks will be constructed throughout the project area, providing improved connectivity for cyclists and pedestrians. All new pedestrian facilities will be designed to seamlessly blend with the existing facilities, and will be compliant with the ADA accessibility guidelines.

Streetlighting will increase ambient light levels along Duportail Street. This will have some impacts due to glare, but will increase safety and discourage crime.

All residents within the project area will benefit from both the additional crossing in the City of Richland and the improved pedestrian facilities. Residents on the north side of the river will have easier access to the large box store shopping along Queensgate. Residents on the south side of the river will have easier access to downtown Richland, as well as the trail and boat launch.

4.12.7 How might communities, neighborhoods, and businesses be affected if the project were not built?

The surrounding communities, neighborhoods and businesses would be affected by increasing traffic congestion and continued lengthy emergency response times.

4.12.8 What measures are proposed to minimize negative long-term effects to communities, neighborhoods, and businesses?

Traffic will be managed and impacts minimized by monitoring new traffic patterns. The speed limit will be set at 35 mph and controlled through traffic enforcement measures if evidence from ongoing traffic volume and speed measurements show a need. There will be improvements to the intersection of SR 240 with Duportail Street. A new signal will also be installed at the new intersection of Tanglewood Drive and Duportail Street. Access to the Shoreline Village apartment complex will be facilitated by a new driveway onto a local access road that connects to the new signal.

Transit now serves nearby areas via routes on Queensgate Drive and Cottonwood Drive. No routes currently stop on SR 240 or Duportail Street. Although there are no official plans to change or add bus routes in this area, a new bridge across the Yakima River will make such route changes possible. The new roadway section of Duportail Street can accommodate bus service, and will have provisions for pedestrians and bicycles.

School buses serving the apartment complexes have previously used the Duportail Street cul-de-sac to accomplish needed turnaround movements as well as passenger loading and unloading. After project completion, these buses will be able to use the new local access roads.

Two noise walls may be constructed for residences on the south side of the proposed bridge. A 534-foot long, 16-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park north of City View Drive. A 420-foot long, 12-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park south of City View Drive.

The proposed project will provide benefits to the surrounding community and will not have disproportionately high effects on minority or low-income populations.

4.13 Air Quality

4.13.1 What temporary effects to air quality may potentially occur?

Dust from construction activities and emissions from equipment could affect air quality in the immediate vicinity of activities. These emissions would be temporary, limited to the immediate area surrounding the construction site, and small enough to be discountable.

4.13.2 What long-term effects to air quality may potentially occur?

The proposed project is expected to have a long-term beneficial impact on air quality as a result of reduced local vehicular emissions. The more direct route across the Yakima River for residents in the area will result in a reduction in time spent idling and fewer miles traveled.

4.13.3 How would air quality be affected if the project were not constructed?

Air quality in the project area would continue to degrade due to increased traffic congestion from traffic projected in the future.

4.13.4 What measures are proposed to minimize the negative effects to air quality during construction?

Dust will be minimized by applying water to disturbed areas and unpaved surfacing as needed, depending on weather conditions. Emissions from construction equipment will be kept to a minimum by reducing the time that construction equipment is idling while not actively in use. Staging areas are located as close as possible to work sites to limit distance travelled.

4.13.5 What measures are proposed to minimize the negative effects to air quality once the project is built?

The project has been designed to address future traffic conditions. The project will create a more direct route across the Yakima River and decrease traffic congestion on the existing routes. This will reduce the quantity of vehicle emissions within the area.

4.14 Hazardous Materials

4.14.1 What effects to hazardous materials may potentially occur during construction?

Hazardous materials identified in the DOE Facility/Site Atlas are not within the project area. No other sites are known to exist.

During construction, there is a risk for hazardous material spills to take place.

4.14.2 What effects related to hazardous materials would occur if the project were not built?

There would be no construction or operational impacts to hazardous materials under the No Build Alternative.

4.14.3 What measures are proposed to minimize negative effects?

The construction contract will include provisions requiring appropriate handling and disposal of identified or suspected contaminated soil and groundwater that may be encountered. The proposed alternative is not expected to impact any hazardous waste material sites, as there are no known sites in the project area. An SPCC plan will be in place before the commencement of any construction activities, and will remain until the project is complete. On lands not owned by the USACE, refueling operations will be conducted at least 100 feet from any open water body. No hazardous materials will be stored on USACE lands. All mobile equipment to be refueled and/or stored overnight on USACE lands will be done over 300 feet from the Yakima River, in a secondary containment berm.

4.15 Energy

4.15.1 What effects to energy may potentially occur?

The proposed project is expected to have a long-term beneficial impact on energy use. The project will provide a more direct route across the Yakima River for residents in the area, reducing miles traveled. The project will also result in reduced time spent idling by decreasing traffic congestion. This will be accomplished by increasing capacity, altering the traffic flow through the area, and reducing the number of cars on the road by providing pedestrian and public transportation facilities. This will create a reduction in gasoline and diesel consumption.

4.15.2 What effects to energy would occur if the project were not built?

If the project is not constructed, traffic congestion will continue to get worse as traffic volumes continue to grow over time. The congestion will get worse sooner than if the project is constructed. Additional energy would also be used by vehicle trips that could be avoided if bicycle and pedestrian facilities were available to cross the Yakima River.

4.15.3 What measures are proposed to minimize negative effects?

Emissions from construction equipment will be kept to a minimum by reducing the time that construction equipment is idling while not actively in use. Staging areas are located as close as possible to work sites to limit distance travelled.

4.16 Indirect Effects

4.16.1 What are indirect effects?

Indirect effects are defined as effects caused by the project that are later in time or farther removed in distance but still reasonably certain to occur.

4.16.2 Would the Duportail Street Bridge Project result in any indirect effects?

There are several indirect effects that may result from the Duportail Bridge Project.

Land Use

The project would require no change in zoning to any private properties or amendment to an existing land use plan. No building moratoriums are in place. Other than small ROW acquisitions, no land use changes are anticipated to result from the project. No known developments are contingent upon the completion of the proposed project; nor are any land use changes tied by permit condition to the proposed project.

The proposed project will result in changes to traffic patterns. The project will improve transportation efficiency, removing choke points and creating a direct route to newer developments on the south side of the City of Richland. The project will remove 1,350 cars at the SR 240/Duportail intersection, 1,700 cars at the Queensgate Drive/SR 240 on/off ramps, and 1,700 cars at the I-182/Queensgate on/off ramps during the evening peak hour (FHWA 2011). Additionally, local traffic will not need to use the interstate.

The total population of Richland has grown from 38,708 in 2000 to an estimated 45,460 as of 2008, which represents a net growth rate of approximately 17.4 percent. This population growth creates additional development in the city. Currently the rate of development is approximately 2.8 percent or 9.59 acres per year. An analysis was conducted to determine if the proposed project will speed up the rate of planned development within the area of potential traffic changes. It was determined that of the 349 acres of developable land approximately 28 percent (95.96 acres) are likely to develop within ten years of project completion. The current level of development is therefore anticipated to be maintained throughout this area (FHWA and WSDOT 2011g).

The project would not affect land use indirectly or induce land use change. Refer to Figures 8 and 19.

4.17 Cumulative Effects

4.17.1 What are cumulative effects?

Cumulative effects are effects on the environment which result from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 1508.7). Cumulative effects are determined by combining the effects of an action with other past, present, and reasonably foreseeable future actions.

4.17.2 Would the Duportail Street Bridge Project contribute to any cumulative effects?

No impacts were identified for the topics of Transportation, Public Services and Utilities, Floodplains, Cultural Resources, Social Elements, Economics, and Environmental Justice, Air quality, and Hazardous materials. Therefore, no cumulative effects analysis is warranted for these topics.

Impacts can be effectively mitigated for the topics of Section 4(f), Surface Water, Traffic Noise, Visual Quality, Vegetation, Wildlife, Fish and Aquatic Resources. Therefore, no cumulative effects analysis is warranted for these topics.

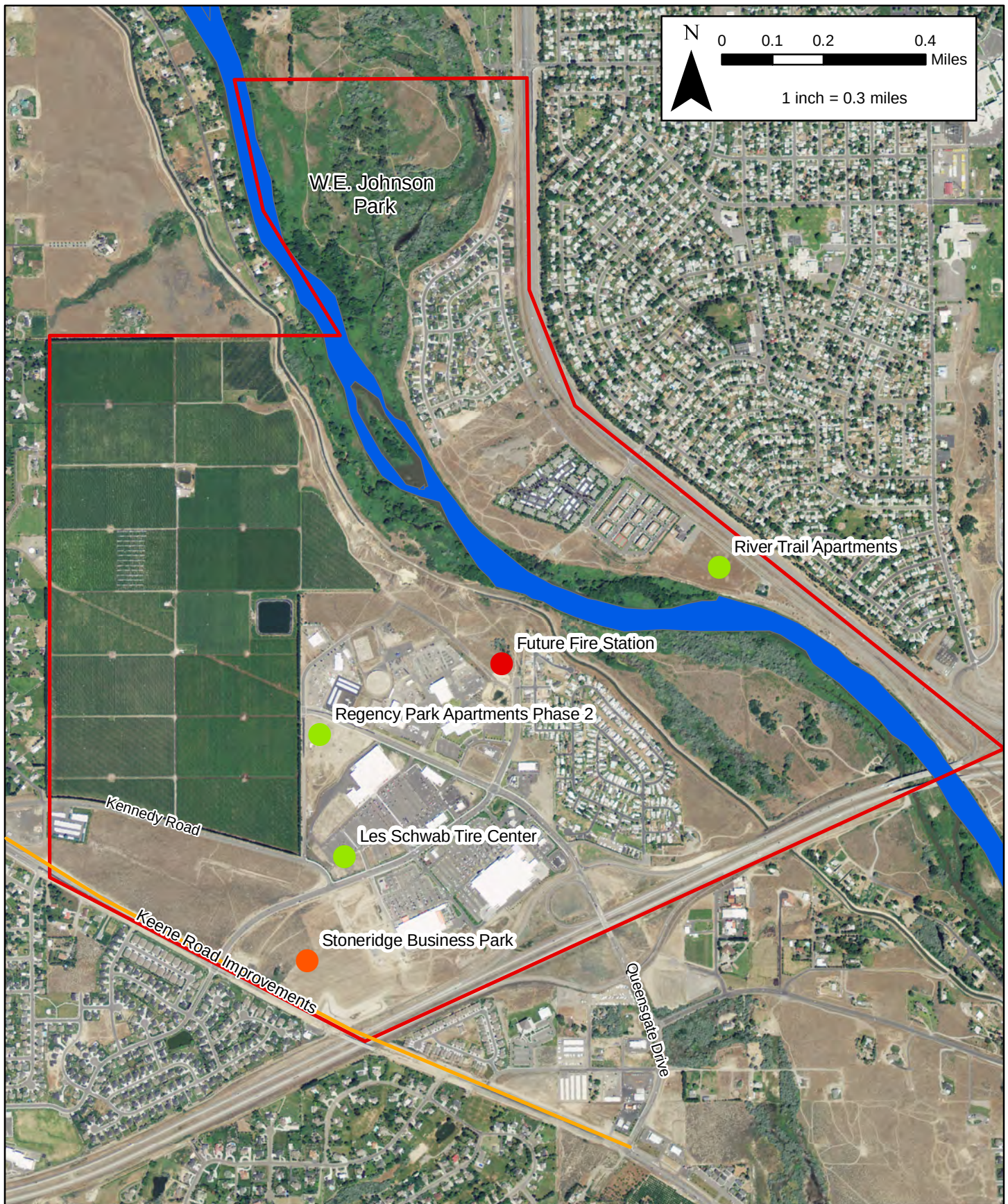
4.17.3 What actions other than the Duportail Bridge Project are included in the cumulative effects analysis?

Cumulative effects must be evaluated within a broader geographic and temporal study area than direct effects. The geographic boundary was determined based on the physical limits of environmental effects of the project, as well as the boundaries of other activities that also may contribute to these effects. Actions other than the project were examined that occur within the defined temporal and geographic boundaries.

The geographic boundary for the cumulative effects evaluation includes the area within city limits bounded by Keene Road, WE Johnson Park, SR 240, and I-182, see Figure 19. This area has the potential for access changes and traffic pattern changes due to the proposed project.

The temporal boundary examined for cumulative effects of the project extends from 1971, the year the southern portion of the project area was annexed to the design horizon year of 2032.

This page intentionally left blank for printing purposes.



- Binding Site Plan
- Building Permit
- Cumulative Effects Study Area
- Yakima River

Figure 19: Cumulative Effects Study Area

Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

4.17.4 What resources were evaluated for cumulative effects?

Land Use

This analysis considered known planned or programmed projects whether or not they were funded. It also considered ongoing routine maintenance and short-term minor construction necessary for continued operation of existing facilities.

The City of Richland Comprehensive Plan includes a transportation element that outlines projects needed to address projected traffic volumes. These projects will allow the City to meet their land use goals for future development. The Duportail Bridge project is included within the 2006-2025 transportation program.

The City of Richland annexed the study area north of the river in 1959. The annexation of the area south of the river began in 1971 and was completed by 1995. The majority of the development in the study area has been completed since 2004. Earlier development includes the City of Richland offices, the Hills Mobile Home Park as well as the Riverpointe Apartments and the adjacent church. The Hills Mobile Home Park, the City offices and the Riverpointe Apartments were constructed prior to 1996. The church was constructed in 1974.

The south side of the Yakima River is dominated by large box stores and strip malls. A mobile home park and the City of Richland offices are also located in this area. Agricultural land within the study area is designated urban reserve in the comprehensive plan. The uses of land with this designation are intended to be temporary during the current 20-year comprehensive plan. The City will leave land in this holding designation until the land supply in the urban area has been reduced and the city evaluates the need for additional land in other designations. Development on the north side of the River is dominated by multi-family residential use. Single-family residences are located north of the project area.

Several building permits and a binding site plan have been approved within the study area and the locations are shown on Figure 19.

- A Les Schwab Tire Center will be constructed near the intersection of Duportail Street and Kennedy Road.
- The Regency Park Apartments Phase 2 will be constructed near the intersection of Queensgate Drive and Truman Avenue.
- The River Trail Apartments will be constructed east of the Shoreline Village Apartments north of the Yakima River.
- A binding site plan has been approved for the Stoneridge Business Park near Duportail Street and Keene Road.

Improvements to Keene Road are currently under construction from Kennedy Road to Queensgate Drive. Construction of a new fire station is proposed near the intersection of Duportail Street and City View Drive.

It is anticipated that development, which has been occurring within this area prior to the proposal of the project, will continue. As previously described, several retail and residential developments have been permitted or planned and will be constructed regardless of the project. The recent retail development will draw in additional businesses and residences with the access currently available.

It is not anticipated that the project will affect the rate of development in the area. Construction of this project would not change the current land use or zoning.

4.17.5 What effect would the transportation improvements from the Duportail Street Bridge Project have on greenhouse gas emissions?

The proposed project is expected to have a long-term beneficial impact on climate change as a result of reduced local vehicular emissions. The project will provide a more direct route across the Yakima River for residents in the area, reducing time spent idling and miles traveled. The project will also result in reduced traffic congestion and therefore emissions. This will be accomplished by increasing capacity, altering the traffic flow through the area, and reducing the number of cars on the road by providing pedestrian and public transportation facilities.

4.17.6 What measures are proposed to minimize cumulative effects?

No mitigation measures are needed for cumulative effects.

4.18 Irreversible and Irretrievable Commitment of Resources

4.18.1 What irreversible and irretrievable resources would be committed to the project?

The project will require the commitment of a portion of the Yakima River riparian area for bridge construction. Mitigation will be provided, as appropriate. The appropriation and funding for this mitigation will be irretrievable.

4.19 Relationship of Short-Term Uses of Environment and Long-Term Benefits

4.19.1 What are the tradeoffs between short-term losses of environmental resources and long-term benefits from the project?

The Duportail Street Bridge Project will result in short term losses which are summarized below:

Public Services and Utilities

Temporary disruptions in some utility services will be experienced during relocations. Any outages are anticipated to be short-term and intermittent. Groundbreaking and pile driving activities may inadvertently disrupt utilities.

Noise

Sound levels generated during construction may reach levels of up to 110 dB(A) during proof-testing of piles. The closest residences are located over 250 ft from any impact pile driving activities. Sound levels at residences are therefore not expected to exceed 95 dB(A). Impact and vibratory pile driving will occur for 120 days.

Geology and Soils

Earthmoving activities will leave soils exposed to erosion during construction activities. Increased dust from exposed soils during vegetation removal and grading may occur.

The Duportail Street Bridge Project would have a number of beneficial effects. The major effects would be to improve traffic flow within the City of Richland from the city center to the Queensgate area. Beneficial effects are summarized below:

Transportation

Creating an additional crossing of the Yakima River will improve the connection between the east and west sides of the city, improving transportation efficiency and mobility; reducing traffic related congestion, and delays; and providing more opportunities for non-motorized travel.

Public Services/Utilities

Transportation related public services will improve (police, fire, ambulance, school buses); the introduction of an additional crossing will reduce emergency vehicle travel times; and existing water and power lines will be replaced and upgraded. Power lines will be removed from overhead and placed in conduit on the bridge. Better access to waterfront trails will also be provided by the project.

Social and Economic

It will also improve safety for vehicles, pedestrians and bicycles by reducing congestion and delays and through improvements to pedestrian and bicycle facilities. It also provides non-motorized and potential public transit access to new locations for work opportunities.

Air Quality

Air quality will improve as there will be a reduction in air emissions associated with idling, as cars will spend less time in traffic and drive less miles.

5 Mitigation

As previously described, the project will include measures that avoid or minimize effects during construction and operation of the Duportail Bridge. The following sections describe the mitigation proposed to offset the potential impacts that have been identified.

5.1 Land Use

The only impact to land use is the point of access to Duportail Street for properties north of the Yakima River. In order to provide access to existing residential areas, a signalized intersection will be created at the intersection of Tanglewood Drive and Duportail Street. Access driveways for the Shoreline Apartments and a private driveway for the church are being relocated to use the traffic signal. The extension of Tanglewood Drive will be provided for the Riverpointe Apartments and other housing to access Duportail Street via the signalized intersection.

5.2 Section 4(f)

The proposed stormwater pond on the Corps property has been replaced with infiltration trenches.

No street lighting is proposed along Tanglewood Drive except for the intersection with Duportail Street. Only pedestrian level lighting will be installed along the bridge.

The proposed bridge was lengthened from 650 feet to 775 feet to improve wildlife passage on the Corps property. A minimum of 12 feet of clearance will be provided from the bridge over the northern riverbank.

Tanglewood Drive was designed at the northern property line to consolidate development and maximize the distance to the Yakima River. Separation between Tanglewood Drive and the rest of the USACE property will be created by landscaping or a cable railing.

Any vegetation altered/removed within the intensive wildlife management area will be mitigated by restoring currently degraded portions of the area near the project site. With the exception of the one designated trail, all areas currently disturbed or disturbed due to staging activities will be revegetated with native shrub-steppe vegetation post construction. This will create more contiguous open space while still allowing recreational use.

No hazardous materials will be stored on USACE lands. All mobile equipment to be refueled and/or stored overnight on USACE lands will be done over 300 feet from the Yakima River, in a secondary containment berm.

5.3 Noise

Two noise walls will be constructed for residences on the south side of the proposed bridge that were shown to have future impacts based on the Traffic Noise Report. A 534-foot long, 16-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park north of

City View Drive. A 420-foot long, 12-foot high wall will be erected between Duportail Street and the Hills Mobile Home Park south of City View Drive.

5.4 Visual

New noise walls and retaining walls will most likely have customized aesthetic design treatments to soften the look and feel of these new structures. This would include applying texture and color to reduce apparent scale. Light fixtures will be shielded to minimized glare and uplighting. Vegetation will be replaced to provide screening of new structures from viewers.

5.5 Vegetation, Wildlife, Fish, and Aquatic Resources

The bridge/roadway will be elevated, providing a safe passage for wildlife through an approximate 300-foot wide migration corridor beneath the bridge.

In order to mitigate for the possible loss of habitat, the project proposes to restore 0.71 acres of currently disturbed areas and potentially enhance up to 22.6 acres of temporarily disturbed areas through the planting of native species. See Figure 11. These native shrubs will provide a food source and shelter for wildlife species.

Pedestrian level lighting will be the only lighting used along the pathway for the length of the bridge. This will reduce the amount of light cast into the riparian area under the bridge. Lighting along Tanglewood Drive and City View Drive will be limited to 100 W lighting and utilize the maximum pole spacing where possible. In accordance with safety standards, Duportail Street will require 200 W streetlighting along the roadway and at intersections. Lower wattage lamps and maximum pole spacing of street lamps will be incorporated where possible. All lights will utilize reflectors and hoods to direct lighting onto the bridge and roadways, avoiding light spillage.

To minimize impacts to fish, all in-water work will take place within the designated in-water work period (July 1st to September 30th). A fisheries biologist will be present to ensure no fish are present within the footprint of the bridge during the placement and removal of sandbags, piles, and caissons. No additional aquatic habitat will be provided.

Underwater noise will be minimized using several methods. A bubble curtain will be placed around any pile in greater than 2 feet of water prior to any impact pile driving. In 2 feet of water or less, sandbags will be hand placed to form a cofferdam around all piles being driven or removed. A biologist will be on site monitoring noise levels during all impact pile driving.

5.6 Surface Water, Water Quality, and Hydrology

The proposed project will infiltrate all of the stormwater generated from impervious surfaces within the project area. The project proposes the installation of infiltration trenches parallel to Tanglewood Drive as well as Duportail Street on the south side of the Yakima River. The proposed project will provide treatment prior to infiltration for all except 0.56 acres of pollutant generating impervious surface, both new and replaced. Trenches will treat runoff from approximately 7.14 acres of impervious surface.

6 Public Involvement

6.1 How was the Duportail Street Bridge Project developed?

Once the Preferred Alternative was identified through the 2007 planning study and public involvement, the City of Richland proceeded with the bridge design. One of the first steps taken was to conduct a Value Engineering (VE) Study in April 2009. A VE Study is defined by WSDOT as “a systematic application of recognized techniques by a multidiscipline team to identify the function of a product or service, establish a worth for that function, generate alternatives through the use of creative thinking, and provide the needed functions to accomplish the original purpose; thus assuring the lowest life cycle cost without sacrificing safety, necessary quality, or environmental attributes.”

The Final VE Report is available from the City of Richland. The VE team was comprised of individuals with disciplinary expertise relevant to the nature of the project, including traffic, constructability, utilities, geotechnical, design, structural, civil, and environmental. The VE team was selected by the City of Richland and led by Meng Analysis. The team included City staff, private engineers, and consultants. Based on recommendations from the VE study, the City of Richland developed a bridge design.

6.2 Comments and Coordination

6.2.1 What public involvement has occurred?

In mid-2006, the City of Richland formed a committee with the specific task of identifying and determining the best route to alleviate congestion on the I-182 and SR 240 corridors. The committee consisted of two members from the City’s Planning Commission, two members from the Economic Development Committee, one member from the Parks and Recreation Commission, and two City Council members. Four alternatives were analyzed:

1. Make improvements to I-182 and Aaron Drive by adding more lanes.
2. Construct a bridge over the Yakima River at Duportail Street along with corridor improvements.
3. Construct a bridge over the Yakima River at Swift Boulevard along with corridor improvements.
4. Construct a bridge over the Yakima River at Goethals Drive along with corridor improvements.

See Figure 7 for location of alternatives. The committee, a traffic consultant, and City staff developed scoring criteria and a matrix to evaluate each alternative. The City of Richland held a public open house in January 2007, to discuss each alternative and to receive feedback from the community. The meeting was well attended by more than 100

people. A questionnaire was handed out asking people to circle their preferred option and an area at the bottom was provided for comments. The questionnaire filled out by the attendees indicated that Alternative 1, to improve the existing I-182 corridor, was the most popular with those attending the meeting. Alternative 2, the Duportail Street Bridge, was the second choice. However, a month after the open house, the City of Richland received a petition with more than 120 signatures from the Hills Mobile Home Park, located southeast of the project, supporting the Duportail corridor. The committee made a recommendation to City Council in February 2007 that supported the Duportail alternative. After holding workshop meetings with City Council to walk through the analysis, the City Council selected the Duportail corridor as the Yakima River crossing location in May 2007.

In May of 2007 the Richland City Council selected the “Duportail / Stevens Corridor” as a high priority project. In November of 2008, the bridge concept was shown to area residents at a local middle school. This included a flyer with an aerial photo rendering of the new bridge. A major consideration and purpose for this project was to connect the downtown section of Richland with growth forming around the Queensgate area.

Resource and regulatory agencies, adjacent business/property owners, and the general public were contacted to obtain their feedback on the project and the proposed alternatives. A public open house meeting was held on November 5, 2008 to discuss the proposed project and associated project issues. The City of Richland has responded to written comments received at the open house and responses are available in Appendix G. Responses were mailed to the commenters and are posted on the City of Richland’s website. Some of the most common concerns and the project elements designed to address them are included below.

One of the comments repeated by multiple people was the need for traffic control to allow access to Duportail Street from the Shoreline Village and Riverpointe Apartments. There were concerns about delays entering Duportail Street from the developments and safety during left hand turns. A traffic signal is planned at the intersection of Tanglewood Drive and Duportail Street. This will allow for safe left hand turns onto Duportail Street from the residential developments and minimize delay.

Traffic levels for residents in the neighborhood adjoining the project area to the north were also a concern. Due to the new route across the river, it was a concern that traffic would continue north along Duportail Street. This is unlikely to occur due to the residential development in this area that was completed. No commercial traffic is likely to use this portion of the street in residential areas. The project will not create a new source of traffic from this area and no destination exists that would draw outside traffic into the northern section of Duportail Street. The majority of traffic crossing north across the bridge will turn onto SR 240 en route to the city center.

Noise levels created by the project were also concern to residents. Since the comments were received, the noise analysis has been completed and the previously described noise walls were designed. These noise walls will benefit residents of the Hills Mobile Home

Park. Noise levels in the remaining project area did not have an increase that would warrant a noise wall by FHWA criteria. Some areas in the Shoreline Village apartment complex even show a slight decrease in noise levels from the existing conditions.

Concern was also expressed about light pollution. The lighting plan was designed to minimize the amount of artificial lighting while meeting safety requirements. Lower wattage lamps and maximum pole spacing of street lamps will be incorporated where possible. All lights will utilize reflectors and hoods to direct lighting onto the bridge/roadways avoiding light spillage and uplighting. Pedestrian level lighting will be the only lighting used along the pathway for the length of the bridge. Lighting along City View Drive will be limited to 100 W lighting. Lighting will occur on Duportail Street at intersections and gore points.

Impacts to the riparian area from a new bridge have been a concern for wildlife passage and for access to the existing trail for pedestrians. The bridge/roadway will be elevated, providing a safe passage for wildlife beneath the bridge. The bridge was lengthened 125 feet from the original design. With this increased length, an approximately 300-foot wide migration corridor will be available beneath the bridge. This also allows pedestrians to continue to use the unimproved trail as it passes under the bridge.

6.2.2 How have government agencies been involved?

The lead agencies for the project are:

United States Department of Transportation, Federal Highway Administration,
711 S. Capitol Way, Suite 501, Olympia, WA 98501.

Washington State Department of Transportation, South Central Region Local Programs
Office, P.O. Box 12560, Yakima, WA 98909

The proponent of the project is:

The City of Richland, 505 Swift Blvd, Richland, WA 99352

Cooperating agencies for the project include:

United States Army Corps of Engineers,
201 North Third Avenue, Walla Walla, WA 99362
Federal Emergency Management Agency Region X,
130 228th Street SW, Bothell, WA 98021

Participating agencies include:

Department of Fish and Wildlife 1701 S. 24th Avenue, Yakima, WA 98902
Department of Ecology, 15 West Yakima Ave -- Suite 200, Yakima, WA 98902-3452
Department of Natural Resources, Southeast Region,
713 Bowers Road, Ellensburg, WA 98926

The letters sent from FHWA to participating and cooperating agencies can be found in Appendix C.

Coordination meetings have been conducted during project development in order to allow the USACE, FHWA, FEMA, WSDOT, and the City of Richland to discuss the design of the project. The discussions have also included the scope and conclusions of the discipline reports. This process continued through the development of the EA and agencies were allowed a 30-day comment period before the document was released to the public.

6.2.3 How have Native American Tribes been involved?

Consultation with the Confederated Tribes of the Umatilla Indian Nation (Umatilla Nation) was initiated on May 4, 2009. The Umatilla Nation expressed an interest in cultural resources and was sent a copy of the cultural resources report on January 13, 2010. The determination of “No Adverse Effect” was concurred upon by the SHPO on June 3, 2010.

6.2.4 What future public involvement is planned?

The City of Richland will continue public involvement through the release of the EA and subsequent 30-day comment period. An open house will be held 16 days after the release of the EA, and is anticipated to occur in March 2013.

7 List of Preparers

Name	Association	Position	Education	Years of Experience
Ann Weckback	Widener and Associates	Biologist	BS, Environmental Science	5
Violet Barnard	Widener and Associates	Biologist	BS, Environmental Studies	4
Christina Neff	Widener and Associates	Biologist	BS, Environmental Science	3
Steve Stairs, PE	City of Richland	Transportation and Development Manager	BS, Civil Engineering	18
Naomi Selove, PE	BergerABAM Engineers	Project Engineer	BS, Civil Engineering	10

This page intentionally left blank for printing purposes.

References

Project Reports

City of Richland. 2009. Transportation Investment Generating Economic Recovery (TIGER Discretionary Grants) Economic Analysis. August 2009.

FHWA (Federal Highway Administration). 2011. Duportail Street Bridge Project, Richland, Washington: Transportation Discipline Report. November 2011.

FHWA and WSDOT (Federal Highway Administration and Washington Department of Transportation). 2011a. Environmental Justice Discipline Report: Duportail Bridge Project, City of Richland, WA. October 2011.

_____. 2011b. Floodplain Discipline Report: Duportail Street Bridge Project, Benton County, Washington. October 2011.

_____. 2011c. Land Use Discipline Report: Duportail Street Bridge Project, Benton County, Washington. March 2011.

_____. 2011d. Duportail Street Bridge Project, Richland, Washington: Surface Water Discipline Report. October 2011.

_____. 2011e. Visual Impacts Discipline Report: Duportail Street Bridge Project, Benton County, Washington. October 2011.

_____. 2011f. Public Services and Utilities Discipline Report: Duportail Street Bridge Project, Benton County, Washington. October 2011.

_____. 2011g. Aquatic Resources, Wildlife, and Vegetation Discipline Report: Duportail Bridge Project. October 2011.

Shannon and Wilson, Inc. 2010. Final Geology and Soils Technical Report Duportail Street Bridge, Richland, Washington. September 2010.

Shapley, Jake and James Schumacher. 2009. Cultural Resources Assessment for Duportail Bridge Project, Richland, Washington. Cultural Resources Consultants, Inc. December 21, 2009.

Transpo Group. 2009. Duportail Bridge- Vehicle Miles and Travel Time Savings Memorandum. September 1, 2009.

WEST Consultants, Inc., 2009. *Bridge Hydraulics and Scour Assessment Detailed Report*, April 2009. WEST Consultants, Inc., Bellevue, Washington.

Widener and Associates. 2010. Noise Report: Duportail Street Bridge Project, Benton County, Washington. July 2010.

Literature Cited

- Bell, P.A., Greene, T.C., Fisher, J.D., Baum, A., 1996, *Environmental Psychology* 4th Ed. Harcourt Brace College Publishers, Florida, USA.
- Ben Franklin Transit. 2012. Main System Map. June 2012. Accessed July 6, 2012.
<http://www.bft.org/routes/system-map.html>
- Benton Franklin Community Action Committee. 2009. Point In Time Survey.
<http://bfcac.org/>
- Berglund, B., Hassmen, P., Job, R. F. S., 1996, 'Sources and effects of low-frequency noise'. *Journal of the Acoustical Society of America*, v99, n5, p2985 - 3002.
- Boeker, E., Van Grondelle, R., 1995, *Environmental Physics*. John Wiley & Sons Ltd, UK.
- Boreson, Keo. 1993a A Cultural Resources Survey of the Twin Bridges Replacement Project, Benton County, Washington. Archaeological and Historical Services Short Report 346. Eastern Washington University, Cheney.
- _____. 1993b. National Register of Historic Places Determination of Eligibility Form for the Columbia Canal, Benton County, Washington. Submitted to DAHP, Olympia. Archaeological and Historical Services, Eastern Washington University, Cheney.
- City of Richland. 2008. *Comprehensive Land Use Plan*
<http://www.ci.richland.wa.us/DocumentView.aspx?DID=748>
- Clark, Allison. 2005. Effects of Roads and Off-Road Vehicles on Reptile Populations. *Wildlands CPR*. June 5, 2005. Accessed August 24, 2010.
<http://www.wildlandscpr.org/biblio-notes/effects-roads-and-off-road-vehicles-reptilepopulations>
- Dickson, Catherine E. 1999. *McNary Reservoir Cultural Resource Inventory Survey*. Prepared for the U.S. Army Corps of Engineers, Walla Walla District. Prepared by Cultural Resource Protection Program, Confederated Tribes of the Umatilla Indian Reservation Department of Natural Resources, Pendleton.
- DAHP (Department of Archaeology and Historic Preservation). 2010. Letter to WSDOT regarding No Adverse Effect Concurrence to Historic Properties for Duportail Street Bridge. June 3, 2010.
- DOE (Washington State Department of Ecology). 2011a. Facility/Site Atlas. Accessed October 11, 2011.
<http://www.ecy.wa.gov/fs/index.html>

- _____. 2004. Stormwater Management Manual for Eastern Washington. Washington State Department of Ecology, Water Quality Program. Publication Number 04-10-076. September 2004. Accessed June 6, 2010.
<http://www.ecy.wa.gov/pubs/0410076.pdf>
- DNR (Washington State Department of Natural Resources). 2009a. Washington Natural Heritage Information System List of Known Occurrences of Rare plants in Washington, Benton County. February 2009. Accessed March 31, 2010.
<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/benton.html>
- _____. 2009b. Sections that contain Natural Heritage Features. Information Request Self-Service System. Last revised July 21, 2009. Accessed April 22, 2010.
http://www.dnr.wa.gov/Publications/amp_nh_trs.pdf
- _____. 2009c. Rare Plants and High Quality Ecosystems. Geographic Information System WNHP Data Set. September 2009. Accessed April 23, 2010.
<http://fortress.wa.gov/dnr/app1/dataweb/dmmatrix.html>
- DOT (United States Department of Transportation). 2012. Updated Environmental Justice Order 5610.2(a). May 2, 2012. Accessed November 20, 2012.
http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/order_56102a/
- ESA (Endangered Species Act, as amended). 2002. Endangered Species Act of 1973. As amended through public law 107-136. January 24, 2002. Last accessed August 21, 2009.
<http://epw.senate.gov/esa73.pdf>
- FHWA (Federal Highway Administration). 2012a. Critter Crossings: Linking Habitats and Reducing Roadkill. Accessed August 9, 2012
<http://www.fhwa.dot.gov/publications/publicroads/00marapr/critters.cfm>
- _____. 2012b. Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Accessed November 19, 2012.
<http://www.fhwa.dot.gov/legsregs/directives/orders/664023a.htm>
- _____. 2009. Manual on Uniform Traffic Control Devices. U.S. Department of Transportation. Publication No. MUTCD-1
- _____. 1988. *Visual Impact Assessment for Highway Projects* (FHWA-HI-88-054). USDOT (US Department of Transportation).
- _____. 1995, *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, USDOT, FHWA, Office of Environment and Planning, Noise and Air Quality Branch, Washington DC. June 1995
- Franklin, J.F., Dyrness, C.T. 1973. Natural Vegetation of Oregon and Washington. Oregon State University Press, Corvallis, OR

- Hall, F.L., Birnie, S., Taylor, M., Palmer, J.E., 1981, 'Direct comparison of community response to road traffic noise and to aircraft noise'. Journal of the Acoustical Society of America, v70, n6, p1690-1698.
- Jones, Dr. Jenny. 2000. Impacts of Lighting on Bats. May 2000. Accessed August 23, 2010. http://www.lbp.org.uk/downloads/Publications/Management/lighting_and_bats.pdf
- Maekawa, Z and Lord, P., 1994, Environmental and Architectural Acoustics. E & FN SPON, London, UK.
- Mueller and Simmons (Mueller R.P. and M. A. Simmons). 2008. Characterization of Gatewell Orifice Lighting at the Bonneville Dam Second Powerhouse and Compendium of Research on Light Guidance with Juvenile Salmonids. Prepared for the U.S. Army Corps of Engineers, Portland District. September 2008. http://www.pnl.gov/main/publications/external/technical_reports/PNNL-17210.pdf
- National Center for Education Statistics. 2008. Search for Public Schools. Institute of Education Sciences. US Department of Education. Accessed September 25, 2008 <http://nces.ed.gov/ccd/schoolsearch/>
- NOAA Fisheries (National Oceanic and Atmospheric Administration – National Marine Fisheries Service). 1996. Magnuson Stevens Fishery Conservation and Management Act. October 1996. Accessed March 30, 2007. <http://www.nmfs.noaa.gov/sfa/magact/>
- _____. 2005. Endangered and threatened Species (ETWP); Designation of Critical Habitat for 12 Evolutionary Significant Units of West Coast Salmon and Steelhead in Washington, Oregon, and Idaho. September 2, 2005. Federal Register 70 (170): 52630-52858
- _____. 2009. Endangered Species Act Status of West Coast Salmon and Steelhead. July 1, 2009. Accessed March 31, 2010. <http://www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/Index.cfm>
- NRCS (Natural Resources Conservation Service). 2010. NRCS Web Soil Survey. US Department of Agriculture, Natural Resource Conservation Service. <http://websoilsurvey.nrcs.usda.gov/app/>
- Reidel, S.P., et al., June 1994, *Geologic Map of the Richland 1:100,000 Quadrangle, Washington*; Washington Division of Geology and Earth Resources, Washington State Department of Natural Resources, Open File Report 94-8.
- Rich and Longcore (Rich, Catherine and Travis Longcore). 2006. Ecological Consequences of Artificial Night Lighting.

- Richland School District. 2010. School Boundary Maps. Accessed March 21, 2010.
<http://www.rsd.edu/resources/boundary-maps.html>
- Steinmetz, Shawn. 1998. Cultural Resources Isolated Find Report (45BN581). Copy on file at DAHP, Olympia. Prepared by Cultural Resource Protection Program, Confederated Tribes of the Umatilla Indian Reservation Department of Natural Resources, Pendleton.
- Transportation Research Board (TRB). 2000. Highway Capacity Manual. Special Report 209. National Research Council. Washington, DC
- USACE (United States Army Corps of Engineers). 1995. Master Plan for the McNary Lock and Dam Project, December 1995 supplement.
http://www.nww.usace.army.mil/planning/ER/mcnary/default.htm#8_04
- _____. 2011. Letter to FHWA from USACE regarding the City of Richland- Duportail Street Bridge, F.W. #STPUS-3440(001), Section 4(f) *De Minimis* Determination. April 26, 2011.
- United States Census Bureau. 2012. American FactFinder. Accessed June 11, 2012.
<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
- USDOJ (United States Department of Justice). Title VI of the 1964 Civil Rights Act. Accessed March 30, 2012.
<http://www.justice.gov/crt/about/cor/coord/titlevistat.php>
- _____. 2010. Nondiscrimination on the Basis of Disability in State and Local Government Services. September 15, 2010. Department of Justice Civil Rights Division. Federal Register 75 (178): 56164-56358.
- USFWS (United States Fish and Wildlife Service). 2009. National Wetlands Inventory. Accessed May 17, 2009.
<http://wetlandsfws.er.usgs.gov/>
- _____. 2010a. Listed and Proposed Endangered and Threatened Species and Critical Habitat; Candidate Species; and Species of Concern in Benton County. Central Washington Field Office. September 29, 2010. Accessed November 17, 2010.
<http://www.fws.gov/wafwo/pdf/BentonCounty092910.pdf>
- _____. 2010b. RTWP; Revised Designation of Critical Habitat for Bull Trout in the Conterminous United States; Final Rule. October 18, 2010. Federal Register 75 (200): 63897-64070.
<http://www.fws.gov/pacific/bulltrout/pdf/BTCHFR101810.pdf>
- WDFW (Washington States Department of Fish and Wildlife). 1997. Vertebrate Distribution Models. Washington Gap Analysis Project. Accessed March 29, 2010
<http://www.wdfw.wa.gov/wlm/gap/vdm.htm>

- _____. 2008. Priority Habitats and Species List. Olympia, WA. August 2008. 174pp
http://wdfw.wa.gov/hab/phs/phs_list_2008.pdf
- _____. 2009a. Washington Department of Fish and Wildlife Priority Habitats and Species Polygon Cross Reference Report in the Vicinity of the T09R28E Sections 15 and 16. May 26, 2009.
- _____. 2009b. Species of Concern in Washington State. June 1, 2009. Accessed March 29, 2010.
<http://wdfw.wa.gov/wlm/diversty/soc/soc.htm>
- _____. 2012. Letter to the City of Richland regarding the Duportail Recreational water Access Site and Boat Launch. February 24, 2012.
- WSDOT (Washington State Department of Transportation). 2008. Highway Runoff Manual M 31-16.01. June 2008. Accessed May 12, 2008.
<http://www.wsdot.wa.gov/Publications/Manuals/M31-16.htm>
- _____. 2010. *Environmental Procedures Manual*, version M 31-11.08. Chapter 459, Visual Impacts, Light, and Glare. June 2010. Olympia, Washington. Accessed July 26, 2010.
- Washington State Employment Security Department. 2012. Local Unemployment Statistics. March 27, 2012.
<https://fortress.wa.gov/esd/employmentdata/reports-publications/regional-reports/local-unemployment-statistics>
- YSPB (Yakima Subbasin Fish and Wildlife Planning Board). 2004. Yakima Subbasin Plan, Final Draft. May 28, 2004. Accessed May 1, 2009.
http://www.nwcouncil.org/fw/subbasinplanning/yakima/plan/1_Overview.pdf

Appendix A – Discipline Reports

Discipline Reports available on the CD found on the back cover:

- Transportation Discipline Report
November 2011
- Environmental Justice Discipline Report
October 2011
- Floodplain Discipline Report
October 2011
- Land Use Discipline Report
March 2011
- Surface Water Discipline Report
October 2011
- Visual Impacts Discipline Report
October 2011
- Public Services and Utilities Discipline Report
October 2011
- Aquatic Resources, Wildlife, and Vegetation Discipline Report
October 2011
- Geology and Soils Technical Report
September 2010
- Noise Report
July 2010
- Wetland Determination Data Form and Study Area Map
September 2010

This page intentionally left blank for printing purposes.

Appendix B – Project Maps

This page intentionally left blank for printing purposes.



Project Area
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.



Existing Conditions
Duportail Street Bridge Project
City of Richland

This page intentionally left blank for printing purposes.

Appendix C – Agency Coordination

This page intentionally left blank for printing purposes.



U.S. Department
of Transportation

**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
<http://www.fhwa.dot.gov/wadiv>

January 25, 2010

HFO-WA.2/WA 1413

Michael J. Farrell
US Army Corps of Engineers
201 North Third Avenue
Walla Walla, WA 99362-1876

Attention: Paul Shampine

Hwys & Local Programs

JAN 27 2010

Olympia, WA

**Invitation for a Cooperating Agency
City of Richland-Duportail Street Bridge
STPUS-3440(001)**

Dear Mr. Farrell:

The Federal Highway Administration (FHWA), in cooperation with the Washington State Department of Transportation (WSDOT) and the City of Richland is initiating a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the proposed Duportail Bridge Project in Benton County, WA. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the NEPA, **we are requesting that the US Army Corps of Engineers (USACE) be a cooperating agency.** This request is based on your agency's real estate action with the City of Richland, the Section 404 permit to fill waters of the U.S. and your agency's legal jurisdiction over such permits. Designation as a cooperating agency does not imply that your agency supports the proposed project.

The proposed project will construct a bridge over the Yakima River, to extend and connect the sections of Duportail Street that currently exist on the north and south banks of the river. Other project activities include relocation of a domestic water main and other utility relocations, roadway widening and install sidewalks along both Duportail Street and Tanglewood Drive; extend Tanglewood Drive riverfront access road; construct a traffic signal at the intersection of Duportail Street and Tanglewood Drive; upgrade the intersection of Duportail Street and State Route 240; raise the Tri-City and Olympia Railroad tracks parallel to State Route 240; potential modifications to the Columbia Irrigation District canal; install a drainage/detention pond; and install/remove a temporary work bridge.



Your agency's involvement as a cooperating agency should entail those areas under its legal jurisdiction. Should your agency choose to assume cooperating status, your agency's specific responsibilities as a cooperating agency will include:

- Review and comment on the Purpose and Need within 30 days;
- Providing a list of discipline reports your agency would like to review for this EA;
- Review and comment on discipline reports within 30 days of receiving these documents. Review and provide comments on the draft EA within 30 days of receiving the document. Attend and participate in coordination meetings and site visits if notified 3 weeks in advance of meeting;
- Identifying, as early as practicable, any issues that could substantially delay or prevent your agency from granting a permit or other approval that is needed for this transportation project.

As a cooperating agency, you have the right to expect that the NEPA document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the EA will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the EA and our likely subsequent Finding of No Significant Impact (FONSI) as our decision-making documents and as the basis for the permit application.

We look forward to your response to our request for your agency to be a cooperating agency, and to working with you on this transportation project. The favor of your reply is requested by **March 1, 2010**. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EA, please contact Liana Liu, FHWA Area Engineer, at (360) 753-9553 or Stacie Kelsey, WSDOT Environmental Engineer, at (360)705-7376.

Sincerely,

DANIEL M. MATHIS, P.E.
Division Administrator



By: Liana L. Liu, P.E., PTOE
Area Engineer

Enclosure

cc: Roger Arms, WSDOT, SC Region
Stacie Kelsey, WSDOT, H&LP



U.S. Department
of Transportation
**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
<http://www.fhwa.dot.gov/wadiv>

January 25, 2010

HFO-WA.2/WA 1413

Science Kilner
The Federal Emergency Management Agency, Region 10
130 228th St SW
Bothell, WA 98021-9796

Hwys & Local Programs

JAN 27 2010

Olympia, WA

Attention: Mark Eberlein

**Invitation for a Cooperating Agency
City of Richland-Duportail Street Bridge
STPUS-3440(001)**

Dear Ms. Kilner:

The Federal Highway Administration (FHWA) in cooperation with the Washington State Department of Transportation (WSDOT) and the City of Richland is initiating a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the proposed Duportail Bridge Project in Benton County, WA. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the NEPA, **we are requesting that the Federal Emergency Management Agency (FEMA) be a cooperating agency.** This request is based on your agency's waterline project with the City of Richland, which a waterline will attach to the new bridge while the bridge is under construction. Designation as a cooperating agency does not imply that your agency supports the proposed project.

The proposed project will construct a bridge over the Yakima River, to extend and connect the sections of Duportail Street that currently exist on the north and south banks of the river. Other project activities include relocation of a domestic water main and other utility relocations, roadway widening and install sidewalks along both Duportail Street and Tanglewood Drive; extend Tanglewood Drive riverfront access road; construct a traffic signal at the intersection of Duportail Street and Tanglewood Drive; upgrade the intersection of Duportail Street and State Route 240; raise the Tri-City and Olympia Railroad tracks parallel to State Route 240; potential modifications to the Columbia Irrigation District canal; install a drainage/detention pond; and install/remove a temporary work bridge.



Your agency's involvement as a cooperating agency should entail those areas under its legal jurisdiction. Should your agency choose to assume cooperating status, your agency's specific responsibilities as a cooperating agency will include:

- Review and comment on the Purpose and Need within 30 days;
- Providing a list of discipline reports your agency would like to review for this EA;
- Review and comment on discipline reports within 30 days of receiving these documents. Review and provide comments on the draft EA within 30 days of receiving the document. Attend and participate in coordination meetings and site visits if notified 3 weeks in advance of meeting;
- Identifying, as early as practicable, any issues that could substantially delay or prevent your agency from granting a permit or other approval that is needed for this transportation project;
- Ensuring that this EA satisfies FEMA's NEPA requirements.

As a cooperating agency, you have the right to expect that the NEPA document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the EA will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the EA and our likely subsequent Finding of No Significant Impact (FONSI) as our decision-making documents and as the basis for the permit application.

We look forward to your response to our request for your agency to be a cooperating agency, and to working with you on this transportation project. The favor of your reply is requested by **March 1, 2010**. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EA, please contact Liana Liu, FHWA Area Engineer, at (360) 753-9553 or Stacie Kelsey, WSDOT Environmental Engineer, at (360)705-7376.

Sincerely,

DANIEL M. MATHIS, P.E.
Division Administrator



By: Liana L. Liu, P.E., PTOE
Area Engineer

Enclosure

cc: Roger Arms, WSDOT, SC Region
Stacie Kelsey, WSDOT, H&LP



U.S. Department
of Transportation

**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
<http://www.fhwa.dot.gov/wadiv>

January 25, 2010

HFO-WA.2/WA 1413

Hwys & Local Programs

JAN 27 2010

Olympia, WA

Austin Pratt, Commander
Thirteenth Coast Guard District
Federal Building
915 2nd Avenue
Seattle, WA 98174

**Invitation for a Cooperating Agency
City of Richland-Duportail Street Bridge
STPUS-3440(001)**

Dear Mr. Pratt:

The Federal Highway Administration (FHWA) in cooperation with the Washington State Department of Transportation (WSDOT) and the City of Richland is initiating a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the proposed Duportail Bridge Project in Benton County, WA. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the NEPA, **we are requesting that the United States Coast Guard (USCG) be a cooperating agency.** This request is based on your agency's special expertise, jurisdiction over resources, and/or permit authority which the project is anticipated to need approval for. Designation as a cooperating agency does not imply that your agency supports the proposed project.

The proposed project will construct a bridge over the Yakima River, to extend and connect the sections of Duportail Street that currently exist on the north and south banks of the river. Other project activities include relocation of a domestic water main and other utility relocations, roadway widening and install sidewalks along both Duportail Street and Tanglewood Drive; extend Tanglewood Drive riverfront access road; construct a traffic signal at the intersection of Duportail Street and Tanglewood Drive; upgrade the intersection of Duportail Street and State Route 240; raise the Tri-City and Olympia Railroad tracks parallel to State Route 240; potential modifications to the Columbia Irrigation District canal; install a drainage/detention pond; and install/remove a temporary work bridge.

Your agency's involvement as a cooperating agency should entail those areas under its legal jurisdiction. Should your agency choose to assume cooperating status, your agency's specific responsibilities as a cooperating agency will include:



- Review and comment on the Purpose and Need within 30 days;
- Providing a list of discipline reports your agency would like to review for this EA;
- Review and comment on discipline reports within 30 days of receiving these documents. Review and provide comments on the draft EA within 30 days of receiving the document. Attend and participate in coordination meetings and site visits if notified 3 weeks in advance of meeting;
- Identifying, as early as practicable, any issues that could substantially delay or prevent your agency from granting a permit or other approval that is needed for this transportation project.

As a cooperating agency, you have the right to expect that the NEPA document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the EA will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the EA and our likely subsequent Finding of No Significant Impact (FONSI) as our decision-making documents and as the basis for the permit application.

We look forward to your response to our request for your agency to be a cooperating agency, and to working with you on this transportation project. The favor of your reply is requested by **March 1, 2010**. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EA, please contact Liana Liu, FHWA Area Engineer, at (360) 753-9553 or Stacie Kelsey, WSDOT Environmental Engineer, at (360)705-7376.

Sincerely,

DANIEL M. MATHIS, P.E.
Division Administrator



By: Liana L. Liu, P.E., PTOE
Area Engineer

Enclosure

cc: Roger Arms, WSDOT, SC Region
Stacie Kelsey, WSDOT, H&LP



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
201 NORTH THIRD AVENUE
WALLA WALLA WA 99362-1876

FEB 23 2010

WA 1413E1491 Liane

Real Estate Division

Mr. Daniel M. Mathis, P.E.
Division Administrator
US Department of Transportation
Federal Highway Administration
Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, WA 98501-1284

Dear Mr. Mathis:

We received your January 25, 2010, letter regarding the invitation as a cooperating agency, city of Richland-Duportail Street Bridge, STPUS-3440(001). The US Army Corps of Engineers (Corps), Walla Walla District (District), agrees to be a **cooperating agency** on the Duportail Bridge Project along with the Federal Highway Administration (FHWA), the Washington Department of Transportation, and the city of Richland (the City).

The District involvement in the project as a cooperating agency will be primarily from a real estate perspective, since the bridge and approaches will impact District lands. We will perform all functions identified in your letter as part of environmental due diligence requirements. This will include the District making an independent determination as to whether the project's documentation fulfills the District's obligations under the relevant environmental laws, and to prepare and issue an easement to the City for the project. In support of the District's duties for this project, the City has agreed to pay for our administrative costs commensurate with that portion of the project impacting District lands. We will make every attempt to complete our responsibilities in a manner consistent with your stipulated time requirements.

In conjunction with the District's responsibilities, we request that your office complete all consultation and coordination required under section 106 of the National Historic Preservation Act for this project on behalf of the FHWA and the District. Further, FHWA should coordinate with the Regulatory Office at the Seattle District of the Corps as needed, which has the jurisdiction for issuance of Section 404 permits in the State of Washington. Upon request, we would be happy to provide contact information to you.

The District's lead point of contact for this project is Mr. Paul Shampine in my Real Estate Division and is available to answer any questions or follow-on support requirements. He can be reached by telephone at 509-527-7324 or by e-mail at Paul.S.Shampine@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Farrell".

Michael J. Farrell
Lieutenant Colonel, Corps of Engineers
District Commander

RECEIVED

FEB 26 2010

WASHINGTON DIVISION

Duportail Bridge

Project Area Map



This page intentionally left blank for printing purposes.



FEMA

February 25, 2010

Liana Liu
U.S. Department of Transportation
Federal Highway Administration
711 South Capitol Way, Ste 501
Olympia, Washington 98501-1284

Re: City of Richland - Duportail Street Bridge Project
National Environmental Policy Act Cooperating Agency Invitation

Dear Ms. Liu:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) has received your January 25, 2010 Invitation for Cooperating Agency status regarding the above proposed project. The city of Richland has applied to FEMA for funding to relocate an existing potable waterline and mount it to the proposed new bridge. This funding is available through the Washington Emergency Management Division (EMD) and from FEMA's Pre-Disaster Mitigation Grant Program (PDM). This letter is to inform you that we accept the invitation for cooperating agency status for this combined federal action for National Environmental Policy Act and related environmental/historic preservation compliance purposes. We concur with and accept the responsibilities outlined in your invitation. The discipline reports we are interested in reviewing include: historic/cultural resources (including any Tribal coordination), wildlife/fisheries (ESA/EFH), and public services/utilities.

We look forward to working with the FHWA on this project. I have assigned Ms. Science Kilner, Deputy Regional Environmental Officer, to work with your agency on this project; she can be contacted at (425) 487-4713 or science.kilner@dhs.gov. Thank you.

Sincerely,

Mark Eberlein
Regional Environmental Officer

cc: Mark Stewart, WA EMD

SK:bb

RECEIVED

MAR 1 2010

WASHINGTON DIVISION
www.fema.gov

This page intentionally left blank for printing purposes.

Duportail Bridge

Project Area Map



This page intentionally left blank for printing purposes.

Appendix D – Section 106 Concurrence

This page intentionally left blank for printing purposes.



STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

June 3, 2010

Mr. Trent de Boer
Archaeologist
WSDOT, Highways & Local Programs
PO Box 47390
Olympia, WA 98504-7390

Hwys & Local Programs

JUN 03 2010

Olympia, WA

In future correspondence please refer to:

Log: 052009-22-FHWA
Property: Duportail Street Bridge
Re: NO Adverse Effect

Dear Mr. de Boer:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP). The Duportail Street Bridge Project has been reviewed on behalf of the State Historic Preservation Officer under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800. My review is based upon documentation contained in your communication.

I concur that the current project as proposed will have "no adverse effect" on National Register eligible or listed historic and cultural resources. I also agree with the Federal highway Administration's determination of *de minimis* impact under section 4(f). If additional information on the project becomes available, or if any archaeological resources are uncovered during construction, please halt work in the area of discovery and contact the appropriate Native American Tribes and DAHP for further consultation.

Thank you for the opportunity to review and comment. If you have any questions, please contact me.

Sincerely,

Lance Wollwage, Ph.D.
Transportation Archaeologist
(360) 586-3536
lance.wollwage@dahp.wa.gov



DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

Protect the Past, Shape the Future

This page intentionally left blank for printing purposes.

Appendix E – Section 4(f) *de minimis* Concurrence

This page intentionally left blank for printing purposes.



MEMORANDUM

Parks & Recreation

TO: Pete Rogalsky, Public Works Director

FROM: Joe Schiessl, Parks and Recreation Director 35

DATE: December 21, 2012

SUBJECT: By-Pass Shelterbelt Park / Section 4(f) Exemption / de minimis

It is our understanding that the City of Richland Public Works Department is proposing to construct a new four-lane bridge crossing the Yakima River at Duportail Street. This project will include a pedestrian/bicycle path across the river as well as sidewalks where needed to create a pedestrian network in the project area.

The project will require 0.08 acres of right-of-way transfer from the By-Pass Shelterbelt Park for the improvement of the SR 240 and Duportail Street intersection. In addition to these permanent impacts, temporary impacts may occur during construction. When construction occurs at the park crossing of Duportail Street, pedestrian and bicycle access will be maintained with a safe detour.

The By-Pass Shelterbelt is 55.74 acres and is located along the SR 240 By-Pass Highway from Thayer Drive to Van Giesen Street. It contains a paved trail, benches, water fountains, and a sound wall. Per the By-pass Shelterbelt Park Master Plan approved in 2006, it is intended primarily for use as part of the transportation corridor, not for recreational use. The park is an integral part of the system for non-motorized traffic, providing safe pedestrian and bike facilities for residents along the SR 240 By-Pass to commute to work and school as well as shopping locations to the east.

The proposed impacts are very minor in magnitude compared to the extent of the entire park and will not adversely affect the designated use. Public Works has made every reasonable effort to maintain the continuity of the trail and I have determined that no adverse effects to the features or continuity of the By-Pass Shelterbelt Park will occur. Based on our coordination with the Parks and Recreation Commission, they also believe the proposed project will benefit the function of the park by creating improved access from surrounding areas.

Although we believe the By-Pass Shelterbelt Park could be considered exempt from 4(f) approval per 23 CFR 774.13(f), we concur that the proposed project will not adversely affect the activities, features, or attributes that make this resource eligible for Section 4(f) protection per FHWA's interpretation. We agree that the project will have a *de minimis* impact on the Section 4(f) resource.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
201 NORTH THIRD AVENUE
WALLA WALLA WA 99362-1876

April 26, 2011

Real Estate Division

Subject: City of Richland—Duportail Street Bridge, F.A. # STPUS-3440(001), Section 4(f) De Minimis Determination

Ms. Liana L. Liu, P.E., PTOE
US Department of Transportation
Federal Highway Administration
Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, WA 98501-1284

Dear Ms. Liu:

I have reviewed the enclosed subject letter from your agency dated April 18, 2011. Additionally, I circulated the letter among representatives from the Walla Walla District (the District) offices participating on the project delivery team for the city of Richland, Duportail Street Bridge (the project). I understand that the project will result in a new crossing of the Yakima River (the river) and will affect land managed by the District on both river banks.

I concur with the following minimization measures for the project agreed to in a meeting between Washington State Department of Transportation officials and the District on March 18, 2011.

- a. Extend the northern end of the bridge by an additional 125 feet.
- b. Ensure that the bridge extension will provide a minimum 12-foot clearance over the northern river bank.
- c. Install only pedestrian level lighting along the bridge thereby pushing back potential lighting impacts 100 feet from the river.
- d. Replace the above ground stormwater pond with infiltration trenches and re-vegetate that area above the trenches.
- e. Ensure there will be no street lighting on Tanglewood Drive except for the intersection area at Duportail.

f. Ensure the design for Tanglewood Drive prevents any gaps between the roadway easement and the northern property line.

g. Physical separation between Tanglewood Drive and the remaining Corps property will be provided through the use of either a cable railing or some type of landscaping.

h. Eliminate current braided trail segments within District property along the project limits of Tanglewood Drive through the creation of a single recreational trail. All other disturbed areas on District lands, resulting from either project activities or previous activities, will be restored or re-vegetated to natural conditions.

If measures a-h as listed above are adhered to, I find that the project will have a *de minimis* affect on the features, attributes, and activities of the project area under District jurisdiction.

If you have questions on our determination, please contact Mr. Paul Shampine, Realty Specialist, at 509-527-7324 or by e-mail at Paul.S.Shampine@usace.army.mil. Mr. Shampine will send an e-mail copy of this letter to Ms. Stacie Kalsey, WSDOT, and to Ms. Sharon Love, FHWA.

Sincerely,



Todd L. Czarnecki
Chief, Real Estate Division

Enclosure



U.S. Department
of Transportation
**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
<http://www.fhwa.dot.gov/wadiv>

April 18, 2011

HFO-WA.2/WA 1413

Mr. Todd Czarnecki
Chief, Real Estate Division
Walla Walla District
US Army Corps of Engineers
201 North 3rd Avenue
Walla Walla, WA 99362-1876

Attn: Paul Shampine

Date	Received
4/21/11	
1	Chief, Real Estate <i>PC</i>
	Legal
<i>not</i>	Chief, M&D
<i>PC3</i>	Paul
	Chief, P&C
	Resi Property
	Files

**City of Richland-Duportail Street Bridge
F.A. # STPUS-3440(001)
Section 4(f) De Minimis Determination**

Dear Mr. Czarnecki:

I am writing this letter as a follow up to the meeting held March 18th between the US Army Corps of Engineers (USACE), City of Richland, and the Washington State Department of Transportation (WSDOT). The Duportail Street Bridge project will be receiving Federal-aid Highway funds administered by the Federal Highway Administration (FHWA). FHWA, as an agency of the Department of Transportation, is subject to the requirements of Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. §303 and 23 U.S.C. §138). Section 4(f) requires consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. The law is implemented by FHWA through the regulation 23 CFR 774.

This project is being constructed on public land that is used as a wildlife refuge and for recreation and therefore is considered a Section 4(f) resource. FHWA, in consultation with the USACE, the City of Richland, and the WSDOT, has determined that the use of this property for the Duportail Street Bridge qualifies as *de minimis* due to design changes that have been made to minimize impacts to wildlife, habitat and improve a recreational trail currently used on the site. A *de minimis* use is one that does not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).



Enclosure

The following is a summary of minimization measures agreed to on March 18th:

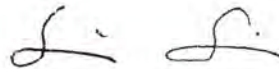
- Extend the northern end of the bridge by an additional 125 feet.
- Ensure that the bridge extension will provide a minimum 12 foot clearance over the northern bank.
- Install only pedestrian level lighting along the bridge; therefore, potential lighting impacts will be pushed back 100 feet from the river.
- Replace the above ground stormwater pond with infiltration trenches and revegetate that area above the trench.
- Ensure there will be no street lighting on Tanglewood Drive except for the intersection area at Duportail.
- Ensure the design for Tanglewood Drive prevents any gaps between the roadway easement and the northern property line.
- Physical separation between Tanglewood Drive and the remaining Corps property will be provided through the use of either a cable railing or some type of landscaping.
- Eliminate current braided trail segments within Corps property along the project limits of Tanglewood Drive through the creation of single recreational trail. All other disturbed areas, on Corps lands, resulting from either project activities or previous activities, will be and restored or revegetate to natural conditions.

The Section 4(f) regulation requires the official with jurisdiction over the Section 4(f) resource must concur in writing with the *de minimis* determination; specifically, this means agreement that the project will not adversely affect the activities, features, or attributes that make this property eligible for Section 4(f) protection; therefore we are requesting that your agency provide a letter documenting your support with a *de minimis* determination for this project.

If you have any questions or concerns about this request please contact Stacie Kelsey at 360-705-7376 or Liana Liu at 360-753-9553.

Sincerely,

DANIEL M. MATHIS, P.E.
Division Administrator



By: Liana L. Liu, P.E., PTOE
Area Engineer

Cc: Stacie Kelsey, WSDOT; Sharon Love, FHWA



State of Washington

Department of Fish and Wildlife

South Central Region 3 – 1701 S. 24th Ave., Yakima WA 98902-5720

Phone: (509) 575-2740, Fax (509) 575-2474

February 24, 2012

Pete Rogalsky
City of Richland
840 Northgate Drive
Richland, WA 99352

Re: Duportail Recreational
Water Access Site and Boat Launch

Dear Mr. Rogalsky:

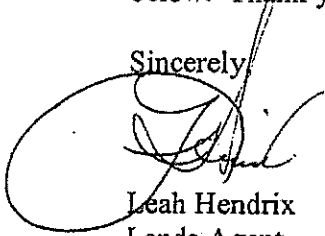
The Washington Department of Fish and Wildlife currently leases approximately 3.96 acres from the United States Army Corps of Engineers to operate a boat ramp and parking area along the Yakima River in Richland. As we understand the City of Richland's Duportail Bridge project, Duportail Street will be extended through the WDFW lease area currently used for the parking area. To mitigate impacts to the WDFW facility, the City plans to relocate and reconstruct the parking area to its current size approximately two hundred feet to the west of its current location. The relocated parking area will still be located within the boundaries of the property WDFW leases from the Army Corp of Engineers.

The boat launch will remain in its current location. The parking area and road way will be lined with boulders and gates to restrict access to off road activities on the property. WDFW will be notified of any temporary closing of the facilities to the public. The City of Richland will be responsible for all costs associated with reconstruction of any part of the recreation area and all approvals and/or de minimis determination that may be required from the Army Corps of Engineers.

WDFW agrees to the relocation of the parking area for the Duportail boat launch within the area leased from the Army Corps of Engineers and that the project will not affect the recreational use of the boat launch.

If you have any other questions or need more information, you may contact me 509-457-9312 or Leah.Hendrix@dfw.wa.gov . I have provided our contact for Corps below. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Leah Hendrix', is written over a large, loopy circular flourish.

Leah Hendrix
Lands Agent
WDFW Region 3

cc: Paul Shampine
Realty Specialist
U. S. Army Corps of Engineers
509-527-7324

Appendix F – ESA Consultation Documentation

This page intentionally left blank for printing purposes.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503



In Reply Refer To:
01FWFW00-2012-I-0239

Hwys & Local Programs

JUL 02 2012

JUL 06 2012

Olympia, WA

Ms. Melanie Vance
Washington State Department of Transportation
Highways and Local Programs
P.O. Box 47300
Olympia, Washington 98504-7390

Dear Ms. Vance:

Subject: Duportail Street Bridge Project, Benton County, Washington

This letter is in response to your request for informal consultation on the Duportail Street Bridge Project, located in Benton County, Washington. Your letter and enclosed Biological Assessment (BA), dated February 27, 2012, and received in our office on March 2, 2012, requests U.S. Fish and Wildlife Service (Service) concurrence with the determination of "may affect, not likely to adversely affect" for the bull trout (*Salvelinus confluentus*) and designated critical habitat for the bull trout. It is our understanding that this request is being submitted to us by the Washington State Department of Transportation (WSDOT) on behalf of the Federal Highway Administration. This informal consultation has been conducted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act).

Benton County, with funding from the Federal Highway Administration, is proposing to construct a new bridge over the Yakima River, connecting existing sections of Duportail Street in Richland, Washington. The proposed project is located approximately one mile upstream of the existing US 182 bridge over the Yakima River. The proposed bridge will be 775 feet in length and 67.6 feet wide. The bridge will require six support piers, two of which will be placed below the ordinary high water mark (OHWM) of the Yakima River. In-water work includes pile driving for a temporary work platform and drilled shaft pier construction. The bridge will have a minimum 41.25-foot vertical clearance on the north end and a maximum 70.31-foot clearance on the south end. The bridge has been designed to support a four lane roadway with a center median, shoulders and a 12-foot bicycle/pedestrian path.

In addition to the proposed bridge construction, roadway will be constructed to connect the existing portions of Duportail Street to the north and south, and other connecting roadways within the project footprint.

It is anticipated that temporary piles will be vibratory driven to a depth of ten feet. Based on the hardness of the sediment, the temporary piles will then require impact driving to an additional depth of 25 feet or to resistance. A total of 90 piles below OHWL will be required for bridge construction. Vibratory pile driving is anticipated to occur for no more than 92 hours over a period of 60 days within the proposed in-water work window of July 1 to September 30. In-water impact driving is anticipated to occur for no more than 90 hours over a period of 30 days within the proposed in-water work window.

A bubble curtain will be utilized for all pile driving to occur in deeper than two feet of water. In water two feet deep or shallower, sandbags will be placed around the pile to act as a cofferdam.

Piers 2 and 3 will be waterward of the OHWL. These piers will be supported by three 8-foot diameter concrete drilled shafts. Piers 4 and 5 will be outside the OHWL, but within the 100-year floodplain. Abutments for the north and south ends of the bridge will be outside of the floodplain.

The in-water piers will use a 12-foot diameter outer casing that will extend from above the waterline to a few feet below the ground line to facilitate construction. The outer casing and the inner temporary shaft casing will either be vibrated or twisted to the design depth of the shaft. As the hole is advanced the material inside the casing will be removed. The shaft casing will then be filled with steel reinforcing bars and concrete.

We believe sufficient information has been provided to determine the effects of the proposed project to federally listed species and to conclude whether this project is likely to adversely affect those species. Based on our review of the information provided, the Service concurs that the proposed project is not likely to adversely affect the bull trout or its designated critical habitat. Our concurrence is based on information in the BA and the following rationale.

Bull Trout

Presence of bull trout within the action is rare and seasonal. The closest populations of bull trout are located in the Umatilla (25 miles) and Walla Walla Rivers (21 miles) from the mouth of the Yakima River. Yakima River bull trout utilizing the mainstem Columbia River for foraging would likely have migrated past the project area before construction is proposed to start, since they would have a long distance to travel prior to spawning in upstream tributaries (Anglin, pers. comm. 2012). However, during a migration study performed in the Naches River by Mizel and Anderson (2006) with radio transponders, none of the bull trout showed a seasonal migration downstream in the Yakima River. Using passive integrated transponder (PIT) tags, Anglin (2010) has identified a single subadult bull trout from the Walla Walla River passing the PIT detector array at Priest Rapids Dam on the mainstem Columbia River, approximately 58 miles

upstream of the Yakima River mouth. Because of this detection, the potential straying of subadults into the lower Yakima River is possible, but highly unlikely during the in-water work window because of water quality conditions.

Summer water temperatures within this section of the Yakima River commonly exceed 15° C (WSDOE), the upper preferred limit for bull trout, during the summer in-water construction season while the piles will be installed. Because the bull trout is unlikely to occur within the action area, particularly in the summer during project activities, the effects to the bull trout are discountable.

Although bull trout are unlikely to be in the area at the time of the in-water work, pile driving may negatively affect other aquatic species. The Service recommends that the WSDOT and Federal Highway Administration conserve species and habitats pursuant to Section 7(a)(1) of the Endangered Species Act. As described in the BA, analysis of effects for installation or proofing of steel piles by use of an impact hammer without attenuation would generate a sound peak of 206 dBA sufficient to cause acute effects to aquatic organisms to a distance of 12 meters. Physiological effects may occur to fish greater than 2 grams to a distance of 685 meters and to fish less than 2 grams to a distance of 736 meters. With sound attenuation, and limiting the number of piles to be impact driven in a single day to three, impact pile driving will generate a sound peak of 197 dBA, sufficient to cause acute effects to a distance of 3 meters. Physiological effects may occur to fish greater than 2 grams to a distance of 66 meters and to fish less than 2 grams to a distance of 122 meters. Increased underwater sound may also result in behavioral changes to fish within 1,848 meters of the proposed bridge during impact pile driving. Due to sinuosity of the river at the project site, potential behavioral modification of fish would be limited to within approximately 1,013 meters upstream and 901 meters downstream of the proposed project.

Bull Trout Designated Critical Habitat

The final revised rule designating bull trout critical habitat (75 FR 63898 [October 18, 2010]) identifies nine Primary Constituent Elements (PCEs) essential for the conservation of the species. The function of the habitat within the action area is foraging, migration and overwintering. Five of the nine PCEs for designated bull trout critical habitat are present within the project action area. The PCEs to be affected include PCE 2 (migration habitats), PCE 3 (abundant food base), PCE 4 (complex river environments), PCE 5 (water temperatures), and PCE 8 (sufficient water quality and quantity).

- PCE 2. Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers.

The proposed project including temporary casings for instream piers, the permanent piers, and the temporary work bridge will not block to any discernible extent migratory pathways for bull trout or other anadromous species. Sufficient passage opportunities should remain after project completion. Effects to this PCE are discountable.

- PCE 3. An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.

During construction a small area of this substrate will be unavailable to aquatic invertebrates for a short period of time. Aquatic invertebrates will likely rapidly recolonize these habitats post construction. Bull trout are unlikely to utilize the action area for foraging during the in-water work window; therefore, bull trout should not require a food base at that location and time. Project effects to this PCE are considered discountable.

- PCE 4. Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure.

While the project features will impact a small amount of substrate relative to the entire channel width, this project will not discernibly affect any features that would cause an effect to this PCE.

- PCE 5. Water temperatures ranging from 2 °C to 15 °C (36 °F to 59 °F), with adequate thermal refugia available for temperatures that exceed the upper end of this range. Specific temperatures within this range will depend on bull trout life-history stage and form; geography; elevation; diurnal and seasonal variation; shading, such as that provided by riparian habitat; streamflow; and local groundwater influence.

The project will not affect water temperatures within the action area. The bridge structure is sufficiently elevated above the water surface during the summer months to result in no measurable impact to the Yakima River. No vegetation will be removed that currently provides shading to the river. The effect to this PCE is discountable.

- PCE 8. Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited.

While the project may have temporary minor impacts related to short-term increases in turbidity during installation and removal of the pier casing and temporary bridge pile, cofferdam, those effects are minor and insignificant and will occur at a time when bull trout are unlikely to be present.

In summary, the potential effects to the listed PCEs during and post construction are considered discountable or insignificant. During and after the project, the Yakima River will continue to provide foraging, migration, and overwintering habitat for the bull trout similar to the current condition.

This concludes informal consultation pursuant to section 7(a)(2) of the Act. This project should be re-analyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this consultation; if the action is

subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; and/or, if a new species is listed or critical habitat is designated that may be affected by this project.

If you have further questions about this letter or your responsibilities under the Act, please contact Robert Newman of this office at 509-893-8017.

Sincerely,



Ken S. Berg, Manager
Washington Fish and Wildlife Office

cc:

FWS, Wenatchee, WA (J. Krupka)

WSDOT, Yakima, WA (R. Arms)

LITERATURE CITED

Anglin, D., Gallion, D., Barrows, M., Haeseker, S., Koch, R., Newlon, C. August 6, 2010. Monitoring the use of the mainstem Columbia River by bull trout from the Walla Walla Basin. Final Report. USACOE. 35 pp.

Mizel, M. and Anderson, E. 2006. An Investigation Into the Migratory Behavior, Habitat Use and Genetic Composition of Bull Trout (*Salvelinus confluentus*) in the Yakima River Basin. Draft Report to US Fish and Wildlife Service, Lacey, Washington. Cooperative Agreement 134102J017.

Washington State Department of Ecology Ambient Water Quality Monitoring Program
http://www.ecy.wa.gov/apps/watersheds/riv/station.asp?theyear=&tab=final_data&scroll_y=241&wria=37&sta=37A090

PERSONAL COMMUNICATION

Anglin, D. 2012. U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office. Telephone conversation on June 28, 2012, with Michelle Eames, Fish and Wildlife Biologist, USFWS, Eastern Washington Field Office. Discussed bull trout use in the Yakima River, Columbia River, and other nearby rivers.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

Refer to
NMFS Tracking No.
2012/00765

October 10, 2012

Daniel M Mathis
Federal Highway Administration
Suite 501, Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Duportail Bridge Project, HUC 17030003040709 (Lower Yakima River), Benton County, Washington.

Dear Mr. Mathis:

The enclosed document contains a Biological Opinion prepared by the National Marine Fisheries Service pursuant to Section 7(a)(2) of the Endangered Species Act on the effects of the project referenced above. In this Biological Opinion, the National Marine Fisheries Service concludes that the proposed action is not likely to jeopardize the continued existence of Middle Columbia River LCR steelhead and is not likely to adversely modify designated critical habitat for MCR steelhead.

As required by section 7 of the Endangered Species Act, the National Marine Fisheries Service provides an incidental take statement with the Biological Opinion. The incidental take statement describes reasonable and prudent measures the National Marine Fisheries Service considers necessary to minimize incidental take caused by this action. The take statement sets forth nondiscretionary terms and conditions, including reporting requirements. Incidental take from actions that meet these terms and conditions will be exempt from the Endangered Species Act take prohibition.

This document also includes a description of the action's likely effects on Essential Fish Habitat pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and includes two conservation recommendations. Federal agencies must provide a detailed written response to the National Marine Fisheries Service's Essential Fish Habitat conservation recommendations within 30 days of receipt of these recommendations (50 CFR 600.920(j)(1)).

The response must include a description of measures proposed to avoid, mitigate, or offset the adverse effects that the activity has on Essential Fish Habitat. If the response is inconsistent with



the Essential Fish Habitat conservation recommendations, the response must explain the reasons for not following the recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

If you have questions regarding this consultation, please contact Michael Grady of the Washington State Habitat Office at (206) 526-4645, or by electronic mail at Michael.Grady@noaa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "William W. Stelle, Jr.", written in a cursive style.Handwritten initials "WWS" in black ink, positioned to the left of the typed name.

William W. Stelle, Jr.
Regional Administrator

Enclosure

cc: Sharon Love, FHWA
Bill Leonard, WSDOT
Yamilee Volcy, FHWA

Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and
Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH)
Consultation

Duportail Street Bridge Project
HUC 17030003040709 (Lower Yakima River), Benton County, Washington
NMFS Consultation Number: 2012/00765

Lead Action Agency: Federal Highway Administration

Affected Species and Determinations:

ESA-Listed Species	Status	Is Action Likely to Adversely Affect Species or Critical Habitat?	Is Action Likely To Jeopardize the Species?	Is Action Likely To Destroy or Adversely Modify Critical Habitat?
Middle Columbia River Steelhead Trout (<i>O. mykiss</i>)	Threatened	Yes	No	No

Fishery Management Plan That Describes EFH in the Project Area	Does Action Have an Adverse Effect on EFH?	Are EFH Conservation Recommendations Provided?
Pacific Coast Salmon	Yes	Yes

Consultation Conducted By: National Marine Fisheries Service, Northwest Region

Issued by:


 William W. Stelle, Jr.
Regional Administrator

Date: October 10, 2012

Table of Contents

ACRONYMS	II
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Consultation History	1
1.3 Proposed Action	2
1.4 Action Area	7
2.0 ENDANGERED SPECIES ACT: BIOLOGICAL OPINION AND	8
INCIDENTAL TAKE STATEMENT	8
2.1 Approach to the Analysis	8
2.2 Range-Wide Status of the Species and Critical Habitat	9
2.2.1 Status of the Species	10
2.2.2 Status of Critical Habitat	12
2.3 Environmental Baseline	14
2.4 Effects of the Action on the Species and Designated Critical Habitat	16
2.4.1 Effects on Listed Species	16
2.4.2 Effects on Critical Habitat	24
2.5 Cumulative Effects	26
2.6 Integration and Synthesis	28
2.7 Conclusion	29
2.8 Incidental Take Statement	29
2.8.1 Amount or Extent of Take	29
2.8.2 Effect of Take	31
2.8.3. Reasonable and Prudent Measures	31
2.8.4 Terms and Conditions	32
2.9 Conservation Recommendations	35
2.10 Reinitiation of Consultation	35
3.0 MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT	
ESSENTIAL FISH HABITAT CONSULTATION	36
3.1 Essential Fish Habitat in Project Area	36
3.2 Adverse Effects to Essential Fish Habitat	36
3.3 Essential Fish Habitat Conservation Recommendations	37
3.4 Statutory Response Requirement	37
3.5 Supplemental Consultation	38
4. DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW	38
5.0 REFERENCES	40
APPENDIX I - IN-WATER CONSTRUCTION MONITORING REPORT	45

ACRONYMS

BMP	Best Management Practices
BPA	Bonneville Power Administration
BOR	Bureau of Reclamation
BRT	Biological Review Team
C°	Celsius
CHART	Critical Habitat Assessment Review Team
CID	Columbia Irrigation District
City	City of Richland
County	Benton County
COE	Corps of Engineers
CFR	Code of Federal Regulation
CUM	Cumulative
dB	Decibel
DPS	Distinct Population Segment
DQA	Data Quality Act
EFH	Essential Fish Habitat
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FHWA	Federal Highway Administration
FR	Federal Register
HUC	Hydrologic Unit Code
LWD	Large Woody Debris
MCR	Middle Columbia River
MPG	Major Population Group
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NTU	nephelometric turbidity units
OHWM	Ordinary High Water Mark
Opinion	Biological Opinion
PCE	Primary Constituent Element
PGIS	Pollution Generating Impervious Surface
Plan	Middle Columbia River Steelhead Final Recovery Plan
PFMC	Pacific Fisheries Management Council
RM	River Mile
RMS	Root Mean Square
RPM	Reasonable and Prudent Measure
SEL	Sound Exposure Level
SPL	Sound Pressure Level
SPCCP	Spill Prevention and Sediment Control Plan
SS/D	Spatial Structure / Diversity
T&Cs	Terms and Conditions
TESC	Temporary Erosion and Sediment Control
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service

VSP	Viable Salmonid Population
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
YBFWRB	Yakima Basin Fish and Wildlife Recovery Board

1.0 INTRODUCTION

This Introduction section provides information relevant to all the other sections of this document and is incorporated by reference into Sections 2 and 3 below.

1.1 Background

The National Marine Fisheries Service (NMFS) prepared the biological opinion (opinion) and incidental take statement portions of this document in accordance with section 7(b) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531, et seq.), and implementing regulations at 50 CFR 402.

We also completed an essential fish habitat (EFH) consultation on the proposed action, in accordance with section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1801, et seq.) and implementing regulations at 50 CFR 600.

The opinion, incidental take statement, and EFH conservation recommendations are each in compliance with the Data Quality Act (44 U.S.C. 3504(d)(1) et seq.) and they underwent pre-dissemination review.

1.2 Consultation History

This biological opinion is based on information provided in the February 24, 2012 biological assessment provided to NMFS on March 8, 2012, by the Federal Highway Administration (FHWA). The FHWA will provide funding, in whole or in part, to the designated non-Federal representative, the Washington State Department of Transportation (WSDOT) who, in turn, will provide funding to the City of Richland (City) in Benton County (County) to build a new bridge over the Yakima River within the city limits. The project will also require a permit from the U.S Army Corps of Engineers (COE).

Prior to the initiation of formal consultation, NMFS met with staff from the FHWA, the Washington State Department of Transportation (WSDOT), the COE, U.S. Fish and Wildlife Service (USFWS), and the City of Richland County on June 24, 2010 to discuss the project proposal and potential effects on listed species. On March 8, 2012, NMFS received a letter requesting initiation of ESA section 7 and MSA consultation for the Duportail Bridge Project. The FHWA concluded that the proposed action is Likely to Adversely Affect Middle Columbia River (MCR) steelhead trout (*Oncorhynchus mykiss*) and its critical habitat. The FHWA further determined the project action may adversely affect Essential Fish Habitat (EFH) for Pacific Salmonids.

Subsequent to receiving the consultation initiation package, NMFS corresponded frequently with FHWA to analyze the effects of the propose action. On July 30, 2012, NMFS requested additional information to clarify the project description and its effects to listed species. The FHWA provided NMFS with additional information refining the description of the proposed action and analysis of effects on August 20, 2012. On September 25, 2012, NMFS sent a letter to FHWA indicating that NMFS had received the majority of the information necessary to initiate formal consultation as outlined in the regulations governing interagency consultation (50 CFR 402.14).

The NMFS agrees that the proposed action is likely to adversely affect MCR steelhead trout and steelhead designated critical habitat within the project action area. During consultation NMFS continued to exchange information via email and telephone WSDOT and FHWA about the project action and provided draft sections of the opinion to WSDOT and FHWA for review and comment, including the Incidental Take Statement (ITS). The administrative record for this consultation is on file at the Washington State Office in Lacey, Washington.

1.3 Proposed Action

“Action” means all activities or programs of any kind authorized, funded, or carried out, in whole in part, by Federal agencies. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. NMFS identified no interrelated or interdependent actions during consultation.

The FHWA proposes to provide funding to the City of Richland through proposes to construct a new bridge over the Yakima River, connecting existing portions of Duportail Street. The project will alleviate congestion on the two existing Yakima River crossings (Interstate 182 and State Route 240), reduce emergency response time to the portion of the city south of the river, replace a deteriorating waterline serving the south side of the river, and improve bicycle and pedestrian mobility across the river.

Site Preparation, Construction Access, and Staging

Mobilization for the project will include the contractor developing a debris containment plan prior to the start of construction. Each bridge (new and temporary) will have a catchment erected under the bridge to catch all debris. Existing access roads located along the northeast and southwest side of the river will be used to access the project work area. Several city parcels on both sides of the Yakima River will be used for staging, stockpiling, and equipment wash-out areas during construction.

Vegetation Removal

The proposed project will result in the permanent removal of 11.11 acres of vegetation including the following: 1.24 acres of landscaped vegetation; 9.34 acres of shrub-steppe vegetation (5.99 acres of which is within the riparian zone); and 0.52 acres of forested riparian vegetation including, the removal of four large black locust trees (12 to 32 inches diameter breast height). The trunks of these trees will be placed along the banks of the Yakima River within the riparian buffer at the ordinary high water mark (OHWM). Approximately 0.71 acres of shrub-steppe will be created by planting areas currently disturbed by trails. Locust trees will be replaced with 20 trees of multiple native species. An additional 22.6 acres of shrub-steppe vegetation will be temporarily removed and replanted to native vegetation.

Temporary Work Bridge

A temporary work bridge, 420 feet long and 30 feet wide, will be constructed downstream of the new bridge footprint and will extend across the entire river. The work bridge will be supported on a series of pile bents constructed with steel piles up to 24 inches in diameter. Construction of the temporary work bridge will require up to 90 steel piles be driven below the OHWM. At the time of pile installation water levels are expected to be between two and fifteen feet deep.

Due to the hardness of the substrate, the contractor will vibrate piles to a depth of approximately ten feet and then use an impact hammer for the remaining 25 feet. Each pile is expected to take approximately 90 minutes to install. To minimize impacts, all in-water impact pile driving activity will be limited to 1,350 pile strikes per day with a twelve hour break each 24 hour period and will occur within the first 45 days of the in-water work window of July 1 through September 30 (i.e. completed by August 15). A confined bubble curtain will be placed around steel piles in greater than two feet of water prior to impact pile driving. Piles installed in water depths of two feet or less will be isolated from stream flow with sandbags placed around the piling site by hand.

Steel beams and timber lagging will be placed as the steel piles are installed to form the decking of the work bridge. After the new Duportail Bridge is constructed, the work bridge will be removed. Piles will be extracted with a vibratory extractor at a slow enough rate that turbidity impacts will be minimized. Once piles are vibrate-out the vacant spaces will fill in naturally with native soils and streambed material due to liquefaction.

Proposed New Bridge Construction

The new bridge construction will be conducted from the temporary work bridge and from both riverbanks. The new Duportail Bridge will be 775 feet long and 64 feet wide, with a minimum vertical clearance of approximately 41 feet and a maximum vertical clearance of approximately 70 feet above the OHWM elevation of the Yakima River.

The new bridge will require six piers, two of which (Piers 2 and 3) will be placed below the OHWM of the Yakima River. Piers 4 and 5 will be landward of the OHWM but within the 100-year floodplain. The north abutment (Pier 1) will be at the top of the slope of the riverbank and south abutment (Pier 6) will be along the right bank above the Columbia Irrigation District (CID) canal¹. Both abutments will be outside the 100-year floodplain. The north Pier 1 abutment will be supported by a spread footing and the Pier 6 abutment will be supported by four, 4-foot diameter concrete drilled shafts. Each of the remaining four piers will be supported by three, eight-foot diameter concrete drilled shafts.

¹ The Columbia Irrigation District (CID) canal is an irrigation ditch that flows through the project action area along the right bank (southwest side) of the Yakima River. This ditch is fed by the Yakima River; a pump station is located approximately 13 miles upstream from the project site.

Prior to the installation of drilled shafts in the water, twelve-foot diameter caissons (total six caissons) will be installed using a vibratory hammer. These caissons will extend from above the water line to a few feet below the ground line and act as a cofferdam; excluding fish and preventing concrete from entering the river during installation of the drilled shafts. A biologist will be on-site prior to installation of the caissons to monitor for fish presence and herd fish away from the area prior to placement of caissons. Once a caisson is installed and fish exclusion has been confirmed, construction will proceed.

Drilled shafts will be constructed within the 12-foot diameter caissons. Once the outer caissons are in place, a smaller eight-foot casing will be either vibrated in with a vibratory hammer or twisted into place using an oscillator to the design depth. As the hole is advanced, the material inside the interior casing will be removed using best management practices (BMPs) to ensure the material does not enter the waters of the river. Reinforced steel bars will then be placed into the casing and filled with concrete to form the drilled shaft. Once the shafts are in place, the outer caissons will be oscillated or vibrated out of the ground, leaving the concrete shaft in place. Each concrete shaft will support a concrete column upon which the concrete cap beams will form the remainder of the pier that will support the remainder of the bridge structure.

The two bridge abutments will rest on a spread footing (Pier 1) and a concrete shaft (Pier 6). Upon each of the six bridge piers will rest a concrete pile cap upon which ten concrete girders will be placed. A concrete deck will then be formed on top of the girders.

The southern bridge approach will be constructed to include four, eleven-foot asphalt lanes, a twelve-foot center turn lane, two five-foot wide shoulders and two five-foot wide concrete sidewalks. The southern approach may be cut into the hillside to a depth of eight feet to minimize the grade of the proposed bridge, but fill may also be required. The northern approach will not be necessary because the Duportail-Tanglewood intersection will be raised to match the bridge elevation as part of the proposal. Both bridge approaches are outside the 100-year floodplain.

Bridge construction will include artificial lighting along the pedestrian pathway of the bridge. Lighting along Tanglewood Drive and City View Drive will be limited to 100 watt lighting and utilize the maximum pole spacing for residential and collectors roads where possible. In accordance with safety standards, Duportail Street will require 200 watt lamps and maximum pole spacing of street lamps will be incorporated where possible. All lights will utilize reflectors and hoods to direct lighting onto the bridge and roadways, avoiding light spillage to the waterways and riparian areas (FHWA 2012).

Fish Removal

No juvenile steelhead trout are expected in the project action area during the in-water work window of July 1 to September 30. A few adult steelhead may be holding in deep pools within the project action area and even within the footprint of the bridge construction. A qualified biologist will be on site during all in-water construction activities to observe for presence of adults and if any are detected within the zone of injurious underwater noise, work will be suspended until adults have moved out of the area. Any fish detected in the footprint of caissons, piles, or sandbags will be herded out of the

area. Any adults incidentally trapped within caissons will be released by lifting the caissons. No electrofishing will occur as part of the project.

Roadway Widening, Intersection Upgrades, Railway Upgrades

Project construction will include the widening of Duportail Road north of the river from 175 north of Cottonwood Drive southward to the new bridge approach. In addition, SR 240 will be widened seventeen feet in the vicinity of Duportail Street for a distance of approximately 1000 feet (700 feet northwest and 300 feet southeast of the intersection). Existing pavement surfaces within these areas will be ground down and overlaid as part of the project.

The railroad tracks paralleling SR 240 will be raised due to the widening at the intersection of SR 240 and Duportail Street. The railroad track profile will match back to the existing condition approximately 250 feet from both the northwest and southeast of the intersection with Duportail Street.

New Roadway Extensions and Connections

A new roadway, Tanglewood Drive, will be constructed paralleling the Yakima River on the northeast bank. The new road will terminate in a cul-de-sac approximately 800 feet to the southeast of the intersection with Duportail Street and extend 1,700 feet northwest to intersect with an existing road. Roadway work will include clearing and grubbing the footprint of the proposed new roadway. Any unsuitable material will be disposed of at an approved commercial site.

Relocation of Boat Launch

Following roadway widening and bridge construction, an area west of the intersection of Duportail Street and Tanglewood Drive will be constructed with gravel to provide a parking lot for the existing boat launch.

CID Canal Modifications

A portion of the CID canal will be modified underneath the south bridge approach. The canal will be lined with concrete fifty feet upstream and downstream of the proposed bridge to provide extra reinforcement and minimize the need for repairs in the future.

Infiltration Trenches

The proposed project will increase pollution generating impervious surface (PGIS) within the project action area from 3.95 to 9.7 acres (net increase 5.75 acres) and non-PGIS from 0.75 to 1.86 acres (net increase 1.11 acres). Stormwater from all the new PGIS (7.14 acres) and 57 percent of the existing PGIS (1.39 acres) will undergo basic stormwater treatment (Table 1).

Table1. Impervious Surface Acreage and Proposed Stormwater Treatment with the Project Action Area for the Duportail Bridge Project.

	Pollution Generating Impervious Surface			Non-Pollution Generating Impervious Surface			Impervious Surface Total
	Treated	Untreated	Total	Treated	Untreated	Total	
Existing Conditions	1.52	2.43	3.95	0.00	0.75	0.75	4.7
Proposed	8.66	1.04	9.7	1.5	0.36	1.86	11.56
Net Change	7.14	(1.39)	5.75	1.5	0.39	1.11	6.86

The project will construct infiltration trenches parallel to Tanglewood Drive and the southern portion of Duportail Street. Stormwater from Riverstone Drive, Tanglewood Drive and Duportail Street will be collected via curb/gutter, flow into catch basins with oil/water separators and continue to infiltration trenches where it will infiltrate into the subsurface. Stormwater from 0.56 acres of PGIS will enter catch basins, two of which have no outlet and two of which direct flow through a series of pipes and open ditches that eventually outlet to a gravel pit with no further outlet. All other stormwater within the project action will infiltrate prior to reaching surface waters.

Utilities

The existing waterline that currently runs underneath the Yakima River will be relocated. A new water line will be constructed and attached to the southeast side of the bridge and the existing waterline will be valved and abandoned in place.

Measures to Minimize Effects of the Action

- Clearing limits will be surveyed, stakes, and flagged prior to construction.
- A temporary erosion and sediment (TESC) plan and a spill prevention, control, and countermeasures (SPCC) plan will be developed and implemented.
- All equipment wash-out areas and waste materials will be contained and disposed of off-site at an approved disposal site.
- All equipment refueling operation will be conducted at least 100 feet from any open water body.
- All mobile equipment to be refueled and/or stored overnight on COE lands will be done so over 300 feet from the Yakima River, in a secondary containment berm.
- Work below the OHWM is proposed to occur from July 1 to September 30 within the approved in-water work window.
- All temporarily disturbed areas will be restored with native vegetation.
- Water quality will be monitored for turbidity during construction to ensure compliance with water quality standards.
- A qualified biologist will be present to ensure there are no fish present within the footprint of the bridge during the placement and removal of sandbags and the installation and removal of

piles and caissons. If fish are detected in the construction area while construction is ongoing, work will be suspended until fish have moved out of the work area.

- A qualified biologist will also be onsite to monitor sound pressure levels during all pile driving activities.
- Temporary piles and caissons will be removed at a rate to minimize elevated turbidity.
- In order to minimize impacts from underwater vibration a bubble curtain will be placed around any piles to be impact driven in greater than two feet of water and sandbags, acting as a cofferdam, will be placed around any piles to be impact driven in less than two feet of water.
- No more than three piles will be proof-tested, within the wetted channel, in a given day and impact pile driving will be limited to 1,350 pile strikes per day.

Project Sequence and Timing

Construction is planned to commence in May of 2015, take approximately 415 days, and be completed by August 30, 2016 (Table 2). All work below the OHWM is proposed to occur between July 1 and September 30 during both years.

Table 2. Project Activities and Construction Timing, Meyers Road Bridges Replacement Project

Project Activity	Estimated Time (2013)
Site Preparation	
Mobilization	May 2015
Erosion Control, Clearing and Grubbing	May 2015
Construction Access and Staging	May 2015
Temporary Work Bridge	
Install Piles, Lay Deck	Late July to mid-Sept 2015
Duportail Bridge- Abutments and Southern Approach	
Construct Piers 1 and 5 and Abutments	Late May to late August 2015
Construct Abutments	Mid-June to mid-August
Install Outer Casings Piers 2 and 3	September 2015
Construct Piers 2,3, and 4 shafts	October to Mid -November 2015
Construct Southern Approach	Mid-November to Mid-December
Erect Girders	Late December
Raising of the TCRY Railway	June 2015 – August 2016
New Roadway Extensions and Connections	June 2013 through August 2016
Duportail Bridge- Abutments and Northern Approach	
Erect Girders (remaining spans)	January 2016
Decking and Barriers	Mid January to early June 2016
Northern Approach	June 2016
Deconstruct Work Bridge and remove caissons	Mid-July through August 2016
Relocate Boat Launch	Before August 2016
CID Canal Modifications	November/December 2016

1.4 Action Area

“Action area” means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). All work below the OHWM will occur within the Yakima River. Effects from turbidity are expected to extend 300 feet downstream of the

work area. Underwater noise affects are expected to extend 0.63 miles upstream and 0.56 miles downstream of the proposed bridge. The project action area is delimited by the extent of underwater noise affects within the Yakima River, the footprint of project construction activities, and all staging areas. Adult MCR steelhead may be present within the project action area during the in-water work window of July 1 through September 30.

2.0 ENDANGERED SPECIES ACT: BIOLOGICAL OPINION AND INCIDENTAL TAKE STATEMENT

The ESA establishes a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with the United States Fish and Wildlife Service, NMFS, or both, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their designated critical habitat. Section 7(b)(3) requires that at the conclusion of consultation, the Service provides an opinion stating how the agencies' actions will affect listed species or their critical habitat. If incidental take is expected, Section 7(b)(4) requires the provision of an incidental take statement (ITS) specifying the impact of any incidental taking, and including reasonable and prudent measures to minimize such impacts.

2.1 Approach to the Analysis

Section 7(a)(2) of the ESA requires Federal agencies, in consultation with NMFS, to insure that their actions are not likely to jeopardize the continued existence of endangered or threatened species, or adversely modify or destroy their designated critical habitat. The jeopardy analysis considers both survival and recovery of the species. The adverse modification analysis considers the impacts on the conservation value of designated critical habitat.

“To jeopardize the continued existence of a listed species” means to engage in an action that would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02).

This biological opinion does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 C.F.R. 402.02. Instead, we have relied upon the statutory provisions of the ESA to complete the following analysis with respect to critical habitat.²

We will use the following approach to determine whether the proposed action is likely to jeopardize listed species or destroy or adversely modify critical habitat:

- Identify the range wide status of the species likely to be adversely affected by the proposed action.
- Describe the environmental baseline in the action area.

²² Memorandum from William T. Hogarth to Regional Administrators, Office of Protected Resources, NMFS (Application of the “Destruction or Adverse Modification” Standard Under Section 7(a)(2) of the Endangered Species Act) (November 7, 2005).

- Analyze the effects of the proposed actions on both species and their habitat.
- Describe any anticipated cumulative effects within the action area.
- Integrate and synthesize the above factors to assess the risk that the proposed action poses to species and critical habitat
- Reach jeopardy and adverse modification conclusions.

2.2 Range-Wide Status of the Species and Critical Habitat

This opinion examines the status of each species that would be affected by the proposed action. The status is the level of risk that the listed species face, based on parameters considered in documents such as recovery plans, status reviews, and listing decisions. The species status section helps to inform the description of the species' current "reproduction, numbers, or distribution" as described in 50 CFR 402.02. The opinion also examines the condition of critical habitat throughout the designated area, evaluates the conservation value of the various watersheds and coastal and marine environments that make up the designated area, and discusses the current function of the essential physical and biological features that help to form that conservation value.

One factor affecting the status of MCR steelhead and aquatic habitat at large is climate change. Several studies have revealed that climate change has the potential to affect ecosystems in nearly all tributaries throughout the state of Washington (Battin et al. 2007; ISAB 2007). While the intensity of effects will vary by region, climate change is generally expected to alter aquatic habitat (water yield, peak flows, and stream temperature). As climate change alters the structure and distribution of rainfall, snowpack, and glaciations, each factor will in turn alter riverine hydrographs. Given the increasing certainty that climate change is occurring and is accelerating (Battin et al. 2007), NMFS anticipates salmonid habitats will be affected. Climate and hydrology models project significant reductions in both total snow pack and low-elevation snow pack in the Pacific Northwest over the next 50 years (Mote and Salathe 2009) – changes that will shrink the extent of the snowmelt-dominated habitat available to salmon. Such changes may restrict our ability to conserve diverse salmon life histories.

In the state of Washington, most models project warmer air temperatures, increases in winter precipitation, and decreases in summer precipitation. Average temperatures in the state of Washington are likely to increase 0.1 - 0.6 °C (0.18 – 1.08°F) per decade (Mote and Salathe 2009). Warmer air temperatures will lead to more precipitation falling as rain rather than snow. As the snow pack diminishes, seasonal hydrology will shift to more frequent and severe early large storms, changing stream flow timing and increasing peak river flows, which may limit salmon survival (Mantua et al. 2009). The largest driver of climate-induced decline in salmon populations is projected to be the impact of increased winter peak flows, which scour the streambed and destroy salmon eggs (Battin et al. 2007).

Higher water temperatures and lower spawning flows, together with increased magnitude of winter peak flows are all likely to increase salmon mortality. Higher ambient air temperatures will likely cause water temperatures to rise (ISAB 2007). Salmon and steelhead require cold water for spawning and incubation. As climate change progresses and stream temperatures warm, thermal refugia will be essential to persistence of many salmonid populations. Thermal refugia are important for providing salmon and steelhead with patches of suitable habitat while allowing them to undertake migrations

through or to make foraging forays into areas with greater than optimal temperatures.

To avoid waters above summer maximum temperatures, juvenile rearing may be increasingly found only in the confluence of colder tributaries or other areas of cold water refugia (Mantua et al. 2009).

Climate change is expected to make recovery targets for these salmon populations more difficult to achieve. Habitat actions can address the adverse impacts of climate change on salmon. Examples include restoring connections to historical floodplains and freshwater and estuarine habitats to provide fish refugia and areas to store excess floodwaters, protecting and restoring riparian vegetation to ameliorate stream temperature increases, and purchasing or applying easements to lands that provide important cold water or refuge habitat (Battin et al. 2007; ISAB 2007).

2.2.1 Status of the Species

For Pacific salmon and steelhead, NMFS commonly uses four parameters to assess the viability of the populations that, together, constitute the species: spatial structure, diversity, abundance, and productivity (McElhany et al. 2000). These “viable salmonid population” (VSP) criteria therefore encompass the species’ “reproduction, numbers, or distribution” as described in 50 CFR 402.02. When these parameters are collectively at appropriate levels, they maintain a population’s capacity to adapt to various environmental conditions and allow it to sustain itself in the natural environment. These attributes are influenced by survival, behavior, and experiences throughout a species’ entire life cycle, and these characteristics, in turn, are influenced by habitat and other environmental conditions.

For species with multiple populations, once the biological status of a species’ populations has been determined, NMFS assesses the status of the entire species using criteria for groups of populations, as described in recovery plans and guidance documents from technical recovery teams. Considerations for species viability include having multiple populations that are viable, ensuring that populations with unique life histories and phenotypes are viable, and that some viable populations are both widespread to avoid concurrent extinctions from mass catastrophes and spatially close to allow functioning as metapopulations (McElhany et al. 2000).

Life History

Life history characteristics for MCR steelhead are similar to those of other inland steelhead DPSs. Most fish smolt at two years and spend one-to-two years in salt water before re-entering freshwater, where they may remain up to a year before spawning (Howell et al. 1985). All steelhead passing upstream of the Dalles Dam, which includes those bound for the Naches River, on the Columbia River are summer-run fish that enter the Columbia River from June to August (Reisenbichler et al. 1992). In general, adult steelhead trout ascend mainstem rivers and their tributaries throughout the winter, spawning in the late winter and early spring. Fry emergence typically occurs between May and the end of June.

Most adult steelhead in the Yakima Basin arrive in the lower Yakima River below Prosser Dam around mid-October and remain there until January when they migrate further upstream into tributary drainages for spawning. Steelhead adults cease movement during the colder parts of December and January, and resume migration from February through June, resulting in two run peaks, one in late October, and one in late February or early March. Studies of steelhead radio tagged and released at

Prosser Dam in 1990 through 1993 (Hockersmith et al. 1995) indicate that most steelhead spawners overwinter in the mainstem Yakima River in reaches with deep holes and low velocity then move into the Naches River when stream temperatures increased above 3° Celsius (37.4 degrees Fahrenheit). Only about ten percent of the fish over-wintered in Satus Creek, Toppenish Creek, the lower Naches River, and the upper Yakima combined.

Within the Yakima Basin steelhead spawn in a variety of locations including intermittent streams, mainstems, and side channels of larger rivers, and perennial streams up to relative steep gradients. Spawning surveys conducted in the early 1990s identified ten spawning areas: Satus Creek, Toppenish Creek, Marion drain, Naches River, the mainstem Yakima below Roza Dam, the mainstem Yakima River in the Roza Canyon, Taneum Creek, Swauk Creek, the upper Yakima River above Ellensburg, and the Teanaway River. Although steelhead spawn across a wide seasonal and geographic range in the Yakima Basin, most are tributary spawners. Known spawning locations from 1990 to 1992 included 46 percent in Satus Creek, 13 percent in Toppenish Creek, 36 percent in Naches (including 5 percent within the Yakima mainstem), and 6 percent in the Upper Yakima basin (Hockersmith et al. 1995).

Spatial Structure and Diversity

Resident forms of *O. mykiss* are believed to be very common throughout this DPS but only the anadromous form of the species is included within the DPS. The Interior Columbia Technical Recovery Team (ICTRT) has identified 17 extant populations in the DPS that fall into four major population groups (MPGs): the Yakima River Basin (four extant populations); the Umatilla/Walla-Walla drainages (3 extant and 1 extirpated populations); the John Day River drainage (5 extant populations) and the Eastern Cascades group (5 extant and 2 extirpated populations) (Ford et al. 2011).

Three of the four Yakima River steelhead populations (Satus Creek, Toppenish Creek, and Naches River) are rated at moderate SS/D risk because of changes related to maintaining natural patterns of variation. These changes include changes in life history strategies (spawning, rearing, and migration timing), changes in phenotypic or genetic traits related to altered habitat, particular flow regimes and water temperatures; and changes in distribution of spawning. The Upper Yakima River is at high risk for SS/D because of loss of spawning habitat, decreased life history variation, and possible genetic introgression with planted rainbow trout (NMFS 2009).

Abundance and Productivity

Abundance data for component populations of the MCR steelhead DPS include the most recent five-year population series (2005 – 2009). Total and natural-origin escapement estimates were higher in the Yakima River component populations relative to the BRT review in 2005 (Table 3). Although steelhead escapement to the upper Yakima River increased, the level remained low relative to the amount of habitat available. Total spawning escapements have increased for all three populations in the Umatilla/Walla Walla MPG, with natural-origin escapements higher for two of the three component populations (Umatilla and Walla Walla rivers) and the Touchet River remaining at the same level as those in 2005 (Ford et al. 2011).

Table 3. Summary of abundance /percent natural spawners of MCR steelhead organized by MPG (Ford et al 2011). Estimates for brood cycle from the 2005 BRT review (1997 – 2001) are included for comparison.

Population (organized by MPG)	Natural Origin Spawners (5 year geometric mean)		Percent Natural Spawners (5 year average)	
	Prior (1997-2001)	Current (2005-2009)	Prior (1997-2001)	Current (2005-2009)
Cascades Eastern Slope MPG				
Fifteen Mile Creek	571	452 (25-1,956)	100%	100%
East Side Deschutes	1,753 (475-8,637)	1,945 (1,600-2,395)	62%	80%
West Side Deschutes	414 (290-766)	472 (314-567)	70%	82%
John Day MPG				
Upper Mainstem	651 (326-1,593)	459 (149-910)	93%	92%
North Fork	1,988 (978-4,083)	1,484 (707-3,878)	93%	92%
Middle Fork	1,089 (457-3,129)	367 (213-707)	93%	92%
South Fork	273 (103-984)	398 (207-630)	93%	92%
Lower Mainstem	2,012 (625-5,553)	1,006 (508-3,480)	94%	73%
Yakima MPG				
Satus Creek	337 (269-398)	809 (519-1,112)	92%	97%
Toppenish Creek	318 (132-1,208)	469 (262-802)	92%	97%
Naches River	435 (304-983)	825 (491-1,190)	92%	97%
Upper Yakima	65 (42-162)	156 (80-223)	99%	99%
Umatilla/Walla Walla MPG				
Umatilla River	1,288 (769-2,451)	2,273 (1,373-3,625)	61%	79%
Touchet River	345 (252-493)	347 (227-438)	90%	70%
Walla Walla River	618 (419-1,118)	815 (464-1,623)	98%	97%

2.2.2 Status of Critical Habitat

We review the status of designated critical habitat affected by the proposed action by examining the condition and trends of essential physical and biological features throughout the designated area. These features are essential to the conservation of the listed species because they support one or more of the species' life stages (e.g., sites with conditions that support spawning, rearing, migration and foraging).

For salmon and steelhead, NMFS ranked watersheds within designated critical habitat at the scale of the fifth-field hydrologic unit code (HUC5) in terms of the conservation value they provide to each listed species they support³; the conservation rankings are high, medium, or low. To determine the conservation value of each watershed to species viability, NMFS' critical habitat analytical review teams (CHARTs; NOAA Fisheries 2005) evaluated the quantity and quality of habitat features (for example, spawning gravels, wood and water condition, side channels), the relationship of the area compared to other areas within the species' range, and the significance to the species of the population occupying that area.

³ The conservation value of a site depends upon "(1) the importance of the populations associated with a site to the ESU [or DPS] conservation, and (2) the contribution of that site to the conservation of the population through demonstrated or potential productivity of the area" (NOAA Fisheries 2005).

Thus, even a location that has poor quality of habitat could be ranked with a high conservation value if it were essential due to factors such as limited availability (e.g., one of a very few spawning areas), a unique contribution of the population it served (e.g., a population at the extreme end of geographic distribution), or the fact that it serves another important role (e.g., obligate area for migration to upstream spawning areas).

The NMFS designated critical habitat for MCR steelhead on September 2nd, 2005 (70 FR 52630). Habitat designated as critical for MCR steelhead includes more than 120 hydraulic unit code (HUC) 5 watersheds. Of these more than 80 are rated as having high value for conservation of the DPS, 24 are ranked medium for conservation, and 9 have low conservation value ranking. The Primary Constituent Elements (PCEs) for MCR steelhead critical habitat are the sites and the physical characteristics of such sites which are essential to support one or more life stages of the DPS:

PCE 1 - Freshwater spawning sites with water quantity and quality conditions and substrate that support spawning, incubation, and larval development;

PCE 2 - Freshwater rearing sites with (1) water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility, (2) water quality and forage that support juvenile development, and (3) natural cover such as shade, submerged and overhanging large wood, logjams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks;

PCE 3 - Freshwater migration corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks that support juvenile and adult mobility and survival;

PCE 4 - Estuarine areas free of obstruction and excessive predation with water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels; and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation;

PCE 5 - Nearshore marine areas free of obstruction and excessive predation with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and

PCE 6 - Offshore marine areas with water quality conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation.

Many factors have contributed to the decline of MCR steelhead over the past century, as well as the conservation value of essential features and PCEs of designated critical habitat. Habitat for steelhead in the Yakima River and its tributaries has been altered through activities such as urban development, logging, grazing, hydroelectric power generation, irrigation, and agriculture.

These habitat alterations have resulted in the loss of important spawning and rearing habitat and the loss or degradation of migration corridors. The following are the major factors impairing the function of the essential elements of the PCEs throughout the geographic range of designated critical habitat:

1. Columbia River hydropower system mortality (freshwater migration corridors without obstructions);
2. Reduced tributary in-stream flow (freshwater spawning sites with water quantity conditions supporting spawning, incubation and larval development; freshwater rearing sites with water quantity to form and maintain physical habitat conditions that support juvenile growth and development);
3. Impaired passage in tributaries (freshwater rearing sites with water quantity to form and maintain physical habitat conditions that support juvenile growth and development; freshwater migration corridors with water quantity conditions supporting juvenile and adult mobility and survival);
4. Excessive sediment in tributaries (spawning sites with substrate to support egg incubation and larval growth and development; juvenile migration corridors and rearing sites with forage to support juvenile growth and development);
5. Degraded tributary water quality and quantity (spawning sites with sufficient water quality and quantity to support egg incubation and larval growth and development; juvenile rearing sites and migration corridors with water quality supporting juvenile growth and development); and
6. Altered tributary channel morphology (freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation and larval development; freshwater rearing sites with floodplain connectivity to form and maintain physical habitat conditions that support juvenile growth and development).

Climate change would likely continue to affect the essential elements of critical habitat by increasing water temperatures and peak flows, and decreasing base flows. Although changes will not be spatially homogenous, effects of climate change are expected to generally decrease the capacity of critical habitat to support successful spawning, rearing, and migration.

The project action area for this consultation contains PCEs that support migration of MCR steelhead (Salmoncape 2012, Streamnet 2012).

2.3 Environmental Baseline

The “environmental baseline” includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR 402.02).

The project action occurs in the sixth field hydrologic unit code (HUC) 170300030709 (Lower Yakima River) and Water Resource Inventory Area (WRIA) 37 (Lower Yakima). The proposed project occurs along the lower Mainstem Yakima River at approximate river mile (RM) 5.5. The

project action will affect all four populations of MCR steelhead within the Yakima Basin MPG (Satus Creek, Toppenish Creek, and Naches River populations).

In the portion of the lower Yakima River containing the action area, years of projects have isolated the river from its historical floodplain, impairing floodplain function, reducing flows and elevating in-stream temperatures. Habitat fragmentation and loss of riparian vegetation and large woody debris have caused loss of habitat complexity diminishing the function of juvenile rearing habitat. Off-channel habitat, deep pools and other refugia have become less abundant within the lower Yakima River. Passage issues have led to predation of juvenile steelhead by warm-water fish species such as non-native smallmouth bass, and to a lesser extent, channel catfish, especially at in-stream structures such as dams.

The stretch of the Yakima River from Prosser to the delta contains four waste ways (Snipes Creek, Spring Creek, Corral Creek, and Amon Creek) that return irrigation flow directly back to the Yakima River. The lower Yakima River contains increasing amounts of an aquatic plant, water stargrass which mats over spawning substrate. Natural wood recruitment and transport is interrupted at Prosser Dam. In contrast, areas in the lower Yakima River with sufficient large wood have normal function so riparian restoration and LWD recruitment remain important habitat priorities in the Yakima Basin (Appel et al., 2011; YBFWRB 2009).

The riverbanks along the Yakima River within the project action area are zoned natural open space by the City. Beyond the river banks the land use along the corridor is medium residential, multi-family residential, and limited commercial. Vegetation within the project action area includes forested riparian, shrub-steppe, and non-native landscaped. Although FHWA reported that the National Wetlands inventory indicates a forested freshwater forested shrub wetland occurs along the left (north) bank of the river (USFWS 2011) within the project action area, no such wetland was identified upon site inspection by FHWA.

Water temperatures within the project action area during the summer in-water work window are high enough to preclude the presence of juvenile steelhead and they typically rear further upstream in cooler tributary streams. Returning adults generally remain in cooler pools in the Columbia River at the mouth of the Yakima until stream temperatures cool down later in the fall. Substrate within the project action area is up to 30 percent embedded and does not provide suitable spawning habitat. Large woody debris is limited, with few than 20 pieces observed within the project action area during site inspection, which is not surprising given the lack of mature riparian vegetation within the riparian corridor.

No steelhead spawning occurs within the project action area (Streamnet 2012, Salmonscape 2012). Most steelhead spawning occurs upstream in tributaries within the Yakima Basin where water velocities are moderate and medium to coarse gravel substrates provide spawning habitat. The lower Yakima River, where the project action area is located, has slower velocities, limited cover, and substrate dominated by silty loam.

Steelhead adults return to the Yakima later than other Columbia tributaries, passing Prosser Dam in September (Appel 2011). The later return time is likely due to the elevated in-stream temperatures within the lower Yakima River. Altered stream flows result in higher water temperatures that persist

in the lower Yakima River throughout the irrigation season. Water temperatures in the lower Yakima River begin to rise in mid-June, after the spring migrations of adults and smolts. In July and August daily maximum river temperatures often exceed 21 degrees, rendering the stream habitat inhospitable for salmon until early fall (Appel et al. 2011). The higher in-stream temperatures cause migrating adult steelhead to hold in the Columbia River near the mouth of the Yakima River until the river cools in the late summer or fall (YBFWRB 2009), after the in-water work window (July 1 through September 30). Downstream migrations will likewise be complete by May (smolts) and late June (kelts), prior to the in-water work window (NMFS 2009). Table 4 summarizes the life stages of listed fish species in the action area.

Table 4. Timing of life stages of federally listed MCR steelhead trout within the project action area (YBFWRB 2009. No steelhead spawning habitat occurs within the project action area.

Summer-run Steelhead	<i>Work Window July 1 – September 30</i>											
	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Migration												
Kelt Outmigration												
Spawning												
Incubation and Emergence ¹												
Rearing												
Smolt Outmigration												

2.4 Effects of the Action on the Species and Designated Critical Habitat

“Effects of the action” means the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR 402.02). Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. NMFS identified no interrelated or interdependent actions during consultation.

2.4.1 Effects on Listed Species

The project elements that adversely affect MCR steelhead include 1) elevated levels of underwater noise from pile driving; 2) elevated levels of turbidity from installation and removal of steel piles, caissons, and sandbags; 3) increased shading of the channel from a temporary and permanent bridge structures; and 4) degraded rearing and migration habitat from the loss of riparian vegetation.

Water Quality - Turbidity

Work below the OHWM will release short-term pulses of sediment into the Yakima River. Project elements likely to result in these elevated levels of turbidity include the installation and removal of steel piles and caissons, and the placement of sand bags.

Certain levels of increased turbidity can adversely affect the physiology, behavior, and habitat of steelhead. Silt particles can abrade delicate fish gill tissue, interfering with respiration. Fish not physically injured by contact with suspended particles can still suffer injurious response to exposure, expressing energy to abandon and avoid a turbid area. Stressing exposed parr can affect the parr-smolt transformation, impairing migration and reducing early marine survival. Reduced visibility can also affect feeding rates, reaction distance, prey selection, and prey abundance. The reduced underwater visual range of fish may either act as a protective cover from predators (e.g. larger fish or piscivorous birds) or reduce the ability of these species to detect predators (Sigler et al. 1984, Bash et al. 2001, Berg and Northcote 1985, Newcombe and Jensen 1996). Elevated turbidity levels that reduce light penetration into water limit primary food production for aquatic life due to lowered photosynthetic activity of algae and rooted plants (Ward 1992).

The turbidity effects of project construction activities are expected to extend 300 feet downstream in the Yakima River. Using an average channel width along the linear extent of 300 feet for the Yakima River and an average width of channel for that linear extent of 216 feet, NMFS calculated the areas of channel likely to experience pulses of elevated turbidity. Elevated turbidity levels are expected to occur over an area of 64,800 square feet (1.5 acres). Turbidity effects are expected to be intermittent and of short duration are expected to return to background levels within a few hours. NMFS expects some adult MCR steelhead to be exposed to elevated levels of turbidity within the project action area. This exposure to the sublethal effects of turbidity could lead to physiological stress, alter their behavior, and displace them from their preferred habitats. The response of juvenile steelhead to temporarily- impaired water quality is expected to be limited to temporary avoidance of the action area or faster passage through the action area and is not expected to result in injury or death.

Stormwater

The proposed project will treat and then infiltrate stormwater from 7.14 acres of new and 1.39 acres of existing pollutant generating impervious surface (PGIS). Stormwater from all other PGIS within the project action area will be infiltrate prior to reaching surface waters. Because MCR will not be exposed to pollutants from stormwater, the effects are considered discountable.

Pile Driving

The current proposal includes an in-water work window of July 1 to September 30, prior to steelhead spawning migrations and after outmigration of smolts and kelts. Due to expected lower seasonal flows and higher water temperatures in the lower Yakima River during the in-water work window, juvenile steelhead are not expected to be within the project action area. Adult steelhead hold in the Columbia River near the mouth of the Yakima River until the river cools later into the fall, however, a few adult steelhead may hold within deeper pools within the project action area.

High levels of underwater sound can injure or kill fish and cause alterations in behavior (Turnpenny et al. 1994; Turnpenny and Nedwell 1994; Popper 2003; Hastings and Popper 2005). Death from barotrauma can be instantaneous or delayed up to several days after exposure. Noise from impact pile driving has been implicated in fish mortality and injury (Stotz and Colby 2001; Fordjour 2003; Hastings and Popper 2005; Abbott et al. 2005). Even in the absence of mortality, elevated noise levels can cause sublethal injuries. Fish suffering damage to hearing organs may suffer equilibrium problems, and may have a reduced ability to detect predators and prey (Turnpenny et al. 1994;

Hastings et al. 1996). Adverse effects on survival and fitness can occur even in the absence of overt injury. Exposure to elevated noise levels can cause a temporary shift in hearing sensitivity (referred to as a temporary threshold shift), decreasing sensory capability for periods lasting from hours to days (Turnpenny et al. 1994; Hastings et al. 1996). Popper et al. (2005) found temporary threshold shifts in hearing sensitivity after exposure to cumulative SELs as low as 184 dB. Temporary threshold shifts reduce the survival, growth, and reproduction of the affected fish by increasing the risk of predation and reducing foraging or spawning success.

One measure of risk of injury to fish from exposure to multiple pile strikes is cumulative sound exposure level (SEL). The Equal Energy Hypothesis, described by NMFS (2007), is used as a basis for calculating cumulative SEL. The number of pile strikes is estimated per continuous work period with an assumed break of at least twelve hours between work periods. NMFS uses the practical spreading model to calculate transmission loss. NMFS, USFWS, FHWA, and the WSDOT agreed to interim criteria to minimize potential impacts to fishes (FHWG 2008). The interim criteria include peak sound pressure level (SPL) and SEL injury threshold limits of:

- Peak SPL: levels at or above 206 dB from a single hammer strike likely results in the onset of physical injury.
- SEL: cumulative levels at or above 187 dB for fish sizes of two grams or greater or 183 dB for fish smaller than two grams.
- The current criteria also include the disturbance threshold of 150 dB_{rms} for potentially altering fish behavior.

Behavioral effects are observed at far lower noise levels than those associated with injury. NMFS uses an SPL of 150 dB_{rms} as a guideline for when underwater sound may alter fish behavior, including a startle response or other behaviors indicative of stress. While SPLs of this magnitude are unlikely to lead to permanent injury, depending on a variety of factors (e.g., duration of exposure) they can still indirectly result in potentially lethal effects. For example, temporary threshold shifts or altered behavior may increase the vulnerability of individual fish to predation. Feist et al. (1996) noted that juvenile pink and chum salmon exposed to pile driving noise were less likely to startle and flee when approached by an observer. Popper (2003) suggests that behavioral response of fishes to loud sounds may include swimming away from the sound source, thereby decreasing potential exposure to the sound, or “freezing” (staying in place), thereby becoming vulnerable to possible injury. Alternatively, fish could effectively abandon favorable habitats affecting long-term behavior and subsequent survival and reproduction, as found by Engas et al. (1996) when evaluating the response of gadids to the impulsive sounds from seismic surveys. Based on the above information, the Services use an SPL of 150 dB_{rms} as a minimum threshold for when behavioral effects can be expected.

Extent of Project Affects from Underwater Noise - The proposed action includes installing 90 temporary piles up to 24 inches in diameter within the wetted channel using a vibratory pile driver to a depth of ten feet. Each pile will be driven an additional 25 feet using an impact hammer. Impact pile driving activities are estimated to produce unattenuated sound levels of 207dB_{PEAK} and cumulative SEL of 209 dB at a distance of ten meters from the pile (Table 4) during impact pile driving (FHWA 2012).

Table 5. Maximum noise levels, distances (meters/feet) to injury and behavior threshold levels for the Meyers Road Replacements Project. Metrics in decibels (dB) include peak, sound exposure level (SEL) and root mean square (RMS).

Metrics are calculated using NMFS Noise Calculator using interim criteria develop by the Fisheries Hydroacoustic Working Group (2008).

	Noise Levels (dB) ¹				Pile Strikes per Day	Distance to threshold meters (feet)			
	Peak	SEL Single Strike	SEL _{CUM} at 10 m	dB _{RMS}		Physical Injury		Behavioral Effects	
						Peak 206 dB	Cum SEL fish ≥ 2 grams 187	Cum SEL fish < 2 grams 183	150 dB _{RMS}
Unattenuated	207	178	209	194	1350 ²	12 (40)	307 (1,007)	567 (1,890)	8,577 (28,140)
Attenuated (10dB)	197	168	199	184	1350 ²	3 (10)	66 (216)	122 (400)	1,848 (6,063)
Limits of Behavioral Effects (150dB _{RMS}) Based Upon Stream Geography									
Yakima River	Upstream (0.63 mile)							1,014 (3,326)	
	Downstream (0.56 mile)							901 (2,957)	

¹ Impact Pile Driving Noise Level (dB) for Peak, Single Strike SEL, Cumulative SEL, and dB_{RMS} from CalTrans 2007.

² Three piles per day, 450 pile strikes per pile

³ Ambient noise levels were measured during the construction of the SR 240 Bridge (FHWA 2011)

To reduce underwater noise from pile driving, contractors will use a confined bubble curtain, or functional equivalent, built as per specifications outlined NMFS/USFWS 2006. Bubble curtain should reduce the sound levels by at least 10 dB. When the confined bubble curtain (or functional equivalent) is deployed and functioning properly with the expected attenuation level, the maximum noise levels produced by attenuated impact driving up to 24-inch piles will be 197 dB_{PEAK} and cumulative SEL of 199 dB. The cumulative SEL will exceed the physical injury level of 187 dB for fish greater than two grams for a distance of 66 meters (216 feet) from the pile. Assuming that fish greater than two grams are present, the area ensonified by injurious noise when impact pile driving three piles (450 strikes per pile or 1,350 impact strikes per day) could cover the entire channel (100 percent) of the Yakima River (Table 6). No fish less than 2 grams will be present in the action area during pile driving activities.

Table 6. Percent of Yakima River Channels Ensonified by Injurious Levels of Noise during Impact Pile Driving Scenarios for Meyers Road Bridge Replacement Project.

# Piles	# Impact Pile Strikes	Fish ≥ 2 grams		Fish < 2 grams	
		Distance Threshold for injury (m/ft)	Percent Channel ensonified ¹	Distance Threshold for injury (m/ft)	Percent Channel ensonified ¹
3 piles	1,350	66 (217)	100	122 (400)	185
2 piles	900	50 (164)	78	93 (305)	141
1 pile	450	32 (105)	49	59 (194)	90

¹ Percent channel ensonified by injurious noise calculated by dividing the distance to injury threshold (feet) by average width of channel (216 feet).

Limiting the number of pile strikes to 900 pile strikes (2 piles) or 450 (1 pile) per day would allow for a passage corridor free of injurious noise level within the Yakima River (i.e. ensonification of channel limited to 78 percent for two piles and 49 percent for one pile). However, doing so also increases the time to install all the piles. Taking into consideration the sequencing of the other construction activities associated with construction of the new bridge, both scenarios (1 pile and 2 piles per day

installation) would require two work windows instead of one to complete bridge construction, increasing the risk of exposure to injurious noise to additional adult steelhead during the additional work window. As a result, the extent of adult steelhead exposure to injurious noise will be minimized most if all impact pile driving is completed in the first work window and if all impact pile driving is attenuated (for all 90 piles) and monitored for compliance with attenuation sound levels (cumulative SEL of 199 db, Table 6).

Using the construction limit of 1,350 impact pile strikes per day, NMFS calculated the area of channel ensonified for injurious levels of noise for fish two grams or larger by multiplying the average channel width (216 feet) by the extent of injurious noise (400 feet upstream and 400 feet downstream for a total of 800 feet). The area of the channel where adult steelhead will be exposed to injurious levels of noise is approximately 172,800 square feet or 4.0 acres.

The limits of effect from non-injurious levels of noise extend further than those that cause injury to fish. The surrounding geography limits the distance that pile driving noise can propagate to the intervening bends of each channel. For the proposed project, the extent of behavioral effects from pile driving (impact and vibratory) will extend 0.63 miles (1,012 meters or 3,325 feet) upstream and 0.56 mile (901 meters or 2,957 feet) downstream in the Yakima River (Table 6).

The NMFS calculated the area of the stream where fish will be exposed to sound levels eliciting a behavioral response by multiplying the extent of behavioral affects (6,282 feet)⁴ by the average width of the channel (228 feet)⁵. The area of the channels where juvenile steelhead are expected to modify behavior as a result of elevated noise levels from impact and vibratory pile driving include 1,432,296 square feet or 33 acres.

Exposure. Steelhead present during pile driving will likely avoid the shallower areas of the channel, seeking refuge in cooler water near the thalweg. The thalweg within the project action area coincides with a public boat launch and access area. Human activities, including vibratory pile driving, would likely scare most adult steelhead out of the work area to more suitable pool habitat upstream, and to some extent, downstream where deeper pool habitats occur with larger riparian buffers for shade.

Returning steelhead adults hold in the Columbia River below the mouth of the Yakima River, until summer in-stream temperatures in the Yakima River begin to cool in the fall. Gage datum from Kiona, Washington (RM 30), approximately 24.5 miles above the project action area, recorded mean daily temperatures from 2003 to 2008 that were high enough to preclude movement of most of the adult steelhead returning later in the fall (Table 7). In-stream temperatures within the project action area are expected to be similar or even warmer than those collected at the Kiona gage.

Table 7. Temperature barriers to adult steelhead migration (EPA 2003) and range of mean of daily mean temperatures from 2003 to 2005 recorded at US Geological Survey (USGS) Station 12510500 Yakima River at Kiona, WA (approximate RM 30) upstream of the action area for the Duportail Bridge Project.

Temperature Barriers (Celsius) to Adult Steelhead Migration (EPA 2003)
--

⁴ Extent of behavioral effects between intervening bends of the river within the Yakima River extend from 0.63 miles (3,325 feet) upstream and 0.56 mile (2,957 feet) downstream for total linear extent of 6,282 feet (1.2 miles).

⁵ Average width of channel calculated by taking eight measurements of channel width (4 upstream and 4 downstream of bridge location) over the extent of the upstream (0.63 miles) and downstream (0.56 mile) extent of noise eliciting behavioral response (1.2 miles total). Average channel width over this extent is 228 feet. (Google Maps 2012)

Adult Migration Barrier		21.0 – 22.0 (average)				Adult Migration Lethal		21.0 – 22.0 (constant)			
Mean of Daily Mean Temperatures (Celsius) – 2003 to 2005 (USGS 2012)											
Jul 1 – 15		Jul 16 - 31		Aug 1 - 15		Aug 16 - 30		Sept 1 - 15		Sept 16 - 31	
low	high	Low	high	low	high	low	high	low	high	low	high
23.2	25.3	24.3	25.4	23.3	24.1	20.7	24.1	18.6	20.6	16.3	17.9

Mean steelhead returns counted at the Prosser Diversion Dam based on averages between June and September 2001 and 2010 were four, five, 10 adults, and 431 adults, respectively (Columbia River DART 2011). NMFS assumes a similar level of adult returns would be present in the project action area during the project work window as those recorded at the Prosser Diversion Dam from July through September in previous years. Returning adults will hold in cooler pool habitat in the Columbia and migrate or hold in the project action area in late August and early September.

Limiting impact pile driving to between July 1 through August 15 will minimize exposing holding or migrating adult steelhead to injurious levels of underwater noise. Based upon the above return spawner data, up to fifteen adult steelhead trout will be present within the project action area from July 1 to August 15. After the majority of these adult steelhead move out of the injury zone as a result of behavioral modifications during vibratory pile driving, up to 10 percent, or two adults (1.5), may in fact be exposed to injurious levels of noise during impact pile driving that may result in mortality. Therefore, up to two adult steelhead may die in response to exposure to impact pile driving.

Overwater Shading

The proposed project will construct a temporary work bridge nearly spanning the Yakima River that will result in 12,600 square feet of structure over the Yakima River. The new Duportail Bridge will result in 23,300 square feet of structure over the Yakima River. These structures add shade to portions of the Yakima River below the OHWM. Some added shade will be permanent.

For juvenile salmonids, light is necessary for orientation, prey capture, schooling, predator avoidance, and migration navigation (Simenstad et al. 1999). Overwater shade may adversely affect juvenile salmon by altering their migratory behavior and exposing them to elevated levels of predation. Overwater structures such as docks can create sharp underwater light contrasts by both casting shade under ambient daylight conditions. There is some evidence to suggest that shading certain overwater structures can adversely affect juvenile salmon by diverting migration into deeper water and exposing them to predation (Simenstad et al. 1999, Carrasquero 2001). Juvenile steelhead affected by added shade might be less successful in detecting and avoiding predators. In addition, the additional time juveniles spend navigating around the temporary pilings may increase their exposure to predator in these areas (Rondorf et al 2010).

The temporary bridge will be in place for twelve to fifteen months and shading impacts will be temporary. Several design features were incorporated into the design of the new Duportail Bridge to minimize the potential shading impacts. The proposed bridge is approximately 64 feet wide and has a vertical clearance ranging from 41 to 63 feet above the OHWM. A higher structure allows for more diffusion and refraction around the bridge than a lower structure. The proposed bridge crosses the Yakima River in a north-south direction, which allows varying shadow periods as the sun travels east-west throughout the day (FHWA 2012).

Artificial Lighting

Construction activity will be limited to daylight hours only, so no artificial lighting will be used during construction. The proposed lighting design of the completed project will reduce the amount of artificial light that could be casted onto adjacent waters. The intersections are located away from the river and lighting from these areas will be blocked by structures and riparian vegetation. Lighting along the pedestrian pathway on the bridge will utilize reflectors and hoods to direct lighting onto the bridge and roadways, minimizing light spillage to the waterways and riparian areas. Given these minimization measures and the height of the bridge over the channel, the effects of artificial lighting will not harm fish.

Vegetation Removal

The proposed project will result in the permanent removal of 6.51 acres of shrub-steppe and forest vegetation in the action area. Riparian vegetation is an important link between terrestrial and aquatic ecosystems, influencing channel processes, contributing organic debris to streams, stabilizing stream banks, and moderating in-stream water temperatures. Loss of riparian vegetation reduces the source for woody debris inputs that influences formation of pools and lateral habitat, which provide a refuge from predators and high-flow events for juvenile salmon (Gregory et al 1991), both functions supporting juvenile salmonids rearing and migration life histories. Recruitment of large woody debris (LWD) to a stream system provides an important source of instream invertebrate habitat, which also serves as prey base for juvenile salmonids. Removing riparian vegetation reduces sources of allochthonous inputs to the stream, reducing food availability for juvenile salmonids, increasing competition among the less successful competitors (Gregory and Bisson 1997).

Removal of riparian vegetation affects light and temperature regimes of a stream (Hicks et al 1991). Elevated water temperatures can adversely affect juvenile fish physiology, growth, development, and life history patterns. Increased water temperature beyond normally functioning levels can increase the presence of, and salmonid susceptibility to, certain diseases and increase the competitive predator-prey interactions (Spence et al. 1996). Finally, the effects of removing riparian vegetation are exacerbated by the time required for new vegetation to mature to a condition where previously extant habitat forming and maintaining processes resume (Gregory and Bisson 1997). Sustainable, long-term improvements to in-stream habitat conditions for salmon will require the restoration of functional watershed processes including those that affect water, wood, and sediment delivery to streams. Some riparian protection measures may require 30 to 80 years to provide full benefits, based on the time it takes for trees to mature and restore shade and channel stability, and then die and provide woody material and channel diversity.

Most of the streambank within the action area are shrub-steppe vegetation with few mature trees. As part of the proposed project, the FHWA will permanently remove 6.51 acres of riparian vegetation, of which 5.99 acres is shrub-steppe and 0.52 acres are trees and shrubs, including four large black locust trees. Impacts to riparian vegetation will be offset with the creation of 0.71 acres of new shrub-steppe habitat. An additional 22.6 acres of degraded shrub-steppe vegetation within the riparian zone will be temporarily removed for project construction and replanted with native vegetation. The trunks of the four trees removed will be returned to the system as part of the project action. The trees will be replaced with the planting of 20 trees within the riparian zone. The riparian restoration will provide long-term benefits in the form of shade and large woody debris inputs, benefits that currently are

limiting factors in the watershed, and the replacement of non-native species with native species within the restored areas. The extent of change in the action area will not impair normal fish behavior as the restoration matures to replace lost function in the action area.

Benthic Impacts

Bridge construction will result in the temporary loss of 283⁶ square feet of substrate from the installation of 90 steel piles (up to 24-inches in diameter) and an additional 378⁷ square feet of substrate inside the caissons for a total of 661 square feet of temporary benthic impacts. Piles and caissons will be in place for two work windows. In addition, the new bridge will result in the permanent loss of 301⁸ square feet of substrate resulting from the installation of six eight-foot diameter concrete pilings (drilled shafts) for the new bridge piers. This loss of permanent benthic habitat is not expected to result in a discernible loss of forage habitat. The drift of invertebrates from upstream is expected to rapidly recolonize the temporarily- affected areas within six months after the flows are restored to the natural channels (Barton 1977, Chisholm and Downs 1978, Fowler 2004, Korsu 2004, Milner and Piorkowski 2004). The project action area is not utilized for rearing habitat by juvenile steelhead.

Relevance of Project Effects on Steelhead Population Viability

The NMFS evaluates project effects at the species scale by first determining if effects to individual fish will negatively influence any of the VSP characteristics of specific populations. The VSP characteristics are abundance, population growth rate (productivity), spatial structure, and diversity. If the effects of the action on individual fish will not negatively influence any of these characteristics of viable steelhead populations, the chances of the action appreciably reducing the likelihood of survival and recovery of the species in the wild, if any, is negligible as described in the integration and synthesis in section 2.6 of this document.

The project is expected to expose up to fifteen adult steelhead trout to non-lethal effects from vibratory pile driving, up to two of which will be further exposed to elevated underwater noise sufficient to result in injury or death from impact pile driving. The two adult steelhead injured or killed from any of the component populations (Satus, Toppenish, Naches, or Upper Yakima) is not expected to significantly diminish the productivity of any of the four populations or the Yakima MPG, and therefore would not constitute a significant reduction of the overall productivity of the MCR steelhead DPS. Losses among returning adults in subsequent years will be indiscernible among the populations to which these individual fish belong. The productivity and abundance is not anticipated to be impaired by either injury or mortality among juveniles and adults. The spatial structure and diversity will be unaffected among the populations. Because the population structure is preserved, the overall

⁶ Temporary benthic impacts from 90 steel piles up to 24 inches in diameter : $A = \pi r^2 = 3.14 \times 1^2 = 3.14 \times 90 \text{ piles} = 282.6 \text{ square feet (283)}$.

⁷ Temporary benthic impacts from installation of six twelve-foot diameter caissons (less the area of the six eight-foot drilled shafts: Area of caissons: $A = \pi r^2 = 3.14 \times 6^2 = 113.04 \times \text{six caissons} = 679 \text{ (678.2) square feet}$. Subtract area of eight-foot diameter drilled shafts for the two piers: $A = \pi r^2 = 3.14 \times 4^2 = 50.25 \times \text{six piers} = 301 \text{ (301.2) square feet}$. Area of temporary impacts for caissons: $679 - 301 = 378 \text{ square feet}$.

⁸ Permanent benthic impacts: two piers below OHWM, each supported by three eight-foot diameter concrete drilled shafts. Each pier area calculated as follows: $A = \pi r^2 = 3.14 \times 4^2 = 3.14 \times 16 = 50.24 \times \text{six piers} = 301 \text{ (301.2) square feet}$.

risk to the DPS remains unchanged, and the take of individuals from these subpopulations does not represent a threat to the viability of the larger DPS.

2.4.2 Effects on Critical Habitat

The action area for this consultation contains the migration PCE of critical habitat designated for MCR steelhead. No rearing or spawning habitat occurs in the action area (Salmonscape 2012, Streamnet 2012). The essential elements of the freshwater migration PCE include corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks that support juvenile and adult mobility and survival. The elements of PCEs that are most relevant to the proposed action are water quality, substrate, natural cover, and free passage.

Water Quality

Water quality within the action area will be temporarily degraded by increased turbidity and sedimentation during in-water work. The installation and removal of the temporary steel piles, caissons, and sandbags placed around steel piles in water depths less than two feet during in-water construction work could result in short-term increases in suspended sediment. Turbidity effects of the project work are expected to extend from the in-water zone downstream for 300 feet within the Yakima River. Assuming an average width of 216 feet for the reach of the Yakima River, the extent of turbidity effects could affect up to 64,800 square feet (1.5 acres) of instream habitat. Turbidity effects are expected to be intermittent and of short duration, and NMFS expects turbidity levels to return to background levels within a few hours. The temporary impairment of water quality will not reduce the action area's contribution to functioning, freshwater migration PCEs in the watershed.

Natural Cover

The riverbanks along the Yakima River within the project action area are zoned natural open space by the City. The northeast bank contains a 100-foot wide riparian buffer and the southwestern bank is an undeveloped steep slope. Riparian vegetation includes shrub-steppe and forest. Riparian vegetation is an important link between terrestrial and aquatic ecosystems, influencing channel processes, contributing organic debris to streams, stabilizing stream banks, and moderating in-stream water temperatures. Loss of riparian vegetation reduces the source for woody debris inputs that influences formation of pools and lateral habitat, which provide a refuge from predators and high-flow events for juvenile salmon (Gregory et al 1991), both functions supporting juvenile salmonids rearing and migration life histories. Recruitment of LWD to a stream system provides an important source of instream invertebrate habitat, which also serves as prey base for juvenile salmonids. Removing riparian vegetation reduces sources of allochthonous inputs to the stream, reducing food availability for juvenile salmonids, increasing competition among the less successful competitors (Gregory and Bisson 1997).

Removal of riparian vegetation affects light and temperature regimes of a stream (Hicks et al 1991). Elevated water temperatures can adversely affect juvenile fish physiology, growth, development, and life history patterns. Increased water temperature beyond normally functioning levels can increase the presence of, and salmonid susceptibility to, certain diseases and increase the competitive predator-prey interactions (Spence et al. 1996). Finally, the effects of removing riparian vegetation are exacerbated

by the time required for new vegetation to mature to a condition where previously extant habitat forming and maintaining processes resume (Gregory and Bisson 1997). Sustainable, long-term improvements to in-stream habitat conditions for salmon will require the restoration of functional watershed processes including those that affect water, wood, and sediment delivery to streams. Some riparian protection measures may require 30 to 80 years to provide full benefits, based on the time it takes for trees to mature and restore shade and channel stability, and then die and provide woody material and channel diversity.

The project will permanently remove approximately 5.99 acres of shrub-steppe and nearly one-half acre of riparian forested vegetation. The vegetation that will be removed on the north bank includes four large black locust trees (12 to 32 inches diameter breast height). These large trees provide some shade and biomass into the system; the shrub-steppe vegetation less so. The trunks of the removed trees will be placed along the banks of the Yakima River within the riparian buffer at the OHWM. Approximately 0.71 acres of shrub-steppe will be restored within the riparian zone. Locust trees will be replaced with 20 trees of multiple native species.

The effect to critical habitat from the removal of shrub-steppe vegetation along the river banks is minimal because the vegetation removed contributes little to the function of the local riparian system and tree removal is limited to four large trees. The riparian restoration will provide long-term benefits in the form of shade and large woody debris inputs; benefits that currently are limiting factors in the watershed. The time required for the restoration area to become established and mature to the level of replacing functions lost because of the proposed action will not reduce the conservation role of the migration habitat in the action area.

Forage

The installation and removal of steel piles and caissons below the OHWM will temporarily eliminate invertebrate production in approximately 661 square feet of streambed during two construction years. The new bridge piers will result in the permanent loss of approximately 301 square feet of benthic habitat. The area of temporary impacts is expected to recover invertebrate populations rapidly from drift of invertebrates upstream. The permanent loss of 301 square feet of benthic habitat will reduce forage in a manner that affects the conservation role of migration habitat in the action area.

Free Passage

The project will require vibratory and impact pile driving such that underwater noise levels may alter normal passage behavior of adult steelhead through the project action area. Vibratory pile driving will produce non-injurious levels of underwater noise sufficient to scare adult steelhead out of the in-water construction area, and impact pile driving will produce injurious levels of noise such that no corridor of the channel may be available for passage without injury for up to 12 hours per day for 45 days. If adult steelhead trout are present in the action area during the in-water work window they are expected to be few in number. Effects to migration from pile driving are temporary, not lasting more than one construction window. In the long-term, passage will return to pre-project conditions and the migration will not be impaired thereafter.

Relevance of Action Area Effects to Designated Critical Habitat

The proposed action will have short-term negative effects on the freshwater migration PCE of designated critical habitat in the action area. Temporary construction-related adverse effects from underwater noise will affect the free passage PCE for approximately seven weeks during the first in-water work window. Temporary construction-related adverse effects of turbidity from installation and removal of piles, caissons, and sandbags, as well as from vegetation removal, will affect water quality, natural cover, substrate, and free passage PCEs for up to thirteen weeks during mostly summer low flow conditions (July 1 through September 30) for two consecutive in-water work windows. The proposed project incorporates sufficient measures to minimize or avoid the production of significant turbidity. Temporarily depressed invertebrate production within the dewatered work area is not expected to persist beyond a few months following removal of steel piles. Permanent impacts to in-stream and riparian habitat are not expected to result in any significant change to the rearing or migration potential of the action area. Therefore, the PCEs of critical habitat for MCR steelhead should not be impaired in a way that would undermine the conservation value within the action area, and certainly will not have any influence of the conservation role of the Yakima River reach containing the action area.

2.5 Cumulative Effects

Cumulative effects are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to ESA section 7.

Existing land use along the project corridor is zoned medium density residential, multi-family residential and commercial-limited business northeast of the Yakima River. The southwest side of the river is zoned limited business and medium density residential housing. The riverbanks are zoned natural open space (City of Richland 2011) and are vegetated with shrub-steppe and forest cover.

The new Duportail Bridge and associated roadways is proposed to alleviate traffic from the SR 240 and I-182 corridors by providing an alternative access route between Richland and the neighborhood south of the Yakima River. No building moratoriums are in place; no land use changes are anticipated to result from the project; no known developments are contingent upon the completion of the proposed project; nor are any land use changes tied by permit condition to the proposed project. In addition, the proposed project will infiltrate all stormwater generated within the project action area. The proposed project will, however, result in increased traffic within the project action area. Therefore, an analysis was conducted to determine if the proposed project will speed up the rate of planned development within the action area and surrounding area.

The FHWA used parcel information from the Benton County assessor to determine the date of development for properties within 349-acres of the project action area expected to have potential traffic effects. The rate of development from 2001- 2011 was determined to be 2.8 percent, or 9.59 acres per year. FHWA worked with the City of Richland to project the future rate of development from 2012 – 2022. The agencies determined that 95.96 acres of the total area of influence were likely to develop within ten years of project completion, which also equates to a rate of development of 2.8

percent per year. Although the proposed project is not expected to result in greater rate of development, the continued development is expected to continue to plague the lower Yakima River with problems associated with urban streams such as sediment loading, legacy pesticide loading (DDT), leaking septic systems and storm sewer pollutants (Appel et al. 2011). Over time, the incremental degradation, when added to the already degraded environmental baseline, may result in reduced habitat quality for MCR steelhead.

The NMFS worked collaboratively with the Middle Columbia Recovery Forum (Mid-C Forum) a group of federal, state, county agencies as well as interested Tribes convened by NMFS to provide input on the development of the Middle Columbia River Steelhead DPS ESA recovery plan (Plan). The purpose of the plan is the protection and restoration of MCR steelhead that spawn and rear in tributaries to the Columbia River in central and eastern Washington and Oregon. The Plan incorporated four regional recovery plans including the Yakima Steelhead Recovery Plan (NMFS 2009, YBFWRB 2009), which guides steelhead recovery of the Yakima MPG of steelhead within the Yakima Basin. The YBFWRB, a locally based organization governed by representatives of Yakama, Benton, and Kittitas counties, the Yakama Nation, and cities in the basin, developed the Yakima Steelhead Recovery Plan to “restore sustainable and harvestable populations of salmon, steelhead, bull trout, and other at-risk fish and wildlife species through the collaborative, economically sensitive efforts, combined resources, and wise resource management of the Yakima River Basin” (YBFWRB 2009).

The Yakima Steelhead Recovery Plan identifies recovery goals, actions and strategies for achieving the recovery actions specific to the lower Yakima River including improving migration conditions in the mainstem Yakima River, including the lower Yakima River where the project action area is located. Recovery actions identified for the Yakima River MPG that have the potential to affect habitat conditions within the project action area or in which the fish habitat within the project action area contribute to include the following:

- Improving flow conditions within the Mainstem Yakima and Naches rivers by working with Bureau of Reclamation to modify reservoir releases to be to coincide during smolt outmigration periods
- Updating fish screens on diversion and salvaging fish in fish in canals, restoring unimpeded fish passage by increasing on-farm irrigation efficiency to reduce water diversions
- Improving outreach and education to agencies and individuals participating in programs to lease and buy water rights
- Work with public land management agencies to protect existing functional habitat by protecting open space, wildlife habitat, and working landscapes
- Encouraging beaver presence where compatible with land uses to restore floodplain connectivity and function and restore channel structure and complexity
- Restore riparian condition and future LWD recruitment through natural black cottonwood production
- Working with an array of public and private entities to modify operations of dams and irrigation intakes and outfalls to improve flow conditions downstream during sensitive life stages such as outmigration (YBFWRB 2009).

The above actions are part of a long history of salmon recovery in the Yakima Basin, beginning as early as the Twentieth century with fish screening efforts and ongoing intensive recovery efforts since the 1980's. Although much of the funding (up to \$8.7 million) for recovery actions to date have come from federal sources (the Bonneville Power Administration, the Northwest Power and Conservation Council, and the federal Pacific Coast Salmon Recovery Fund), this funding has leveraged another \$5.5 million in locally-diverse sources.

Salmon recovery actions within the Yakima Basin and within the project action area are expected to continue over time. Although implementing recovery actions may minimize adverse cumulative effects, those effects are unlikely to be completely avoided.

2.6 Integration and Synthesis

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we will add the effects of the action (Section 2.4) to the environmental baseline (Section 2.3) and the cumulative effects (Section 2.5) to formulate the agency's biological opinion as to whether the proposed action is likely to: (1) reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) reduce the value of designated or proposed critical habitat for the conservation of the species. These assessments are made in full consideration of the status of the species and critical habitat (Section 2.2).

As presented in the analysis above, the proposed action is reasonable certain to injure or kill two adult steelhead that are a portion of one or two of the component populations of the Yakima MPG. It is not possible to determine definitively which population the mortality is likely affect since all returning adults for all populations must migrate through the project action area. The five-year averages (2005 – 2009) of steelhead spawners in the component populations of the Yakima MPG reflect a recent increase of returning adults (Table 8). The number of adult returns required to maintain viable levels for each subpopulation are estimated to be 500 for Satus Creek, 250 for Toppenish Creek, 1,500 for Naches River, and 500 for the Upper Yakima River (Table 9).

Table 8. Mean number of adult returns for MCR steelhead (Ford et al. 2011) and recovery levels for MCR steelhead (YBFWRB 2009).

Population	Five-Year Average (2005 – 2009)	Delisting Threshold	Short-Term Recovery	Long-Term Recovery
Satus	809	500	500	2,000
Toppenish	469	250	500	1,500
Naches	825	1,500	1,500	5,400
Upper Yakima	156	500	1,500	7,700
Total	2,259	2,750	4,000	16,600

The loss of two adult spawners from injury or death during project construction during the first in-water work window is not expected to impede reaching recovery goals, as it is a one-time event due to construction effects, rather than a chronic loss from habitat degradation. The same level of mortality is not expected during the second in-water work window. The one time reduction of the abundance by two returning adults when added to the effects of environment baseline, and factoring the cumulative effects, will not alter the status of the populations, the MPG, or the species.

The loss of two adult spawners from injury or death during project construction during the first in-water work window is not expected to impede reaching recovery goals, as it is a one-time event due to construction effects, rather than a chronic loss from habitat degradation. The same level of mortality is not expected during the second in-water work window. The one time reduction of the abundance by two returning adults when added to the effects of environment baseline, and factoring the cumulative effects, will not alter the status of the populations, the MPG, or the species.

Furthermore, the measures included in the action that create and enhance habitat in the action area will provide some level of “lift” in population viability characteristics that are influenced by habitat quantity and function. Taken together, these facts ensure the proposed action will not influence the reproduction, numbers, or distribution of the Upper Yakima River MPG.

2.7 Conclusion

After reviewing the current status of the listed species, the environmental baseline within the action area, the effects of the proposed action, any interrelated and interdependent actions, and the cumulative effects, it is NMFS’ biological opinion that the proposed action is not likely to jeopardize the continued existence of MCR steelhead trout DPS or destroy or adversely modify its designated critical habitat.

2.8 Incidental Take Statement

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by regulation to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. For this consultation, we interpret “harass” to mean an intentional or negligent action that has the potential to injure an animal or disrupt its normal behaviors to a point where such behaviors are abandoned or significantly altered.⁹ Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this incidental take statement.

2.8.1 Amount or Extent of Take

The effects of the action; the presence of ESA-listed adult MCR steelhead; and the availability of fish habitat will co-occur such that incidental take of listed species is reasonably certain to occur. Specifically, the action is anticipated to injure or kill a number of fish during in-water impact pile driving. The approved in-water work window for the lower Yakima River is July 1 through September

⁹ NMFS has not adopted a regulatory definition of harassment under the ESA. The World English Dictionary defines harass as “to trouble, torment, or confuse by continual persistent attacks, questions, etc.” The U.S. Fish and Wildlife Service defines “harass” in its regulations as “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). The interpretation we adopt in this consultation is consistent with our understanding of the dictionary definition of harass and is consistent with the U.S. Fish and Wildlife interpretation of the term.

30 for two consecutive summer construction seasons; however, NMFS is limiting impact pile driving to July 1 through August 15 during the first construction season.

To estimate the number of adult steelhead exposed to this injurious underwater noise, NMFS used adult steelhead returns counted at the Prosser Diversion Dam, averaged over the latest 10-year period available (2001 – 2010) for the months of July and August and assumed the same number adults to be present in the action area from July 1 through August 15. Using the return spawning data NMFS estimates fifteen adult steelhead will be present in the action area from July 1 through August 15. NMFS further assumes up to ten percent or two adult steelhead trout will die from injurious levels of underwater noise during impact pile driving. NMFS calculated the area of the Yakima River within the project action area where adult steelhead will be exposed to injurious levels of underwater noise to be approximately 172,800 square feet or 4.0 acres.

In the ESA, harm in the definition of “take” includes significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering (50 CFR 222.102). The number of fish affected by habitat changes cannot be estimated and therefore take in this form is quantified as an extent of modified habitat. Harm is extremely difficult and frequently impossible to quantify in terms of the number of affected fish because the relationship between change in habitat conditions and fish response is not linear, and the range of fish responses to habitat modification is highly variable, and even the presence of fish that are likely to encounter the habitat changes is extremely variable over time.

Where NMFS cannot quantify take in numbers of fish, NMFS quantifies take in terms of the extent of habitat modified. In addition to fish injured or killed by impact pile activity, some fish are anticipated to be harmed by a further extent of non-injurious levels of underwater noise from vibratory and impact pile driving. NMFS calculated the area of the Yakima River within the project action area where adult steelhead will be exposed to non-injurious levels of noise sufficient to modify behavior to be 1,432,296 square feet or 33 acres.

Take is exempted for the following, between July 1 and August 15, during the first construction season (2015):

- 1) Up to two adult MCR steelhead that will be killed or injured during impact pile driving within the Yakima River.
- 2) A temporary increase in underwater noise sufficient to cause injury to adult MCR steelhead trout over an area of approximately 172,800 square feet or 4.0 acres of the Yakima River.
- 3) A temporary increase in underwater noise sufficient to cause behavioral modification of adult MCR steelhead trout over an area of approximately 1,432,296 square feet or 33 acres within the Yakima River.

Take is also exempted for the following, between July 1 and September 30) during two consecutive construction seasons (2015 and 2016):

- 4) A temporary increase in turbidity extending downstream for 300 feet in the Yakima 64,800 square feet (1.5 acres) caused by in-water construction activity. Elevated turbidity is expected to occur intermittently for thirteen weeks during the in-water work window of July 1 through September 30 during both construction years (2015 and 2016) as a result of in-water construction activity.
- 5) Permanent riparian impacts resulting from the removal of 5.99 acres of shrub-steppe and 0.52 acres of forested vegetation within the riparian zone. These impacts will be partially offset by the restoration of 0.71 acres of shrub-steppe, the restoration of 22.6 acres of temporarily disturbed riparian shrub-steppe within the project corridor with native species, and the planting of 20 trees along the river bank downstream of the new bridge and within the project action area.
- 6) Temporary shading impacts over the Yakima River resulting from the construction of a 12,600 square foot temporary work bridge.
- 7) Permanent shading impacts over the Yakima River resulting from the construction of the new 23,300 square foot Duportail Bridge.
- 8) Temporary modification of forage habitat that will occur over 283 square feet of substrate from the installation of 90 steel piles, up to 24-inches in diameter and over 378 square feet within the twelve-foot caissons (less the area of the drilled shafts) within the Yakima River.
- 9) Permanent modification of forage habitat that will occur over 301 square feet of substrate resulting from the installation of six eight-foot diameter concrete new bridge pilings (drilled shafts) for the new bridge piers within the Yakima River.

2.8.2 Effect of Take

Injury or death of two adult MCR steelhead trout resulting from the project action is a one-time reduction in abundance. Adult steelhead may be temporarily displaced from preferred habitats as a result of being exposed to the elevated levels of non-injurious levels of underwater noise and elevated turbidity during construction. These sublethal effects are not expected to result in any long-term adverse effects. NMFS does not anticipate the one-time reduction in abundance of adult MCR steelhead or the exposure of adult steelhead to sublethal effects of the project (non-injurious noise levels, elevated turbidity) to modify or diminish the productivity of any of the four component populations (Satus, Toppenish, Naches, or Upper Yakima), and thus will not be discernible within the Yakima Basin major population group and will not affect the productivity of the steelhead DPS.

2.8.3. Reasonable and Prudent Measures

Reasonable and prudent measures (RPM) are non-discretionary measures to minimize the amount or extent of incidental take (50 CFR 402.02).

2.8.4 Terms and Conditions

The FHWA will:

- 1) Minimize incidental take from elevated sound levels resulting from impact pile driving in the Yakima River channels.
- 2) Minimize incidental take from elevated levels of turbidity resulting from project construction activities.
- 3) Minimize incidental take from vegetation removal.
- 4) Ensure completion of a monitoring and reporting program to confirm that this opinion is meeting its objective of limiting the extent of take and minimizing take from permitted activities, per (50 CFR 402.14(i)(1)(iv) and (I)(3)).

To be exempt from the prohibitions of section 9 of the ESA, the FHWA and its cooperators must comply with the following T&Cs that implement the RPMs described above. Partial compliance with these T&Cs may invalidate this take exemption, result in more take than anticipated, and lead NMFS to a different conclusion regarding whether the proposed action will result in jeopardy or the destruction or adverse modification of critical habitat.

- 1) To implement RPM Number 2 (impact pile driving), the FHWA will:
 - a) Limit all impact pile driving to 30 days during the period of July 1 to August 15 during the first construction in-water work window.
 - b) Limit impact pile driving to a maximum of 1,350 pile strikes per day.
 - c) Conduct all impact pile driving operations in greater than two feet of water with the use of a confined bubble curtain or any functional equivalent or superior system according to NMFS approved confined bubble curtain specifications to ensure a minimum noise reduction of 10 dB.
 - d) Monitor attenuation system performance for every pile (all 90 piles) to ensure that impact pile driving noise levels do not exceed a maximum noise level of 199 cumulative SEL measure 10 meters from the pile.
 - e) Conduct all impact pile driving operations in less than two feet of water inside a sandbag cofferdam surrounding the pile to be proofed to minimize the extent of injurious levels of underwater noise.
 - f) A qualified fisheries biologist will be on site during all in-water construction activity, including pile driving, to observe for presence of adult steelhead within the project action area.

- i) If any adults are detected within the zone of injurious underwater noise, work will be suspended until adults have move out of the area.
 - ii) Fish detected in the work zone will be herded out of the work area if practicable.
 - iii) No electrofishing will occur.
- 2) To implement RPM Number 2 (minimizing turbidity), the FHWA will ensure that:
 - a) Erosion control activities, including minimization measures and BMPs, will be monitored and corrective action will be taken if necessary to ensure protection of riparian areas and waterways.
 - b) Within the Yakima River, sediment plumes created on an intermittent basis from elevated levels of turbidity associated with project construction do not:
 - i. Utilize greater than twenty-five percent of available river flow;
 - ii. Occupy greater than twenty-five percent width of the water body; and
 - iii. Extend further than 300 feet downstream from project construction with the Yakima River.
 - c). Maximum turbidity levels beyond 300 feet downstream in the Yakima River do not exceed:
 - i. Five nephelometric turbidity units (NTU) over background when the background is 50 NTU or less; or
 - ii. A ten percent increase in turbidity when the background turbidity is more than 50 NTU.
 - d) Background water samples are taken prior to implementing construction activities expected to result in elevated levels of turbidity within Yakima River.
 - e) Turbidity levels for monitoring are determined using turbidity meter.
 - f) Turbidity monitoring is documented in a monitoring report.
 - g) A qualified biologist will be on site during all in-water work construction activities to observe for presence of adults during installation of caissons and sandbags.
 - i) Any fish detected in the footprint of caissons, piles, or sandbags will be herded out of the area.
 - ii) Any adults incidentally trapped within caissons will be released by lifting the caissons.

- iii) No electrofishing will occur as part of the project.
- 3) To implement RPM Number 3 (vegetation removal), the FHWA will ensure that:
- a) Permanent impacts from removal of vegetation will be limited to only that vegetation necessary for project access and construction and will encompass no more than 11.11 acres of vegetation including the following:
 - i) 1.24 acres of landscape vegetation;
 - ii) 9.34 acres of shrub steppe vegetation, including 5.99 acres within the riparian zone;
 - iii) 0.52 acres of forested vegetation;
 - b) Temporary impact from vegetation removal during project construction is limited to 22.6 acres of shrub-steppe vegetation, which will be replanted with native shrub-steppe species at the completion of project construction.
 - c) The project will include the restoration of an additional 0.72 acres of shrub-steppe vegetation within the riparian zone associated with elimination of a network of foot trails along the river's edge into one designated nature trail along the northeast side of the Yakima River.
 - d) Trees removed within the riparian zone will be limited to four (12 to 32 diameter breast height) black locust trees, the trunks of which will be placed at the OHWM upstream of the new bridge location within the project action area.
 - e) Removed trees will be replaced by planting 20 trees within the riparian zone of the project action area. Trees will be mixed native species appropriate to the location.
 - f) All replacement plantings will consist of native species and shall be monitored to ensure 80 percent survival for three years.
 - g) Temporary modification of benthic habitat will be limited to 283 square feet associated with the installation of 90 steel piles, up to 24-inches in diameter within the wetted channel for two construction in-water work windows.
 - h) Permanent modification of benthic habitat will be limited to 301 square feet associated with the installation of six eight-foot diameter concrete pilings (drilled shafts) for the new bridge piers.
- 2) To implement RPM Number 4 (monitoring), the FHWA shall ensure that:
- a) The FHWA will report the results of the turbidity monitoring to NMFS within 60 days of project completion.

- b) All listed salmonids encountered during work area isolation and fish-movement operations will be documented by In-water Construction Monitoring Report forms (Appendix II), or equivalent. The FHWA shall submit monitoring reports to NMFS no later than December 31 of the construction year.
- c) All reports shall be sent to National Marine Fisheries Service, Washington State Habitat Office, Attention: Michael Grady, 510 Desmond Drive SE, Suite 103, Lacey, Washington 98503.
- NOTICE: To follow inactive projects and, if necessary, withdraw the opinion for an incomplete project, the FHWA shall provide an annual report even if no actual construction occurred in a given year.

NOTICE: If a sick, injured or dead specimen of a threatened or endangered species is found in the action area, the finder must notify NMFS Law Enforcement at (206) 526-6133 or (800) 853-1964, through the contact person identified in the transmittal letter for this opinion, or through NMFS Washington State Habitat Office. The finder must take care in handling sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder should carry out instructions provided by Law Enforcement to ensure evidence intrinsic to the specimen is not disturbed unnecessarily.

2.9 Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02). NMFS identified no conservation measures at this time for the proposed action.

2.10 Reinitiation of Consultation

As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

Consistent with point one immediately above, the estimated number of fish injured or killed during impact pile driving (two adult MCR steelhead), worksite isolation (3 juvenile MCR steelhead), the extent and duration of harm from underwater noise resulting from impact and vibratory pile driving, the extent and duration of harm from turbidity impacts, temporary and permanent impacts to benthic habitat resulting from placement of temporary and permanent piles, and the extent of harm from removal of riparian vegetation are thresholds for reinitiation of consultation. If the actions covered by

this opinion result in a physical or temporal extent of take greater than that authorized above, the FHWA shall reinitiate consultation.

To reinitiate consultation, contact the Washington State Habitat Office of NMFS and refer to NMFS Tracking Number assigned to this consultation.

3.0 MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT ESSENTIAL FISH HABITAT CONSULTATION

The consultation requirement of section 305(b) of the MSA directs Federal agencies to consult with NMFS on all actions, or proposed actions that may adversely affect EFH. The MSA (section 3) defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) also requires NMFS to recommend measures that may be taken by the action agency to conserve EFH.

This analysis is based, in part, on information provided the Federal Highway Administration (FHWA) and descriptions of EFH for Pacific coast salmon (PFMC 1999) contained in the Fishery Management Plans developed by the Pacific Fishery Management Council (PFMC) and approved by the Secretary of Commerce.

3.1 Essential Fish Habitat in Project Area

The aquatic portion of the project action area contains EFH (rearing and spawning) for Chinook (*Oncorhynchus tshawytscha*) as well as EFH (migration) for coho salmon (*O. kisutch*). Pink salmon (*O. gorbuscha*) does not occur within the action area and is not discussed in the analysis.

3.2 Adverse Effects to Essential Fish Habitat

Based on information provided in the BA and the analysis of effects presented in the ESA portion of this document, NMFS concludes the proposed action will have the following adverse effects on EFH designated for Chinook and coho salmon:

- A short-term degradation of water quality from a temporary increase in turbidity extending downstream from the bridge construction area, extending downstream for 300 feet in the Yakima River, potentially affecting an area of approximately 64,800 square feet (1.5 acres) within the Yakima River. Elevated turbidity is expected to occur intermittently for thirteen weeks during the in-water work window of July 1 through September 30 during two construction years (2015 and 2016) as a result of in-water construction activity.
- Permanent riparian impacts resulting from the removal of 6.51 acres of vegetation (5.99 acres shrub-steppe and 0.52 acres of forest) including the removal of four large black locust trees. These impacts will be partially offset by the restoration of 0.71 acres of shrub-steppe, the

restoration of 22.6 acres of temporarily disturbed riparian shrub-steppe within the project corridor with native species, and the planting of 20 trees along the river bank downstream of the new bridge and within the project action area.

- Temporary shading impacts over the Yakima River resulting from the construction of a 12,600 square foot temporary work bridge.
- Permanent shading impacts over the Yakima River resulting from the construction of the new 23,300 square foot Duportail Bridge.
- Temporary modification of benthic habitat that will occur over 283 square feet of substrate from the installation of 90 steel piles, up to 24-inches in diameter and over 378 square feet within the twelve-foot caissons (less the area of the drilled shafts) for a total of 661 square feet of temporary impacts to benthic habitat within the Yakima River.
- Permanent modification of benthic habitat that will occur over 301 square feet of substrate resulting from the installation of six eight-foot diameter concrete new bridge pilings (drilled shafts) for the new bridge piers within the Yakima River

3.3 Essential Fish Habitat Conservation Recommendations

Project affects to EFH from the temporary loss of benthic habitat impacting the forage base will be localized and temporary in duration, resolved by natural recolonization. Project affects to EFH from the loss of permanent benthic habitat resulting from the installation of bridge piers is not expected to result in discernible loss of forage habitat when compared to the entirety of the project action area. NMFS therefore has no conservation recommendations to reduce this effect.

The NMFS believes that implementation of these EFH conservation recommendations would protect, by avoiding or minimizing the adverse effects described in section 3.2 above, approximately 1.5 acres of designated EFH for Pacific coast salmon:

- (1) Erosion control activities, including minimization measures and BMPs, should be monitored and corrective action taken if necessary to ensure protection of riparian areas and waterways.
- (2) All replacement plantings (riparian and wetland) shall consists of native species and shall be monitored to ensure 80 percent survival for three years.

3.4 Statutory Response Requirement

As required by section 305(b)(4)(B) of the MSA, the FHWA must provide a detailed response in writing to NMFS within 30 days after receiving an EFH Conservation Recommendation. Such a response must be provided at least 10 days prior to final approval of the action if the response is inconsistent with any of NMFS' EFH Conservation Recommendations unless NMFS and the Federal agency have agreed to use alternative time frames for the Federal agency response. The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the Conservation Recommendations, the Federal agency must explain its reasons for not following the

recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effects (50 CFR 600.920(k)(1)).

In response to increased oversight of overall EFH program effectiveness by the Office of Management and Budget, NMFS established a quarterly reporting requirement to determine how many conservation recommendations are provided as part of each EFH consultation and how many are adopted by the action agency. Therefore, we ask that in your statutory reply to the EFH portion of this consultation, you clearly identify the number of conservation recommendations accepted

3.5 Supplemental Consultation

The FHWA must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600.920(l)).

4. DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW

The DQA specifies three components contributing to the quality of a document. They are utility, integrity, and objectivity. This section of the opinion addresses these DQA components, documents compliance with the DQA, and certifies that this opinion has undergone pre-dissemination review.

4.1 Utility

Utility principally refers to ensuring that the information contained in this consultation is helpful, serviceable, and beneficial to the intended users. The intended users of this opinion are NMFS, the USFWS, the USCOE, and the FHWA. Other interested users could be the residents of Benton County, Washington, and the general public. Individual copies of this opinion were provided to the FHWA and WSDOT. This opinion will be posted on NMFS Northwest Region web site (<http://www.nwr.noaa.gov>). The format and naming adheres to conventional standards for style.

4.2 Integrity

This consultation was completed on a computer system managed by NMFS in accordance with relevant information technology security policies and standards set out in Appendix III, 'Security of Automated Information Resources,' Office of Management and Budget Circular A-130; the Computer Security Act; and the Government Information Security Reform Act.

4.3 Objectivity

Information Product Category: Natural Resource Plan

Standards: This consultation and supporting documents are clear, concise, complete, and unbiased; and were developed using commonly accepted scientific research methods. They adhere to published standards including NMFS ESA Consultation Handbook, ESA Regulations, 50 CFR 402.01, et seq., and the MSA implementing regulations regarding EFH, 50 CFR 600.

Best Available Information: This consultation and supporting documents use the best available information, as referenced in the References section. The analyses in this opinion/EFH consultation contain more background on information sources and quality.

Referencing: All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

Review Process: This consultation was drafted by NMFS staff with training in ESA and MSA implementation, and reviewed in accordance with Northwest Region ESA quality control and assurance processes.

Referencing: All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

Review Process: This consultation was drafted by NMFS staff with training in ESA and MSA implementation, and reviewed in accordance with Northwest Region ESA quality control and assurance processes.

5.0 REFERENCES

- Abbott, R.R., J.A. Reyff, and G. Marty. 2005. Monitoring the Effects of Conventional Pile Driving on Three Species of Fish. Final Report, submitted to Manson Construction Company, Richmond, California (April 8, 2005). 131 p.
- Appel, M., R. Little, H. Wendt, and M. Neilson. 2011. Assessment of the Lower Yakima River in Benton County, Washington. Benton Conservation District and the Yakima Basin Fish and Wildlife Recovery Board. 182 pp.
- Barton, B.A. 1977. Short-term effects of highway construction on the limnology of a small stream in southern Ontario. *Freshwater Biology* 7:99-108.
- Battin, J., M. W. Wiley, M. H. Ruckelshaus, R. N. Palmer, E. Korb, K. K. Bartz, and H. Imaki. 2007. Projected impacts of climate change on salmon habitat restoration. *Proceedings of the National Academy of Sciences, USA* 104(16):6720-6725.
- Bash, J., C. Berman and S. Bolton. 2001. Effects of turbidity and suspended solids on salmonids. Center for Streamside Studies, University of Washington, Seattle, Washington. 74 pp.
- Berg, L. and T.G. Northcote. 1985. Changes in territorial, gill-flaring, and feeding behavior in juvenile coho salmon (*Oncorhynchus kisutch*) following short-term pulses of suspended sediment. *Canadian Journal of Fisheries and Aquatic Sciences* 42: 1410-1417.
- Carrasquero, J. 2001. Over-Water Structures: Freshwater Issues. White paper submitted to Washington Department of Fish and Wildlife, Washington Department of Ecology, and Washington Department of Transportation. Herrera Environmental Consultants. 127 pp.
- Chisholm, J.L. and S.C. Downs. 1978. Stress and recovery of aquatic organisms as related to highway construction along Turtle Creek, Boone County, West Virginia. United States Geological Survey, United States Government Printing Office, USGS Water Supply Paper 2055, Washington, DC. 40 p. <http://pubs.er.usgs.gov/usgspubs/wsp/wsp2055>
- City of Richland. 2011. City of Richland Zone GIS Map. April 2011. Accessed September 24, 2012. <http://www.ci.richland.wa.us/DocumentCenter/Home/View/744>
- Columbia River DART (Data Access Real Time). 2011. Columbia River Adult Passage Monthly Summary with 10 Year Averages (2001 – 2010). Accessed September 18, 2012. <http://www.cbr.washington.edu/dart/adult.html>
- Engas, A., S. Lokkeborg, and A.V. Soldal. 1996. Effects of seismic shooting on local abundance and catch rates of cod (*Gadus morhua*) and haddock (*Melanogrammus aeglefinus*). *Canadian Journal of Fisheries and Aquatic Sciences* 53: 2238-2249.

- EPA (U.S. Environmental Protection Agency). 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.
- Fast, D. E., and L. Berg. 2001. Yakima subbasin summary. Northwest Power Planning Council, Portland, OR.
- Feist, B.E., J.J. Anderson, and R. Miyamoto. 1996. Potential Impacts of Pile Driving on Juvenile Pink (*Oncorhynchus gorbuscha*) and Chum (*O. keta*) Salmon Behavior and Distribution. University of Washington, School of Fisheries, Fisheries Research Institute, FRI-UW-9603, Seattle, Washington. 81 p.
- Fritts, A. and T. Pearsons. 2006. Effects of predation by nonnative smallmouth bass on native salmonid prey: the role of predator and prey size. *Transactions of the American Fisheries Society* 135: 853-860
- FHWG (Fisheries Habitat Working Group). 2008. Agreement in Principal for Interim Criteria for Injury to Fish from Pile Driving Activities. Memorandum of Agreement between NOAA Fisheries' Northwest and Southwest Regions; USFWS Regions 1 and 8; California, Washington, and Oregon Departments of Transportation; California Department of Fish and Game; and Federal Highways Administration. June 12, 2008.
- FHWA (Federal Highways Administration). 2012. Duportail Street Bridge Project Biological Assessment, Benton County, Washington. Olympia, WA. 134 pp.
- Fordjour, K. 2003. Bremerton Dolphin Replacement - Report of Fish Kill. Washington State Department of Transportation, Seattle.
- Fowler, R.T. 2004. The recovery of benthic invertebrate communities following dewatering in two braided rivers. *Hydrobiologia* 523(1):17-28.
- Ford, M.J. (ed.). 2011. Status review update for Pacific salmon and steelhead listed under the Endangered Species Act: Pacific Northwest. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-113. 281 p.
- Gregory, S.V. and P.A. Bisson. 1997. Degradation and Loss of Anadromous Salmonid Habitat in the Pacific Northwest. IN: *Pacific Salmon and Their Ecosystems*. Springer Publisher, New York, N.Y. pp. 277 – 314
- Gregory, S.V., F.J. Swanson, W.A. McKee, and K.W. Cummins. 1991. An Ecosystem Perspective of Riparian Zones. *BioScience*, Vol. 41, No. 8 (Sept., 1991). pp. 540-551.
<http://www.jstor.org/stable/1311607>
- Hastings, M.C., A.N. Popper, J.J. Finneran, and P. Lanford. 1996. Effects of low-frequency underwater sound on hair cells of the inner ear and lateral line of the teleost fish *Astronotus ocellatus*. *Journal of the Acoustical Society of America* 99(3): 1759-1766.

- Hastings, M.C. and A.N. Popper. 2005. Effects of Sound on Fish. Prepared by Jones and Stokes for the California Department of Transportation, Sacramento, California (August 23, 2005). 82 p. Available at: http://www.dot.ca.gov/hq/env/bio/files/Effects_of_Sound_on_Fish23Aug05.pdf
- Hicks, B. J., Hall, J.D., Bisson, P.A., and Sedell, J.R. 1991. Responses of salmonids to habitat changes. In: Influences of Forest and Rangeland Management on Salmonid Habitat: American Fisheries Society Special Publication 19 (pp 483-518). W.R. Meehan (Ed.). American Fisheries Society, Bethesda, Maryland.
- Hockersmith, E., J. Vella, L. Stuehrenberg, R.N. Iwamoto, and G. Swan. 1995. Yakima River Radio-Telemetry Study: Steelhead, 1989-93. Bonneville Power Administration, Division of Fish and Wildlife (Portland) and National Marine Fisheries Service, Northwest Fisheries Science Center (Seattle). Project 89-089. 95 pp.
- Howell, P., K. Jones, D. Scarnecchia, L. LaVoy, W. Knedra, and D. Orrman. 1985. Stock assessment of Columbia River anadromous salmonids. Volume I: Chinook, Coho, Chum and Sockeye Salmon Stock Summaries. U.S. Department of Energy, Bonneville Power Administration, 83-333 Vol. 1.
- Hydroacoustic Working Group (2008). Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities. Memorandum of Understanding. Available at: <http://www.wsdot.wa.gov/Environment/Biology/BA/BAGuidance.htm#noise>
- ISAB (Independent Scientific Advisory Board). 2007. Climate change impacts on Columbia River basin fish and wildlife. Northwest Power and Conservation Council, Portland, Oregon. <http://www.nwcouncil.org/library/isab/ISAB%202007-2%20Climate%20Change.pdf>
- Korsu, K. 2004. Response of Benthic Invertebrates to Disturbance From Stream Restoration: The Importance of Bryophytes. *Hydrobiologia* 523: 17-28, 12p.
- Mantua, N., I. Tohver, and A. F. Hamlet. 2009. Impacts of climate change on key aspects of freshwater salmon habitat in Washington State. In: Washington Climate Change Impacts Assessment: Evaluating Washington's future in a changing climate. Climate Impacts Group, University of Washington, Seattle, Washington. <http://cses.washington.edu/db/pdf/wacciach6salmon649.pdf>
- McElhany, P., M. Ruckelshaus, M.J. Ford, T. Wainwright, and E. Bjorkstedt. 2000. Salmon populations and the recovery of evolutionarily significant units. U.S. Department of Commerce, National Marine Fisheries Service, Northwest Fisheries Science Center, NOAA Technical Memorandum NMFS-NWFSC-42. 156 p. Available at: <http://www.nwfsc.noaa.gov/publications/techmemos/tm42/tm42.pdf>.
- Milner, A. M. and R. J. Piorkowski. 2004. Macroinvertebrate Assemblages in Streams of Interior Alaska Following Alluvial Gold Mining. *River Res. Applic.* 20: 719 -731.
- Mote, P.W. and E.P. Salathe. 2009. Future climate in the Pacific Northwest. In: Washington Climate Change Impacts Assessment: Evaluating Washington's future in a changing

- climate. Climate Impacts Group, University of Washington, Seattle, Washington.
<http://www.cses.washington.edu/db/pdf/wacciach1scenarios642.pdf>
- Newcombe, C.P. and J. Jensen. 1996. Channel suspended sediment and fisheries: a synthesis for quantitative assessment of risk and impact. *North American Journal of Fisheries Management* 16: 693-727.
- NMFS. 2007. Rationale for the Use of 187 dB Sound Exposure Level for Pile Driving Impacts Threshold. Unpublished memorandum. Seattle, Washington: National Oceanic and Atmospheric Administration, National Marine Fisheries Service.
- NMFS (National Marine Fisheries Service) . 2009. National Marine Fisheries Service. Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan.
<http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Interior-Columbia/Mid-Columbia/Mid-Col-Plan.cfm>
- NMFS (National Marine Fisheries Service), and USFWS (U.S. Fish and Wildlife Service). 2006, Western Washington Fish and Wildlife Office). 2006. Impact Pile Driving Sound Attenuation Specification – Revised October 31, 2006. 7 pp.
- NOAA Fisheries. 2005. Final Assessment of NOAA Fisheries’ Critical Habitat Analytical Review Teams for 12 Evolutionarily Significant Units of West Coast Salmon and Steelhead. NOAA Fisheries Protected Resources Division, Portland, OR. 182 pp.
- PFMC (Pacific Fisheries Management Council). 1999. Amendment 14 to the Pacific Coast Salmon Plan. Appendix A: Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures for Salmon. Pacific Fishery Management Council, Portland, Oregon (March 1999). <http://www.pcouncil.org/salmon/salfmp/a14.html>
- Popper, A.N. 2003. Effects of anthropogenic sounds on fishes. *Fisheries* 28(10): 24-31.
- Popper, A.N., M.E. Smith, P.A. Cott, B.W. Hanna, A.O. MacGillivray, M.E. Austin, and D.A. Mann. 2005. Effects of exposure to seismic airgun use on hearing of three fish species. *Journal of the Acoustical Society of America* 117:3958-3971.
- Reisenbichler, R.R., J.D. McIntyre, M.F. Solazzi, and S.L. Landina. 1992. Genetic variation in steelhead of Oregon and northern California. *Transactions of the American Fisheries Society* 121: 158-162.
- Rondorf, D. W., G. L. Rutz, and J. C. Charrier. 2010. Minimizing Effects of Over-Water Docks on Federally Listed Fish Stocks in McNary Reservoir: A Literature Review for Criteria. U.S. Geological Survey, Report Number 2010-W68SBV91602084. Columbia River Research Laboratory, Cook, WA. 48 pp.
- Salmonscope. 2012. On-line interactive mapping application. Accessed on September 23, 2012.
<http://wdfw.wa.gov/mapping/salmonscope/index.html>

- Simestad, C.A, B.J. Nightingale, R. M. Thom, and D.K. Shreffler. 1999. Impacts of Ferry Terminals on Juvenile Salmon Migrating Along Puget Sound Shorelines, Phase I: Synthesis of State of Knowledge. Washington State Transportation Center (TRAC). University of Washington, Seattle WA. 199 pp.
- Sigler, J.W., T.C. Bjornn, and F.H. Everest. 1984. Effects of chronic turbidity on density and growth of steelheads and coho salmon. *Trans. of the American Fisheries Society* 113: 142-150.
- Spence, B.C., G. A. Lomnický, R.M. Hughes, and R.P. Novitzki. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. ManTech Environmental Research Services Corp. Corvallis, OR. 372 pp. <http://www.nwr.noaa.gov/Publications/Reference-Documents/ManTech-Report.cfm>.
- Stotz, T. and J. Colby. 2001. January 2001 Dive Report for Mukilteo Wingwall Replacement Project. Washington State Department of Transportation, Washington State Ferries Memorandum, Seattle, Washington (April 30, 2001). 19 p.
- Streamnet. 2012. Critical Habitat Mapper. http://www.streamnet.org/mapping_apps.cfm. Accessed September 23, 2012.
- Turnpenny, A.W.H., K.P. Thatcher, and J.R. Nedwell. 1994. The effects on fish and other marine animals of high-level underwater sound. Fawley Aquatic Research Laboratory, Ltd., Report FRR 127/94, United Kingdom (October 1994). 79 p.
- Turnpenny, A. and J. Nedwell. 1994. The Effects on Marine Fish, Diving Mammals and Birds of Underwater Sound Generated by Seismic Surveys. Fawley Aquatic Research Laboratories Limited, Marine and Freshwater Biology Unit, Southampton, Hampshire, UK. 48 p.
- USFWS (U.S. Fish and Wildlife Service). 2011. National Wetland Inventory Wetlands Mapper. Accessed September 17, 2011. <http://www.fws.gov/wetlands/Data/Mapper.html>
- USGS (U.S. Geological Survey). 2012. Surface Water data for USA: USGS Surface-Water Daily Statistics. USGS Site 12510500 Yakima River at Kiona, WA. Accessed September 17, 2012. <http://waterdata.usgs.gov/nwis/dvstat?>
- Ward, N. 1992. The Problem of Sediment in Water for Fish. Northwestern Ontario Boreal Forest Management Technical Note, Ministry of Natural Resources, Ontario, Canada. 9 pp. http://www.mnr.gov.on.ca/MNR_E005389.pdf
- YBFWRB (Yakima Basin Fish and Wildlife Recovery Board). 2009. 2009 Yakima Steelhead Recovery Plan. Extracted from the 2005 Yakima Subbasin Salmon Recovery Plan with Updates. Yakima Basin Fish and Wildlife Recovery Board. <http://www.ybfwrb.org>.

Appendix I - In-water Construction Monitoring Report

Start Date: _____

End Date: _____

Waterway: _____ in _____ County

Construction Activities:

Number of fish observed: _____

Number of salmonid juveniles observed (what kind?):

Number of salmonid adults observed (what kind?):

What were fish observed doing prior to construction? _____

What did the fish do during and after construction?

Number of fish stranded as a result of this activity: _____

How long were the fish stranded before they were captured and released to flowing water?

Number of fish that were killed during this activity: _____

Appendix G – Scoping Comments

November 5, 2008

This page intentionally left blank for printing purposes.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

What a boondoggle! Go back to the drawing board and choose the most cost-effective option - fixing the problems at Wellsian Way & Aaron Drive & 240. Stop developing where access is poor. Build fire stations where they are needed! ^{& don't rely on new bridges for faster access.} This project is way too expensive. (How much will it be when it finally gets built? \$40 million \$50 million?)

The Duportail proposal cuts through neighborhoods that were never meant to support these traffic levels. (I do not live near the affected areas.) I really question whether this bridge would really solve anything of the city's traffic problems. ^{As far as I would better spent elsewhere.}

In addition, it cuts through an environmentally sensitive area. What is planned for mitigation of land and water resources?

Pedestrian/bike access and lanes seems sketchy. Please coordinate with user groups - Tapscott Greenway, the bike club, ~~and~~ recreation groups, and the Jack Rabbit Ridge group for ideas and to get their buy-in. Having ^{direct} access to the pedestrian lane on both sides of the river is essential for pedestrian and bike safety.

It doesn't make sense to build this bridge in order to avoid having to fix something that's a problem now. "Defers for the next twenty years I-182 system upgrades between Queensgate & Aaron Drive/240." Since this is the site of fatal accidents, fix it now! Your initial studies showed that the Aaron Drive fix was the

(over)

most cost-effective and ~~best~~ least expensive solution to the traffic woes. It looks like this ^{Duportail} project was chosen to justify having ~~building~~ built the city shops in the City View area, and to get FEMA to pay for the waterline crossing.

Thanks for the opportunity to comment

~~the~~ The Duportail Bridge looks like a prime area for ice jams. Please be certain to maintain all existing trails along the river and along the highway 240 corridor, and do everything possible to ~~improve~~ enhance access to the pedestrian bike lane on both sides of the ~~bridge front~~ river to keep people from having to cross the highway on foot.

Comments noted. The Duportail location for a new bridge crossing over the Yakima River was approved by the City after a transportation feasibility study. The Duportail corridor was shown to be the most cost-effective, and have the least environmental and neighborhood impacts. A fire station is planned for the intersection of City View Drive and Duportail Street, just south of the proposed bridge. The proposed bridge would provide shorter driving times, and improve emergency access. The proposed project will be preserving access to the river, as the boat launch and associated parking lot is a protected 4(f) resource. The proposed bridge includes a 12-foot trail on the west side (upstream) side for pedestrian and bicycle connectivity to sidewalks and trails. All Federal, state, and local procedures will be followed in the development of the environmental documents and permits.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Pedestrian access onto bridge needs more thought. Trail users below bridge need to cross a 4-lane highway. This is not safe. Consider using ramps from trails up to the bridge elevation so that pedestrian/biker/horses do not need to be on a road shoulder. Consider equestrians off of pedestrian crossing on bridge - equestrians off the Tapteal trails now and will likely want to cross the bridge. New access road behind the Shoreline Village site must not affect dirt trails. These trails are a part of what will become a 30 mile Tapteal greenway trail system. NEPA should include studies of the effects of bridge traffic on neighborhoods near, but outside of, the project. Separate grade (elevation) for pedestrian crossing like that along the 240 causeway are preferable for safety reasons.

The unimproved trail will pass under the bridge on the north side of the river and will not be affected by the proposed access roads. The project traffic study has analyzed the traffic impact to the adjacent neighborhoods. Pedestrian crossings of SR-240 will be accommodated at grade using the traffic signals at the intersection.



Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Question from Greg Gauck.

551 Tanglewood Dr

Richland WA 99352

Please consider with the bridge the ability to run electrical as an additional utility under the bridge for additional use on the other side which would remove power lines going across the river.

Please consider quality of life issues for current homeowners on Tanglewood Drive

Please consider an additional access into and out of the Tanglewood Development such that access to Duportail is not required.

Please include concerns when additional 50 to 100 families move into Tanglewood "Z" Development just north of Apartment Complex

Please include congestion when restaurant (zoned commercial) planned near Duportail access road and the new traffic patterns for right of way around apartment complex.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Greg Gauck
 Concern 551 Tanglewood Dr
 Richland WA 99352

Ice jams need to be considered
 at concrete bridge supports

Provisions for future utilities will be provided on the bridge. A traffic signal is planned at the intersection of Tanglewood and Duportail.

Comment noted.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Intersection of Duportail & Riverstone Drive & 240.

People always brake coming off 240 onto Duportail towards Riverstone when going over the railroad tracks. This causes traffic to back up already.

Also, during the winter, this intersection is extremely bad with the hill incline. People can't get up the hill with ice and snow. People slide backwards on the hill. People get stuck on the railroad tracks. Then when people make it up the hill, ~~they~~ and stop for the light, they then get stuck in slush & ice & can't move.

There should be a stop light at the newly created intersection next to the river or there will be lots of accidents. The housing development off Riverstone won't be able to get out.

Will the lights on 240 & I 82 be synchronized? so traffic doesn't back up.

There will be a right turn in/right turn out on Riverstone off of Duportail. Snow and ice control will likely be increased as a result of increased usage of the arterial street. The profile of the railroad crossing will be modified to improve drivability. A traffic signal is planned at the intersection of Tanglewood and Duportail. Signal coordination on SR-240 is a state responsibility; Richland has not control of those facilities.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

How and/or will the NEPA address the Duportail st. at Wright traffic flow?

How will this address the children from Marcus Whitman grade school going to and from school? This would mainly be at Duportail and Wright.

Can Duportail st. at Cottonwood be closed from accessing the Highway?

How was the Thayer traffic revision at Arrom studied for Impact on traffic down Duportail st? Will you

I would like to be contacted about these issues when they are addressed or not addressed.

Ken Nichols
2103 Duportail St.
Richland Wa.
99352

Traffic issues at the Duportail / Wright intersection are outside of the scope of the Duportail Bridge project. The project limits to the north end near the intersection of Duportail and Cottonwood. Closing Duportail Street at Cottonwood is not consistent with the City's Transportation Plan. The revisions that were made as a result of the Thayer Drive / Aaron / Lawless project were analyzed in the Citywide Transportation Plan adopted by the City Council in January, 2005.

Comment Form

City of Richland – Duportail Bridge Open House



A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Trust you will incorporate sound mitigation in bridge design.

A noise analysis will be completed and mitigation developed if warranted in the study.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

2 comments

1). Please put the time into ~~to~~ researching the amount of lighting needed and the kinds of light. I am concerned about light-pollution.

2.) Consider making this an access that is restricted to passenger veh., city trucks + emergency veh. → NO Semi trucks etc – Noise issue in the areas around the bridge.

Illumination on the bridge will follow accepted design standards. Comment noted.

Comment Form

City of Richland – Duportail Bridge Open House



A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

THE
BRIDGE
IS
AWESOME!!!



Comments noted.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Prefer Tanglewood extension for alternate route when Riverstone goes to right-only access. Bike lane needed between Apartment complexes (Riverpointe & Shoreline Village) to connect to bike path below freeway. Along Yakima River.

Comments noted.



Richland

A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

THE CURRENT BACKUP AT COTTONWOOD AND DUPORTAIL DURING RUSH HOURS PREVENT MY FAMILY FROM LEAVING OUR DRIVEWAY BY CAR. THIS PROJECT WILL ONLY INCREASE TRAFFIC ON DUPORTAIL. THIS ACTIVITY DOES NOTHING TO REDUCE TRAFFIC^{ON} DUPORTAIL FROM SR-240 TO WRIGHT STREET.

THIS AREA HAS ALWAYS BEEN A RESIDENTIAL. NOW CITY PLAN TO PUT A HIGHWAY THROUGH MY NEIGHBORHOOD.

THE CITY OF RICHLAND PREDETERMINED THE SELFISH OF DUPORTAIL BRIDGE WHEN THE CITY MOVED ALL THEIR MAINTENANCE FACILITIES FROM DOWNTOWN RICHLAND TO BURN GATES. THE DUPORTAIL ROAD SYSTEM ~~HAS~~ FROM BURN GATE TO WHERE BRIDGE CONSTRUCTION WAS NOW BUILT.

HAS OR WILL ENVIRONMENTAL JUSTICE STUDY EVALUATE THE INCREASE TRAFFIC ALONG DUPORTAIL FROM SR-240 TO TRAYER?

WHAT ANALYSIS HAS BEEN DONE TO EVALUATE THE "CALMING" EFFECT OF A TRAFFIC CIRCLE AT THE BOTTOM (EAST END) OF BRIDGE, ESPECIALLY^{SINCE} IT IS EXPECTED THAT THE SPEED LIMITS WILL BE HELD LOW AS IT DIRECTING TRAFFIC AROUND HIGH DENSITY HOUSING (APARTMENTS)?

HAS CITY CONSIDER BLOCKING DUPORTAIL TO PREVENT TRAFFIC FLOW THROUGH THE NEIGHBORHOOD

Dennis Clauss~
402 COTTONWOOD

Revisions will be made to the Duportail / SR-240 intersection to provide a level of service D, which is the minimum acceptable LOS adopted by the City. The Duportail / Stevens corridor was selected as the most efficient and least cost improvement project by the City Council in May 2007 after a comprehensive study of three alternative corridors was completed. An environmental justice report has been prepared. A traffic signal will be constructed to provide access from the access roads along the river instead of a traffic circle. Blocking Duportail at Cottonwood Drive is not consistent with the City's Transportation Plan.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Not that it makes 1 iota of difference...
 However, not considering the impact of a
 bridge on the rest of Duportail and excusing
 this away by claiming we are only looking
 at phase 1 is ridiculous!!!

Comments noted.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

I am against this bridge because it impacts my neighborhood in a negative way. I live a block from Duportail st. I walk my dog almost every day on the By-pass path. Already there is more and more traffic on Duportail and people are driving too fast. I don't think this is fair to the homeowners right on Duportail st. I think the noise of the traffic will impact us very much. I can't imagine why you would go right through two apartment complexes.

Comments noted. Pedestrian connections will be maintained with the project. A noise analysis will be completed as part of the environmental review.



Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Remember to leave room for
horse trails under bridge - Tropical Greenway
trail.

The unimproved trail access will be provided under the bridge.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

This is NOT A Town Meeting !!

This is A Joke !!

Many people here tonight are saying

The same thing. If you call a meeting lets

have a meeting!!! let us all talk about

This "Bridge Project". And then let us talk

about what it is going to cost to widen

Duportail - how many people are going to lose

what little front yard they have left. How many

kids are going to get run over and killed.

I stopped work and sped here to attend

a meeting - Yes I am mad there is no

Meeting!!!

Comments noted. An open house meeting format was advertised and provided the opportunity for concerned parties to talk with city staff and members of the design team.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Why isn't the city looking into mass transit to
 alleviate traffic problems? Used to be bus
 service to Hanford many years ago - consider
 a good transit system there. + desire for energy
 with ~~talked~~ increasing oil + gas prices ^{independence}
 we need to 'get over' the current mode of
 operation + thinking.

Comments noted. The city has a good working relationship with Ben Franklin Transit and works with large employers to develop rideshare and other commute trip reduction methods. These alone will not satisfy the current and future traffic demands on SR-240 and I-182. The project also provides bike and pedestrian facilities where none exist today.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Hwy 240 & Duportail VERY congested during Peak hours of Traffic. Wright & Duportail Dangerous, Traffic not Remaining STOP OR NOT STOPPING ON ~~the~~ Duportail.

I Think The Bridge is a good idea, but wonder about Funding For building and Maint.

What is Time Frame For Const. Start To Finish.

I Think it would be a big help with Traffic at Peak hours and convient For Traffic at That ~~and~~ Part of City.

It should be cost saving For City Shops.

Thank You

Dark Anthony

deker1@verizon.net

Comments noted. The Duportail / Wright intersection is outside of the scope of the Duportail Bridge project. The city continues to seek construction funding. Once started, construction is anticipated to take about 18 months to complete.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

I'm happy about the decision to put the bridge crossing in a Duportail. I think it will ease the traffic congestion. The area towards Queensgate is only going to grow & become a sm. community I'm hoping it will increase our property value in the years to come. It will be easy & quick access into West Richland. *I am worried about the inter section at Wright + Duportail. Lots of people over my 10+ years of living in the area have neglected to stop at the stop sign coming off of Duportail. I think they still have a head-foot from being on the By-pass Hwy.

Thank You
Paula Ruthford
deker1@verizon.net

Comments noted. The Duportail / Wright intersection is outside of the scope of the Duportail Bridge project.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

I understand the need for another bridge into Richland to relieve the current congestion.

I live on Birch Ave near Lee and enjoy the charm of this ranch house section of the city.

My concern is that Duportail from 240 to Thayer will become a major thoroughfare from the bridge.

We have trouble now with people driving too fast on Birch from Duportail to Lee. What will happen when the traffic increases dramatically on Duportail after the bridge construction?

How will increased traffic affect homeowner values along Duportail and surrounding neighborhoods?

Increased traffic on Duportail will have an impact ~~on~~ the walking/bike path through the shelter belt. This path has been a positive feature for the neighborhoods. We appreciate this feature that the city has just finished.

What is the plan to maintain good access from Duportail to Thayer along this pathway.

How will the city handle the increased traffic noise in these neighborhoods. I've noticed

Comments noted. Traffic on Duportail once the bridge project is constructed will be similar to that of Swift Boulevard or Van Giesen that are also two-lane streets with homes that line the connection to SR-240. Difficult to assign any change in home value to the bridge. It will provide access improved vehicular access to south Richland and new pedestrian and bike access to that area as well. A noise analysis will be completed and mitigation developed if warranted and feasible by the study.

Comment Form

City of Richland – Duportail Bridge Open House



A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

I am in favor of moving forward with the detailed design phase. This appears to be an important project that will serve the long-term interests of the City and its residents.

Comments noted.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

My house on the corner of
Birch & Duportail will be
for sale in March - do you
want to buy it?

Jessie DeMarais
946-3516

Comment noted.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

During rush hour the neighborhoods between 240 and river will not have any way of getting out. a stop light at Duportail & proposed exit out of the neighborhoods would mean gridlock on Duportail with traffic backing up on to 240 at the 500 PM rush hour. Bad plan!

A traffic signal is planned at the intersection of Tanglewood and Duportail. The project traffic analysis shows this intersection will perform well and will not impact SR-240 during peak periods of the day.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

In the current economic condition, is this the wisest use of public monies. Will it really have a large impact on the choke points mentioned in the write up? It will certainly increase congestion in the Richland neighborhood around Duportail, the road doesn't go to West Richland, so don't see the benefit of the connectivity to West Richland.

Comments noted.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

This bridge is insanely stupid.

1. Centralization only works when transportation is cheap. I've been saying that for years, and have been ignored for years.
2. You won't get rid of private vehicles, but you MUST ~~GET~~ GET PEOPLE OUT OF THEM AS MUCH AS POSSIBLE.
3. When the bridge was proposed, I kept hearing it wouldn't increase traffic on Duportail that much. Now I'm told it is expected to relieve choke point traffic. No wonder nobody trust politicians.
4. Where is all that traffic going to park?
5. Increase pollution, increase noise.
6. Same solution used in L.A., Seattle, and D.C. Same ~~disaster~~ disaster.
7. What is NEEDED is a light weight, ~~fast~~ efficient, fast mass transit system.
 - a) Bus has extraordinarily low ridership because they are too SLOW!
 - b) A small size subway system could be engineered for point-to-point (transit station) travel in 2-3 minutes.
 - c) You don't need a NYC size subway train. You don't need to be able to stand up in the cars. You CAN'T stand up in most automobiles.
 - d) No such system exists, but it is an engineering problem with available solutions.
 - e) If you are so afraid of trying something new that you drive us to obvious disaster (when the gas runs out, or traffic becomes so thick nobody can go anywhere), then you should re-consider your life's work.

Comments noted.

David W. Langford
2202 Frankfurt Street
0111 117 1 0000



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

This is not a solution to the issue of traffic movement for Richland! Expensive, funnels people to residential areas in Richland, disturbs a area of riparian & shrub steppe habitat.

Why has Richland not listened to its residents? Why has Richland not worked w/ the State to deal with the Queensgate intersection? Why has Richland not looked into better Mass Transit so people can more easily commute to work. More roads, more cars, more pollution — air, ~~and~~ water & light.

Forget my supporting any Richland tax increases, school bonds — I also will take my money elsewhere to shop not to Richland businesses at the west end of the new bridge.

Richland — when you funnel folks to downtown, then what? Where to park etc.... How does this help the tlanford traffic — Bring back the sites buseso — a better solution.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Totally support the project. Too dangerous now to access Duportail / Queensgate area via I-182. I do have some concerns about increased traffic on Duportail and the south end of Tanglewood since there will be no left turn onto Duportail from Riverstone. But that will presumably be a problem at "rush hour" time in the morning.

LB Rock III MD

(Sandy Rock)

563 Tanglewood

Comments noted. A traffic signal is planned at the intersection of Tanglewood and Duportail.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Access into and out of Hill Community is controlled by the entry / exit on Duportail now. This is because the freeway and traffic on Queenyside is ~~at~~ presently restricted.

We would need a traffic control light at the Duportail entry / exit. This would provide access for 200 people ~~who~~ who now live in the community.

Because Duportail is approximately 50' from the back of my home will we have a sound barrier to prevent noise from becoming too excessive.

Because of the close proximity to this heavily traffic road Duportail during the morning and evening traffic from Hanford the smog level could get excessive ~~and~~ during an inversion layer change.

The air get bad now - how much more is this going to contribute.

A noise analysis will be completed and mitigation developed if warranted and feasible by the study. A traffic signal is planned at the intersection of the Hills Community driveway / City View Drive / Duportail Street. It will be designed during the project and constructed by the City when the intersection meets traffic signal warrants.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Concerned:

- (1) I live at the Hill Community - My mobile home's bedroom faces the Newport Trail. I am very concerned with the (A) Noise & traffic at all times + the fume (B) The smell of the gas-fume from the cars will be at my door at all times (C) The property & the mobile home will go down a great deal when this is built. (D) We have spent thousands of dollars fixing the back yard up - when this is complete (which I hope won't) the value of our unit will go down as well as for us to use our backyard. will be not be used as it should be used due to the noise & fume. (E) When the air gets bad it will surely affect me - with my personal health. Then what ???

See response to comment above.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

I'm going to work to stop funding of this bridge to nowhere! I can't believe you didn't just lower the speed limit to 60mph on the freeway to make it easier for the shop trucks and everyone else maneuver Queensgate to the Columbia River (like they did from Court St. On in Pasco)

Comments noted.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

There needs to be a stoplight for the people who live in the Tanglewood division to get out. There will be too much traffic to take a left hand turn across four lanes of traffic. When people need to get out of the neighborhood to get to work the road will be backed up with cars waiting to get out. Only one car at a time will be able to turn across the four lanes and that will take a long time while everyone else is already on Duportail. Yes some will take a right hand turn occasionally, but most will be turning left. Please give us a stoplight before the bridge opens!! - Brandy Blank
2575 Glen Briar Ln
947 1091

A traffic signal is planned at the intersection of Tanglewood and Duportail.



Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

A bright past - A brilliant future

Please provide the people who live in the Tanglewood division with a stop light before the bridge opens. Turning left across four lanes of traffic during rush hour will be horrific.

Sean Campeau
2575 Glen Briar Ln
460 2901

A traffic signal is planned at the intersection of Tanglewood and Duportail.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

BIG MISTAKE!

IF . This access is needed, it should be at Swift, with an overpass, not a bridge to nowhere.

This is another example of the city's sad excuse for planning. This plan will

- ① Invade a residential area
- ② Further slow bypass traffic
- ③ Waste funds with little to show.

What is on Duportail (in the city proper)? Nothing.

Swift has access to the hospital, library, city hall, the high school, Downtown Richland, fire station #1. It is wider, safer.

The Duportail intersection should be CLOSED! Have the city planners ever heard of limited access?

WAKE UP!

Mark W. Painter
Richland resident for 58 years.



A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

BELLE & JOE LEEMANS

641 LONETREE LANE

RICHLAND WA 99352

OUR HOUSE IS ON THE CORNER OF CITY VIEW DRIVE & DUPORTAIL IN THE HILLS COMMUNITY. THE BACK OF OUR HOUSE IS APPROX. 30 FEET AWAY FROM DUPORTAIL. CONCERNED ABOUT SOUND & VIBRATION IN OUR MANUFACTURED HOME.

2 WAYS OUT OF HILLS COMMUNITY, QUEEN GATE & DUPORTAIL. 200+ HOUSES IN THE HILLS. CAN'T GET OUT LEFT ON QUEEN GATE DUE TO INCREASED TRAFFIC & WITH BRIDGE RIGHT NEAR OUR HOUSE WON'T BE ABLE TO MAKE A LEFT INTO DUPORTAIL. SCHOOL BUSES EXIT THIS WAY 4 TIMES A DAY DURING THE WEEK DURING THE SCHOOL YEAR.

HELP US PLEASE!



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

Without an extension of Tanglewood Drive
to Duportail St and a traffic light at
the intersection, people in Tanglewood
Addition will not be able to turn left
on Duportail during rush hours.

Barbara McIntyre

514 Tanglewood Drive

Guy Hunt

619 Tanglewood Dr

Ramon Jones

2559 GLEN BRIAR LN
John Parley 514 Tanglewood Dr

In case of emergency we have only one exit -
need that rd extension & light S McIntyre

A traffic signal is planned at the intersection of Tanglewood and Duportail.



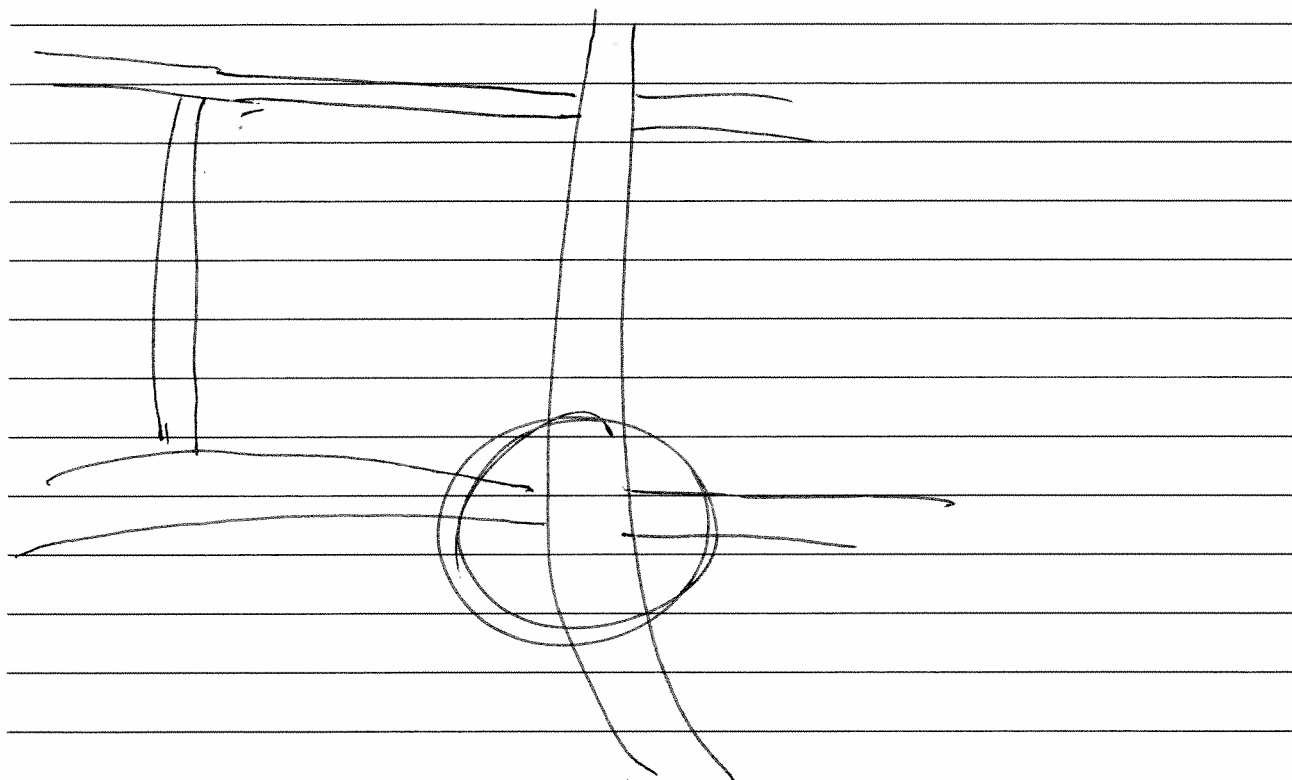
A bright past - A brilliant future

Comment Form

City of Richland – Duportail Bridge Open House

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!



This intersection will require a traffic control signal. I know a study will be needed, but dumb old me (a resident) can see it coming. Nice to know you will plumb for it to begin with.

Bob Starnick
392-2589

A traffic signal is planned at the intersection of Tanglewood and Duportail.



Comment Form

City of Richland – Duportail Bridge Open House

A bright past - A brilliant future

Your ideas/observations/concerns are important to us.

Please provide any comments you would like to provide in the space below or on the back of this page. Thank you!

I like the bridge, its a good Idea, I like the bridge, it
 Sweet, I like the bridge, its awesome I like the bridge, I could
 Drive on it and if I don't have a car I can walk on
 it

Comments noted.

Stairs, Steve

From: mrcolton2@juno.com
Sent: Thursday, November 06, 2008 10:10 AM
To: Stairs, Steve
Subject: Bridge over Yakima/Duportail Street

I read the article today regarding the meeting last night on the bridge over the Yakima River at Duportail Street. I was surprised to read some are protesting it.

I think it is a wonderful solution to the traffic congestion being experienced in Richland.

I attended the meeting awhile back at Carmichael concerning this same subject, but at that time the talk mainly was redoing Duportail Street from Thayer Drive to the By-Pass Highway. This is the most ridiculous plan and waste of money that the engineers came up with. At that time I voiced my opinion and suggested that traffic be routed to the By-Pass Highway. There is no reason to invade that neighborhood. Putting a bridge over the Yakima at Duportail street with access from the By-Pass Highway is less costly. People from north Richland, Horn Rapids, etc. can and do use the 240 Exchange. The people on the east side of town can use either VanGeisen or Swift Blvd, which are already access roads to the 240 Exchange. The By-Pass Highway already has a stop light and turn lane at the Duportail Street exit, and the road on the other side of the river is partially completed. I should think to extend both ends of Duportail Street, build a bridge would be much more cost efficient.

Mary Colton

mrcolton2@juno.com

Comments noted.

Federal Highway Administration

**FINDING OF NO SIGNIFICANT IMPACT
for
DUPORTAIL STREET BRIDGE
BENTON COUNTY, WASHINGTON**

Issued Pursuant to 42 U.S.C. 4332 (2)(c) and 23 U.S.C. 128 (a)

This action complies with Executive Order 11988, Floodplain Management, the National Historic Preservation Act, the Department of Transportation Act of 1966, and Executive Order 12898, Environmental Justice.

The Duportail Street project will construct a new four-lane bridge and a pedestrian/ bicycle path on the upriver side of the bridge. The project will also extend Tanglewood Drive eastward approximately 700 feet east and 1,700 feet west of Duportail Street. Sidewalks will be installed where necessary to create a seamless pedestrian network in the project area. It will upgrade the intersection of Duportail Street and SR 240, install a signal at the intersection of Duportail Street and Tanglewood Drive, and build new access to Tanglewood Drive from properties south of Duportail Street. The existing water main, which crosses the Yakima River at this location, will be replaced with a water main onto the new bridge. The parking lot for the existing boat launch will be reconfigured and one nature trail will be designated.

The Federal Highway Administration (FHWA) has determined that this proposal to construct a bridge will have no significant impact on the human or natural environment. This Finding of no Significant Impact (FONSI) is based on the February 2013 Environmental Assessment. The environmental assessment was independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, impacts of the proposed project, and appropriate mitigation measures.

The environmental assessment was released for public comments on March 3, 2013 and a public hearing was held on March 21, 2013. The public notice is included in Attachment A, and the distribution list for this notice is included in Attachment B. There were 28 comments submitted using the forms at the hearing, court recorder, and most popularly the online form.

Less than half of the comments expressed opposition to the project. The remaining comments were evenly split between support for the project and questions or concerns. The main question topics were the riparian area impacts and mitigation, the bicycle/pedestrian pathway and sidewalks, and traffic management in the neighborhood north of the project. Opposition comments were generally from nearby residents or those concerned about the cost of the project. The comments and a response matrix are included as Attachment C.

A biological assessment was prepared to evaluate project effects on species protected under the Endangered Species Act. The National Marine Fisheries Service (NMFS) submitted a biological opinion dated October 10, 2012 determining that the project "may affect, is likely to adversely affect" Middle Columbia River steelhead and their designated critical habitat. NMFS determined that effects from the project will not jeopardize the continued existence of the species. Reasonable and prudent measures to minimize incidental take have been incorporated into the project.

The effect determination of "may affect, but is not likely to adversely affect" was made in the biological assessment for bull trout and their designated critical habitat. The United States Fish and Wildlife Service submitted a letter dated July 2, 2012 concurring with the effects determination since the project related effects are considered discountable.

The Department of Archaeology and Historic Preservation (DAHP) has reviewed the documentation on cultural resources in conformance with Section 106 of the National Historic Preservation Act (as amended) and its implementing regulations 36 CFR 800. The Department of Archaeology and Historic Preservation concurred with WSDOT's determination that the project will have "no adverse effect" on historic properties per their letter dated June 3, 2010.

FHWA has determined that with the proposed mitigation, the project's uses of Section 4(f) resources are *de minimis* and therefore no Section 4(f) evaluation is required. The US Army Corp of Engineers concurred with the FHWA *de minimis* determination for the use of property under their jurisdiction on April 26, 2011. The Washington Department of Fish and Wildlife concurred on February 24, 2012 that the project's use of the public boat launch will be *de minimis*. On June 3, 2010, DAHP determined that the project will have no adverse effect on the Columbia Irrigation District Canal. The Richland Parks Department concurred on December 21, 2012 that the project will have a *de minimis* use of the By-Pass Shelterbelt Park property.

The EA, along with the comment response matrix included in this FONSI provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope and content of the Environmental Assessment.

5/29/2013
Date of Approval


Liana Liu, P.E., P.T.O.E.
Area Engineer
Federal Highway Administration
Washington Division

The following persons may be contacted for more information concerning this document:

Liana Liu, P.E., P.T.O.E.
Area Engineer
Federal Highway Administration
Washington Division
711 S. Capitol Way, Suite 501
Olympia, WA 98501
(360) 753-9553

Kathleen B. Davis
Director,
Highways and Local Programs
Washington State Department of Transportation
P.O. Box 47331
Olympia, WA 98504-7331
(360) 705-7871

Pete Rogalsky, P.E.
Public Works Director
City of Richland
840 Northgate Drive
Richland, WA 99352
(509) 942-7500



Duportail Street Bridge Project

PUBLIC NOTICE

Draft Environmental Assessment

This project is to construct a new four-lane bridge with a pedestrian/bicycle path across the Yakima River. It will also extend Tanglewood Drive to the north and south of Duportail Street, add a traffic signal at the intersection of Duportail Street and Tanglewood Drive, upgrade the intersection of Duportail Street and SR 240, and replace a water pipeline currently located in the Yakima River onto the new bridge. A new access road will connect the south extension of Tanglewood Drive to several properties south of the Shoreline Village Apartments.

The City of Richland has developed a draft Environmental Assessment (EA) for this project under direction from the Federal Highway Administration (FHWA), the U.S. Army Corps of Engineers (USACE), and the Federal Emergency Management Administration (FEMA).

This EA will be used to determine whether a Finding of No Significant Impact (FONSI) will be issued under National Environmental Policy Act (NEPA), or if greater environmental review is needed in the form of an Environmental Impact Statement (EIS). The City also intends to use this evaluation to make a determination under the State Environmental Protection Act (SEPA). In addition, this EA addresses the Section 4(f) de minimis determination for the impact to the USACE Property, WDFW Boat Launch and Parking, Columbia Irrigation District Canal, and By-Pass Shelterbelt Park.

Printed copies of the EA are available at the Richland Public Library and City Hall. A PDF version can be found on the City of Richland's website, at: <http://www.ci.richland.wa.us/duportailbridge>. Paper copies are available for the cost of printing.

A public hearing to review the project and EA will be held on March 21, 2013 from 4:30 p.m. – 7:00 p.m. at the City of Richland's City Shops, located at 2700 Duportail Street, Building 100.

The comment period ends on April 3, 2013. Written comments are due by the close of business on this date. They may be submitted at the public hearing, online at <http://www.ci.richland.wa.us/duportailbridge>, or mailed to the City of Richland Public Works, Attn: Jeff Peters, P.O. 190, MS 26, Richland, WA 99352.

For more information, please contact:

Jeff Peters, P.E.

Transportation and Development Manager

E-mail: duportailbridge@ci.richland.wa.us

Phone: (509) 942-7500

*Por favor llame al (509) 942-7500
para más información o para solicitar
este documento en español.*



*Proposed Duportail Bridge -
Looking North*



*Proposed Duportail Bridge -
Looking South*

Title VI Statement

The City of Richland assures that no person shall, on the grounds of race, color, national origin, or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration act of 1987 (P.L.100.259), be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. The City of Richland further assures every effort will be made to ensure non discrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

Americans with Disabilities Act (ADA) Information

If you would like copies of this document in an alternative format -- Large print, braille, cassette tape, or on computer disk, please call (509) 942-7385. Persons who are deaf or hard of hearing please call the Washington State telecommunications Relay Services or Tele-Braille at 7-1-1, Voice 1-800-833-6384, and asked to be connected to (509) 942-7385.

Recipients	Distribution	Public Notice or Document
EIS Review Coordinator USEPA Region 10 1200 6th Avenue, Suite 900, ETPA-088 Seattle, WA 98101	1 paper	
Environmental Review USEPA, WA Operations Office 300 Desmond Dr., Suite 102 Lacey, WA 98503	electronic	Mailed Notice
FHWA WA Division Liana Liu, P.E., P.T.O.E. 711 S. Capitol Way, Suite 501 Olympia, WA 98501-0943	1 paper copy	
FHWA WA Division Environmental Program Manager 711 Capitol Way, Suite 501 Olympia, WA 98501-0943	1 paper copy	
US Army Corps of Engineers Seattle District Regulatory Branch PO Box 3755 Seattle, WA 98124-3755	electronic	Mailed Notice
US Army Corps of Engineers Real Estate Division Walla Walla District 201 N Third Avenue Walla Walla, WA 99362-1876	1 paper, 5 CD copies,	
NW Regional NEPA Coordinator NOAA/NMFS 7600 Sandy Point Way NE, Bldg 1 Seattle, WA 98115	email document or link to Kathe.hawe@noaa.gov	Emailed Document
US Fish and Wildlife Service Western WA Fish and Wildlife Office 510 Desmond Dr. SE, Suite 102 Lacey WA 98503	1 paper with optional CD	
Science Kilner Deputy Regional Environmental Officer FEMA Region 10 130 228th St SW Bothell, WA 98021-9796	1 paper, electronic	
Randall Overton Commander, Thirteenth Coast Guard District (dpw) Federal Building 915 Second Avenue Seattle, WA 98174-1067	Electronic	Mailed Notice
Eric Quaempts Confederated Tribes of the Umitilla 46411 Timine Way Pendleton, OR 97801-9467	Electronic	Mailed Notice
Hon. Les Minthorn, Chair Confederated Tribes of the Umitilla 46411 Timine Way Pendleton, OR 97801-9467	Electronic	Mailed Notice
Kristina Proszek Yakima Nation PO Box 151 Toppenish, WA 98948	Electronic	Mailed Notice

Recipients	Distribution	Public Notice or Document
Hon. Harry Smiskin, Chair Yakima Nation PO Box 151 Toppenish, WA 98948	Electronic	Mailed Notice
Melanie Vance Highways and Local Programs Washington State Department of Transportation 310 Maple Park Avenue SE PO Box 47390 Olympia, WA 98504-7390	3 paper copies, 3 CDs	
Department of Ecology SEPA Unit PO Box 47703 Olympia, WA 98504-7703	1 electronic copy (email document or link to website) to Sepaunit@ecy.wa.gov	Emailed Document
Terry Swanson Transportation Project Coordinator Department of Ecology tswa461@ecy.wa.gov	1 electronic	
Department of Archaeology & Historic Preservation State Historic Preservation Officer PO Box 48343 Olympia, WA 98504-8343	1 paper, 1 CD	
Eric Bartrand Washington Department of Fish and Wildlife eric.bartrand@dfw.wa.gov	Electronic	
Department of Fish and Wildlife Habitat Program 600 Capitol Way North Olympia, WA 98501-1091	Electronic	Mailed Notice
Department of Natural Resources SEPA Center 111 Washington Street SE PO Box 47014 Olympia, WA 98504-7014	Electronic	Mailed Notice
Shane Early Aquatic Land Manager Aquatic Resources Division / Rivers District Department of Natural Resources shane.early@dnr.wa.gov	Electronic	
Local Agencies		
Richland Public Works 840 Northgate Dr. P.O. Box 190 MS-26 Richland, WA 99352	1 paper/electronic	
Benton Franklin Council of Governments P.O. Box 217 Richland, WA 99352	1 electronic	Mailed Notice
Jim Busey Richland School District Superintendent 615 Snow Avenue Richland, WA 99352	Electronic	Mailed Notice
Columbia Irrigation District 10 E. Kennewick Avenue Kennewick, WA 99336	electronic	Mailed Notice
Richland Public Library 955 Northgate Drive Richland, WA 99352 Phone: (509)942-7454	1 paper, 1 CD	

Recipients	Distribution	Public Notice or Document
Richland City Hall Public Information Office 505 Swift Blvd. P.O. Box 190 Richland, WA 99352 Ph: (509) 942-7398	1 paper, 1 CD	
Department of Ecology Central Regional Office 15 W Yakima Avenue Suite 200 Yakima, WA 98902-3401	Electronic	Mailed Notice
Port of Benton 3100 George Washington Way Richland, WA 99354	Electronic	Mailed Notice
Tri-Cities Railroad P.O. Box 1700 Richland, Washington 99352	Electronic	Mailed Notice
Michelle Dupler Tri-City Herald 333 W. Canal Drive Kennewick, WA 99336	electronic	Mailed Notice
Tapteal Greenway Association P.O. Box 3007 Richland, WA 99354	Electronic	Mailed Notice
Residents		
Ken Nichols 2103 Duportail Street Richland, WA 99352	electronic	Mailed Notice
David Langford 2202 Frankfort Street Richland, WA 99352	electronic	Mailed Notice
Belle and Doe Leemans 641 Lonetree Lane Richland, WA 99352	electronic	Mailed Notice
Mary Colton	electronic to mrcolton2@juno.com	Emailed Notice
April Bassett 3507 Waterford Street Richland, WA 99352	electronic	Mailed Notice
Mina Jo Payson 410 Cottonwood Road Richland, WA 99352	electronic	Mailed Notice
Fred LaMothe 10024 W. Court Street Pasco, WA 99301	electronic	Mailed Notice
Bob and Jan LeVeque 635 Chestnut Avenue Richland, WA 99352	electronic	Mailed Notice
Max and Delsa Pospical 2407 Boise Street Richland, WA 99352	electronic	Mailed Notice
Debbie and Carl Berkowitz 544 Franklin Street Richland, WA 99354	electronic	Mailed Notice
Devin Sutherland 503 Basswood Avenue Richland, WA 99352	electronic	Mailed Notice
Mary Lilga 317 Fuller Street Richland, WA 99354	electronic	Mailed Notice

Recipients	Distribution	Public Notice or Document
Bertha Kim 957 Clermont Drive Richland, WA 99352	electronic	Mailed Notice
Marilyn Erstad 645 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Victoria and James Pavlicek 514 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Ann McKibbin 2209 Duportail Street Richland, WA 99352	electronic	Mailed Notice
Larry Umthun 619 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
James Uecker 575 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Byron Commins 1306 Oxford Richland, WA 99352	electronic	Mailed Notice
Kris and Hannah Mitchell 3608 Willowbrook Avenue Richland, WA 99352	electronic	Mailed Notice
Bob Stelmack 2532 Banyon Street Richland, WA 99352	electronic	Mailed Notice
Keri Higgins 1913 Duportail Street Richland, WA 99352	electronic	Mailed Notice
Kelly Hoover 401 Birch Avenue Richland, WA 99352	electronic	Mailed Notice
Charles and Cecelia Perry 1439 Alice Street Richland, WA 99352	electronic	Mailed Notice
Brian Fix and Jennifer Laybourn 2555 Duportail Street B-213 Richland, WA 99352	electronic	Mailed Notice
Jeff Dagle 1716 Alder Avenue Richland, WA 99354	electronic	Mailed Notice
Jessie DeMarais 402 Birch Avenue Richland, WA 99352	electronic	Mailed Notice
John and Phyllis Brimhall 2502 Riverside Drive West Richland, WA 99353	electronic	Mailed Notice
Karen Wieda 2608 Riverside Drive West Richland, WA 99353	electronic	Mailed Notice
Jack Houston 603 Basswood Avenue Richland, WA 99352	electronic	Mailed Notice
Matt Snyder 2550 Duportail Street Apartment O 188 Richland, WA 99352	electronic	Mailed Notice
Rosemary Keasling 2309 Dover Street Richland, WA 99352	electronic	Mailed Notice

Recipients	Distribution	Public Notice or Document
Jake Roth 216 N Johnson Kennewick, WA 99336	electronic	Mailed Notice
Kim Guyette 1115 McPerson Richland, WA 99354	electronic	Mailed Notice
Gary and Gerri Soehnlein 413 Basswood Avenue Richland, WA 99354	electronic	Mailed Notice
Lorenzo Uvalle 599 Riverstone Drive Richland, WA 99352	electronic	Mailed Notice
Jennifer Skinner 595 Riverstone Drive Richland, WA 99352	electronic	Mailed Notice
Richard Davidson 405 Robert Avenue Richland, WA 99352	electronic	Mailed Notice
Sandy Rock 563 Tanglewood Richland, WA 99352	electronic	Mailed Notice
Gary Fetterolf 317 Bernard Avenue Richland, WA 99352	electronic	Mailed Notice
Norm Grnya 2559 Glen Briar Lane Richland, WA 99352	electronic	Mailed Notice
Rudolph Guercia 1919 Forest Avenue Richland, WA 99352	electronic	Mailed Notice
Richard Olchawa 681 Lonetree Lane Richland, WA 99352	electronic	Mailed Notice
Betty Colburn 618 Sedgwick Place Richland, WA 99352	electronic	Mailed Notice
Dennis Mahoney 1567 Larkspur Richland, WA 99352	electronic	Mailed Notice
Alice and David Rhodes 598 Sedgwick Place Richland, WA 99352	electronic	Mailed Notice
De Danh and Thanh Ly 1608 Venus Cir Richland, WA 99352	electronic	Mailed Notice
Valerie Rager 393 Cottonwood Drive Richland, WA 99352	electronic	Mailed Notice
Brian Baker 552 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Stan and Judy Kophs 513 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Paula and Derek Rutherford 2307 Concord Street Richland, WA 99352	electronic	Mailed Notice
Murray Campbell 2555 Duportail Street G351 Richland, WA 99352	electronic	Mailed Notice

Recipients	Distribution	Public Notice or Document
Mandy Coughanour 1294 Country Ridge Drive Richland, WA 99352	electronic	Mailed Notice
Dennis Claussen 402 Cottonwood Drive Richland, WA 99352	electronic	Mailed Notice
Anthony Sharpe 454 Golden Drive Richland, WA 99352	electronic	Mailed Notice
Greg Gauck 551 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Jim and Gerry Strickland 122 Heather Lane Richland, WA 99352	electronic	Mailed Notice
Eldee McDonald 588 Sedgwick Place Richland, WA 99352	electronic	Mailed Notice
James Davidson 681 Lonetree Lane Richland, WA 99352	electronic	Mailed Notice
Matt Hanson 4110 West Lake Cl West Richland, WA 99353	electronic	Mailed Notice
Jim Crockett 525 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Debbie Burnet 659 Cottonwood Richland, WA 99352	electronic	Mailed Notice
Bill Clarkson 2333 Harris Richland, WA 99352	electronic	Mailed Notice
Barbara McIntyre 614 Tanglewood Drive Richland, WA 99352	electronic	Mailed Notice
Del Ballard 66 Newcomer Street Richland, WA 99354	electronic	Mailed Notice
Chad Shuman 591 Riverstone Drive Richland, WA 99352	electronic	Mailed Notice
Geoff and Vanessa Taylor 2555 Duportail Street Apt D226 Richland, WA 99352	electronic	Mailed Notice
Brandy Blank and Sean Campeau 2575 Glen Briar Lane Richland, WA 99352	electronic	Mailed Notice
Patrick and Laura Brant 2543 Glen Briar Lane Richland, WA 99352	electronic	Mailed Notice
Roxie Garcia 2213 Duportail Street Richland, WA 99352	electronic	Mailed Notice
James Burkos 401 Basswood Richland, WA 99352	electronic	Mailed Notice
Randy Reiss 512 Sedgwick Place Richland, WA 99352	electronic	Mailed Notice

Recipients	Distribution	Public Notice or Document
Carol Porter 2120 Duportail Street #2 Richland, WA 99352	electronic	Mailed Notice
Sherry Hendricks 2582 Glen Briar Lane Richland, WA 99352	electronic	Mailed Notice
Jacob Calaway 4350 Kimberly Street Richland, WA 99352	electronic	Mailed Notice
Cyndi Wise 67 Ridgecliff Drive Richland, WA 99352	electronic	Mailed Notice
Sue Giese 2312 Frankfort Street Richland, WA 99352	electronic	Mailed Notice
Amy and Corey Low 1107 Bridle Drive Richland, WA 99352	electronic	Mailed Notice
Lavonne Baker 2203 Duportail Street Richland, WA 99352	electronic	Mailed Notice

Duportail Bridge Environmental Assessment
Public Comments Log

Nr.	Date Received	Submitted by	Comment Method	Response Requested	Comment	Response
1	3/5/2013	James Pavlicek, Jr.	Electronic	Yes	My concern is the speed limit between the proposed streets of Riverstone and Tanglewood dr.. I do not like the 35mph speed for that span. There is a bus stop that children get on and off the school bus and have to cross the road to the other side. Also in the proposed area will be the access to the boat launch area. I feel just as on the other side of duportail that a speed limit of 25mph would be better and safer for the affected area.	The speed limit on Duportail Street throughout the project area is set to 35 mph as it is a safe speed for the roadway design. The school district has a process for re-evaluating the locations of their bus stops whenever a new roadway or speed change is introduced and will be going through this process to ensure a safe location is identified.
2	3/18/2013	David Langford	Mailed Letter		Short Comment: You're wasting a lot of time and money.	Comments noted. The project will provide improved pedestrian and bike facilities in the project area however, Duportail Street at Hartford and Ash is outside the limits of the Duportail Bridge Project. No changes in street width or speed limit will occur at these locations.
					Secondary Comments: Walking across Duportail at Hartford or Ash is a bit of a risky proposition, if you are not "youthfully mobile". Old, in a wheelchair, or on crutches, for instance. You just can't see far enough around that corner to know what's coming. And you want to make the street wider and raise the speed limit? If gasoline were suddenly become expensive or unobtainable, your current infrastructure would probably create a lot of unemployed people, and possibly starvation and death by freezing (no way to get the goods to people). A more efficient gas-free alternative would be nice to have, or at least in the works.	
					Long Comment: Based on the Los Angeles model (which you seem determined to do), as the size of the city increases, you will need to devote a higher fraction of your land to roadways. Roads to not generate revenue directly, and they are not environmentally useful (e.g., they generate carbon dioxide and dirty air, not oxygen and clean air).	This suggestion is beyond the scope of what is feasible for the current project.
3	3/18/2013	Rich Puryear, RSD	Mailed Letter		The Richland School District Staff has reviewed the project information and summary documents in the Environmental Assessment of the Duportail Bridge Project. The staff and Board of Directors of the Richland School District support this project and the transportation and access efficiencies it will bring to the community. It was noted that the bridge will include pedestrian and bicycle access and a reduced speed limit of thirty-five (35) miles per hour. The proposed speed limit will remove the need for deceleration and merging onto a high-speed interstate and provide school buses, parents, and students a safe route across the Yakima River. This project will provide improved connectivity between central and south Richland. The Environmental Assessment addressed the effects to the open space fish habitat and riparian areas, and the projects plan to minimize impacts while ultimately creating larger contiguous open space areas replanted with native species plants We appreciate the opportunity to provide our comment on the plan and are in support of the benefits the project can provide for our community.	Comments Noted
4	3/20/2013	Steve Smithson	Electronic	No	I live in the Keene Village area of Richland, and am looking forward to the Duportail Bridge being completed. For anyone that has been unable to exit from I-82 into the Queensgate area because of the solid line of traffic from Aaron, Wellsian, and 240, there is no doubt that the bridge is sorely needed, and has been for several years. The merging traffic lane on the interstate is a major hazard and a pile-up waiting to happen. Also, try getting onto the freeway to Richland from Queensgate any weekday morning between 7 and 8 a.m., from Keene or Duportail - a solid line of cars backed up both ways. This congestion will be greatly relieved by the Duportail Bridge. It makes sense for Richland to have a direct route to the Queensgate area, as this has become the main retail hub of the city, and looks to have continued development for the foreseeable future. I agree that the Duportail Bridge should be Richland's number one project priority.	Comment Noted
5	3/21/2013	Suzanne Caron	Electronic	No	I'm opposed to this proposed project. As a resident of Richland, I travel up to Walmart, etc.. often and I don't believe it's a wise use of limited funds to build this bridge. There is already access across the Yakima via 182. With so many projects needing funds, this seems like a big waste of money and time. Thanks for allowing comments on this, especially online!	Comment Noted
6	3/21/2013	L.B. Sandy Rock, MD	Electronic	No	I am very much in favor of this bridge and the planned improvements to the 240/Duportail intersection that will accompany its construction. I look forward to the better traffic flow, access to the shopping area "across the river," and avoidance of the existing, dangerous on-and-off access via I-182. I do, however, have concerns about the development of the commercially-zoned parcel of land on the northeast corner of Duportail and Riverstone Drive, which is--at this moment--being prepared for a carwash venture. I see this as an obtrusive, noisy, messy and dangerous (from a traffic perspective) type of facility for this approach to several placid residential communities, including mine: Tanglewood.	Comment Noted
7	3/21/2013	Urban Jenquin	Open House Form	Yes	Provide walking/bicycling paths on both sides of the roadway. Study the impact on Queensgate crossing I-182. Provide left and right turn lane in addition to thru lanes.	The Duportail Bridge Project will contain a 12-foot wide trail on the upriver side of the bridge. Part of the purpose of this facility is to provide safe pedestrian access to the retail businesses in the Queensgate area. This trail is considered a “shared-use path” since it accommodates multiple users such as bicyclists, skaters, pedestrians and other users. Bike access in both directions will be allowed. A trail was not included on both sides of the bridge in order to reduce environmental impacts and cost of the project. There will be safe locations to cross Duportail Street at the ends of the bridge. During final design of the trail, the transition to sidewalks will be refined. The project is expected to create a reduction in traffic volumes at the I-182/Queensgate on/off ramps - approximately 1,000 vehicles at the ramp from southbound SR 240 to westbound I-182 and approximately 700 vehicles at the ramp from eastbound I-182 to northbound SR 240. New right turn lanes will be provided on SR 240 to Duportail Street. Left turn lanes are provided on Duportail Street to SR 240, Tanglewood Drive, and City View Drive.
					This proposal does not address the traffic flow problem in crossing the Yakima River. The problem is not the carrying capacity of the bridges, but the bottlenecks in getting onto the 1-182 Bridge from Aaron Drive and from Queensgate Drive. The Aaron Drive traffic must cross SR 240 (the bypass highway) to get onto the 1-182 Bridge. This situation will be exacerbated with the proposed Duportail Bridge. Traffic on Duportail will also need to cross 1-240, but it will also need to cross the railroad tracks and an additional stop light at Tanglewood Drive.	The purpose of the project is to create another crossing of the river to allow traffic to avoid Aaron Street and I-182. By reducing the need for local traffic to use I-182, the intersections at Aaron Drive and Queensgate Drive will improve. This is the intention of 1.4.1, giving local traffic an option across the river and improving traffic flow in the interstate.

Nr.	Date Received	Submitted by	Comment Method	Response Requested	Comment	Response
8	3/21/2013	Norman Rohrig	Open House Form	Yes	In addition, there is not a convenient way to get to Duportail Street from downtown Richland. The traffic flow on Duportail Street and surrounding streets would likely be significantly increased, but this impact was not discussed in the EA. If one uses Swift Boulevard to get to Duportail you can easily stay on SR-240 and get onto the 1-240 Bridge so the new bridge provides little benefit. On the West side of the river the new bridge will serve very few customers better than the existing bridge.	Traffic modeling, utilizing growth and development plans for the upcoming 20-year period, was used to project the traffic volumes on all of the nearby streets. The environmental review team including FHWA, FEMA, the City, and WSDOT determined that the appropriate boundary to set for the traffic study area was any intersection which has greater than 10 percent change in traffic volume in the year of opening, which at the time the study area was set was 2012. No material change in the project has occurred which would change the projected impacts since this study area was set. Intersections on Duportail Street north of Cottonwood had changes in traffic volume less than this threshold and therefore did not warrant inclusion in the EA. The remainder of Duportail Street is outside the scope of this project. Its condition is recognized to be an issue and will be addressed independently in upcoming projects. The City's transportation plan includes two projects that will address separate and independent system needs along the Duportail/Stevens Corridor related to the Duportail Bridge project. The first project is the Duportail Street Improvements approximately 0.25 miles from the Duportail Bridge project limits. This project will improve the section of Duportail Street between Thayer Drive and Wright Avenue. The project's primary objective is to reconstruct a two-lane rural section road into a two-lane urban road with curbs, gutters, sidewalks, street lights and drainage improvements. This segment of road includes an elementary school walking route that, in its present condition, has no separated pedestrian facilities. It is anticipated that this project will include no vehicle capacity improvements, but may include intersection control and safety improvements. The second project is a new alignment providing improved connectivity between the City's downtown area and Duportail Street at Thayer Drive. The new connectivity is needed to provide better trip distribution among the available collector and arterial streets, reducing congestion on some while using unused capacity on others. This project is approximately 0.6 miles from the Duportail Bridge project limits. It is anticipated that each of these two projects will involve their own NEPA and SEPA reviews, independent of the Duportail Bridge project and are not in the scope of the EA. The City, along with the participating state and federal agencies, have accepted that the Duportail Bridge project as scoped and evaluated, has a purpose and need independent of the larger system plans being pursued by the City.
					As a taxpayer to the state and federal governments, I consider it my right to use the existing bridges so I disagree with item 1.4.1. The EA does not address how the emergency response times will be reduced nor how building a new fire station (p9) will change the need.	Residents will be given an alternative to entering the interstate. The Federal Highway Administration policy for improvements to interchanges or creation of new interchanges requires that reasonable efforts be made to accommodate local traffic on local road networks. This is to maintain the function of the interstate. The reduction in emergency response times is addressed in section 4.3.2. The project has the potential to improve emergency response times approximately 2-3 minutes in some locations. The plans for the new fire station does not change the current need to response times and the existence of the bridge would also allow for faster response from this new fire station after construction.
					Instead of wasting money on a new bridge and not solving any traffic issues, the government should fix the two existing problems. 1) Namely the intersection of 1-182 and Queensgate should have additional left turn loops installed so that it would be a full clover-leaf intersection. There appears to be appropriate space for that to be done with only grading and paving required. This is alluded to in option 1 but little information is provided for comparison. 2) Traffic flow at the intersection of Aaron Drive and SR 240 is not optimized. Now when Aaron Drive is stopped, the two lanes often have different length lines. The Right lane can be used to turn Right, go straight ahead onto the 1-182 Bridge, or turn left onto SR 240 and 1-182. The Left lane can only turn Left so that line is usually shorter than the Right lane. To equalize the flow and thus increase it, a Left turn from the Right lane should not be allowed. In addition, going straight ahead from the Left lane onto the bridge should be allowed. When two drivers are simultaneous1y going straight ahead from the stop light, there is room for them to merge at low increasing speed before getting to the bridge.	The improvement of the I-182 interchanges, including the Aaron Street intersection, was investigated during the alternative analysis, this alternative was found to have higher costs than the proposed Duportail project. This option does not meet the purpose and need of the project as it does not provide a reduction in local traffic to I-182 or a reduction in emergency response time. It is also inconsistent with Federal Highway Administration policy.
9	3/21/2013	Michael Gimera	Open House Form	No	This bridge fills and important need in our community. I hope it gets built soon.	Comment Noted
10	3/23/2013	Walt Gray	Electronic	Yes	It blows my mind how Richland can spend so much time and money fixing things that aren't broken while ignoring things that really need fixed. Keene road, for example. Years and millions of dollars were spent. The only real improvement was an additional bridge over I-182. Everything else was a waste of time & money or, at least, could have been spent better elsewhere. For example, Queensgate drive. Left turns, both northbound and southbound, should be replaced by right turns with a circle onto I-182. I realize the state must get involved with this because it involves an interstate highway. But the city could request and pressure the state to fix this problem instead of fixing the non-problem with Keene Road. Now, regarding the Duportail Bridge. I haven't talked to anyone who doesn't think this would have a giant negative impact on the bypass highway traffic and could be Richland's dumbest idea in memory.	Comments noted. The alternative which would upgrade the I-182 interchange was considered but would cost more than the proposed bridge. This option also would not be consistent with the Federal Highway Administration's policy which requires local traffic to be accommodated on the local network rather than changing access to the interstate. The project is expected to have a positive impact on bypass highway traffic by allowing local traffic to have an alternative route.
11	3/26/2013	Shirley Powaukee	Electronic	Yes	I am not for the bridge at all....i live right off Duportail and the traffic will be to much for that road....As soon as you build the city ware house across the river, we knew the city would try and pass a bill of some sort to build a bridge around there.... I do not want onethe traffic is nothing to compared to Seattle or Spokane..... I DO NOT WANT THE BRIDGE.....	Comment noted. The purpose of the project is provide improved traffic for residents, emergency vehicle response times, and pedestrian facilities.
12	3/26/2013	Bora Akyol	Electronic	Yes	This project must include bike lanes in both directions on the bridge. There are many bike commuters in the South Richland area. The commuters are now forced to use the 182 bridge crossing over the Yakima river. While the bridge itself has safe & separated bike access, the roads connecting to the bike trail in South Richland are very problematic. If the bike traffic can be moved to Duportail bridge, this could significantly enhance the safety of bike commuters in the region.	The Duportail Bridge Project will contain a 12-foot wide trail on the upriver side of the bridge. Part of the purpose of this facility is to provide safe pedestrian access to the retail businesses in the Queensgate area. This trail is considered a "shared-use path" since it accommodates multiple users such as bicyclists, skaters, pedestrians and other users. Bike access in both directions will be allowed. A trail was not included on both sides of the bridge in order to reduce environmental impacts and cost of the project. There will be safe locations to cross Duportail Street at the ends of the bridge. During final design of the trail, the transition to sidewalks will be refined.
13	3/26/2013	Stephen McDuffie	Electronic	No	Page(s):: 19 Section(s):: 2.4 Comment:: Regarding alternative 4, the bridge at Goethals Drive. A significant negative aspect of this alternative that was not mentioned, but is apparent in looking at figure 7 on page 21, is that the alternative places a road right through the Sundance Ridge development. This alternative would require either removing several new homes or tunneling through the hill beneath this neighborhood. Either option would be impractical and/or prohibitively expensive. General Project Comments:: The Environmental Assessment is very thorough. I am very pleased with it and I support completion of this project. I believe the project will relieve congestion in key locations for the near-term, and it will improve mobility across the city of Richland.	Comments Noted
14	3/27/2013	Maja Shaw	Electronic	No	We strongly support the Duportail Bridge project. We live in south Richland and commute over the I-182 bridge frequently. Besides being a roundabout way to get into central Richland, merging onto an interstate high speed freeway to immediately exit again at Wellsian Way is a dangerous traffic maneuver. During morning and evening rush hours the number or cars along this route is beyond the capacity of the roads. We urge you to make this project a high priority.	Comment Noted

Nr.	Date Received	Submitted by	Comment Method	Response Requested	Comment	Response
15	3/27/2013	Carl Berkowitz	Electronic	Yes	My primary concern was the absence of discussion regarding cumulative impacts that are expected in neighborhoods likely to be affected by the new bridge. The EA contained little or no discussion about the effect along Duportail if the City extends this street to Wellsian Way. My knowledge of this extension is based on the City's 2013 report titled 'The Six-Year Transportation Improvement Program.' The TIP, in conjunction with the Bridge EA seems to imply that there will be a significant increase in traffic along Duportail and within the adjacent neighborhoods.	Cumulative effects of the project were identified in Section 4.17. The neighborhoods on Duportail Street north of SR 240 were not included as there were no traffic impacts identified which would have triggered its inclusion. The regional traffic analysis includes all projects included on the TIP, including the Duportail Bridge Project, and under these conditions Duportail Street north of the project area meets the City's level of service standards.
					At last week's meeting, Russ, of the City Planning Department, explained that the geographic area of the EA did not include the Thayer/Wellsian Way area, and that signals would be adjusted to discourage bridge traffic from using this route. He also noted that this assumption was justified via 'traffic modeling'.	We believe the person you spoke to was Ross Widener, of Widener and Associates, who is working as a consultant to the City preparing the environmental documents. His statements in regards to traffic modeling refer to the process which was used to determine the traffic study area. Traffic modeling, utilizing growth and development plans for the upcoming 20-year period, was used to project the traffic volumes on all of the nearby streets. The environmental review team including FHWA, FEMA, the City, and WSDOT determined that the appropriate boundary to set for the traffic study area was any intersection which has greater than 10 percent change in traffic volume in the year of opening, which at the time the study area was set was 2012. No material change in the project has occurred which would change the projected impacts since this study area was set. Intersections on Duportail Street north of Cottonwood had changes in traffic volume less than this threshold and therefore did not warrant inclusion in the EA. The City does not use traffic signals to encourage or discourage traffic routing. They are configured to serve traffic demand as efficiently as possible.
					Russ' statements seem to be at odds with what you told the Richland Parks and Recreation Commission on Dec. 13, 2012, when you described the Duportail-Stevens Corridor as "...one of the primary transportation initiatives that are in our citywide transportation plan and the primary goal is to improve local street connectivity between downtown and the southwest side of the Yakima River ." Your earlier statement seems to imply that the City has indeed made a connection between the Duportail bridge project and the Duportail St. modifications and extensions, in contrast to Russ' response last Thursday, which was that bridge traffic would be discouraged from connecting with central Richland via Duportail. Either way, it seems remiss not to include a discussion on this subject in the EA given the large number of homes that would be affected by the combined Duportail Bridge/Duportail extension.	The remainder of Duportail Street is outside the scope of this project. Its condition is recognized to be an issue and will be addressed independently in upcoming projects. The City's transportation plan includes two projects that will address separate and independent system needs along the Duportail/Stevens Corridor related to the Duportail Bridge project. The first project is the Duportail Street Improvements approximately 0.25 miles from the Duportail Bridge project limits. This project will improve the section of Duportail Street between Thayer Drive and Wright Avenue. The project's primary objective is to reconstruct a two-lane rural section road into a two-lane urban road with curbs, gutters, sidewalks, street lights and drainage improvements. This segment of road includes an elementary school walking route that, in its present condition, has no separated pedestrian facilities. It is anticipated that this project will include no vehicle capacity improvements, but may include intersection control and safety improvements. The second project is a new alignment providing improved connectivity between the City's downtown area and Duportail Street at Thayer Drive. The new connectivity is needed to provide better trip distribution among the available collector and arterial streets, reducing congestion on some while using unused capacity on others. This project is approximately 0.6 miles from the Duportail Bridge project limits. It is anticipated that each of these two projects will involve their own NEPA and SEPA reviews, independent of the Duportail Bridge project and are not in the scope of the EA. The City, along with the participating state and federal agencies, have accepted that the Duportail Bridge project as scoped and evaluated, has a purpose and need independent of the larger system plans being pursued by the City.
					Closely related to this concern is that I heard only one resident from the affected neighborhood speak out against these plans during the March 21st meeting (a gentleman who lived on Wellsian Way, upset that he hadn't been told about this extension). Have citizens in these neighborhoods been notified of the 2013 TIP and how north-bound bridge traffic might affect traffic through their neighborhood?	The City, in adopting its Transportation Improvement Program, holds regular public hearings to seek public input on the plan. This happens every year and improvements to the Duportail / Stevens corridor have been highlighted on the TIP for quite a few years. Once the City Council and regional planning organization have approved the City's TIP, City staff works to implement the plan. Implementation is often broken into separate projects, each of which has its own independent utility and separate environmental review process.
					Another apparent gap in the EA is the absence of discussion regarding how long, given the projected increase in traffic volume and growth of our community, the new bridge is expected to produce a significant reduction in traffic congestion. Does the City consider the bridge to be a short-term or long-term solution to the growing congestion expected in our area?	The project is expected to produce a significant long term reduction in traffic congestion in the area. The effects to traffic are described in section 4.3. Traffic volumes are expected to increase and congestion would get worse sooner if the project is not constructed.
					Finally, I was hoping to see more information regarding how the pedestrian/bike path would end on the south side of the bridge. My concern is that this path will terminate in the heavy and dangerous traffic zones associated with the box stores in this part of Richland, with the result that the path would be unnecessarily dangerous and not conducive to the purpose for which it is built. None of the staff at Thursday's meeting were able to tell me how the pedestrian/cycle path on the bridge would connect with other routes on the south side. Has this been determined, and if so, what is the plan?	The Duportail Bridge Project will contain a 12-foot wide trail on the upriver side of the bridge. Part of the purpose of this facility is to provide safe pedestrian access to the retail businesses in the Queensgate area. This trail is considered a "shared-use path" since it accommodates multiple users such as bicyclists, skaters, pedestrians and other users. Bike access in both directions will be allowed. A trail was not included on both sides of the bridge in order to reduce environmental impacts and cost of the project. There will be safe locations to cross Duportail Street at the ends of the bridge. During final design of the trail, the transition to sidewalks will be refined.
16	3/27/2013	Kim Welsh	Electronic	Yes	I am a native Richland resident of more than 50 years, and have served on several volunteer committees for the City of Richland including: Parks and Recreation Commission, two Transportation Committees, chair to the Housing & Community Development Advisory Committee, and Central Business District committee. My experience includes employment as one of only three National Environmental Policy Act (NEPA) Subject Matter Experts and trainer for the Hanford Nuclear Reservation for more than 10 years, and environmental consultant to the I-90 Snoqualmie Pass East Final Environmental Impact Statement and Section 4(f) Evaluation, August 2008. I have serious concerns with the draft Environmental Assessment – Duportail Street Bridge Project: City of Richland, Washington failing as presented to meet the requirements of the NEPA law and Council on Environmental Quality (CEQ) requirements. The draft Environmental Assessment (EA) fails to meet the Purpose and Need statements by failing to meet the full intent of CEQ regulations under 1508.7 cumulative impacts, 1508.9 alternatives as required by Section 102 (2)(E) of NEPA law "to study, develop, and describe appropriate alternatives to recommended course of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources", 1508.25(1) connected actions, 1508.25(2) cumulative actions, 1508.25(3) similar actions with other reasonably foreseeable actions, and 1508.25(3)(2) other reasonable courses of actions. The EA specifically fails to evaluate the impacts of the proposed stop light at Tanglewood and Duportail couples with the stop light at Duportail and SR-240. 1) The stop light at Tanglewood will cause increased traffic congestion in both directions from the intersection, including cars backed up over the bridge for northbound traffic increasing impacts to wildlife from cumulative emissions of idling vehicles.	We interpreted this comment to be concerned with the cumulative effects of traffic impacts since the topics in the numbered statemetns following the statutory reference paragraph all pertained to traffic. Traffic modeling, utilizing growth and development plans for the upcoming 20-year period, was used to project the traffic volumes on all of the nearby streets. The intersection standard for the City of Richland, Benton-Franklin Regional Council, and WSDOT is Level of Service (LOS) D. Signalized intersection LOS is a method of measuring traffic congestion. It is defined in terms of the average total vehicle delay of all movements through an intersection. The Tanglewood Drive/Duportail Street intersection was included in the traffic analysis was determined to have LOS B in 2032 during both AM and PM peak hour with the construction of the bridge project, including the new signal. This meets intersection standards and stable flow of traffic is expected. The delay at an intersection also increases the amount of time vehicles are idling, increasing emissions. Intersections which have a stable flow of traffic, LOS C or better, are unlikely to degrade air quality. Therefore, impacts from the Tanglewood Drive/Duportail Street intersection are not anticipated.
					2) Retaining a stop light at Duportail and SR-240 will create additional cumulative impacts to the residences along Duportail between the two stop lights. This is similar to the traffic back-up problems encountered along the south end of George Washington Way, except this back-up will not be the periodic result of 'rush-hour'. This impact will increase over time as further development in the areas of south Duportail increases, and use of the bridge increases.	Traffic has been modeled at the SR 240/ Duportail intersection was determined to be within acceptable level of service until 2022. The intersection operations at SR 240/Duportail Street would require a fourth eastbound through lane on SR 240, regardless of the completion of this project, in order to meet acceptable LOS standards in 2032. The new section of road will increase traffic experienced by residents compared to the current dead end configuration but will also benefit residents by creating a direct route across the river and improved pedestrian facilities. The Riverstone Drive/Duportail Street and Tanglewood Drive/Duportail Street intersections will meet acceptable LOS standards in 2032 and no cumulative effects to residents on Duportail Street between the lights is anticipated.
					3) Failure to recognize the need to put in an overpass/on-off ramp to SR-240 fails at least three of the CEQ sub-regulations indicated in the previous paragraph. Several public meetings over the past 20 plus years has identified the need to add overpass ramps for crossing streets to SR-240 (by-pass) including those proposed at Duportail and Swift Blvd. these issues have been raised during past Transportation Plan public reviews, as well as through Parks and Recreation Commission meetings in relation to the By-Pass Shelterbelt Park Master Plan approved in 2006. This Master Plan "is intended primarily for use as part of the transportation corridor, not for recreational use" as stated in a Memo from Joe Schiessel, Parks & Recreation Director to Pete Rogalsky, Public Works Director on 12/21/12.	The traffic analysis shows that the at-grade intersection is within an acceptable level of service and adding an interchange would likely double to scope and cost of the project. The upgrades to the intersection of SR 240/Duportail Street will not impede the use of the Bypass Shelterbelt Park as a transportation corridor.
					4) The EA fails to fully evaluate the impact of building a new fire station as proposed in the south Duportail area on the bridge, and evaluating more direct corridors to Kadlec Hospital.	The proposed fire station will continue regardless of the construction of the bridge. It was considered when analyzing land use in the project area after construction of the project. Using Swift Boulevard, a more direct route to Kadlec Hospital, was assessed in the alternatives. It was determined to have higher environmental impact and less reduction in congestion.

Nr.	Date Received	Submitted by	Comment Method	Response Requested	Comment	Response
					5) The EA fails to evaluate a reasonable alternative and connected action in, along with the proposed bridge at the proposed location but directing northbound traffic along Tanglewood, providing an overpass over SR-240 and on-off ramp to SR-240 at Swift Blvd. This proposal includes a similar design at the same proposed location across the Yakima River with similar amenities. This modification and alternative reduces impacts to the environment by a) more adequately reduces traffic on SR-240, b) reduces emergency response time (with reduced traffic lights) from south Duportail to Kadlec Hospital, and c) improves connectivity to city infrastructure, City Hall, Police, Richland Fire Station infrastructure, schools, shopping, etc. The Proposed Plan only reduces traffic on SR-240 between Duportail and I-182, a distance on only about a mile. Northbound traffic would come to the stop lights at both Tangelwood and SR-240 – funneling traffic, emergency vehicles, school busses, etc. back onto SR-240 abd not effectively address the Purpose and Need. This EA must include the suggested, modified alternative comparison for impact evaluation at Swift Blvd. as part of this draft Environmental Assessment to be valid in meeting CEQ regulations/requirements and “the spirit” of NEPA law, and to satisfy federal agency requirements.	The additional extension of Tanglewood Drive north to Swift Blvd was not considered a feasible alternative due to the increased cost of on/off ramps as well as additional impact to 4(f) lands (W.E. Johnson Park) and Yakima River riparian habitat. The alternative bridge location to Swift Boulevard was analyzed and found to result in more environmental impact and less congestion relief.
17	3/28/2013	Scott Woodward	Electronic		On page 63 of the Environmental Assessment for Duportail Bridge Aquatic Resources,Wildlife and Vegetation Discipline Report, section 9.1.1.6 states In order to mitigate for the possible loss of habitat, the project proposes to restore 0.71 acres of currently disturbed areas and potentially enhance up to 22.6 acres of temporarily disturbed areas through the planting of native species. These native shrubs will provide a food source and shelter for wildlife species. We look forward to the next phase of the process that identifies the specific details of the restoration plan. We anticipate that elements such as identification of the plant names, watering schedules, invasive plant control, vehicle and pedestrian control and planting techniques will be included in the document. Established shrub steppe and riparian restoration techniques exclusive to our region should guide the restoration of the current and temporarily disturbed areas at the Duportail site. Past experience with hydro seeding as a restoration method has proven ineffective and a waste of money. For example, the sprayed section of the Leslie Sewer Trunk line in the Amon Creek Natural Preserve is overrun with invasive weeds and devoid of any significant intended native grasses. Any planting needs a minimum of a two year watering plan that includes water tubes. Ground cloth assures maximum water retention and invasive weed control in the planting area. Effective barriers and signage to prevent vehicle, human and pet trespass need to be substantial enough to endure several years of weather. The next phase document should also drill down on the actual amount of habitat to be lost and restored. The EA refers to several different amounts of habitat that potentially could be enhanced. The phrase “potentially enhance” indicates that it is possible there will be enhancement of some disturbed areas. A clear explanation of this phrase needs to be included in the next phase of documentation on this project.	The amount of area necessary for construction staging has not been finalized at this stage in the design. The largest potential area of impacts, 22.6 acres, has been identified on Figure 11 and any area which is disturbed will be enhanced after project completion. But impacts to native vegetation and habitat will be kept to the minimum amount necessary and may be less than 22.6 acres. If disturbance is not required, the existing plant community will remain and no enhancement will occur. The phrase "potentially enhance" was intended to describe these conditions and that 22.6 acres of enhancement may not be necessary to mitigate for project impacts. Restoration will occur as the final stage of project construction but no specific timeline has been established as the final area of disturbance necessary will influence the duration necessary. The details of the restoration plan have not been determined at this time, however restoration techniques suitable for the region will be used. The plan will be designed to replicate the habitat disturbed, have provisions to ensure survival of the plants, and be approved by the Army Corps of Engineers. Vehicles will not have access to restored areas after completion.
18	3/29/2013	Irene Nash	Electronic	No	I am against the building ofthe Duportail Bridge. And I have yet to talk to any resident that does NOT agree with me. You are within 1/2 mile of a bridge. If a bride is needed, it should be closer to Van giesen to accomodate West Richland. The only reason I can come up with for a reason that the City of Richland is waning this bridge constructed is that the City Shops were build acros the river and this would be a direct shot from the City Hall to the City Shops. Not for the convenience of the people of Richland. The funds could be used to upgrade and repair so many streets in Richland, severely in need of rpair I believe there should be a city wide VOTE by all residents on both sides of the river, before tis money is wasted.	Comment Noted
19	3/29/2013	Lloyd Swain	Electronic	Yes	I think this project needs to put on the back burner or eliminated totally. As a Richland native who has experienced the employment changes at Hanford for 60 years I cannot support the 35 million dollars cost. This project has been on the books for many years and because of cost has not been funded. Please consider plans to help the congestion along George Washington Way. Also I favor the Projct to build an interstate 182 exit to West Richland. Red Mountain can be a gold mine for tourism and has tremendous potential for our area and is a more viable option alas we vie for transportation Dollars. General Project Comments:: I am not in favor of this project and I would like to see what benefits it has for quality of life? Are more big box stores and congestion really what we mean by economic development?	Improvement of the I-182 interchanges was investigated during the alternative analysis, this alternative was found to have higher costs than the proposed Duportail project. The project is designed to reduce congestion and allow for fewer miles traveled for residents. The project will also provide improved pedestrian/bike facilities over the Yakima River, faster emergency response times, and less vulnerable utilities for residents.
20	3/30/2013	Jan Jordan	Electronic	No	Not sure if it is too late for comments on the bridge, but I'm sure looking forward to it going in. It really won't effect how I drive, but will definitely help when there are problems on the Freeway bridge, not to mention lessening the congestion at that intersection on-ramp to Richland.	Comment Noted
21	4/1/2013	Mike Luzzo	Electronic & Mailed Letter	No	According to the March 31, 2013 Progress 2013 printed by the Tri City Herald, Don Whitehouse states that funding for highways and bridge preservation is shrinking. Purchasing power of the gas tax is being reduced incrementally. This is in itself very true. So to propose a bridge across from Duportail Street and and crossing the Yakima River should low on priorities. However what should be considered are further options. The \$35 million estimate for this is excessive when other options are considered. These include a shorter bridge option near the I 182 Bridge, a upgrade of a bridge crossing the Yakima River into West Richland north of Van Gieson Boulevard and even a bridge that would cross the Columbia River north of Richland into Franklin County. Even the Red Mountain Interchange is being downgraded by this proposal. By accomplishing this upgrade, through traffic would go into West Richland far easier. The inferred statement that a bypass highway egress across Duportail and Highway 240 would help the problem is not true. Franklin County access across the Columbia River makes more sense. As would other factors. The Yakima River is a historically polluted river. Destroying possible Chinook Salmon habitat is not the answer. For is this river not part of a historic Columbia River System that might possibly part of the American Wild Rivers designation? The US Army Corps of Engineers supervises this river, so it should be consulted on this. Last of all, there is a recent study that was done on a proposed industrial park in North Richland that would be derived from Department of Energy lands. A bridge crossing the Columbia River would support such an Industrial Park, bring tax revenue and jobs and alleviate bypass highway traffic more readily. Much needed funding would therefore be more justified in this way. In the future this proposed bridge might be built, but not now. In Kennewick bridging has been built that can by justified, both within Kennewick and on vital interior routes. This bridge does not meet such a degree of proposed concern.	Comments noted. Neither the Columbia River or Yakima River is designated as a Wild and Scenic River. The Army Corps of Engineers are a cooperating agency on this project. A bridge over the Columbia River would likely cost more and still impact Chinook salmon habitat. It would not meet the purpose and need for the project as it would not reduce local trips on SR 240 and I-182 or reduce emergency response times to the areas south of the Yakima River. An upgrade to an existing bridge north of Van Geison would too far north to meet the purpose and need. It would not reduce emergency response times or congestion on I-182. A bridge closer to I-182 would not meet the purpose and need as it would not provide more direct pedestrian facilities between the Queensgate area and the City center, nor would it provide a significant reduction in emergency response times due to the proximity of I-182.
22	4/1/2013	Carrie Benitez	Electronic	No	Having the Duportail Bridge finished would benefit our family in a number of ways. It would save us a great deal of money that we currently spend on gasoline, and we would also be able to safely ride our bikes down into Richland. There just isn't a safe way for us to get our of our neighborhood on bikes, and even if we do chance it, we have to go miles out of our way in order to get down into Richland. We just can't wait to get that bridge in.	Comment noted
					The Studies presented by the City of Richland's "Duportail Bridge" for comment are not representative of near current existing conditions, in fact could be outdated. The "Study" indicate that their traffic counts are based on the City of Richland Traffic Counts. The City's Web page of Traffic Count addresses a few counts in 1996, 1997, 1998, 1999, 2007 and 2010. These traffic counts are at specific street locations at a given date, but not at the same date. Therefore, a complete traffic flow pattern of Duportail can not be achieved. It should be noted that the traffic and noise data for the "Study" are based on "dead-end" streets; Duportail north of the Yakima River has a speed limit of 25 mph and only serves Apartments plus Residences, Duportail south of the Yakima River serves a portion of Hills Mobile Home Park and the City Shops, with current Kentucky Chicken Establishment the only commerical business.	The traffic counts conducted in the study were based on traffic counts that were collected in May 2008 by a professional traffic count firm (All Traffic Data). Traffic counts were again collected in 2010 to validate the use of 2008 data and showed that traffic counts had decreased since the 2008 counts. Future traffic forecasts were based on the BFCOG Regional Transportation Model and calibrated using data collected in 2008.
					I would like to see a total traffic count over a given timer period for intersections of Duportail and SR240, Duportail and Cottonwood, Duportail and Wright, and Duportail and Thayer. These counts should be complete and include traffic flow at all four[4] directions of the intersections. These traffic counts should not be just during June, July or August, nor during school's "spring break". For the traffic count to be realist they should be done seasonaly; Spring, Summer, Fall and Winter.	The traffic counts collected for the study observed the individual vehicle movements at each approach to the study intersections. They were collected in May 2008 when schools were in session and are representative of a typical weekday condition.
					The City of Richland "Duportail Bridge" Study does not address the additional Apartment and Residences that have been built South of SR240 [except for the old gravel pit, most of usable land in this area has been developed].	The future forecasts account for the build out of the area to the north and south of Duportail Street. This includes the apartments that have recently been built.
					Currently: There is a traffic congestion at the corner of Duportail and Cottonwood between the hours of 1500 and 1800 on any given day; Southound traffic on Duportail blocks West/EastBound traffic on Cottonwood.	The implementation of an additional southbound left-turn lane at the intersection of Duportail / SR 240 has been provided to minimize congestion and queue spill-back at the intersection of Duportail / Cottonwood.
					Also, there is a traffic safety problem at the corner of Duportail and Cottonwood; traffic turning/crossing the Cottonwood-Duportail intersection have problems with the express traffic turning right off SR240 onto Duportail and not stopping or slowing to the posted 25 mph speed limit. Therefore, the design of the Duportail Street Improvements must include traffic management at the Cottonwood- Duportail intersection: 4-Way Stop Signage, Round-About, or traffic signal that is syncronize with the SR240 traffic signal. A Round-About might be in order at the intersection of Wright-Duportail and Thayer-Duportail.	Due to the spacing between the intersection of Duportail / Cottonwood and Duportail / SR 240 the installation of a traffic signal, roundabout, or all-way stop is not recommended. Speeding issues will initially be addressed through education and enforcement in the area before physical improvements are considered.

Nr.	Date Received	Submitted by	Comment Method	Response Requested	Comment	Response
23	4/3/2013	Sam Hallsted	Electronic	Yes	Street Noise Level addressed in the "Duportail Bridge Study" is not complete nor current; the study did not addressed the Noise Level near the Cottonwood-Duportail intersection. The "Noise Level Study" between the is flawed because of the same reason the traffic count is not realistic.	A residence on Cottonwood Drive (receiver 12) was modeled for sound levels, it is shown in the EA on Figure 10. The noise level modeled did not significantly increase, nor did it approach the noise impact abatement criteria. The project was expected to slightly improve the sound levels at that receiver. In 2032, the sound levels modeled were higher in 2032 without the project. The traffic counts used in the noise study are consistent with the WSDOT Traffic Noise Policies.
					General Project Comments:: The City of Richland must include Duportail Street in it's entirety when undertaking the "Duportail Bridge". The "Duportail Bridge" 2032 Traffic projections indicate a larger traffic flow onto the Street's northbound lanes. This increased traffic will create noise levels and traffic congestion. It will created traffic problems reducing traffic from 4 to 2 lanes. Currently, Duportail is a sub-standard street with area of no curbs and gutters and street runoff containment. Street lighting could be sub-standard. Also, the problems of On and Off Street parking, reduction in property values must be addressed by the City	Traffic modeling, utilizing growth and development plans for the upcoming 20-year period, was used to project the traffic volumes on nearby streets. The environmental review team including FHWA, FEMA, the City, and WSDOT determined that the appropriate boundary to set for the traffic study area was any intersection which has greater than 10 percent change in traffic volume in the year of opening, which at the time the study area was set was 2012. No material change in the project has occurred which would change the projected impacts since this study area was set. Intersections on Duportail Street north of Cottonwood had changes in traffic volume less than this threshold and therefore did not warrant inclusion in the EA. The remainder of Duportail Street is outside the scope of this project. Its condition is recognized to be an issue and will be addressed independently in upcoming projects. The City's transportation plan includes two projects that will address separate and independent system needs along the Duportail/Stevens Corridor related to the Duportail Bridge project. The first project is the Duportail Street Improvements approximately 0.25 miles from the Duportail Bridge project limits. This project will improve the section of Duportail Street between Thayer Drive and Wright Avenue. The project's primary objective is to reconstruct a two-lane rural section road into a two-lane urban road with curbs, gutters, sidewalks, street lights and drainage improvements. This segment of road includes an elementary school walking route that, in its present condition, has no separated pedestrian facilities. It is anticipated that this project will include no vehicle capacity improvements, but may include intersection control and safety improvements. The second project is a new alignment providing improved connectivity between the City's downtown area and Duportail Street at Thayer Drive. The new connectivity is needed to provide better trip distribution among the available collector and arterial streets, reducing congestion on some while using unused capacity on others. This project is approximately 0.6 miles from the Duportail Bridge project limits. It is anticipated that each of these two projects will involve their own NEPA and SEPA reviews, independent of the Duportail Bridge project and are not in the scope of the EA. The City, along with the participating state and federal agencies, have accepted that the Duportail Bridge project as scoped and evaluated, has a purpose and need independent of the larger system plans being pursued by the City.
					The inclusion of a 12 foot wid non-motorized traffic lane is a bit excessive; Bikes, Skateboards, Skooters, Wakers, Runners, Joggers do not contribute funds for highway street projects. Therefore, the width of the walkway should be reduced	The Duportail Bridge Project will contain a 12 feet wide trail on the upriver side of the bridge. This trail is considered a "shared-use path" since it accommodates multiple users such as bicyclists, skaters, pedestrians and other users. Chapter 1515 of the WSDOT Design Manual provides the criteria for designing shared-use paths. For shared-use paths, this manual recommends a width of twelve feet. This manual also recommends a two foot shoulder on each side of the path for maintenance vehicles or emergency vehicles. This would widen the path to sixteen feet. The wider path is needed in park settings where there are not roadways to access the shared-use path. This is not the case for our project so we have determined that the widened path is not warranted on these grounds. Furthermore, the twelve feet wide shared use path/trail is consistent with the City's standard detail for Bike and Pedestrian Path that can be found on their website in the Engineering Division of the Department of Public works.
					I hope the City is not building the bridge for access to the City Shops, a hanger for the "South Richland" Sewer Header [at the time of creation; we were assured when the header was install under the Yakima River bed that it was safe and environmently sound.	In the late 1990's, the City of Richland constructed a sanitary sewer line under the Yakima River. This sewer line was located south of the I-82 Bridge. There is also an existing 36" water line under the Yakima River in the vicinity of the Duportail Bridge Project. This water line was constructed under the river over 50 years ago. This waterline serves as the only source of domestic water to the residents and businesses in south Richland. The waterline is deteriorating and needs to be replaced. The Duportail Bridge Project will replace this water line with 2-24" pipes that will be hung on the underside of the bridge.
24	4/3/2013	Victoria Clark	Electronic	Yes	I am concerned about what type of access to trails will remain for equestrians during and after the bridge construction. Have options been made available? This trail segment between Chamna and W.E. Johnson Park are heavily used by equestrians and we would request that access issues be addressed.	During construction, trail segments will remain open as long as is safe to do so. They may need to be temporarily closed but detours will be provided. After construction, access will remain under the bridge and one designated trail will remain on the Corps property rather than the network that currently exists. This will be done at the Corps request in order to provide higher quality habitat along the river. Equestrian access will remain on this trail.
25	3/21/2013	Scott Woodward	Open House Court Reporter		My comment is on page 63 of the Duportail Bridge Aquatic Resources Wildlife and Vegetation Discipline Report, Section 9.1.1.6, it states, "In order to mitigate for the possible loss of habitat, project proposes to restore 0.71 acres of currently disturbed areas and potentially enhance up to 22.6 acres of temporarily disturbed areas through the planting of native species. These native shrubs will provide a food source and shelter for wildlife species." That's the end of the statement from that section.	The amount of area necessary for construction staging has not been finalized at this stage in the design. The largest potential area of impacts, 22.6 acres, has been identified on Figure 11 and any area which is disturbed will be enhanced after project completion. But impacts to native vegetation and habitat will be kept to the minimum amount necessary and may be less than 22.6 acres. If disturbance is not required, the existing plant community will remain and no enhancement will occur. The phrase "potentially enhance" was intended to describe these conditions and that 22.6 acres of enhancement may not be necessary to mitigate for project impacts.
					Now, my statement is, related to that, this is an echo of similar statements in the same document that refer to loss of habitat and restoration. The amount of acres to be restored is not clear and there is no clear outline for restoration, such as specific types of plants, planting techniques, watering schedules, invasive weed management, controlling vehicle access to the area, or a timeline for completion of the restoration. In addition, the phrase "potentially enhance," indicates that it is possible there will be enhancement of some disturbed areas. Based on this language, there is a chance that some habitat will be better than it was before the construction. This is not a very convincing argument for mitigation fulfillment.	Restoration will occur as the final stage of project construction but no specific timeline has been established as the final area of disturbance necessary will influence the duration necessary. The details of the restoration plan have not been determined at this time, however restoration techniques suitable for the region will be used. The plan will be designed to replicate the habitat disturbed, have provisions to ensure survival of the plants, and be approved by the Army Corps of Engineers. Vehicles will not have access to restored areas after completion.
					Second statement: Little or no discussion was included about the contractor laydown yard shown in Figure 6. Project Configuration is the title. Was any consideration given to the adjacent privately owned gravel pit as a laydown yard? That's statement two.	The staging is occurring on the Corps property for several reasons. The proximity to the bridge site will eliminate safety concerns and additional costs of moving materials. Once staging is completed, any disturbed areas will have to be restored. There were areas of the Corps property which were already in need of restoration. By staging in those areas, the project is minimizing the cost of restoration after staging. Staging on the privately owned gravel pit would increase costs and safety concerns.
					Statement three comes from a quote out of the plan, "The project has been designed to create more contiguous open space and riparian areas while maintaining recreational use." That's what the project says, the report says. My question is, please explain how this project creates a more contiguous open space and riparian areas.	The 0.71 acres of currently disturbed area that will be restored are currently portions of the existing trail network on the Corps property. One designated trail will be marked and all other segments will be restored to native vegetation. This will retain recreational use though the consolidated trail, but the restoration to native vegetation and reduced disturbance from human activity will create more contiguous habitat. New roadway has been consolidated to areas near existing and proposed urban development away from the Yakima River to minimize disturbance resulting from the project.
					And I, of course, live right there by the river, and that's going to impact my daily living. I will actually move from that area if this happens, if the bridge is built. No one wants to live right next to such a construction site or, once it's all done, no one wants to live next to that much traffic. I moved there because it was nice and quiet. And I know I'm not the only one who's not going to stay.	Comment noted.

Nr.	Date Received	Submitted by	Comment Method	Response Requested	Comment	Response
26	3/21/2013	Mary Ellen Coulson	Open House Court Reporter		But walking by the river every day, there is a pair of bald eagles that hunt right there at the river. That's not going to happen anymore with a bridge right there. And that's just one tiny aspect of the wildlife in that area. It's going to be completely changed. You can replant all you want, it will not bring back wildlife for 15, 20 years minimum.	The amount of area necessary for construction staging has not been finalized at this stage in the design. The largest potential area of impacts, 22.6 acres, has been identified on Figure 11 and any area which is disturbed will be enhanced after project completion. But impacts to native vegetation and habitat will be kept to the minimum amount necessary and may be less than 22.6 acres. If disturbance is not required, the existing plant community will remain and no enhancement will occur. The phrase "potentially enhance" was intended to describe these conditions and that 22.6 acres of enhancement may not be necessary to mitigate for project impacts. Restoration will occur as the final stage of project construction but no specific timeline has been established as the final area of disturbance necessary will influence the duration necessary. The details of the restoration plan have not been determined at this time, however restoration techniques suitable for the region will be used. The plan will be designed to replicate the habitat disturbed, have provisions to ensure survival of the plants, and be approved by the Army Corps of Engineers. Vehicles will not have access to restored areas after completion.
					I know no one wants projects right in their backyard, but it seems this is frivolous. \$30 million. How do you reconcile spending \$30 million on something like that when there are so many people that are being cut out of very important programs in this city; mental health, physical disability, caregivers. People no longer have the resources to keep the caregivers because of budget cuts. And this all has to do with people's lives. There's no money for profit involved. That's probably why. \$30 million. Money is going in someone's pocket somewhere, lots of money into lots of pockets, but not the pockets that matter. Lots of money into very few pockets. How many government projects have ever come under or in at projected budget? 30 million is just the beginning. I'm not anybody important, but I know all actions have an effect that will ripple out, not just to this city but outside of this city.	Comment noted.
27	3/21/2013	Dawn Bern	Open House Court Reporter		So the comment that I would like to make is in regards to the habitat and the loss, the potential loss of habitat, and the restoration. I understand now, from this meeting, that there aren't details at this moment. So that's-- that's fine, they will be coming. And I wanted to say publically that I'm looking forward to that to see what the planting techniques, the watering schedules, types of plants, you know, the timeline for completion. And, of course, that's a process. I also was interested in a phrase "potentially enhance." When I read that, I wonder, first of all, that "potentially," I'm sure that will be explained further on down the road, I just wanted to point it out. And, again, I am looking forward to having that information available to review and comment.	The amount of area necessary for construction staging has not been finalized at this stage in the design. The largest potential area of impacts, 22.6 acres, has been identified on Figure 11 and any area which is disturbed will be enhanced after project completion. But impacts to native vegetation and habitat will be kept to the minimum amount necessary and may be less than 22.6 acres. If disturbance is not required, the existing plant community will remain and no enhancement will occur. The phrase "potentially enhance" was intended to describe these conditions and that 22.6 acres of enhancement may not be necessary to mitigate for project impacts. Restoration will occur as the final stage of project construction but no specific timeline has been established as the final area of disturbance necessary will influence the duration necessary. The details of the restoration plan have not been determined at this time, however restoration techniques suitable for the region will be used. The plan will be designed to replicate the habitat disturbed, have provisions to ensure survival of the plants, and be approved by the Army Corps of Engineers. Vehicles will not have access to restored areas after completion.
28	3/21/2013	Larry Umthun	Open House Court Reporter		Single Entrance and exit of the Riverpointe Apartment Complex	The single access which exists from the Riverpointe Apartments will be maintained after project completion and will allow left and right turns. The signal at Tanglewood Drive will provide access to surrounding residents which meets the City's standards. The new bridge will improve access by providing a direct route across the river, reducing miles traveled.
					They are building a car wash in the empty lot right as you turn off Duportail. And the way they have it lined up, the only way they can get out of there is to drive up and into the neighborhood. So you're going to really push a lot of traffic up into the neighborhood because they have to make the big loop around and get over to Tanglewood to get back down to get out. So I'm concerned becasue we have a lot of little kids now in our neighborhood.	The project will allow right turns out on Riverstone Drive. Anyone using this carwash from outside of the neighborhood is much more likely to use this route than travel through the neighborhood to reach Tanglewood Drive.
					Duportail and 240 is a real dangerous corner now with all three apartment complexes and the housing back there that's all filling in. When you turn off of 240 onto Duportail to come to any of those three areas, you have to get off on the sholder to make that turn right now because of the speed people are driving on 240. And I've almost been rear-ended a couple of times, along with numerous other people I've talked to. So we would really like to get that turning lae put in before the rest of this, if they could. They need to do something.	A right turn lane will be built to accommodate traffic turning onto Duportail Street as a part of the bridge project. It is not possible to separate the addition of the turn lane from the remaining intersection improvements needed for the project or have funding to construct it sooner than the remainder of the project.

Environmental Assessment Reevaluation

Duportail Street Bridge Project

City of Richland, Washington

Federal Aid Number: STPUS-3440 (001)

This reevaluation was prepared per 23 CFR 771.129(c) because of construction method alterations and other design refinements. The reevaluation documents capture the changes to the regulatory and physical environment that have occurred since the Finding of No Significant Impact (FONSI) was signed as changes to the project.

1. The original Environmental Assessment (EA) was completed October 2012.
2. The FONSI was signed by Federal Highway Administration May 29, 2013.
3. The project will still meet the original intent and proposed changes are minor in scope.

The FONSI determination is still valid.


for Liana Liu, P.E.,
FHWA Area Engineer

Date

5/25/2017

This page intentionally left blank for printing purposes.

NEPA Reevaluation
Duportail Street Bridge Project
City of Richland, Benton County

Since the approval of the Environmental Assessment in 2013, there have been several design changes necessary to the Duportail Street Bridge Project. The bridge has been updated to a new alternative due to construction risks and uncertainties in meeting the schedule and environmental commitments using the previous bridge design. This design eliminates the need for a work bridge and replaces it with a temporary work pad. The table below includes revisions which have been made to the project since the approval of the Environmental Assessment and a summary of which reports could potentially be altered by these changes. Figure 1 includes the location within the project area affected by each change which correspond to the item numbers below. Attached to this document are individual Discipline Memorandums documenting the effects of the design changes.

Item	Original Proposal	Revision Needed	Discipline Report/Topic updated in attachments
1. Bridge Configuration	Trail on upstream side of bridge only	Reconfigured channelization with a sidewalk and independent bike lane on each side of bridge and approach roadways	Biological Assessment Transportation Public Services & Utilities Noise Social/Environmental Justice
Since the initial design, the City has received feedback from the community that there would be better connectivity if we continued the bike lanes and sidewalks along the project corridor. The original design called for pedestrians and bicyclists to cross the bridge with a single multi-use trail on the north side. The sidewalks and bike lanes would end at either end of the bridge forcing pedestrians and bicyclist to cross Duportail to the north side. The remainder of the Duportail corridor has bike lanes and sidewalks on both sides of the roadway and this revised design provides route connectivity and a complete street.			
2. Lighting on Bridge	Pedestrian scale lighting on the trail, single side of bridge. Lighting will be installed below the height of the barrier.	Now have sidewalk on both sides with pedestrian lighting on both sides. Lighting will be installed below the height of the barrier.	Biological Assessment Aquatic Resources, Wildlife, and Vegetation Visual Quality
The addition of sidewalk to the south side of the bridge requires the addition of pedestrian scale lighting which will now be on both sides of the bridge. Lighting is still installed below the height of the barrier and produces no backlighting.			
3. Sidewalk on east near mobile homes and along east side of Tanglewood	No sidewalk	Sidewalk east side of road, south of bridge and along east side of Tanglewood	Transportation Public Services & Utilities Noise Social/Environmental Justice
Since the initial design, the City has received feedback from the community that there would be better connectivity if we continued the bike lanes and sidewalks along the project corridor. The east side segment of sidewalk would tie into the bridge sidewalks. The remainder of the Duportail corridor has bike lanes and sidewalks on both sides of the roadway and this revised design provides route connectivity and a complete street. Sidewalks have been added along the east side of Tanglewood where properties are developed and pedestrian activity is anticipated.			

4. Side slopes	3:1	2:1 slopes were used behind guardrail on permanent easements	Geology and Soils
The slopes within the permanent easements were changed to 2:1 slopes to reduce the permanent impacts of the project.			
5. Bridge water line drain	None	Waterlines on bridge may be drained occasionally for maintenance and will outlet into drainage swale with infiltration trench in same footprint.	Public Services & Utilities Surface Water
The bridge water lines will need to be drained periodically for routine maintenance and inspection. The closest drain point is at the low end of the bridge and the water would be drained to the roadside swales and infiltrated.			
6. Water line	2 ~ 24" diameter water lines on bridge	3 ~ 24" diameter water lines on bridge	Public Services & Utilities
Long range water modeling has shown that a third 24" water main will be needed to meet the forecasted demands of the community. The City has programmed the funding to install the third water main during the bridge construction since the cost to install now would be significantly less than installing it in the future.			
7. Water line	None	A 36-inch casing pipe, to carry a 24-inch waterline and three City utility conduits, will be bored under the TCRY tracks and SR240.	Public Services & Utilities
Long range water modeling has shown that a secondary 24" water main is needed to meet the forecasted demands of the community. Carrying the 24" water main across SR 240 would create a second service line that will tie into future lines being installed by the City. Currently there is only the one-36" water main that services the entire south side of the river.			
8. Water line	None	Existing overflow drain from reservoir to be re-routed to parallel City View Drive and outfall to the existing City storm pond at the City View/Duportail intersection.	Public Services & Utilities Surface Water
The existing overflow drain from the reservoir directly discharges to the Yakima River. The City is re-routing the overflow drain to an existing pond site to eliminate the direct discharge.			
9. Water line	Connect to existing 36" diameter waterline near each end of bridge	Connect to existing 36" diameter waterline near the reservoir location on the south.	Public Services & Utilities
Connection to the existing 36" water main was extended away from the bridge to a more logical point of connection with the system. On the south end the main follows along Duportail and City View to connect in at the direct valving with the reservoir.			
10. Construction Dewatering	none	Necessary treatment will be provided to ensure that all discharge from dewatering (non-surface water) meets State Water Quality Standards.	Surface Water Groundwater
The bottom of the excavation for the sewer lift station is below the water table, and dewatering is needed to construct the lift station.			
11. Lightweight fill	Lightweight fill	Normal weight fill will be used	Geology and Soils
Geotechnical conditions at the site do not require light weight fill to limit settlements, allowing for the use of normal weight fill as backfill.			
12. CID Flume	None	Steel flume to be removed and replaced with concrete section	Section 4(f) Historic/Cultural Resources

During right of way negotiations and design considerations with Columbia Irrigation District, the determination was made that the steel flume portion of the canal on the north side of the bridge would need to be replaced. In order for CID to maintain and operate the canal, transitioning through multiple canal configurations in such short distances would not be feasible. The project will replace the canal under the bridge and to the north end replacing the steel flume which then goes into an underground pipe. This will provide a continuous open channel connecting on either end to existing channels.

13. Bridge Rest Areas	None	1 upstream & 1 downstream on pier 3 over the river	Biological Assessment Transportation Public Services & Utilities Visual Quality Aquatic Resources, Wildlife, and Vegetation
The roadway climbs in grades up to 6.99% across the bridge and 8% on the south side of the bridge for a length of 2050 feet. The sidewalks follow the grade of the road and the City identified a spot at mid-point along the grade to provide a rest area for pedestrians.			
14. Gravel Pad	Temporary work bridge and piling in river	A temporary gravel pad will replace work bridge in the river. No piles will be driven in the river, but temporary reaction piles will be driven through temporary gravel work berm.	Biological Assessment Section 4(f) Surface Water Floodplain Aquatic Resources, Wildlife, and Vegetation Historic/Cultural Resources
Due to the subsurface conditions across the river, specifically that the depth of the bedrock is too shallow to provide lateral support for work bridge piles. A temporary work bridge was deemed to be too difficult to construct; and therefore, gravel pads will be required to construct the bridge.			
15. Pier 2 relocation	Pier 2 below OHW	Pier 2 relocated above OHW, on south slope	Biological Assessment Geology and Soils Surface Water Floodplain Aquatic Resources, Wildlife, and Vegetation
Without the ability to construct a temporary work bridge across the river, it is not feasible to construct Pier 2 below OHW at the base of the southern hillside; therefore, Pier 2 was moved above OHW on the hillside below the CID canal.			
16. Wall	None	Wall on spread footings on south slope above OHW. Wall used for excavation to construct Pier 2.	Geology and Soils Section 4(f) Visual Quality
The wall is needed to create space to construct the foundation for Pier 2.			
17. Geotextile Fabric	Used at base of fill	Geotextile fabric will not be used at base of fill	Geology and Soils
Geotechnical conditions are such that the use of geotextile fabric is not needed to stabilize the fill slopes.			
18. Signalization	No signalization at City View Drive	Signalization required at City View Drive	Transportation Noise Air Energy

The City received concerns from the residents at the mobile home park that they would have a difficult time exiting the park if there was no signal there. It makes the most sense to install the signal at the time of Duportail opening rather than just a couple years after it opens.

19. Construction Deliveries	9a-3pm for construction material deliveries	7am-5pm	Transportation Noise Social/Environmental Justice
The contractor will work shifts longer than 9A-3P, and will need the ability to deliver construction materials during working hours from 7A-5P.			
20. Construction Duration	500 days	2 years 8 months	Biological Assessment Land Use Section 4(f) Social/Environmental Justice
Two in-water work windows are required to construct the foundations for the bridge and to erect the bridge girders; therefore, the total duration of the project is extended.			
21. Re-grading of SR240 to match railroad tracks	Raise railroad tracks 2.5 feet to match SR240	Approximately 500 feet in either direction from Duportail Street Intersection. Grade would drop 1.5-2 feet. Changes would reduce alteration to railroad grade to meet intersection.	Section 4(f) Transportation Public Services and Utilities Noise Social/Environmental Justice
The original design concept was to raise Duportail Street and the railroad tracks approximately 2.5 feet to tie into SR 240. After further design development and right of way evaluations, it was determined that matching into the railroad track by lowering SR 240 would produce a better overall graded area. Raising Duportail and the railroad tracks would produce excessive fill heights around existing residential developed properties. And raising the railroad crossing would require reconstruction of the track for approximately 2200 feet. Work along SR 240 was in the original project scope and lowering the overall grade stays within the milepost limits. Although the construction durations are longer, the overall footprint of the intersection remains the same.			
22. Detours	None	Traffic Detours will be in place for up to 3 months	Transportation Social/Environmental Justice Land Use
A detour is needed to reconstruct the intersection of Duportail and SR240. Traffic will be detoured across the new bridge on the west side of the intersection and will be detoured along City streets on the east side. No transit routes will be impacted by the detour.			



11, 17, 19, 20 Project Wide, No Specific Location

This page intentionally left blank for printing purposes.

Below are discussions of each discipline report and topic addressed in the EA. For each report, a determination has been made on the level of documentation which is necessary to update the NEPA determination based on the proposed changes.

Discipline Reports

Biological Assessment

Several of the proposed changes have the possibility of altering the effects documented to the two ESA-listed fish species present within the project area, bull trout and steelhead trout. These include the changes in bridge configuration, addition of more pedestrian level lighting, the construction of crane pads, and the relocation of Pier 2. These changes will result in impacts that are the same or reduced based on the proposal. The elimination of the work bridge by including the crane work pads reduces the piles within the wetted channel from 90 to 8, all of which will now be driven through the crane pad in place during the first work window. The crane pads will temporarily impact 24,030 square feet within ordinary high water during the first work window and 28,250 square feet during the second work window. The crane pads will be created with streambed mix as a foundation followed by light loose riprap or quarry spalls. The area between the side slope of the rock pads and supersack work isolation will be filled with streambed mix to eliminate open areas of water that could become a fish trap. The purpose of the streambed mix foundation is to provide a separation between the existing bottom channel and rip rap / quarry spall crane pad. The rip rap will be removed until the only material being brought up by the excavator is streambed mix. This will ensure that all angular material is removed. A small portion of the streambed mix will be left in place.

The elimination of the work bridge is anticipated to reduce the potential for physical injury to fish although additional fish exclusion and increases in turbidity will occur. The additional 0.39 acres of riparian vegetation which may be temporarily removed for crane pad construction is already highly disturbed due to its proximity to the boat launch parking lot and provides little habitat value. The removal of Pier 2 from below ordinary high water eliminates the associated permanent impacts to substrate within the wetted channel. The current design has two piers below ordinary high water, Pier 3 is entirely below and Pier 4 is partially below.

A memo has been prepared to address the potential impacts of the widened bridge, additional pedestrian lighting, crane pads within the river, and the additional clearing required. The memo also addresses the yellow billed cuckoo which has been listed since completion of Section 7 consultations. The request for consultations with the USFWS and NMFS to be re-initiated were sent on March 23, 2017. The changes to the project are not significant enough to require issuance of new determinations from either of the services. The USFWS responded via email on April 19, 2017 that the previous consultation is still valid. NMFS also responded that reinitiating is not required on May 19, 2017. This letter also removed the terms and conditions related to pile driving activities from the consultation record.

Land Use

Changes to the project which could potentially change the previous analysis include the change in construction duration and changes in detour for grading on SR 240.

This project will have unavoidable short-term effects on surrounding land uses from construction and construction staging. The project may limit enjoyment of outdoor activities or events. Construction effects would include increased noise levels from construction equipment, changes

in access to individual properties, increased dust from vegetation removal/grading, and work zone traffic control measures. Staging areas will be located within property owned by the City and the USACE as well as right-of-way. The proposed changes will include a longer construction duration of approximately 2 years 8 months. Short term impacts will remain the same and will occur sporadically during construction. The proposed detour for construction on SR 240 will be necessary for approximately 3 months and are not expected to create significant delays or access issues which could impact land use in the area.

The proposed project is consistent with, and would assist in implementing, goals and objectives found in the applicable land use plans and regulations. Since the EA was approved, additional development has occurred within the project vicinity. The development occurring from 2013-2017 is approximately 12 acres per year. This is a slight increase from the 9.59 acres per year which was occurring in 2013 but is consistent with the development pattern which was described in the EA. It is expected that this increase in the rate of development is temporary due to construction at the intersection of Duportail Street and Queensgate Drive in anticipation of the bridge construction. The construction of the project will support access to these businesses and the overall land use goals of the area.

A memo has been provided in order to reaffirm the land use in the area and potential impacts from the detour and project duration. No changes in land use are expected due to these minor effects.

Section 4(f) Evaluation

The project had received *de minimis* determination for four Section 4(f) resources in the project area. An update memo has been provided. No proposed changes will affect the *de minimis* determination for the By-Pass Shelterbelt Park or the WDFW boat launch.

The Corps of Engineers property will have minor additional impacts. The temporary crane pads will require clearing of additional area on the Corps property which will be restored following construction. The project will also require that construction continue for a longer duration on the property. Work on the Corps property is not anticipated to continue for the entire construction period, it is expected to last 2 years 3 months, an increase of three months. The original *de minimis* determination had eight prescriptive minimization measures which must be adhered to in order to comply with the determination. The exact footprint of impacts was never determined, only that any disturbed areas resulting from project activities or previous activities would be restored or re-vegetated to natural conditions. The project will still comply with all minimization measures, including pedestrian level lighting on the bridge. Recreational use of the Corps property will be limited during some portions of the construction duration. There will be open and unobstructed channel for recreational users of the Yakima River to pass through during the time the crane pad is in place. During placement of the crane pad users will be allowed to pass by. For safety, no users will be allowed to pass under the bridge when a girder is being placed and access to the area will be halted briefly. Signage and a river flagger will be provided as necessary. The Corps reviewed the proposed changes and issued an updated *de minimis* letter on May 16, 2017.

The CID canal was initially proposed to be enclosed. As part of the project changes, the canal is now proposed to be replaced from the steel flume to approximately 50 feet east of the bridge. The steel canal flume will be replaced with a concrete section. These changes have been made as requested by the CID. Analysis of the effects to the CID canal has been undertaken as part of

consultation conducted with DAHP for the Section 106 consultation updates. DAHP has reviewed the proposed changes and concurred that the project will have “no adverse effect” on the canal.

The Shelterbelt Park will require grading of portions of the trail at the intersection where the trail crosses Duportail Street. The changes will not impair the use of the facility. Temporary impacts are similar to those in the original project and a detour will be provided for pedestrians and bicycles. The original *de minimis* determination will still apply.

No changes to the project impact the WDFW boat launch. Temporary closures of the boat ramp may still be necessary during construction to ensure public safety but these closures will not be of any longer duration due to project changes. The boat launch will remain open during the majority of construction in order to maintain the community’s access to the Yakima River and WDFW will be notified of any temporary closures. Access will be maintained with the reconfigured parking lot which has not been altered since approval of the EA.

Transportation

Many of the changes to transportation are for pedestrians and bicycles including the inclusion of sidewalk and independent bike lanes on the bridge in both directions, the inclusion of sidewalk east of the road south of the bridge and along Tanglewood, and the inclusion of rest areas on the bridge above Pier 3. These changes improve pedestrian and bicycle mobility.

Grading on SR 240 will require changes to the traffic control necessary for the project. Grading will lower the roadway up to two feet. Traffic in each direction will be reduced from three lanes to two lanes and traffic from Duportail Street will be detoured for approximately 3 months. The detours will be approximately 2-3 miles. During construction, the signal will not be functioning and traffic on SR 240 will not be required to stop. It is likely that traffic on SR 240 will not be significantly delayed by the reduction of one lane.

The extension of delivery hours will not create significant impacts to traffic. The effects from construction related traffic will be minimized by staging equipment and delivery vehicles away from residential driveways. Work zone traffic control will be provided to assure safe and orderly passage of traffic and pedestrians.

It has been deemed necessary to include a signal at the intersection of City View Drive and Duportail Street to allow improved access to the mobile home park and other properties.

An evaluation of the previous traffic modelling was conducted to determine if the modeling and assumed growth rates are reasonable and still supports the project. Based on the results, it appears that the original modeling is likely conservative based on the actual counts collected four years after the original opening year projections. The projected growth rate and counts were utilized to calculate the projected traffic volume for the updated 2040 design year. These new projections for 2040 still support construction of the project as they show continued increases in traffic within the entire project area when compared to the original projections. A memo has been provided to document impacts due to the signal and proposed detour as well as the current traffic conditions.

Public Services & Utilities

Several design changes will alter public services and utility design and locations including sidewalk and bicycle lanes, the inclusion of rest areas, and water lines throughout the project area. Power conduits under SR 240 will need to be lowered to allow the roadway to be lowered. While these changes are likely minimal, there are many of them and therefore a memo has been provided to document all changes and potential impacts to services.

Surface Water

Several changes to the project will alter the effects determined for surface water. Short-term impacts to water quality may occur as a result of an increase in sedimentation/turbidity due to in-water work. This will be limited to the placement of supersacks and construction of crane pads during the in-water work window (July 1-September 30). Increases in sedimentation are not anticipated to exceed the water quality standards set for the 401 permit from ECY. In-water work for Pier 2 has been eliminated due to its relocation. A Section 404 permit will be acquired from the USACE prior to construction. A letter was received from the USCG on May 9, 2017 which confirms that a Coast Guard bridge permit will not be required for this project.

Dewatering during lift station construction will now require discharge, which will receive all necessary treatment in order to meet State Water Quality Standards. Several alterations to the amount of impervious surface and treatment locations have occurred as well as additional water from water line draining and overflow routed through the area. Impacts created by these changes are likely to be minimal and a memo documenting changes has been provided.

Floodplain

The placement of the crane pads will occur within the floodplain. A memo has been prepared to address the temporary impacts and net rise expected due to the placement of gravel crane pads. Preliminary calculations show that the net rise is minimal, as the crane pad will only be in place during the in-water work window (July 1-September 30), not during high water conditions.

The changes result in a reduction of impacts to the floodplain long term due to the removal of Pier 2 from the floodplain. As included in the EA, the City will submit a Letter of Map Revision to FEMA based on “as-built” drawings once the bridge is constructed.

Visual Quality

The inclusion of sidewalks on both sides of the bridge will result in the need for lighting on both sides of the bridge. In order to minimize possible impacts, pedestrian level lighting installed in the barrier will be the only lighting used along the pathway for the length of the bridge. This will minimize the light spillage from the bridge and therefore, effects to visual resources is anticipated to be insignificant. The other changes in bridge design will also have minor impacts to visual resources. A memo documenting potential impacts due to the configuration of the bridge, the wall on the south slope, and additional lighting has been provided.

Historic/Cultural Resources (Section 106)

Several changes to the proposed APE footprint have resulted from the updated project. The updated APE was previously submitted and an ARPA permit has been issued by the USACE to conduct a survey on the Corps property. An updated cultural resource survey has been conducted of the APE footprint and concurrence from USACE on no adverse effect to historic properties was received on 4/26/17.

As previously discussed, the CID canal is now proposed to be replaced from the steel flume to approximately 50 feet east of the bridge. The steel canal flume will be replaced with a concrete section. These changes have been made as requested by the CID. Consultations with DAHP have been undertaken regarding these changes as well as the additional APE area. DAHP concurred that the project will have “no adverse effect” on the canal on 4/19/17.

Aquatic Resources, Wildlife, and Vegetation

Three of the proposed changes have the possibility of altering the effects documented to fish, wildlife, and vegetation. These include the addition of more pedestrian level lighting, the construction of crane pads, and the relocation of Pier 2. These changes will result in impacts are the same or reduced based on the proposal.

The elimination of the work bridge by including the crane work pads reduces the piles within the wetted channel from 90 to 8, all of which will now be driven through the crane pad in place during the first work window. The crane pads will temporarily impact 24,030 square feet within ordinary high water during the first work window and 28,250 square feet during the second work window. The crane pads will be created with streambed mix as a foundation followed by light loose riprap or quarry spalls. The area between the side slope of the rock pads and supersack work isolation will be filled with streambed mix to eliminate open areas of water that could become a fish trap. The purpose of the streambed mix foundation is to provide a separation between the existing bottom channel and rip rap / quarry spall crane pad. The rip rap will be removed until the only material being brought up by the excavator is streambed mix. This will ensure that all angular material is removed. A small portion of the streambed mix will be left in place.

The elimination of the work bridge is anticipated to reduce the potential for physical injury to fish although additional fish exclusion and increases in turbidity will occur. The additional 0.39 acres of riparian vegetation which may be temporarily removed for crane pad construction is already highly disturbed due to its proximity to the boat launch parking lot and provides little habitat value. This area will be replanted with native vegetation and all areas of braided trails within the Corps property will be consolidated into one marked trail. All areas of the Corps property which are disturbed by contractor staging or were previously disturbed will be restored with native vegetation. The removal of Pier 2 from below ordinary high water eliminates the associated permanent impacts to substrate within the wetted channel. The current design has two piers below ordinary high water, Pier 3 is entirely below and Pier 4 is partially below. A memo has been prepared to address the potential impacts of lighting, crane pads within the river, and the additional clearing required.

Geology & Soils

Additional exploration has been completed on the southern slope to map the rock surface. Due to the subsurface conditions across the river, there were concerns raised with constructability, cost, and safety of the work bridge. The depth of bedrock in the area is too shallow to provide lateral support of the work bridge. This resulted in the elimination of the work bridge and inclusion of crane pads for bridge construction.

Most of the design changes which will alter evaluations of geology and soils have occurred at the southern embankment under the bridge, between the CID canal and the river. A retaining wall will be constructed in conjunction with the Pier 2 foundation. Portions of the hillside will be removed up to a depth of 30 feet. This has also resulted in the use of normal weight fill rather

than the lightweight which was initially proposed. Side slopes used behind guardrail on permanent easements have been changed to 2:1 to reduce impacts and geotextile fabric will not be used at the base of fill slopes.

Geologic conditions in the project area were the major factor which drove many of the proposed changes. In order to document these concerns and address all potential impacts due to the design elements which have been altered, a memo updating Geology & Soils has been provided.

Social/Environmental Justice

A memo has been prepared to provide additional documentation of impacts from the altered detour, duration of the project, scheduled work hours, and potential noise impacts from construction or roadway alignment alterations. In addition, the memo assesses changes in the area demographics. No new minority-oriented businesses or social services were identified. No public Section 8 housing has been constructed. The community surrounding the project now has a larger low-income population than included in the EA. The largest minority community continues to be the Hispanic community, which has increased as a proportion of the population since 2008.

No changes result in additional negative effects to surrounding communities. The elimination of the work bridge will reduce the amount of noise created by pile driving. The reconfigured bridge channelization will include sidewalks and bike lanes on each side of the bridge and will provide improved connectivity for pedestrians and bicyclists. The additional construction on SR 240 will require a temporary detour of traffic on side streets. No transit will be impacted by the proposed detour.

Noise

The addition of sidewalks has increased the width of the bridge slightly; however, the roadway centerline has been adjusted less than two feet in any location from the previous alignment. This amount of shift is not significant in the TNM model and will not create significant amount of change to noise levels at any receiver.

The proposed grading of SR 240 at the intersection with Duportail Street will lower the roadway by up to two feet in some locations. No additional change in alignment will occur. This shift is within the amount of elevation variation suggested for TNM modeling from actual roadway elevations in the 2014 WSDOT guidance and will not create a significant change to noise levels at any receiver. The two closest receivers modeled are almost 300 feet from any change in proposed grades. The grading will not create any changes to the line of sight to the roadway from surrounding receivers. Any minor changes to noise levels in area would be reductions as the existing wall along SR 240 would become slightly more effective in reducing noise levels on the trail.

The change of traffic control to a proposed signal at City View Drive would have an insignificant effect on the results. The hours of construction deliveries have been lengthened to 7am-5pm. Construction noise is exempt from the City of Richland's municipal code during these hours. Any potentially constructed receivers in the project area which were constructed after the date of public notice does not have to be considered for potential impacts.

An evaluation of the previous traffic numbers was conducted and determined that the traffic modeling and assumed growth rates were reasonable. Based on the results, it appears that the original modeling is a conservative estimate of traffic in the area and traffic has not significantly increased based on the actual counts collected four years after the original opening year projections. Because the traffic counts do not show a significant increase over traffic included in the noise study, the previous noise modelling is still valid.

Project alterations will not result in significant changes to the noise results since the FONSI was issued. No new receivers have been constructed along the project corridor. No further analysis is necessary.

Covered in the EA

Several topics did not previously require separate discipline reports and were addressed in the EA. Each of these topics is identified below. None of these topics will be altered in a significant way by the proposed changes or require further documentation. The rationale for each topic is included below.

Air Quality

The addition of a signal at the intersection with City View Drive will result in a minor increase in vehicle idling time. However, the project is not in a maintenance or non-attainment area for any pollutant and meets regional conformity for air quality. The project is still expected to have a long-term beneficial impact on air quality because of reduced local vehicular emissions. No further analysis is necessary.

Hazardous Materials

A search of Ecology's Facility/Site Atlas was conducted to determine if new potential sources of contamination have been identified since the completion of the EA. Based on this search, no additional locations were identified within a 0.5-mile radius of the project. The project is not expected to impact any hazardous waste material, as there are no known sites in the project area.

During construction, there is risk of hazardous material spills. It is anticipated that large cranes and shaft drilling equipment may not be able to be moved at the end of each shift. Therefore, this equipment will require a containment liner be placed under it to capture any oil drips and prevent a spill of fuel onto the berm during refueling. The containment area will be able to hold entire fuel load of equipment. No additional analysis is necessary.

Energy

One of the proposed changes will create a minor change in vehicle idling time, the inclusion of a signal at the intersection with City View Drive. However, the proposed project is expected to have a long-term beneficial impact on energy use. The project will provide a more direct route across the Yakima River for residents in the area, reducing miles traveled. The project will also result in reduced time spent idling by decreasing traffic congestion. This will be accomplished by increasing capacity, altering the traffic flow through the area, removing existing choke points, and reducing the number of cars on the road by providing pedestrian and public transportation facilities. This will create a reduction in gasoline and diesel consumption. However, the overall effect of the project will still be beneficial. None of these beneficial impacts have been altered by proposed changes to the project. No further analysis is necessary.

Wetlands

No wetlands are found within the footprint of the project. Additional areas which will have fill for the crane pad have been previously disturbed by activity adjacent to the parking lot and are not suspected to be wetlands. All additional area of fill for the gravel pad are below ordinary high water of the river. Areas above ordinary high will potentially be cleared but no fill will be placed. No further analysis is necessary.

Groundwater

The construction of the pump station will require temporary dewatering of the area to occur. This water will be tested for turbidity and released into the Yakima River. No long-term effects will occur due to this action and no further analysis is necessary.

Economics

The construction of the proposed project will provide temporary job creation and economic stimulus to the area. Jobs created by the project occur in different time periods over the course of project development and construction. Direct construction jobs would be limited to the construction period and any indirect jobs are expected to end within six months of project completion. No changes in the proposed project will alter the number of jobs created or economic effects to the community. No further analysis is necessary.

EA2017-07

ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Adoption for ___ DNS ___ EIS X Other - FONSI

Description of current proposal: Duportail Street Bridge Project consisting of the construction of a new four lane bridge with independent bicycle lanes and sidewalks across the Yakima River; extension of Tanglewood Drive eastward approximately 700 feet east and 1,700 west of Duportail Street; installation of a traffic signal at the intersection of Duportail Street and Tanglewood Drive; upgrade of the intersection of Duportail Street and SR 240; construction of a new access road to connect Shoreline Village apartment complex and Desert Streams Bible Church to Tanglewood Drive; construction of 3 water mains attached to bridge; removal and replacement of steel irrigation flume; construction of a sound wall along Duportail Street fronting the Hills Mobile Home Park; reconfiguration of a parking lot for an existing boat launch and designation of a single nature trail and restoration of disturbed areas with native vegetation.

Proponent City of Richland

Location of current proposal: The project would connect segments of Duportail Street on the north and south sides of the Yakima River.

Title of documents being adopted: Environmental Assessment for the Duportail Street Bridge Project, February 2013; FONSI signed by Federal Highway Administration on May 29, 2013; Environmental Assessment Reevaluation for the Duportail Street Bridge Project, signed by the Federal Highway Administration, May 25, 2017.

Agency that prepared document being adopted: Federal Highway Administration

Date adopted document was prepared: May 29, 2013

Description of document (or portion) being adopted: Environmental Assessment, and Finding of No Significant Impact for the Duportail Street Bridge Project and Re-evaluation of the Environmental Assessment following minor changes to the design of the Duportail Street Bridge Project, with determination from the Federal Highway Administration that the FONSI determination remains valid.

If the document being adopted has been challenged (WAC 197-11-630), please describe: Not applicable

The document is available to be read at (place/time) The City of Richland Development Services Office, 840 Northgate, Richland during the hours of 8:00 a.m. to 5:00 p.m. Monday-Friday, or online at: <https://www.ci.richland.wa.us/departments/community-development-services/development-services/duportail-bridge>

The City has identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision maker.

Name of Agency adopted document: City of Richland

Responsible Official: Rick Simon
 Position/Title: Development Services Manager
 Address: P.O. Box 190, Richland, WA 99352

Phone: 942-7596

Date: June 15, 2017 Signature: _____



Federal Highway Administration

FINDING OF NO SIGNIFICANT IMPACT
for
DUPORTAIL STREET BRIDGE
BENTON COUNTY, WASHINGTON

Issued Pursuant to 42 U.S.C. 4332 (2)(c) and 23 U.S.C. 128 (a)

This action complies with Executive Order 11988, Floodplain Management, the National Historic Preservation Act, the Department of Transportation Act of 1966, and Executive Order 12898, Environmental Justice.

The Duportail Street project will construct a new four-lane bridge and a pedestrian/ bicycle path on the upriver side of the bridge. The project will also extend Tanglewood Drive eastward approximately 700 feet east and 1,700 feet west of Duportail Street. Sidewalks will be installed where necessary to create a seamless pedestrian network in the project area. It will upgrade the intersection of Duportail Street and SR 240, install a signal at the intersection of Duportail Street and Tanglewood Drive, and build new access to Tanglewood Drive from properties south of Duportail Street. The existing water main, which crosses the Yakima River at this location, will be replaced with a water main onto the new bridge. The parking lot for the existing boat launch will be reconfigured and one nature trail will be designated.

The Federal Highway Administration (FHWA) has determined that this proposal to construct a bridge will have no significant impact on the human or natural environment. This Finding of no Significant Impact (FONSI) is based on the February 2013 Environmental Assessment. The environmental assessment was independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, impacts of the proposed project, and appropriate mitigation measures.

The environmental assessment was released for public comments on March 3, 2013 and a public hearing was held on March 21, 2013. The public notice is included in Attachment A, and the distribution list for this notice is included in Attachment B. There were 28 comments submitted using the forms at the hearing, court recorder, and most popularly the online form.

Less than half of the comments expressed opposition to the project. The remaining comments were evenly split between support for the project and questions or concerns. The main question topics were the riparian area impacts and mitigation, the bicycle/pedestrian pathway and sidewalks, and traffic management in the neighborhood north of the project. Opposition comments were generally from nearby residents or those concerned about the cost of the project. The comments and a response matrix are included as Attachment C.

A biological assessment was prepared to evaluate project effects on species protected under the Endangered Species Act. The National Marine Fisheries Service (NMFS) submitted a biological opinion dated October 10, 2012 determining that the project "may affect, is likely to adversely affect" Middle Columbia River steelhead and their designated critical habitat. NMFS determined that effects from the project will not jeopardize the continued existence of the species. Reasonable and prudent measures to minimize incidental take have been incorporated into the project.

The effect determination of "may affect, but is not likely to adversely affect" was made in the biological assessment for bull trout and their designated critical habitat. The United States Fish and Wildlife Service submitted a letter dated July 2, 2012 concurring with the effects determination since the project related effects are considered discountable.

The Department of Archaeology and Historic Preservation (DAHP) has reviewed the documentation on cultural resources in conformance with Section 106 of the National Historic Preservation Act (as amended) and its implementing regulations 36 CFR 800. The Department of Archaeology and Historic Preservation concurred with WSDOT's determination that the project will have "no adverse effect" on historic properties per their letter dated June 3, 2010.

FHWA has determined that with the proposed mitigation, the project's uses of Section 4(f) resources are *de minimis* and therefore no Section 4(f) evaluation is required. The US Army Corp of Engineers concurred with the FHWA *de minimis* determination for the use of property under their jurisdiction on April 26, 2011. The Washington Department of Fish and Wildlife concurred on February 24, 2012 that the project's use of the public boat launch will be *de minimis*. On June 3, 2010, DAHP determined that the project will have no adverse effect on the Columbia Irrigation District Canal. The Richland Parks Department concurred on December 21, 2012 that the project will have a *de minimis* use of the By-Pass Shelterbelt Park property.

The EA, along with the comment response matrix included in this FONSI provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope and content of the Environmental Assessment.

5/29/2013
Date of Approval

 
Liana Liu, P.E., P.T.O.E.
Area Engineer
Federal Highway Administration
Washington Division

The following persons may be contacted for more information concerning this document:

Liana Liu, P.E., P.T.O.E.
Area Engineer
Federal Highway Administration
Washington Division
711 S. Capitol Way, Suite 501
Olympia, WA 98501
(360) 753-9553

Kathleen B. Davis
Director,
Highways and Local Programs
Washington State Department of Transportation
P.O. Box 47331
Olympia, WA 98504-7331
(360) 705-7871

Pete Rogalsky, P.E.
Public Works Director
City of Richland
840 Northgate Drive
Richland, WA 99352
(509) 942-7500



File No. EA2017-07

CITY OF RICHLAND
Determination of Non-Significance

Description of Proposal: Duportail Street Bridge Project consisting of the construction of a new four lane bridge with independent bicycle lanes and sidewalks across the Yakima River; extension of Tanglewood Drive eastward approximately 700 feet east and 1,700 west of Duportail Street; installation of a traffic signal at the intersection of Duportail Street and Tanglewood Drive; upgrade of the intersection of Duportail Street and SR 240; construction of a new access road to connect Shoreline Village apartment complex and Desert Streams Bible Church to Tanglewood Drive; construction of 3 water mains attached to bridge; removal and replacement of steel irrigation flume; construction of a sound wall along Duportail Street fronting the Hills Mobile Home Park; reconfiguration of a parking lot for an existing boat launch and designation of a single nature trail and restoration of disturbed areas with native vegetation.

Proponent: City of Richland

Location of Proposal: The project would connect segments of Duportail Street located both north and south of the Yakima River.

Lead Agency: City of Richland

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

() There is no comment for the DNS.

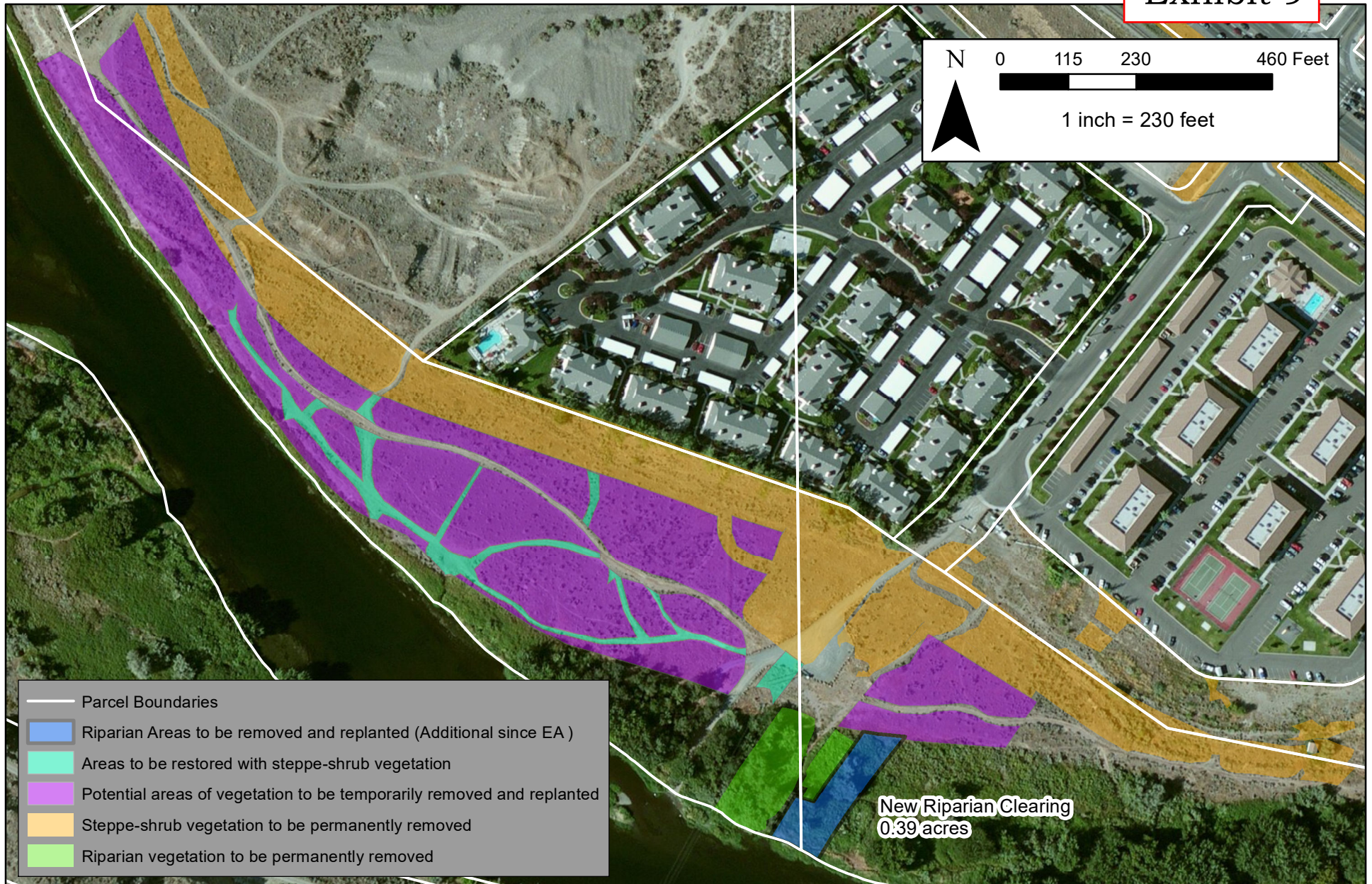
(X) This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for fourteen days from the date of issuance, which is June 15, 2017.

() This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

Responsible Official: Rick Simon
Position/Title: Development Services Manager
Address: P.O. Box 190, Richland, WA 99352
Date: June 15, 2017

Signature 

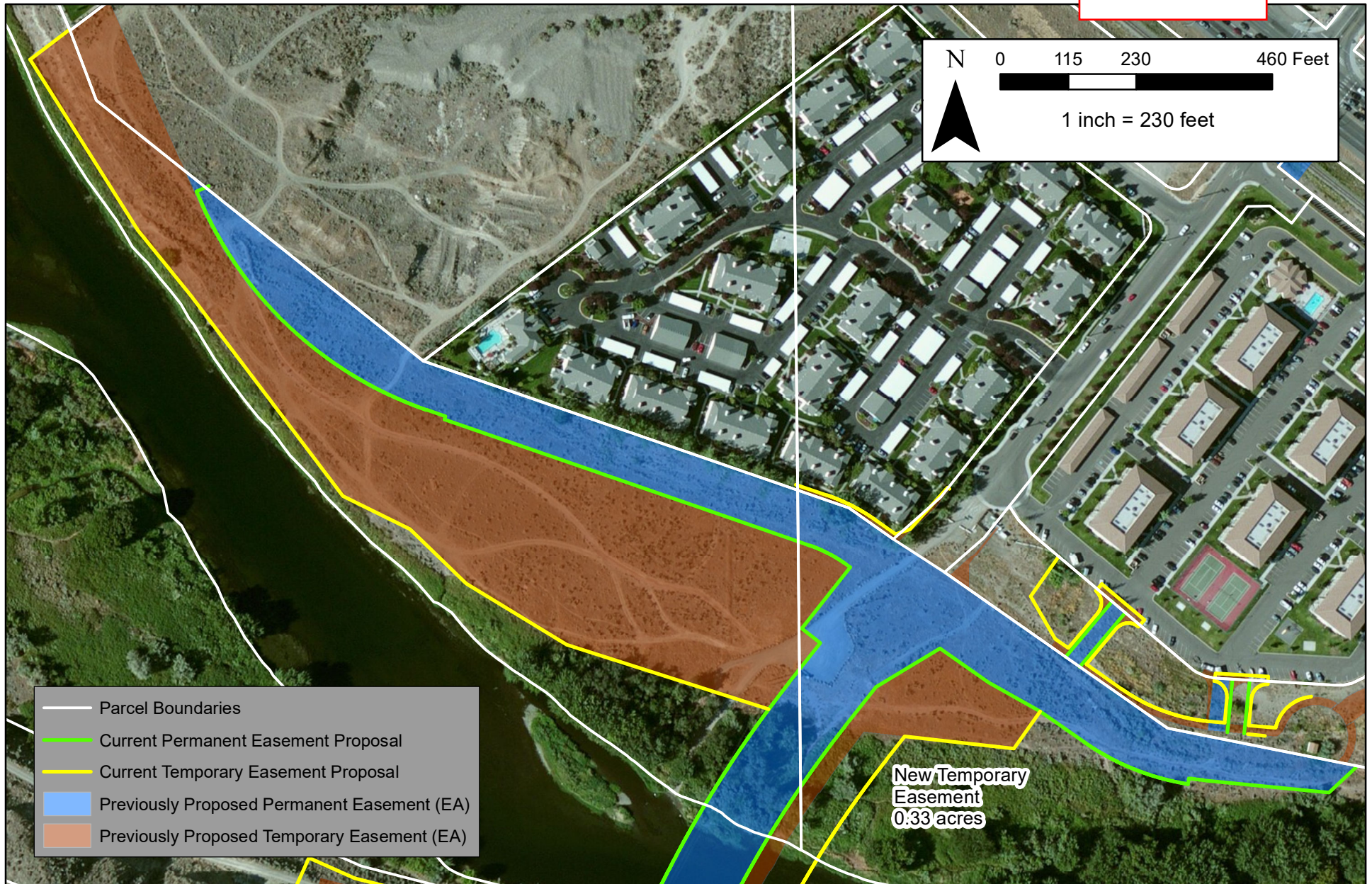
Exhibit 9



**Figure 1: Vegetation Clearing and Restoration
USACE Property**

Duportail Street Bridge Project
City of Richland

Exhibit 9



**Figure 2: Temporary and Permanent Easements
USACE Property**

*Duportail Street Bridge Project
City of Richland*



HEARING EXAMINER AGENDA ITEM COVERSHEET

Meeting Date: 07/27/2017

Agenda Category: New Business – Public Hearing

Prepared By:

Subject:

Z2017-103 - A change in zoning on the plat of Sunshine Ridge located at the north end of Sunshine Ridge Road from Badger Mountain South to R1-12 Single Family Residential. Applicant: Dennis Sawby Construction, LLC

Department:

Community & Development Services

Recommended Motion:

Staff recommends approval of the requested change in zoning.

Summary:

Dennis Sawby Construction, LLC has applied for a change in zoning on 7 lot subdivision known as the Plat of Sunshine Ridge, located at the northern end of Sunshine Ridge Road. The application seeks to change the zoning from a Badger Mountain South designation to a R1-12 Single Family Residential district. A staff report and application are attached.

Attachments:

1. Staff Report
2. Application
3. Site Photos

**CITY OF RICHLAND DEVELOPMENT SERVICES DIVISION
STAFF REPORT TO THE HEARING EXAMINER**

GENERAL INFORMATION:

PROPOSAL NAME: Dennis Sawby Construction, LLC Rezone Application

LOCATION: Plat of Sunshine Ridge, located at the northern terminus of Reata Ridge Road

APPLICANT: Dennis Sawby Construction, LLC

FILE NO.: Z2017-103

DESCRIPTION: Request to change zoning on 5 acre site from Badger Mountain South to R1-12 Single Family Residential

PROJECT TYPE: Type 3 Site-specific rezone

HEARING DATE: July 27, 2017

REPORT BY: Rick Simon, Development Services Manager

RECOMMENDED ACTION: Approval.

Note: The application materials and public notice indicate that the requested zone change is to the R1-10 Single Family Residential district. In fact, the intent was to zone the subject property to be the same as the adjacent Reata Ridge subdivision, which is zoned R1-12 Single Family Residential. This report therefore describes the proposal as a zoning change to R1-12. The only difference between the R1-10 district and the R1-12 district is lot size, with R1-10 allowing 10,000 square foot lots and R1-12 allowing 12,000 square foot lots.



Figure 1 - Vicinity Map

DESCRIPTION OF PROPOSAL

Dennis Sawby Construction, LLC has filed a rezone request to change the zoning classification of a 5 acre site from Badger Mountain South to R1-12 Single Family Residential. The site has been recently subdivided into 7 single family residential lots known as the Plat of Sunshine Ridge. The applicant has indicated an intention to build single family homes on these seven lots.

The lots are accessed via a cul-de-sac at the end of Sunshine Ridge Road. Lots are served with city water and on-site septic systems and average 25,875 square feet in area. A 50 foot equestrian trail is located along the eastern boundary of the plat, which forms an extension of an existing trail that runs along the eastern boundary of the adjacent Reata Ridge plat. The northern portion of the site (Tract A) serves as a storm water detention facility.

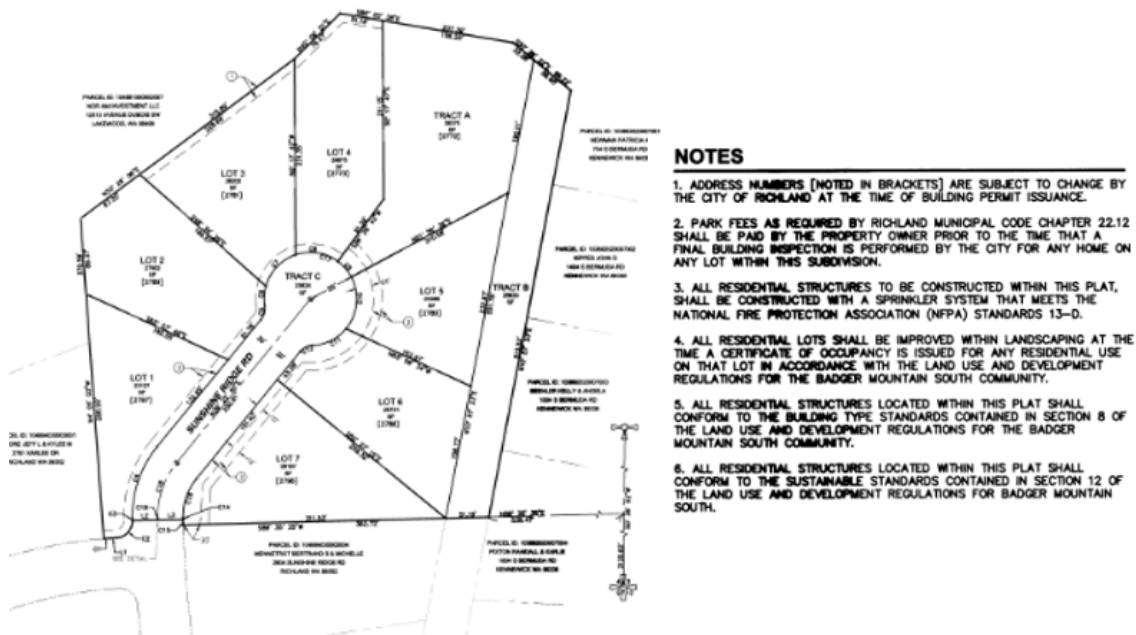


Figure 2 – Plat of Sunshine Ridge

SITE DESCRIPTION

The property has been improved with a paved cul-de-sac and the extension of water and electrical power lines. A fire hydrant is located in the cul-de-sac and a storm drainage facility has been constructed on-site. No other improvements have been constructed to date.

The property is located along a natural drainage way that drains from the west to the east. The northern portion of the site is situated at the lowest elevation and serves as the storm drainage tract. The existing development patterns in the area do not provide for access onto the County street system to the east. The only access to the property is through the Reata Ridge subdivision. Both Sunshine Ridge Road and Karlee Drive extend south through the Reata Ridge subdivision and provide connection to Reata Road.

A natural drainage way limits the potential for the future extension of an access road to the west and north.

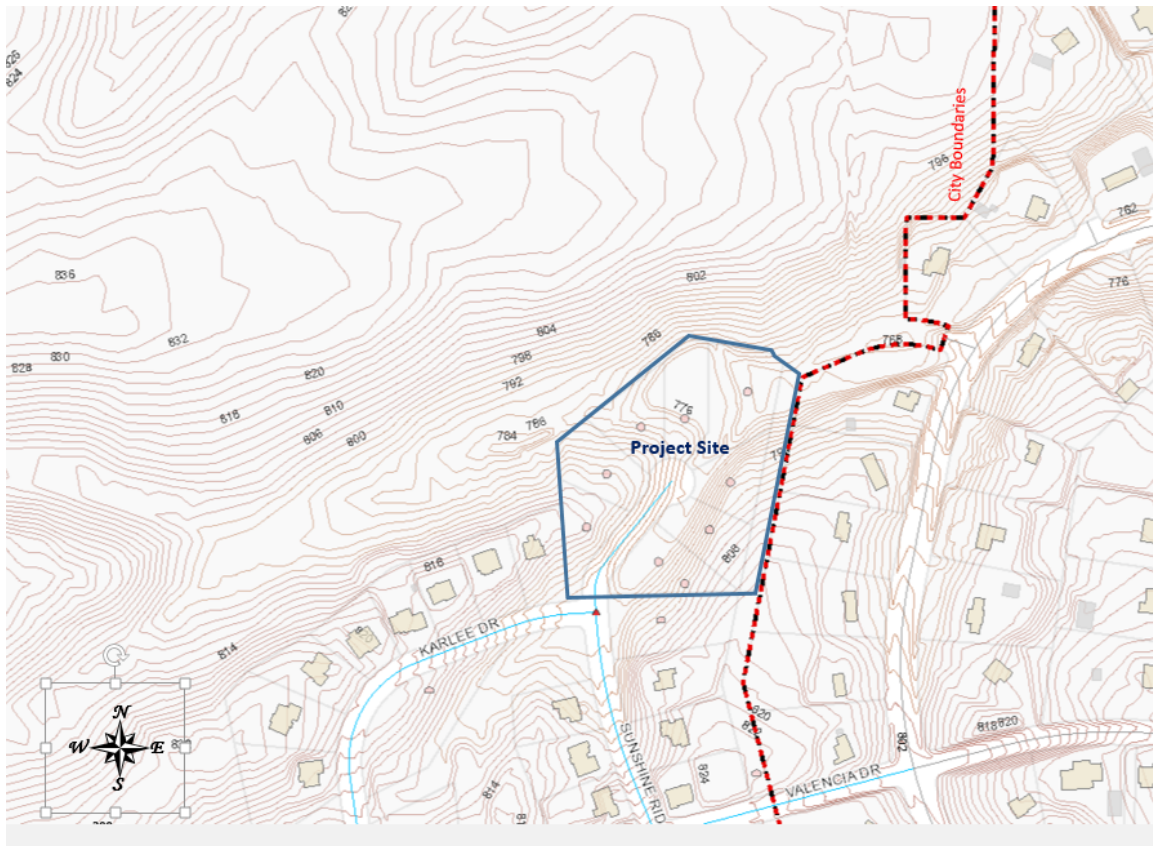


Figure 3 – Topography

ADJACENT LAND USES

Existing uses in the vicinity include the plat of Reata Ridge, a large lot subdivision located immediately south of the site and the Rancho Reata subdivision, a county plat located directly east of the site. Properties to the north and west are part of the Badger Mountain master planned community but at this point are undeveloped, although much of the land is in active agricultural production.

SURROUNDING ZONING

North/West: Properties lying adjacent to the site to the north and west are part of the Badger Mountain South Master Planned Community and are subject to the provisions of the Badger Mountain South Land Use and Development Regulations.

South: Property to the south of and adjacent to the site are part of the Reata Ridge subdivision, which has been developed with single

family residences and is located within the R1-12 Single Family Residential district.

East: Property to the east lies outside the corporate boundaries of the City of Richland and the City's Urban Growth Area in unincorporated Benton County. This property has been developed with large lot single family residences and is zoned Rural Lands 1 under the County zoning code.

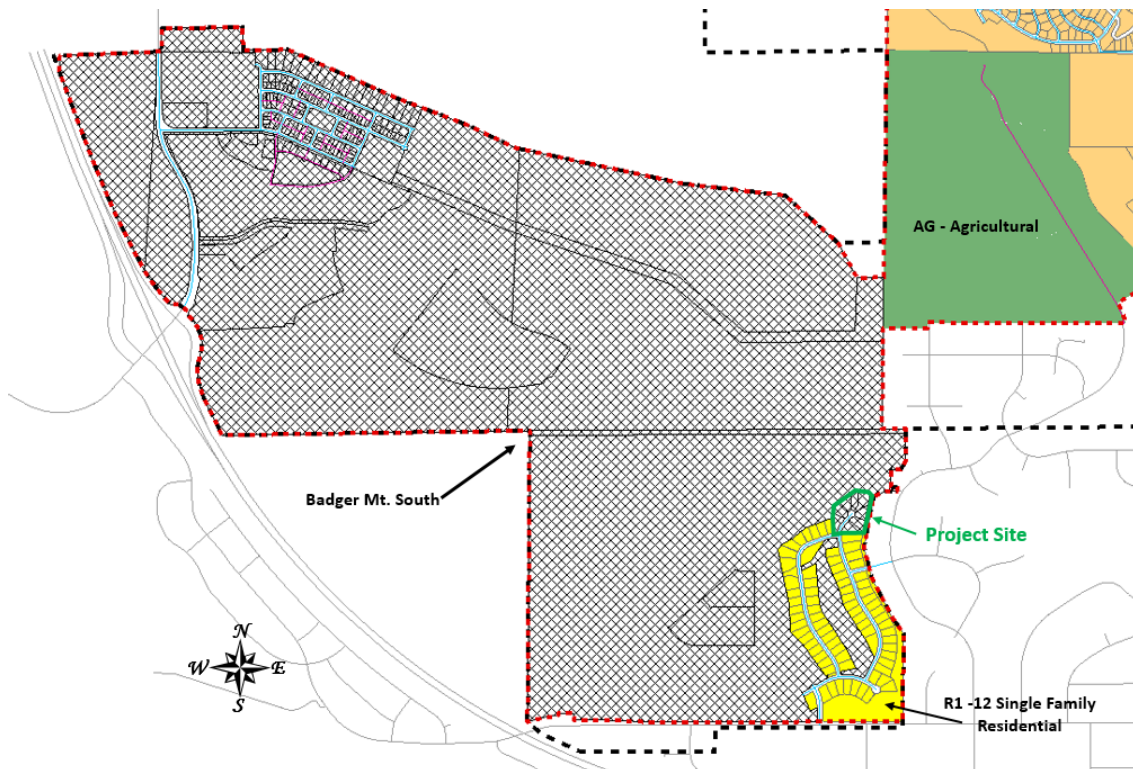


Figure 4 - Zoning Map

BACKGROUND INFORMATION

The subject site is part of the Badger Mountain South Subarea Plan that was developed in 2010. Once the plan was adopted, the entire 1,600 acre site was annexed into the City. The plan calls for the development of a master planned community known as Badger Mountain South that is intended to be a mixed use, walkable and sustainable community of up to 5,000 dwelling units. The plan calls for small lot residential development with some multi-family, commercial and

office uses with generous open spaces and extensive pedestrian trails. In recognition of the intended unique character of the master planned area, the City worked with Nor Am Investment, LLC to adopt a set of development regulations that specifically apply to the Badger Mountain South Subarea Plan known as the Land Use and Development Regulations (LUDR). The City also adopted a Planned Action Ordinance for the subarea based on a supplemental environmental impact statement that was prepared for the master planned community.

The extreme southeast corner of the Badger Mountain South Subarea consists of a subdivision known as Reata Ridge. This subdivision was approved in the mid-2000s under County jurisdiction prior to the time that the City's subarea plan was developed. It was developed under County codes and does not fall under the provisions of the LUDR that currently apply. Consequently, the road sections in this subdivision do not include curbs, gutter and sidewalks as one would normally find in City subdivisions.

At the time the Sunshine Ridge preliminary plat was approved in 2015, the City granted a deviation from typical road design standards to allow the cul-de-sac accessing the Sunshine Ridge subdivision to be built to the same standard as the adjacent Reata Ridge plat.

CURRENT ZONING:

Under the Badger Mountain South Land Use and Development Regulations the site is designated as BMS – NE (Badger Mountain South – Neighborhood Edge). According to the LUDR, this designation is the most restrictive residential district in Badger Mountain South. It is intended to allow a variety of low density and low intensity single family houses and accessory uses on larger lots.

All uses within the Badger Mountain South Master Planned Community are subject to design requirements which mandate that a porch extend in front of the building façade and that garages be recessed from the building façade. Lots must be landscaped in the front and side yards with trees planted along the street frontage at the time residential construction is completed. All residences must include a residential fire sprinkler system and all homes must comply with energy sustainability standards. These requirements are unique to the Badger Mountain South Master Planned Community and are not required in other locations throughout the City.

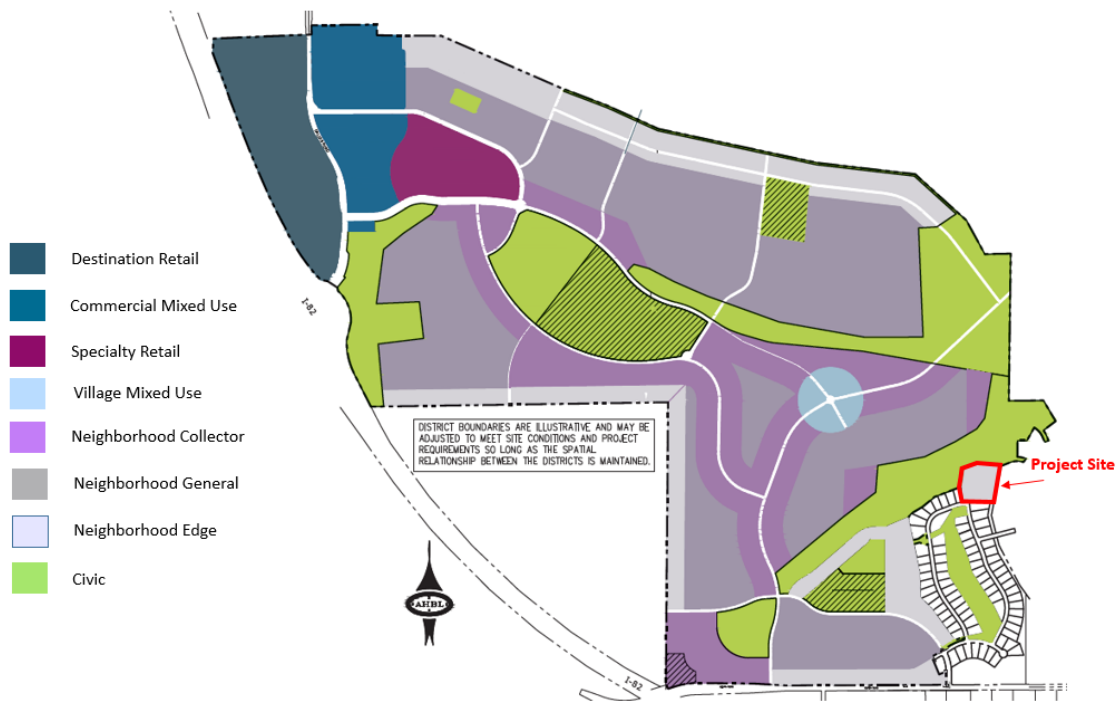


Figure 5 – Badger Mt. South Land Use Map

PROPOSED ZONING

The purpose statement of the proposed R1-12 Single Family Residential district states that the R1-12 district is a zone classification requiring a low density of population, providing protection against hazards, objectionable influences, building congestion, and lack of light, air and privacy. Certain essential and compatible public service facilities and institutions are permitted in this district.

Uses permitted in this zone are limited primarily to single family homes on lots sizes that average 12,000 square feet.

COMPARISION BETWEEN ZONING DISTRICTS

Uses permitted within either of the zones are very nearly identical. Both zones limit development to detached single family homes with typical accessory structures. While the Neighborhood Edge district allows for higher density development than the R1-12 district, the limiting factor for this property is the lack of access to sanitary sewer. The existing lots within the Sunshine Ridge development will be served with on-site septic systems. The Health Department standards limit lot sizes to ½ acre, so there is no effective difference in lot size requirements in this instance.

Zoning standards concerning building height and setbacks are comparable between the two zones, with the R1-12 district being slightly more restrictive than the Neighborhood Edge district. The biggest difference between the two zones are the development standards that are required for all homes built within Badger Mountain South that do not apply to developments located outside of Badger Mountain South.

Zoning Standard	BMS – Neighborhood Edge	R1-12 Single Family Residential
Minimum Lot Area	None	10,000 square feet
Average Lot Size Requirement	None	12,000 square feet
Maximum Lot Coverage	None	40%
Front Yard Setback	15 feet	20 feet
Side Yard Setback	6 feet	10 feet
Rear Yard Setback	15 feet	25 feet
Building Height	30 feet	30 feet
Design Requirements	Yes	No
Street Trees/Front Yard Landscaping	Required	Not Required
Sustainability Standards	Required	Not Required
Residential Fire Sprinkler System	Required	Not Required

COMPREHENSIVE PLAN

The City's Badger Mountain South Comprehensive Plan includes the following goal and policy statements:

Housing Element Goal 3: Accommodate growth and maintain affordability.

BMHE Policy 3.1 – Support the development of residential neighborhoods that provide a variety of housing types, styles and densities to serve a broad spectrum on incomes, ages, and life stages.

BMHE Policy 3.2 – Promote walkable neighborhoods by encouraging a mix of land uses, nodes of higher land use intensity and access to sidewalks and a connected trail and parks system.

BMHE Policy 3.3 – Encourage higher density housing close to employment centers, retail and services and along arterials to support the efficient expansion of public transit.

BMHE Policy 3.4 – Support the development of energy-efficient housing choices.

The City's Comprehensive Land Use Plan contains the following goal and policy statements relating to housing:

Land Use Goal 4: The City will establish a broad range of residential land use designations to accommodate a variety of lifestyles and housing opportunities.

Policy 1 – The City will provide a balanced distribution of residential uses and densities throughout the urban growth area.

Policy 2 – The City will encourage residential densification through its land use regulations.

Policy 3 – The City will encourage innovative and non-traditional residential development through expanded use of planned unit developments, density bonuses and multi-use developments.

Policy 4 – The City will encourage conservation of lands identified as “recreation Resource Conservation Area” in the City's Parks, Recreation Facilities and Open Space Master Plan, by allowing developers to increase densities on adjacent lands. Such projects should occur as Planned Unit Developments.

PUBLIC NOTICE

Notice of Application & Hearing Mailed:	June 30, 2017
Notice of Application & Hearing Published:	July 10, 2017
Notice of Application & Hearing Posted:	July 6, 2017
Public Hearing:	July 27, 2017

Notice of application and notice of hearing was provided through posting of the property, mailing of notice to property owners within 300 feet of the site and publication in the *Tri-City Herald* newspaper. Copies of the notices and affidavits are included in Exhibit 3. As of the date of this report, City staff has not received any comments.

UTILITY AVAILABILITY

Public water, irrigation water and electrical power are available to the subject property with utility stubs provided to each lot within the Sunshine Ridge plat. Each lot will be served by on-site septic tank and drain field systems, subject to the standards administered by the Benton Franklin Health Department.

SEPA

Pursuant to WAC 197-11-800(6) (c) the rezone application qualifies as a categorically exempt action by meeting the requisite circumstances; they are as follows:

Where an exempt project requires a rezone, the rezone is exempt only if:

- (i) The project is in an urban growth area in a city or county planning under RCW 36.70A.040;*
- (ii) The proposed rezone is consistent with and does not require an amendment to the comprehensive plan; and*
- (iii) The applicable comprehensive plan was previously subjected to environmental review and analysis through an EIS under the requirements of this chapter prior to adoption; and the EIS adequately addressed the environmental impacts of the rezone.*

In this case, the proposed project is located with the City and within Richland's urban growth area; the proposed action is consistent with the City's comprehensive plan; and the City's comprehensive plan was analyzed through the preparation of an EIS in 1997. The Badger Mountain Subarea plan was reviewed in an EIS in 2010.

ANALYSIS

The proposed zone change would not affect the residential development of the site. Both the current and proposed zoning would restrict development on-site to single family homes only. The density of development is likewise not affected, as the Sunshine Ridge plat has already been completed and the lack of public sewer service in the area precludes further property divisions. Even so, the proposed zoning requires lower density development than the existing zoning.

The applicant's purpose in pursuing the application is relief from the development standards imposed by the Badger Mountain South Land Use and Development Regulations.

The differences between the existing neighborhoods within Badger Mountain South and the Reata Ridge subdivision, which is located just south of and adjacent to the subject site are readily apparent. The attached photos provide some examples of homes within each neighborhood. In general, homes within the Badger Mountain South development are built at a higher density, have urban type improvements, with a traditional street grid pattern that includes alleys, curbs, sidewalks and street lights. Street trees are planted within a planting strip between street and sidewalk and all homes have front porches with garages that are either side entry or that do not extend in front of the home. With

the Reata Ridge subdivision, development has occurred on a more suburban or rural nature with curvilinear streets. Homes are on larger lots with streets containing gravel shoulders and open ditches, without sidewalks, walking paths or street lights, although there is a pedestrian/equestrian path located along the eastern boundary of the subdivision. Homes are generally set further back from the street and do not necessarily contain front porches.

Other differences between the two developments include the amount of open space that is planned for both areas. In Badger Mountain South, the plan and implementing development regulations call for a significant amount of open space, trails and parks. Development triggers requirements for the installation of private open space improvements as well as public parks. A homeowners association has been established to maintain the open space tracts. In the Reata Ridge development there is no homeowners association and the existing open space tract is under private ownership without any specific plans for improvement or maintenance.

Finally, the subject site is physically isolated from the remainder of the Badger Mountain South development. The adopted plan for Badger Mountain South (see Figure 5) does not include any street or trail connection between the subject site and the remainder of the Badger Mountain South planning area. The lots within the Sunshine Ridge subdivision are not a part of the Badger Mountain South Homeowners Association, as the developers determined that they would not benefit from the open space and park improvements provided throughout the Badger Mountain South planning area.

FINDINGS AND CONCLUSIONS

Staff has completed its review of the request for a change in zoning (Z2017-103) and recommends approval of the request based on the following:

1. The subject site is located in South Richland, immediately north of and adjacent to the plat of Reata Ridge, a large lot single family residential subdivision and east of the plat of Rancho Reata, a large lot subdivision that is located within unincorporated Benton County;
2. The subject site has been subdivided into 7 residential lots and one open space tract known as the Plat of Sunshine Ridge. Average lot size within the plat is 25,875 square feet. Access to the lots is provided via a cul-de-sac located at the end of Sunshine Ridge Road. None of the seven lots has yet been developed.
3. The Plat of Sunshine Ridge is served with city water and electrical power and on-site septic systems. No further division of property is possible because public sewer service is not available to the property.

4. The subject site is included in the Badger Mountain South Subarea Plan and is subject to the Badger Mountain South Land Use and Development Regulations (LUDR);
5. The LUDR identifies the site as part of the Neighborhood Edge land use designation. This designation allows for single family homes but does not specify a maximum density;
6. The R1-12 Single Family Residential zoning proposed for the site would allow single family dwellings at an average density of 12,000 square feet per lot; however lack of public sewer service eliminates the potential for further lot division;
7. The R1-12 Single Family Residential district and the BMS – NE district contain similar provisions for setback and building height, with the R1-12 district standards having slightly greater setback requirements;
8. The BMS – NE district includes development standards for building facades that require front porches and recessed garages; street trees and front yard landscaping; energy efficient household appliances and installation of residential fire sprinkler systems. The proposed R1-12 district does not require any of these items;
9. The development standards for the Badger Mountain South LUDR require a traditional street grid pattern, with curbs, gutters, sidewalks, street lights and alleys, and street trees. Mixed use development, walkable neighborhoods and open space are important concepts included in the LUDR;
10. The Sunshine Ridge subdivision has been built to the standards contained in the adjacent Reata Ridge subdivision, with a cul-de-sac, with gravel shoulders and open ditches;
11. The existing natural drainage way that runs adjacent and through the subject property serve to isolate it from the rest of the Badger Mountain South area;
12. The Badger Mountain South Subarea Plan does not include any plans for street or pedestrian connection between the subject site and the remainder of the Badger Mountain South area;
13. The subject site has much more in common with the adjacent Reata Ridge neighborhood than the Badger Mountain South neighborhood in terms of public infrastructure, the size and type of lots and access;

14. The subject site is more appropriately developed under the provisions of the R1-12 Single Family Residential standards than the Badger Mountain South standards;
15. The project is exempt from the provisions of the State Environmental Policy Act, as identified in WAC 197-11-800(6)(c).
16. Based on the above findings and conclusions, approval of the zone change request would be in the best interest of the community of Richland.

EXHIBIT LIST

1. Zone Change Application
2. Affidavit of mailing and public hearing notices
3. Site Photos



Planning & Development Services Division • Current Planning Section
840 Northgate Drive • Richland, WA 99352
General Information: 509/942-7794 • Fax: 509/942-7764
www.ci.richland.wa.us

Petition for Change of Zoning District Classification

Application is hereby made to the City of Richland for a change of zone, pursuant to Section 23.82.190 of the City of Richland Municipal Code.

The following required information must be typed or printed legibly in the appropriate spaces.

SECTION I – APPLICANT INFORMATION			
Applicant's Name: Dennis Sawby Construction LLC			
Address: 12904 S Grandview Lane			
City: Kennewick		State: Washington	Zip: 99338
Phone: 509-308-1423	Fax:		Other and/or e-mail address: dennis@sawbyconstruction.com
Please check under what capacity you are filing:			
☐ Recorded owner of the property as of		☒ Purchasing under contract as of 3/10/17	
☐ The lessee as of		☐ The authorized agent of any of the foregoing, duly authorized in writing (written authorization must be attached to application).	
SECTION II – PROPERTY LOCATION AND GENERAL DESCRIPTION			
Street address(es) of property for which the zone change is requested, if applicable:			
2797,2789,2781,2773,2780,2788,2796 Sunshine Ridge Road, Richland, Wa 99352			
Relationship to adjacent streets (i.e., west of Main Street between 1 st Avenue and 2 nd Avenue):			
Reata Road N on Morningside Pky E on Allison Way N on Sunshine Ridge Rd to end of Cul-de-sac.			
General description of development status (i.e., vacant, agricultural, buildings, or miscellaneous improvement): 1/2 acre Residential Lots			
Size of petition area	4.16	acres and	181,129 square feet
SECTION III - CHANGE OF ZONE REQUEST			
A change of zone from Badger Mountain South To R-10 Single Family			
is requested for the property described in Section II of this application.			
SECTION IV – JUSTIFICATION			
State the reason(s) for the requested change of zone: The Zoning for the 1/2 acre lots was grouped with Badger Mountain South Development which is Comprised of 5000-8000 sqft lots that dont have a fire station nearby. Said 1/2 acre lots to be rezoned are within 1 mile of a fire station on Bermuda Rd. Would like to not require sprinkler systems in the homes to be built. Please remove notes 3-6 from this existing plat. This plat is approximately 4 miles from Badger Mountain South Development off Dallas Road. Neighboring properties to the property to be re-zoned are zoned R-10 Single Family.			

Continued

I DECLARE UNDER PENALTY OF THE PERJURY LAWS THAT THE INFORMATION I HAVE PROVIDED ON THIS FORM/APPLICATION IS TRUE, CORRECT AND COMPLETE.

DATED THIS 20th DAY OF June, 2017.


Applicant's Signature

12904 S Grandview Lane

Address

Kennewick, Washington 99338

City, State, Zip

509-308-1423

Phone

Applicant's Signature

Address

City, State, Zip

Phone

FOR OFFICE USE ONLY

Date accepted for filing _____

Items enclosed: Filing fee and Title Insurance
Company Ownership Report showing all property
Owners of Record within 300-feet.

City Official's Signature



Badger Mountain South – Camilla Avenue



Badger Mountain South – Daphne Avenue



Badger Mountain South – Highview Street



Badger Mountain South – Highview Street



Reata Ridge – Sunshine Ridge Road



Reata Ridge – Sunshine Ridge Road



Reata Ridge – Karlee Drive