Final Environmental Assessment

Lewis Road Relocation and Reconstruction

Yakima County, Washington

HSFEHQ-06-D-0162

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FEMA

U.S. Department of Homeland Security
130 228th Street SW
Bothell, WA 98021

TABLE OF CONTENTS

TERMS USED IN THIS DOCUMENT

Aggradation – the process in which the rate of sediment deposition exceeds that of erosion and creates a persistent, long-term rise in the elevation of a streambed.

Area of Potential Effects (APE) – the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if such properties exist. The area of potential effects is influenced by the scale and nature of the undertaking.

Best Management Practices (BMPs) – innovative environmental protection practices applied to help ensure that projects are conducted in an environmentally responsible manner.

Channel Migration Zone (CMZ) – the geographic area where a stream or river has been and will be susceptible to channel erosion and/or channel occupation. Because alluvial channels are rarely static through time, rivers and streams naturally migrate within their valleys. Channels respond with horizontal movement (lateral migration, avulsion, channel widening, cannel narrowing) and vertical movement (incision and aggradation) depending on site-specific circumstances and watershed conditions. Human landscape disturbance can exaggerate or constrain channel migration by affecting local and watershed processes of flooding, erosion, and deposition.

FEMA Floodway – the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Floodplain – the area adjacent to a river that is susceptible to inundation, and often bears geophysical evidence of previous flood events. It is part of the lateral dimension of rivers and contributes to the interchange of materials between terrestrial components and aquatic components of the watershed.

Wildland-Urban Interface – line, area, or zone where structures and other human development meet or intermingle with the wildland ecosystems.

ACRONYMS USED IN THIS DOCUMENT

APE	Area of Potential Effects
BMP	best management practice
CFHMP	Comprehensive Flood Hazard Management Plan
CFR	Code of Federal Regulations
DAHP	Department of Archaeological and Historic Preservation
EA	environmental assessment
EO	Executive Order
FCAAP	Flood Control Assistance Account Program
FEMA	Federal Emergency Management Agency
HMTAP	Hazard Mitigation Technical Assistance Program
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Officer
USFWS	US Fish and Wildlife Service
WNHP	Washington Natural Heritage Program

Yakima County applied to the US Department of Homeland Security's Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) for assistance with a road relocation project in Central Washington. The project will build upon activities outlined in the Yakima County Multi-Jurisdictional Hazard Mitigation Plan and the Naches River Comprehensive Flood Hazard Management Plan (CFHMP) to reduce flood damage and improve ingress and egress for the project area, which was identified in both plans as a high priority project.

The National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Part 1500 through 1508) direct FEMA and other federal agencies to fully understand and take into consideration environmental consequences of proposed federally funded projects. Under NEPA, Congress authorizes and directs federal agencies to carry out their regulations, policies, and programs as fully as possible in accordance with the statute's policies on environmental protection. NEPA requires federal agencies to make a series of evaluations and decisions that anticipate significant effects on environmental resources. This requirement must be fulfilled whenever a federal agency proposes an action, grants a permit, or agrees to fund or otherwise authorize any other entity to undertake an action that could possibly affect the human environment. In compliance with NEPA and its implementing regulations, FEMA prepared the draft and final environmental assessment (EA) to analyze the potential environmental impacts of alternatives.

The FEMA Hazard Mitigation Grant Program provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of this action is to provide HMGP funding to Yakima County for mitigating their natural hazard risks.

Flooding on the Naches River typically occurs during the winter and spring. Historically, winter floods have been larger in magnitude, such as the December 1933 and February 1996 events. Lewis Road has been inundated by the Naches River on an almost annual basis, with more significant damage at approximate 5-year and higher events. Shallow, fast moving water flowing across a roadway can wash a car off the road, and as little as 6 inches of moving water can knock people off their feet (WA Department of Ecology 2008). This represents a real danger to the local residents.

The County identified the need to reduce the repetitive damages sustained to Lewis Road, while improving ingress and egress to the properties that use it. From this need the County identified the Proposed Action as a high priority in the Naches River Comprehensive Flood Hazard Management Plan and the Yakima County Multi-Jurisdictional Hazard Mitigation Plan.

This section discusses the two alternatives considered in this EA: (1) the No Action Alternative and (2) the Proposed Action Alternative to which FEMA funding would contribute.

3.1 ALTERNATIVE 1 – NO ACTION

Under the No Action Alternative, FEMA would not provide funding to relocate Lewis Road further south. The Naches River would continue to damage Lewis Road yearly and close the road during 1-5 year floods and greater events. Continued inundation and washing of the gravel surface of Lewis Road would contribute to sedimentation and continue to degrade water quality and fish habitat. Risks associated with flooding of the road and the safety hazard to residents driving through overtopped roads during flood events would continue. Current and ongoing activities to protect the properties and road would continue with County funding as available. This alternative would not meet the project needs nor the County's goals and objectives.

3.2 ALTERNATIVE 2 – PROPOSED ACTION

The Proposed Action would reconstruct Lewis Road approximately 500 feet further south of the Naches River. The total road length would be shortened by approximately 350 feet for a total length of 1,700 feet (see Appendix D). The road would be 30 feet wide, with an overall depth of 1 foot. The subgrade would be compacted and a 0.7 foot compacted depth crushed surfacing base coarse would be applied and compacted. A 0.3 foot compacted depth crushed surfacing top coarse would then be applied. The stormwater treatment for the new road would be through infiltration along side slopes adjacent to the roadway. Although the road will remain in the FEMA floodplain and floodway, the road would move to slightly higher land, allowing residents and emergency vehicles safer access during 1-, 5-, and 25-year floods. Land has been purchased from Boise Cascade Inc. for the right of way needed to relocate the road. Approximately 200 feet of the existing roadway closest to South Naches Road would be removed and planted with native vegetation. The remainder of the gravel roadway would remain but would not be maintained by Yakima County.

3.3 OTHER ALTERNATIVES CONSIDERED

A design and review team consisting of Yakima Flood Control District personnel reviewed the reoccurring flooding, safety and access issue. The team considered three other alternatives.

Raise Lewis Road - The first alternative discussed was raising the elevation of Lewis Road by approximately 3 feet on the existing alignment to a level above the approximate 20-year flood event and armoring the riverward shoulders. This alternative would not guarantee access and safety for the residences along Lewis Road, given that the raising and armoring may not be successful in a large flood event. The raised roadway would create an additional dike, raising the river flood elevation and constricting the river. This would cause additional pressure on the north side of the Naches River and on Highway 12 downstream of the area, an area which was noted in the Naches River CFHMP as being highly constricted already. This alternative would also cost roughly twice as much as the proposed alternative.

Close Lewis Road - The second alternative briefly discussed was a proposal to close the road and purchase all residential properties currently accessed by Lewis Road. According to the Yakima County Department of Assessments, this could cost upwards of $2 million for the affected parcels. This alternative was dismissed as being cost prohibitive.

Locate outside of floodplain - The third alternative considered constructing a new access road outside of the FEMA floodplain. However, land in this area is relatively flat and moving further away from the Naches River does not guarantee a higher elevation. During mapping exercises, Yakima County determined that areas further south of the proposed roadway location would be inundated during 10-year and higher flood events (see Figures 4-6). This alternative was dismissed as there were no other practicable routes outside of the floodplain.

This section discusses the existing conditions by resource and the potential effects of the No Action and Proposed Action alternatives.

For each resource category, the impact analysis follows the same general approach. Where possible, quantitative information is provided to establish impacts. Qualitatively, these impacts will be measured based on minor, moderate, and major impacts as outlined in the chart below.

Impact Intensity	Criteria
Small	Environmental effects would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.
Moderate	Environmental effects would be sufficient to alter noticeably, but not to destabilize, important attributes of the resource.
Large	Environmental effects would be clearly noticeable and would be sufficient to destabilize important attributes of the resource.

Impacts are disclosed based on the amount of change or loss of the resource from the baseline conditions. Impacts may be direct or indirect. Direct impacts are caused by an action and occur at the same time and place as the action. Indirect impacts are caused by an action and occur later in time or farther removed from the area, but are reasonably foreseeable. Cumulative impacts are discussed in Section 5.

Resources that were not analyzed in detail include air quality and visual resources. These resources will not be analyzed to any further extent.

4.1 CLIMATE, GEOLOGY AND SOILS

4.1.1 Climate

The climate in the Naches River Basin varies from desert conditions in the southern lowlands to moist alpine conditions in the mountain headwater region. Yakima County experiences moderate winters, warm and dry summer months and is classified as semi-arid. Mean annual rainfall is approximately 8 inches, and mean annual snowfall is approximately 24 inches. Temperatures range from an average low of 20° F in January to an average high of 87° F in July.

4.1.2 Geology and Soils

The Naches River flows through a broad valley between two uplifted and folded basalt ridges. In the Naches River valley, a layer of alluvium overlies the sedimentary Ellensburg formation of volcanic agglomerates and ash. The alluvium consists of poorly sorted sand and gravel deposited by glaciers and streams, of Quaternary to Recent Age. Beneath the Ellensburg formation are three basalt layers, the Saddle Hills, Wanapum, and Grande Ronde formations.

Below the confluence with the Tieton River, the river flows through a wide alluvial valley along the project area. The gradient of the river is 30.8 feet per mile below the confluence (through the project area). The channel pattern through the area is characterized by a meander-braided

transition pattern. This channel pattern is characterized as having a large sediment load with a significant fraction of sand, gravel and cobbles (Chorley et. al 1984).

Along the floodplain, the primary soil types are Weirman sandy loam, fine sandy loam, and gravelly fine sand loam. Weirman loam is characterized by stratified layers and beds or permeable gravel and sand at shallow depths. It contains minimal organic matter, and drainage through the soil is medium to very rapid. Isolated patches of Logy silt loam also occur throughout the study area. The Logy series soils are deep, well drained floodplain soils.

4.1.3 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, FEMA would not provide funding to relocate Lewis Road further south. Continued soil erosion would occur from flood events.

Alternative 2 – Proposed Action

No effect on climate and geology would be expected based on the small scale of the project and minor ground-disturbing activities. No environmental consequences to soils are expected from road removal and paving activities in the project area because best management practices (BMPs) for erosion control would be followed. Vegetation removal activities would not result in increased erosion of stream banks. Some soils may be removed during construction.

Direct, indirect, and cumulative effects to soil productivity, fertility, stability, or infiltration capacity would be at or below the lower levels of detection. Any effects on soil productivity or fertility would be small, and no long-term effects to soils would occur.

4.2 FLOODPLAINS

The channel width of the Naches River is variable, with a relatively wide and shallow channel. The development of bars and islands may modify flow alignments and change the location of bank erosion. Recent studies also suggest that aggradation has occurred throughout the project and surrounding area. The Naches River has historically experienced very active channel migration.

Avulsions (abrupt switching of the river to a new location), the most unpredictable and destructive type of channel migration, are common on the Naches River. Avulsions typically occur during a flood when the river reoccupies an old channel or erodes a barrier to gain access to a new path. A major avulsion occurred on the Naches River just upstream from Ramblers Park (near Gleed, WA) during the 1996 flood. Another important avulsion occurred near Kershaw Road, approximately 5.5 miles from the project area, during the same flood (Naches River CFHMP 2005).

Since 1909, the river has overtopped its banks approximately 60 times. The Naches River can remain at critical flood stage for more the 30 days, rising 11 to 16 feet. Near the project area, it usually takes at least a day for overbank flooding to occur. Most significant floods on the Naches River have remained above flood stage for five to seven days. There have been cases in

which the river crested above flood stage more than once within a two-week period (Naches River CFHMP 2005).

The current alignment of the Naches River places the brunt of the meander migration pressure on the south bank just downstream from the bridge along Lewis Road. In the project area, the river is constrained by the Town of Naches to the north. Here, the channel is fixed in one location, which increases the energy available to the river downstream for migration. To the north, the Highway 12 embankment is impeding the channel from migrating further northeast and may magnify the erosive energy of the river in the vicinity of the L-shaped meander (Naches River Channel Migration Study 2003). Both the existing and relocated Lewis Road would be located within the FEMA Floodway and floodplain (current FIRM Panel # 5302170680-B effective date June 5th, 1985; Preliminary FIRM Panel 53077CO677-D dated September 30, 2008).

Based on 44 CFR Part 9.10, the following floodplain values are present in the project area:

Flood hazard-related factors - The project area has swift floods, usually rising to flood stage over a day. Floods generally last for five to seven days. The only evacuation route for residents in the project area is through Lewis Road. Flooding may also cause erosion and debris loads.

Natural values-related factors - The water resource value of the project area is low, as natural moderation of floods does not occur. The project area includes several fish and animal species (described in Section 4.5 of this EA). No archaeological or historical sites were identified in the project area. The Naches River is easily accessible within the project area for informal recreation activities. Agricultural activities include apple orchards and vineyards.

Factors relevant to the survival and quality of wetlands - Flooding along the Naches River causes erosion, scour, channel migration, and a loss of vegetation due to excessive river volume and flow velocities, which may effect wetlands in the project area.

4.2.1 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, FEMA would not provide funding to relocate Lewis Road further south. The continued inundation and repair of Lewis Road would continue to be subject to seasonal and catastrophic flood events, including the natural movement of the river within its floodplain. The floodplain values listed in Section 4.2 would not change.

Alternative 2 – Proposed Action

The Proposed Action would move Lewis Road further south and away from the river. The reconstructed road would remain within the FEMA Floodway. While other alternatives were considered, removing the roadway out of the floodplain was not a practicable alternative as much of the surrounding land to the south is slightly lower in elevation. With further inundation and damage to the old portion of Lewis Road, the Naches River may carve a new channel further south of its current location. However, removal of the elevated portion of the existing road may provide more natural channel migration by making the river channel less constricted. A condition of approval will include a no-rise certification which Yakima County would provide to officials through floodrise data and maps in order to obtain the floodplain permit.

The Proposed Action would not adversely impact the floodplain values under 44 CFR Part 9.10. The following floodplain values would be improved:

Flood hazard-related factors - The only evacuation route (Lewis Road) would become more reliable and safer.

Natural values-related factors - Since Lewis Road would be relocated to higher ground further from the Naches River, the water resource value of the project area may increase.

4.3 WETLANDS AND WATER RESOURCES

Wetlands and water bodies are located in the project vicinity. The national wetland inventory identifies the south bank of the Naches River adjacent to Lewis Road as a temporarily flooding palustrine scrub/shrub wetland complex (Figure 3). The applicant mapped a small palustrine scrub/shrub wetland approximately 100-200 feet near the proposed realigned section of Lewis Road (Figure 2). This wetland has not been delineated or assessed for function and values.

4.3.1 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, no impacts to wetlands and water resources within the project area would be expected to occur except by regular periodic flooding of the Naches River. These impacts may include erosion, scour, channel migration, and a loss of vegetation due to excessive river volume and flow velocities. Such actions would affect the quantity and quality of wetlands and water resources in the project vicinity and along downstream portions of the Naches River.

Alternative 2 – Proposed Action

Construction of the new roadway further away from the Naches River would reduce erosive conditions to the new roadbed. Construction of the new road bed would not require mechanized vegetation or soil disturbance to wetlands or other water resources nor does it have the potential to affect the nearby wetland. However, leaving a portion of the existing roadbed (not to be county maintained) presents the continued opportunity that future flooding and erosive flows would erode the existing road. Future erosion of the existing road would temporarily reduce water quality and add additional sediments in adjacent wetlands and downstream water resources during flood events. Water quality would return to background conditions as floodwaters subside and possible erosion of the existing roadbed ceases during each flood event.

4.4 VEGETATION

The vegetative community in the project vicinity is a mosaic of interspersed herbaceous, shrub, and tree habitats. Shrub and tree habitats dominate the area between the existing Lewis Road and the Naches River. Herbaceous and shrub habitats dominate the site of the new Lewis Road relocation. There are approximately 45-50 trees in the project vicinity, including one small stand of ponderosa pine (*Pinus ponderosa*) situated on the north side of the proposed relocated roadbed. Trees identified in the project vicinity include ponderosa pine and black cottonwood

(*Populus balsamifera*). Shrubs included willows (*Salix* sp.), roses (*Rosa* sp.), and red-osier dogwood (*Cornus sericea*). Various unidentified grasses, soft rush (*Juncus effusus*), slender rush (*Juncus tenuis*), reed canarygrass (*Phalaris arundinacea*), klamath weed (*Hypericum perforatum*), unidentified sedges, and various common weed species were clustered throughout the herbaceous community.

4.4.1 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, no adverse impacts to vegetation are anticipated.

Alternative 2 – Proposed Action

The Proposed Action would have little impact on vegetation. The realignment takes advantage, to the maximum extent possible, of an existing but rarely used off-road path. Removal of commonly found herbaceous and shrub species would occur along the proposed road realignment. The realignment mostly avoids the dominant unique vegetative feature in the project area, a stand of ponderosa pines. Three to four pines may be removed depending on the final alignment. If necessary, the County may plant replacement pines. Some of the impacts from the new road alignment would be offset by removal of a portion of the existing Lewis Road. The portion of existing Lewis Road to be removed would be excavated to surrounding grade and revegetated with hydroseed. The project would not appreciably increase the presence of common weedy species beyond what is already found in the project vicinity. Yakima County would monitor the revegetated section for one season to control any invasive species that appear.

4.5 BIOLOGICAL RESOURCES

Undeveloped floodplain habitats are highly productive ecosystems that service the majority of resident and migratory fish and wildlife species. These floodplain ecosystems are particularly valuable in the arid portions of eastern Washington. They serve as fertile corridors where animals concentrate in and travel through because of the scarcity of water in the broader landscape. Floodplain ecosystems also often contain species that cannot survive in the surrounding arid landscape. Where the urban built environment intersperses with the wildland ecosystems, the value of the floodplain habitats increases exponentially because these pockets of natural habitat provide oases for fish and wildlife to pass through or survive in the wildland-urban interface. Wildlife within the project vicinity includes songbirds, birds of prey, waterfowl, deer, small mammals, reptiles/amphibians, and fish (also see Sections 4.5.1 and 4.5.2).

4.5.1 Federally Listed Species and Critical Habitat

Lists of federally endangered and threatened species and designated critical habitats with the potential to occur in Yakima County and/or the Naches River (fish) were obtained from the U.S. Fish and Wildlife Service (USFWS) and the NOAA National Marine Fisheries Service (NMFS) on December 1, 2008 and are included in Appendix B (USFWS 2008, NMFS 2008). Six animal species and one plant species are listed as endangered or threatened by the USFWS and NMFS (Table 1). Critical habitat is designated for three of the threatened species (Table 1).

Table 1. Federally endangered and threatened species potentially occurring in the project vicinity.

Species	Status	Potential to occur in project vicinity	Critical Habitat Status
Animal Species			
Steelhead - Middle Columbia River DPS (*Onchorhynchus mykiss*)	Threatened	Yes	Designated
Bull trout - Clombia River DPS (*Salvelinus confluentus*)	Threatened	Yes	Designated
Gray Wolf (*Canis lupus*)	Endangered	Yes	
Grizzly bear (*Ursus arctos horribilis*)	Threatened	Yes	
Marble murrelet (*Brachyramphus marmoratus*)	Threatened	No	
Northern spotted owl (*Strix occidentalis caurina*)	Threatened	No	Designated
Plant Species			
Ute ladies-tresses (plant; *Spiranthes diluvialis*)	Threatened	Yes	

A site investigation performed on November 25, 2008 identified that no suitable habitat is available for the marbled murrelet (*Brachyramphus marmoratus*) or the northern spotted owl (*Strix occidentalis caurina*) in the project vicinity. Steelhead (*Onchorhynchus mykiss*) and bull trout (*Salvelinus confluentus*) occupy the Naches River in the project vicinity, with the Naches River designated as critical habitat for both species. Occasional gray wolf (*Canis lupus*) and grizzly bear (*Ursus arctos horribilis*) observations occur in eastern Yakima County closer to the Cascade Mountains. The potential for these two species to occur in the project vicinity is remote because of their habit of avoiding heavily populated urban areas. The Ute's ladies-tresses orchid (*Spiranthes diluvialis*) has only been identified in Washington's Chelan and Okanagon Counties. The habitat conditions where the Ute's ladies-tresses were observed are similar to the ecological conditions in the project vicinity (WNHP 2000). Further detailed analysis of threatened and endangered species and designated critical habitats is described in the project's Biological Assessment and the Biological Assessment Addendum Letter (Appendix C).

4.5.2 Migratory Birds

The project areas provide habitat for a variety of migratory birds, including songbirds and birds of prey. The USFWS Office of Migratory Bird Management maintains a list of migratory birds (50 CFR 10.13). The Migratory Bird Treaty Act of 1918, as amended, provides federal protections for migratory birds, their active nests, eggs, and parts from harm, sale, or other injurious actions. The act contains no "take" provisions that enforce these protections.

4.5.3 Environmental Consequences

Alternative 1 – No Action

The No Action Alternative would have no adverse affects to endangered and threatened terrestrial wildlife and plant species because no new land clearing or additional urbanization would occur.

This alternative could adversely affect fish species temporarily as future flood events would erode Lewis Road. Erosive flood events would reduce water quality standards because of reduced turbidity, increased sediments, increased pollutants as the existing road erodes during flood flows. These impacts to fish species would dissipate after an erosive flood event subsides.

Alternative 2 – Proposed Action

The Proposed Action Alternative would not adversely affect listed threatened or endangered terrestrial species. No listed species are actively using the project area or have been recently sighted in the project vicinity.

This alternative could affect fish species as future flood events would erode the section of the original Lewis Road that remains in place. Erosive flood events would temporarily reduce water quality standards because of reduced turbidity, increased sediments, and increased pollutants as the existing road erodes during flood flows. These impacts to fish species would dissipate after an erosive flood event subsides, similar to the No Action Alternative. No change in effects to salmonids was identified in the previously concurred Biological Assessment; therefore reinitiating consultation with NMFS would not be required.

Road construction activities would include vegetation removal and ground disturbances, which have the potential to directly and indirectly affect migratory birds. However, potentially negative impacts to migratory birds would be eliminated or greatly reduced by avoiding vegetation and land clearing activities during the most sensitive portion of the breeding season (early March through July). If seasonal restrictions are not practicable, a pre-construction survey to identify active nests should be conducted by a qualified biologist familiar with local bird species prior to any disturbing activities.

4.6 HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

4.6.1 Historic Resources

Examples of historic resources include canals, railroads, residences, and other buildings. An online database of the National Register of Historic Places (NRHP) and a statewide inventory of Washington Heritage Register were reviewed in December 2008 via the Washington Information System for Architectural and Archaeological Records Data system[1]. There do not appear to be any NRHP- or state-listed resources located within a one-half mile radius of the Lewis Road realignment project area.

An inventory of historic resources was recently conducted along the proposed Lewis Road realignment as a component of a broader road improvement project (Komen 2007). Though none were recorded within the Lewis Road realignment Area of Potential Effects (APE), five historic resources including three residences, a retaining wall associated with the Naches-Tieton Highway, and the Johncox Ditch, were inventoried within one mile of the Lewis Road project's APE (Komen 2007). None of these resources were recommended as eligible for the National

[1] http://www.dahp.wa.gov/pages/wisaardIntro.htm

Register of Historic Places, and no additional work was recommended. The Washington Department of Archaeology and Historic Preservation (DAHP) concurred with these findings in a letter dated November 14, 2007.

4.6.2 Archaeological and Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) holds that activities occurring on federal lands, or those that require federal permits or use federal funds, undergo a review process to protect cultural resources that are or may be eligible for listing on the NRHP.

The entire proposed project area has been subjected to previous inventory efforts that meet current archaeological site identification and reporting standards. An intensive cultural resources inventory of the Lewis Road realignment APE was recently completed as part of a Yakima County road improvement project (Komen 2007). Tribal consultation was initiated during the cultural resources inventory. This investigation included a review of existing site records and prior inventory work that is maintained at the DAHP; a review of historical maps and land records and other background information; a pedestrian survey and exploratory subsurface shovel testing; and inventory of historic resources and archaeological resources.

The 2007 investigation addressed the Lewis Road proposed alignment as a component of a broader road improvement project. Based on a literature review and review of files at DAHP, no previously-recorded resources were located within the project's APE. The proposed Lewis Road realignment was found to run through the former Boise Cascade Lumber Mill location; two foundations related to the Boise Cascade Lumber Mill were observed but were determined to be less than 50 years old and were therefore not recorded (Komen 2007:8). Ground surface visibility was excellent at the time of survey, and therefore no shovel testing was conducted along the Lewis Road alignment (Komen 2007:4,8). No archaeological resources or Traditional Cultural Properties were identified along the Lewis Road realignment as a result of this investigation, and no additional cultural resources work was recommended (Komen 2007:10). DAHP concurred with these findings in a letter dated November 14, 2007.

4.6.3 Environmental Consequences

Alternative 1 – No Action

Because no federal activity would occur under the No Action Alternative, no requirement for compliance with Section 106 of the NHPA exists. Archaeological sites and historic resources would continue to be at the same risk level for potential flood damages.

Alternative 2 – Proposed Action

The Proposed Action has the potential to adversely affect archaeological deposits during construction, both by disturbing the spatial integrity of a site and by damaging individual artifacts. The results of a cultural resources surface survey (Komen 2007) suggest that the proposed Lewis Road realignment was previously disturbed by construction and operation of a former Boise Cascade Lumber Mill. No significant (NRHP-eligible) cultural resources were found to be located within the project area. Therefore, the Proposed Action would not affect any known resources. However, given the proximity to the Naches River, and the inability of a

pedestrian survey to identify potential, buried cultural resources, it is possible that as-yet unidentified resources could be disturbed by the Proposed Action. In the event of an unanticipated discovery during construction, in compliance with various state and Federal laws protecting cultural resources, including Section 106 of the NHPA, all construction work shall cease in the immediate vicinity of the find until appropriate parties (including the SHPO) are consulted and an appropriate plan is established.

4.7 SOCIOECONOMIC AND ENVIRONMENTAL JUSTICE (EO 12898)

Executive Order (EO) 12898, Environmental Justice, directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations in the US resulting from federal programs, policies, and activities. Socioeconomic and demographic data for residents in the project vicinity was studied to determine if a disproportionate number (defined as greater than 50 percent) of minority or low-income persons have the potential to be affected by the alternatives.

Alternative 1 – No Action

Because no federal activity would occur under the No Action Alternative, no requirement for compliance with EO 12898 exists. A greater potential for flooding and economic loss would continue to exist.

Alternative 2 – Proposed Action

U.S. Census Bureau data for Yakima County was used to identify the minority[1] and low-income[2] compositions of the study area, which is located in Block Group 2 (within Census Tract 29). Census 2000 data at the county level and census block group level was reviewed. In Yakima County and Block Group 2, the minority population ranges from 34 percent to 17 percent respectively. The poverty level for Yakima County was 20 percent, while the poverty level in Block Group 2 was four percent. As the project vicinity has a lower percentage of minorities and residents below poverty level, the Proposed Action would not cause adverse economic impacts and would comply with EO 12898.

[1] A minority person is "a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition)."

[2] Low-income is identified as "one whose median household income is at or below the Department of Health and Human Services poverty guidelines." Income data based on Department of Health and Human Services (HHS) guidelines are difficult to gather, so Census Bureau data are often used for environmental justice analyses.

The Council on Environmental Quality regulations for implementing NEPA requires an assessment of cumulative effects during the decision-making process for federal projects. Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative effects are considered for both the No Action and Proposed Action alternatives. Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions.

While the proposed roadway location would remain within the floodplain, no significant cumulative impacts would occur from the Proposed Action Alternative. While some terrestrial habitat would be eliminated, due to the limited scope of the work and the proposed mitigation no loss of any sensitive species is expected that would contribute a measurable amount to the cumulative effects. The road relocation would not result in increased capacity, nor are there any plans for future land use development in the area. Other nearby road projects in Yakima County include several safety improvements to the South Naches and Naches-Tieton Roads, including widening roads and improving roadway alignment.

FEMA is the lead federal agency for conducting the NEPA compliance process for the relocation project. As the lead agency, FEMA expedites the preparation and review of NEPA documents, responds to the inquiries of residents surrounding the project area, meets the spirit and intent of NEPA, and complies with all NEPA provisions.

A public notice was required for the draft EA. The public had the opportunity to comment on the EA for 30 days after the publication of the public notice. The notice identified the action, location of the proposed site, participants, location of the draft EA, and who to write to provide comments. FEMA reviewed all written comments submitted for identification of any significant issues that need to be addressed and incorporated them into the final EA, as appropriate.

Public involvement is ongoing and had begun before the initiation of this EA. The public has been notified in the past of the intent to carry out this action in public meetings during the preparation of the Naches River Comprehensive Flood Hazard Management Plan, the public open houses for the plan, and the meetings with the Town of Naches prior to adoption of the CFHMP by Naches. Two public meetings were held in May 2007 with direct mailings sent to the residents prior to the meetings. This project is a component of a larger project on South Naches Road. Several meetings were held in the vicinity to discuss the potential project alignment, with the most recent meeting in January 2006 where the final project alignment was presented to the public.

The following two plans are relevant to public involvement efforts supporting this EA.

Naches River Comprehensive Flood Hazard Management Plan

Public and agency involvement for the Naches River CFHMP was achieved by forming an advisory committee whose members—representatives of public and private organizations and agency representatives—assisted in establishing plan goals and objectives, identifying flood problems, and evaluating alternative solutions to flood problems. Additional agency representatives were contacted as needed throughout the plan preparation, and contact was maintained with Ecology to ensure compliance with Flood Control Assistance Account Program (FCAAP) requirements. Consensus by the group on the plan's recommendations ensures successful implementation of the Naches River CFHMP (Tetra Tech 2005).

Upper Yakima River Comprehensive Flood Hazard Management Plan

Public and agency involvement for the Upper Yakima River CFHMP was achieved by forming an Advisory Committee of 22 members who provided input through meetings and document review. The members represented the public, private organizations and agencies. Additional agency representatives were contacted as needed throughout the plan preparation, and contact with Ecology was maintained to ensure compliance with FCAAP requirements (KCM 2007).

Yakima County is required to obtain and comply with all required local, state, and federal permits and approvals prior to implementing the Proposed Action Alternative. Yakima County is required to apply, obtain and comply with both a floodplain permit and a no-rise certification prior to any construction activities. Development at the Proposed Action Alternative site shall comply with the approved site plan. Any expansion or alteration of this use beyond that initially approved would require a new or amended permit. Construction should occur during non-flood seasons, but in the event of construction with a flood season all construction equipment would need to be staged in an area not susceptible to flood events.

In the event that historically or archaeologically significant materials or sites (or evidence thereof) are discovered during the implementation of the project, the project shall be halted immediately and all reasonable measures taken to avoid or minimize harm to property. The County would then be required to consult with FEMA and the SHPO for further guidance.

The draft and final EA evaluated potentially significant resources that could be affected. The evaluations resulted in identification of no significant impacts associated with the resources of climate, geology and soils; floodplains; wetlands and water resources; vegetation; biological resources (endangered species act); historic, archaeological, and cultural resources; and socioeconomic and environmental justice. Obtaining and implementing permit requirements along with appropriate Best Management Practices will avoid or minimize any effects associated with the action. Since no significant impacts were identified during the public comment period, it is recommended that a finding of no significant environmental impact to the human or natural environment be issued for the Proposed Action Alternative.

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APPENDIX A Figures

Figure 1 – Vicinity Map

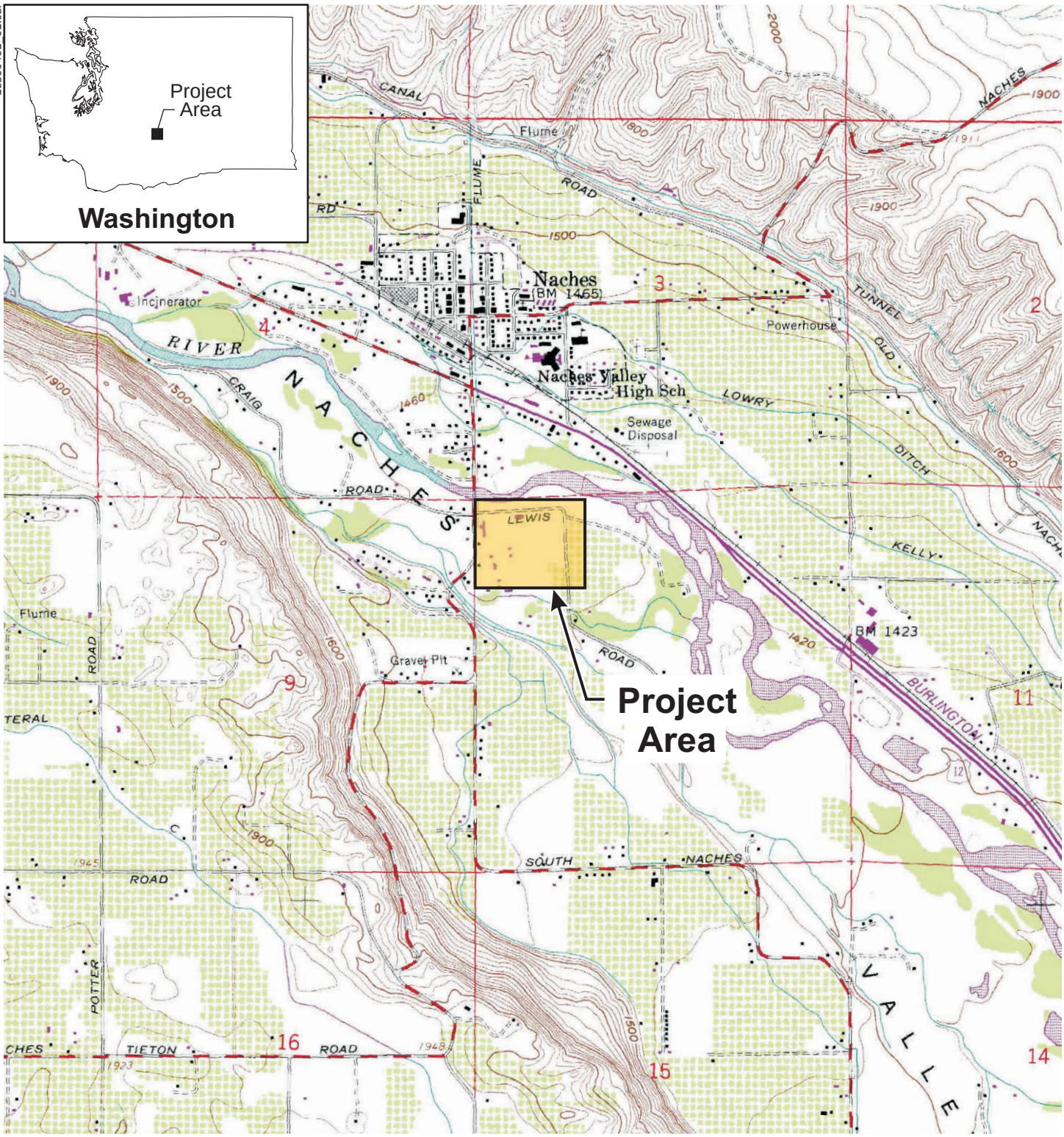
Figure 2 – Proposed Project

Figure 3 – National Wetland Inventory

Figure 4 – 5-Year Flood Event

Figure 5 – 10-Year Flood Event

Figure 6 – 25-Year Flood Event



Source: USGS 7.5-minute topographic quadrangle, Naches, Washington, 1978

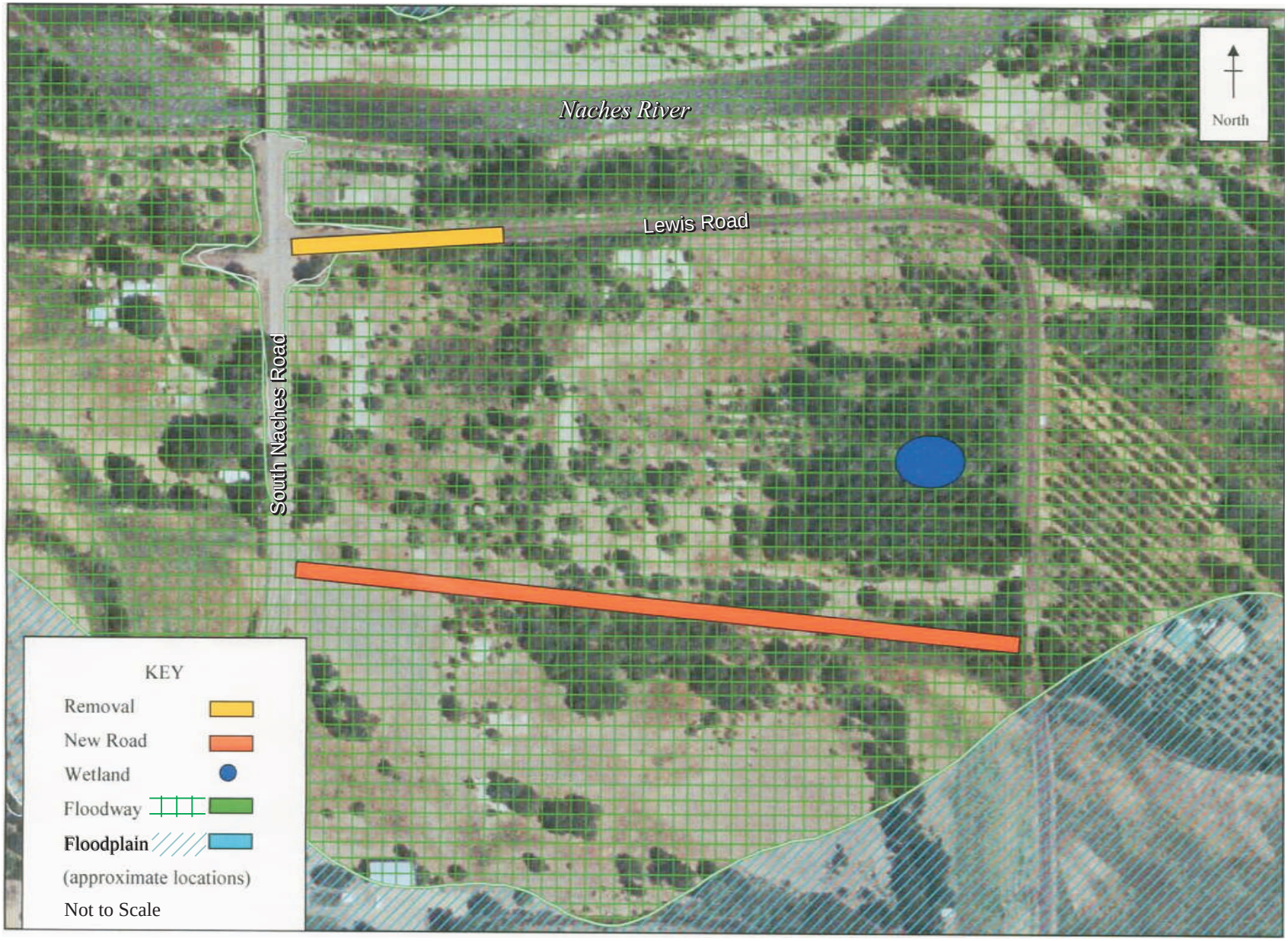
Job No. 15300401

Figure 1
Site Location Map

URS

Lewis Road Relocation Project
Yakima County, Washington

15300401_02.cdr



Source: Yakima County

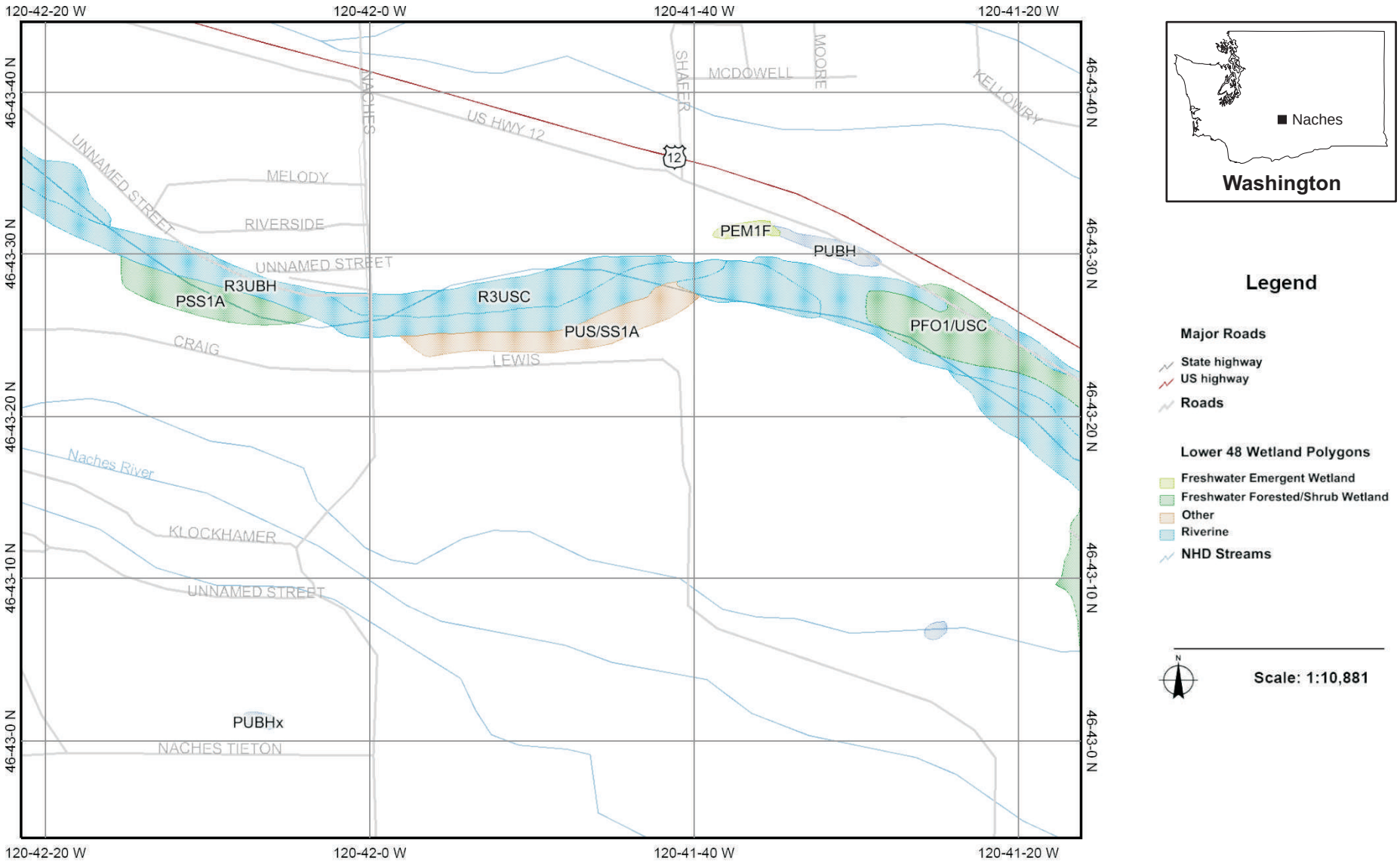
Figure 2
Proposed Project

Job No. 15300401

URS

Lewis Road Relocation Project
Yakima County, Washington

15300401_03.cdr



Source: US Fish & Wildlife Service National Wetlands Online Mapper

Figure 3

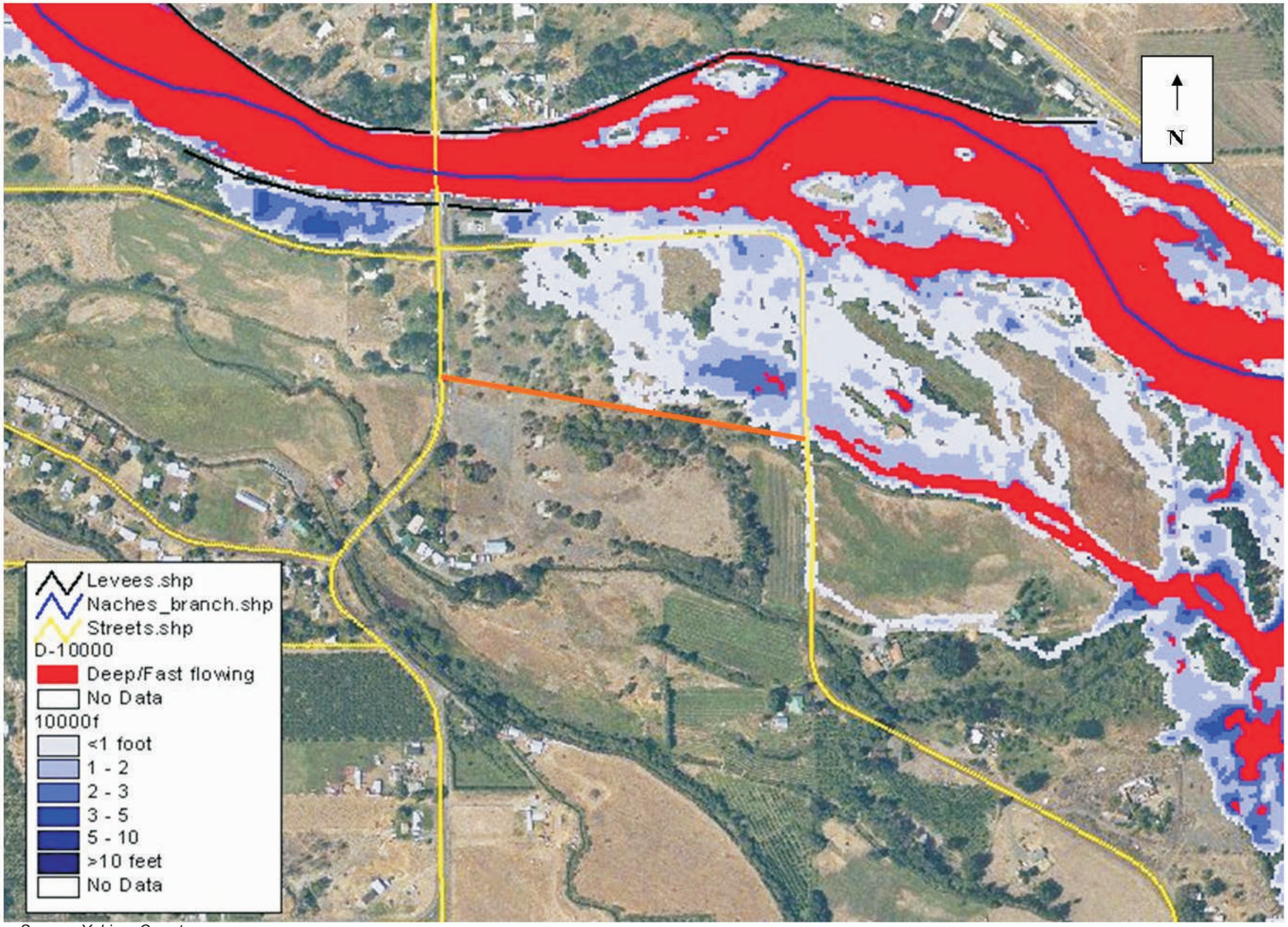
National Wetland Inventory

Job No. 15300401

URS

Lewis Road Relocation Project
Yakima County, Washington

15300401_04.cdr



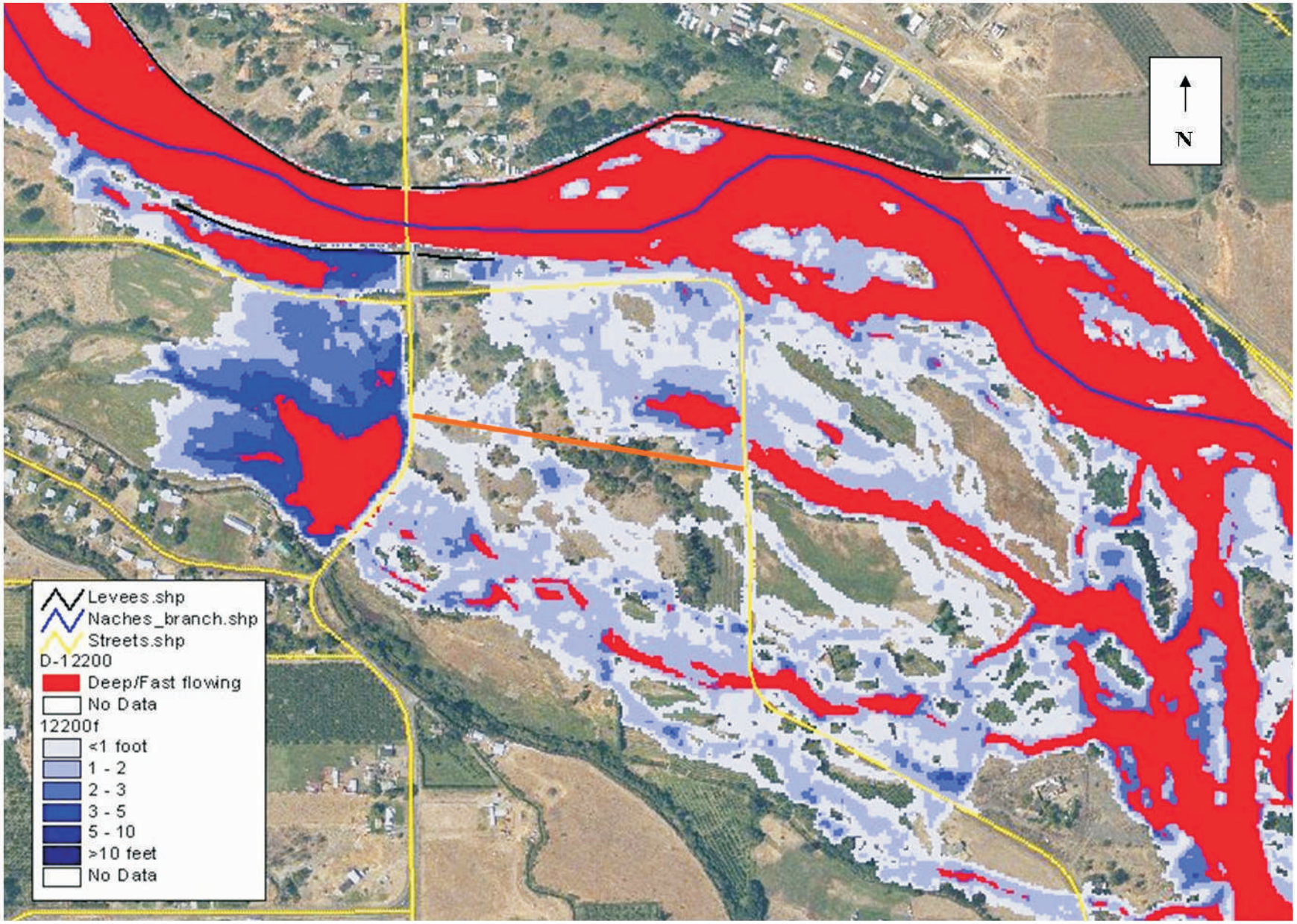
Source: Yakima County

Job No. 15300401

Figure 4
5-Year Flood Event

URS

Lewis Road Relocation Project
Yakima County, Washington



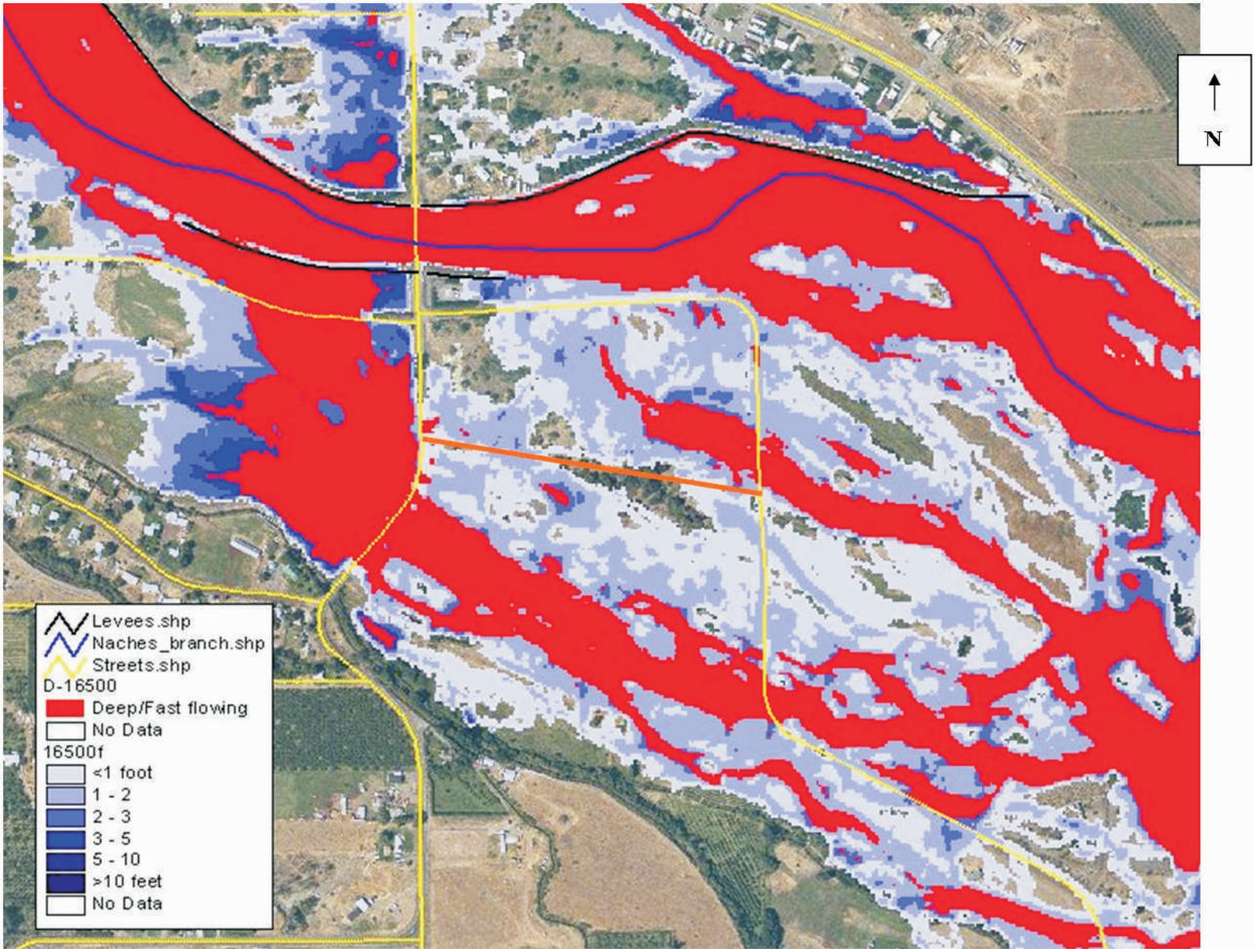
Source: Yakima County

Job No. 15300401

Figure 5
10-Year Flood Event

URS

Lewis Road Relocation Project
Yakima County, Washington



Source: Yakima County

Figure 6
25-Year Flood Event

Job No. 15300401

URS

Lewis Road Relocation Project
Yakima County, Washington