



**U.S. Department of Housing
And Urban Development**
Community Planning and Development
Environmental Branch

Environmental Assessment

(24 CFR 58.36)

Project Identification: Eagle Hill Road Slope Stabilization, Road-Widening and Multipurpose Building Construction Project



Prepared by:
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Responsible Entity: Shoalwater Bay Tribe

November 8, 2011



Environmental Assessment

Responsible Entity [24 CFR 58.2(a)(7)]: Shoalwater Bay Indian Tribe

Certifying Officer [24 CFR 58.2(a)(2)]: Pete Chadwick, Project Coordinator, Shoalwater Bay Indian Tribe

Project Name: Eagle Hill Road Slope Stabilization, Road-Widening and Multipurpose Building Construction Project

Project Location: The proposed project site is located on the Shoalwater Bay Indian Reservation, approximately 0.25 miles northwest of the Shoalwater Bay Tribal Casino, in Section 3, Township 14 N Range 11 W. The proposed project area includes the lowermost 2,000 feet of Eagle Hill Road, above its junction with State Route 105, and its general location is approximately 1-mile east and 1-mile west of the unincorporated communities of North Cove and Tokeland, respectively. The intersection of State Route 105 and Eagle Hill Road marks the southernmost extent of road-widening activities and bounds the southeastern corner of the immediate project area. Bands of emergent wetland extending between SR105 and Eagle Hill Road are located just south of the project area and drain seasonally through a partially functioning culvert.

Eagle Hill Road

Tokeland, WA 98590.

Section: Township: 14, Section 3, Range: 11W

Latitude: 46.7258 Longitude: -124.0242

Estimated total project cost: The proposed Shoalwater Bay Tsunami Evacuation Route Modifications, Hillside Stabilization and Multipurpose Building are design build projects with a combined estimated cost of \$1,433,000.

Grant Recipient [24 CFR 58.2(a)(5)]:
Shoalwater Bay Indian Tribe

Federal Action Agencies

Primary: U.S. Department of Housing and Urban Development (HUD): \$481,163.00 awarded for construction of multipurpose building

To facilitate the tiering of related or redundant assessments, this Environmental Assessment has incorporated the environmental review of all related project actions. Other potential funding sources include:

- Bureau of Indian Affairs: A maximum grant amount of \$800,000 for road widening and resurfacing activities and hill slope stabilization – this grant has not yet been awarded to this project; appointment of the funding is contingent upon successful completion of the environmental permitting and review process.
- FEMA/Homeland Security: FEMA/DHS Environmental and Historic Preservation Screening Form OMB No.: 1660-0115– this grant has not yet been awarded to this project; appointment of the funding is contingent upon successful completion of the environmental permitting and review process. This grant would pay for infrastructure, equipment, training and administration associated with the operation of the Multipurpose Building and the Tsunami Evacuation Route. Total currently requested amount: \$399,000.

Recipient Address:

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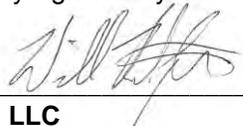


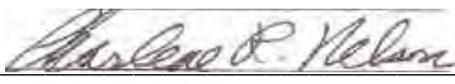
Conditions for Approval: (List all mitigation measures adopted by the responsible entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts or other relevant documents as requirements). [24 CFR 58.40(d), 40 CFR 1505.2(c)]

- Complete the necessary USACE Section 404 Clean Water Act permitting process to establish appropriate mitigation measures for impacts to the wetland areas adjacent to the intersection of SR 105 and Eagle Hill Road, and impacts to the wetland buffers in the area of the proposed hillside stabilization and multipurpose building.
- The storm water control technology employed on the multipurpose building site will be based on best management practices and applicable regulations, and designed to prevent continuing impacts to the wetlands. It will be selected during the design phase of this design-build project. Stormwater and runoff will be treated onsite and allowed to infiltrate into the groundwater.
- A mitigation plan is in place should anything of cultural significance be discovered during said construction. See Appendix A for the Eagle Hill Project Final Cultural Report.
 - a. Should anything of potential cultural/historic significance be discovered all work is to stop immediately and the area be left undisturbed.
 - b. The SBIT Heritage/Culture Dept. is to be notified as soon as possible and called upon to investigate the findings. Earl Davis, Heritage/Culture Director is the appropriate contact and can be reached at (360) 267-0731 or (360) 580-6274. A determination will then be made by the SBIT Heritage/Culture Dept. as to the nature/significance of human materials/artifacts discovered during the course of the proposed work and a decision of further action will be made.
 - c. If, during the course of the proposed work, materials are discovered that are of a nature where it is both culturally and/or physically possible to relocate them they will be moved and preserved so that work may continue.
 - d. If materials are discovered that are of a nature where it is both culturally and/or physically not possible to relocate them, the Heritage/Culture Dept. will make a motion to stop work entirely and discuss with the Shoalwater Bay Indian Tribe all other options.

FINDING: [58.40(g)]

- Finding of No Significant Impact**
(The project will not result in a significant impact on the quality of the human environment)
- Finding of Significant Impact**
(The project may significantly affect the quality of the human environment)

Preparer Signature:  Date: 11/8/11
 Title/Agency: ADESA, LLC

RE Approving Official Signature:  Date: 10/28/11
 Title/ Agency: Shoalwater Bay Indian Tribe, Tribal Chair



Statement of Purpose and Need for the Proposal: [40 CFR 1508.9(b)]

The Shoalwater Bay Indian Tribe's tsunami evacuation route, Eagle Hill Road, is currently inadequate for the Tribe's safety needs in the event of a tsunami. The evacuation route is an unpaved, single lane road that does not allow multi-directional traffic, there are few pull-off parking areas and 350 feet of the hillside north of Eagle Hill Road (overlying the Shoalwater Tribe's water main) is subject to frequent landslides from unstable slopes (Chadwick, 2011)(Shoalwater, 2008). Another issue being addressed by the currently proposed project is the need for a multipurpose building for the Tribal Community. The multipurpose building will provide the Shoalwater Bay Tribe a much needed multi-use community facility and parking area at an elevation above 50ft AMSL, the elevation recommended for tsunami evacuation assembly areas by the Pacific County Emergency Management, the Emergency Management Division of the Washington Military Department, and the Shoalwater Bay Tribe's emergency management services.

Description of the Proposal: Include all contemplated actions that logically are either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 58.32, 40 CFR 1508.25]

The Shoalwater Bay Indian Tribe is considering the widening of an existing tsunami evacuation route and the development of a multipurpose building on Eagle Hill Road within the current reservation boundaries. The project would involve the following components:

- 1) Stabilizing a 350ft slide area/unstable hill-slope north of Eagle Hill Road by removing an estimated 72,432 cubic yards of overburden material and re-grading the immediate area to the approximate elevation of the existing road (~55ft AMSL).
- 2) On the site of the regarded hill-slope, construct a Tribal Community two storey multipurpose building (approximately 3200ft²), an associated parking area (also 3200ft²), and septic system at an elevation of approximately 55ft AMSL, well above the predicted tsunami height for the area. The Multipurpose building will be constructed using HUD funds. Once construction is commenced, upgrades to the multipurpose building, proposed to be funded by a FEMA/DHS grant, include the purchase and installation of communications equipment.
- 3) Make necessary improvements to the lower 0.4 miles of Eagle Hill Road, including: widening the existing roadway to two lanes, completing minor realignments and resurfacing activities, and making needed improvements to drainage structures.

Existing Conditions and Trends: Describe the existing conditions of the project area and its surroundings, and trends likely to continue in the absence of the project. [24 CFR 58.40(a)]

The Shoalwater Bay Indian Tribe is small, but increasing in population. The Shoalwater Bay Tribe currently has over 120 individuals residing on the Reservation with 333 enrolled tribal members who reside as close as on the Reservation to as far away as Louisiana. The Tribe's BIA designated service area population is 1,204 with 384 of these individuals under the age of 16, 689 individuals ages 16-64 and 131 over the age of 64. (Shoalwater Bay Tribal Enrollment Clerk, 2011). Many tribal members work at the Tribal casino or in the Tribal Government. Tribal members are also commercial fishermen within Willapa Bay and make use of local native plant species for Tribal crafts and ceremonial use.

The Shoalwater Bay Indian Tribe's tsunami evacuation route, Eagle Hill Road, is currently inadequate for the Tribe's safety needs in the event of a tsunami. The evacuation route is an unpaved, single lane road that does not allow multi-directional traffic and there are few parking areas. Eagle Hill Road overlies the Shoalwater Tribe's water main, which emanates from a well/tower water system located within the project area. For approximately 350ft of Eagle Hill Road, in the area of the proposed stabilization and multipurpose building construction, frequent landslides from the unstable slopes north of the roadway threaten the tsunami evacuation route, the tribal water supply and wetland areas along SR 105 (Shoalwater, 2008).

There are few developable areas within the boundaries of the Shoalwater Bay Reservation that higher in elevation than the recommended evacuation height (>50ft AMSL). There is also a need for tribal community multi-use facilities. The multipurpose building will provide the Shoalwater Bay Tribe a much needed multi-use facility and parking area at a proposed elevation of 55' AMSL, above the elevation recommended for tsunami evacuation assembly areas by the Pacific County Emergency Management, the Emergency Management



Division of the Washington Military Department, and the Shoalwater Bay Tribe's emergency management services.

The implementation of this construction proposal will result in short term employment during the construction phases but is not anticipated to impact long term jobs. The Shoalwater Bay Indian Tribe's Eagle Hill Road Project will enhance the resilience of the Tribal emergency management capabilities in accordance with the goals expressed in the Shoalwater Bay Tribe's Hazard Mitigation Plan, greatly enhancing the Tribe's tsunami evacuation route while protecting Eagle Hill Road, the tribal water supply, and wetland areas along SR105 from actively sliding hillsides.

Attachment 1: FEMA Firmette Community Panel Number 530126 0016B

Attachment 2: Sole Source Aquifers Map

Attachment 3: 1995 USGS Topographic Map

Attachment 4: Aerial Photograph of Proposed Project Site

Attachment 5: Preliminary Site Plan

Appendix A: THPO Letter and Historic Determination

Appendix B: Floodplain and Wetland Determination

Appendix C: Biological Assessment (BA)

Appendix D: Phase I Environmental Site Assessment

Appendix E: Geotechnical Report



Statutory Checklist

[24CFR §58.5]

For each listed statute, executive order or regulation, record the determinations made. Note reviews and consultations completed as well as any applicable permits or approvals obtained. Attach evidence that all required actions have been taken. Record any conditions or mitigation measures required. Then, make a determination of compliance or consistency.

Factors	Determinations and Compliance Documentation
<p>Historic Preservation [36 CFR 800]</p>	<p>“...The Shoalwater Bay Heritage department recommends that a good faith effort be made to transplant the three species of plants mentioned above (Red Elder Berry, Thimble berry and Salmon Berry). These three species are not as common as other on the reservation and their preservation is of cultural importance. It is also recommended that the trees to be felled during the project be utilized in a culturally sensitive manner, (i.e. firewood for tribal people, carving materials etc...) It is the determination of the Heritage Department that the shell layer (discovered on the unstable hillside to be regarded) is that of a natural occurrence as opposed to human in nature. No evidence of human contributions could found within the shell layer. The SBIT Heritage department recommends that work proceed as proposed. In the event of any inadvertent discoveries the SBIT Heritage Department should be notified immediately and all work shall cease...” (Davis, 2010). These findings indicate that there is a low likelihood of potential disturbance of culturally/historically sensitive materials. The Washington State DAHP office concurred with the findings of the Shoalwater Bay Indian Tribe Heritage/Cultural Department. See attached documentation in Appendix A</p>
<p>Floodplain Management [24 CFR 55, Executive Order 11988]</p>	<p>The proposed road widening activities near the intersection of Eagle Hill Road and SR 105 would involve work within the FEMA designated 100 year flood plain and the filling of a small area of wetlands on the east and west sides of Eagle Hill Road (totaling approx. 2450ft²) to accommodate the expanded road surface/right of way. This finding is based on the FEMA Flood Insurance Rate Map Community Panel Number 5301260016B dated September 27, 1985. The BFE on the site is approximately 11 feet above mean sea level. Four alternative properties were evaluated, and it was determined that the currently proposed location represents the best location based on site access, current land ownership, proximity to the Shoalwater Bay Tribal Community, access to utilities and overall development potential. The project design will attempt to minimize potential impacts to flood plain values. A 15-day comment period was allowed and published in the <u>Willapa Harbor Herald</u> and the <u>South Beach Bulletin</u>. Once a determination of No Practicable Alternative was reached, an additional 7-day comment period began, and an announcement was published in the <u>Willapa Harbor Herald</u> and <u>South Beach Bulletin</u>. One comment was received during the public/agency notice periods from the Washington Department of Transportation. Refer to the Flood Plain Map Attachment 1, and the Floodplain and Wetland Determination in Appendix B.</p>
<p>Wetlands Protection [Executive Order 11990]</p>	<p>The proposed project would involve direct impacts to approximately 0.07 acres areas of wetlands. In accordance with the EO, a 15-day comment period was allowed and advertised in the <u>Willapa Harbor Herald</u> and the <u>South Beach Bulletin</u>. Once a determination of No Practicable Alternative was reached, an additional 7-day comment period began, and an announcement published in the <u>Willapa Harbor Herald</u> and <u>South Beach Bulletin</u>. One comment was received during the public/agency notice periods from the Washington Department of Transportation. Refer to the Floodplain and Wetland Determination in Appendix B.</p>
<p>Coastal Zone Management Act [Sections 307(c),(d)]</p>	<p>The Subject Property is located on tribal lands owned by the Shoalwater Bay Indian Tribe. Coastal Zone Management laws do not apply on tribal lands. Source: 15 CFR Part 930</p>



<p>Sole Source Aquifers [40 CFR 149]</p>	<p>The aquifer underlying this property is not in a critical aquifer protection area according to the National Summary of Sole Source Aquifer Designation as determined by the U.S. EPA. Source: http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=SSA. For map see Attachment 2</p>
<p>Endangered Species Act [50 CFR 402]</p>	<p>Under contract with the Shoalwater Bay Indian Tribe, Forest & Channel Metrics, of Olympia, WA, performed a Biological Assessment of the project area. USFWS and NMFS were consulted early on in the project. A biologist representative from USFWS, Ken Livezy, attended a project meeting and site walk-through in May 2011, and provided concurrence with the no effect determination. Primary impacts resulting from the proposed project are associated with the clearing and removal of vegetation and soils and elevated noise levels related to the operation of heavy equipment. Minor impacts to aquatic species as a result of short term alterations in water quality, while not anticipated, may occur within the project action area following the onset of fall precipitation, as residual construction related sediment is washed off site. Forest & Channel Metrics has concluded that the project is not likely to adversely affect threatened or endangered species including the Bull Trout, Marbled Murrelet, Northern Spotted Owl, and the North American Green Sturgeon. The project is also anticipated to have no effect on the protected Bald Eagle species (Forest & Channel Metrics, 2011). Based on their review of the work performed by Forest & Channel Metrics, the Shoalwater Bay Tribal Department of Natural Resources has made a no effect determination for listed species and/or designated critical habitat from the proposed action. More details are discussed in Appendix C. Source: (Forest & Channel Metrics, 2011)(Burns, 2011)</p>
<p>Wild and Scenic Rivers Act [Sections 7 (b), (c)]</p>	<p>The Subject Property is not located within one mile of any National Park Service designated Wild and Scenic Rivers. (Source: http://www.rivers.gov/wildriverslist.html#w)</p>
<p>Air Quality [Clean Air Act, Sections 176 (c) and (d), and 40 CFR 6, 51, 93]</p>	<p>The State of Washington does not currently have any non-attainment areas (counties). Short term air quality impacts that may be expected to result from this project are related to construction activities. Typical dust control measures will be implemented during the construction phases of the project. Source: (EPA http://www.epa.gov/air/data/geosel.html)</p>
<p>Farmland Protection Policy Act [7 CFR 658]</p>	<p>The Subject Property is located in a commercially zoned area of the Shoalwater Bay Indian Reservation. The Subject Property does not include prime or unique farmland defined by the U.S. Department of Agriculture.</p>
<p>Environmental Justice [Executive Order 12898]</p>	<p>Environmental impacts associated with the development of the proposed site are related to unlikely non-commercial species impacts, runoff, and wetland and floodplain issues discussed elsewhere in this assessment. Once construction is complete, and assuming the facility is operated in accordance with relevant best management practices and regulations, there will be little detrimental environmental impact. The Subject Property is currently undeveloped, with the exception of Eagle Hill Road, and no area residents will be displaced during or following the construction required for the project. The property is bound to the east, west and north by forested areas on the Shoalwater Reservation and to the south by State Route 105 with dune and tide land areas of Willapa Bay beyond. The project will benefit local residents and guests to the area by provided needed improvements to a local tsunami evacuation route/assembly area; therefore, the project does not pose an Environmental Justice concern.</p>



HUD Environmental Standards Determinations and Compliance Documentation

<p>Noise Abatement and Control [24 CFR 51 B]</p>	<p>Current pre-project ambient noise levels are low, and consist primarily of limited light vehicle traffic on Eagle Hill Road as well as noise generated from light vehicle and log truck traffic from nearby SR105, which lies within 500 feet of the proposed project site; background noise levels generated by the highway are estimated at between 60 and 65dB.</p> <p>During the preliminary phases of the proposed project some short term, periodic noise associated with the use of chainsaws will occur during the removal of the trees. In addition, short term noise (within the range of 1-2 hours, total duration) associated with the operation of diesel engines is anticipated while the trees are yarded onto the existing roadway for loading and transport.</p> <p>On or after June 15, 2012, stabilization of the slide area, including the excavation and removal of soils and re-grading the project site will begin. An estimated 72,432 cubic yards of soil will be removed from the project site during the course of this project and recycled off-site. The total area directly impacted during the excavation, removal, and re-grading activities is estimated at approximately 1.09 acre (47,480 feet²). Equipment used during this portion of the project includes excavators, bulldozers and dump trucks, in addition to periodic use of a street sweeper to maintain State Route 105 in the vicinity of its junction with Eagle Hill Road. It is expected that noise levels generated by heavy equipment and chainsaws used during this phase of the project will fall within the range of 80-90dB. (Forest & Channel Metrics, 2011)</p>
<p>Toxic or Hazardous Substances and Radioactive Materials [HUD Notice 79-33] , 24 CFR 58.5(i)(2)</p>	<p>The Subject Property was inspected using typical criteria used for Phase I Environmental Site Assessments (EPA AAI & ASTM 1527-05). No potential toxic, hazardous or radioactive substances or materials were identified in the immediate area that may potentially impact the project area. Based on the site inspection, historical information and the environmental records review associated with the Phase I ESA report, no recognized environmental conditions (RECs) were found in association with the Subject Property or properties within the required search radius. Source: (ADESA, 2011)</p> <p>The future construction phases of the project will involve portable fuel tanks and heavy equipment use, and the completed multipurpose building will operate an above ground diesel fuel tank to operate an emergency generator. The above ground storage tank (AST) system will be constructed and operated in accordance with all relevant best management practices and State/ Federal regulations, providing all of the leak and vapor protections afforded under those standards.</p>
<p>Siting of HUD-Assisted Projects near Hazardous, Explosive or Flammable Operations [24 CFR 51 C], 24 CFR 58.5(i)(2)</p>	<p>The Subject Property was inspected using typical criteria used for Phase I Environmental Site Assessments (ASTM 1527-05). No hazardous operations were identified within the search radius. The Shoalwater Bay Casino currently utilizes one 3,000-gallon aboveground storage tank (AST) that holds diesel fuel used to power a backup generator. The proposed project is located beyond the acceptable separation distance calculated for the tank of 437ft.</p> <p>Other UST/ASTs in the area are utilized exclusively for residential purposes and/or are tanks not regulated by the Washington State Department of Ecology or the US EPA, and are ancillary to the operation of buildings; therefore based on HUD's stated policy, the regulation does not apply. Source: (ADESA, 2011)</p>
<p>Airport Clear Zones and Accident Potential Zones [24 CFR 51 D]</p>	<p>The Subject Property does not lie within an FAA designated airport Runway Clear Zone (RCZ) or Accident Potential Zone (APZ). Source: (http://www.hud.gov/local/shared/working/r10/environment/airports.pdf)</p>



Environmental Assessment Checklist

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27]

Evaluate the significance of the effects of the proposal on the character, features and resources of the project area. Enter relevant base data and verifiable source documentation to support the finding. Then enter the appropriate impact code from the following list to make a finding of impact. **Impact Codes:** (1) - No impact anticipated; (2) - Potentially beneficial; (3) - Potentially adverse; (4) - Requires mitigation; (5) - Requires project modification. Note names, dates of contact, telephone numbers and page references. Attach additional materials as needed.

Land Development	Code	Source or Documentation
Conformance with Comprehensive Plans and Zoning	1	The project is located within a commercially zoned area of the Shoalwater Bay Indian Reservation. The proposed activities conform to Tribal land use guidelines for Reservation trust properties. Source: (Chadwick, 2011)
Compatibility and Urban Impact	2	The proposed activities include widening the Shoalwater Bay Tribe's existing tsunami evacuation route (Eagle Hill Road), the stabilization of a hillside threatening the Tribal water supply, and the development of a multipurpose building of the stabilized slope. The proposed site is located on the Shoalwater Bay Tribes existing tsunami evacuation route and the building site located above the anticipated height of potential tsunami events. The Shoalwater Bay Tribal Council has achieved consensus on the proposed work on the Eagle Hill Road site. Source: (Chadwick, 2011)
Slope	2	The project area contains areas of 30-65 percent slopes. Slopes in on the Shoalwater Reservation north of SR 105, have a history of instability including the area of Eagle Hill Road and the proposed Multipurpose Building site (Shoalwater, 2008). The most recent slides on Eagle Hill Road have occurred in January/February and September of 2011. One of the components of the proposed project involves stabilizing a 350ft slide area/unstable hill-slope north of Eagle Hill Road by removing an estimated 72,432 cubic yards of overburden material and re-grading the immediate area to the approximate elevation of the existing road (~55ft AMSL). Prior to initiating construction, a stormwater runoff control plan will be reviewed and approved by the Shoalwater Bay Tribe's Natural Resources Department or the approved contractor to prevent impacts to Willapa Bay. Source: (Chadwick, 2011) Also see Attachment 3 Topographic Map, and Appendix E Geotechnical Report.
Erosion	2	The geotechnical report for the project site, performed by E3RA of Tacoma, WA, recommends completing the earthwork portion of the project during the dry season and installing an erosion control system of berms and drainage ditches around all construction areas. (E3RA, 2010) Following the construction phases, assuming appropriate stormwater and runoff control measures are taken, the project are will not significantly contribute to the erosion of soils in the vicinity. The geotechnical report for the Subject Property is attached as Appendix E of this document.
Soil Suitability	2	According to the USDA Soil Survey of Pacific County According to the NRCS soil survey for Pacific County, the dominant soil types on the Subject Property are the Ocosta silty clay loam (104) and the Newskah loam, 30-65% slopes (96) (USDA, 1986). The geotechnical investigation performed on the project site suggests that while surface soils are unsuitable for construction or reuse in many areas of the property, test pits exhibited that underlying soil suitable for the project needs are present. The report further provides recommendations for the areas where specific project tasks are to occur (E3RA, 2010). See attached Appendix E Geotechnical Report for additional information.
Hazards and Nuisances including Site Safety	2	Slope stability and erosion hazards will be present during the slope stabilization and road modification, particularly in the early phases. These issues are discussed further above and in the geotechnical report (E3RA, 2010) and in the Tribal Hazard Mitigation Plan (Shoalwater, 2008). For construction hazard and safety impacts and mitigation, the selected



		Contractors' construction Site Safety Plan will be implemented. The above ground diesel storage tank system will be installed and operated using best management practices for dealing with hazards and safety issues. Source: (Chadwick, 2011)
Energy Consumption	1	The Shoalwater Bay Tribe designs and builds all HUD funded community and commercial structures per the requirements of HUD regulations (24 CFR 1000). Source: (Chadwick, 2011)
Noise - Contribution to Community Noise Levels	1	Construction activities will be conducted during general business hours. After construction phases are complete, there will be little noise contribution above the noise currently experienced in the project area, estimated 60 and 65dB, which includes light vehicle traffic on Eagle Hill Road as well as noise generated from light vehicle and log truck traffic from nearby SR105. The Multipurpose Building will not serve as housing and will generally operate only during normal business hours. Source: (Chadwick, 2011)
Air Quality Effects of Ambient Air Quality on Project and Contribution to Community Pollution Levels	1	Short term air quality impacts related to phased construction of the proposed project will be mitigated by controlling dust using standard methods. The Subject Property is not currently in a non-attainment area. Once the proposed project is complete it will have little effect on local air quality. Source: (Chadwick, 2011)
Environmental Design Visual Quality - Coherence, Diversity, Compatible Use and Scale	1	The Shoalwater Bay Tribe anticipates the design of the building and infrastructures will reflect the heritage and tradition of the Shoalwater Bay Indian Tribe. The building will be designed to enhance the visual aesthetic to the highest degree practical/possible. Source: (Chadwick, 2011)

Socioeconomic	Code	Source or Documentation
Demographic Character Changes	1	The demographic character of the community is not anticipated to be impacted by the currently proposed project. Source: (Chadwick, 2011)
Displacement	2	Access to the single residential property located off Eagle Road will be maintained during construction activities. The remainder of the Tribal property off Eagle Hill Road is undeveloped forest and timber land. No displacement of individuals or businesses is anticipated as a result of this project. Stabilizing the hill side on Eagle Road will actually prevent the possibility of displacement of the occupants of the residential property by reducing the risk of landslides and erosion from the unstable slopes. Source: (Chadwick, 2011)
Employment and Income Patterns	1	The implementation of this construction proposal will result in short term employment during the construction phases, but will have little or no impact on long term employment patterns in the area. Source: (Chadwick, 2011)

Community Facilities and Services	Code	Source or Documentation
Educational Facilities	1	Construction of this facility will not impact current educational facilities directly. Source: (Chadwick, 2011)
Commercial Facilities	1	Construction of this facility will not impact current commercial facilities directly. Source: (Chadwick, 2011)
Health Care	1	The proposed project will not have an impact of in-place health services provided by the Shoalwater Bay Indian Tribe through its Wellness Center. Source: (Chadwick, 2011)
Social Services	2	The proposed project will enhance the Shoalwater Bay Tribe's existing tsunami evacuation route making is more suitable for its prescribed task through resurfacing, stabilization and widening to allow multidirectional



		traffic. Additionally, the multipurpose building will be available for various tribal activities and will be equipped with an above ground diesel fuel tank and emergency generator. Source: (Chadwick, 2011)
Solid Waste	1	Solid Waste disposal for the Shoalwater Bay Tribe is contracted to LeMay Enterprises and will not be altered or stressed significantly by the proposed project. Source: (Chadwick, 2011)
Waste Water	4	The waste water system for the proposed multipurpose building will be an onsite septic system that will be designed in accordance with relevant regulations to protect local surface water and groundwater. Source: (Chadwick, 2011)
Storm Water	4	The project specifications will call for the contractor to follow standard erosion control practices during construction. A construction stormwater pollution prevention plan (SWPP) will be provided by a licensed civil engineer. During the construction phases, a Washington State CESCL will be used to assess stormwater controls and monitor runoff. None of the areas affected by this project are currently paved. If necessary, a NPDES NOI will be filed for the project. The project will adhere to the best management practices found in The Stormwater Management Manual for Western Washington. The completed project, including the finished multi-purpose building and associated parking area will result in the addition of approximately 6,400 feet ² of impervious surface. Source: (Chadwick, 2011), Estimates of impervious surface based on the Red Plains Professionals preliminary site plan presented as Attachment 5.
Water Supply	2	The capacity of the existing Shoalwater Bay Tribal water service will be adequate to accommodate the additional use required by the operation of the multipurpose building. The proposed project will protect the existing water system by stabilizing the unstable hill side on Eagle Hill Road that is currently threatening the water supply infrastructure. Source: (Chadwick, 2011)
Public Safety Police	2	The Tribal Police Department handles most criminal or safety response calls. In the event that an emergency tsunami evacuation of the Shoalwater community is necessary, the improvements to Eagle Hill Road will greatly ease local emergency responders in coordinating evacuees at the assembly point on Eagle Hill Road. Source: (Chadwick, 2011)
Fire	2	Pacific County Fire District #5 is the first responder to emergency health and fire related incidents on the Shoalwater Bay Indian Reservation. In the event that an emergency tsunami evacuation of the Shoalwater community is necessary, the improvements to Eagle Hill Road will greatly ease local emergency responders in coordinating evacuees at the assembly point on Eagle Hill Road. Source: (Chadwick, 2011)
Emergency Medical	1	The Shoalwater Bay Wellness Center and the Pacific County Fire Protection District will provide emergency medical care to the proposed facility. In the event that an emergency tsunami evacuation of the Shoalwater community is necessary, the improvements to Eagle Hill Road will greatly ease local emergency responders in coordinating evacuees at the assembly point on Eagle Hill Road. Source: (Chadwick, 2011)
Open Space & Recreation Open Space	1	The proposed use of the site will not significantly reduce open space or recreation in the project area. Approximately 1.09 acres of uplands will be disturbed during the construction phases of this project. Following and concurrent to the construction disturbed areas not slated for development will be replanted. Source: (Chadwick, 2011)
Recreation	1	The tribal gymnasium, the Shoalwater Bay Casino, hiking, fishing, and historic sites will not be negatively impacted by the proposed construction. The proposed project will not impact existing recreational activities in the



		region. Source: (Chadwick, 2011)
Cultural Facilities	2	The proposed project will not negatively impact or negate the use of the cultural facilities or any other local attractions or activities. One of the functions of the proposed Multipurpose Building will be to provide a space various cultural activities. Source: (Chadwick, 2011)
Transportation	2	Pacific Harbor Transit and personal vehicles are the primary modes of transportation for residents and visitors. The proposed project will not negatively impact the operation of the bus line or private vehicles in the area. Source: (Chadwick, 2011)

Natural Features	Code	Source or Documentation
Water Resources	4	The stormwater control capture, storage and treatment technologies will be based on best management practices in the design phase of the project. The design will capture, treat, and release stormwater and waste water resulting from the operation of the site. When operated and maintained in compliance, the proposed project will pose little threat to nearby water resources. Source: (Chadwick, 2011) (Forest & Channel Metrics, 2011)
Surface Water	4	The stormwater control capture, storage and treatment technologies will be based on best management practices in the design phase of the project. The design will capture, treat, and release stormwater and waste water resulting from the operation of the site in compliance with current regulations. When operated and maintained in compliance, the proposed project will pose little threat to nearby surface water resources. Source: (Chadwick, 2011) (Forest & Channel Metrics, 2011)
Unique Natural Features and Agricultural Lands	1	Based on the site inspection, interviews with Shoalwater Tribal representatives (Chadwick, 2011) and the findings of the biological assessment (Forest & Channel Metrics, 2011), there are no unique natural features or agricultural lands within the project area or in the immediate surrounding area.
Vegetation and Wildlife	1	The Biological Assessment performed by Forest & Channel Metrics has found no or unlikely affects are anticipated to sensitive, threatened and/or endangered species and habitats as a result of the construction and operation of the Eagle Hill Tsunami Evacuation Route and Multipurpose Building. Source (Forest & Channel Metrics, 2011)

NOTE: The Responsible Entity must additionally document and ensure compliance with 24 CFR §58.6 in the ERR, particularly with the Flood Insurance requirements of the Flood Disaster Protection Act and the Buyer Disclosure requirements of the HUD Airport Runway Clear Zone/Clear Zone regulation at 24 CFR 51 Subpart D.



Summary of Findings and Conclusions

The Shoalwater Bay Tribe proposes to make improvements to their existing tsunami evacuation route and assembly area and construct a Multipurpose Building, both requiring the stabilization of hazardous slopes along Eagle Hill Road. The Subject Property is within the geographic boundaries of the Shoalwater Bay Indian Reservation. It is located northwest of Tokeland, Washington at the intersection of State Route 105 and Eagle Hill Road. The proposed Multipurpose Building site is forested undeveloped land and Eagle Hill Road is a single lane, unpaved tsunami evacuation route that also serves as access to the commercial forest north of the project site and a single residential dwelling to the northwest.

ALTERNATIVES TO THE PROPOSED ACTION

Alternatives and Project Modifications Considered [24 CFR 58.40(e), Ref. 40 CFR 1508.9] (Identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it.)

The Shoalwater Bay Indian Tribe considered alternative actions and four alternative sites (including the currently proposed site) and actions site alternatives were evaluated. The currently proposed site was selected due to its fulfillment of the evaluation criteria. The criteria utilized by the Shoalwater Bay Indian Tribe for selecting the project site included:

- Access to the site
- Current land ownership
- Proximity to the Shoalwater Bay Tribal Community
- Access to utilities
- Development potential

Site 1: This site is located on Eagle Hill Road, the current designated tsunami evacuation route for the Tribe, within the current Shoalwater Indian Tribal Reservation. It was eliminated due to engineering and geotechnical concerns that the proposed building pad for the multipurpose building and the proposed two lane tsunami evacuation route widening could not be accommodated at a reasonable expense. Simply inadequate area exists on the ridge line. This site would also require the extension of the road and utility work required to support the tsunami route upgrades and the multipurpose building.

Site 2: This site is located on Eagle Hill Road, the current designated tsunami evacuation route for the Tribe, within the current Shoalwater Indian Tribal Reservation. It was eliminated due to the extensive excavation that would be required to accommodate the building pad for the multipurpose building and the lack of water lines in that portion of Eagle Hill Road, which would require additional investment in the utility infrastructure.

Site 3: This site is located on the eastern Shoalwater Tribal Reservation boundary off of an unpaved logging access road running through Teal Duck Slough. The site was eliminated due to the expense of establishing the necessary water and power utilities to the remote area, and the extensive impacts to the wetlands and the floodplain of Teal Duck Slough that the widening of the small access road would require.

Site 4: The proposed building site for Multipurpose Building that was selected during the evaluation possesses the required utility infrastructure and only requires site clearing and grading. See Appendix B for additional information about the alternatives examined.

Portions of the four alternative sites evaluated would require floodplain/wetland impacts resulting from the road widening necessary to upgrade and widen the unpaved roads leading to areas of higher elevation on the Shoalwater Bay Indian Reservation required for a tsunami evacuation route. The four sites are depicted and labeled on the aerial photograph presented in Appendix B. The site selected for the project minimizes impacts to the floodplain; however, given the surface water and wetland characteristics of the vicinity, all access routes on the Shoalwater Bay Tribal Reservation that lead to areas of sufficient tsunami evacuation elevation would require some impact to the floodplain.

The proposed multipurpose building, slope stabilization and tsunami route modification project is being undertaken as a *design build project*, and the plans are currently conceptual. Appendix E contains a report describing the site alternative selection process. See Attachment 5 for a preliminary site plan completed by engineering firm, Red Plains Professionals of Vancouver, WA.



No Action Alternative [24 CFR 58.40(e)]

(Discuss the benefits and adverse impacts to the human environment of not implementing the preferred alternative).

Not moving forward with the currently proposed tsunami evacuation route widening and development may place the Shoalwater Tribal Community in jeopardy during any future tsunami events. Eagle Hill Road is the current tsunami evacuation route; however the road is an unpaved, single lane road with no potential parking and no opportunity for two-way traffic, making it very difficult to provide for an effective evacuation (Shoalwater, 2008). A water tower located further up Eagle Hill Road that provides water to the Tribal Community. Not moving forward with the road and slope enhancements on Eagle Hill Road would place the water supply in danger due to the unstable slopes located in the area of the proposed multipurpose building and slope stabilization portions of the project.

Mitigation Measures Recommended [24 CFR 58.40(d), 40 CFR 1508.20]

(Recommend feasible ways in which the proposal or external factors relating to the proposal should be modified in order to eliminate or minimize adverse environmental impacts.)

- Complete the necessary USACE Section 404 Clean Water Act permitting process to establish appropriate mitigation measures for impacts to the wetland areas adjacent to the intersection of SR 105 and Eagle Hill Road, and impacts to the wetland buffers in the area of the proposed hillside stabilization and multipurpose building.
- The storm water control technology employed on the multipurpose building site will be based on best management practices and applicable regulations, and designed to prevent continuing impacts to the wetlands. It will be selected during the design phase of this design-build project. Stormwater and runoff will be treated onsite and allowed to infiltrate into the groundwater.
- A mitigation plan is in place should anything of cultural significance be discovered during said construction. See Appendix A
 - a. Should anything of potential cultural/historic significance be discovered all work is to stop immediately and the area be left undisturbed.
 - b. The SBIT Heritage/Culture Dept. is to be notified as soon as possible and called upon to investigate the findings. Earl Davis, Heritage/Culture Director is the appropriate contact and can be reached at (360) 267-0731 or (360) 580-6274. A determination will then be made by the SBIT Heritage/Culture Dept. as to the nature/significance of human materials/artifacts discovered during the course of the proposed work and a decision of further action will be made.
 - c. If, during the course of the proposed work, materials are discovered that are of a nature where it is both culturally and/or physically possible to relocate them they will be moved and preserved so that work may continue.
 - d. If materials are discovered that are of a nature where it is both culturally and/or physically not possible to relocate them, the Heritage/Culture Dept. will make a motion to stop work entirely and discuss with the Shoalwater Bay Indian Tribe all other options.

Attachments and Appendices

Attachment 1: FEMA FRIM Community Panel Number 530126 0016B

Attachment 2: Sole Source Aquifers Map

Attachment 3: 1995 USGS Topographic Map

Attachment 4: Aerial Photograph of Proposed Project Site

Attachment 5: Preliminary Site Plan

Appendix A: THPO Letter and Historic Determination

Appendix B: Floodplain and Wetland Determination

Appendix C: Biological Assessment (BA)

Appendix D: Phase I Environmental Site Assessment

Appendix E: Geotechnical Report



References

- ADESA. "Phase I Environmental Site Assessment: Eagle Hill Road: A Portion of Pacific County Tax Parcel #14110317000" October 20, 2011.
- Burns, Gary. Director of the Shoalwater Department of Natural Resources. "No Effect Determination". 2011.
- Chadwick, Pete. Project Coordinator, Shoalwater Bay Indian Tribe. Various email and telephone interviews March 2010-October 2011.
- Davis, Earl. SBIT Heritage/Culture Director. "Eagle Hill Project Final Cultural Report". Submitted By SBIT Heritage/Culture Department. 2010.
- E3RA. "Geotechnical Engineering Report Eagle Hill Road Improvements and Landslide Mitigation Tokeland, Washington" prepared for Red Plains Professionals under contract with the Shoalwater Bay Indian Tribe. August 5, 2010.
- Forest & Channel Metrics. "Eagle Hill Road Slope Stabilization, Road-Widening and Multi-purpose Building Construction Project: Biological Assessment for listed and proposed species and designated critical habitat as protected under the Endangered Species Act, Section 7" prepared for the Shoalwater Bay Indian Tribe. October 2011.
- National Resource Conservation Service. Online Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/> Accessed October 2011.
- Red Plains Professionals. "Eagle Hill Road Exhibit Map". August 2011.
- Shoalwater Bay Indian Tribal Council and Shoalwater Bay Tribe Office of Emergency Management " Shoalwater Bay Indian Tribe: Tribal Hazard Mitigation Plan" Spring 2008.
- Shoalwater Bay Indian Tribe Environmental Department. Various Comments Received on Draft Environmental Assessment. October 2011.
- Shoalwater Bay Tribal Enrollment Clerk, "Shoalwater Bay BIA Report 2005". Updated 2011
- US Army Corps of Engineers, Seattle District. DRAFT Report. "Final Environmental Assessment: Shoalwater Bay Shoreline Erosion Project Pacific County, WA. Shoalwater Bay Indian Reservation Flood and Coastal Storm Damage Reduction" April 2009.
- USDA "Soil Survey of Grays Harbor County Area, Pacific and Wahkiakum Counties". 1986.

List of Sources, Agencies and Persons Consulted Not Otherwise Identified in the Checklist Above

[40 CFR 1508.9(b)]

See additional investigations included as Appendices to this report for additional references consulted.