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## PACIFIC WEST REGIONAL OFFICE Memorandum

L7617 (PWRO-PP)

DEC 18 2009

### Memorandum

To: Superintendent, Olympic National Park

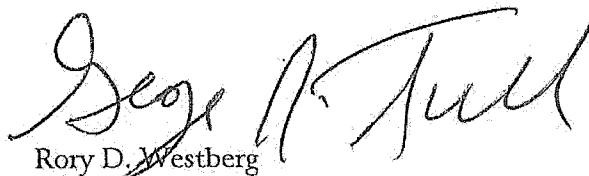
From: Acting Regional Director, Pacific West Region

Subject: Environmental Compliance for Water Quality Improvements at Nippon Site

The finalized *Finding of No Significant Impact* for this element of the Elwha River Ecosystem Restoration initiative is approved.

To complete this particular compliance effort, when the park announces the decision, copies of the FONSI should be made available to all individuals and organizations that received the supporting environmental assessment (EA).

In addition, all recipients of the original EA must be provided a copy of the *Errata* (prepared to document minor editorial corrections and respond to substantive comments) with instructions to attach to their copy of the EA so as to have a full record of the environmental impact analysis and conservation planning process.



Rory D. Westberg

cc w\atch:  
PWR-LIC\ARRA

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National Park Service  
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Olympic National Park  
Washington

**NIPPON WATER QUALITY IMPROVEMENTS  
Restore Elwha River Ecosystem and Fisheries  
FINDING OF NO SIGNIFICANT IMPACT**

The National Park Service (NPS) will implement the management preferred alternative, which includes measures to provide high quality water to the Nippon Paper Industries (Nippon) paper mill and better disperse Nippon Water Treatment Plant (WTP) sediment discharges into the Strait of Juan de Fuca (Strait). The Nippon facility and project area is located on Ediz Hook in Port Angeles outside the boundary of Olympic National Park (ONP or park). The selected alternative is a component of the planned Elwha River ecosystem restoration that includes removal of dams on the Elwha River and restoration of aquatic habitat.

This project is part of the larger Elwha River Ecosystem Restoration project, as mandated by The Elwha River Ecosystem and Fisheries Restoration Act (Public Law 102-495). To accomplish the purposes of the Elwha Act, three documents were completed to analyze alternatives: The *Elwha River Ecosystem Restoration: Final Environmental Impact Statement* (June 1995); The *Elwha River Ecosystem Restoration Implementation: Final Environmental Impact Statement* (November 1996); and The *Elwha River Ecosystem Restoration Implementation: Final Supplement to the Final Environmental Impact Statement* (July 2005). The Elwha River Ecosystem Restoration EISs addressed the overall large-scale plan for removal of the dams and river restoration. This environmental assessment (EA) is tiered to the previous EISs, which are incorporated by reference, and was prepared to address the site-specific measures needed to protect existing water quality for industrial use. This FONSI and the environmental assessment EA constitutes the record of the environmental impact analysis and decision-making process for the Nippon Water Quality Improvement Project.

This document records 1) a Finding of No Significant Impact as required by the National Environmental Policy Act of 1969 and 2) a determination of no impairment as required by the NPS Organic Act of 1916.

**PURPOSE AND NEED FOR FEDERAL ACTION**

The NPS will initiate improvements to the Nippon WTP to protect the Nippon paper mill's water supply from increased turbidities associated with removal of the two Elwha River dams. This action is needed to maintain the level of water quality required by Nippon for paper production. With the Elwha and Glines Canyon dams in place, the river's sediment content has been reduced. All of the sand, gravel, and cobbles, and much of the silt normally transported downstream by the Elwha River has settled onto the bottom of the reservoirs. Once the dams are removed, the free-flowing river will again carry its full load of natural sediment. A number of water quality protection facilities are currently under construction or are scheduled for construction and will protect water supplies during and after dam removal. The Nippon paper production process requires particularly clear water. The modifications to the Nippon WTP, along with water treatment from the Elwha Water Treatment Plant (EWTP) currently under construction by the NPS, will provide continued high quality water to meet the mill's needs.

Improvements to the Nippon WTP include an extension of the outfall pipe that discharges the filtered sediments into the Strait after they are removed by the Nippon WTP. Because sediment levels will increase during and after dam removal, additional sediment will be released into the Strait. To ensure better mixing and dispersion of the increased sediment load associated with dam removal, the Washington Department of

Environment (WDOE) requires extension of the current WTP shoreline discharge to an offshore outfall in the Strait.

The objectives for the proposed project are to maintain high quality water to Nippon for use in its paper mill and ensure that Nippon WTP off-shore discharges are adequately mixed and dispersed to minimize environmental impacts and meet WDOE water quality requirements.

#### **RANGE OF ALTERNATIVES CONSIDERED**

The EA analyzed two alternatives in detail: 1) the no action alternative, which does not improve the Nippon WTP or extend the outfall; and 2) the management preferred alternative, which implements improvements to the Nippon WTPs and an offshore extension of the discharge outfall. The selected and no action alternatives are described below. Additional alternatives that also were considered, but eliminated from further evaluation in the EA, are discussed later in this document.

#### ***Selected Alternative***

The selected alternative includes improvements to the Nippon WTP that allow continued availability of high quality water and the extension of the outfall for better mixing and dispersion of discharges for paper production. Because of the anticipated higher turbidity of water deliveries to the Nippon WTP following dam removal, additional treatment is needed to reduce the turbidity prior to use at the mill. The selected alternative is the same as presented as Alternative 2 in the EA with the following two exceptions: (1) rather than installing a new sludge collection system to handle the additional sediment loadings at the Nippon WTP, plant operations may be modified to do more frequent manual removal of sediment, and (2) the dredged material would be disposed of at an upland site, an offshore state permitted site, or by sidecasting along the trench alignment pending permit approval.

Several improvements to the Nippon WTP facility and operations will be used to further treat water delivered from the EWTP during dam removal to the current turbidity levels required by the Nippon mill. Proposed WTP improvements include the use of a coagulating chemical (polyaluminum chloride – PAC) prior to treatment and other chemicals, as needed; modifying sedimentation tank operations; and existing single media gravity filters may be renovated to dual media filters.

PAC is a coagulating chemical used to help bind suspended solids and facilitate settling. PAC will be used at the EWTP and is currently being used at the Nippon WTP as part of the water pretreatment process. In addition, water treatment may require use of sodium hypochlorite if the concentrations of iron and manganese in the Elwha River increase as a result of dam removal and erosion. Use of sodium hypochlorite would oxidize iron and manganese and facilitate the flocculation of these metals out of the water. If needed, sodium hypochlorite would be added at the EWTP to provide longer reaction time prior to delivery to the Nippon WTP. Because PAC is acidic, sodium hydroxide also may be injected at the head of the Nippon WTP to raise the alkalinity (pH) of the water and improve coagulation for sediment removal. The use of these additives will be determined based on water quality testing of Elwha River diversions.

Operation of sedimentation basins will be modified to handle higher sediment loads. A new sludge collection system may be installed to handle the additional sediment loadings at the Nippon WTP. Alternatively, plant operations may be modified to do more frequent manual removal of sediment. In either case discharges will occur at timed intervals based on the volume of solid loadings rather than semiannually, as under current operations. Modifying existing single media filters to dual media filters will increase the efficiency of solids removal. Periodic backwashing will continue to be used to clear the filters. The frequency of discharges from the backwash will depend on the quality of the untreated water. Delivery of water with higher turbidity will generate more solids for discharge and more frequent backwashing and discharges from the sedimentation basin.

The selected alternative also includes modifications to the Nippon WTP outfall. The current shoreline discharge location will be extended about 1,200 feet offshore into the Strait to provide better mixing and dispersal of sediments. The outfall pipeline will be constructed with 20-24 inch high density polyethylene pipe to resist wave action and sediment scouring. The new pipeline will connect at the existing shoreline discharge point and will then be buried below the ground surface. Temporary removal of the shoreline riprap and excavation will be required to bury the pipeline. Riprap will be replaced following pipeline installation.

The pipeline will extend perpendicular from the shoreline into the Strait. The first 900 feet of the pipe will be buried to a depth of about 10 feet. At that point, the pipeline will begin to daylight to its terminus about 1,200 feet from the shore at a depth of about 30 feet below the water surface. A perforated diffuser, designed to meet dilution requirements and provide for compliance with water quality standards, will be used on about the last 300 feet of pipe. The pipe will be installed using conventional open-cut marine excavation techniques, which may include use of a barge-mounted trackhoe or clamshell excavator. The dredged material would be disposed of at an upland site, an offshore state permitted site, or by sidecasting along the trench alignment pending permit approval. Concrete anchors will be used to secure the aboveground portions of the pipeline.

#### **GENERAL CONSTRUCTION SCHEDULE**

Construction activities are currently planned for 2010. Installation of the pipeline outfall is anticipated to occur between August 15 and October 31, to avoid storms when the water in the Strait is too rough to safely install the outfall pipeline and to reduce impacts to marine species. Out of water work will begin in July. Slight modifications in pipe design and installation procedures could occur during final design.

#### **OTHER ALTERNATIVES CONSIDERED AND ANALYZED**

In addition to the selected alternative, the EA considered a no action alternative.

##### **No Action Alternative**

Under the No Action Alternative, there would be no improvements to Nippon WTP operations or outfall. The Nippon WTP currently receives untreated Elwha River water via a river diversion to the industrial water supply line. Historically, the untreated water delivered to the plant has had an average turbidity of about 9 nephelometric turbidity units (NTU). NTUs are a measure of the clarity of the water, with higher values having more suspended solids. During the anticipated 3- to 5-year dam demolition and erosion phase, the turbidity of the Elwha River water will substantially increase periodically. The turbidity in the Elwha River is expected to decrease from the levels present during the dam demolition and erosion phase, which would eliminate the long-term need for retreatment in the EWTP prior to delivery to the Nippon WTP. Turbidity in the Elwha River will remain higher than existing conditions because the dams would no longer capture sediment.

Existing Nippon WTP discharges are regulated under a National Pollution Discharge Elimination Permit (NPDES) issued by the WDOE (Outfall 2, NPDES Permit WA 000292-5). The WDOE has indicated that the existing outfall does not provide adequate mixing and dilution for additional Nippon WTP loadings (URS 2007a). Thus, Nippon WTP discharges under the No Action Alternative would remain similar to existing conditions and Nippon would not be able to filter and treat process water for paper production to the same quality it is currently using.

The No Action Alternative does not include any measures to supplement the water quality treatment that would be provided by the EWTP currently under construction. The National Environmental Policy Act (NEPA) requires that a no action alternative be analyzed in a NEPA document as a basis for comparison with the Preferred Alternative and the respective anticipated environmental consequences. Because the decision to remove the dams has already been made, both the description of existing conditions and analysis of potential impacts under the no action alternative is for comparison purposes only and is not a viable choice.

#### **ALTERNATIVES CONSIDERED AND REJECTED**

In addition to the no action and management preferred alternatives, three other preliminary alternatives were evaluated as potential options for the treatment and disposal of discharges from the Nippon WTP. These options were drafted based on typical approaches for treatment and disposal used at other similar water treatment plants and discussions with WDOE. Evaluation of preliminary alternatives was conducted based on WDOE guidance that requires waste generating facilities to meet AKART (all known, available, and reasonable treatments) technology-based treatment standards, as well as water quality-based standards. Results of the AKART evaluation completed during 2007-determined that only Alternative 2 was viable to include in the EA; the other preliminary options were not feasible based on consideration of cultural and environmental impacts, life cycle cost, and water quality. The

WDOE concurred with the results of the AKART evaluation by letter dated July 11, 2007. The alternatives evaluated as part of the AKART study and eliminated from detailed analysis in the EA are described below.

#### ***Shared Use of the Existing Wastewater Treatment Plant Outfall***

Nippon facilities also have a wastewater treatment plant (WWTP) discharge outfall located north of the Nippon WTP outfall. This alternative considered combining the Nippon WTP discharges with the WWTP discharges at a single outfall. Because of capacity limitation in the WWTP outfall, an equalization tank and associated pipes and pumps would be needed to regulate flows. Construction of an equalization tank and the associated excavation could disturb human remains associated with the Lower Elwha Village Tse-whit-zen. For this reason, this alternative was eliminated from further consideration.

#### ***Use of an On-Site Mechanical Treatment and Dewatering System***

This alternative would treat Nippon WTP discharges using a two-step process. The first step requires thickening the waste stream to increase solid concentrations using a mechanical treatment. The second step requires dewatering the solids using a dewatering belt press or centrifuge. The dewatered solids produced would then be disposed of at an off-site land fill. The water removed from the solids through this process would be recycled to the Nippon WTP inlet and combined with the untreated river water. Use of this system would require installation of a gravity mechanical thickening tank and dewatering facilities in a building about 40 feet by 50 feet, along with additional piping. This alternative would take up a large amount of space at the mill and adversely affect the delivery of materials to the mill for its paper making process. For this reason and because implementation of this alternative would require new excavations with the potential to disturb human remains and greater life cycle costs, this alternative was eliminated from further consideration.

#### ***Use of an Off-site Mechanical Treatment and Dewatering System***

The treatment system for this alternative would be the same as described for the on-site system, but it would be located off the Nippon property. This alternative substantially increases the length of piping required to connect the treatment facility with the Nippon WTP. An off-site thickening and dewatering system would require construction of two new pipelines at least 4,000 feet in length. To avoid disturbing potential human remains on Nippon property, the pipelines would need to be constructed aboveground. Human remains could potentially be present at an off-site location. In addition, this alternative adds operational complexity with a substantially higher life cycle cost. For these reasons, this alternative was eliminated from further consideration.

### **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The "environmentally preferred" alternative is determined by applying the criteria cited in the National Environmental Policy Act of 1969 (NEPA), and in accordance with the Council on Environmental Quality (CEQ) regulations. The CEQ provides direction that "[t]he environmentally preferred alternative is the alternative that would promote the national environmental policy as expressed in section 101 of NEPA, which considers:

- (1) Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations.
- (2) Assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- (3) Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- (4) Preserving important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice.
- (5) Achieving a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities.
- (6) Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources" (NEPA, section 101).

The NPS is required to identify the environmentally preferred alternative(s) for any of its proposed projects. In essence, the environmentally preferred alternative would be the one(s) that "causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

The no action alternative would preserve existing conditions, but it would not be considered the environmentally preferred alternative because it would require Nippon to use lower quality water for paper production and nearshore discharges from the WTP would continue. The no action alternative is not the environmentally preferred alternative for the following reasons: (1) it would not satisfy the requirements of the Elwha Act, which requires protection of the existing quality of water from the Elwha River for industrial use as a result of adverse impacts of dam removal, (2) it would require the Nippon paper mill to use higher turbidity water, resulting in increased operation and maintenance costs, and (3) it would continue nearshore WTP discharges, which may not be in conformance with future water quality permitting requirements. The no action alternative does not fully meet NEPA Section 101 goals.

The NPS determined that the environmentally preferred alternative is to implement the Nippon WTP improvements described for the management preferred alternative because it surpasses the no action alternative in realizing the full range of goals as stated in Section 101 of NEPA. Improvements to the Nippon WTP will produce low turbidity water of quality similar to current conditions for paper production (goal 5). Extension of the WTP outfall will ensure better mixing and dispersion of sediment, which will benefit the marine environment (goals 2, 3, and 4).

#### MITIGATION

Mitigation measures have been incorporated into the selected alternative to avoid or reduce impacts as part of the proposed project. Table 1 summarizes mitigation measures.

**Table 1. Mitigation Measures.**

Resource Area	Mitigation	Responsibility
<b>General Considerations</b>	<p>The onshore construction zones will be identified and fenced with construction tape, snow fencing, or some similar material prior to any construction activity. The fencing will define the construction zone and confine activity to the minimum area required for construction. All protection measures will be clearly stated in the construction specifications, and workers will be instructed to avoid conducting activities beyond the construction zone. Disturbances will be limited to areas inside the designated construction limits. No machinery or equipment will access areas outside the construction limits.</p> <p>Construction equipment staging will occur on Nippon property in a protected area.</p> <p>Construction vehicle engines will not be allowed to idle for extended periods of time.</p> <p>All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project work limits upon project completion.</p>	NPS Project Manager & Contractor

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Resource Area	Mitigation	Responsibility
<b>Water Quality</b>	<p>Best management erosion-control practices for excavation and trenching to install the pipeline will be implemented to minimize turbidity.</p> <p>Prior to starting work each day, all machinery will be inspected for leaks (e.g., fuel, oil, and hydraulic fluid), and all necessary repairs will be made before commencing work. Hydraulic fluid utilized in machinery shall be biodegradable. This measure is designed to avoid/minimize the introduction of chemical contaminants associated with machinery used in project implementation.</p> <p>Hazardous spill clean-up materials will be on-site at all times. This measure is designed to avoid/minimize the introduction of chemical contaminants associated with machinery (e.g., fuel, oil, and hydraulic fluid) used in project implementation because chemicals may have a toxic effect on aquatic organisms.</p> <p>Equipment used for this project shall be free of external petroleum-based products while working in and around water. Accumulation of soils or debris shall be removed from the drive mechanisms (e.g., wheels, tires, and tracks) and undercarriage of equipment prior to working below the ordinary high water mark.</p> <p>As requested by the WDOE, whole effluent toxicity testing on outfall discharges, after discharges have reached a steady state, will be conducted under the selected alternative.</p>	NPS Project Manager & Contractor
<b>Marine Resources and Special Status Species</b>	<p>Installation of the pipeline will occur between August 15 and October 31 to minimize potential effects to migrating salmonids present in the spring.</p> <p>Best management erosion-control practices for excavation and trenching to install the pipeline will be implemented to minimize turbidity, organism entrainment, and noise that could have adverse impacts on local ecology.</p> <p>The project area was surveyed to assure avoidance of sensitive marine habitats along the proposed pipeline outfall. Survey results indicate no signs of eelgrass beds or extensive kelp growth, and geoduck densities were below commercial densities.</p>	NPS Project Manager & Contractor
<b>Cultural Resources</b>	<p>Should previously unknown cultural resources be encountered during construction activities, work will be halted in the discovery area and the park will consult the Washington State Historic Preservation Office and Tribe as outlined in the Programmatic Agreement and, as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990 and the project's inadvertent discovery plan.</p> <p>The NPS will ensure that all contractors will be instructed on procedures to follow in case previously unknown archeological resources are uncovered during construction. Equipment and material staging areas will avoid known archeological resources.</p>	Park Archeologist & Contractor

#### WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined by 40 CFR 1508.27, significance is determined by examining the following criteria: *impacts that may be both beneficial and adverse and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an environmental impact statement.* No potentially significant adverse or beneficial impacts were identified that will require analysis in an environmental impact statement.

The impact topics identified in the environmental analysis and documented in the EA included the following: water quality, marine resources, special status species, and socioeconomics. Impacts to these resources will not exceed minor in intensity.



The following summary reviews resource impact considerations from implementing the selected alternative. Mitigation measures will be employed to minimize these impacts during and after completion of the project. The EA provides detailed consideration of the factors supporting the determination of non-significance.

**Degree of effect on public health or safety:** The Nippon WTP and associated facilities are located outside of ONP in an industrial area with no active recreation on the property. The nearby Waterfront trail follows the road through Nippon facilities out to Ediz Hook. Also nearby is the Sail and Paddle Park just east of the Nippon facility on Ediz Hook where picnic tables, beach access, and barbeque pits are available. Further west on Ediz Hook is the Harbor View Park, which also offers picnic tables and beach access for day use recreation. Construction of the Nippon WTP discharge outfall pipeline under the selected action will result in a temporary increase in noise from equipment operation; however, increased noise levels likely would be unnoticeable because of the current ambient noise levels from the paper mill operations. Therefore, the increase in noise levels would not affect nearby recreation use. Public access to the infrequently used shoreline adjacent to the Nippon WTP will be temporarily suspended during construction. Adverse impacts to visitor use would be localized, short-term and negligible and there would be no impacts on public health or safety.

**Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:** As described in the EA, park staff reviewed the project area for archeological resources, historic resources, ethnographic resources, and cultural landscapes. Geomorphic test trenching was monitored and the potential for cultural deposits was addressed in the geomorphic studies. No cultural resources were found in the project area. To fulfill the requirements of Section 106 of the National Historic Preservation Act (NHPA), the Washington State Historic Preservation Office and Lower Elwha Klallam Tribe were consulted and concurred with the finding of no effect to historic properties (January 22, 2009).

There are neither prime or unique farmlands nor wetlands associated with the project area. The project area does not contain any ecologically critical areas. The Nippon WTP and discharge outfall are located entirely within an industrial zone with limited habitat value for wildlife. The riprap shoreline at the Nippon WTP discharge outfall provides perch sites for sea gulls and other shore birds, and limited habitat for crustaceans and invertebrates. Harbor seals are common visitors in Port Angeles Harbor, but are rarely present near the Nippon facility. Construction of the extended discharge outfall will result in a temporary disturbance to the riprap and shoreline during construction, but the effects to wildlife would be localized, short-term, negligible, and adverse.

**Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places (NRHP), or may cause loss or destruction of significant scientific, cultural, or historical resources:** As described in the EA, park staff reviewed the project area for archeological resources, historic resources, ethnographic resources, and cultural landscapes. Geomorphic test trenching was monitored and the potential for cultural deposits was addressed in the geomorphic studies. No cultural resources were found in the project area. To meet the requirements of Section 106 of the National Historic Preservation Act (NHPA), the Washington State Historic Preservation Office and Lower Elwha Klallam Tribe were consulted and concurred with the finding of no effect to historic properties (January 22, 2009).

**Degree to which effects on the quality of the human environment are likely to be highly controversial:** There were no highly controversial effects identified during either preparation of the EA or the public review period.

**Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks:** There were no highly uncertain, unique, or unknown risks identified during either preparation of the EA or the public review period.

**Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:** The selected action neither establishes a NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

**Whether the action is related to other actions with individually insignificant, but cumulatively significant, impacts:** The selected action of the EA analyzed impacts to water quality, marine resources,



special status species, and socioeconomics. As described in the EA, the cumulative effects of past, present, and future actions in the area, combined with the impacts of the selected alternative, are not anticipated to produce any significant adverse cumulative effects.

**Degree of effect on soils; biological resources; coastal and marine resources; threatened, endangered, and species of special concern; and water quality:** Construction of the Nippon WTP discharge pipeline will require excavation of a trench about 10 feet deep to protect the pipeline from scour. The dredged material would be disposed of at an upland site, an offshore state permitted site, or by sidecasting along the trench alignment pending permit approval. The 1,200-foot pipeline would be buried from a connection to the existing shoreline discharge pipe for a distance of about 900 feet along the seafloor of the Strait. The last 300 feet of the pipeline would be anchored on the surface of the seafloor. Geotechnical investigations indicated that the trench excavations would be in loose to medium dense sand with gravel with possible sections of medium dense to dense sand and silty sand. Imported rock fill material would be used for bedding and backfill of the trench. The disturbance and loss of soil material from excavation of the pipeline trench would be localized, long-term, minor, and adverse.

The Nippon WTP and discharge outfall are located entirely within an industrial zone with limited habitat value for wildlife. The riprap shoreline at the Nippon WTP discharge outfall provides perch sites for sea gulls and other shore birds, and limited habitat for crustaceans and invertebrates. Harbor seals are common visitors in Port Angeles Harbor, but are rarely present near the Nippon facility. Construction of the extended discharge outfall will result in a temporary disturbance to the riprap and shoreline during construction, but the effects to wildlife would be localized, short-term, negligible, and adverse.

Construction of the Nippon WTP discharge pipeline will result in a long-term beneficial effect to marine resources in the Strait by providing better mixing and dilution of sediment discharges. This will alleviate high turbidity discharges, which can reduce primary production, resulting in lower dissolved oxygen in the intertidal near-shore habitat. A short-term increase in turbidity, potential entrainment, noise, and habitat disturbance during construction will have a minor short-term adverse impact on marine resources in the localized vicinity during construction.

As described in the EA, the increase in turbidity, potential entrainment, noise, and habitat disturbance during construction may affect, but is not likely to adversely affect federally listed marine species, including PS Chinook, PS steelhead, southern resident killer whales, or bull trout. Localized short-term adverse minor effects to fish species with essential fish habitat (EFH) are possible during construction. There will be a long-term benefit to marine special status species from the discharge of sediments at the offshore Nippon WTP outfall because of improved mixing and dilution. No adverse effect is anticipated for brown pelican, marbled murrelet, western snowy plover, Pacific herring, Hood Canal summer chum, or Stellar sea lion because of the lack of suitable habitat or infrequent activity by these species in the project area. There would be no impact on federally listed plants in the project area because none are present.

Implementation of the selected action will result in a long-term beneficial effect to water quality in the Strait by providing better mixing and dilution of sediment discharges. A short-term increase in turbidity will have a minor adverse impact on water quality in the localized vicinity during construction in an area that is currently subject to erosion and deposition.

**Whether the action threatens a violation of federal, state, or local environmental protection laws:**  
The selected action violates no federal, state, or local environmental protection laws.

#### **IMPAIRMENT OF PARK RESOURCES OR VALUES**

The implementation of the selected action will not constitute an impairment of park resources or values. Impacts documented in the EA and summarized above will not affect resources or values key to the natural and cultural integrity of ONP or alter opportunities for enjoyment of the park. The selected action will neither impair park resources nor violate the National Park Service Organic Act. This conclusion is based on a thorough analysis of the impacts described in the EA and the professional judgment of the decision maker, in accordance with NPS Management Policies 2006. Implementation of the selected action will not result in major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of ONP, (2) key to the natural or cultural integrity of the park, or (3) identified as a goal in the park's General Management Plan or other relevant NPS planning documents.

## **PUBLIC INVOLVEMENT AND AGENCY CONSULTATION**

### ***Public Scoping***

Internal scoping was conducted between 2005-2007, and involved an interdisciplinary team of NPS and U.S. Bureau of Reclamation staff who assessed the site conditions and determined potential issues. As previously described, State of Washington guidance requires that waste generating facilities meet AKART (all known, available, and reasonable methods of prevention, control, and treatment) technology based treatment standards, as well as water quality based standards. Results of the AKART evaluation completed during 2007 determined that alternatives other than the selected alternative were not feasible based on consideration of cultural and environmental impacts, life cycle cost, and water quality. The WDOE concurred with the results of the AKART evaluation by letter dated July 11, 2007.

The park conducted public scoping from October 9 to November 10, 2008. Information about the project was posted on the park website and on the NPS Planning, Environment and Public Comment (PEPC) website. A news release was faxed and e-mailed to about 120 individuals and media outlets. A press release was published in the Peninsula Daily News on October 12, 2008 and a news release was issued by radio station KONI on October 15, 2008. About 45 elected officials, park neighbors, organizations, area tribes, and agencies on the park's mailing list were notified via a mailed letter.

Five comments were received during the public scoping period. Three respondents expressed support of continued efforts to restore the Elwha River ecosystem and fisheries, and recognized that measures to provide high quality water to the Nippon Paper Industries paper mill and better disperse Nippon Water Treatment Plant sediment discharges into the Strait of Juan de Fuca are necessary components of the larger Elwha River ecosystem restoration. Two respondents supported continued efforts to restore the Elwha River ecosystem and fisheries, but questioned the necessity and propriety of the NPS implementing the selected action.

### ***Public Review of the EA***

The EA was released for a 30-day public review on May 26, 2009. Over 50 printed copies of the document were distributed to federal and state agencies, local organizations, and interested parties, and a press release was circulated to about 120 individuals, park neighbors, elected officials, organizations, tribes, local news media, and agencies on the park's mailing list. An electronic version of the EA was broadly available through a posting on the NPS PEPC website and linked to the park's public website. Printed copies of the EA were also available at several area libraries, including the North Olympic Library System libraries in Port Angeles, Sequim, and Forks; and the Timberland Regional Libraries in Aberdeen, Amanda Park, and Hoquiam.

The public review and comment period for the EA was open until June 29, 2009. The park received five comments during the public review period of the EA, from the National Parks Conservation Association, the City of Port Angeles, the Nippon Paper Industries, and two from individuals. Each comment was considered and reviewed by park staff. Commenters generally expressed support for the project; however, concerns were raised about the alternatives, potential need for the project, the need for the NPS to fund WTP upgrades, and potential impacts of the project. The commenters did not provide any additional, new, or substantive information that would require revising the EA for additional public review or that would change the determination of effects.

### ***Consultation and Coordination***

No resources eligible for listing in the National Register of Historical Places were found during surveys of the area of potential effect. To fulfill the requirements of Section 106 of the National Historic Preservation Act, the Washington State Historic Preservation Office and Lower Elwha Klallam Tribe were consulted and they concurred with the finding of no effect to historic properties (January 22, 2009).

The park consulted with the WDOE and U.S. Army Corps of Engineers (USACOE) through the submittal of a Joint Aquatic Resource Permit Application (JARPA) for placement of a portion of the outfall pipeline on the ocean floor. The USACOE may amend its permit as needed under Section 404 of the Clean Water Act (33 U.S.C. 1344) for the Elwha River ecosystem and fisheries restoration, which was issued on September 11, 2007.

The project's certification of consistency with the Washington State coastal zone management program, for the Elwha River ecosystem and fisheries restoration, was received on March 19, 2007.

By letter dated October 21, 2009 the National Marine Fisheries Service (NMFS) concluded Section 7 informal consultations under the Endangered Species Act and stated "...potential effects to PS Chinook salmon, HC summer-run chum salmon, and PS steelhead are discountable or insignificant and concurs with your determination of "may affect, not likely to adversely affect" for any one of these species." In addition, NMFS "...concludes that the potential effects of the propose (*sic*) project to designated critical habitat for PS Chinook salmon are insignificant and therefore not likely to adversely affect designated critical habitat. This concludes informal consultation pursuant to the regulations implementing the ESA, 50 CFR 402.13."

In the same letter, NMFS concluded under the Magnuson-Stevens Fishery Conservation and Management Act for essential fish habitat (EFH) that "...the conservation measures that the NPS included as part of the proposed action to address ESA concerns are also adequate to avoid, minimize, or otherwise offset potential adverse effects to the EFH of the species...[and] conservation recommendations pursuant to MSA (§305(b)(4)(A)) are not necessary. Since NOAA Fisheries is not providing conservation recommendations at this time, no 30-day response from the NPS is required (MSA §305(b)(4)(B)).

#### CONCLUSION

Based on the conservation planning and environmental impact analysis documented in the EA, with due consideration of the nature of the public comments and consultations with other agencies, and given the capability of the mitigation measures to avoid, reduce, or eliminate impacts, the NPS has determined that selected actions do not constitute a federal action that normally requires preparation of an EIS. The selected actions will not have a significant effect on the quality of the human environment or the park's cultural resources or natural resources, and will not jeopardize the continued existence of threatened or endangered species.


There are no unmitigated adverse impacts on public safety, sites, or districts listed in, or eligible for listing in the NRHP, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law. Based on the foregoing, it has been determined that the selected action may be implemented as soon as practicable.

#### Recommended:

  
\_\_\_\_\_  
Karen Gustin  
Superintendent, Olympic National Park

Date 12/14/09

#### Approved:

  
\_\_\_\_\_  
Regional Director, Pacific West Region

Date 12/18/09

**ERRATA**  
**For the Environmental Assessment**  
**Nippon Water Quality Improvements**  
**Restore Elwha River Ecosystem and Fisheries**

This errata documents changes to the text of the Nippon Water Quality Environmental Assessment (EA) as the result of substantive comments received since the document was released on May 26, 2009. Responses to comments on the EA follow the changes in text.

**Environmental Assessment Text Changes:**

**Page 13, the existing first two paragraphs of the Introduction were revised as follows:**

This section describes the No Action Alternative and the NPS Preferred Alternative. The Preferred Alternative was developed to address water quality issues associated with anticipated increases in turbidity from removal of the two dams on the Elwha River as part of the Elwha River restoration. The preferred alternative includes measures to supplement the water quality treatment that would be provided by the EWTP currently under construction. Under the Preferred Alternative the Nippon Paper Industries would receive and treat higher turbidity water, which would cause an increase in solids discharged to the outfall. The National Park Service would construct the extension of the discharge outfall to an offshore location to better disperse and mix solid discharges and minimize water quality impacts in the marine environment. The Preferred Alternative defines the rationale for the action in terms of resource protection and management, operational use, and other applicable factors.

A No Action Alternative is also presented. The No Action Alternative does not include any measures to supplement the water quality treatment that would be provided by the EWTP currently under construction. The National Environmental Policy Act (NEPA) requires that a no action alternative be analyzed in a NEPA document as a basis for comparison with the Preferred Alternative and the respective anticipated environmental consequences. Because the decision to remove the dams has already been made, both the description of existing conditions and analysis of potential impacts under the no action alternative is for comparison purposes only and is not a viable choice.

Other alternatives that were considered but eliminated from detailed analysis are also discussed in this section. Also included in this chapter is a comparison of how well the alternatives meet project objectives and a comparison of the environmental effects of each of the alternatives.

**On page 13, the first paragraph under the No Action Alternative, delete the 6<sup>th</sup> and 7<sup>th</sup> sentences and replace with:**

The turbidity in the Elwha River is expected to decrease from the levels present during the dam demolition and erosion phase, which would eliminate the long-term need for pretreatment in the EWTP prior to delivery to the Nippon WTP. Turbidity in the Elwha River will remain higher than existing conditions because the dams would no longer capture sediment.

**On page 14, the first paragraph under the Improve Nippon WTP—The Management Preferred Alternative, delete the 4<sup>th</sup> sentence and replace with:**

The turbidity in the Elwha River is expected to decrease from the levels present during the dam demolition and erosion phase, which would eliminate the long-term need for pretreatment in the EWTP prior to delivery to the Nippon WTP. Turbidity in the Elwha River will remain higher than existing conditions because the dams would no longer capture sediment.

**On page 14, second paragraph, replace the last sentence with:**

The anticipated annual average turbidity of the untreated water would be about 15 NTUs, but long-term peak turbidity is predicted to reach 2,000 to 3,000 NTUs during high turbidity events that could last several days and from 6,000 to 11,000 NTUs for short periods of time during dam removal (NPS 2005).

**On page 15, the third paragraph, replace the 5<sup>th</sup> sentence with:**

Extension of the pipeline discharge would require a joint connecting the two existing 12-inch pipes to a new single 20-24 inch pipe.

**On page 15, the ninth sentence of the fourth paragraph was revised as follows:**

The dredged material would be disposed of at an upland site, an offshore state permitted site, or by sidecasting along the trench alignment pending permit approval.

**Page 16, the last sentence of the final paragraph was revised as follows:**

Final costs and responsibilities for implementation of the project would be determined as part of a negotiated settlement agreement between the NPS and Nippon; i.e. for Nippon's acceptance of the outfall and the increased operating expenses because the NPS has no long-term interest in the operations and maintenance of the outfall.

**On page 21, item (3) in first paragraph, replace with the following text:**

(3) it would continue to exacerbate nearshore WTP discharges, which may not be in conformance with future water quality permitting requirements.

**On page 21, replace the last sentence of the first full paragraph with:**

Extension of the WTP outfall would ensure better mixing and dispersion of the increased sediment, which would benefit the marine environment (goals 2, 3, and 4).

**On page 28, first partial paragraph, change last sentence to read:**

Roads, commercial and industrial facilities such as waterfront industries, shipbuilding, a plywood mill, Port Angeles stormsewer and sewage outfalls, urban developments, and other activities along the coast have affected the natural environment and water quality near Port Angeles.

**On pages 30 and 32, add the following sentence to the end of the paragraph on Cumulative Impacts:**

Water quality in Port Angeles Harbor and the Strait of Juan de Fuca would continue to be negatively affected by ongoing industrial, urban, and municipal discharges.

**Page 49, the following was added to the references:**

Pentec Environmental, Inc., 1999, NPDES Sediment Monitoring in the Vicinity of Daishowa America - Port Angeles Mill Outfalls.

## **RESPONSES TO COMMENTS**

### **For the Environmental Assessment Nippon Water Quality Improvements Restore Elwha River Ecosystem and Fisheries**

**Comment:** Several comments expressed concern that additional alternatives besides the Preferred Alternative and the No Action Alternative should have been considered.

**Response:** As described in the section on Alternatives Considered but Eliminated from Detailed Analysis in the Environmental Assessment (page 19), a range of alternatives were evaluated using Washington Department of Ecology (WDOE) guidance. This guidance requires consideration of “all known, available, and reasonable treatments” (AKART) for waste generating facilities. The AKART evaluation indicated that the Preferred Alternative was the most favorable alternative and the other action alternatives were undesirable for the reasons stated in the EA. The WDOE concurred with the results of the AKART evaluation.

**Comment:** Technological improvements could allow the Nippon paper mill to use less water or to use water with varying turbidity.

**Response:** Paper production requires use of low turbidity water and any type of water treatment would require a discharge of filtered sediments. As stated in the response to the previous comment, the best available technology was used to determine the method for discharge of this sediment.

**Comment:** The No Action Alternative is not really an alternative unless the two dams are not removed. The Elwha Act requires that the Elwha River Ecosystem and Fisheries Restoration Project include all actions reasonably necessary to maintain and protect water quality for industrial water users and others, thus, no action is not possible.

**Response:** The National Environmental Policy Act (NEPA) (40 C.F.R. 1502.14(c)) requires that a no action alternative be analyzed as a basis for comparison with the Preferred Alternative and the respective anticipated environmental consequences. Because the decision to remove the dams has already been made, both the description of existing conditions and analysis of potential impacts under the No Action Alternative is for comparison purposes only and is not a viable choice. The introduction to the discussion of the Alternatives on page 13 of the EA was revised in the Errata Sheet to clarify this.

**Comment:** The No Action Alternative states the Nippon mill would use lower quality water for paper production and discharges would remain similar to existing conditions. This is not correct because there is no known means for Nippon Paper Industries (NPI) to control discharges from the WTP to the historical level. NPI would try and maintain the quality of the paper with higher turbidity water, but the increase in solids discharged from the WTP may lead the WDOE to conclude that the existing WTP is unsuitable for continued operations, which is an unacceptable risk to NPI.

**Response:** As described in the response to the previous comment, evaluation of a no action alternative is a NEPA requirement to provide a basis of comparison with the Preferred Alternative. For purposes of comparison it is assumed that Nippon would use water with higher turbidity and that shoreline discharges would remain similar to existing conditions.

**Comment:** The EA did not analyze the potential impacts of cessation of mill operations as a component of the No Action Alternative.

**Response:** The Nippon paper mill would not close under the No Action Alternative; therefore, impacts of closure were not discussed.

**Comment:** One comment did not believe it was appropriate to compensate water users for the effects of the Elwha River restoration on water quality, but if compensation is necessary, then perhaps a lump sum payment to the mill for the future costs of operation and maintenance associated with treating water should be considered. More information should be provided about settlement of costs for improvements.

**Response:** The Elwha River Ecosystem and Fisheries Restoration Act (Public Law 102-495) authorized the Elwha River Ecosystem and Fisheries Restoration Project and requires protection of water quality for industrial water users that rely on the Elwha River. The final costs and responsibilities for implementing the Nippon water quality improvement project will be determined during final design and as part of a negotiated settlement agreement with Nippon; i.e. for Nippon's acceptance of the outfall and the increased operating expenses because the NPS has no long-term interest in the operations and maintenance of the outfall. Page 16 of the EA was revised as indicated on the Errata Sheet to clarify this.

**Comment:** The EA omitted a discussion of the cultural and societal impacts of facilitating the continued operation of the manufacturing plant site built on an archeological significant site.

**Response:** The Preferred Alternative would have no impact on archeological resources. Several of the alternatives considered were eliminated because of the potential for disturbing human remains associated with the Lower Elwha Village Tse-whit-zen.

**Comment:** The EA fails to consider the likelihood of toxic marine sediments being disturbed and disbursed during construction of the outfall pipe...The EA should examine the potential for dispersing toxins from sediments and more fully address pipeline construction activities' adverse impacts upon water quality.

**Response:** During the planning for this project, research was conducted into the possible occurrence of toxins in the near shore and marine environment west of the mill. No evidence was found that toxins were ever released nor could we find evidence of any likely avenue of contamination of the sediments of the Strait.

**Comment:** What is the useful life of the proposed WTP improvements and outfall pipeline and the operation costs compared to existing conditions?

**Response:** The useful life of the WTP improvements and outfall pipeline is approximately 25 years. The final operation costs of the WTP improvements and outfall pipeline as compared to existing conditions are unknown at this time, as the final operation costs will be determined as part of a negotiated agreement between the NPS and Nippon Paper.

**Comment:** Will the WTP only be used for removal of sediment or will it chemically pre-treat water to begin the chemical processes for paper production?

**Response:** The primary function of the WTP upgrades is to improve the sediment removal process. Part of that process includes chemical treatment of the water with polyaluminum chloride and possibly sodium hydroxide to aid in coagulating and removing sediment. If needed, sodium hypochlorite could be used to remove iron and manganese that may be present in Elwha River water and can negatively impact paper production.

**Comment:** How much water would be discharged from the WTP outfall and will there be mechanisms for measuring input and output from the WTP?

**Response:** Water use and discharges would remain similar to existing conditions. The WTP would continue to treat about 9 million gallons per day on average. Total water use would not exceed 20 million gallons per day, the contracted amount Nippon has with the City of Port Angeles.

**Comment:** How much water is used during paper production and could there be improvements to reduce water use?

**Response:** The EA did not evaluate internal water use at the mill, which is not affected by the proposed action.

**Comment:** Upgrading the Nippon WTP increases the likelihood that Nippon will increase their water use.

**Response:** No increase in water use would occur as a result of WTP upgrades.

**Comment:** The EA does not discuss the range of high turbidity events occurring now and in the past and how Nippon currently addresses them. This information is relevant to costs to process sediments with existing equipment as opposed to new WTP facilities.



**Response:** The existing WTP does not have the capability to treat water to 9 NTUs during occasional high turbidity events that currently occur. During these short periods of time, the mill uses water below the preferred water quality.

**Comment:** The EA is vague on the status of Nippon NPDES permit for its existing WTP and outfall. Is the permit still valid? Would additional conditions be imposed in order to renew the permit regardless of the dam removal project?

**Response:** The existing NPDES permit for the WTP is valid. The WDOE has indicated that the existing shoreline outfall does not provide adequate mixing and dilution for additional Nippon WTP loadings and an offshore outfall is needed. The WDOE is responsible for setting conditions for permit renewal.

**Comment:** An underwater discharge outlet could allow Nippon to discharge any type of pollutant they want since there would be no monitoring.

**Response:** Nippon WTP discharges are regulated under a National Pollution Discharge Elimination Permit (NPDES) issued by the WDOE. As indicated for water quality mitigation on page 18 of the EA, the WDOE requests whole effluent toxicity testing on outfall discharges after discharges have reached a steady state.

**Comment:** The EA references the former Rayonier pulp mill site in the cumulative effects section, but does not indicate other historical adverse impacts to Port Angeles water quality and sediments from the City of Port Angeles CSO outfall, waterfront industries, ship building, a plywood mill, and fuel depots.

**Response:** The Errata Sheet includes additional discussion of other current actions that contribute to water quality and cumulative effects on page 28 of the EA.

**Comment:** What contingency plans does the Nippon Mill have for obtaining water for manufacturing purposes in the event of a catastrophic dam failure?

**Response:** This comment is beyond the scope of the proposed action.

**Comment:** The NPS is already building the EWTP as a component of the Elwha Restoration Project. Treated water deliveries from the EWTP in addition to water treatment at the existing Nippon WTP should be adequate for use in the paper mill.

**Response:** The treated water may be adequate as noted by the comment. However, the removal of more sediment will occur at Nippon WTP which requires the new outfall.

**Comment:** It is unclear why the upgraded WTP would need to have a new outfall 1,200 feet into the Strait of Juan de Fuca. If the sediment load extracted from the EWTP can be safely returned to the river, why would it be necessary for the sediment load from the Nippon WTP to be discharged through an offshore pipeline?

**Response:** The AKART evaluation and the WDOE indicated that offshore discharge is needed to provide better mixing and dilution of discharges than current shoreline discharges.

**Comment:** The statement in the first paragraph of the No Action Alternative section and included in the description of the Preferred Alternative is misleading indicating that "After dam demolition and erosion phase, the turbidity of the Elwha River is expected to decrease...". Bureau of Reclamation analysis indicates that the turbidity of the Elwha River will permanently increase from current levels when the dams are removed.

**Response:** This sentence was intended to indicate that turbidity in the Elwha River will decrease from the levels experienced during dam removal and erosion, not from current conditions. Turbidity in the Elwha River will be permanently higher than existing conditions when the dams are removed. The Errata Sheet includes a revision on pages 13 and 14 of the EA to clarify that point.

**Comment:** The EA does not address the potential effects of littoral drift and relocation of released sediments from dam removal upon the proposed extension to the outfall from the WTP. Quantities of sediment to be released are described in the 1995 Final EIS and the 1996 Implementation Final EIS and predicted to move along the shore towards Ediz Hook. These sediments have the potential to cover the existing NPI Outfall 001 and the proposed extension to Outfall 002. Such burial could affect required mixing and dilution characteristics of the design.

**Response:** This issue was addressed in the Preliminary Design Report for the proposed outfall, as follows:  
"The outfall would be located in an area of the Strait that has been observed to be a dynamic sediment environment, with observed beach erosion and deposition occurring on a regular basis. The discharged solids concentrations and the dynamic environment are likely to prevent significant accumulations of discharged sediments at the diffuser; instead these sediments are likely to be mixed with the existing sediments which should support the deposition of sediments along Ediz Hook."

**Comment:** The EA does not discuss what harm to the ecosystem will come from uneven disbursement of river sediments coming out of the outfall the way it is now.

**Response:** Existing shoreline discharges of sediment, while meeting current NPDES discharge requirements, are unlikely to meet future requirements for better mixing and dispersal of sediment at an offshore location. Marine species could be affected by periodic discharges of high turbidity water.

**Comment:** Silt removal shouldn't be higher following dam removal than it is now: therefore, why is the upgrade to the WTP needed?

**Response:** The new outfall is needed to account for additional sediment loads associated with removal of the two dams.