TACOMA POWER
TACOMA PUBLIC UTILITIES

3628 South 35th Street
Tacoma, Washington 98409-3192

TACOMA PUBLIC UTILITIES

March 27, 2013

Patricia McIlvaine
Acting Executive Director
Low Impact Hydropower Institute
34 Providence Street
Portland, Maine 04103

Re: Nisqually Hydroelectric Project LIHI Cert. No. 00008
Application for Recertification

Dear Mrs. McIlvaine:

Tacoma Power received your January 23, 2013 notification regarding recertification of our Nisqually River Hydroelectric Project. Following review of the current LIHI questionnaire and consideration of our ongoing facility operation, the project appears to remain in compliance with re-certification conditions. As directed in your letter, we have enclosed the following materials necessary for recertification:

- Completed LIHI certification questionnaire
- Recertification compliance statement and waiver liability form
- Application fee

Please contact me if you need any additional information to complete our recertification process.

Sincerely,

Bret Forrester
Wildlife and Recreation Coordinator

Enclosures

cc: Keith Underwood, Natural Resources Manager, Tacoma Power

LIHI CERTIFICATION HANDBOOK

-- PART VII --
CERTIFICATION QUESTIONNAIRE

** PLEASE SUBMIT THIS QUESTIONNAIRE IN WORD FORMAT **

Background Information	
1) Name of the Facility as used in the FERC license/exemption.	**Nisqually Hydroelectric Project, FERC No. 1862, comprised of two facilities, the upstream Alder facility and the downstream LaGrande facility, operated in conjunction.**
2) Applicant's name, contact information and relationship to the Facility. If the Applicant is not the Facility owner/operator, also provide the name and contact information for the Facility owner and operator.	**City of Tacoma** **Owner/operator** **3628 South 35th Street** **Tacoma, WA 98409-3192** **Applicant contact:** **Bret Forrester** **Wildlife and Recreation Coordinator** **(253) 502-8782**
3) Location of Facility including (a) the state in which Facility is located; (b) the river on which Facility is located; (c) the river-mile location of the Facility dam; (d) the river's drainage area in square miles at the Facility intake; (e) the location of other dams on the same river upstream and downstream of the Facility; and (f) the exact latitude and longitude of the Facility dam.	**a) Washington State** **b) Nisqually River** **c) R.M. 42.5 (LaGrande Dam); R.M. 44.2 (Alder Dam)** **d) 289.6 square miles (LaGrande)** **e) Yelm Diversion Dam (R.M. 26.2)** **f) LaGrande: N 46.822778; W -122.302222** **Alder: N 46.801667; W -122.309167**
4) Installed capacity.	**114 MW (LaGrande 50 MW and Alder 64 MW)**
5) Average annual generation.	**LaGrande: 228 million kWh** **Alder: 345 million kWh**
6) Regulatory status.	**Nisqually River Hydroelectric Project, FERC No. 1862. Relicensed in 1997. A rehearing order modifying some of the license articles was issued in 1998. Both were submitted with the original LIHI application in 2003.**
7) Reservoir volume and surface area measured at the normal maximum operating level.	**The maximum pool area for Alder is 3,065 acres and LaGrande is 450 acres.**

8) Area occupied by non-reservoir facilities (*e.g.*, dam, penstocks, powerhouse).	**8.3 acres**
9) Number of acres inundated by the Facility.	**The maximum pool area for Alder is 3,065 acres and LaGrande is 450 acres.**
10) Number of acres contained in a 200-foot zone extending around entire reservoir.	**868 acres**
11) Contacts for Resource Agencies and non-governmental organizations	**NMFS: Steve Fransen – 360-753-6038** **Nisqually Tribe: George Walter – 360-438-8687** **USFWS: Lou Ellyn Jones – 360-753-5822** **WA Dept. of Ecology: Deborah Cornett – 360-407-7269** **WA Dept. of Fish and Wildlife: Travis Nelson – 360-902-2390**
12) Description of the Facility, its mode of operation (*i.e.*, peaking/run of river) and photographs, maps and diagrams.	**The Nisqually River Hydroelectric Project consists of 1) Alder dam, reservoir, and powerhouse; 2) LaGrande dam, reservoir, penstocks, and powerhouse. Alder dam is operated as a peaking facility, and LaGrande dam is operated as a run of river facility**
Questions for "New" Facilities Only: If the Facility you are applying for is "new" (i.e., an existing dam that added or increased power generation capacity after August of 1998) please answer the following questions to determine eligibility for the program	**A new turbine generator was added to the LaGrande dam in 2002 to generate from the required minimum flow releases.**
13) When was the dam associated with the Facility completed?	**1942**
14) When did the added or increased generation first generate electricity? If the added or increased generation is not yet operational, please answer question 18 as well.	**2002**
15) Did the added or increased	**No**

power generation capacity require or include any new dam or other diversion structure?	
16) Did the added or increased capacity include or require a change in water flow through the facility that worsened conditions for fish, wildlife, or water quality (for example, did operations change from run-of-river to peaking)?	**No, the unit runs off the minimum flows that are released to provide beneficial conditions for salmonids.**

17 (a) Was the existing dam recommended for removal or decommissioning by resource agencies, or recommended for removal or decommissioning by a broad representation of interested persons and organizations in the local and/or regional community prior to the added or increased capacity? (b) If you answered "yes" to question 17(a), the Facility is not eligible for certification, unless you can show that the added or increased capacity resulted in specific measures to improve fish, wildlife, or water quality protection at the existing dam. If such measures were a result, please explain.	**No**
18 (a) If the added or increased generation is not yet operational, has the increased or added generation received regulatory authorization (e.g., approval by the Federal Energy Regulatory Commission)? If not, the facility is not eligible for consideration; and (b) Are there any pending appeals or litigation regarding that authorization? If so, the facility is not eligible for consideration.	**a) Yes** **b) No**

A. Flows	PASS	FAIL	Applicant Answer
1) Is the Facility in *Compliance* with *Resource Agency Recommendations* issued after December 31, 1986 regarding flow conditions for fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?	**YES = Pass, Go to B** N/A = Go to A2	NO = Fail	**Yes. Resource agency recommended flows are in effect throughout the project.** **Alder Lake levels must remain above 1197 feet from Memorial Day to Labor Day, and above 1170 feet at all other times, except as necessary to meet minimum instream flows. If they fall below that level, the project must conserve water in accordance with a conservation flow formula. See License Article 404.** **The reach from Alder Dam downstream to LaGrande Dam is essentially a reservoir, as the LaGrande reservoir is in a deep canyon, extending about 1.5 miles to the base of Alder Dam, so there are no flow requirements.** **There are ramping rate restrictions, as follows (see Article 405):** **<u>Downramping rates</u>** **Feb. 16 – Jun. 15:** **No ramping during daylight hours, and two inches per hour at night.** **Jun. 16 – Oct. 31:** **One inch per hour day and night.** **Nov. 1 – Feb. 15:** **Two inches per hour day and night.** **Upramping rates (downstream from LaGrande Dam)(see Article 407):** **Cannot exceed six inches per hour for the first hour of any spill.** **There is a bypassed reach between the LaGrande dam and powerhouse, extending about 1.7 miles. Flows for the bypassed reach are:** **30cfs or inflow to Alder Lake, whichever is less.** **This flow was recommended by the resource agencies, though it was objected to by the Nisqually tribe, which believed no flows should be provided to discourage attraction to the reach which they believe is marginal. (see Article 403)** **In addition, there are flows requirements for below the LaGrande powerhouse, as well as releases required for helping to maintain minimum flows in the bypassed reach of the separate Yelm project, downstream (see Article 402):** **Oct. 1 – Dec. 15:** **LaGrande Powerhouse: 700 cfs**

			Yelm bypass reach: 550 cfs **Dec. 16 – May 31:** **LaGrande Powerhouse: 900 cfs** **Yelm bypass reach: 600 cfs** **Jun. 1 – May 31** **LaGrande Powerhouse: 750 cfs** **Yelm bypass reach: 500 cfs** **Aug. 1 – Sept. 30** **LaGrande Powerhouse: 575 cfs** **Yelm bypass reach: 370 cfs** **These flows originated from work by the Nisqually River Coordinating Committee (comprised of Tacoma, Centralia, The Nisqually Tribe, The Washington Department of Fish and Wildlife, the National Marine Fisheries Services, and the U.S. Fish and Wildlife Service) established in response to concerns about the impact of this project and the downstream Yelm project on anadromous fish in the lower reaches of the river. The flows were formally adopted by Administrative Law Judge decision in 1993, and were recommended during relicensing by the resource agencies.**
2) If there is no flow condition recommended by any Resource Agency for the Facility, or if the recommendation was issued prior to January 1, 1987, is the Facility in Compliance with a flow release schedule, both below the tailrace and in all bypassed reaches, that at a minimum meets Aquatic Base Flow standards or "good"_habitat flow standards calculated using the Montana-Tennant method?	YES = Pass, go to B NO = Go to A3		
3) If the Facility is unable to meet the flow standards in A.2., has the Applicant demonstrated, and obtained a letter from the relevant Resource Agency confirming that demonstration, that the flow conditions at the Facility are appropriately protective of fish, wildlife, and water quality?	YES = Pass, go to B	NO = Fail	

B. Water Quality	PASS	FAIL	
1) Is the Facility either: a) In Compliance with all conditions issued pursuant to a Clean Water Act Section 401 water quality certification issued for the Facility after December 31, 1986? Or b) In Compliance with the quantitative water quality standards established by the state that support designated uses pursuant to the federal Clean Water Act in the Facility area and in the downstream reach?	**YES = Go to B2**	NO = Fail	**Yes. The project was issued a section 401 Water Quality Certification in 1992, and the project is in compliance with the certification. The certification is attached to the 1997 FERC order issuing a new license.**
2) Is the Facility area or the downstream reach currently identified by the state as not meeting water quality standards (including narrative and numeric criteria and designated uses) pursuant to Section 303(d) of the Clean Water Act?	YES = Go to B3 **NO = Pass**		
3) If the answer to question B.2 is yes, has there been a determination that the Facility does not cause, or contribute to, the violation?	YES = Pass	NO = Fail	
C. Fish Passage and Protection	PASS	FAIL	
1) Is the Facility in Compliance with *Mandatory Fish Passage Prescriptions* for upstream and downstream passage of anadromous and	YES = Go to C5 **N/A = Go to C2**	NO = Fail	**The facility does not impede anadromous or catadromous fish passage; therefore, no Mandatory Fish Passage Prescriptions have been issued for the Project.**

catadromous fish issued by Resource Agencies after December 31, 1986?			
2) Are there historic records of anadromous and/or catadromous fish movement through the Facility area, but anadromous and/or catadromous fish do not presently move through the Facility area (*e.g.*, because passage is blocked at a downstream dam or the fish no longer have a migratory run)? a) If the fish are extinct or extirpated from the Facility area or downstream reach, has the Applicant demonstrated that the extinction or extirpation was not due in whole or part to the Facility? b) If a Resource Agency Recommended adoption of upstream and/or downstream fish passage measures at a specific future date, or when a triggering event occurs (such as completion of passage through a downstream obstruction or the completion of a specified process), has the Facility owner/operator made a legally enforceable commitment to provide such passage?	YES = Go to C2a **NO = Go to C3** YES = Go to C2b N/A = Go to C2b YES = Go to C5 N/A = Go to C3	NO = Fail NO = Fail	**No. The project generally lies outside the range of anadromous fish species because of a natural barrier just upstream (approximately ½ mile) of the LaGrande powerhouse in what is now the LaGrande reservoir.** **With the 30 cfs flow in the LaGrande bypassed reach, anadromous fish (fall Chinook, some Coho, and steelhead) exist in the lower portion of the reach.**
3) If, since December 31, 1986: a) Resource Agencies have had the opportunity to issue, and considered issuing, a Mandatory	**NO = Go to C5** N/A = Go to C4	YES = Fail	**No. There is no fish passage prescription because there are natural barriers to passage. However, there is interest in improving the bypassed reach below LaGrande dam for anadromous fish, so in addition to the 30 cfs minimum flow, Tacoma has undertaken other efforts (including barrier removal) to help improve habitat based on agency recommendations (see response to C5).**

Fish Passage Prescription for upstream and/or downstream passage of anadromous or catadromous fish (including delayed installation as described in C2a above), and b) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription, c) Was a reason for the Resource Agencies' declining to issue a Mandatory Fish Passage Prescription one of the following: (1) the technological infeasibility of passage, (2) the absence of habitat upstream of the Facility due at least in part to inundation by the Facility impoundment, or (3) the anadromous or catadromous fish are no longer present in the Facility area and/or downstream reach due in whole or part to the presence of the Facility?			
4) If C3 was not applicable: a) Are upstream and downstream fish passage survival rates for anadromous and catadromous fish at the dam each documented at greater than 95% over 80% of the run using a generally accepted monitoring	YES = Go to C5	NO = Fail	

methodology? Or b) If the Facility is unable to meet the fish passage standards in 4.a, has the Applicant either i) demonstrated, and obtained a letter from the U.S. Fish and Wildlife Service or National Marine Fisheries Service confirming that demonstration, that the upstream and downstream fish passage measures (if any) at the Facility are appropriately protective of the fishery resource, or ii) committed to the provision of fish passage measures in the future and obtained a letter from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service indicating that passage measures are not currently warranted?			
5) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of *Riverine* fish?	**YES = Go to C6** N/A = Go to C6	NO = Fail	**There are no Federal Power Act (FPA) prescriptions, but there were FPA recommendations to remove a manmade barrier for passage for cutthroat trout in the LaGrande bypassed reach (see Article 416). The barrier was removed to facilitate fish passage and release substrate that had aggraded upstream. Due to the dynamic nature of the canyon (bypass reach) there are currently no plans to alter any natural fish passage obstacles.**
6) Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?	**YES = Pass, go to D** N/A = Pass, go to D	NO = Fail	**Yes. Due to the very small amount of habitat available above the powerhouse, the small number of fish accessing the area, and the lack of observation of any delay or attraction to the tailrace, Tacoma proposed forgoing any further formal investigations or other compliance actions related to fish attraction into the tailrace at LaGrande powerhouse under Article 417.** **As required by article 416 (LaGrande Fish Passage), fish passage surveys have continued annually. Information related to fish presence in the**

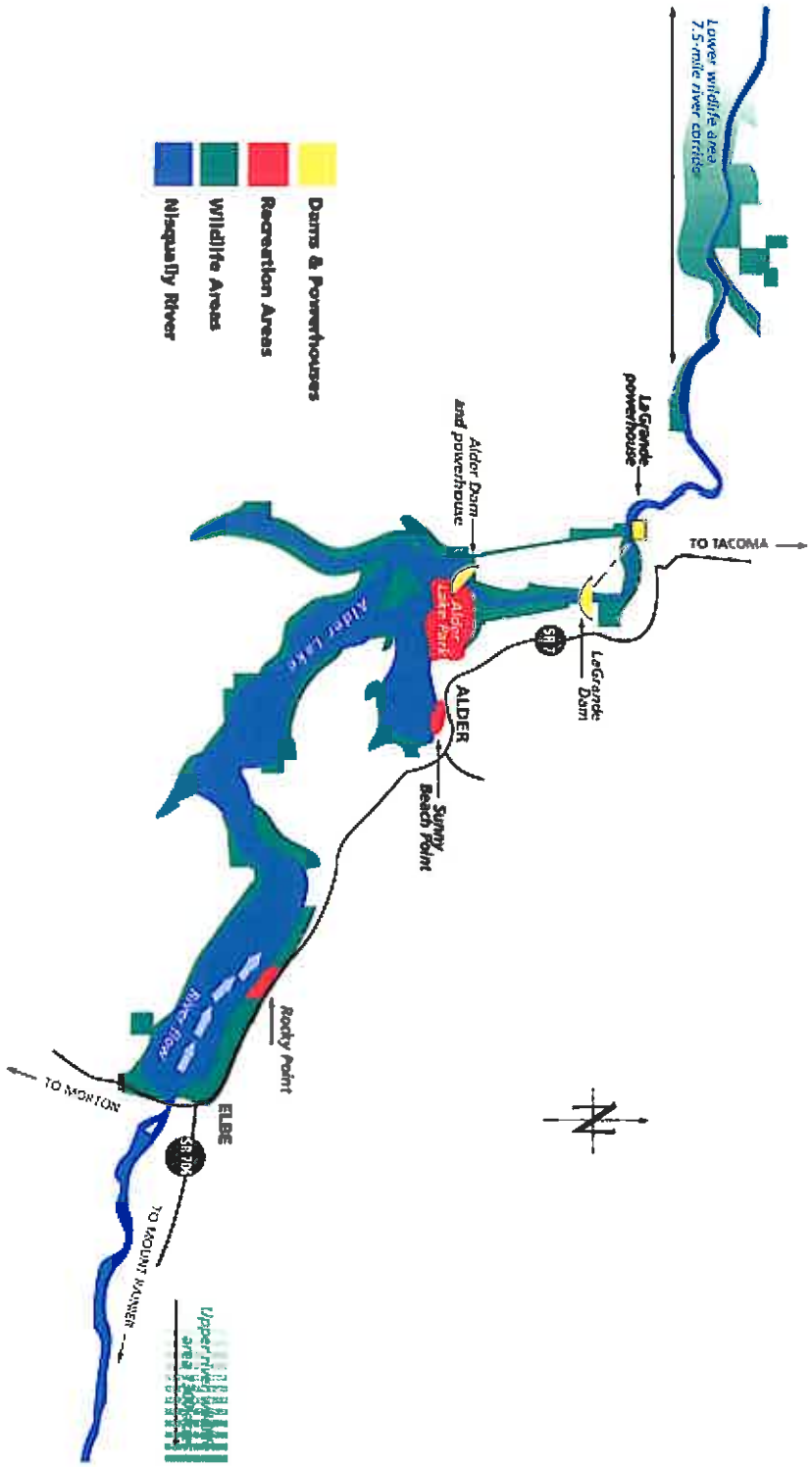
			tailrace and upstream of the powerhouse are presented in the article 416 report and submitted to the agencies and the FERC annually. **If information presented in the Article 416 report provides evidence of tailrace attraction, Tacoma would notify FERC of its intent to proceed with developing a tailrace attraction study plan. Otherwise, Tacoma Power would submit an Article 417 status report no later than October 5, 2014 at which time the need of a tailrace attraction study would be revisited.**
D. Watershed Protection	PASS	FAIL	
1) Is there a buffer zone dedicated for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low-impact recreation) extending 200 feet from the average annual high water line for at least 50% of the shoreline, including all of the undeveloped shoreline?	YES = Pass, go to E and receive 3 extra years of certification	**NO = go to D2**	**No. Although there is a buffer zone dedicated for conservation purposes, it exceeds 200 feet for less than 50% of the impoundments (Alder and LaGrande reservoirs).**
2) Has the Facility owner/operator established an approved watershed enhancement fund that: 1) could achieve within the project's watershed the ecological and recreational equivalent of land protection in D.1,and 2) has the agreement of appropriate stakeholders and state and federal resource agencies?	YES = Pass, go to E and receive 3 extra years of certification	**NO = go to D3**	**No. An approved watershed enhancement fund has not been established for this project.**
3) Has the Facility owner/operator established through a settlement agreement with appropriate stakeholders, with state and federal resource agencies agreement, an appropriate shoreland buffer or equivalent watershed land protection plan for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low impact recreation)?	**YES = Pass, go to E**	NO = go to D4	**Yes. A shoreline buffer has been established around the entire perimeters of the Alder and LaGrande reservoirs as part of the Nisqually River project settlement agreement. The buffer widths vary, but they are typically at least 100 feet wide along the undeveloped shoreline areas. The buffers in most of the undeveloped areas exceed 200 feet and/or abut public lands that afford increased buffer functions. All but the shoreline areas adjacent to previously developed areas are classified as wildlife lands and managed under our FERC-approved Wildlife Management Plan. The remaining shoreline adjacent to developed areas are managed to allow low impact recreation and assure minimal impacts to habitat, water quality, and aesthetics.**
4) Is the facility in compliance with both state and federal resource agencies recommendations in a license approved shoreland management plan regarding protection, mitigation or enhancement of shorelands	YES = Pass, go to E N/A = Pass go to E	No = Fail	

surrounding the project?			
E. Threatened and Endangered Species Protection	PASS	FAIL	
1) Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?	**YES = Go to E2** NO = Pass, go to F		**Bald eagles use the Nisqually River, and active nest sites are in the project area; in addition, suitable habitat for both the Northern Spotted Owl and the Marbled Murrlet exist within the project area. Chinook salmon are found downstream of the project.**
2) If a recovery plan has been adopted for the threatened or endangered species pursuant to Section 4(f) of the Endangered Species Act or similar state provision, is the Facility in Compliance with all recommendations in the plan relevant to the Facility?	YES = Go to E3 **N/A = Go to E3**	NO = Fail	
3) If the Facility has received authorization to incidentally *Take* a listed species through: (i) Having a relevant agency complete consultation pursuant to ESA Section 7 resulting in a biological opinion, a habitat recovery plan, and/or (if needed) an incidental Take statement; (ii) Obtaining an incidental Take permit pursuant to ESA Section 10; or (iii) For species listed by a state and not by the federal government, obtaining authorization pursuant to similar state procedures; is the Facility in Compliance with conditions pursuant to that authorization?	YES = Go to E4 **N/A = Go to E5**	NO = Fail	
4) If a biological opinion applicable to the Facility for	YES =	NO = Fail	

the threatened or endangered species has been issued, can the Applicant demonstrate that: a) The biological opinion was accompanied by a FERC license or exemption or a habitat conservation plan? Or b) The biological opinion was issued pursuant to or consistent with a recovery plan for the endangered or threatened species? Or c) There is no recovery plan for the threatened or endangered species under active development by the relevant Resource Agency? Or d) The recovery plan under active development will have no material effect on the Facility's operations?	Pass, go to F		
5) If E.2 and E.3 are not applicable, has the Applicant demonstrated that the Facility and Facility operations do not negatively affect listed species?	**YES = Pass, go to F**	NO = Fail	**Yes. Based on the protective measures implemented by the project (including surveys, activity restrictions, and other measures), and the management plan approved in 1998 (see Article 425) the project does not negatively affect listed avian species.** **The National Marine Fisheries Service has confirmed that the Nisqually project is currently not a concern and is not believed to negatively affect listed Chinook salmon.**
F. Cultural Resource Protection	PASS	FAIL	
1) If FERC-regulated, is the Facility in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license or exemption?	**YES = Pass, go to G** N/A = Go to F2	NO = Fail	**Yes. The FERC license requires that the licensee conduct a cultural resource survey before starting any land-clearing or land-disturbing activities, and if any previously unidentified properties are identified, consult with the SHPO and prepare a cultural resources management plan. The project is in compliance with this requirement. To date, no cultural resource sites have been discovered on the project lands.**
2) If not FERC-regulated, does the Facility owner/operator have in place (and is in	YES = Pass, go to	NO = Fail	

Compliance with) a plan for the protection, mitigation or enhancement of impacts to Cultural Resources approved by the relevant state or federal agency or *Native American Tribe*, or a letter from a senior officer of the relevant agency or Tribe that no plan is needed because Cultural Resources are not negatively affected by the Facility?	G		
G. Recreation	PASS	FAIL	
1) If FERC-regulated, is the Facility in Compliance with the recreational access, accommodation (including recreational flow releases) and facilities conditions in its FERC license or exemption?	**YES = Go to G3** N/A = Go to G2	NO = Fail	**Yes. The project maintains three recreation areas on Alder Lake that provide for day use, angling, boating, and camping. The project is in compliance with FERC requirements for these recreation improvements.** **Whitewater boating: the FERC license required Tacoma to conduct a three-year evaluation of the potential for whitewater boating in the LaGrande canyon, including spills in Nov. and Dec. This occurred; however, there were safety hazards (including one death) and after the three-year period, a final report recommended that the spills be discontinued. FERC concurred with the report.**
2) If not FERC-regulated, does the Facility provide recreational access, accommodation (including recreational flow releases) and facilities, as Recommended by Resource Agencies or other agencies responsible for recreation?	YES = Go to G3	NO = Fail	
3) Does the Facility allow access to the reservoir and downstream reaches without fees or charges?	**YES = Pass, go to H**	NO = Fail	**Access to Alder Lake is free at all of its developed parks and from the undeveloped lands that surround the reservoir. Access to LaGrande Reservoir and the downstream riparian areas is not developed, but it is open to the public and there is no fee.**
H. Facilities Recommended for Removal	PASS	FAIL	
1) Is there a Resource Agency	**NO = Pass,**	YES	**No. Some agencies did recommend a**

Recommendation for removal of the dam associated with the Facility?	**Facility is Low Impact**	= Fail	**decommissioning fund be established, the tribe did not concur, and the recommendation was not approved by FERC. No agencies have recommended removal of either dam.**



Nisqually River Hydroelectric Project

Alder Dam

LaGrande Dam

Nisqually River Hydroelectric Project LIHI Re-certification

Compliance Statement & Liability Waiver

I declare that the material presented in this application to the Low Impact Hydropower Institute for certification of the Nisqually River Hydroelectric Project is true and complete to the best of my knowledge and belief.

The primary goal of the Low Impact Hydropower Institute's Certification Program is public benefit. The Governing Board and its agents are not responsible for financial or other private consequences of its certification decisions. The undersigned Applicant agrees to hold the Low Impact Hydropower Institute, the Governing Board and its agents harmless for any decision rendered on this or other applications or on any other action pursuant to the Low Impact Hydropower Institute's Certification Program.

Keith Underwood

Keith Underwood, Natural Resources Manager, Tacoma Power

Date: 03/27/2013