LOW IMPACT HYDROPOWER INSTITUTE RECERTIFICATION APPLICATION

CERTIFICATION QUESTIONNAIRE

APRIL, 2014 REVISION

North Umpqua Hydroelectric Project (FERC No. P-1927)

Background Information			
1) Name of the Facility as used in the FERC	North Umpqua Hydroelectric Project (FERC No. P-1927)		
license/exemption.			
2) Applicant's name, contact information and relationship	Mark Sturtevant, Managing Director, Hydro Resources		
to the Facility. Please use the Project Contact Form in	PacifiCorp Energy		
Appendix D.	825 NE Multnomah, Suite 1500		
	Portland, OR 97232		
	Tel: 503.813.6680		
	Fax: 503.813.6659		
	Email: mark.sturtevant@pacificorp.com		
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.	Lemolo No. 1 Dam		
	(a) State Oregon		
	(b) River North Umpqua		
	(c) River Mile 92.98		
	(d) Drainage (sq. mi.) 162.1		
longitude of the Facility dam.	Lemolo No. 2 Diversion		
	(a) State Oregon		
	(b) River North Umpqua		
	(c) River Mile 88.56		
	(d) Drainage (sq. mi.) 186.3		

To	oke	etee Dam	
(a)	ı)	State	Oregon
(b))	River	North Umpqua
(c)	:)	River Mile	75.37
(d)	l)	Drainage (sq. mi.)	323.6
So	oda	Springs Dam	
(a)	ι)	State	Oregon
(b))	River	North Umpqua
(c)	′	River Mile	69.81
(d)		Drainage (sq. mi.)	424.8
Sli		Creek Diversion	
(a)	ı)	State	Oregon
(b)	_	River	North Umpqua
(c)	:)	River Mile	73.24
(d)		Drainage (sq. mi.)	326.1
Cl	lear	rwater No. 1 Diversi	on
(a)	1)	State	Oregon
(b)	′	River	Clearwater
(c)		River Mile	8.13
(d)		Drainage (sq. mi.)	41.6
Cl		rwater No. 2 Diversi	on
(a)		State	Oregon
(b)	_	River	Clearwater
(c)	_	River Mile	4.76
(d)		Drainage (sq. mi.)	60.2
Fi		Creek Diversion	
(a)	ι)	State	Oregon

	(b)	River	Fish Creek		
		River Mile	7.03		
	(c)				
	(d)	Drainage (sq. mi.)	61.7		
		T			
	(e)	Location of other d	ams:	T	
		Winchester Dam		Latitude	Longitude
		(North Umpqua dov			
		PacifiCorp Facilitie	es)		122222
				43.2839	-123.3539
		T			
	(f)	Location of facility	dam:	T	
		Facility Dam		Latitude	Longitude
		Lemolo No. 1 Dam		43.32263	-122.19436
		Lemolo No. 2 Dive	rsion	43.35537	-122.24929
		Toketee Dam		43.26447	-122.42106
		Slide Creek Diversi	ion	43.27512	-122.44873
		Soda Springs Dam		43.30284	-122.49474
		Clearwater No. 1 D	iversion	43.24645	-122.28217
		Clearwater No. 2 D	iversion	43.25114	-122.33786
		Fish Creek Diversion	on	43.21083	-122.42660
4) Installed capacity.	Total	: 193.99 MW		<u> </u>	
•		Lemolo No. 1: 31,	990 kW		
		Lemolo No. 2: 38,	500 kW		
		Clearwater No. 1:	15,000 kW		
		Clearwater No. 2:	26,000 kW		
		Toketee: 42,500 kV			
		Fish Creek: 11,000			
		Slide Creek: 18,00			
		Soda Springs: 11,0	000 kW		

5) Average annual generation.	Based on 30 years of data (1984 - 2013), the average annual generation of the project is 848.9 GWh. The average annual generation of each development is as follows: Lemolo No. 1: 140.8 GWh Lemolo No. 2: 167.9 GWh Clearwater No. 1: 52.0 GWh Clearwater No. 2: 57.3 GWh Toketee: 228.9 GWh Fish Creek: 51.0 GWh Slide Creek: 88.8 GWh
6) Regulatory status.	Soda Springs: 62.3 GWh The project was relicensed for a 35-year term by FERC Order, dated November 18, 2003. A Settlement Agreement, dated June 13, 2001, was adopted by the license. The Settlement Agreement was collaboratively developed with regulatory agencies that have jurisdiction over the natural resources in the watershed.
7) Reservoir volume and surface area measured at the normal maximum operating level.	Lemolo No. 1 Reservoir Volume (total storage capacity) =11,752 acre-feet Surface area = 419 acres Forebay Volume (total storage capacity) = 46 acre-feet Surface area = 12 acres Lemolo No. 2 Volume (total storage capacity) = 230.6 acre-feet Surface area = 24.2 acres Clearwater No. 1 Volume (total storage capacity) = 30.2 acre-feet (reservoir) + 120.8 acre-feet (forebay only) Surface area: 11.8-acre reservoir + 16.3-acre forebay

	Clearwater No. 2 • Volume (total storage capacity) = 70.7 acre-feet • Surface area: 8.6 acre Toketee • Volume (total storage capacity) = 1,051 acre-feet • Surface area: 96.9 acres Fish Creek • Volume (total storage capacity) = 110.3 acre-feet • Surface area = 9.3 acres Slide Creek • Volume (total storage capacity) = 43 acre-feet • Surface area = 2 acres Soda Springs • Volume (total storage capacity) = 411.6 acre-feet • Surface area = 31.5 acres		
8) Area occupied by non-reservoir facilities (e.g., dam, penstocks, powerhouse).	Approximately 125 acres are occupied by non-reservoir facilities (including canals, penstocks, dam vicinity, housing areas, building grounds, parking lots etc.). This acreage is associated with the following facilities:		
	Facilities Acres		
	Lemolo No. 1 4.3		
	Lemolo No. 2 0.9		
	Clearwater No. 1 2.4		
	Clearwater No. 2 7.0		
	Toketee 18.4		
	Slide Creek 1.3		
	Soda Springs 1.7		
	Fish Creek 1.9		

	canals	82.5
	penstocks	5.0
9) Number of acres inundated by the Facility.	The project reservoirs inund	late approximately 625 acres (open
	water).	
	Facilities	Acres
	Clearwater No. 1 forebay	16.3
	Clearwater No. 2 forebay	8.6
	Clearwater No. 2 diversion	1.2
	Fish Creek diversion and screen	
	Fish Creek forebay	9.3
	Lemolo No. 2 diversion	1.4
	Lemolo No. 2 forebay	24.2
	Lemolo No. 1 forebay	13
	Lemolo Lake	419
	Slide Creek forebay	2.0
	Soda Springs Reservoir	31.5
	Stump Lake	11.8
	Toketee Lake	96.9
10) Number of acres contained in a 200-foot zone extending	·	612 acres are contained within a 200
around entire reservoir.	buffer of water and marsh a	round the impoundments.
11) Contacts for Resource Agencies and non-governmental	See Attachment 1.	
organizations.		
12) Description of the Facility, its mode of operation (i.e.,	See Attachment 2.	
peaking/run of river) and photographs, maps and diagrams.		
Questions for "New" Facilities Only:	N/A	
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.		
1 7	1	

13) When was the dam associated with the Facility completed?	N/A
14) When did the added or increased generation first	N/A
generate electricity? If the added or increased generation is not	
yet operational, please answer question 18 as well.	
15) Did the added or increased power generation capacity	N/A
require or include any new dam or other diversion structure?	
16) Did the added or increased capacity include or require a	N/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)?	
17 (a) Was the existing dam recommended for removal or	N/A
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.	

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.	N/A	
A. Flows	PASS	FAIL
1) Is the Facility in Compliance with Resource Agency	YES = Pass, Go to B	NO = Fail
Recommendations issued after December 31, 1986 regarding	N/A = Go to A2	
flow conditions for fish and wildlife protection, mitigation and		
enhancement (including in-stream flows, ramping and peaking	Yes. See Attachment 3	
rate conditions, and seasonal and episodic instream flow		
variations) for both the reach below the tailrace and all		
bypassed reaches?		
2) If there is no flow condition recommended by any	YES = Pass, go to B	
Resource Agency for the Facility, or if the recommendation was	NO = Go to A3	
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?		
Woltana-Tennant method?		

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:	YES = Go to B2	NO = Fail
 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 (1a). See Attachment 4	
2) Is the Facility area or the downstream reach currently	YES = Go to B3	
identified by the state as not meeting water quality standards (including narrative and numeric criteria and designated uses)	NO = Pass	
pursuant to Section 303(d) of the Clean Water Act?	Yes. See Attachment 4	
3) If the answer to question B.2 is yes, has there been a	YES = Pass	NO = Fail
determination that the Facility does not cause, or contribute to,	T. G. A	
the violation?	Yes; See Attachment 4	

C. Fish Passage and Protection	PASS	FAIL
1) Are anadromous and/or catadromous fish present in the	YES = Go to C2	
Facility area or are they know to have been present historically?	NO = Go to C6	
	X 7	
	Yes. Anadromous fish are present due	
	to completion of fish passage facilities	
	in 2012 which have allowed passage of	
	hundreds of adult steelhead and salmon	
	into the project area.	NO 5 "
2) Is the Facility in Compliance with Mandatory Fish	YES = Go to C6	NO = Fail
Passage Prescriptions for upstream and downstream passage of	$N/A = Go \text{ to } \frac{C2}{C3}$	
anadromous and catadromous fish issued by Resource Agencies	V C A44h4-5	
after December 31, 1986?	Yes. See Attachment 5	
3) Are there historic records of anadromous and/or	YES = Go to C2a C3a	
catadromous fish movement through the Facility area, but	NO = Go to C3C4	
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	$YES = Go to \frac{C2b}{C3b}$	NO = Fail
or downstream reach, has the Applicant demonstrated that the	N/A = Go to C2bC3b	
extinction or extirpation was not due in whole or part to the		
Facility?		
b) If a Decourse According to the desire of	VEC Co. to C5C6	NO Fail
b) If a Resource Agency Recommended adoption of	YES = Go to C5 C6 N/A = Go to C3 C4	NO = Fail
upstream and/or downstream fish passage measures at a specific	$IN/A = G0 10 \frac{C3}{C4}$	
future date, or when a triggering event occurs (such as		
completion of passage through a downstream obstruction or the		<u> </u>

completion of a specified process), has the Facility owner/operator made a legally enforceable commitment to provide such passage?		
4) If, since December 31, 1986: a) Resource Agencies have had the opportunity to issue, and considered issuing, a Mandatory Fish Passage Prescription for upstream and/or downstream passage of anadromous or catadromous fish (including delayed installation as described in C.3.a above), and b) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription,	NO = Go to C6 N/A = Go to C4C5	YES = Fail
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?		
5) If C4 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 methodology? Or	YES = Go to C6	NO = Fail

b) If the Facility is unable to meet the fish passage standards in 5.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?		
6) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of Riverine fish?	YES = Go to C7 N/A = Go to C7 Yes. See Attachment 5	NO = Fail
7) 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 Yes. See Attachment 5	NO = Fail
D. Watershed Protection	PASS	FAIL NO. G. + D2
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 = Eligible for 3 extra years of certification; Go to D4	NO = Go to D2 No.
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	YES = Eligible for 3 extra years of certification; Go to D4	NO = Go to D3

land protection in D.1, and 2) has the agreement of appropriate stakeholders and state and federal resource agencies?	Yes; See Attachment 6	
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 = Go to D4	NO = Go to D4
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 surrounding the project?	YES = Pass, go to E N/A = Pass, go to E N/A. There were no resource agency recommendations for a shoreline management plan.	No = Fail
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 Yes. See Attachment 7	
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 Yes. See Attachment 7	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	YES = Go to E4 N/A = Go to E5 Yes. See Attachment 7	NO = Fail

negatively affect listed species? F. Cultural Resource Protection 1) If FERC-regulated, is the Facility in Compliance with all requirements regarding Cultural Resource protection,	PASS YES = Pass, go to G N/A = Go to F2	FAIL NO = Fail
 d) The recovery plan under active development will have no material effect on the Facility's operations? 5) If E.2 and E.3 are not applicable, has the Applicant demonstrated that the Facility and Facility operations do not 	YES = Pass, go to F	NO = Fail
c) There is no recovery plan for the threatened or endangered species under active development by the relevant Resource Agency? Or	in the Biological Opinions are consistent with the conditions of the Settlement Agreement, designed to minimize incidental take over the course of the project's 35-year license.	
b) The biological opinion was issued pursuant to or consistent with a recovery plan for the endangered or threatened species? Or	18, 2003 references the terms and conditions of both the NMFS Biological Opinion and USFWS Biological Opinion. The incidental take statements	
a) The biological opinion was accompanied by a FERC license or exemption or a habitat conservation plan? Or	Yes (4a). The North Umpqua project license that was issued on November	
4) If a biological opinion applicable to the Facility for the threatened or endangered species has been issued, can the Applicant demonstrate that:	YES = Pass, go to F	NO = Fail
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?		

2) If not FERC-regulated, does the Facility owner/operator have in place (and is in 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?	YES = Pass, go to G	NO = Fail
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	YES = Go to G3 N/A = Go to G2	NO = Fail
exemption?	Yes. See Attachment 9	
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
	Yes. PacifiCorp provides free access to	
	the reservoirs and downstream reaches of the river.	
H. Facilities Recommended for Removal	PASS	FAIL
Is there a Resource Agency Recommendation for removal of the dam associated with the Facility?	NO = Pass, Facility is Low Impact	YES = Fail
	No. The most recent resource agency recommendations do not include removal of any of the dams associated	

with the North Umpqua project. The
Settlement Agreement contains the
adopted recommendations for the
continued operation of the project and
the FERC project license affirms the
status of the Settlement Agreement:
The federal and state agencies that are
signatories agree that the protection,
mitigation, and enhancement measures
contained in the Agreement will be
adequate to protect resources under
their jurisdiction that are affected by
project operations, and the agencies
have modified their mandatory and
recommended conditions to achieve
consistency with the Agreement.
consistency with the High content.

APPENDIX D – PROJECT CONTACT FORM

Project Name: North Umpqua Hydroelectric Project	EEDC N - D 1027
Project Owner/Operator:	FERC No. <u>P-1927</u>
Name and Title: Mark Sturtevant, Managing Director, Hydro Re	
Company: PacifiCorp Energy	<u>esources</u>
Phone: <u>503-813-6680</u>	
Email address: mark.sturtevant@pacificorp.com	
-	
Please include this email address in LIHI e-newsletter dis	
Mailing Address: <u>825 NE Multnomah</u> , Suite 1500, Portland, OR	<u>97232</u>
Consulting Control of the Control of	
Consulting firm that manages LIHI program participation (i	
Name <u>n/a</u>	
Company	
Phone	
Email address	
Please include this email address in LIHI e-newsletter dis	
Mailing Address	
Party responsible for compliance with LIHI certification requ	
Name and Title: Todd Olson, Director, Compliance, Hydro Reson	urces
Phone: <u>503-813-6657</u>	
Email address: todd.olson@pacificorp.com	
Please include this email address in LIHI e-newsletter dist	tribution: <u>yes</u>
Mailing Address: 825 NE Multnomah, Suite 1500, Portland, OR 9	97232
Party responsible for accounts payable:	
Name and Title: Pooja Kishore, Renewable Resource	
Phone: <u>503-813-7314</u>	
Email address: pooja.kishore@pacificorp.com	
Mailing Address: 825 NE Multnomah, Suite 600, Portland, OR 97	7232
Mink Strate of	11/17/2014
Project Owner/Operator Signature	Date