II. Suggested Format for the HYDRO General Permit Notice of Intent (NOI):

Request for General Permit Authorization to Discharge Wastewater Notice of Intent (NOI) to be covered by Hydroelectric Generating Facilities General Permit (HYDROGP) No. MAG360000 or NHG360000

Indicate Applicable General Permit for Discharge(s): ☐ MAG360000 ☑NHG360000

A. Facility Information

1.	Facility Location	Name: AMOSKEAG HYDROELECTRIC STATION	
		Street: 15 FLETCHER STREET	
		City: MANCHESTER	State: NEW HAMPSHIRE
		Zip: 03101	SIC Code: 4911
		Latitude: N43 00' 9.3"	Longitude: W71 28' 21.1"
		Type of Business: ELECTRIC POWER GENERATION	
2.	Facility Mailing Address (if different from Location)	Street: 670 N. COMMERCIAL ST SUITE 204	
		City: MANCHESTER	State: NEW HAMPSHIRE
		Zip: 03101	
3.	Facility Owner	Name: PATRIOT HYDRO, LLC	Email: SILLER@PATRIOTHYDRO.COM
		Street: 670 N. COMMERCIAL ST SUITE 204	Telephone: (603) 540 - 8238

		City: MANCHESTER	State: NEW HAMPSHIRE
		Contact Person: SEAN ILLER	Zip: 03101
4.	Facility Operator (if different from above)	Name:	Email:
		Street:	Telephone:
		City:	State:
		Zip:	
5.	Current Permit Status	Has prior HYDROGP coverage been granted for the discharge(s) listed in the NOI?	☑Yes ☐ No
		Permit number (if yes): NHG360017	
		Is the facility covered under an Individual Permit?	☐ Yes ☑No
		Is there a pending NPDES application of file with EPA for the discharge(s)?	☐ Yes ☑ No
		Date of Submittal (if yes): Click or tap to enter a date.	Permit Number (if known):
		Attach a topographic map indicating the locations. of the facility and outfall(s) to the receiving water	☑Map Attached
		Number of turbines: 3	
		Combined turbine discharge (installed capacity) at:	Maximum capacity? 5640 cfs Minimum capacity? 833 cfs
		Is this facility operated as a pump storage project?	☐ Yes ☑No

B. Discharge Information

1. Name of Receiving Water(s): MERRIMACK RIVER		☑ Freshwater ☐ Marine
2. Waterbody classification: ☐ Class A ☑ Class B ☐ Class SA ☐ Class SB		
3. Is the receiving water is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d))?		☑ Yes ☐ No
4. If the applicant answered yes to B.2, has the applicant identified the designated uses that are impaired, any pollutants indicated, and whether a final TMDL is available for any of the indicated pollutants in a separate attachment to the NOI?		☑ Yes ☐ No
5. Attach a line drawing or flow schematic showing water flow through the facility including location of intake(s), operations contributing to effluent flow, treatment units, outfalls, and receiving water(s).		☑ Line Drawing Attached
6. List each outfall (numbered sequentially) discharging effluent from the following categories and provide an estimate of the average monthly flow (in gallons per day) for each discharge type. See Parts 1.1 through 1.5 (for MA) or Parts 2.1 through 2.5 (for NH) for descriptions and permit conditions for each discharge type.		
Equipment-related cooling water	Outfalls:	gpd
Equipment and floor drain water	Outfalls: 001, 002, 003, 004	13740 gpd
Maintenance-related water	Outfalls: 005, 006, 007, 008, 009, 010	gpd
Facility maintenance-related water during flood/high water events	Outfalls:	gpd
Equipment-related backwash strainer water	Outfalls:	.8493 gpd

7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.8 and 2.8 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.		
Outfall No. 001	Latitude: N 43° 00' 8.3"	Longitude: W 71° 28' 21.2"
	Discharge is: ☑ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow .0000007 MGD	Average Monthly Flow <.0000007 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH s.u. 8.0	Minimum Monthly pH s.u. 6.5
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No
Outfall No. 002	Latitude: N 43° 00' 8.1"	Longitude: W 71° 28' 21.1"
	Discharge is: ☑ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow .0000007 MGD	Average Monthly Flow < .0000007 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH 8.0 s.u.	Minimum Monthly pH 6.5 s.u.
	Alternative pH limits requested? ☐Yes ☑No	State approval attached? ☐ Yes ☐ No

7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.8 and 2.8 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.		
Outfall No. 003	Latitude: N 43° 00’ 7.5”	Longitude: W 71° 28’ 21.8”
	Discharge is: ☑ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow .0000007 MGD	Average Monthly Flow < .0000007 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH s.u. 8.0	Minimum Monthly pH s.u. 6.5
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No
Outfall No. 004	Latitude: N 43° 00’ 7.2”	Longitude: W 71° 28’ 21.2”
	Discharge is: ☑ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow .0000007 MGD	Average Monthly Flow < .0000007 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly Ph 8..0 s.u.	Minimum Monthly pH 6.5 s.u.
	Alternative pH limits requested? ☐Yes ☑No	State approval attached? ☐ Yes ☐ No

Appendix 4 – NPDES Hydroelectric Facilities General

7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.8 and 2.8 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.		
Outfall No. 005	Latitude: N 43° 00’ 8.4”	Longitude: W 71° 28’ 20.8”
	Discharge is: ☐ Continuous ☑ Intermittent ☐ Seasonal	
	Maximum Daily Flow .00000005 MGD	Average Monthly Flow < .00000005 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH s.u. 8.0	Minimum Monthly pH s.u. 6.5
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No
Outfall No. 006	Latitude: N 43° 00’ 8.3”	Longitude: W 71° 28’ 21.0”
	Discharge is: ☐ Continuous ☑ Intermittent ☐ Seasonal	
	Maximum Daily Flow .00000019 MGD	Average Monthly Flow < .00000019 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH 8.0 s.u.	Minimum Monthly pH 6.5 s.u.
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No

Appendix 4 – NPDES Hydroelectric Facilities General

7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.8 and 2.8 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.		
Outfall No. 007	Latitude: N 43° 00’ 7.9”	Longitude: W 71° 28’ 20.8”
	Discharge is: ☐ Continuous ☑ Intermittent ☐ Seasonal	
	Maximum Daily Flow .00000019 MGD	Average Monthly Flow <.00000019 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH s.u. 8.0	Minimum Monthly pH s.u. 6.5
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No
Outfall No. 008	Latitude: N 43° 00’ 8.4”	Longitude: W 71° 28’ 20.8”
	Discharge is: ☐ Continuous ☑ Intermittent ☐ Seasonal	
	Maximum Daily Flow .00000014 MGD	Average Monthly Flow < .00000014 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH 8.0 s.u.	Minimum Monthly pH 6.5 s.u.
	Alternative pH limits requested? ☐Yes ☑No	State approval attached? ☐ Yes ☐ No

Appendix 4 – NPDES Hydroelectric Facilities General

7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.8 and 2.8 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.		
Outfall No. 009	Latitude: N 43° 00’ 8.3”	Longitude: W 71° 28’ 21.0”
	Discharge is: ☐ Continuous ☑ Intermittent ☐ Seasonal	
	Maximum Daily Flow .00000014 MGD	Average Monthly Flow<.00000014 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH s.u. 8.0	Minimum Monthly pH s.u. 6.5
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No
Outfall No. 010	Latitude: N 43° 00’ 7.9”	Longitude: W 71° 28’ 20.8”
	Discharge is: ☐ Continuous ☑ Intermittent ☐ Seasonal	
	Maximum Daily Flow .00000014 MGD	Average Monthly Flow <.00000014 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease <15 mg/L
	Maximum Monthly pH 8.0 s.u.	Minimum Monthly pH 6.5 s.u.
	Alternative pH limits requested? ☐ Yes ☑ No	State approval attached? ☐ Yes ☐ No

Appendix 4 – NPDES Hydroelectric Facilities General

Outfall No.	Latitude:	Longitude:
	Discharge is: ☐ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow MGD	Average Monthly Flow MGD
	Maximum Daily Temperature °F	Average Monthly Temperature °F
	Maximum Daily Oil & Grease mg/L	Average Monthly Oil & Grease mg/L
	Maximum Monthly pH s.u.	Minimum Monthly pH s.u.
	Alternative pH limits requested? ☐ Yes ☐ No	State approval attached? ☐ Yes ☐ No

C. Best Technology Available for Cooling Water Intake Structures

Facilities that checked "equipment-related cooling" as one of the discharges in Part B. of this NOI are subject to the following requirements. Facilities that intake more than 2 MGD for use in the facility (i.e., not used in the turbines to generate power) and which use at least 25% of the intake volume exclusively for cooling are not eligible for permit coverage and must submit an individual permit application. See Part 3.3 of the HYDROGP.	
1. Does the facility intake water for cooling purposes subject to the BTA Requirements at Part 4 of the HYDROGP?	☐ Yes ☑ No If no, skip to Part D of this NOI.
2. If yes, indicate which technology employed to comply with the general BTA requirements at Part 4.1 of the HYDROGP:	
☐ A physical or behavioral barrier located at the first intake encountered by fish on the upstream side of the dam that directs fish towards a downstream passage which safely conveys fish over the dam without being exposed to the CWIS. Has the applicant attached a narrative description of the barrier and provided data to demonstrate that the downstream fish passage effectively transports live fish in a manner that minimizes the likelihood of becoming impinged or entrained at the cooling water intake? ☐ Yes ☐ No	

☐ An intake velocity at the cooling water intake not exceeding 0.5 fps. Has the applicant attached a demonstration of compliance with this intake velocity through monitoring or calculation based on the maximum intake volume and minimum bypass flow? ☐ Yes ☐ No
☐ A physical screen on an intake located in the source waterbody of sufficient mesh size to minimize the potential for adult and juvenile fish to become entrained and a through-screen velocity not exceeding 0.5 fps. Has the applicant attached a demonstration of compliance with this intake velocity through monitoring or calculation based on the maximum intake volume and source water 7Q10 low flow? ☐ Yes ☐ No
3. If the answer to question C.1 is yes, in addition to complying with one of the criteria above, the applicant must submit the following information:
Maximum daily intake volume during previous five (5) years: gpd Date of maximum daily intake: Click or tap to enter a date.
Maximum monthly average intake volume during the previous five (5) years: gpd Month and year of maximum monthly average intake: Month Year
Maximum daily and average monthly volume of water used exclusively for cooling: Max: gpd Avg: gpd Maximum daily and average monthly volume of water used for another process before or after being used for cooling: Max: gpd Avg: gpd Has the applicant attached a narrative description explaining how cooling water is reused? ☐ Yes ☐ No
Calculated velocity at cooling water intake? Fps
Volume of total intake water withdrawn and used in facility as a percentage of: Installed turbine capacity % Average daily flow through penstock % Minimum flow through penstock %
Source water annual mean flow (*e.g.*, available from USGS, MassDEP, or NHDES): cfs
Source water 7-day mean low flow with 10-year recurrence interval (7Q10): cfs
Has the applicant included a narrative characterization of the habitat? ☐ Yes ☐ No

Appendix 4 – NPDES Hydroelectric Facilities General

D. Chemical Additives

1.	Does the facility use or plan to use non-toxic chemicals for pH adjustment?	☐ Yes ☑No
2.	Does the facility use or plan to use chemicals for anti-freeze purposes?	☐ Yes ☑No
3.	If the answer to D.2 is yes, provide the following for **EACH** chemical additive used for anti-freeze:	
Chemical Name and Manufacturer:		
Maximum Dosage Concentration Used:		Average Dosage Concentration Used:
Maximum Concentration in Discharge: mg/L		Average Concentration in Discharge: mg/L
Material Safety Data Sheet (MSDS) or other toxicity documentation for each chemical attached? ☐ Yes ☐ No		

E. Endangered Species Act Certification

Appendix 2 to the HYDROGP explains the certification requirements related to threatened and endangered species and designated critical habitat. Indicate under which criteria the discharge is eligible for coverage under the HYDROGP:	
1. ESA eligibility for species under jurisdiction of USFWS	**Criterion A**: No endangered or threatened species or critical habitat are in proximity to the charges or related activities or come in contact with the "action area." See Appendix 2, Part B for documentation requirements. Documentation attached? ☐ Yes ☐ No
	☑ **Criterion B**: Formal or informal consultation with the USFWS under Section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by USFWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat. Has the operator completed consultation with USFWS and attached documentation? ☑ Yes ☐ No If no, is consultation underway? ☐ Yes ☐ No

		☐ **Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and designated critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered species or designated critical habitat under the jurisdiction of the USFWS. Has the applicant attached documentation of the "no effect" finding? ☐ Yes ☐ No
2.	ESA eligibility for species under jurisdiction of NMFS	Is the facility located on: the Connecticut River between the Massachusetts/Connecticut state line and Turners Falls, MA; the Taunton River; the Merrimack River between Lawrence, MA and the Atlantic Ocean; the Piscataqua River including the Salmon Falls and Cocheco Rivers; or a marine water? ☐ Yes ☑ No
		If yes, was the applicant authorized to discharge from the facility under the 2009 HYDROGP? ☐ Yes ☐ No
		If the discharge is to one of the named rivers above or to a marine water *and* the facility was not previously covered under the 2009 HYDROGP, has there been any previous formal or informal consultation with NMFS? ☐ Yes ☐ No Documentation of consultation attached? ☐ Yes ☐ No

F. National Historic Properties Act Eligibility

1.	Indicate under which criterion the discharge(s) is eligible for covered under the HYDROGP:
☐	**Criterion A**: No historic properties are present.
☑	**Criterion B**: Historic properties are present. The discharges and related activities do not have the potential to impact historic properties.
☐	**Criterion C**: Historic properties are present. The discharges and related activities have the potential to impact or adversely impact historic properties.

2.	Has the applicant attached supporting documentation for NHPA eligibility described in Appendix 3, Part C of the HYDROGP? ☐ Yes ☑ No
3.	Does supporting documentation include a written agreement from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or other tribal representative that outlines measures the operation will carry out to mitigate or prevent any adverse effects on historic properties? ☐ Yes ☐ No

G. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certifications required by the HYDROGP. Supplemental information attached? ☐ Yes ☐ No

H. Signature Requirements

1.	The NOI must be signed by the operator in accordance with the signatory requirements of 40 C.F.R. § 122.22, including the following certification:	
	I certify under penalty of law that no chemical additives are used in the discharges to be authorized under this General Permit except for those used for pH adjustment or anti-freeze purposes and that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
2.	Notification provided to the appropriate State, including a copy of this NOI, if required?	☐ Yes ☐ No
	Signature:	Date: Click or tap to enter a date. 04-25-2023
	Print Name and Title: Sean J. Iller, EHS Manager	

Public Service Company of New Hampshire
Amoskeag Hydro Station

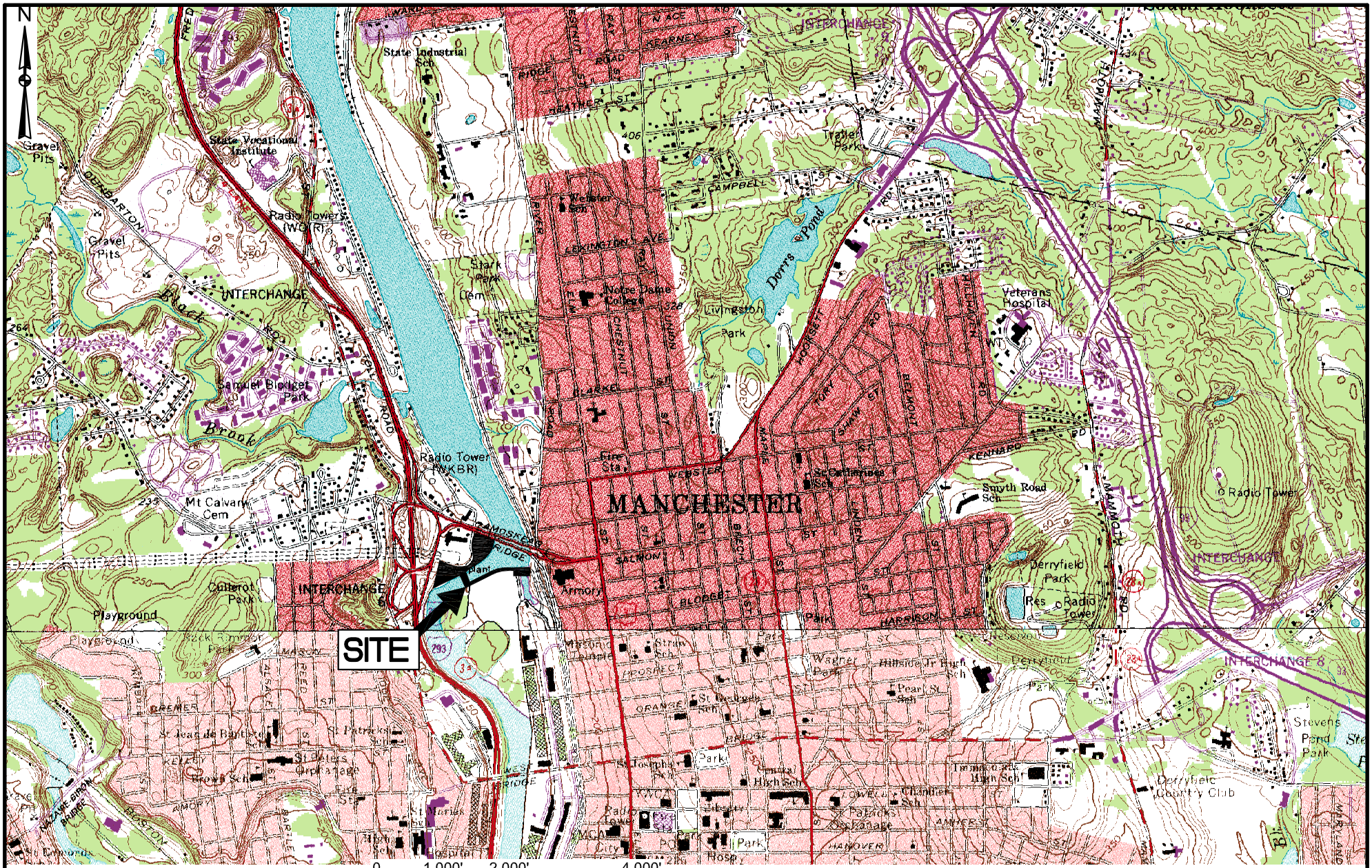
Equipment and Floor Drain Water

Outfall	Description	Location	Contributing Operations	Average Flow	Total Average Flow	Occasional or Consistent Discharge	Discharging Water	Sample Location or Representative Outfall	Possible Annual Sampling
001	Wheel Pit Drain Generator 1	N 43° 00' 8.3" W 71° 28' 21.2"	Seal bearing shaft	0-65 GPY	0-260 GPY	Consistent	Merrimack River	Sample from Wheel Pit	Yes
			Top plate leakage	0-65 GPY					
			Gate stem leakage	0-130 GPY					
002	Wheel Pit Drain Generator 2	N 43° 00' 8.1" W 71° 28' 21.1"	Seal bearing shaft	0-65 GPY	0-260 GPY	Consistent	Merrimack River	Representative Outfall 001	Yes
			Top plate leakage	0-65 GPY					
			Gate stem leakage	0-130 GPY					
003	Wheel Pit Drain Generator 3	N 43° 00' 7.5" W 71° 28' 21.8"	Seal bearing shaft	0-65 GPY	0-260 GPY	Consistent	Merrimack River	Representative Outfall 001	Yes
			Top plate leakage	0-65 GPY					
			Gate stem leakage	0-130 GPY					
004	Headwall Drainage	N 43° 00' 7.2" W 71° 28' 21.2"	Headwall leakage	3 GPM	9 GPM	Consistent	Merrimack River	Grab sample from headwall trough, dam leakage, dam tunnel trough, and scroll case	Yes
			Floor Drains	3 GPD					
			Dam tunnel trough	3 GPM					
			Dam leakage	3 GPM					
			Scroll case access leakage (G #3)	0-3 GPD					

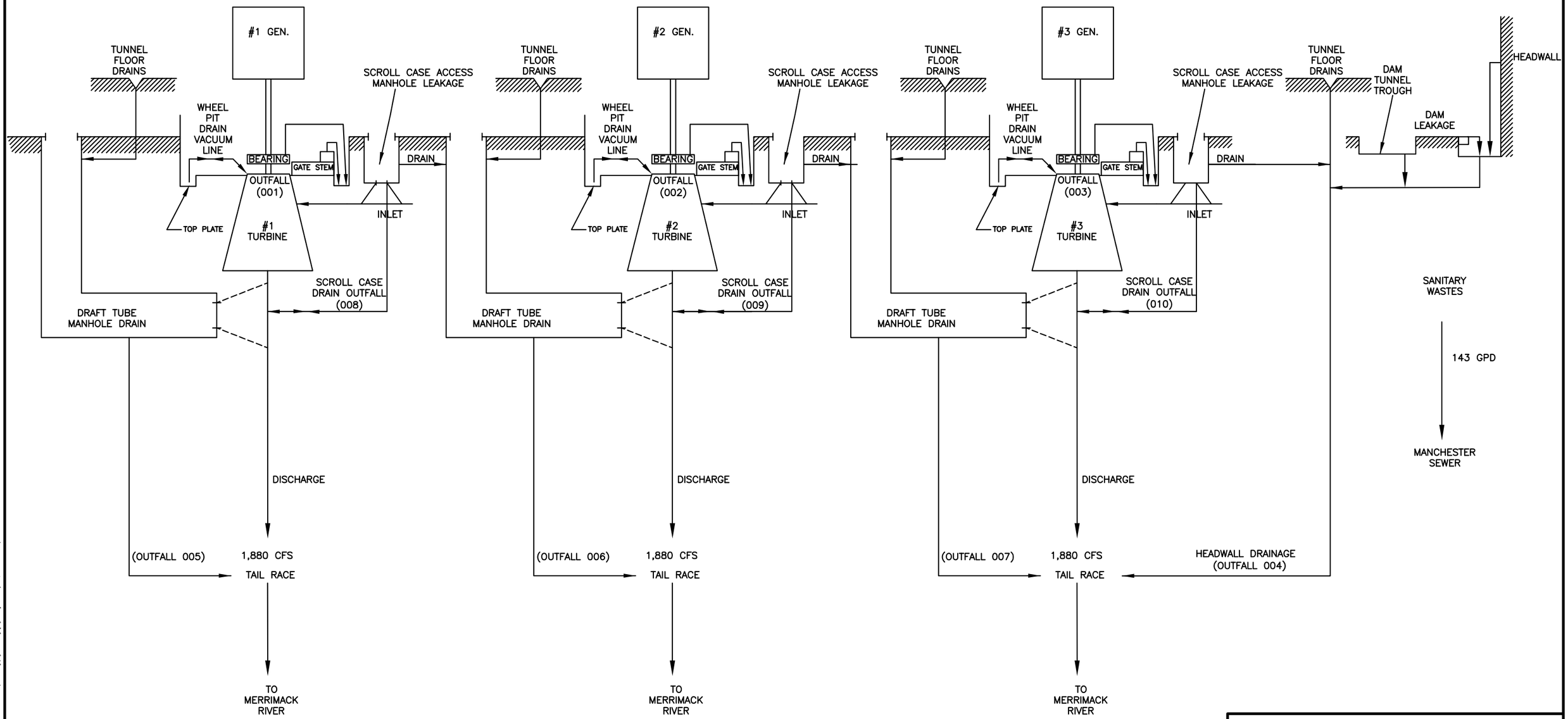
Combined Equipment and Floor Drain Water and Maintenance - Related Water

005	Draft Tube Manhole Drain (G #1)	N 43° 00' 8.4" W 71° 28' 20.8"	Tunnel floor drains	0-20 GPY	0-20 GPY	Intermittent	Merrimack River	Representative Outfall 006	Yes
006	Draft Tube Manhole Drain (G #2)	N 43° 00' 8.3" W 71° 28' 21.0"	Tunnel floor drains	0-20 GPY	0-70 GPY	Intermittent	Merrimack River	Grab sample from bucket and scroll case access	Yes
			Scroll case access leakage (G #1)	0-50 GPY					
007	Draft Tube Manhole Drain (G#3)	N 43° 00' 7.9" W 71° 28' 20.8"	Tunnel floor drains	0-20 GPY	0-70 GPY	Intermittent	Merrimack River	Representative Outfall 006	Yes
			Scroll case access leakage (G #2)	0-50 GPY					
008	Scroll Case Drain for Gen. # 1	N 43° 00' 8.4" W 71° 28' 20.8"	Scroll case drain	0-50 GPY	0-50 GPY	Intermittent	Merrimack River	Discharge inaccessible	No
009	Scroll Case Drain for Gen. # 2	N 43° 00' 8.3" W 71° 28' 21.0"	Scroll case drain	0-50 GPY	0-50 GPY	Intermittent	Merrimack River	Discharge inaccessible	No
010	Scroll Case Drain for Gen. # 3	N 43° 00' 7.9" W 71° 28' 20.8"	Scroll case drain	0-50 GPY	0-50 GPY	Intermittent	Merrimack River	Discharge inaccessible	No

 GZA–P:\04Jobs\0024900s\04.0024931.00\04.0024931.03\Amoskeag\Locus.dwg [LOCUS] February 23, 2010 – 3:26pm mirsad.alihodzic



PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists, 380 HARVEY ROAD, MANCHESTER, NEW HAMPSHIRE 03103, (603) 623-3600	NPDES HYDROELECTRIC GENERATING FACILITIES GENERAL PERMIT AMOSKEAG STATION PUBLIC SERVICE OF NEW HAMPSHIRE 15 FLETCHER STREET, MANCHESTER NEW HAMPSHIRE 03101	LOCUS PLAN	PROJ MGR: KDB DESIGNED BY: DSJ REVIEWED BY: RAB DRAWN BY: MA CHECKED BY: KDB SCALE: AS SHOWN
PREPARED FOR: PUBLIC SERVICE OF NEW HAMPSHIRE			DATE: FEB 2010 PROJECT NO.: 04.0024931.00 REVISION NO. FIGURE: 1 SHEET NO.



NOTE: UPSTREAM SIDE OF THE ROOF HAS DRAINS THAT DISCHARGE INTO THE HEADGATE AREA FROM INSIDE THE BUILDING

DRAFT

SCHEMATIC OF WATER FLOW
PUBLIC SERVICE OF NEW HAMPSHIRE
15 FLETCHER STREET, MANCHESTER NEW HAMPSHIRE 03101

INTERIOR DRAINAGE PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
380 HARVEY ROAD
MANCHESTER, NEW HAMPSHIRE
(603) 623-3600

PREPARED FOR:
PUBLIC SERVICE OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE

PROJ MGR:	KDB	REVIEWED BY:	RAB	CHECKED BY:	KDB
DESIGNED BY:	DSJ	DRAWN BY:	MA	SCALE:	NOT TO SCALE
DATE	FEB 2010	PROJECT NO.	04.0024931.00	REVISION NO.	

FIGURE 2
SHEET NO.

Excerpt from FERC license

Threatened And Endangered Species

1. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA),[1] requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat.

2. The federally threatened bald eagle is present at the project and uses project lands and waters for perching, foraging, and winter roosting.[2] No known nesting areas have been documented within the project boundary.[3] The EA concluded that relicensing the project with the staff-recommended measures, which include protecting identified bald eagle habitat on PSNH-owned lands within 200 feet of the project shoreline would not be likely to adversely affect the bald eagle.[4] As discussed below in this order, we are requiring that five areas of bald eagle habitat, in addition to PSNH's proposed area at the Garvins Falls development, be included in the project and protected under the licensee's proposed shoreline management plan. The Garvins Falls area would be a 200-foot-wide

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[1] 16 U.S.C. § 1536(a)(2) (2000).

[2] In addition to the bald eagle, FWS noted that the New England cottontail and American eel are under review for listing as threatened or endangered species under the ESA and encouraged the Commission to require measures to protect and enhance New England cottontail habitat and to avoid impacts to the American eel. Subsequently, in September 2006 and February 2007 notices, FWS concluded that listing of the New England cottontail and the American eel is not warranted. *See Endangered and Threatened Wildlife and Plants--Proposed Critical Habitat Designations*, 70 Fed. Reg. 53,755 (Sept. 12, 2006); *and Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List the American Eel as Threatened or Endangered*, 72 Fed. Reg. 4,967 (Feb. 2, 2007).

[3] Types of bald eagle habitat identified at the project include: large blocks of undeveloped land along the river that include potential eagle perch sites, known perching and foraging, known and potential night roosting, and potential nesting. One-third to one-half of the project's shoreline contains known or potential perching and foraging; roosting and potential nesting habitat are less common along this reach.

[4] A project boundary encloses only those lands that are necessary for project purposes. Generally, boundaries should be no more that 200 feet (measured horizontally) from the reservoir's shoreline, except where, among other things, additional lands are necessary for project purposes, such as public recreation, shoreline control, or protection of environmental resources. 18 C.F.R. § 4.41(g)(2)(i)(B) (2006).

buffer extending along about 2.9 miles of shoreline. The other areas are of varying sizes, but they also would include lands extending up to 200 feet from the shoreline.

3. By letter dated January 24, 2006, staff requested concurrence from the FWS with its "not likely to adversely affect" finding. In its response filed February 23, 2006, FWS declined to concur and noted that it typically considers riparian buffers less than 100 meters (328 feet) wide to be inadequate to protect important eagle foraging areas and recommended that PSNH establish a 100-meter-wide buffer for the Garvins Falls parcel instead of the proposed 200-foot-wide buffer.

4. In a clarification letter to FWS on April 21, 2006, staff stated that it was unclear from the FWS filing why a 200-foot-wide buffer was insufficient, and reiterated that, when compared to existing conditions, staff's recommended habitat protection measures, including the bald eagle habitat areas to be brought into the project, run-of-river operation, and minimum flows in the project's bypassed reaches, would benefit bald eagles.

5. In its letter filed May 31, 2006, FWS concurred with staff's determination that issuing a new license for the Merrimack Project under the Commission's recommended alternative is not likely to adversely affect the bald eagle. FWS, however, reemphasized that a 100-meter buffer at Garvins Falls would be the minimum width for adequate long-term protection of bald eagle habitat, and cited

five references to provide evidence of the desirability of a larger buffer zone for the protection of eagles.[5]

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[5] David A. Buehler, Timothy J. Mersmann, James D. Fraser, Janis K. D. Seegar, *Effects of Human Activity on Bald Eagle Distribution on the Northern Chesapeake Bay,* 55 J. Wildlife Mgmt. No. 2, at 282-290 (1991); (2) Teryl G. Grubb and Rudy M. King, *Assessing Human Disturbance of Breeding Bald Eagles with Classification Tree Models*, 55 J. Wildlife Mgmt. No. 3, at 500-511 (1991); (3) Mark V. Stalmaster and James R. Newman, *Behavioral Responses of Wintering Bald Eagles to Human Activity,* 42 J. Wildlife Mgmt. No. 3, at 506-513 (1978); (4) Endangered Species Office, FWS (Twin Cities, MN), *Northern States Bald Eagle Recovery Plan* (1983); and (5) Washington Department of Fish and Wildlife, *Priority Habitat and Species Management Recommendations,* Volume IV at pp. (9-1)-(9-15) (2004).

6. The literature cited by FWS indicates that buffer zone recommendations for protection of bald eagle habitat from human disturbance specify widths of from 100 to 1320 meters (328 to 4330 feet), depending on the type of habitat to be protected. It also recognizes that buffer zones determinations are site-specific, based on the type of eagle use in the area and the sensitivity of the eagles to human activity.[6] FWS has not, however, demonstrated that the facts in this case warrant a buffer zone at the Garvins Falls tract that is more than 200 feet wide.[7]

7. While we acknowledge that eagles may be disturbed by human activity, only a small portion of the habitat at Garvins Falls has been identified as specific perching and foraging habitat,[8] which is fairly common at the project. Thus, any disturbed perching or foraging bald eagles would be able to relocate to comparable foraging areas at the project. We also note that eagles prefer perch trees less than 50 meters from the shoreline,[9] and although a 100-meter-wide buffer would offer additional protection from outside development, the 200-foot-wide buffer required in this license will protect valuable perch trees and offer some protection from the effects of human activity on perching and foraging eagles. The licensee will manage eagle habitat pursuant to the shoreline management plan (SMP) required by Article 407 of the license. If eagle use dictates in the future that additional protection is needed, the monitoring provision of the SMP allows for increasing the buffer width.

Recommendations Of Federal And State Fish And Wildlife Agencies

A. Recommendations Pursuant to Section 10(j) of the FPA

8. Section 10(j)(1) of the FPA[10] requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,[11] to "adequately

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[6] *See* Stalmaster and Newman article; Washington Department of Fish and Wildlife literature, *supra* n. 28.

[7] *See FPL Energy Maine Hydro LLC*, 88 FERC ¶ 61,116 at 61,273-74 (1999).

[8] The Garvins Falls area contains approximately 53 acres of an "undeveloped habitat block of potential importance," approximately 13 acres of known perching and foraging, and approximately 4 acres that are not identified as eagle habitat.

[9] *See* Washington Department of Fish and Wildlife literature, *supra* n. 28

[10] 16 U.S.C. § 803(j)(1) (2000).

[11] 16 U.S.C. § 661, *et seq*. (2000).

and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

9. If the Commission believes that a section 10(j) recommendation may be inconsistent with the purposes and requirements of Part I of the FPA or other applicable law, section 10(j)(2)[12] requires the Commission and the agencies to attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies. If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law, and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

10. In response to the March 17, 2005 public notice that the project was ready for environmental analysis, Interior filed nineteen recommendations.[13] Three recommendations were determined to be outside the scope of section 10(j) and are discussed in the next section. This license includes conditions consistent with fifteen of the remaining sixteen recommendations that are within the scope of section 10(j). These include recommendations for: run-of-river operation (Appendix A, water quality certification conditions); ramping rates at Amoskeag and Hooksett developments (Article 403); minimum tailrace flows during impoundment refilling periods (Article 404); restrictions on whitewater boating releases at Amoskeag (Article 408); operation monitoring at each development (Appendix A and Article 405); and minimum flows to bypassed reaches at Hooksett, Garvins Falls, and Amoskeag (Appendix A and Article 402).[14]

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[12] 16 U.S.C. §803(j)(2) (2000).

[13] Interior filed its recommendations on May 16, 2005. The recommendations included six at Amoskeag, five at Hooksett, five at Garvin Falls, and three addressing shoreline and land protection.

[14] Initially, staff had made preliminary determinations that the ramping rates for Amoskeag and Hooksett and the minimum flows for the Amoskeag bypassed reach were inconsistent with the purposes and requirements of Part I of the FPA or other applicable law, but the inconsistencies were subsequently resolved.

With respect to the Amoskeag bypassed reach flows, Interior originally recommended year-round minimum flows in the Amoskeag bypassed reach of 410 cfs from the eastern spillway and 149 cfs from the fish bypass gate on the western spillway. In the EA, Commission staff recommended 280 cfs year-round from the eastern spillway

11. The remaining recommendation, for flow ramping rates at Garvins Falls, we do not adopt, as discussed below.

12. Although the project will operate in a run-of-river mode under the new license, there are times when the project will deviate from this mode of operation (for example, after flashboard failure or when a reservoir is drawn down for maintenance). Ramping rates will ensure that the transition between non-run-of-river and run-of-river operation has a minimal effect on aquatic resources below the project.[15]

13. Interior recommended a ramping rate of 1,214-cfs change per hour at Garvins Falls, while the EA recommended adopting PSNH's proposed rate of 1,377 cfs change per hour.[16] Commission staff made an initial determination that Interior's recommended flow ramping rate for Garvins Falls may be inconsistent with the comprehensive planning standard of section 10(a)(1) and the public interest standard of section 4(e) of the FPA. By letter dated January 24, 2006, Commission staff advised Interior of its preliminary determination and attempted to resolve the apparent inconsistency. Interior responded by letter dated February 23, 2006. A teleconference was held on April 4, 2006. As staff stated in the EA and during the 10(j) teleconference, this difference in ramping rates is probably biologically insignificant,[17] but the inconsistency could not be resolved because there were questions about that development's turbine capacity and operational characteristics that PSNH was unable to answer during the call.

14. On June 30, 2006, PSNH filed data on Garvins Falls' turbine capacity and

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and 149 cfs from the western spillway during the fish passage seasons (April 1 through June 30, and September 15 through October 31). Staff provided an analysis to support the 280-cfs minimum flow from the eastern spillway and modified its recommendation for flows from the western spillway to also provide a minimum flow of 58 cfs during the non-fish passage seasons (i.e., July 1 through September 14, and November 1 through March 31). During the 10(j) meeting, Interior indicated such a flow scenario might be acceptable. *See* May 19, 2006 summary of the section 10(j) teleconference. Interior did not respond to the teleconference summary. Therefore, staff assumed, and we agree, that the issue of minimum flows in the Amoskeag bypassed reach is resolved.

[15] Ramping rates result in a relatively smooth, rather than abrupt, change in flows. In this case, the ramping rates would be implemented when the project is returning to run-of-river operations following some period of non-run-of-river operation (*e.g.,* flashboard failure, maintenance).

[16] EA at 30-31.

[17] *Id.*

operational characteristics.[18] PSNH also noted that, although the turbines can be operated at lower flow releases, doing so reduces efficiency and creates more wear on the turbines. Interior did not provide any further comments on this issue following PSNH's June 30, 2006 filing, and we find nothing in the filing to warrant a different ramping rate. Therefore, Article 403 requires a ramping rate of 1,377 cfs at Garvins Falls. This ramping rate should be adequate to protect aquatic resources below the development and would give PSNH some flexibility in determining which turbines to operate while restoring run-of-river conditions.

15. For the above reasons, we conclude, in accordance with FPA section 10(j)(2)(A), that Interior's recommended ramping rate at Garvins Falls is inconsistent with the comprehensive planning standard of sections 4(e) and 10(a) of the FPA. In accordance with section 10(j)(2)(B) of the FPA, we find that the measures required by this license will adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources affected by this project

B. Recommendations Pursuant to Section 10(a)(1) of the FPA

16. Section 10(a)(1)[19] requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

1. Shoreline Management Plan and Buffer Zones

17. As previously indicated, three of Interior's section 10(j) recommendations for a shoreline management plan, conservation restrictions for the Garvins Falls tract, and conservation restrictions and protection for PSNH riparian land upstream of Hooksett do not qualify for section 10(j) status because they are not specific fish and wildlife recommendations. We, therefore, consider them under the broad public interest standard of section 10(a)(1).

18. As noted, except for the areas around the project dams and another area downstream of Garvins Falls dam and along the Soucook River, the current project boundary only extends to the normal high water mark at the shoreline of each of the project's impoundments. As a result, there is virtually no buffer between project waters

[18] Two of the Garvins Falls turbines have hydraulic capacities of 1,670 cfs, one has a capacity of 1,120 cfs, and the fourth unit has a capacity of 1,490 cfs.

[19] 16 U.S.C. § 803 (a)(1) (2000).

and adjacent lands.

19. Land use in the project area varies. About 22 percent of the land within a quarter mile of the shoreline of the Garvins Falls impoundment is currently protected by conservation easements, public parks, and state and municipal ownership. Most of the undeveloped land along the Garvins Falls impoundment is along its eastern side as portions of the western side are bordered by the City of Concord. Land adjacent to Hooksett and Amoskeag is generally more developed than at Garvins Falls and includes large blocks of residential, commercial, and industrial areas. The Amoskeag development is partially surrounded by the City of Manchester.

20. As noted, the bald eagle is present in the project area. PSNH proposes to develop a shoreline management plan (SMP) for the project and establish a 2.9-mile-long, 200-foot-wide buffer zone on PSNH-owned shoreline property extending from about two miles upstream of the Garvins Falls dam down to the northwestern bank of the Soucook River approximately 0.9 miles downstream of the dam. This buffer area would cover about 70 acres of land on the east side of the river, including the 53 acres of an undeveloped habitat block of potential importance for the bald eagle discussed above. The area downstream of the dam includes approximately 13 acres of known perching and foraging habitat. The remaining approximately four acres, located closest to the Soucook River, is not identified as eagle habitat.[20]

21. PSNH does not propose to expand the project boundary to include its proposed buffer land at Garvins Falls. Rather, it would grant a conservation easement to the Society for the Protection of New Hampshire Forests or another conservation group to manage the property, which would not be brought under license.[21]

22. The EA concluded that, as the project area becomes more developed, the riparian zone could be affected by habitat fragmentation and other impacts of human activity, and therefore recommended inclusion of some shoreline lands within the project boundary to protect riparian wildlife and aquatic resources, as well as recreation and public access.[22] Therefore, the EA recommended adoption of PSNH's proposal to create a buffer zone at Garvins Falls. Since we conclude that protection of these lands is warranted, we will bring them under license. While PSNH must retain sufficient rights in the property to ensure that it can carry out its responsibilities under the license, it is free to enter into an

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[20] Correction to the EA at 51, numbers (4) and (6).

[21] PSNH also expressed willingness to grant conservation easements for the two islands just below its Amoskeag dam, which were not identified as potential eagle habitat.

[22] EA at 48-53.

agreement with another entity to manage the property on its behalf.

23. The EA also noted that, besides the Garvins Falls tract, there are additional areas of undeveloped eagle habitat along the river and adjacent to the project, and that protecting this habitat within 200 feet of the shoreline would benefit the bald eagle and other wildlife. The EA thus recommended that PSNH establish buffer zones on other PSNH-owned lands within 200 feet of the shoreline that contain identified bald eagle habitat.

24. The EA identified six PSNH-owned parcels,[23] including the Garvins Falls tract, that contain known bald eagle habitat, about 108 acres total.[24] The parcels are: (1) approximately two acres of perching and foraging habitat on the east side of the river upstream of the Amoskeag dam; (2) approximately three acres of perching and foraging habitat on the east side of the river upstream of the Hooksett dam;[25] (3) approximately nine acres of potential roosting habitat on the west side of the river about a mile and a half downstream from the Garvins Falls dam (on an undeveloped portion of a large tract of PSNH land) and just upstream of the coal-fired Merrimack Power Plant in Bow; (4) approximately seventeen acres of perching and foraging habitat on the east side of the river immediately downstream from the Garvins Falls dam**;**[26] (5) approximately seven acres of perching and foraging habitat on the west side of the river immediately downstream from the Garvins Falls dam;

and (6) the approximately 70 acres of an undeveloped habitat block of potential importance upstream from the Garvins Falls dam.[27]

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[23] *Id.* at 51. These parcels are identified in License Application, Volume VII, Endangered and Threatened Species Report, figure 2, sheets 1-8.

[24] On further review of the information, it appears that this total is 88 acres rather than 108 acres.

[25] For reasons described below, this parcel has since been removed from the list of PSNH-owned lands containing eagle habitat.

[26] As described above, this order clarifies that there are approximately thirteen acres of perching and foraging habitat and four acres that are not identified as eagle habitat included in this portion of the Garvins Falls tract.

[27] As described above, this order clarifies that there are approximately 53 acres of

25. The EA further noted that one of the two islands located immediately downstream of the Amoskeag dam is currently within the project boundary, and that this island could therefore be protected through an SMP.

26. In its comments on the EA, PSNH requests that two of the PSNH properties the EA identified as suitable habitat not be designated for protection. According to PSNH, most of the approximately three acres of perching and foraging habitat on the east side of the river upstream of the Hooksett dam belongs to the Town of Hooksett, and the portion that PSNH owns is occupied by structures and an electrical substation. In addition, PSNH notes that the nine acres of potential roosting habitat on the west side of the river downstream from the Garvins Falls dam is an integral part of the coal-fired Merrimack Generating Station and may be needed for Merrimack Generating Station purposes.

27. We agree that the PSNH property upstream from the Hooksett Dam that is occupied by buildings is unlikely to provide eagle habitat, and thus does not warrant protection under the license. However, the bald eagle habitat in the vicinity of PSNH's Merrimack Generating Station has been identified as potential roosting habitat for eagles, which is uncommon in this reach of the Merrimack River, and PSNH has not identified a specific use for this parcel to warrant exclusion from the license. We will therefore require that it be protected under the license. As to the other parcels evaluated in the EA, we agree with staff that these parcels warrant protection under the license. Non-PSNH-owned land with bald eagle habitat is discussed further below.

28. In comments on the EA, Mountain Club *et al.* and FWS argue that the project buffer zone should not be limited to PSNH-owned lands because there are other lands along the project's shoreline that warrant protection. Mountain Club *et al.* recommends cost estimates be prepared for the acquisition of non-PSNH lands for the purposes of a protective buffer.

29. FWS states that, while the EA-recommended buffer would provide important protection for riparian habitat, protection of additional lands that have key habitats is needed. In addition, FWS emphasizes that the buffer zone at Garvins Falls should include not only land at the mouth of the Soucook River,[28] but also PSNH-owned project lands running for a distance along the shoreline of the Soucook River. With respect to the two islands located immediately downstream from the Amoskeag dam, FWS comments that the SMP would help protect the island that lies within the project boundary and recommends that the downstream island be added to the project boundary

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undeveloped habitat of potential importance in this portion of the Garvins Falls tract.

[28]The Soucook River is a tributary of the Merrimack, with its confluence downstream of Garvins Falls.

so that it can also be protected.

30. When considering whether to require additional shoreline protection at a project, we take into account the current level of shoreline development, the likelihood of developmental pressure in the future, the kind and degree of resource protection and enhancement needed, and project economics. In this case, while the project developments do not include large impoundments that attract significant residential or commercial development, the project's proximity to urban areas makes it likely that the shoreline will be subject to developmental pressures in the future such that public access or environmental resources are at risk.

31. Protecting identified bald eagle habitat at the project on licensee-owned land as the EA recommends is a reasonable, cost-effective way to protect a specific shoreline resource while not precluding development in other areas. However, we recognize that there are other parcels of valuable habitat for eagles and other species along the shoreline on land that are not owned by PSNH, and the feasibility of protecting these individual parcels has not been assessed. Therefore, using the shoreline natural resource inventories that have been prepared during relicensing, we are requiring PSNH to submit, as a component of the SMP, a report on the feasibility of protecting the specific tracts of land described below.

32. Roosting habitat is particularly rare along the project stretch of the Merrimack River, and some of this habitat occurs outside of lands currently owned by PSNH. Including a 200-foot-wide buffer along areas identified as known or potential roosting habitat would ensure that bald eagles perching and foraging along the river are able to seek shelter overnight and during inclement weather.

33. Five areas of bald eagle roosting habitat are located on existing conservation lands, as identified in the license application, and therefore are currently protected.[29] Eight other parcels, totaling about 57 acres are identified as potential or known bald eagle roosting habitat, but are not currently protected. PSNH is to study the feasibility of including these lands in the project and protecting them under the SMP.[30]

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[29]Volume VII, Wildlife Resources, Riparian and Floodplain Lands and Riparian Land Protection, figure 2 (sheets 1-8). The lands already covered by conservation easements include: the Merrimack River Access (sheet 7), the White Sands Conservation Area (sheet 4), the Floodway Area/Hall Street Waste Water Treatment Plant Area (sheet 3), the City of Concord's West Terrill Park (sheet 2), and the NHTI/Concord Island Reserve (sheet 2).

[30] These eight parcels are identified in the License Application, Volume VII, Wildlife Resources, Riparian and Floodplain Lands and Riparian Land Protection, figure

34. In addition to the bald eagle habitat, there are 20 New Hampshire Natural Heritage Inventory (Inventory) sites in the project vicinity.[31] The Inventory is a database of state rare, threatened, and endangered species and exemplary natural communities including those along the Merrimack River channel, banks, floodplains, and bluffs.[32] Two of these Inventory sites are located within PSNH's proposed Garvins Falls conservation area and thus will be protected under the project SMP. Two other sites are associated with potential eagle roosting habitat and will be assessed concurrently with the additional eagle habitat discussed above. A fifth site, Houghton's umbrella-sedge, is adjacent to the Garvins Falls tract and on PSNH-owned land, and we will require PSNH to expand the buffer zone beyond 200 feet at this site to include this area.

35. Four Inventory sites are on existing conservation lands and are currently protected.[33] Another two sites are located over 2,000 feet upstream from the northernmost boundary of the project and therefore lack sufficient connection to the project. One site appears to lie within an existing residential development and would likely be unsuitable for inclusion in the project buffer.[34]

36. For the remaining eight sites, we will require PSNH to study the feasibility of protecting them under the SMP. These Inventory sites are for: (1) blunt-leaved milkweed (Town of Hooksett, sheet 6);[35] (2) sweet goldenrod, Southern New England dry oak/pine forest on sandy/gravelly soils (Town of Hooksett, sheet 6); (3) wild lupine (Town of Hooksett, sheet 6); (4) golden-heather (Town of Hooksett, sheet 6); (5)

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2 (sheets 1-8), and described in license Article 407.

[31] These 20 parcels are identified in the License Application, Volume VII of license application, Endangered and Threatened Species, New Hampshire Natural Heritage Bureau Rare Species and Exemplary Natural Communities, Figure 3 (sheets 1-8).

[32] The inventory is maintained by the New Hampshire Natural Heritage Bureau.

[33] These lands include: the Floodway Area for the Hall Street Waste Water Treatment Plant in Concord, the City of Concord's West Terrill Park, the New Hampshire Technical Institute-Concord Island Reserve, and Society for the Protection of New Hampshire Forests conservation lands.

[34] This site is occupied by wild lupine and blunt-leaved milkweed, and is located downstream of the Hooksett development on the west side of the river.

[35] The numbered sheets are found in Volume VII of the license application, Endangered and Threatened Species, New Hampshire Natural Heritage Bureau Rare Species and Exemplary Natural Communities, Figure 3.

Southern New England lake sediment/river terrace forest (Town of Hooksett, sheet 5); (6) common moorhen (City of Concord, sheet 3); (7) golden-heather, wild lupine, New England dry riverbluff opening (City of Concord, sheet 2); and (8) Southern New England floodplain forest (City of Concord, sheet 2).

37. Concerning the islands downstream of Amoskeag Dam, we note that, although they were not identified as bald eagle habitat, they are forested and potential habitat for eagles foraging in the Amoskeag tailrace. In addition, PSNH indicated in its application that it is amenable to designating these islands as conservation lands. Because PSNH already owns the islands, including them both within the project would have minimal cost. Therefore, the outer island will be added to the project buffer and both islands will be protected under the SMP.

38. Regarding the land along the Soucook River that Interior identified as an important riparian area that should be added to the Garvins Falls buffer zone, by continuing the Garvins Falls buffer zone land north along the western shoreline of the Soucook River, within PSNH-owned property, an additional 8 acres of riparian forest would be protected. We agree that it is reasonable to include this area and require it to be included in the SMP.

39. Article 407 requires a shoreline management plan and project boundary modification consistent with the EA's recommendation with the additional requirements of including the PSNH-owned buffer land along the Soucook River and island downstream of the Amoskeag dam within the project boundary, as well as a report on the feasibility of acquiring the rights to protect the described parcels of land containing bald eagle roosting habitat and Natural Heritage Inventory sites.

Excerpt from FERC License

National Historic Preservation Act

1. Under section 106 of the National Historic Preservation Act (NHPA),[1] and its implementing regulations,[2] federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

2. To satisfy these responsibilities, on May 16, 2006, the Commission executed a Programmatic Agreement (PA) with the New Hampshire State Historic Preservation Officer (SHPO) and invited PSNH to concur with the stipulations of the PA. PSNH concurred. The PA requires the licensee to prepare and implement a Historic Properties Management Plan (HPMP). Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA. Article 409 requires PSNH to implement the PA and to file its HPMP with the Commission within one year of license issuance.

[1] 16 U.S.C. § 470 *et seq.* (2000).

[2] 36 C.F.R. Part 800 (2006).