

# Low Impact Hydropower Institute

## Collins Hydroelectric Project Application Backup Documentation

### A. Flows

**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?**

The facility is in compliance with the resource agency recommendations issued during FERC exemption consultation before December 31, 1986. Please see appendices B and C for compliance reports from FERC and Swift River Hydro Operations. This consultation was performed in 1983 so N/A was selected.

**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?**

The flow condition recommendation for the Collins hydroelectric Project was issued before January 1, 1987. However, due to the configuration of the project facilities, the Collins hydroelectric plant discharges all turbine flows directly into the plunge pool below the dam and there are no "flow bypass reaches" at the facility (rivers flows entering the impoundment equal the flows released into the plunge pool). Therefore the project meets "**good habitat flow standards calculated using the Montana-Tennant method**" as all flow releases at the project are required by FERC to be released at the dam and no reaches of the Chicopee River are bypassed. The project is run of river and is required by FERC to release 332 cfs or inflow below the dam, while maintaining run-of-river operation. Please see

- Appendix D for a copy of the FERC exemption order
- Appendix E for the Fish and Wildlife flow recommendations for the project.
- Appendices B and C for Collins' compliance with FERC exemption requirements

### B. Water Quality

**1. 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, the facility is in compliance. Additional Information:

- Pages 87-90 of Appendix F for a copy of the Mass DEP Water Quality Report on the Chicopee River. This report is the latest one available

from the Massachusetts Department of environmental protection. The data in the report is from 2003.

- Appendix F also contains a letter from the DEP confirming that the data is sufficient to demonstrate compliance.

**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?**

No, the facility and downstream reach below the project meet state water quality standards. Additional information:

- Appendix F (pages 87-90) for a copy of the Massachusetts DEP water Quality Report on the Chicopee River. This report is the latest one available from the Massachusetts Department of environmental protection. The data in the report is from 2003.
- Appendix F also contains The Massachusetts Clean Water Act 303(d) filing for 2010 shows that the Chicopee River was moved from Category 5 to Category 2.
- Appendix E for a copy of the letter from the DEP confirming that the data is sufficient to demonstrate compliance.

### **C. Fish Passage and Protection**

**1) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and downstream passage of anadromous and catadromous fish issued by Resource Agencies after December 31, 1986?**

This is not applicable since the recommendations were issued before January 1987. The facility is in compliance with the Mandatory Fish passage Prescriptions issued before that date.

**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 run is extinct)?**

**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?**

The Chicopee River is a major tributary of the Connecticut River and did have the historic Anadromous and Catadromous(which include American Eel) fish movement before Massachusetts industrialized. Currently the Collins Hydroelectric facility does not have anadromous and catadromous fish movement because of dams downstream of the Collins facility on the Chicopee River including (from downstream) Dwight Dam, Chicopee Falls Dam, Indian Orchard Dam, and Putts Bridge Dam that do not have fish passage facilities. However, if Anadromous and/or Catadromous fish are reintroduced to the Chicopee, the Collins Hydroelectric Project is legally required by its FERC exemptions to install downstream and upstream fish passage when the resource agencies deem them necessary.

- 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?**

The Collins Hydroelectric Project is legally required by its FERC exemption to install downstream and upstream migratory fish passage when the resource agencies deem passage as necessary. Additional Information:

- Appendix D for a copy of FERC exemption
- Appendix E for a copy of the Us Fish and wildlife's exemption recommendation for the project.
- Appendix E for copy of the letter from Mass Division of Fish and Wildlife confirming compliance with upstream and downstream fish passage prescriptions

- 5) **Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of *Riverine* fish?**

The facility is in compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of the riverine fish recommended by the FERC exemption. Additional Information:

- Appendix D for a copy of FERC exemption
- Appendix E for a copy of the Us Fish and wildlife's exemption recommendation for the project.
- Appendices B & C for copies of the Collins Hydroelectric recommendations for the project.
- Appendix E for copy of the letter from Mass Division of Fish and Wildlife confirming compliance with upstream and downstream fish passage prescriptions

- 6) **Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?**

The facility is in compliance with Resource Agency recommendations for Riverine, anadromous and catadromous (which includes eels) fish entrainment protect recommended by the FERC exemption. Additional Information:

- Appendix D for a copy of FERC exemption
- Appendix E for copy of US Fish and Wildlife's exemption recommendations for the project.
- Appendix E for copy of the letter from Mass Division of Fish and Wildlife confirming compliance with upstream and downstream fish passage prescriptions

#### **D. Watershed Protection**

- 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 high water mark in an average water year around 50 - 100% of the impoundment, and for all of the undeveloped shoreline?

No. There is no Buffer Zone dedicated to conservation extending 200 feet from the high water mark in an average water year around 50-100% of the impoundment, and all of the undeveloped shoreline.

- 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?

No. There is no enhancement fund.

- 3.) Has the facility owner/operator established through a settlement agreement with appropriate stakeholders and that has state and federal resource agencies agreement an appropriate shore land buffer or equivalent watershed land protection plan for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low impact recreation)

No. There is no settlement agreement established.

- 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. The facility is in compliance with both state and federal resource agencies recommendations made during the FERC exemption process. No Recommendation or provisions regarding watershed protection were made by the resource agencies during the FERC exemption process. Additional Information:

- Appendix D for a copy of FERC exemption
- Appendix E for copy of US Fish and Wildlife's exemption recommendations for the project.
- Appendix E for copy of the letter from Mass Division of Fish and Wildlife confirming that there were no agency recommendation with regard to Shoreland Management

## **E. Threatened and Endangered Species Protection**

- 1) Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?

No. There are no **threatened or endangered** species listed under the state or federal Endangered Species Acts in the facility area and/or the downstream reach. No endangered species were identified during the exemption application process. A 'MESA' request was filed with the Natural Heritage & Endangered Species Program (NHESP) (a division of the

Massachusetts Division of Fisheries & Wildlife). A letter of finding was received from NHESP that stated that there are no Threatened or Endangered species present in the project area. The MESA request did list one **Rare** species, the Triangle Floater Mussel, which is listed as found in the vicinity of the site. The Triangle Floater has no Federal status and is listed by Massachusetts as a species of **special concern**. According to the fact sheet available on the NHESP site the triangle floater “... is as abundant in small impoundments of run-of-river dams as it is in free-flowing portions of rivers.” The Collins Project is a Run-of-River Hydro dam that does not create conditions that are detrimental to this species.

- Appendix G contains a copy of the letter from Natural Heritage & Endangered Species Program (NHESP)
- Appendix G NHESP fact sheet on Triangle Floater. This fact sheet confirms that the Triangle floater does not have a federal status

## **F. Cultural Resource Protection**

- 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. The facility is in the compliance with all the requirements regarding Cultural Resources protection, mitigation or enhancement included in the FERC license or exemption. Additional Information:

- Appendix B & C for a copies of FERC exemption reports
- Appendix H for a copy of Massachusetts Historical Commission Letter that finds there are no historical resources associated with the Collins Hydroelectric Project

## **G. Recreation**

- 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. The facility is in the compliance with all the FERC exemption requirements pertaining to recreation. There were no specific recommendations on recreation given when the exemption was issued. Furthermore, in an environmental report that resulted from a 2001 inspection of the Dam by FERC, it was highlighted that there were no recreation follow ups required.

The major reason that Collins has not pursued recreation opportunities is due to the security concerns of our immediate abutter, Columbia Gas. Located at 10 Cottage Ave Ludlow Ma 01056 (see aerial photo appendix I). Collins Hydroelectric Project is located on the same, private, gated road as Columbia Gas. The site is a large transmission and distribution pipeline site for natural gas. They have immediate concerns about any increase in public access to the area abutting their security zone. They have a robust security installation at that site given the nature of their business. With the increased sensitivity to energy related assets since 9/11 we

have not pursued any recreation planning for this site as we feel that encouraging public access to this area would be inappropriate. Additional Information:

- Appendix B Environmental Report 2001
- Aerial Photograph showing Columbia Gas site
- Aerial Photograph showing Boundary of Collins Project