

A. FLOWS

The Flows Criterion is designed to ensure that the river has healthy flows for fish, wildlife and water quality, including seasonal flow fluctuations where appropriate. For instream flows, a certified facility must comply with recent resource agency recommendations for flows. If there were no qualifying resource agency recommendations, the applicant can meet one of two alternative standards: (1) meet the flow levels required using the Aquatic Base Flow methodology or the “good” habitat flow level under the Montana-Tennant methodology; or (2) present a letter from a resource agency prepared for the application confirming the flows at the facility are adequately protective of fish, wildlife, and water quality.

Current Flows:

The Corps currently operates the dam in a modified run-of-river mode to augment flow during dry periods to maintain downstream water quality and as water supply for domestic, industrial, and recreational uses. Although the Corps does not follow a specific Resource Agency flow recommendation, various water quality studies have documented that the downstream reach has high water quality that exceeds state standards.

Flows During Hydropower Operations

The Pennsylvania Department of Environmental Protection, via the Clean Water Act Section 401 Water Quality Certification, requires the hydropower facility to adhere to the flow requirements specified within the Water Quality and Aquatic Life Adaptive Management Plan (AMP). Section 3(B) of the MOA between the United States of America and Mahoning Creek Hydroelectric Company, LLC as well as Article 307 of the Original FERC License also state that flow releases during hydropower operations must also adhere to the AMP. Please refer to the Supplemental Materials for these documents.

Because hydropower operations will result in a 1,050-foot-long bypassed reach that will include the entire length of the 950-foot-long stilling basin, the AMP requires the following minimum bypass flow regime:

- June 15 to September 15: 60 CFS
- November 1 to March 31: 40 CFS
- April 1 to June 14 and September 16 to October 31: 30 CFS

To ensure that these flows are adequately protective of fish, wildlife and water quality, the AMP requires that real-time water quality monitoring be conducted, and

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that non-degradation water quality standards be maintained. Non-degradation standards, which are presented in detail in the AMP, are based on worst-case pre-hydropower conditions and are well above the water quality standards required by the Pennsylvania DEP's chapter 93 rules and regulations. If water quality parameters at any of the hydropower facilities' three real-time monitoring stations fall below the required non-degradation criteria, flow to the powerhouse will immediately be reduced and bypass flow will be increased until the condition is remedied. The hydropower facilities' monitoring stations are located at the intake, at the stilling basin, and just downstream of the hydropower outflow.

Furthermore, the facility will utilize water quality readings from the McCrea Furnace Bridge monitor (gage #03036000), located approximately 0.5 miles downstream of the hydropower outflow, which will be used by the USACE to monitor the effectiveness of special flow controls for downstream habitat and water quality protection. If water quality readings are deemed insufficient for habitat and water quality protection, the facilities' water quality criteria will be adjusted appropriately.