CUYAHOGA FALLS DAM REMOVALS AND RESTORATION

Cuyahoga Falls, Ohio

EnviroScience, Inc. and the RiverWorks team completed the design-build removal of two historic low-head dams on the Cuyahoga River in Cuyahoga Falls, Ohio. This $1M project was part of an Ohio EPA initiative to remove abandoned dam structures and restore free flowing river conditions along the Cuyahoga River from Lake Rockwell to Lake Erie. The project involved removing the two 100-year old dams while stabilizing the adjacent remnant powerhouse structures. Stabilizing the powerhouse structures was a critical component of the project, as one structure supports a restaurant and the other an observation deck. The team was tasked with evaluating the changes in hydraulic forces from removing the dam and dam pool, and designing a system to maintain the structural stability of the powerhouses.

The physical removal of the dam structures also posed unknown challenges associated with exposing the riverbed within the limits of the eliminated dam pool. Because the design concepts for structure and bank stabilization were subject to modification during construction, the project was a true design-build effort by the team. Project tasks included hydraulic river modeling, remnant structure stability analysis, structure and bank stabilization design, and riverbank restoration techniques. This project is historically significant, as it restored the historic fish community while uncovering the cascading bedrock river valley that has been impounded for over 100 years.

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