

Site 7: Cresheim Creek Dam

Site Information

The dam is located on Cresheim Creek, which is approximately 3.7 miles above the confluence of Wissahickon Creek with the Schuylkill River, and to the northwest of the mainstem. The dam is about a mile upstream on Cresheim Creek. The project area extends upstream and downstream from the dam.



Problems, Opportunities & Constraints

Problems associated with the Cresheim Dam and Creek project site include siltation, water/flow variability, habitat alteration, and impediment to resident fish. Opportunities for this site include restoring natural stream channel characteristics and function, creating and/or enhancing riparian wetland habitat, and improving resident fish passage. The size and volume of stored sediment behind Cresheim Dam and the steep, confined valley along Cresheim Creek act as constraints for the aforementioned opportunities.

Major Problems	Opportunities	Constraints
Siltation Habitat alteration Water/Flow variability Impediment to resident fish passage	Restore natural stream channel characteristics and function Create riparian wetland habitat Improve resident fish passage	Large dam infrastructure Unknown quantity and quality of sediment behind the dam The land adjacent to the creek has steep slopes and the creek is confined by the valley wall

Alternatives

Alternative	Overview
1: No action	Under without project conditions, the dam will remain a barrier to fish movement. Cresheim Dam is in poor condition and if it is not removed or repaired, it will continue to deteriorate and likely begin to fail. This structure is dated and will likely need extensive renovation or replacement within 50 years.
2: Dam removal	Alternative #2 consists of the removal of the existing dam and installation of in-stream log structures, thereby improving fish passage and promoting significant improvements to aquatic habitat. Wetlands would also be created at stormwater outfalls.
3: Dam retrofit and channel stabilization	Alternative #3 would retrofit the existing dam outlet, reconfigure the upstream channel, stabilize downstream eroding banks, and create stormwater wetlands to improve aquatic habitat and water quality.
4: Stream restoration at higher invert construction	Alternative #4 would retain the dam and install weirs to raise the baseflow water surface elevation to produce frequent out-of-bank flows and trap sediments, thereby increasing filtering of water in the floodplain, promoting native floodplain wetland species, and suppressing invasives.

