

	<b>#1 Head-of -tide restriction</b>	<b>#2 High head dam with wide impoundment</b>	<b>#3 Low head dam with narrow impoundment</b>	<b>#4 Undersized perched culvert</b>
<b>Watershed position</b>	Near head-of-tide in large (>1000 mi <sup>2</sup> ) watershed; avg. channel width u/s of impoundment = 10m	Low order stream in a large watershed (> 1000 mi <sup>2</sup> )	High order stream in a mid-sized watershed (100 mi <sup>2</sup> <>1000 mi <sup>2</sup> )	Second order stream
<b>Watershed land use</b>	Agriculture; light industry; forestry	Forest and rural residential.	Urban; post-industrial revolution	Suburban
<b>Valley geomorphic setting</b>	Meandering, low gradient stream; wide floodplain	Moderate gradient, low-sinuosity, riffle-run; sub-watershed has large areas of outwash deposits	Low gradient, slight sinuosity, channelized through town; poorly developed floodplain in watershed dominated by till and bedrock	Steep step-pool channel
<b>Riparian condition</b>	Unfenced livestock pasture adjacent to and above impoundment; wide 2 <sup>nd</sup> growth forest buffer further upstream	Wide (>8xW <sub>bkf</sub> ) mature forested buffer; some residences	Narrow (<1xW <sub>bkf</sub> ) mature forested buffer; Japanese knotweed prevalent; riprap on bank	Narrow (<1xW <sub>bkf</sub> ) mixture of saplings, shrubs adjacent to lawns
<b>Barrier type</b>	12 ft high by 300 m long earthen dyke extending across floodplain; concrete water control structure; failing fish passage structure (partial barrier)	20-foot tall concrete dam in good condition with low-level outlet for flow modification	10-foot high timber crib/rock fill spillway with concrete patching; earthen with sheetpile core, stone armoring	70-foot length; 48” diam. double-barreled culverts; perched 3 feet; 10-foot head to unpaved road
<b>Aquatic species present</b>	Shellfish; Atlantic salmon, smelt, gaspereau, American eel, and brook trout.	Rare mussels downstream; alewife and salmon targeted for restoration	Shad, eel, herring lamprey downstream; smallmouth bass upstream	Brook trout. Salmon target for restoration
<b>Sediment characteristics</b>	Fine grained potentially contaminated (domestic sewage; mild industrial)	Large quantity of coarse sand and gravel	Fine-grained; some build-up behind dam	Gravel/cobble mixed with woody debris immediately upstream of culverts; braiding of channel
<b>Upstream waterbody characteristics</b>	Shallow, wide impoundment with summer algae growth	Wide, deep, storage impoundment	Run-of-the-river; impoundment is narrow, shallow, and riverine in character	Riverine; debris, sediment, high flows blocked
<b>Wetlands</b>	Small wetland areas along impoundment margin; salt marsh areas between dam and causeway (d/s)	None	Oxbow wetland adjacent to channelized reach; small emergent wetland at upstream end of impoundment	None
<b>Infrastructure and community concerns</b>	Loss of upstream waterfowl habitat, hunting & trapping opportunities; potential loss of First Nations’ “traditional uses”; downstream causeway and bridge; potential release of contaminated sediments	Concern for adjacent landowner wells; loss of potential water frontage upstream and potential for flooding downstream	Some community desire to keep dam and preserve adjacent historic structures; current potential for flooding upstream; braiding upstream	Minimize erosion of road fill
<b>Restoration Issues</b>	Potential full removal of barrier including all floodplain fill. Potentially mobile sediments removed prior to breaching dam. Restore diadromous fish  Improve fish passage for traditional uses	Dam and foundation removed to banks. Natural revegetation. Sediment behind dam removed. Upstream work to align channel stabilize banks, and limit fine sediment transport.  De-commissioning of power dam	River seeded with shad one year prior to dam removal. Contaminated sediment dredged or capped. Invasive species control during / post dam removal. Dam spillway fully removed; earthen/sheetpile portion of the dam embankment remains.  Old structure; deteriorating	Highway Improvement project  Replacement with bottomless arch culvert