

On-stream Ponds Mitigation

Projects	Grant Rate	Maximum Grant
Decommissioning, Bypasses, Fish-ladders & Bottom-draws	50%	\$7,000

Rationale: To improve stream water quality, such as temperature and dissolved oxygen, downstream of on-stream ponds. To reconnect, where desirable, disconnected fish habitats to allow fish migration.

Eligible Projects:

- Plan, design, and implementation of on-stream pond projects that improves water quality downstream and/or reconnects fish habitat.

Conditions:

- The project must be maintained in good condition for its intended purpose for at least 10 years.
- Projects need to be designed to improve water quality, fish migration connectivity and overall stream health.
- Written permission of the landowner(s) must be documented on the grant application and the agreement.
- Must meet legal requirements

Eligible Costs

- Purchased materials and supplies
- Contract labour (from registered company)
- Profession fees (consulting) for design, construction and supervision.

Ineligible Costs:

- Dredging of existing ponds
- Creation of new ponds
- Purchase of equipment and machinery (may be decided on an individual basis).
- Continual operating costs
- Labour and equipment use of the applicant, family dependents, and the applicant's business
- Grants will not be provided for costs of in-kind labour and machine time, and personal expenses of the applicant(s), the applicant(s) business, or family members



This new bypass channel separates the pond from the stream. This improves water quality downstream, and lets fish migrate to spawning grounds. It also slows the sedimentation of the pond, which extends the life of the pond.



If your ponds drop-well already contains two-slots for stop-logs, it can be easily modified to become a bottom-drawing pond. Hemlock is the wood of choice for stop-logs.

Stop-log replacement can be done while the pond is drained or using a commercial diver.

Permits:

- On-stream works require permits prior to construction. Staff will assist where possible. The following permits may be required for on-stream pond work:
 - NVCA Permit: *Development, Interference and Alteration Regulations* (Ontario Regulations 42/06 and 146/06 to 182/06) (this single permit will also be vetted through Dept. of Fisheries and Oceans)
 - MNR *Lakes and Rivers Improvement Act*
 - MOE *Permit to Take Water*
- The NVCA will waive our permit fee for approved projects

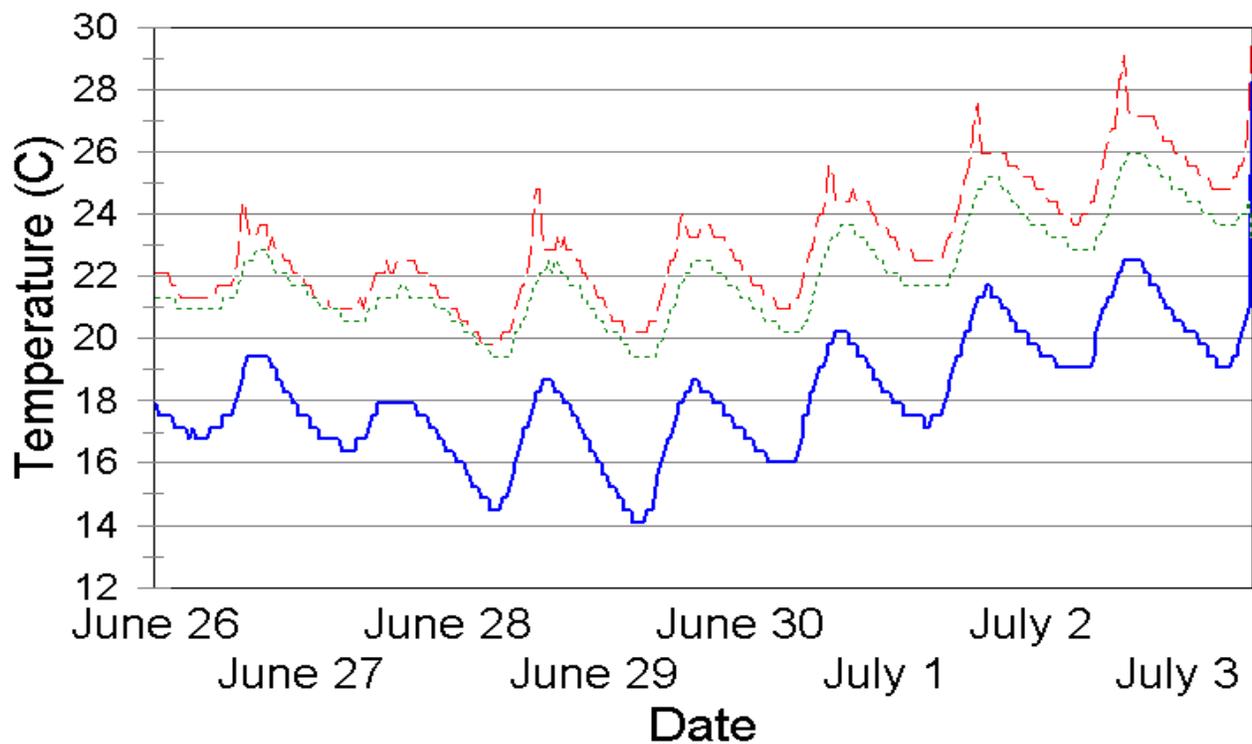
Did you know?

If you own an on-stream pond, you are responsible for its maintenance. If the dam or berm fails and floods your neighbours, you could be held liable for damages, injury and loss of life.

There are things you can do to be a responsible pond owner:

- Make regular maintenance checks
- Make needed repairs quickly
 - check if a permit is needed
- Have an Emergency Plan that includes:
 - Emergency numbers (911)
 - Pond contractor's numbers

Project Type	Bypass Channel	Bottom-draw	Fishway	Pond Abandonment (In-pond stream channel creation)
Description	A new stream channel is created that routes the water around the existing pond	The outlet is modified so that cooler water from the pond's bottom flows downstream	A stepped fishway is constructed to allow some types of fish passage.	Pond water is slowly released. A new channel is stabilized to avoid down & back-cutting of sediment. Often creates riparian wetlands.
Pond Effects	<ul style="list-style-type: none"> • Pond maintained • Less sediment and nutrient to pond. • Reduced need for dredging 	<ul style="list-style-type: none"> • Pond maintained • Generally, no impact, but in small area, deep ponds, it may narrow the cool water area. 	<ul style="list-style-type: none"> • Pond maintained 	<ul style="list-style-type: none"> • Pond lost • Riparian wetlands gained
Fish migration?	Yes	No	Some species	Yes
Downstream Water Quality Effects	Excellent	Good	Poor	Excellent
Permit Required	Yes	Yes	Yes	Yes



— Upstream - - - Downstream - - - Road 9

This temperature profile upstream from the pond (blue) and downstream (red), shows the warming influence of on-stream ponds. As water warms up it holds less oxygen, and sensitive aquatic organisms may either be forced to move or suffocate. Coldwater fish, like trout and scuplin, need water temperatures below 24°C in the heat of Summer, but prefer temperature under 18 °C. Stream bypasses and bottom-draws on on-stream ponds can help reduce this thermal impact. Other practices that reduce thermal stress include planting trees, particularly on the south and west sides of streams and ponds.