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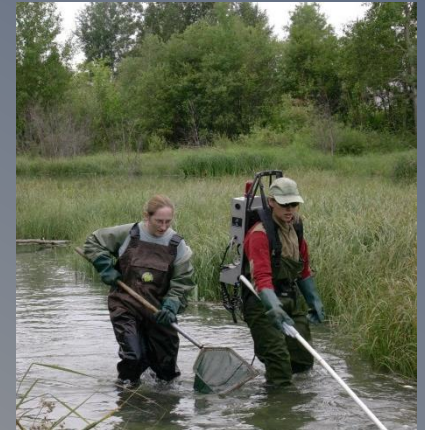
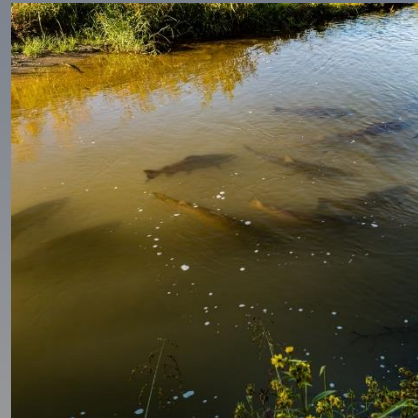
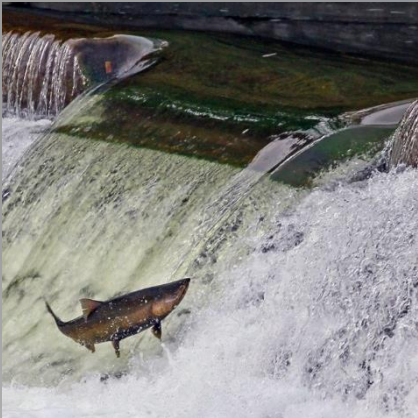
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HOSTS



Fish Habitat Banks: A New Source of Funding for Stream Restoration



2019 TRIECA Conference
Toronto, ON
March 20-21, 2019



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RESTORATION INC.

1. Federal Fisheries Act
2. Fish Habitat Banks
3. New Fisheries Act
4. Summary
5. Questions

Agenda



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Federal Fisheries Act

Federal Fisheries Act

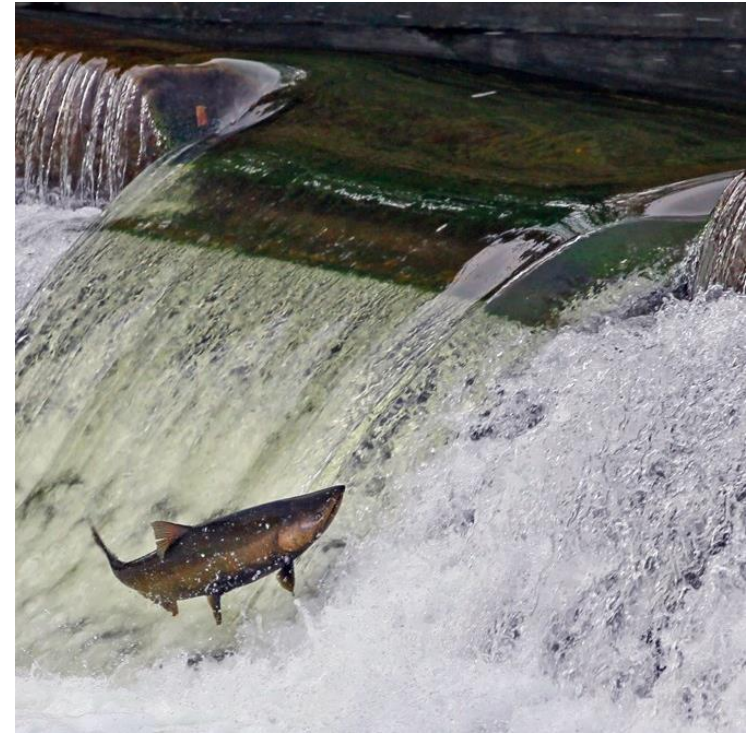
- Fish
- Fish Habitat
- \$5M and/or Jail Time
- Authorization
- Offsetting/Compensation = Restoration



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Federal Fisheries Act

- Rewritten in 2009
- No mention of habitat banking
- Policy changes to allow habitat banking
- DFO supports habitat banks
 - Restoration done before impacts
 - No need for LOC
 - No need to chase proponents after the fact



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Fish Habitat Bank

Fish Habitat Bank

- Developed in anticipation of impacts to fish/habitat
- Proponents support habitat banks
 - Provides certainty
 - Speeds authorization



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Fish Habitat Bank

- Requires Habitat Banking Arrangement with DFO
 - Signed by proponent and DFO
 - Type of bank (e.g., warmwater)
 - Service area
 - Credit release schedule
 - Monitoring protocols
 - Success criteria



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Monitoring

- Pre- and Post-Construction Monitoring
 - Geomorphology
 - Vegetation
 - Benthic Invertebrates
 - Fish



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Habitat Banks

- Kitchener
 - Filsinger
 - Balzer
 - Idlewood
 - Approx. 18,700 m² of habitat credits



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Case Study – Filsinger Park

- Naturalization of 2.0 km of concrete lined channel
- 0 m² of existing fish habitat
- Produced 12,600 m² of warmwater fish habitat
- Used to develop the first fish habitat bank



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Case Study – Balzer Creek

- Restoration of 800 m of degraded urban channel
- Badly overwidened – used Regional curve to determine bankfull width
- Develop method to quantify existing habitat
- Will produce a maximum of 1,438 m² of warmwater fish habitat credits



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Case Study - Idlewood Creek

- Removal of two dams and gabion channel and restoration of channel on floor of ponds
- Had to develop new method to quantify credits produced by restoring upstream fish passage
- $\frac{1}{4}$ bankfull area upstream of dam
- Will produce a maximum of 4,600 m² of coolwater fish habitat credits



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Kitchener - Status

- Completed 3 projects
- 18,700 m² of habitat
- Worth approx. \$10 - \$20M
- 3 more projects planned
 - Shoemaker
 - Strasburg Creek
 - Montgomery
- Stormwater Master Plan calls for 20 stream restoration projects



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Habitat Banks

- London
 - Mathers Stream
 - Tributary C
 - Approx. 2,500 m² of habitat credits



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Case Study – Mathers Stream

- Daylighting 800 m of stream channel
- 0 m² existing fish habitat
- 1,900 m² of warmwater habitat credits



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Case Study - Tributary C

- Restoration of 330 m of degraded channel and removal of fish passage barrier
- Some existing fish habitat
- Potential for 490 m² of warmwater fish habitat



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London - Status

- Completed 2 projects
- No more planned
- Taking a cautious approach



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Learned?

- DFO
 - Supportive
 - 2 Banks Operating
 - 7 Banks in Development
 - Open to new ideas
 - Willing to work with proponents
- Proponents
 - Not all designers maximize habitat potential
 - Positive experience



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New Fisheries Act

New Fisheries Act

- 2019 – before election
- Consultations
- Habitat Banks are mentioned
- Lobbying



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Lobbying

- 3rd Party Banking
- Offset Fee



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3rd Party Banking

- Excluded in 2018 draft
- Now silent
- Lobbying to get it included
- Can sell credits to anyone needing them
- Economic incentive to restore streams
- City of Kitchener has about \$10 – 20M in credits



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Offset Fees

- On-site offsetting does not work
- Better to gather money and do large projects
- Will provide a source of funding for stream restoration
- Funding would be directed to CA's and Municipalities



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Implications of New Act

- Offset fees
 - Source of funding for stream restoration
 - DFO will need partners
 - CA's/Municipalities have land base and knowledge
- 3rd Party Banking
 - Source of funding for stream restoration
 - Create a new industry worth billions
 - Will improve the quality of design and construction

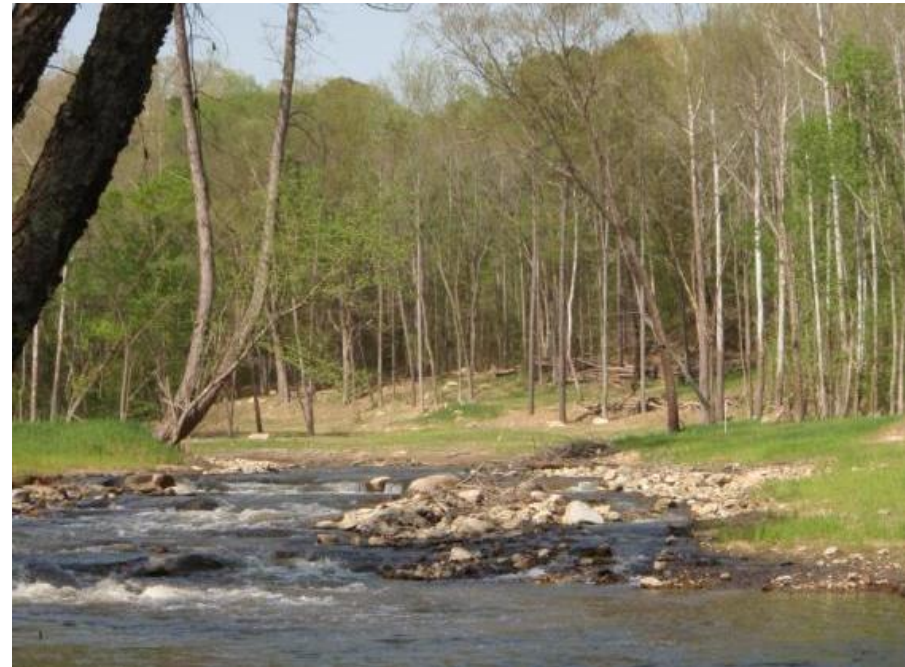


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Summary

Summary

- DFO supports Fish Habitat Banks
- Regardless of new Act, there will be increased emphasis on Fish Habitat Banks
- Offset fees and 3rd Party banking are inevitable
- Opportunities for CA's, Municipalities and Private Sector



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Thank you!

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