

Fish Habitat Banks Will Change the World of Stream Restoration



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1. Old Fisheries Act
2. Fish Habitat Banks
3. Draft New Fisheries Act
4. New Fisheries Act
5. Summary
6. Questions

Agenda



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Old Fisheries Act

Federal Fisheries Act

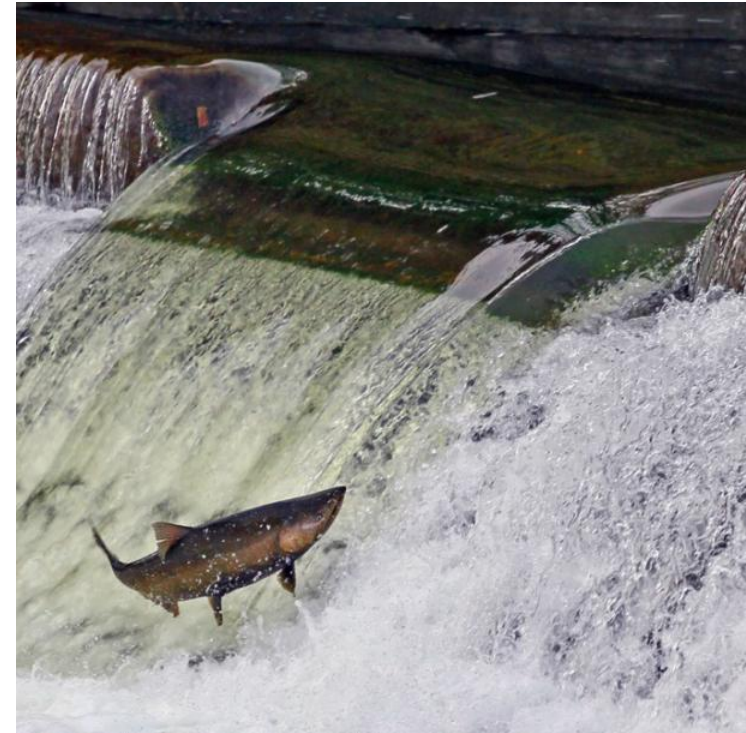
- Fish
- Fish Habitat
- \$5M and/or Jail Time
- Authorization
- Offsetting/Compensation = Restoration



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Federal Fisheries Act

- Rewritten in 2009
- No mention of habitat banking
- Policy changes to allow habitat banking
- Proponent-led banks
- 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 Banks

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
 - Proponent-led
 - 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

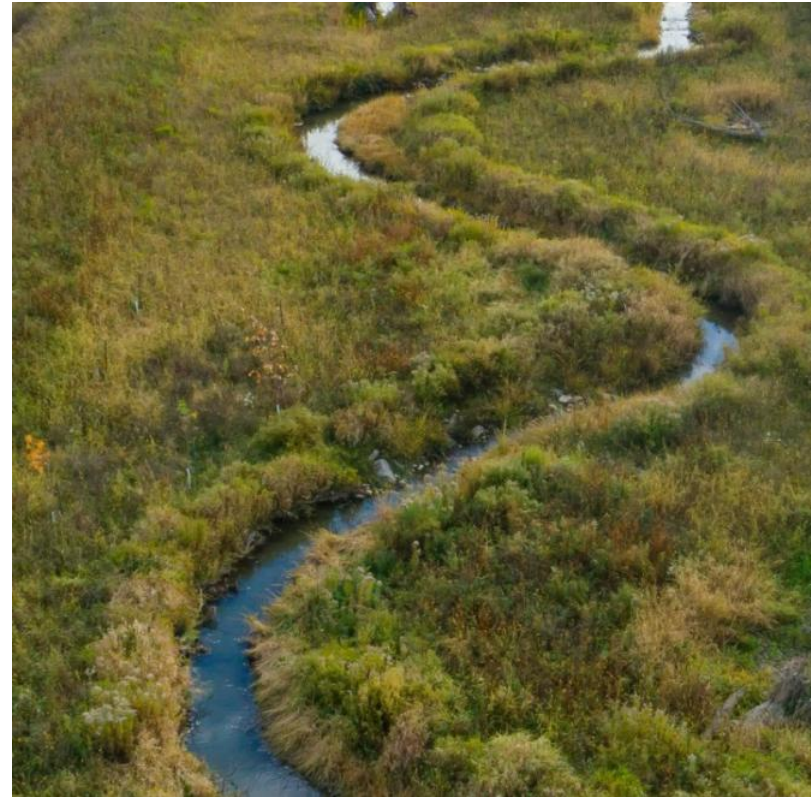
- London
 - Mathers Stream
 - Tributary C
 - Approx. 2,500 m² of habitat credits



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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 Under the Old Act?

- DFO
 - Supportive
 - Proponent-led
 - 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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Draft New Fisheries Act

Draft New Fisheries Act

- Draft released in 2018
- Habitat Banks are mentioned
- Consultations
- Lobbying



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Lobbying

- Add Offset Fees
- Add 3rd Party Banking



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Offset Fees

- DFO would allow proponents with small impacts to pay a fee.
- Money would be bundled to do large projects capable of providing significant habitat
- DFO would need partners to deliver projects
- Lobbying to get offset fees explicitly included in Fisheries Act
- Excluded in 2018 draft



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3rd Party Banking

- Anyone with an approved bank with credits can sell credits to anyone who needs them
- Economic incentive to restore streams - profit
- Market forces would improve quality
- 3rd Party Banking was explicitly excluded in the 2018 draft



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Results of Lobbying

- The draft that came out of the Senate had sections specifically including:
 - Habitat Banking
 - Offset Fees
 - 3rd Party Banking
- House removed sections on offset fees and 3rd party banking before approving the new Fisheries Act



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New Fisheries Act – Bill C-68 June 21, 2019

Habitat Banking

- Section 42.01 Definitions
 - Conservation Project
 - Fish Habitat Bank
 - Habitat Credit
 - Proponent
 - Service Area
- Section 42.02 Arrangement
- Section 42.03 Use of Habitat Credits
- Section 42.04 Regulations



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Offset Fees & 3rd Party Banking

- Silent
- Not prohibited
- Can be implemented at any time through regulations or policy changes – similar to Habitat Banking under the 2009 Fisheries Act



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Implications of Policy Changes

- **Offset Fees**
 - Source of funding for stream restoration
 - DFO will need partners to do projects
 - CA's/Municipalities have land base and knowledge
- **3rd Party Banking**
 - Source of funding for stream restoration
 - Opportunities for private sector
 - Create a new industry worth billions
 - Bring market forces to bear -- will improve the quality of design and construction

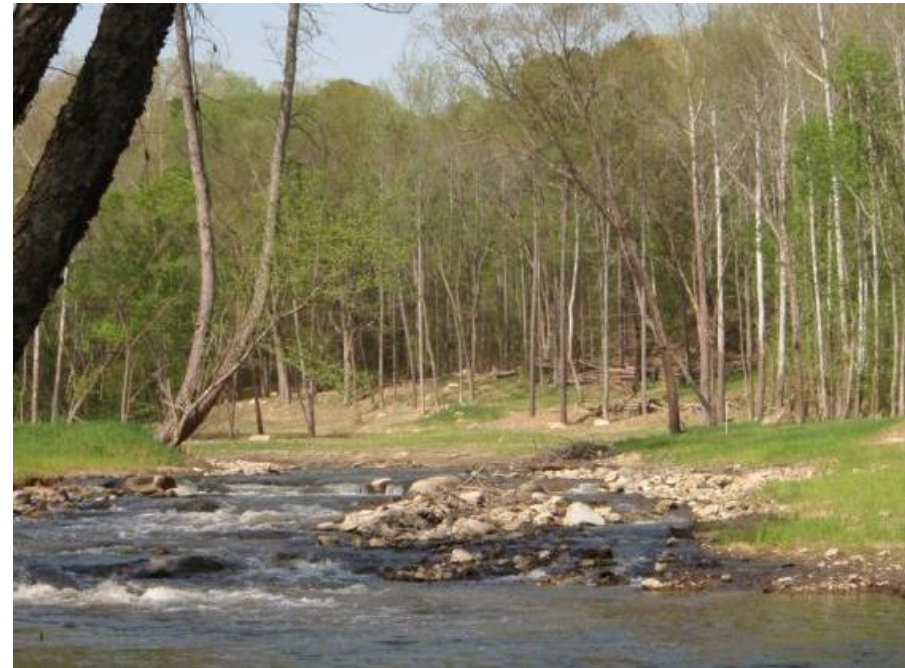


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Summary

Summary: Fish Habitat Banks

- Fish Habitat Banks
 - In the new Act
 - Increased emphasis on habitat banks
 - Excellent for proponents that anticipate significant impacts to fish or fish habitat (e.g., pipelines, airports, dams, highways, railway lines, mining facilities, oil and gas facilities)
 - Proponents should consider creating a bank in advance of their impacts
 - Create certainty regarding timelines and permitting
 - May be possible to sell credits if 3rd Party Banking allowed



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Summary: Offset Fees/3rd Party Banking

- Offset Fees and 3rd Party Banking
 - Not in the new Act
 - Several groups inside and outside DFO are working on these
 - They are inevitable
 - New funding for stream restoration
 - Create opportunities for CA's, Municipalities and others
 - Will bring market forces to bear and will require the Private Sector to up its game



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Questions?

Brad Fairley, MES

Director

5 Smooth Stones Restoration Inc.

227 Black Maple Court

Kitchener, ON N2P 2W8

Email: brad.fairley@fivessr.com

Tel.: (519) 591-4200