Wetland Restoration in Nova Scotia

Continuing to Work Towards Effective Implementation
Wetland Restoration in NS Pre-2011

- Wetland Policy 2011; restoration pre-dates the policy, but challenges relating to compensation projects existed.

Pre-2011 Challenges:
- Where to restore? Same watershed or adjacent watershed
- Cost of restoration, especially in urban watersheds where the majority of impacts were occurring
- Size of opportunities- small opportunities within urban watersheds
- NSE was requesting Like vs. like requirements
- Rules were not always clear

Pre-2011 Successes: 10+ wetland compensation projects were delivered on the Nova Scotia landscape
Wetland Restoration in NS 2011

• Wetland Policy 2011; brought in changes to wetland compensation which streamlined process and allowed for better implementation of compensation projects.

• More flexibility in options for wetland compensation

• Like for like in all situations was recognized to be ecologically and financially challenging, and perhaps not always the best approach

• Urban wetland restoration was identified as a key goal, but understood that more work is required to implement these urban opportunities
Wetland Restoration 2011-2014

• 20-30 wetland restoration projects have been implemented in NS
• Mostly rural wetland restoration for urban restoration losses
• Not always within watershed or adjacent watershed
• Not always supporting watershed health initiatives where alteration occurred
• Not often like for like restoration

There is an opportunity to strengthen the compensation program, now that it is implemented and worki
Wetland Compensation Implementation – moving forward from 2014

• Through consultation/discussion with other industry practitioners, we’ve identified several general categories relating to improved implementation of wetland compensation:
  • Ecological
  • Technical
  • Administrative
  • Regulatory
  • Financial
Ecological Challenges

• tracking wetland functions- WESP?
• WESP- is this the right tool for tracking functions, and can the procedure be fine tuned to NS? Who will do this?
• Same or adjacent watershed- spacially linking wetland losses to wetland restoration
• On-site vs. off-site restoration- working towards on-site compensation when possible
• The urban toolbox
• Like for like restoration- when should this be an ecological goal?
Technical Challenges

• Site Identification
  • Historical knowledge of watersheds/surface water limited
  • Topographic data limited (LIDAR)
  • Historical aerial photography limited
  • Watershed study/evaluation
  • Reference data from unaltered wetland sites

• Access and landowner value

• Knowledgeable and quality local contractors
Administrative Challenges

• NSE office responsibility- central vs. local offices
• List of approved alterations – in order to coordinate salvage of wetland materials
• NSE process of determining acceptable restoration sites; improve clarity for provincial priorities of site selection.
• Streamlining restoration project requirements (standardization and transparency for all parties)
Regulatory Challenges

• Consistency of approach at permitting stage re: compensation
  • LOU at time of approval limits onsite planning, and creative compensation planning.
  • LOUs are not being implemented (proponent $) until alteration occurs- signing at permit not always effective
  • Incorporate monitoring components (baseline) worked into permitting requirements

• Wetland program – how to integrate into broader regulatory context- surface water, watercourses, watershed health

• Wetland Compensation - EGSPA requirements- no net loss of area and function

• Need to focus on developing the Urban Toolbox for wetland compensation
Financial Challenges

• Ecological value of a project
• Cost of delivery of projects (planning, landowners, consultation, and implementation) in urban settings
• Creation projects with high ecological value in quarries/pits but not cost effective due to compensation ratio 4:1
Conclusions

• Wetland alteration permitting process is working reasonably well
• There have been successes in wetland compensation – 20-30 projects have been delivered on the ground
• Wetland compensation planning during alteration permitting benefits from more flexibility in order to provide the best opportunity for ecologically beneficial projects on the landscape
• Implementation of effective compensation projects in Nova Scotia is currently faced with multiple challenges, some easier to solve than others.
• There is an opportunity for industry and government together to strengthen the wetland compensation program
Moving Forward…

• Integration of additional comments and perspectives is welcome and encouraged—please come find me and let me know your thoughts!

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• We encourage NSE to set up a stakeholder meeting to work together with industry and wetland practitioners to strengthen the implementation of the Wetland Program and its associated compensation program. We are here to help!