Mitigation Approaches to Fund Stream Restoration Projects

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Stream restoration continues to grow in popularity throughout Canada. The practice of stream restoration has really taken off since the 1990's particularly in the eastern United States and has been significantly funded through the mitigation process, which typically involves on-site mitigation or off-site mitigation as required by Sections 401 and 404 of the Clean Water Act. In the case of off-site mitigation, this is normally accomplished through the use of mitigation banks or in-lieu fees (ILF). There are advantages/disadvantages to each approach to mitigation, however the overwhelming advantage of each type of mitigation approach is that it creates a funding stream to pay for the restoration of stream impairments.

The author has been personally involved in on-site mitigation projects as well as off-site mitigation projects through mitigation banks and ILF programs. On-site mitigation can often be advantageous because it results in restoration of a stream that is directly being impacted. Offsite mitigation through mitigation banks and ILF programs also have advantages because they provide a means to pool mitigation dollars together so that larger more comprehensive stream restoration can be completed on a larger watershed scale. There are times when each form of mitigation represents the most viable alternative to accomplish restoration goals. The key is to develop and structure a mitigation program where each form of mitigation can be used as an option when appropriate.

This talk will focus on the various forms of mitigation practices and will provide case studies of on-site, mitigation banks and ILF mitigation projects. The talk will focus on mitigation drivers, different approaches to accomplish mitigation goals, and advantages/disadvantages of the various forms of mitigation.

Biography

George Athanasakes has a diverse background which includes stream restoration, and watershed planning. George has served as the Principal-in-Charge, Project Manager and/or Design Engineer on over 100 stream restoration projects incorporating a variety of restoration techniques. His services are often retained to consult on stream restoration projects throughout North America and he currently serves as the Ecosystem Restoration Program Leader for Stantec in the United States. George helped to bring innovation to the field of stream restoration by leading the development of the RIVERMorph software, which is the industry standard for stream restoration software throughout the United States and internationally.