

Restoring the Lower Columbia River Ecosystem – Status and Future Directions

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The lower Columbia River and estuary is designated an “estuary of national significance”, or one of 28 National Estuary Programs (NEPs). All NEPs work with regional stakeholders to identify issues facing the ecosystem and develop quantifiable objectives and actions to address them. Regional stakeholders identified restoring *biological integrity* of the lower Columbia ecosystem as the ultimate goal and *historic habitat diversity* as a key attribute to indicate whether we are meeting that goal. Historic habitat diversity is a key attribute because native flora and fauna evolved under ecological conditions and habitats which persisted for thousands of years previous to large-scale human development. Recovering aspects of native habitat diversity should benefit native species, and as a result, is a common end point for many ecosystem restoration programs. In the lower Columbia, the science community is developing voluntary quantifiable conservation targets, including priority geographic areas for protection and restoration to recover historic habitat diversity.

We completed a habitat change analysis comparing 1870s with 2009 landcover, and identified priority habitats for restoration and protection, based on the severity of loss (the more severe the habitat loss, the higher the priority). Those locations where the priority habitats still exist are important for protection, whereas areas in low impact land use (called “recoverable” areas) are locations that can be restored to a suitable priority habitat if respective landowners are willing. Maps of habitat change, intact priority habitats and recoverable areas are available on our website.

This presentation will provide an overview of the status of habitat protection and restoration in the lower Columbia – where and how much land has been restored and protected, and priority areas for future restoration efforts. We also provide initial recommendations for shifting the focus of efforts to begin integrating anticipated changes in precipitation, temperature and sea level from climate change.