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Senate Bill 513 Ecosystem Services and Markets

Report from the Oregon Sustainability Board to the 2011 Legislative Assembly



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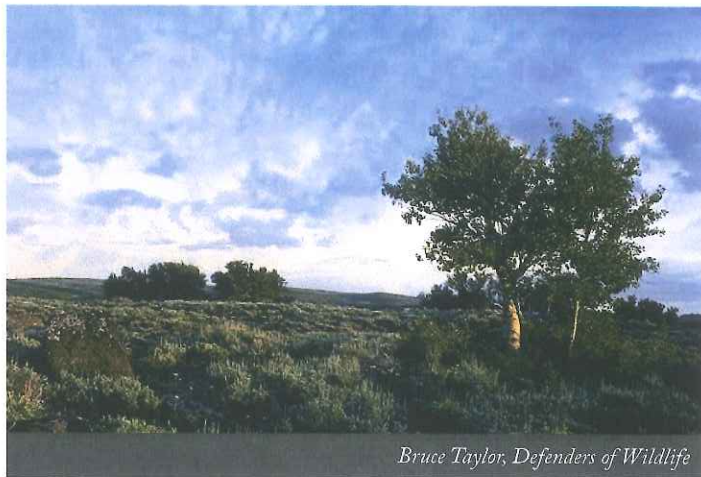
Senate Bill 513 Ecosystem Services and Markets - Executive Summary

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Clean air, safe drinking water, and habitat for fish and wildlife are all examples of ecosystem-derived public resources, or “ecosystem services” that comes from natural processes and biological diversity. In some cases, these services are achieved through active conservation, restoration and management of land, water and air. We often take these services for granted.

Many ecosystem services originate on private lands. But those who own, manage, and restore lands that produce these services historically have been compensated only through established markets for traditional products, such as food and timber. Innovative programs are emerging that focus on payments for ecosystem services and ecosystem services markets. These programs attach value to nature’s benefits and calculate that value in monetary units, then bring buyers and sellers together to trade ecosystem services for financial payments. Rather than relying on a landowner’s environmental altruism or fear of regulatory restrictions, payments and markets may provide financial incentives to protect and enhance ecologically significant lands in efficient and cost-effective ways.

Equally as important, these approaches create jobs. A study by the Ecosystem Workforce Program at the University of Oregon found that forest and watershed restoration projects have considerable economic impact and job growth potential. For every \$1 million invested, 20 jobs and over \$2.3 million in total economic activity were returned for river and road restoration; 13 jobs and \$2.2 million in economic activity were generated from mechanical forest projects such as thinning; and 29 jobs and \$2.1 million in economic activity could come from tree planting and manual thinning. Oregon’s landowners can and, in some cases, already do, sell improved ecosystem services, generating income that helps farm, forest, and other landowners remain viable, while also benefitting their local communities through the creation of restoration related jobs.



Bruce Taylor, Defenders of Wildlife

Ecosystem services markets may offer an “alternative path” to traditional regulatory processes intended to protect Oregon’s environment. Regulated parties (e.g., developers) could satisfy their obligations under natural resource statutes by investing in ecosystem services projects or credits that provide measurable ecological outcomes and have the potential to result in multiple benefits to the environment. The incentive to participate in such programs could be streamlined permitting and reduced administrative costs as compared with traditional compliance mechanisms.

As an example, CleanWater Services, a water resources management agency in Washington County, Oregon, received the first-ever fully integrated municipal National Pollutant Discharge Elimination System from the Oregon Department of Environmental Quality in 2004. The permit allows trading of water quality credits based on temperature, oxygen-demanding chemicals and other pollutants to help achieve water quality goals. By investing in riparian restoration instead of engineered cooling systems, the agency saved money, reduced energy use, and achieved habitat restoration benefits. Estimated cost for the engineered cooling towers ranged from \$60 million to \$150 million. The “natural infrastructure” approach of streamside plantings will total approximately \$6 million. The use of ecosystem services approaches can save money, encourage

¹ Mosely, C. and M. Nielsen-Pincus. 2009. Economic Impact and Job Creation from Forest and Watershed Restoration: A Preliminary Assessment. Ecosystem Workforce Program, Briefing Paper #14, University of Oregon.

innovative and effective restoration actions over the long term, and provide a more sustainable means for achieving environmental goals.

With the passage of Senate Bill 513 (SB 513) in 2009, and a number of ground-breaking pilot projects, Oregon leads the nation in creating a framework for markets for ecosystem services to efficiently maintain ecological benefits, encourage environmental restoration, and sustain local economies. This report, prepared by the Oregon Sustainability Board with input from the Ecosystem Services Markets Working Group and its ad hoc advisory group, offers recommendations to create a successful ecosystem marketplace. During the year-long SB 513 process, 10 policy proposals were developed to promote development and implementation of an integrated ecosystem marketplace in Oregon:

To invest effectively and efficiently in the most important ecosystem services,

Policy Proposal #1: Ensure conservation and restoration goals are integrated across state agencies to focus state investments and priorities.

To streamline implementation of ecosystem services markets in Oregon,

Policy Proposal #2: Continue to identify and address statutory and administrative impediments to state agencies' and local governments' use of ecosystem market approaches and tools.

To create a functioning marketplace with transparent rules and processes,

Policy Proposal #3: Encourage public-private partnerships to develop standardized tools and processes for accounting and approving ecosystem credits and payments.

To jump-start ecosystem marketplace investments where appropriate,

Policy Proposal #4: Provide authority and direction to State agencies and encourage local governments to purchase credits and invest in ecological outcomes that are consistent with state conservation and restoration goals.

To create opportunities for public-sector entities with marketable credits,

Policy Proposal #5: Allow state agencies and local governments to sell credits under limited circumstances.

To identify opportunities for further improvement and refinement,

Policy Proposal #6: Use an adaptive management framework to consistently and collaboratively evaluate ecosystem services approaches.

To ensure that environmental solutions are considered on par with engineered infrastructure,

Policy Proposal #7: Encourage state and local governments to cost, compare, and consider natural infrastructure as an alternative to hard engineering for new development projects and mitigation.

To facilitate ecosystem services being considered in evaluations of costs and dividends during land-use planning,

Policy Proposal #8: Encourage state and local governments to make policy-level land use and development decisions that fully consider the services ecosystems provide at an ecologically appropriate scale.

To learn from pilot projects,

Policy Proposal #9: Provide a testing ground and stimulate demand for payments for ecosystem services.

To address ongoing and emerging issues around ecosystem services markets,

Policy Proposal #10: Continue the dialogue with interested and affected parties to further facilitate development of ecosystem services and market approaches.

The report's policy recommendations include both administrative and legislative options for action. Because the Oregon Sustainability Board is mindful of the challenging fiscal environment facing the state in 2011, the near-term implementation actions (e.g., actions that could be taken during 2011 Legislative session) have little-to-no fiscal impact to state government.

Full report available online at:

<http://www.oregon.gov/OWEB/SB513.shtml> and http://sustainability.oregon.gov/DAS/FAC/SUST/osb_home.shtml