

Ecosystem Services and California Policy Workshop

Carbon Sequestration and AB 32: An Opportunity to Leverage Ecosystem Services

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Presentation Overview

- CA Climate Policy Context
 - AB 32 (Global Warming Solutions Act of 2006)
 - CA Climate Action Registry Forest Protocols
- Opportunities to advance ecosystem services under AB 32
 - Forest Protocols and GHG market
 - Sustainable Forests Section
 - Integration of mitigation and adaptation



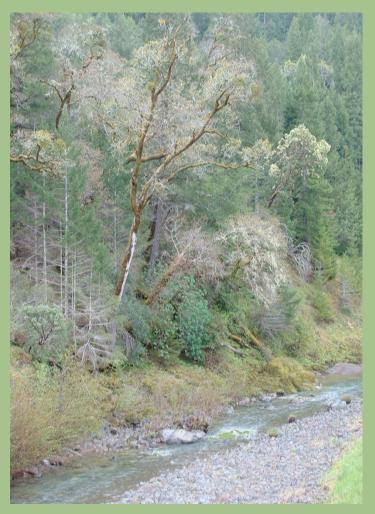
AB 32 Context and Timeline

- Global Warming Solutions Act of 2006
 - Mandate of 1990 emissions level by 2020
 - Total reduction amount 165 MMTCO₂
- CA Air Resources Board (CARB) lead implementing agency
 - Scoping Plan for comprehensive implementation measures by January 2009 (5 year updates)
 - Scoping Plan regulations developed 2009 2011
- Voluntary GHG reduction measures adopted 2007
 - CA Registry Forest Protocols adopted as voluntary early action measure in Fall 2007



CCAR Forest Protocols and Ecosystem Services

- CCAR is voluntary GHG
 reduction registry
- Developed GHG accounting protocols for forests and adopted June 2005
- Protocol updates underway
- Guidance for measuring and monitoring forest-based carbon sequestration services
 - Reforestation
 - Improved forest management
 - Conservation (avoided conversion)





CCAR Protocols and Ecosystem Services

•Foster protection and enhancement of water quality and biodiversity

- Project activities support these values
- Natural forest management and native requirement
- Enhancement of biodiversity can minimize risk of impermanence of GHG reductions

•Opportunity in Protocol update and adoption to promote ecosystem services

- CCAR Public comment period starting Dec. 5, 2008
- CCAR Protocol adoption by Board Jan or Feb 2009
- ARB consideration of CCAR Protocol Adoption Feb/March 2009



AB 32 Opportunities: Sustainable Forests

- Protecting and managing forests for climate benefits = GHG mitigation and ecosystem services protection
 - Integration of mitigation and adaptation can leverage ecosystem services
- GHG emissions trading with offsets and adaptation funding
 - Forest/natural system offset opportunities
 - Auction revenue for natural system adaptation
- Additional funding for conservation, management and reforestation
 - Bonds, carbon revenues, Forest Legacy, etc.



AB 32 Opportunities: Land use and Local Governments

- GHG targets could include land base in land use and local government sections of Scoping Plan
- SB 375
 - Incentives for regional planning to address transportation
 - Clean up legislation 2009
 - Could include natural systems/ecosystem services and be expanded to rural counties
 - Could include planning for mitigation and adaptation to address ecosystem services
- CEQA
 - SB 97: Office of Planning and Research to design guidelines to address GHG emissions
 - Adjusted to include forests/natural systems
 - Could complement SB 375 efforts



Ecosystem Services Mapping: Opportunity to integrate with AB 32

•Explore opportunities to integrate with SB 375 and CEQA GHG updates

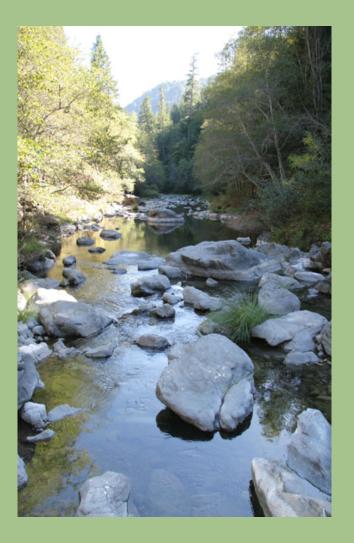
 Innovative tools to map the production and value of services provided by the Sierra

e.g. water yield, carbon sequestration, forage production, recreation

 Analyzing change in services due to land use and climate scenarios

•Can provide critical local/regional information to inform Scoping Plan targets and updates

•Potential to integrate mitigation and adaptation (i.e., multiple ecosystem services)





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