Collaborative Approach to Building Biodiversity Metrics across Jurisdictions and Scales

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Defenders of Wildlife
What is biodiversity?

Variety of life and its processes
Genetic, species, habitat, large landscapes
Biodiversity conservation requires:

- Right amount, configuration, and management of land and water in each region (coarse filter)
- Attention to individual elements (fine filter)
Broad agreement that biodiversity is threatened by:

- Human development
- Degradation, conversion of native habitat
- Invasive species
- Toxics, other direct mortality
- Climate change
Little agreement on how to consistently track impacts and conservation outcomes to habitats and species
Biodiversity is largely unregulated – some mitigation opportunities

• Endangered species
• Wetlands
• Streams
• Migratory birds
Reforming mitigation could improve outcomes by

- More strategic investment in priority areas
- Require net conservation benefit
- Measure biodiversity outcomes
- Allow more project flexibility to improve quality
Why consistent metrics?

• To help improve conservation outcomes – what works, what doesn’t
• Work across land ownership boundaries
• Connect disparate program investments to address scale issues
• Align management plans
• Apply adaptive management
Site level metrics

- Developed by Willamette Partnership and others
- Prairie, wetland, salmon, water temperature
- Focus on regulations that drive trading or mitigation programs
- **Measuring Up** report outlined framework for biodiversity metrics
Defenders metrics

- Natural Resources Conservation Service, Bullitt funded
- Address unregulated biodiversity values in Western U.S.
- Oak, floodplain, sage brush / sage grouse
- Percent of optimal ecological functioning
Where to find these metrics

• Marketplace for Nature web site
  http://marketplace.conservationregistry.org

• Counting on the Environment – Willamette Partnership
  http://willamettepartnership.org/
Challenge with site level metrics

- Should they be habitat specific?
- How many habitats?
- Who develops, maintains, updates them?
- How do they connect to larger landscape scale metrics?
- Not useful for conservation planning
Landscape scale metrics

- NatureServe’s eco integrity measures
- Inform broad scale planning but
- Too coarse for site level decisions re: protection and management
- Reliable model depends on better data than available
What to do?

Build a nested, hierarchical biodiversity framework that addresses species and habitat, that informs site level and larger landscape scale decisions.
Habitat/Biodiversity Metric Project

- Ecological and Socio-Environmental Synthesis Centers
- Engaging agencies, businesses, nonprofits, universities
Ecological workshops

• Hosted/funded by National Center for Ecological Analysis and Synthesis in Santa Barbara, California
• Develop habitat/biodiversity metric framework across jurisdictions and scales?
• Collaborate with policy-makers, social scientists, economists
Social/Economic/Ecological Workshops

- Six projects hosted/funded by National Socio Environmental Synthesis Center in Annapolis Maryland
  - Biodiversity/eco services/ climate change
  - Values/tradeoffs with different eco services
  - Business and biodiversity conservation
- Linking biodiversity and eco services
Application workshops

- Address governance, policy issues
- Engage public and private interests
- Provide practical guidance to scientists
- Review, react to products from other groups
Meetings to be convened in Washington DC and Portland

- Inform work of scientists
- To review initial findings, products
- To assess, inform practical implementation in different programs
Application workshops will:

• Facilitate field testing metrics on public and private land
• Engage broad spectrum of the community
• Provide regular updates and opportunities to participate
• Provide integration and information exchange with related efforts
How to get involved

• Sign up!
• Provide background information, lessons learned
• Participate in workshops/meeting
• Offer field testing opportunities
• Help find financial support