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Monitoring for Success: Recommendations

Monitoring is an essential element of successful implementation. Understanding the breadth of activities occurring, the outcomes they have produced, and the effectiveness of those outcomes allows ODFW and conservation partners to adapt to changing conditions and new knowledge. Monitoring the success of conservation actions in the short term and changes in land use, land cover, and habitat conditions in the long-term will help project managers increase the efficiency and effectiveness of conservation investments.

The Conservation Strategy's monitoring approach builds from existing monitoring efforts to track the effectiveness of conservation actions over time, and follow the medium and long-term trends in conditions of Strategy Habitat and populations of Strategy Species, either directly or through appropriate indicators. Here are some primary recommendations for monitoring actions taken within the Conservation Strategy's framework:

Fish and Wildlife Monitoring Team

Monitoring needs for the Conservation Strategy are larger and more complex than any single agency or organization can sustain. Many on-going monitoring efforts by groups and agencies already address some Strategy Species and Habitats. However, they are not always coordinated with other similar efforts. In order to make best use of these existing monitoring plans and efforts, Oregon Department of Fish and Wildlife will establish a multi-partner Fish and Wildlife Monitoring Team provide guidance for needed monitoring and assessments.

The Fish and Wildlife Monitoring Team approach will build upon the on-going work to increase coordination between groups and to focus any new monitoring activity on gaps in current efforts. For example, the team will coordinate with Oregon Watershed Enhancement Board's Oregon Plan monitoring efforts, which focus on aquatic and riparian habitat. The team will also coordinate with the Oregon Board of Forestry's efforts to identify indicators that could provide information about the status of native plants and animals on forestlands.

The Fish and Wildlife Monitoring Team would share their recommendations and protocols to agencies, organizations, academia and others looking for opportunities to incorporate Strategy Species and Habitat monitoring into their existing efforts.

The team should include representatives from federal, state, and local agencies; fish and wildlife user groups; tribes, conservation organizations; and forestry, agriculture, industry, and transportation interests. Their expertise and perspectives on monitoring would provide the groundwork for establishing and maintaining a database and data management system that can be used by a variety of data collectors and managers.

Potential tasks of the Fish and Wildlife Monitoring Team include:

- Developing a list of potential indicators (including species) and specific criteria to link indicators to Strategy Species and Habitats and evaluate these indicators for suitability, practicality and cost-effectiveness.
- Identifying monitoring priorities, including a list of Strategy Species and indicators to monitor.
- Compiling existing monitoring protocols, developing new monitoring protocols for those species or species groups lacking existing protocols and providing these protocols to potential users.
- Developing or reviewing protocols and other guidance for citizen scientists on how to monitor.
- Synthesizing information from Conservation Strategy monitoring efforts to determine the status of Strategy Species and Habitats. Providing this information to natural resource specialists, land managers, decision makers and other interested parties (e.g., information users or clients).
- Identifying ways to streamline and enhance data management and usability, and developing standards for data collection and management.

Portals of Information on the Web

Develop and maintain user-friendly web portals similar to the Willamette Explorer (<http://willametteexplorer.info/>) and North Coast explorer (<http://northcoastexplorer.info/>) that provide information on current applied research findings, data on species and habitats presented in a variety of formats geared to different audiences (decision-makers, citizens, natural resource professionals). Design portals to allow for data sharing between conservation partners.

Citizen-based Monitoring

Oregon Department of Fish and Wildlife will explore options to identify those parts of its monitoring program suitable for citizen participation; collaborate with citizen and conservation groups to promote and implement citizen-based monitoring; and work with partners such as universities, non profits and landowners to provide training and access to selected databases for citizen contributions.

Charting Conservation Actions

The registry of conservation actions discussed previously (under How to Get the Job Done: Voluntary Conservation Tools, page __) will be an important tool for monitoring what kinds of projects are implemented, where they are occurring, what habitats or species are potentially benefiting, and if conservation goals are being met.

Strengthen Data Management Capacities

A critical component of any monitoring program is effective data management. Quality data are needed to evaluate the effects of conservation actions on species and habitats and make appropriate adjustments, if necessary. Some important first steps for data management include:

- Identifying critical data collection activities and associated data management efforts and determining effective methods for providing permanent, consistent data management infrastructure. For example, survey Fish and Wildlife Monitoring Team, ODFW staff, and partners to (1) identify key datasets necessary

for implementing conservation actions and determining success through monitoring, (2) inventory current data collection activities relevant to the Conservation Strategy, (3) identify any gaps in current efforts.

- Adopting and using standards for database design, metadata development, and acquisition protocols (e.g., on-going efforts in ODFW's Natural Resource Information Management Program; Federal, Oregon Geographic Information Council, and NatureServe standards).

Track and report results

Monitoring the effectiveness of conservation actions and adapting these actions to respond appropriately to new information or changing conditions requires that results be tracked and reported. The following steps can be taken in partnership with the Fish and Wildlife Monitoring Team, ODFW's Natural Resource Information Management Program, Oregon Natural Heritage Information Center, Oregon Watershed Enhancement Board, and other partners.

- Identify how progress will be measured (that is, specific metrics to be used such as number of acres restored, number of stream miles improved, or number of landowners given technical assistance).
- Implement consistent procedures for data entry so that progress reporting can be done through queries to a database. Where possible, develop tools to automate the reporting process.
- Design web-based data tools to ensure consistent data entry by multiple partners, maintain data integrity, and improve data sharing. The web-based portals are one way this could be achieved.

For an in-depth discussion of monitoring see the Monitoring discussion, pages 98 to 109.

