Bringing Endangered Species and Habitat Data to EPA

Cumberlandian Combshell
Tennessee Division of Natural Heritage

Eastern Great Plains Wet
Meadow and Prairie
© Don Faber-Langedoen

Least Tern
© Larry Master

EPA Environmental Information Symposium
St. Louis, MO
November 15, 2007

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EPA has a wide range of responsibilities that require consideration of endangered species and their habitats
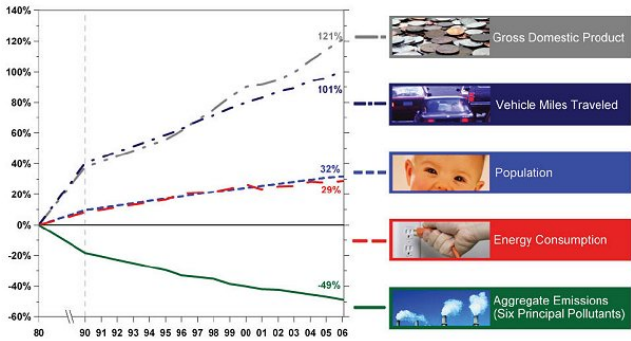
- permitting and oversight

- remediation

- area and watershed assessments

- ecological studies

- EA and EIS review

- resource protection planning

- enforcement and investment
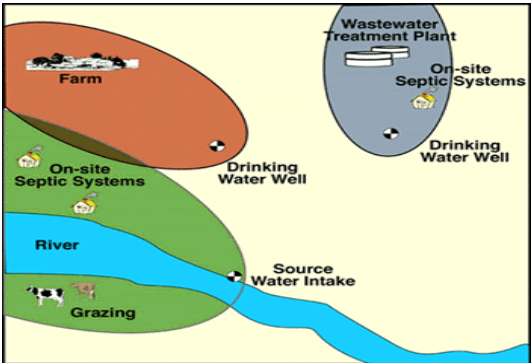
© 2005 O&G Environmental Consulting

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Many EPA programs need access to habitat, ecosystem, and species data to reduce environmental risks

EPA Air Program

EPA Pesticide Program

EPA Water Program

EPA Oil Spill Response Program

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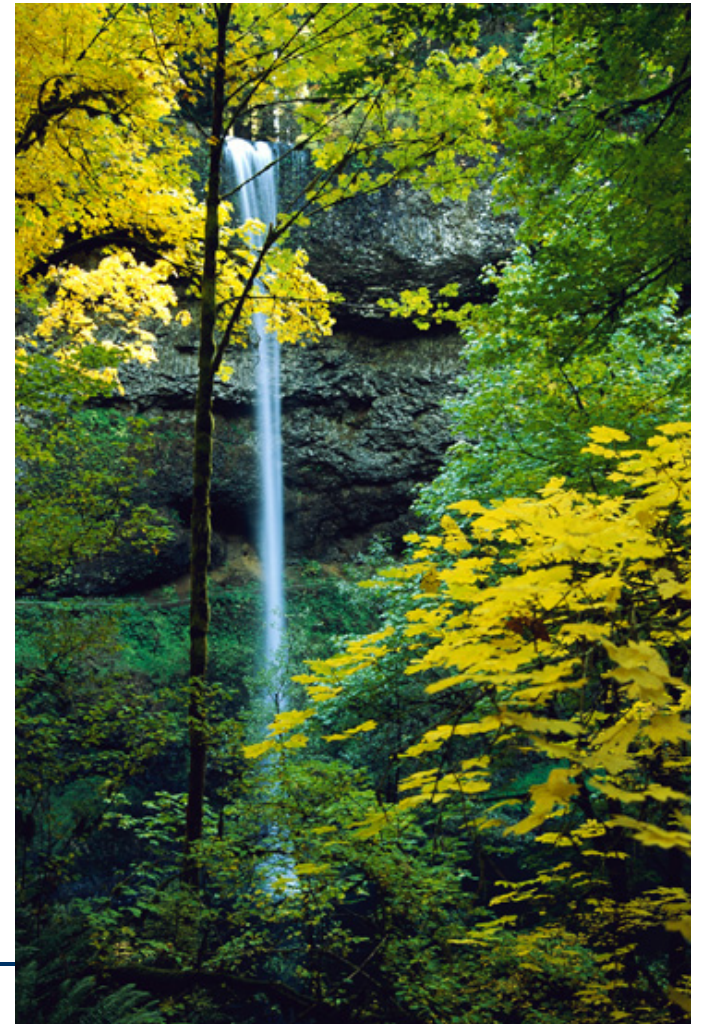# Gaining access to the best data has been challenging

- State Natural Heritage Programs
  - Best available, most comprehensive data sets
  - Location and status of endangered species and their habitats
  - Developed in cooperation with many local partners
- Each state has its own data sharing processes and rules
- Difficult to coordinate access when data are needed from multiple states

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NatureServe provides an access point to data and services

- Nonprofit organization
- Mission: provide the scientific basis for effective conservation action
- Umbrella organization for the network of Natural Heritage Programs
- Focus on conservation science and information technology
- NOT: direct land protection, political advocacy, lobbying

Our Network

- 80 independent members
  - experts in their geographic area.
- Focus on at-risk species and ecosystems
- Most in state or provincial agencies
  - some are in universities
  - a few have other affiliations

New York Natural Heritage Program Staff

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What Makes Us A Network?

- **Common Standards and Methods**
  - Element Occurrences
  - Global and state ranks
  - Biotics database
  - 30 years of data development
- **Common Goals and Purpose**
- **Sharing Data and Innovations**
- **Shared History**

Theo Witsell, Arkansas NHP, and Milo Pyne, NatureServe

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EPA-OEI established a contractual vehicle for NatureServe products and services

- Issued in October 2007 by the Information Resources Management Service Center
- Seven year time frame
- Contract # EP-W-07-080

- Contract Officer: David Fuller
- Program Officer: Mike Long

NatureServe offers a variety of products and services

Decision Support

Conservation expertise and analysis

Information access and interoperability

Data management and reporting

Data collection recording

Scientific standards and methods

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Purpose of Contract

- Access to precise data on:
  - threatened and endangered species,
  - their habitats, and other related data sets
- Expertise on these species and habitats through:
  - Consultation
  - Training
  - Technical and web-based services
- Data and services will be used by EPA to reduce impacts on species and habitats through:
  - Planning and policy
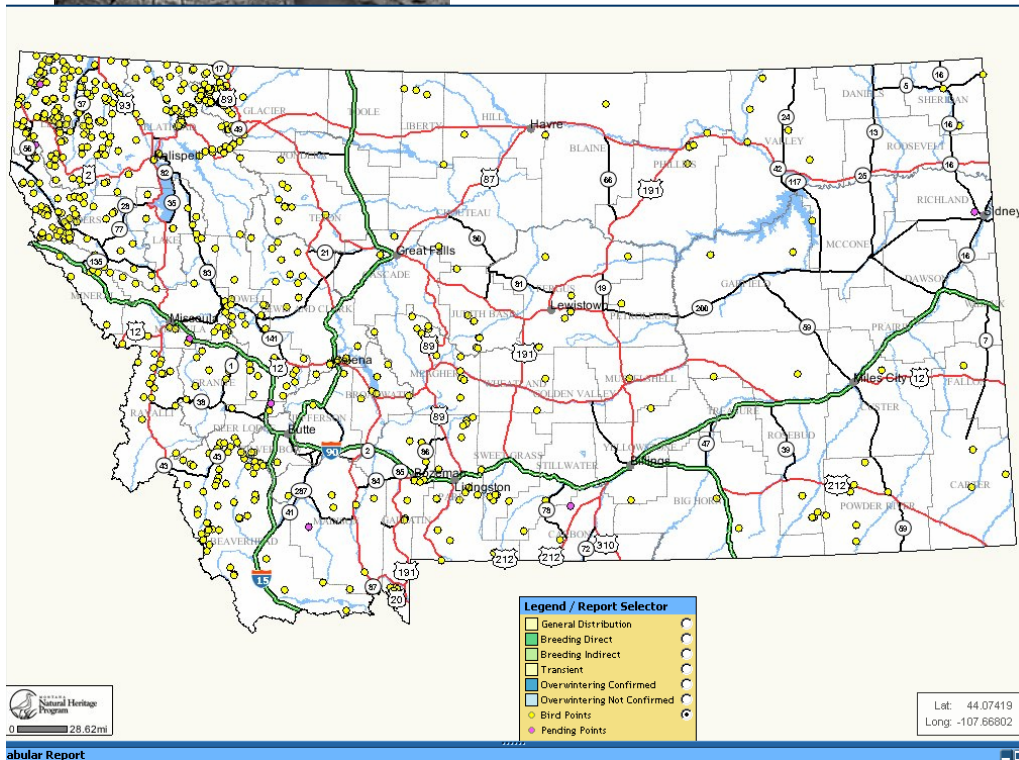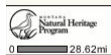 - Emergency response, remedial activities and pesticide registration

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Scope of Work:
Species data licenses

Northern Goshawk
Photo by Toni Smith
© 2007. Raptor Education Foundation

- National level data set of T&E species including precise locational data

- 300 EPA users – must go through training

- Custom data sets for specific risk assessments
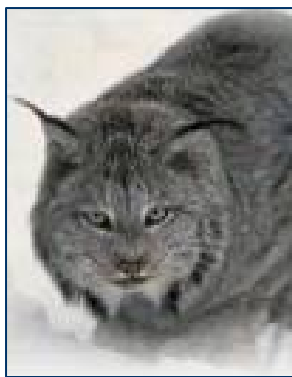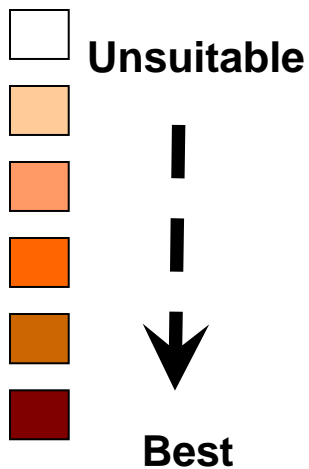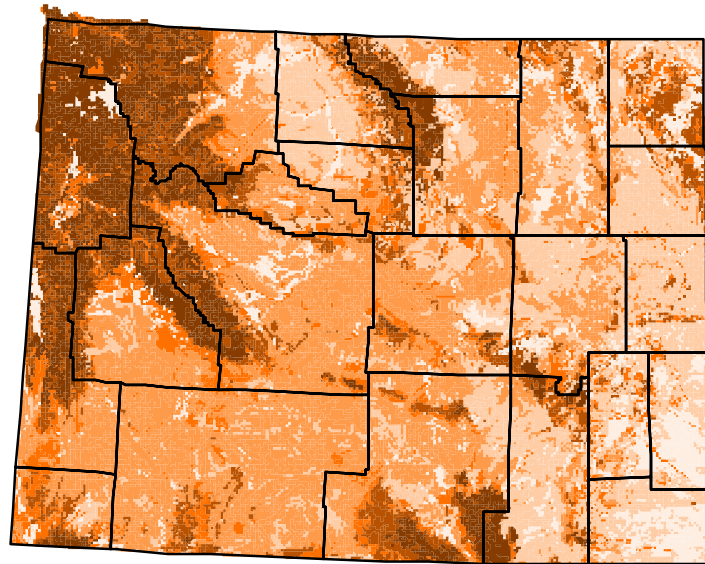
- T&E species and habitat summary data

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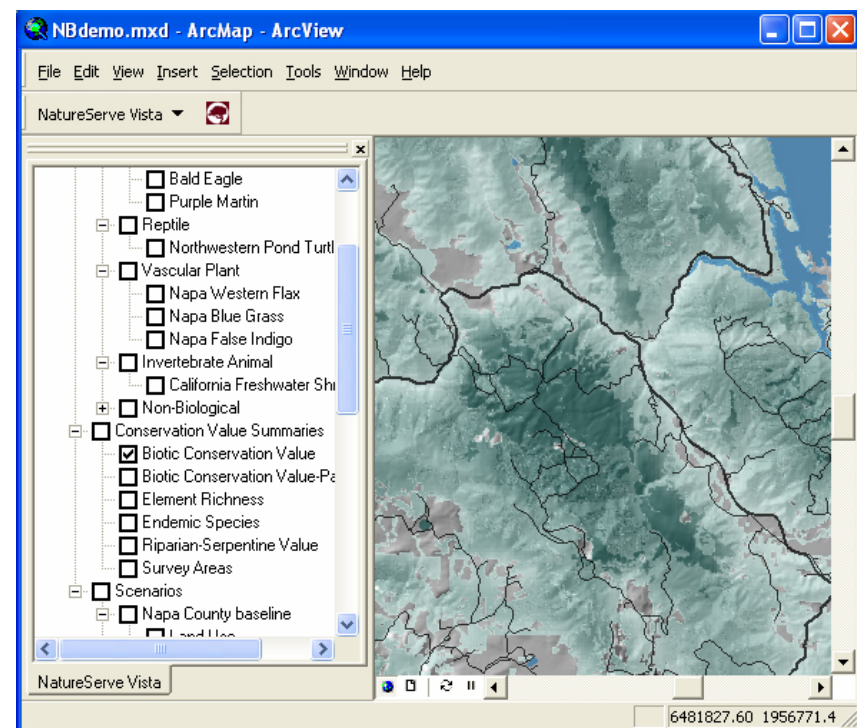# Scope of work: Consultation services

- Status assessments & distribution modeling
- Trend assessments
- Threat assessments
- On-site expertise
- Risks and potential impacts of policies and proposals
  - e.g., for pesticides
- Ecosystem mapping
- Invasive species

Unsuitable

Best

Source: Wyoming Natural Diversity Database

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Scope of Work:
Database applications & technical services

- Database administration and management

- Host species data sets

- Develop mapping tools and applications

- Decision support and analysis tools

- Metadata records and standards

Visualizations of conservation value support decision-making

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Scope of Work:
Web tools and application services

- Build and host ecological and species web sites

- Develop security

- Online GIS services

- Recommend standards

- Species data models

Other Support Services

- **Outreach**
  - presentations and workshops
- **Communication**
  - On-call emergency response
  - On-call technical assistance
  - Quick screening of project areas
- **Training**
  - Data modeling
  - Ecological monitoring
  - Impact analysis
  - Field studies
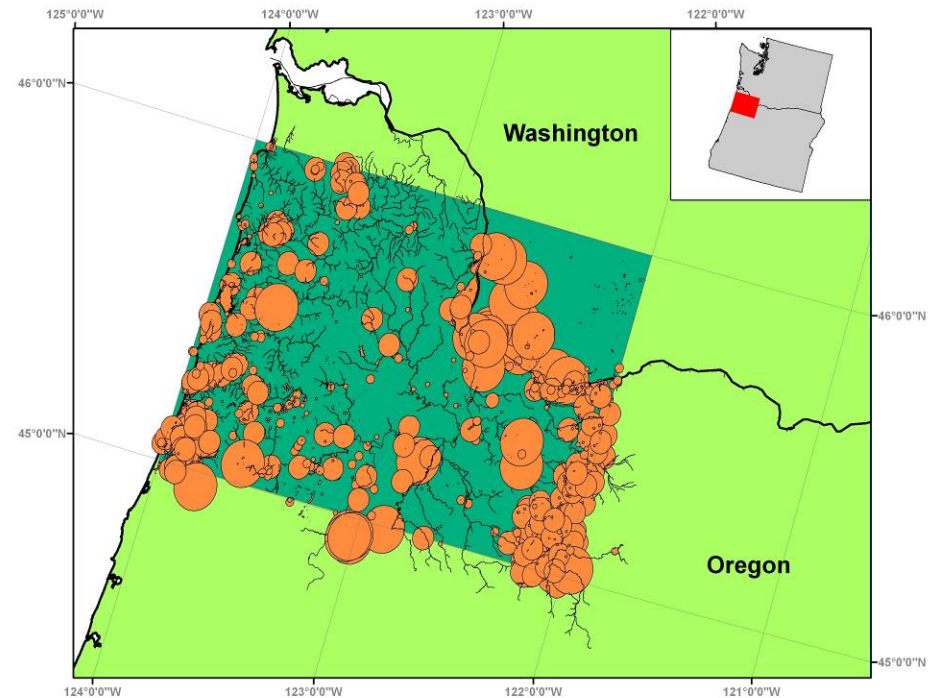 - Threat and trend assessment

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Moving Forward

- Delivery of specific products and services through Work Assignments

- EPA must initiate all work assignments

- Three work assignments are under way

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First Work Assignment:

- TOPOFF-4 emergency response training exercise

- Map sensitive species near Portland, Oregon

- Informed deployment of resources and choice of mitigation tactics

- Delivered in time for October 15 exercise

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Two New Work Assignments

1. Training
    *   Start with data use training for EPA staff
    *   Gather EPA requirements for consolidated, effective access to NatureServe data
2. Assist with national wetland condition assessment
    *   Classification of wetlands: what scale?
    *   Measurable condition & integrity features
    *   Performance standards for mitigation
    *   Tools for assessing condition at multiple levels of intensity

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Your Involvement is Essential

- Initiate work assignments that advance your programs

- Develop a strong partnership with simplified flow of information and services

- Meet EPA's evolving information needs in a dynamic and cost-effective way

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Thank You!
Questions?

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