REGIONAL INFORMATION MANAGEMENT STRATEGY

APRIL 9-10, 2013 SUMMIT

Prepared for FWS Region 1 by Creative Resource Strategies, LLC

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BACKGROUND

In the fall of 2012, several USFWS Region 1 employees convened to discuss the need for a regional information management strategy to address existing and emerging restoration and conservation-related information needs. Specifically, it was noted that FWS Region 1 programs generate, use, and maintain a vast array of biological, ecological and other data, and that resource stewardship and public accountability compels regional staff to reap the full benefit of that investment, both for use internally and by conservation partners. It was recognized that the full benefit could only be achieved with effective and efficient long-term data management, including data sharing, which requires sound policies, resources, and a culture that fully embraces knowledge management, accountability, and data sharing.

The region hired an external consultant, Creative Resource Strategies, LLC, to facilitate a systematic approach that would help the region advance its information management needs.

An initial set of key messages (Appendix A) was developed, and Creative Resource Strategies, LLC, led a series of one-on-one interviews with program leads (interviews with compiled and summarized – see Appendix B) to identify the key barriers and challenges each program faces relative to information management. Responses were then collated into three categories:

1. Culture
2. Organizational Management
3. Infrastructure Management

The next step in the process included convening about 40 FWS Region 1 employees for a 2-day summit (Appendix C – summit agenda) to:

- Share the results of the program representative interviews and other information gathered relative to challenges, driver, barriers and gaps in information management as well as emerging issues;
- Share information about existing data inventories currently used by Region 1 staff for habitat restoration and species recovery efforts;
- Receive input on additional barriers and challenges to managing data within and among programs and interested stakeholders;

WHAT ARE WE TRYING TO ACHIEVE?

Improve understanding of shared information management needs and systems among FWS Region 1 programs and staff, and identify opportunities to reduce duplication, fill gaps, and/or enhance information sharing.

Position our region to *address information management*, initially focused on species recovery and habitat restoration. This will be an initial phase in what will likely be a multi-phase ***Regional Information Management Strategy***, of which emerging needs will be discussed and prioritized in the context of all information collection and management. Future phases of this effort will include clear processes to guide the development of database protocols and standards that align with emerging national standards.

Ultimately, improve our ability to enhance delivery of conservation on-the-ground based on improved access and use of meaningful data. In other words, coordinated data management is a means, not the end.

- Achieve consensus on key goals and strategies to improve the culture, organizational management, and information management infrastructure of Region 1 programs and staff; and
- Identify next steps.

Specifically, the expected work product for the summit was envisioned to be a report to the Regional Director that describes key goals and strategies and action items that can be initiated in FY13 with existing resources to help ensure data collected, used, shared and maintained by Region 1 is high quality, supports the agency's mission, and is available and usable by all agency programs and partners.

RESULTS FROM APRIL 9-10, 2013 SUMMIT BREAKOUT SESSIONS

The following is a compilation of the results of the April 9-10, 2013 summit breakout sessions. Prior to segregating into smaller groups, the entire group first was asked to define a goal and vision for the Regional Information Management Strategy effort, and then define what success would "look like" relative to an efficient and effective information management approach:

The goal

To ensure data collected, used, shared and maintained by the region is high quality, supports the agency's mission, and is available and usable to all agency programs and partners.

The vision

Create a single entry point to quickly and easily access an intuitive, seamless, task-driven, diverse set of discoverable databases that address the region's comprehensive and current data business needs, avoids duplication of effort, and enhances our ability to share information with partners.

What success looks like

- No duplication of data collection efforts across programs
- Ease of conversations about data (data not a four letter word)
- Integration of data management into day to day job requirements
- Better access to other databases
- Better knowledge of other data sources
- Program specific: Don't fix what's not broken & respect existing partnerships within programs
- Common priorities on where we data management efforts (i.e. long term data sets, SHC priorities)
- Improved communication across regions
- Culture & Information Management

Compilation of breakout group strategies and recommendations:

EMPLOYEES

Messaging (outreach)

- Engage field staff in database usability
- Encourage cross-program integration
- Encourage ease of conversations about data
- Celebrate and build on our successes – case studies

- Educate field data collectors about the importance of metadata and data management
- Incentivize excellent data management and sharing
- Chief Information Officer should stress the importance of data quality and management
- Cultural change: It's not "my data" its "our data"
- Help people understand where their job fits into the larger information value chain
- They should be informed about ServCat and legacy datasets
- Address data collectors and managers differently

Tools

- Create a resource website that has links to all needed information – new employees should be shown this site
- Gather up guidance that has already been prepared and compile new guidance (link to national efforts)
- Promote good data management via a blog or Facebook by featuring interesting case studies
- Embed RIMS/data management info/links to Climate Change and other information pieces

Accountability

- Make data management part of the employee performance plan
- Employee checkouts should address locations of data
- Employees need to go through basic data management training, possible with a test
- Data cleanup strike team

DATA ASSETS

Priorities

- Establish common priorities for data investments within and among programs
- Database of databases/Catalog
- Review existing databases for redundancy, "retire"/decommission unused/redundant databases
- Establish a region-wide, cross program data scanning program – would be more efficient
- Each program head could provide lists and estimates of how much legacy data exists

Protection

- Protect and ensure the long-term viability of key, viable legacy data sets (legacy data triage)

Quality Control

- Implement QA/QC on all future data sets

Mandates

- Require a data management plan to receive funding
- Consider requiring use of the key databases (such as the IPAC species list) for them to be really effective

Communication and Coordination

Nationwide outreach

- Improve communication among regions
- Provide support to market and promote system and database availability

- Raise awareness of the importance of making strategic investments in data management to regional managers
- Host an all-hands meeting on data management – link to current national priorities (surrogate species, climate change, cost savings, maintaining high level of function with fewer staff)
- Coordinate with BLM to share training tools already developed
- Correspondence from the FWS Director to FWS RD's that data storage, integration, management, and accessibility is a top priority of the service

COMMUNICATION AND COORDINATION

Tools

- Webinar to highlight existing infrastructure
- Centralized webpage for data management info - include a forum for Q&A, brain storming, needs (Communication Hub for Data Management)
- Pool funding to create a webpage to interact with public on data sharing
- Conduct a cost savings analysis
- Presentation that highlights successes in R1 data management and demonstrates the need for additional data management
- Create a location to share purchased data (regionally, nationally, department wide) to avoid duplicate purchases of data – incorporate it into the IT Spend Plan – FPMS (all purchases over $3K)
- GIS data version of the Avian Knowledge Network
    - Internal to the USFWS
    - Social network with data descriptions, links, and/or contact info
- USFWS site on DataBasin
- Webinars, blogs, newsletters?
- Survey regional staff knowledgeable about database management that would be available to provide support: a short-term Data management support desk
- Make recommendations to IT Spend Plan template

Data Sets

- Identifying how data collected will be used to help inform where/how that data should be stored
- Regular backups/scheduling of backups
- Long term compatibility of formats (old disks/old software)
- Careful about putting data into a source and not having long term support for retrieving and other uses of the data
    - Conundrum: national level databases vs. regional
- If national then need more support/funding/people
- If regional then need better connectivity between programs/refuges/etc.
- Need to have flexible and site specific databases, but also access to that information across sites
- To prioritize data management:
    - Survey of programs: what are your top 10 data collection priorities?
- RE: habitat restoration: boils down to the critter/plant response
- IT infrastructure: Plan needed to update this to support data management needs
    - RIMS steering committee includes IT reps

- Need for server capacity to support housing datasets
- Connectivity capacity/access

STANDARDS AND PROTOCOLS

- Adaptable standards – minimum standards for National, Region, Field levels
- Prescribe the type of data we expect to receive whenever data is collected
- Boil down key elements of good data management into short documents that will be read by all data collectors and data managers
- Create a team who reviews proposed new databases at the regional level (aka investment review board)
- Creation and adoption of a Data Management Plan (Steering Committee)
- Require metadata and data management skills
    - Enforcing this requirement
        - Starting with education and training requirement for field staff
        - Longer term: identify primary data categories that will benefit from cross program protocols with the ultimate goal of developing those protocols (needs to be sensitive)
- Considering needs for data management plans and metadata within service and with partners
    - Begin requirements with partners receiving USFWS funding (easiest first step)
    - Requirement within RFP to go further than just asking to identify data management plan, but rather a specific template that is the same region-wide

Infrastructure Support

- Provide tech support available to end user & funding to maintain databases long term
- Support regional data managers with standardized PDs
- Offer data manager positions detail Develop and provide adequate training on data management roles/responsibilities
- Pull a person from each program to work on data management plans/strategies – each person dedicate a specific period of time to working on data management issues for R1, rotating between programs
- Designate local office experts who can answer questions locally – data management POCs
- Support the allocation of time by field staff to data management activities

Leadership/Restructure

- Create a Steering Committee to advance RIMS (clear purpose) – committee to task employees with specific data mgmt. projects
- Restructure to create a data management program with a Regional Information Officer – pool R1 program resources for funding of existing infrastructure like ECOS; get buy in from other regions to pool resources → regional coordinator and program data managers
- Interview private sector companies/NGO's (TNC) to see how they handle data management (successes, failures, etc.) and compile info on what other Agencies are doing (USGS, BLM) to create a report/briefing statement that demonstrates importance to higher ups
- Hire contractor to perform IT/Infrastructure interviews regionally/nationally on current status – brainstorm ideas for alternative infrastructure

INFRASTRUCTURE

- Ensure adequate bandwidth and network functionality for all programs
    - Provide for central servers – lessens data duplication
    - Research cost of connectivity and prioritize Refuges for bandwidth improvements (and importance of servers)
- Developing a staffing management model that will support all these short- and long-term goals of data management
    - Review this model so that when Work Force planning is done these needs can be considered
    - Consider adding a field to the Functional Directory to incorporate information about data management (Crowd Source).

POST-SUMMIT ACTIONS

At the conclusion of the summit, a short-term action plan was developed (Appendix D) to describe a set of actions to be implemented between June 2013 and December 2014 to advance care and management of restoration and conservation-related information in the region. Longer-term actions described during the summit can be incorporated into the action plan over time.

In addition, the RIMS Steering Committee convened with FWS Region 1 leadership staff on June 3 to share the results of the effort to date and obtain their support and recommendations for implementing the action plan.

APPENDIX A
KEY MESSAGES/FAQ
REGIONAL INFORMATION MANAGEMENT STRATEGY (RIMS)

What is the issue?

- Service programs generate, use, and maintain a vast array of biological, ecological and other data. Resource stewardship and public accountability compels us to reap the full benefit of this investment, both for use internally and by our conservation partners. The full benefit can only be achieved with effective and efficient long-term data management, including data sharing, which requires sound policies, resources, and a culture that fully embraces knowledge management, accountability, and data sharing. How effectively and efficiently we manage our information greatly influences how well we connect with, support, and work with our partners.
- We collect and generate a lot of data within the Service and our region, resulting in a myriad of efforts at all levels and among all programs. Although we have been able to achieve specific objectives for those individual efforts, they have often resulted in duplicative, inconsistent inefficient information management.
- We need to implement actions in three primary areas to improve our information management: actions that address our culture and paradigms, organizational management relative to funding and demonstrating accountability, and infrastructure to adequately manage information.

What is our goal?

To ensure data collected, used, shared and maintained by the region is high quality, supports the agency's mission, and is available and usable to all agency programs and partners.

What are we doing to address this issue?

- Nationally—The Service Science Committee is launching an effort to develop a long-term strategic plan to ensure that departmental or Service policies or guidelines exist, and are known and understood, for collection, processing, analysis, use, preservation, and access of data. Strategies to both address lack of policies or guidelines as well as promote wider adoption of existing policies and guidelines will be developed.
- Regionally—Concurrent with the national initiative, our region has a critical need to better manage information to support desired program outcomes. This need becomes more significant within the context of our efforts to work at the landscape scale and address associated issues such as climate change, while also seeking efficiencies in the fact of budget reductions. As a first step in realizing a new vision and culture for regional information management, we seek to focus on one key area of activity that cuts across many programs in the region: species recovery and habitat restoration. This first step may serve as a model for how we approach managing other important types of information in the region.

Do you have an example that illustrates why this effort is important?

An example of how better data management practices could advance a Service effort is the refuge land protection planning effort to support recovery and restoration of species in the Willamette Valley of Oregon. Region programs, such as Refuges, Fisheries, and Ecological Services, as well a number of science and conservation partners, are individually collecting data on threatened and endangered species in the Willamette Valley. The refuge system is currently developing an SHC-based landscape scale conservation plan for the Willamette Valley. In order to develop a systematic conservation plan for the area, the best available data needs to be in a standardized and usable format. However, it has been a tremendous challenge to understand the extent, quality, date, and management of relevant data sets. A coordinated, comprehensive regional information management strategy would help all programs manage information to inform recovery and restoration efforts in the Willamette Valley. Although the USFWS is not the only

data collector in the region, developing internal consistency and best data management practices could serve as a platform for other groups to adopt.

Haven't we done this before?

We have had both successes and failures in past data management efforts. This effort:

- Is focused on the most critical aspects of data management to ensure we develop a set of priority recommendation actions that results in meaningful long-term changes to how we manage data.
- Has clearly articulated objectives to avoid scope creep, which has contributed to past data management failures.
- Is a multi-phased effort that incorporates a structured, disciplined approach to data management.
- Emphasizes existing and emerging business needs as the key drivers for outcomes.

What exactly are we trying to achieve with this effort?

- Improve understanding of shared information management needs and systems among FWS Region 1 programs and staff, and identify opportunities to reduce duplication, fill gaps, and/or enhance information sharing.
- Position our region to *address information management*, initially focused on species recovery and habitat restoration. This will be an initial phase in what will likely be a multi-phase ***Regional Information Management Strategy***, of which emerging needs will be discussed and prioritized in the context of all information collection and management. Future phases of this effort will include clear processes to guide the development of database protocols and standards that align with emerging national standards.
- Ultimately, improve our ability to enhance delivery of conservation on-the-ground based on improved access and use of meaningful data. In other words, coordinated data management is a means, not the end.

How will we achieve improved regional information management?

We seek to understand how we can better manage species recovery and habitat restoration information through a structured approach that first involves identifying barriers and challenges to managing information and sharing and accessing information within and among Region One programs through discussions with program leads and staff. Outcomes from these discussions will be used to identify needed background information (e.g., typology of data sets) that will be helpful to informing a regional information management summit in the spring of 2013.

The goal of the summit is to develop a focused set of priority action items to address key information barriers and challenges internal to Region One and the Service. These strategies may be aimed at addressing issues associated with data infrastructure, access, protocols and standards, longevity, e.g., as well as actions to facilitate cross-program data management, coordination, and how we will communicate with one another about what data exists and how this data can be accessed.

Eventually, we hope to expand this effort to address other types of information we collect and manage as well as to broaden our initial internal focus to address how we coordinate with other agencies and partners.

What programs will be involved in this initial species recovery and habitat restoration information effort?

All regional programs will be involved – some will be more involved than others, depending on the extent to which they collect or manage data associated with species recovery or habitat restoration.

I'm a staff person in a Region program. How does this effort involve me?

A subset of program staff will be surveyed in January 2013 to provide basic information (e.g., typology of data sets) that will serve as useful background information to inform summit outcomes and to ensure that the time spent during a 1–2 day summit is efficient and productive. Ultimately, enhance our ability to enhance delivery of conservation on-the-ground based on improved access and use of meaningful data. In other words, coordinated data management is a means, not the end.

How can I get involved?

Program leads will be working with staff to identify barriers and challenges to managing information and sharing and accessing information within and among Region One programs. Outcomes from these discussions will be used to identify needed background information (e.g., typology of data sets) that will be helpful to informing the summit in the spring of 2013.

APPENDIX B
RESULTS OF PROGRAM LEAD INTERVIEWS

*R*egion 1 *I*nformation *M*anagement *S*trategy

GENESIS FOR THE PROJECT

- USFWS staff generate, use, maintain, and need to access data - assess the status and trends of fish and wildlife and their habitats.
- Proper care of data throughout its life cycle allows the agency and partners to reap the benefits of its investment and achieve agency's mission.
- Region seeks to address information management issues and develop a focused set of priority actions (*that align with the direction of national-level efforts*) to efficiently and effectively serve and share data.

STEPS TO DATE

- Develop draft letter from Region 1 administrators to program leads/staff
- Develop key messages
- Meet w/program leads to discuss RIMS effort
- Develop interview questions w/program leads
- Conduct interviews w/program leads

PROGRAM LEAD QUESTIONS

- Program Challenges: Information to inform conservation decision making?
    - Access
    - Storage
    - Management
    - Collaboration
    - Security
    - Discovery
- Primary drivers for investing in information
- Primary barriers to investing in information
- Anticipated changes in next 3-5 years that may affect information to support agency, regional, programmatic recovery and restoration decisions
- Gaps that exist in how the region currently manages information
- Data sets are key to recovery and restoration efforts in the region

INTERVIEWS

Interviews conducted December 11-19, 2012

- Dan Craver, Refuges - Inventory & Monitoring
- Rich Young, Ecological Services
- Mark Metevier – Information Technology
- Dan Shively – Fisheries
- Paul Heimowitz – Science Applications
- Tom Miewald – Science Applications

- Tim Mayer – Budget & Administration
- Larry Kildahl – Budget & Administration
- Mike Green – Migratory Birds
- Chris Swenson – Partners, Coastal
- David Drescher – Refuge Planning – GIS & Cartography
- Mark Kildow – Information Resources & Technology
- Chris Lett – FWS National GIS Coordinator
- Pat Lineback – Region 8 Data Manager

THE THEMES*

- Cultural Challenges
    - Agency *culture* does not foster consistent, long-term investments in information management throughout the data life cycle.
    - *Lack of communication* among programs.
    - Inability for the region to *efficiently share its success stories.*
    - *Lack of a coherent, communications strategy*.
    - *Siloed nature* of programs and of entities within programs.

- Organizational Management Challenges
    - *Lack of accountability* for information management.
    - *Lack of coordination/direction* when new programs are formed.
    - *Continual movement of employees.*
    - Lack of *employee performance standards and metrics*.
    - *Inadequate employee training and staffing levels.*

- Information Management Infrastructure Challenges
    - *Lack of "places"* to serve and share data.
    - *Lack of enforcement* - existing data standards/protocols.
    - *Lack of infrastructure* to support sharing.
    - *Difficulty in geospatially mapping* key data sets.
    - *Lack of companion formats* among programs.
    - *Unclear protocols and standards* - sensitive data.
    - *Lack of knowledge* about and *inability to access* existing data sets.
    - Difficulty *archiving and accessing* layers/metadata.
    - *Loss of data* as people retire, etc.

DRIVERS FOR INVESTING

- Address challenges, landscape-scale conservation
- Manage layers that inform critical habitat
- Improve efficiencies
- Enhance working relationship w/partners
- Conduct effectiveness monitoring
- Inform adaptive management, surrogate species, ES listings
- Understand what data sets exist/typology of data sets/inventory
- Achieve our organizational mission

- Improve communication and coordination across programs
- Inform planning for future projects

BARRIERS TO INVESTING

- Staff time and resources
- Lack of a comprehensive data management system
- Staff education, training & understanding
- Restrictions on budget expenditures
- Culture
- Realistic assessment of what this effort can produce
- Communication
- The sheer volume of data
- Proprietary nature of some data
- Inability to describe what individuals "get" from this
- Climate of speculation

CHANGES IN 3-5 YEARS THAT WILL AFFECT HOW DATA IS MANAGED

- National initiatives (LCC's, climate change, surrogate spp.) – the need for landscape-level information
- Need for long-term monitoring
- Changing technology
- Reduced budgets will force standardization and simplification
- National initiatives to store and manage large data sets (refuge I&M, AKN, etc.)
- Looming retirements

GAPS

- Communication/coordination with GIS
- Loss of scientific expertise to USGS & lack of close coordination and communication
- Need for ecologists and botanists
- Water quality and hydrology data
- Standardized survey protocols & guidelines
- Data to inform spp. abundance and trends
- Leadership
- Lack of specificity in inventory line item budgets to direct protocols & guidelines
- Trying to do it all instead of doing some things good
- Vacant positions while expecting increasing workloads
- Edge-matching data across states – failure to design contracts to address this issue
- Loss of institutional knowledge and data sets when people leave
- Losing economy of scale and leveraging of resources because programs do it themselves
- Lack of a centralized data portal to access the databases
- Effectiveness monitoring data/geographic gaps in coverage
- Lack of a data administrator at the appropriate grade.

EXAMPLES OF KEY DATA SETS

- water rights
- hydrologic data

- monitoring sites
- geospatial information
- SERVCAT
- RLGIS – Refuge Lands GIS
- CRIS – Fisheries
- T&E point locations and habitat data/species of management concern
- Specific land cover data
- Those that address landscape-level
- Tee up the right questions – what data sets do we need to address our highest priorities
- We will need modeling to address landscape-level questions
- An understanding of what data sets we and our partners have
- ECOS
- Up-to-date land ownership data
- Species distribution layers

THE PATH FORWARD

The overarching goal of our Regional Information Management Strategy is to ensure data collected, used, shared, and maintained by the region is high quality, supports the agency's mission, and is available and usable by all agency programs and partners.

- Example of Draft Goals and Actions

Culture

1. Foster an awareness, appreciation, and understanding within region employees of data discovery, accuracy, security, longevity, and usability to address core program needs.

   Action:

   - Develop a communications plan that describes efficient and effective actions region staff can take to manage information to address regional and partner needs.
   - In concert with national-level data managers, develop a set of training tools that advance understanding of data life cycle management as foundational to the agency's mission.
   - Create a glossary of terms common to individual programs (e.g., surveys) to enhance communication across regional programs.

Organizational Management

2. Link regional program budgets to program performance metrics, employee performance standards, and information management standards and protocols to institutionalize stewardship of information and data.

   Actions:

   - Dedicate a % of the budget for all application development to information management.
   - Ensure accountability for information management standards by articulating roles and responsibilities for information management in job descriptions and employee performance appraisals.
   - Ensure that data collected meets agency standards and protocols and is coordinated with and accessible to other programs and regional partners.
   - Example

Information Management Infrastructure

3. Create an information management infrastructure that:

   - addresses core program needs (i.e., existing and emerging agency issues);
   - is sustainable; and

- advances data life cycle best management practices.

Action:

- Create, maintain, and share within the region and with partners an inventory of mission critical data sets and their core attributes.
- Dedicate a percentage of all application costs to long-term data management/maintenance.
- Analyze data sets currently maintained by the region to determine alignment with the agency's mission and emerging needs.

NEXT STEPS

- RIMS Steering Committee edits draft goals.
- Share the results of the interviews with program leads and obtain consensus on key goals to advance RIMS.
- Ask program leads, during the summit in the spring of 2013, to develop a set of action items to advance goals.
- Host summit
- Make recommendations to regional leadership
- Breakout sessions
- Breakout #1 – Addressing Region 1 Cultural Issues
- How would Region 1 staff define "success" in terms of efficient and effective information management?
- What short- and long-term actions does the region need to take to foster an awareness, appreciation, and understanding within region employees of data discovery, accuracy, security, longevity, and usability to address core program needs?
- Breakout #2 – Addressing Region 1 Organizational Management Issues
- How could the region improve linkages among program budgets to program performance metrics, employee performance standards, and information management standards and protocols to institutionalize stewardship of information and data?
- Breakout #3 – Addressing Region 1 Information Management Infrastructure
- How could Region 1 create an information management infrastructure that addresses core program needs, is sustainable, and advances data life cycle best management practices?

*R*egion 1 *I*nformation *M*anagement *S*trategy Summit

April 9-10, 2013

Meeting Location: US Fish and Wildlife Service building, 905 NE 11th Avenue, 8th floor

Agenda

Meeting Objectives:

- *Bring USFWS Program Region 1 leads and representatives together to develop a set of actions that lead toward Region 1's ability to ensure data collected, used, shared, and maintained by the region is high quality, supports the agency's mission, and is available and usable by all agency programs and partners.*
    - *Share the results of the program representative interviews and other information gathered relative to challenges, driver, barriers and gaps in information management as well as emerging issues;*
    - *Share information about existing data inventories currently used by Region 1 staff for habitat restoration and species recovery efforts;*
    - *Receive input on additional barriers and challenges to managing data within and among programs and interested stakeholders;*
    - *Achieve consensus on key goals and strategies to improve the culture, organizational management, and information management infrastructure of Region 1 programs and staff;*
    - *Identify next steps.*

Expected Work Product:

- *A report to the Regional Director that describes key goals and strategies and action items that can be initiated in FY13 with existing resources to help ensure data collected, used, shared and maintained by Region 1 is high quality, supports the agency's mission, and is available and usable by all agency programs and partners.*
- *Initial typology of data sets used by Region 1 staff to advance habitat restoration and species recovery efforts.*

April 9, 2013, 9:00am–4:00pm

9:00am–9:20am Welcome and Introductions

- Welcome and Introduction of Regional Director for Introductory Comments, Background for this effort—*Stephen Zylstra, Chris Lett*
- Review today's agenda; other housekeeping details—*Lisa A. DeBruyckere*

9:20am–10:00am Results of Region 1 Program Lead Interviews

- Share the results of the program representative interviews and other information gathered relative to challenges, driver, barriers and gaps in information management as well as emerging issues.
- Information learned from these interviews will inform actions developed during summit breakout sessions to develop cultural, organizational management, and information management infrastructure strategies to improve Region 1 Information Management.
- Share the results of the initial typology of data sets used for habitat restoration and species recovery efforts in Region 1.
- Obtain input on additional barriers and challenges.

10:00am–10:30am ECOS Integration

- The Environmental Conservation Online System (ECOS) is a gateway Web site that provides access to data systems in the Endangered Species, Fisheries and Habitat Conservation, and Refuges Programs as well as to other FWS and government data sources. ECOS provides a central point of access for FWS personnel to manage data and facilitates the sharing of that data. ECOS also provides general public access to information from numerous FWS databases—*Kate Norman*

10:30am-10:45am **BREAK**

10:45am–11:30am Region 1 Case Studies

- Four Region 1 staff members will provide case studies that demonstrate barriers and challenges to managing information to achieve core program mandates and respond to critical information needs*:*
    - *Roy Lowe – "Challenges with Data Management and Seabirds"*
    - *Tom Miewald – " Landscape Scale Planning and Data – Examples of Data Challenges and Potential Solutions"*
    - *Christina Luzier – "Fish Conservation and Recovery Planning for a Data Poor Species (Pacific lamprey) and a Data Rich Species (bull trout) – 30 minutes*
    - *Grant Canterbury – "Tracking Recovery Implementation for Endangered Species"*

11:30am–12:30pm **LUNCH**

12:30pm–1:20pm The Data Management Life Cycle, Best Management Practices, and Current Policies

- Information will be provided on the data management life cycle, the core elements of proper data stewardship, and current USFWS information management policies—*Chris Lett, FWS National GIS Coordinator*

1:20pm–2:15pm Tools and Emerging Trends in Information Management – Panel Discussion

- There are several emerging data management tools, frameworks, and best practices to support conservation. Panel members will introduce some of these trends and highlight the use of different database management tools (e.g., ScienceBase/LC-MAP and how it links to DataBasin, ServCat, etc.)—*Sean Finn, Erin Stockenberg, Dave Drescher, Dan Craver*

2:15pm–2:30pm **BREAK**

Summit participants will convene in facilitated groups to discuss regional cultural barriers and gaps and develop actions to address those issues. Specifically, participants will answer several questions:

2:30pm–3:30pm <u>Breakout Session #1 – Addressing R1 Cultural Issues Re: Information Management</u>

- How would Region 1 staff define "success" in terms of efficient and effective information management?
- What short- and long-term actions does the region need to take to foster an awareness, appreciation, and understanding within region employees of data discovery, accuracy, security, longevity, and usability to address core program needs?
  - Examples:
    - ✓ Address communication needs within and among region programs and partners.
    - ✓ Address training tools available to advance data life cycle management.
    - ✓ Address the siloed nature of programs within the region.

Facilitators will work with each breakout group to prioritize and categorize recommended actions.

3:30pm–4:00pm <u>Summarize Breakout Session #1 and Discuss Tomorrow's Agenda</u>

- Each group will summarize the results of their breakout sessions.
- Tomorrow's agenda will be discussed.

4:00pm <u>Adjourn</u>

April 10, 2013, 9:00am–4:00pm

9:00am–9:30am <u>Recap of Yesterday's Session and Discussion of Today's Agenda</u>

9:30am–9:50am <u>Region 1 Case Study (continued from yesterday)</u>

- Five Region 1 staff members will provide case studies that demonstrate barriers and challenges to managing information to achieve core program mandates and respond to critical information needs:
  - *Mike Green – "Bird Databases to Support Migratory Bird Conservation in Region 1"*

9:50am–11:50am <u>Breakout Session #2 – Addressing Region 1 Organizational Management Issues Relative to Information Management</u>

- How could Region 1 improve linkages among Region 1 program budgets to program performance metrics, employee performance standards, and information management standards and protocols to institutionalize stewardship of information and data?
    - Examples:
        - Address ways Region 1 could improve how it budgets for information management.
        - Describe steps to ensure accountability of information management standards.
        - Describe ways Region 1 staff could better work with partners to manage information.
        - Address staff training and staffing level inadequacies.

Facilitators will work with each breakout group to prioritize and categorize recommended actions.

11:50am–12:15pm Summarize Breakout Session #2

- Each group will summarize the results of their breakout sessions.

12:15pm–1:15pm **LUNCH**

1:15pm–2:30pm Breakout Session #3 – Addressing Region 1 Information Management Infrastructure Issues Relative to Information Management

- How could Region 1 create an information management infrastructure that addresses core program needs (i.e., existing and emerging agency issues), is sustainable; and advances data life cycle best management practices?
    - Examples:
        - Address ways to create, maintain, and share within Region 1 and with partners an inventory of mission critical data sets and their core attributes.
        - Address lack of protocols and standards for dealing with sensitive data.
        - Address difficulties in archiving and accessing data layers and metadata.

Facilitators will work with each breakout group to prioritize and categorize recommended actions.

2:30pm–3:00pm Summarize Breakout Session #3

- Each group will summarize the results of their breakout sessions.

3:00pm–3:30pm Summary of Summit Outcomes and Next Steps

- The outcomes of the summit will be reviewed and next steps to achieve the summit goal will be described

3:30pm **ADJOURN**