



U.S. Fish and Wildlife Service

Ecosystem Approach to Fish and Wildlife Conservation

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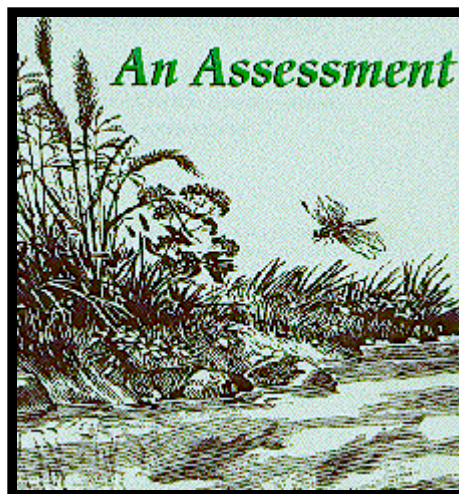
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January 1998

U.S. Fish and Wildlife Service

Ecosystem Approach to Fish and Wildlife Conservation:

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**Ohio Cooperative Fish & Wildlife Research Unit
Work Order 30
Final Report**

January 1998

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This document was discussed at the Directorate Meeting during the week of February 23-27, 1998. For more information, please contact your Regional Director or Assistant Director.

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Keywords: ecosystem, approach, conservation, assessment



Directorate Decision

To: All Employees

From: Service Directorate

Subject: Directorate Decision on the U.S. Fish and Wildlife Service Approach to Ecosystem Conservation: An Assessment by Ohio State University

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The precious fish, wildlife, and land resources to which we, and all of you, as Fish and Wildlife Service employees, are committed to protecting and conserving are under increasing pressures. Our dedication, both as an agency and as individuals, to conservation of the resource is unchallenged. However, in order to maintain and increase our leadership in fish and wildlife conservation, we must continually engage in processes that fine-tune and adjust our practices and organization to meet these challenges. One such process is the recent assessment of our approach to ecosystem conservation and the resultant recommendations from our consultant, Ohio State University. We, the Directorate, therefore, commissioned the assessment so as to provide an objective set of observations supported by data on which to base decisions for what we see as the most efficient and effective means to conserve fish, wildlife, and their habitats. That assessment is now complete and it is time to move forward.

We appreciate the efforts of employees who participated in the study by contributing time, energy and ideas to the assessment. We would like to thank the OSU Assessment Team for its extra efforts by helping employees to participate, to analyze the results, and to provide its report and recommendations in a comprehensive, expeditious manner.

The OSU Assessment Team provided an Executive Summary and a final report that included 12 recommendations. We discussed at length the data collected, the Assessment Team's reports, and their recommendations. We adopted many of the recommendations, modified a few, rejected one, and have delayed a small number of them. Our responses to each of the recommendations are provided below. They represent our unanimous decision. We believe that the result of implementing these actions will be a strong reaffirmation of our commitment to the Ecosystem Approach to Fish and Wildlife Conservation.

OSU Recommendation 1: The Service Directorate must work in concert to formulate, communicate, and implement a direction for the Service that is consistent. This direction will undoubtedly change over time, but changes will be implemented through coordinated understanding and action.

The Service Directorate developed and supports a shared vision for the Service:

"Unite all Service programs to lead or support ecosystem level conservation. We will achieve this by becoming a more technically capable and culturally diverse organization and by involving stakeholders through local action, scientific expertise, land and water management, and appropriate regulation."

The Service Directorate, through our common understanding of this vision statement, will communicate in a consistent manner the direction which we intend to lead the Service.

OSU Recommendation 2: The Service Directorate must have a consistent definition and intent of the Ecosystem Approach to Fish and Wildlife Conservation that can be communicated across the agency through multiple channels.

The report indicates that the Service employees are confused about the meaning of the term "ecosystem approach" and uncertain of the dedication of the Service leadership to the Ecosystem Approach philosophy.

The Directorate is fully committed to implementation of the Ecosystem Approach to Fish and Wildlife Conservation. The Ecosystem Approach achieves landscape-level conservation of fish, wildlife, plants and their habitats through cross-program coordination within the Service and partnership with organizations and individuals external to the Service.

Neither the approach nor the philosophy is new, but they are challenging, and we must continually recommit ourselves to them as an organization and as conservation professionals. Ecosystem conservation is the job of the U. S. Fish and Wildlife Service; it is the "normal work" of all Service employees, to which all of our individual and collective efforts must contribute.

The Directorate is determined that Service employees receive clear and consistent direction and have a common technical understanding of the Ecosystem Approach. We will ensure that our training programs clearly reflect the leadership vision regarding the Ecosystem Approach. To enable us to better support the implementation of the Ecosystem Approach, the Directorate will participate as a team in the National Conservation Training Center course on Ecosystem Approach. All ecosystem team members and Service leaders will be encouraged to take this training and we urge all other appropriate Service employees to take advantage of this valuable training.

OSU Recommendation 3: Leaders at all levels must actively communicate the definition, expectations, and rationale for the Ecosystem Approach, orally and through written communication. Leaders must be visible proponents of the Ecosystem Approach.

The Directorate expects leaders at all levels in the Service to be visible proponents of the concept, philosophy, and application of the Ecosystem Approach. Leaders must

increase their level of education in ecosystem management, celebrate ecosystem success stories, and recognize and reward employees who model behavior that is supportive of the Ecosystem Approach. Leaders must personally communicate the importance of the Ecosystem Approach for conservation of fish and wildlife resources to the Service. The Directorate agrees that those of us who will not support the direction of the Service must be prepared to step aside.

OSU Recommendation 4: Eliminate or change organizational practices that are not consistent with an Ecosystem Approach to Fish and Wildlife Conservation. Leaders must be the problem solvers who ensure that people will take an Ecosystem Approach.

The Directorate firmly believes that maintaining programmatic strength is intrinsic to successful implementation of the Ecosystem Approach. Additionally, we believe that in order to successfully implement the Ecosystem Approach, we must infuse that programmatic strength into the geographically-based landscapes within which we operate. The Directorate is committed to accomplish this through clear and concise guidance, ecosystem and team building training, performance management, and effective, ongoing communication.

OSU Recommendation 5: Hold people accountable for taking actions that are in concert with an Ecosystem Approach to Fish and Wildlife Conservation.

The Directorate is committed to fully embracing the Ecosystem Approach and supporting all aspects of its implementation. Furthermore, we will provide clear and consistent guidance through both formal and informal means of communication to Service management who will, in turn, ensure that all Service employees are knowledgeable and equipped to implement the Ecosystem Approach.

The following actions will be required of Service management:

- Service management is expected to serve as a role model to Service employees in both words and actions related to the Ecosystem Approach.
- Service management will encourage employees to pursue innovative approaches that enhance fish and wildlife conservation efforts.
- Service management will explore mechanisms to reward individuals or ecosystem teams who have successfully implemented the Ecosystem Approach.
- Service management will further explore incentive programs to reward those ecosystem teams that have accomplished exceptional on-the-ground conservation activities.
- Service management will provide continuing feedback to employees and ecosystem teams to enhance overall performance and team effectiveness. In turn, ecosystem

teams will be asked to provide feedback to management's support and effectiveness.

- Service management will ensure that performance plans for all employees include a critical element related to the employee's contribution toward successful implementation of the Ecosystem Approach.

- Service management will ensure that all employees are held accountable for implementing key actions related to the Ecosystem Approach (e.g., cross-program collaboration, establishing and utilizing partnerships where appropriate). Employees will be provided appropriate training, counseling, and guidance.

OSU Recommendation 6: Select and promote people who have demonstrated the understanding and ability to use an Ecosystem Approach, regardless of their position. Provide training and experiences to prepare people for opportunities.

The Directorate believes that knowledge of fish and wildlife management, biological diversity, conservation biology and cross-program knowledge and experience, including requirements in administrative processes, are critical to leadership positions. The Directorate recognizes that if employees' actions are to be successful within the broad parameters of the Service's vision, the full complement of a diverse Service workforce must be involved in the ongoing process of organizational renewal. Toward this end, the Directorate encourages and supports intensive training and educational development efforts and rotational assignments of a Service-wide nature for all employees. Those people who demonstrate the above understanding and experience, as well as the ability to use the Ecosystem Approach, will be afforded strong consideration in selections and promotional opportunities.

OSU Recommendation 7: Leave the ecosystem boundaries as they are.

The Directorate supports the current established ecosystem boundaries drawn primarily along watershed boundaries. If the current boundaries are found to negatively impact resource management decision making or impede the establishment and utilization of partnerships, Regional Directors may raise these issues for discussion and resolution.

OSU Recommendation 8: Keep the ecosystem teams in place; however, support them in becoming more issue-focused.

The Directorate supports the ecosystem teams as established, and expects them to meet at least twice a year. Furthermore, we encourage the teams to become more focused on specific resource issues and support the establishment of subteams within an ecosystem.

Subteams should become the norm rather than the exception. Membership on teams and subteams should not be constrained by ecosystem boundaries or administrative jurisdictions. Team and subteam membership should not be limited to project leaders.

Regional and Washington Office staff should participate in team meetings as often as possible and as issues warrant.

Service leaders will ensure that ecosystem team members are adequately trained, educated, and informed about the philosophy and practice of the Ecosystem Approach and the resource issues that they are expected to address. This will lead to effective problem solving and decision making and allow ecosystem teams to be held accountable for actions taken.

OSU Recommendation 9: More fully incorporate partners and stakeholders into teams.

The OSU Assessment Team identified several issues that need to be addressed in the area of relationships with partners. These include:

- Coaching teams on how to involve partners more effectively;
- Validating and acknowledging the variety of relationships with partners (i.e., informal, non-leadership, formal);
- Increasing involvement of potential partners who are not "friends of the Service"; and
- Clarifying stakeholder/partner terminology.

The Service has greatly increased the extent of partnership activity in our day-to-day operations, however, there is room for improvement. There is a special need for the Fish and Wildlife Service to reach out to potential partners and stakeholders who do not always agree with Service policies.

To address the concerns identified in the OSU assessment, the Directorate will take the following actions:

- Clarify and define the role of "partners" and "stakeholders" and ensure this is consistently presented in all training programs.
- Coach the ecosystem teams to form more effective partnerships. Teams are encouraged to take advantage of training to better equip them to establish productive partnerships.
- Clarify the Service policy to acknowledge that valid partnerships can be accomplished not only through formal agreements, but also through informal working relationships.

- Work with the teams to identify those partner relationships in which the Service will play a supporting role in projects or activities being lead by other organizations, as well as those in which we will lead others.

OSU Recommendation 10: Strengthen programmatic focus consistently across Regions.

The Directorate considered the spectrum of data and recommendations presented in selecting the organizational structure that will best allow the Service to meet present and future resource challenges. We agreed that the organization must meet the challenge of moving the Service forward by strengthening both the ecosystem philosophy and program integrity and consistency.

We selected a geographic line/programmatic staff structure as the organization that will best fit the Service's needs. The rationale for this decision is as follows:

(a) This structure directly responds to the employees' recommendations as identified in the OSU Assessment document. Those recommendations call for increased staff in the Regional Office, parallel Washington Office and Regional organization, consistent Regional Office organization, and programmatic supervision. The organizational structure we selected separates geographic and programmatic duties of the existing Geographic ARDs while maintaining and supporting the ecosystem teams. These recommendations are presented in Table 10 of Part IV Findings in the OSU Assessment document.

(b) It strengthens both programmatic integrity and consistency and the ecosystem focus of the organization. It clearly distinguishes line organization from programmatic implementation by providing each with equal status within the Regional and Washington Office structure.

(c) It promotes organizational consistency. Both the Regional and Washington Offices will be similar in structure with line field supervisors (Regional Directors and Geographic ARDs) and strong programmatic support (Assistant Directors and Program ARDs).

(d) Geographic ARDs will have appropriate support staff with training and experience in specific programmatic areas. Field stations will be supervised directly by Regional Office staff with knowledge and or experience in, their programmatic area. Programmatic ARDs and staff will provide programmatic policy and budgetary support to the Regional Office and will serve as the primary point of contact for Washington programmatic issues.

The OSU Assessment Team recommended that a set of Science and Policy Offices be established in each Regional Office. They proposed that Wildlife and Fisheries Resources be combined and that a separate Refuges SPO be established that would also include the Hatchery program. We chose not to adopt this recommendation but rather to establish separate Programmatic ARD offices for Refuges and Wildlife,

Ecological Services, and Fisheries.

(e) The organizational structure directly supports the ecosystem teams. Whereas geographic management is not automatically dictated by an ecosystem philosophy, a basic building block and unified structure of that management approach is dictated. The identified building block is the ecosystem team and the Directorate believes that the most efficient and appropriate management structure that supports the teams is geographic management. Under this management structure, supervision and direct accountability at all levels of the organization are focused on the ecosystem; the relationship of the Regional Office to the field team is direct and formal.

(f) The organization we have selected provides great breadth and opportunity in career paths and choices. The Service is experiencing a shortfall in the number of individuals prepared for advancement to higher level positions. This structure provides greater flexibility in developmental paths for employees to follow in preparation for higher leadership positions.

Diagrams depicting the new Regional organizational structure and the current Washington Office organizational structure are included below. The organizational structure we have selected will best address the concerns and recommendations of Service employees and serve the needs of the Fish and Wildlife Service for the future.

In order to ensure consistent implementation of the organizational structure at both the Regional and Washington Office levels, the Service Directorate will be meeting again on March 22, 1998 to discuss this matter in further detail. Employees are encouraged to participate by providing input to their managers for this upcoming meeting to ensure complete consideration is given to all aspects of implementing this organizational structure.

OSU Recommendation 11: Strengthen the ecosystem focus at the Washington level by creating a Landscape Ecology Office at the Assistant Director level.

We do not agree that establishing a Landscape Ecology Office at the Assistant Director level in Washington is necessary. However, we believe that the Washington Office needs to support the Ecosystem Approach by providing an advocate for team process, a provider of cross regional information on team successes, and to provide information to the Service Director. To provide this support while not creating a new bureaucratic structure, the Assistant Directors will work together to provide a recommendation to the Directorate in March.

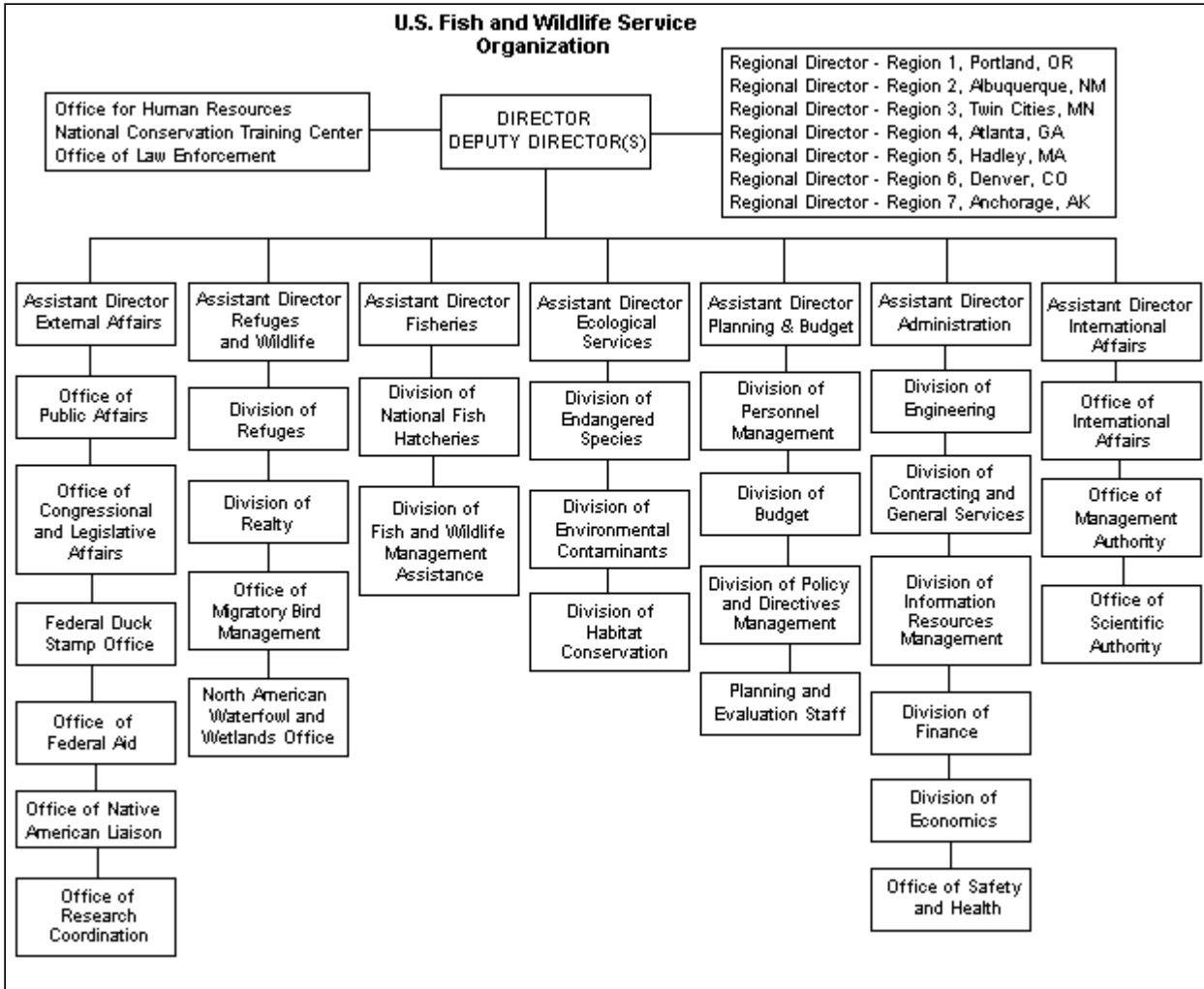
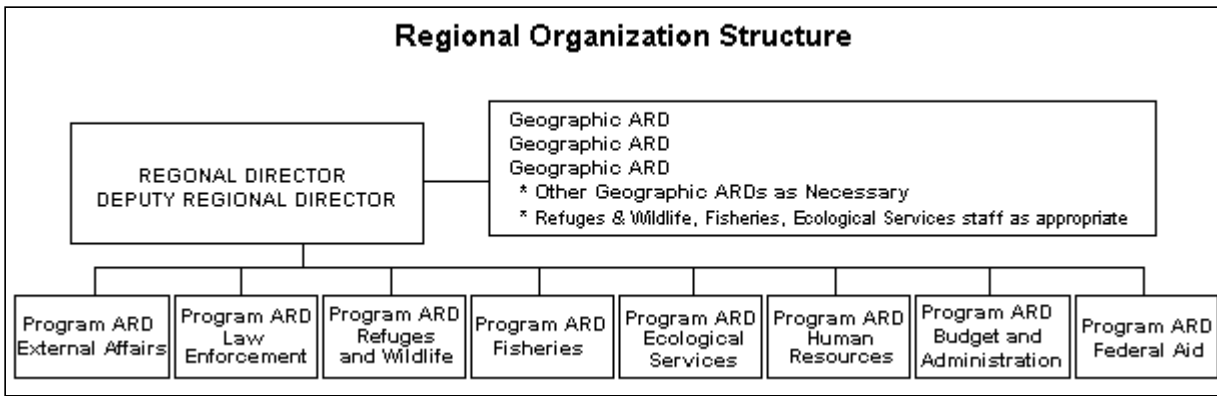
OSU Recommendation 12: Reconstitute the budget process.

We acknowledge the value of maintaining a budget structure that will continue to be recognized and supported by Congress. However, we recognize the results of the survey which recommend that we include ecosystem packages as identifiable units. We will seek additional methods to allow a greater participation in budget

development and allocation from the ecosystem teams. This will be explored further at the March 22 meeting of the Directorate.

We, the Directorate, want to thank you again for your participation in this assessment. We are grateful to OSU for completion of this study in a timely manner and providing us with a quality product that will be invaluable to us as we continue our Ecosystem Approach to Fish and Wildlife Conservation. The services of OSU are concluded, however, we may consider having them, or another consultant, to assist us in implementation and future evaluations of our agency's performance in responding to upcoming challenges. If you have questions or concerns regarding this study or the Directorate's decisions, please consult the appropriate managers in your Regional or Washington Offices.

We look forward to working together to ensure that the Fish and Wildlife Service remains the leader in species and habitat conservation as we evolve and adapt to meet the new challenges of the 21st Century.





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1A. Project Concept

The U.S. Fish and Wildlife Service, the only federal agency with a primary mission of conserving fish and wildlife resources and habitat, is in the midst of substantive change. This change revolves around the concept of the Ecosystem Approach to Fish and Wildlife Conservation. Ecosystem management, ecosystem approach, holistic landscape-scale management, and other related concepts have multiple interpretations, both biologically and sociopolitically. These interpretations and misinterpretations have major implications for those who advocate, lead, and manage change.

The U.S. Fish and Wildlife Service (FWS or Service) became in 1994-95 a lead federal agency in articulating and implementing *An Ecosystem Approach to Fish and Wildlife Conservation*. This action was part of a major federal initiative within the Executive Branch to revise government. The Service began work on the management concept in 1992 under the heading "biodiversity management" and in 1993 shifted to ecosystem management terminology. In 1994, the FWS Directorate adopted the concept of ecosystem management. By 1995, a formal Ecosystem Approach terminology and Service concept document were adopted.

On December 15, 1995, the Service (via signature of the U. S. Department of the Interior) formally joined with other federal agency partners in a "Memorandum of Understanding to Foster the Ecosystem Approach." The memorandum defines the ecosystem approach as:

A method for sustaining or restoring ecological systems and their functions and values. It is goal driven and it is based on a collaboratively developed vision applied within a geographic framework defined primarily by ecological boundaries. (Section 1 Definitions).

The goal of the Ecosystem Approach as stated in this interagency memorandum, was to:

restore and sustain the health, productivity, and biological diversity of ecosystems and the overall quality of life through a natural resource management approach that is fully integrated with social and economic goals.

Former Service Director Mollie Beattie (1996: 696-699) clearly articulated the Service's philosophy and action orientation in the journal *Ecological Applications* by stating:

Although many in the Service have been following some of these principles for years, formal adoption of an ecosystem approach has involved a shift in management focus beyond immediate, local problems and beyond political boundaries. To emphasize this change of focus, the Service delineated 53 ecosystem units based essentially on U. S. Geological Survey watersheds. These units provide a framework around which

to mobilize staff resources, organize budgets and help break down program barriers. But the Service has not simply traded in one set of boundaries for another. The management issues, the stakeholders and other interested parties and the ecological processes involved all influence the area to be studied and to which a management strategy will apply .

It is important to realize the Service is not abandoning its traditional activities and partners. We will still establish refuges to protect habitat and fish and wildlife populations in jeopardy, restore habitats, reduce environmental degradation and contamination, regulate the harvest of migratory birds, and provide technical assistance to private landowners. However, we are modifying our actions and encompassing them into a broader, overriding philosophy. The Service is accomplishing its objectives in a more coordinated fashion with greater input from a broader array of partners. We are also integrating information across multiple levels of organization. For example, a critically endangered species may still need immediate actions taken specifically to prevent its extinction, but at the same time, we will address the causes that led to its endangerment, which will ultimately help limit the necessity of future species listings under the Endangered Species Act.

This philosophy is in keeping with ecosystem science and management perspectives presented by the Ecological Society of America and by other federal agencies. The philosophy is also in keeping with a dominant social shift, in which stakeholding communities (place-based), and other stakeholders of interest are demanding a role in managing natural resources. This "ecosystem thinking and acting" philosophy also recognizes that federal resource management agencies need political support, moral support, and community/user cooperation to manage federal lands and to achieve nationwide goals.

The Service's *Ecosystem Approach to Fish and Wildlife Conservation* (February 1995) fully outlines the approach and articulates its goal as "the effective conservation of natural and biological diversity through perpetuation of dynamic, healthy ecosystems." This document evolved from a three year process involving stakeholders both internal and external to the Service.

Conceptually, the adoption and implementation of the Ecosystem Approach was intended to:

- Add a formal change to the role cross-program teams play (some teams were established prior to formal adoption of the *Ecosystem Approach to Fish and Wildlife Conservation* in 1995).
- Divide the nation into fifty-three ecological regions (based on the U.S. Geological Survey's Hydrological Unit Map).
- Institutionally realign the organization so program ARDs (Assistant Regional Director) also assumed the title and duties of Geographic Assistant Regional Directors with budgeting authority retained at the program level.
- Provide general direction for the different levels within the organization-- Cross-Program Ecosystem Teams, Cross-Region Ecosystem Teams, Regional Office (via Regional Facilities Teams), Washington Office Coordinating Team, and the Service Directorate.

The various organizational levels were charged to work together to:

- fulfill fish and wildlife needs in the context of the natural and human environment in which they occur,
- increase cross-program collaboration within the Service, and
- communicate, coordinate, and collaborate more frequently, more consistently, and more effectively with partners, affected stakeholders, and the public.

The approach, as a new concept, is more evolutionary than revolutionary. Ecosystem approach strategies that had shown promise in the past--teams, area office type activities, stakeholder relations and partnering, and cross boundary activities--were reorganized and incorporated as part of this holistic management thrust. New, however, was that these strategies were now the norm, not the exception, in the Service's way of conducting business.

Although the Ecosystem Approach may have been well conceptualized, limited guidance for implementation planning was provided. Implementation planning responsibility was placed at the regional level and regions were given the leeway to implement the cross-program teams, ARD/GARD positions, and the approach philosophy in a manner they deemed most appropriate.

Philosophically, the Service, according to Clarke and McCool (1997) was in less than an ideal state organizationally to make the substantive changes called for in an ecosystem approach. The authors characterized the Service as being "over committed" and poorly staffed and funded for the multiple mandates it had been given (Clarke and McCool, 1997). The Service was also dealing with downsizing and streamlining while trying to implement the Ecosystem Approach.

Responsibilities added to the Service mandate over the last two-plus decades, e.g., wetland protection and Endangered Species Act, although appropriate and useful management tools, added stress to the organization. Factors such as government downsizing, the societal trend of demanding more responsive government (with fewer real dollars), and political controversy over the role of federal government in resource management have the potential to disrupt the Service's efforts to change. Even today, Service personnel have great difficulty separating the impacts of the Ecosystem Approach from those of downsizing and other changes.

An agency that manages ninety-two million acres of the federal estate and numerous off-federal lands activities and is part of a one hundred billion dollar wildlife and fisheries related industry must be proactive. Such was the case when the Service made the commitment to test a new, rapidly evolving philosophy of management.

The Service did not enter this approach with a lack of knowledge of its organizational stresses. In fact, the Service has been characterized (Clarke and McCool 1997:107) as holding "the dubious honor of having the most chaotic organizational history" of the seven federal resource management organizations examined in their study. A history dating back to 1871 and a series of both introspective and externally driven assessments have left the Service with a good knowledge of its corporate culture. Outlined in Section IB is an evaluation history enumerating the various issues the Service has attempted to assess both formally and informally.

As part of that ongoing commitment to meet resource needs and societal demands, the Service deemed it appropriate to conduct a formative assessment of its Ecosystem Approach. From the outset of the Ecosystems Approach, evaluation has been called for because of the recognition that change is evolutionary and adjustments will be needed. Because the Ecosystem Approach is too new to have generated measurable fish and wildlife resource effects, proxy measures will need to be found.

In May 1997, Acting Service Director John Rogers advised all employees that a formal evaluation of the approach would begin in 1997 with an Oversight Committee guiding the activity. (See Appendix I for members). Rogers outlined the organizational issues, as identified earlier by the Geographic Assistant Regional Directors, as:

- Field employees feel they are not getting the support they were accustomed to receive under the previous organization.
- There is a lack of program knowledge and/or advocacy at the regional level.
- There is a sense that the Service is losing ability to be visionary, to advocate effectively, and to discuss programmatic needs with the Washington office.
- There is a need for organizational consistency between regions and the Washington office.
- There are continuing problems with budgeting within the current organizational context.
- There is too much concern with, and meetings about, process.

These initial issues and further reflection resulted in an evaluation contract with The Ohio State University (see Appendix II for contract).

As the evaluation began, a new Service Director, Jamie Rappaport-Clark, was appointed. In her formal swearing-in ceremony on September 16, 1997, Director Clark referred to the "difficult stretch" the Service has been through in recent years and affirmed that the Service is fully capable of and committed to carrying out its mission.

As the Service seeks to assess its effectiveness with the Ecosystem Approach, it is moving forward with strategic planning for the 21st century. On September 30, 1997, the Service submitted its Strategic Plan in compliance with the Government Performance and Results Act (GPRA). The Strategic Plan commits the Service to managing for:

- 1) the stability of fish and wildlife populations nationwide;
- 2) the conservation of a network of lands and water for habitat conservation;
- 3) an external orientation toward service to the American public, and
- 4) an internal orientation toward excellence in the work force.

Collectively, these goals, a myriad of legal mandates, societal expectations, and natural resource challenges create numerous ecosystem related opportunities and challenges. This assessment is one attempt among many by the Service to seize on

the opportunities associated with ecosystem thinking/landscape scale management and avoid as many of the pitfalls as possible.

Continue to the next part of Section I: [Evaluation History](#)



IB. Evaluation History

Many of the internal issues facing the FWS today are rooted in the history of the agency. The Ohio State University Assessment Team drew on thirty years of reports and studies of the FWS in designing an evaluation strategy. These studies, summarized below, focused on strengthening the National Wildlife Refuge System and, more recently, on the Service's Ecosystem Approach.

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In 1968, the Committee on Wildlife Management, appointed by Interior Secretary Stewart Udall and chaired by Starker Leopold, published a report titled *The National Wildlife Refuge System*. Published during a period of rapid growth of the refuge system, the report recommended strengthening the centralized management of the refuge system to improve policy consistency and to plan the growth of the system to meet national resource needs. Prioritization of public uses and acquisition of refuges for endangered species protection were also urged.

Recommendations on the Management of the National Wildlife Refuge System was published by The National Wildlife Refuge Study Task Force in 1979. The report recommended elevating the visibility of the National Wildlife Refuge System within FWS by creating an Assistant Director for Refuges. The report also stressed a need for more cooperation with outside stakeholders and better communication among refuge personnel.

Sponsored by Defenders of Wildlife and completed by the Commission on New Directions for the National Wildlife Refuge System, *Putting Wildlife First--Recommendations for Reforming Our Troubled Refuge System* was published in 1992. The study found that the refuge system had no clear purpose and was in need of an organic act, that the refuge system was buried in the FWS hierarchy, that planning was weak because system goals were not linked to station activities and, that planning had poor scientific basis. The Commission made several recommendations including: (a) restructuring to elevate the status of the refuge system, either by raising the system to a single program under a deputy director in FWS or by creating a separate agency, (b) using bioregional boundaries for organizing the system, (c) forming stakeholder linkages outside of refuge boundaries, (d) rewarding excellence in resource management, (e) using bioregional (GAP) data for refuge acquisition decisions, and (f) passage of an organic act for the refuge system.

As the Service was realigning organizationally to address ecosystem thinking in 1994, the TASC Quality Management Center completed an organizational study of the Refuges and Wildlife Division; these findings were published as the *Organizational Climate Assessment--Summary Report*. The sample size for this study was small, consisting mostly of Washington DC personnel. The study documented general confusion over "ecosystem management" in the Service, and the (then) new organizational manifestation of the Ecosystem Approach. The report found a need for stronger leadership and a clear vision for FWS. Also reported was a level of cynicism in the organization, in that promotions did not seem to be based on performance, poor performers were not dealt with, and there was a general lack of accountability. Recommendations included clearly defining "ecosystem management" in FWS, improving two way communication between all levels in the Service, rewarding

successes, dealing with non-performers, and clarifying the link between the FWS vision and work activities.

In May 1997, a study of the Service by The Ohio State University was published as *Ecosystem Approach to Fish and Wildlife Conservation: A Stakeholder Involvement and Training Needs Assessment* by Mullins, Spieles, and Stolz. The study found that the Ecosystem Approach was generally successful with respect to stakeholder involvement and improving public confidence in FWS. Personnel at GS-11 and below, and those located at field stations, were less involved in and less supportive of the Ecosystem Approach. The study recommended assessment of Service operations and program outcomes related to the Ecosystem Approach.

The Public Employees for Environmental Responsibility (PEER) published the *National Wildlife Refuge Manager Survey* in May 1997. This report was essentially an advocacy document for increasing funding and programmatic management of National Wildlife Refuges. The study illustrated a lack of support among refuge managers for the FWS organizational approach to ecosystem management and a concern for lack of programmatic leadership for refuges.

In August 1997, a memorandum was addressed to Director Jamie Clark, soon to be Service Director, titled *Campfire Note-- Strengthening the Refuge System*, from Refuge Managers. Signed by one hundred and twenty-five refuge managers and three regional refuge supervisors, this memorandum recommended eliminating the geographic supervision of refuges and elevating the management of the refuge system to Deputy Director level in Washington.

In addition to these national level assessments and reports, many regional reports have been completed (e.g., Region 2 employee survey), the Ecosystem Approach briefing book completed by the ecosystem coordinators in Region 3, the University of Massachusetts *Ecosystem Team Assessment* in Region 5, and the various regional "what works/what doesn't work" reports.

The findings from all of these reports generally described employee confusion and frustration with inefficiencies, a need for improved communication, a lack of strong leadership and vision, and a lack of commitment to the current organizational structure. Collectively these assessments have, to varying degrees, provided the Service with issues and ideas to aid in leadership and management decisions.

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I C. Project Sequence

In mid-1997, the Service decided to conduct a formative evaluation of the Ecosystem Approach. The following evaluation process was called for in a May 13, 1997 memo from Acting Director John Rogers to all employees:

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- Utilize outside contractors to develop/conduct a survey (contractor will have experience in evaluation of organizations and organizational structures).
- Use focus groups with Service project leaders and regional office staff who are part of or are affected by the ecosystem approach.
- Potentially include outside partners/stakeholders in survey (Administrative processes and costs may be factors).
- Maintain anonymity of respondents (or at least make anonymity optional).
- Consider ways of validating and cross-checking.
- Determine if individual wants can be identified in follow-up surveys.
- Provide opportunity for respondents to make comments on recommendations.
- Appoint Oversight Committee (see Appendix I for committee members). Assign Steve Rideout, National Ecosystem Coordinator from the Washington office, and Mike Meagher, Organization Development Specialist from Region 5, to staff the Committee.

The Oversight Committee, using background materials and guidance from the Directorate, formulated an action plan. A list was compiled of potential universities having evaluation expertise with resource management organizations and a Cooperative Fish and Wildlife Research Unit. After additional information was collected, The Ohio State University (Ecological Communication Lab/School of Natural Resources) and the Ohio Cooperative Fish and Wildlife Research Unit of the U. S. Geological Survey were contracted to conduct the study. Project work began July 15, 1997.

The University's Assessment Team included personnel with expertise in natural resource management, communications, business and administration, organization behavior (with private sector expertise), budgeting, and research methodology (see Appendix III for team credentials).

A July 1997, working meeting held at The Ohio State University provided an opportunity for the Oversight Committee and the Assessment Team to clarify strategy, define roles and responsibilities, design as unbiased a sampling strategy as possible, and establish guidelines to demonstrate to outside reviewers that analysis and interpretation were totally independent of the Service.

The Oversight Committee engaged in developing the questionnaires but did not approve the questionnaires or strike items from the instruments. All actions by the two groups were taken within their joint guidelines and to the satisfaction of both parties. The Oversight Committee/Assessment Team partnership was an effective arrangement.

On August 26, Director Clark advised all employees of the evaluation process that was to be carried out. The University was charged to use the following approach:

1. A one page survey form to all employees of FWS that will include an opportunity for open input
2. A more detailed survey to all project leaders and to regional office and Washington office staff that have been directly involved with or affected by the implementation of the Ecosystem Approach, including the geographic reorganization
3. Focus group interviews with randomly selected field project leaders, regional office staff in all regions, and the Washington office staff
4. Personal interviews with Regional Directorate (Regional Director, Deputy Regional Director, and all Assistant Regional Directors), and the Service Directorate (Director, Deputy Director, and all Assistant Directors) and their deputies who have been directly involved with or impacted by the implementation of the Ecosystem Approach, including the geographic reorganization
5. Letters to five hundred randomly selected external stakeholders.

The following questions were contracted to be specifically answered:

Is the ecosystem approach increasing our effectiveness in conserving fish and wildlife?

- What resource action successes have occurred since and because of the implementation of the Ecosystem Approach?
- What are the elements and processes that have led to these successes?
- In addition to answering these questions, the assessment team was to critically examine the organizational issues identified in the Acting Director's All Employee Memo of May 13, 1997 and in previous evaluations.
- Are there any new issues that are impacting the successful implementation of the Ecosystem Approach to Fish and Wildlife Conservation?
- What is the level of knowledge of and participation by FWS employees in the Ecosystem Approach to Fish and Wildlife Conservation?
- What actions should be taken to improve the effectiveness of Service ecosystem team?
- How can successful ideas and strategies be best shared among ecosystem teams?
- How has the geographic reorganization affected implementation of the Ecosystem Approach?
- Should the Service strive for more organizational consistency?
- What organizational structure best supports the Ecosystem Approach?
- What type of support from the regional and Washington offices is needed to assist implementation of the Ecosystem Approach?
- Is existing Service guidance on the Ecosystem Approach adequate and, if not, what needs to be added or changed?
- What changes in the implementation of the Ecosystem Approach are needed to make it work better for our employees and outside partners?

This study was not intended to be an organization climate or job satisfaction study, nor was it intended as a referendum on whether or not to keep the Ecosystem Approach. Rather, the assessment was designed to seek input on how to make the Ecosystem Approach more effective. To that end, an ambitious schedule was established by the Oversight Committee. While process initiation and guidance were a collaborative undertaking between the Oversight Committee and the University

Assessment Team, the Service was not involved once data collection began except as data sources, suppliers of background information and providers of logistical support. After data analysis and interpretation, the final report was submitted to the Director on January 31, 1998. The full Assessment Team participated in a February 1998 Directorate meeting to make the final presentation of the results and recommendations.

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I D. Terminology

The Ecosystem Approach terminology used through the Service varies widely. The Assessment Team has attempted to use a consistent set of terms throughout this report. The first of these is Ecosystem Approach. Many people use this term to refer to a landscape-based philosophy to fish and wildlife conservation. Others use it to refer to this philosophy and all the organizational changes made by the Service. The later is the meaning of the term as it appears in this report. When the philosophy alone is being referred to, the Assessment Team has included the words philosophy, perspective or mindset to so indicate.

Second, Service personnel use a variety of terms to refer to the geographic area within the responsibility of a GARD. Some regions call this an ecoregion, some use the term geographic area, others give it no generic name, but name each of these units. The Assessment Team has used the term "geographic area" to define the collection of ecosystems for which a GARD has responsibility. The ecosystems are the 52 areas the Service has defined using watershed boundaries as a guide.

Finally, Service personnel often use the terms stakeholder and partner synonymously. Others have very specific meanings for the terms and differentiate their usage. In this report the terms are used interchangeably, however the Assessment Team recommends that Service meanings and usage of the terms be examined in the future.

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End of Section I

II A. Ecosystem Management

Ecologically-informed management of natural resources is not new; as ecology and conservation biology have developed, so have ecosystem management thoughts and practices (McIntosh, 1985). Since the 1980s, the scientific and political communities have encouraged land management agencies to adopt ecosystem management practices (GAO, 1994). Many federal and state agencies (USFS, BLM, DOD) have attempted the changes associated with ecosystem management; however, the challenges have often been difficult to meet.

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Simply defining the intent and expectations associated with ecosystem management has been problematic. Grumbine (1994, 1996) has defined the concept by focusing on ten themes from the conservation ecology literature. Five of these themes are relevant to agencies trying to change their organizational practices to more fully encompass ecosystem management. These themes are 1) hierarchical context, 2) ecological boundaries, 3) interagency cooperation, 4) adaptive management, and 5) organization change. The first four will be described in the following paragraphs. The fifth, organization change, will be the focus of the next section. These themes are highly interrelated.

Grumbine's concept of hierarchical context relates not to the structure of an agency implementing ecosystem management, but to the way the agency focuses its efforts on the resource. Grumbine suggests that ecosystem management requires an agency to focus its efforts on many different levels. Some activity may be focused on localized issues of small scale (e.g. issues within a refuge), while others are focused on issues that cut across many administrative and political boundaries (e.g. waterfowl migration). The ability to define and work within appropriate ecological boundaries and to move effectively across political and ownership boundaries is a hallmark of successful ecosystem management. Within this context, operational boundaries are defined by issue, not by jurisdiction.

This type of activity suggests the next theme: interagency cooperation. Collaboration within institutions and between institutions is required to achieve resource management goals. Yaffee (1997) discusses how competition between natural resources agencies, fragmentation of responsibility and authority, and inefficient handling of the information needed to solve problems stand in the way of this much needed collaboration. Others describe the all too common occurrence of disputes between people and the organizations they represent overshadowing conflicts between human needs and nature (Christensen et al., 1996, Decker et al., 1996, Driver et al., 1996). Grumbine (1994) notes it is difficult for agencies to share power and influence in making successful partnerships without compromising scientific integrity. Agencies struggle to involve others actively (agencies, landowners, NGOs) in their efforts, and this in and of itself stands in the way of significant ecosystem accomplishments.

Adaptive management and successful leadership of change are among the keys to overcoming the barriers discussed (Grumbine, 1994). Adaptive management recognizes the current validity of scientific data, but also assumes that understanding of phenomena will continue to evolve with ongoing research. As such, managers are

expected to create organizations and people who are flexible, open-minded, and able to rapidly adjust to changing situations. As Knight and Meffe (two of the instructors of the FWS course *An Approach to Ecosystem Conservation*) wrote in 1997, "ecosystem management requires a change from the traditional top-down, hierarchical, risk-averse, boundary-oriented command and control approach. In its place, management of natural resources must be based on individual initiative, is risk taking, decentralization and partnerships." In essence, individuals and groups must be supported (through allocation of authority, money, and time) in creating partnerships and taking actions that most appropriately address the needs of the resource at all scales and across boundaries. This statement is in sharp contrast to the reality present in most resource management agencies. These agencies, based in bureaucratic structures, policies, and procedures, are maintained through funding mechanisms that reward compliance and predictability (Grumbine, 1994).

Despite the challenges, ecosystem management has been successful in some cases. Yaffee and his colleagues at the University of Michigan (1996) chronicled the results of numerous examples of sound ecosystem management and reported that in successful cases, communication and coordination had increased, resource management plans had been developed and implemented, and new decision making structures had been created within the agencies involved. Resource improvements were anticipated, although in most cases, it was much too early to measure such results.

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II B. Leadership of Organizational Change

"All of the principles (of ecosystem management) fly in the face of traditional administrative and political behavior, and that is the reason ecosystem management has not been the norm in the past (Yaffee, 1996)"

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How does an agency move toward a way of operating that is so foreign to its members and that violates so many of the existing ways of doing business? Such dramatic change takes time, leadership, and modifications in the people, financial, and operational systems that support the organization. It is difficult, if not impossible to estimate how long it will take an organization to change the way it does business. Bridges (1991) describes how organizations progress through changes as they come to grips with "letting go" of the past, moving through a "neutral zone" when things are very confusing and unsettling, and arriving at a point of "new beginning" where the past is a memory, but not the desired state. This process is evolutionary.

The process also takes leadership. Kotter (1996) discusses the importance of leadership in contrast to the actions of management. Management is a set of actions intended to increase predictability, stability, and control. The traditional functions of planning, budgeting, organizing, staffing, and problem solving are management behaviors--functions critical to the long term success of an organization. However, Kotter argues that periods of dramatic change require not just management, but leadership as well.

Grumbine (1994) also argues that leadership of change is critical if agencies are to adopt ecosystem management as their framework for the future. Leaders look beyond the demands and operations of today to create a vision for the future. They actively communicate this vision and rally others in positions of authority to help them make the vision a reality. Leaders destabilize the operations of the organization when they want to create change (Pritchett and Pound, 1993). Destabilization allows for the definition of a new set of expectations that will promote future organizational success. Leaders train others in these new behaviors and hold them accountable for demonstrating them.

Leaders must take a hard look at the way people are supervised, promoted and rewarded; how money is distributed; and how decisions are made, to ensure that these critical organizational systems are aligned with the vision (Kotter, 1996). In the many times when they are not aligned additional systems changes are needed. As these changes destabilize the organization, it becomes clear that the "game" is being played by a new set of rules.

During periods of change, people in positions of authority must balance their concerns for efficiency and control with their vision for the future. Their willingness to support the change and work through the ambiguity it creates differentiates between faddish change "programs" and real change that is difficult to reverse. The operational challenges that confound movement to ecosystem management will require persistent, committed leadership and changes in the fabric of resource management agencies (Knight and Meffe, 1997). Because these changes will upset

and confuse people and create operational problems, they will require tremendous efforts in communication and education and, most of all, time and increased perseverance.

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III A. Design Summary

The design of this study included utilization of varied sources of information, multiple data collection methods, and both qualitative and quantitative instrumentation. Data sources included purposeful samples of various stakeholder groups and the entire population of field, region, and Washington D.C. employees of the FWS as of October 1, 1997. Qualitative data were collected through focus group interviews, face-to-face interviews with individuals, and a letter to external stakeholders which included open-ended questions. Quantitative data were collected through questionnaires mailed to FWS employees. Triangulation of data sources, instruments, and methods assured a reasonably complete picture of the phenomena in question.

Data from these sources were analyzed separately. Results were then combined for reflection, implication determination, and recommendation development. The Assessment Team members worked independently, in sub-teams, and as a full team to design the study, gather the data, and analyze and interpret the findings. The recommendations for the report were developed utilizing all the analyzed data, background data from other sources, and the professional judgment of the Assessment Team.

Development of the two employee questionnaires and the protocol and questions for the interviews and focus groups began with a discussion of the thirteen items listed under "Deliverables" from the Research Work Order. The Assessment Team and the Oversight Committee discussed data needs. The Assessment Team developed sets of questions including questions for the field interviews and focus groups and shared them with the Oversight Committee, which commented and made recommendations. Question clarification and elaboration, and expansion of quantity of questions resulted.

While the scope of the items centered on the evaluation questions in the contract document, a number of new questions or components of questions were added to measure other constructs important to understanding the whole picture. The Oversight Committee also requested inclusion of additional questions to probe specific items.

Each of the data collection instruments will be discussed in the sections that follow.

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III B. The Questionnaires

The decision was made to survey all 8,029 Service employees to ensure each person had an opportunity to offer input. Employees who were assumed to have some level of program leadership relating to the Ecosystem Approach received a sixteen-page "Detailed" or long-form questionnaire (n =1,961). The long version contained a total of 28 different questions, some consisting of a single item. Most, however, consisted of multiple items. The short version contained a sub-set of the questions appearing on the long version. All other employees (n =6,068) received a "General" six-page form. (See Appendix IV for both questionnaires). Names were sorted into two lists from a Washington D. C. database. Based on the number of requests to re-send questionnaires after the initial mailing, approximately five percent of the addresses were incorrect.

Questionnaire items were written to reflect a series of variables. Both single item and multiple item formats were used to measure variables of interest. Response formats included five-point Likert and Likert-type scales, multiple response choice and yes/no formats. For purposes of some analyses, the Likert and Likert-type scales were assumed to be interval measures. Other items including demographic questions varied from nominal to interval. Some items with many categories, such as GS level, were assumed to be continuous for analytical purposes. (Refer to Appendix V for a description of each of the variables, their levels of measurement and representativeness.)

After all questionnaire items were developed, the Oversight Committee, some outside measurement experts, and the full Assessment Team reviewed the items for face and content validity. The panel of experts was asked to consider specific areas of focus including appropriate language, bias, miscommunication, quality of measurement, and complete coverage of each construct. Comments and suggestions for changes were incorporated by changing response formatting, rewording, eliminating, or adding additional items. Also, new variables were added at this time, new items were written to reflect these additions, and the reviews were conducted again with the same groups of individuals.

A pilot test was conducted using a sample of FWS employees in Region 7. Questionnaires were hand carried to the sample. Each individual was asked to complete the questionnaire and return it via U. S. mail to the Assessment Team in Columbus, Ohio. The return rate for the pilot test was 75% (24/30). Statistics were calculated on existing summated scales. Changes were made based upon resulting Cronbach's alphas for each scale. Alphas of 0.7 or above were required for inclusion.

Construct validity was confirmed using study data and a series of data analysis procedures including factor analysis. Specific constructs important to the study were identified, scales were developed, and internal consistency measures were calculated. Final Cronbach's alphas are shown in Appendix X.

Between October 13 and 20, 1997, both the long and short form questionnaires were mailed. Re-mailing due to inaccuracies in addresses, and slow delivery (bulk

rate mailing) delayed the last day to accept returned questionnaires to December 22, 1997, four weeks later than specified in the initial research plan.

Questionnaires were completed and returned to The Ohio State University. A return rate of 36% was achieved for short form questionnaire and 54% for long form. The cumulative return rate of 40%, while not ideal, was slightly higher than the 36% return rate achieved by the FWS stakeholder involvement and training needs assessment (Mullins, Spieles, and Stolz, 1997). Appendix VII includes a complete profile of the respondents. The most responses were received from Regions 1 (18%) and 4 (16.5%) and the least from Regions 7 (6.7%) and 9 (7.3%). Most respondents were from the program areas of Refuges and Wildlife (38.9%) and Ecological Services (20.2%). The majority (87.0%) of the respondents had worked in no more than two program areas in their Service career. Thirty-six percent of respondents reported working in more than one program during their careers. GS/GM level of respondents was reported as 12+ (35.4%), 11 (16.3%), 9 (7.4%) and 2-7 (15.9%).

Respondents' duty station by percentage of respondents was:

Sub-office/satellite office (4.0%)
 Field-office (66.6%)
 Regional office (20.4%)
 Washington DC office (6.1%)

The majority (56.5%) of respondents did not have supervisory responsibility in their current position. Most had not had supervisory responsibilities in a previous position.

The mean for years of employment with FWS was 11.9, with a mean of 5.8 years in their current position. The mean for years in the profession was 16.5. Table 1 shows the representativeness of the responses to the questionnaires.

The Assessment Team considers the entire questionnaire sample as fairly representative of the Service. Note should be taken of the fact that this study, while seeking representativeness, was not based on achieving a representative sample to show causality. The intent was to discover new themes and/or to confirm existing themes regarding the Ecosystem Approach raised through other Service input processes. These themes were then compared to other data source themes to better understand trends.

TABLE 1			
Characteristics	Service-wide Data	Respondents	Response Rate
Detailed Questionnaire**	1,961	1,062	54%
General Questionnaire	6,068	2,156	36%
Region 1*	1,766	578	33%
Region 2	753	280	37%

Region 3	952	461	48%
Region 4	1,217	517	42%
Region 5	864	430	50%
Region 6	1,018	410	40%
Region 7	638	214	34%
Region 9*	821	227	28%
Missing	--	101	--
ES	1,664	650	39%
FA	88	54	61%
FR	1,239	421	34%
LE	468	158	34%
RW	3,397	1,253	37%
All Others	1,173	579	49%
Missing	--	103	--
GS 1-5*	1,672	193	12%
GS 6-11	3,901	1,126	29%
GS 12+	2,456	1,140	46%
Missing/Not Codable	--	759	--
*under-represented			
** over-represented			

For data analysis, several statistical measures were used. Standard deviation was reported for all descriptive statistics to indicate the amount of variation in responses. ANOVA (analysis of variance) tested whether if the means of different groups were equal. This analysis helped identify where there were significant differences between groups of respondents. For continuous data, which approximated the variables of job grade and years of service, correlations were used. For both ANOVA and correlation analyses, a statistical significance level of 5% was applied, meaning that there was a 5% or less probability the result was achieved by random chance. For correlations, an additional condition that explained variance (r-squared) must be greater than 10% for inclusion.

Another statistical technique used in this assessment was factor analysis, which groups similar items by the way respondents answer a series of questions. For questions with many sub-items, this analysis groups items that tend to vary together. This provides an understanding of how the sample responding to the question viewed the items.

All Service personnel and stakeholders were given the opportunity of faxing responses to 614.292.7432, to convey their input via telephone (a dedicated project line to 614.292.3357) or to e-mail the messages to the project lab at ecolab@osu.com. These communications channels were seldom used to convey data, but a large number of telephone calls were received from Service employees requesting questionnaires or asking for clarification.

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III C. Interviews

Senior managers of the Service were identified as the focus for individual interviews. Individuals interviewed included members of the FWS Directorate, Deputy Assistant Directors, Deputy Regional Directors, Assistant Regional Directors, and Geographic Assistant Regional Directors. This group was estimated to include seventy-seven individuals. In keeping with the emergent philosophy of qualitative research, additional individuals were interviewed if they had a unique perspective on the Ecosystem Approach. Ninety-one interviews were conducted.

The interview protocol was developed by the Assessment Team. A panel of experts, consisting of the FWS Oversight Committee and other select FWS personnel, reviewed the instrument for construct and content validity. The instrument was field tested in Region 7. For ease of use, minor modifications were made in the ordering of questions and the nature of some of the probes.

The major interview questions were as follows:

- (1) Please describe your background and history with the Service. Please describe the role you are playing today. What are you held accountable for?
- (2) How would you describe the impact of the Ecosystem Approach on the Service?
- (3) What has been your experience with the ecosystem teams?
- (4) What's in it for people to adopt this new approach?
- (5) You put the GARDs in place two years ago; how has that impacted your communication with the field?
- (6) Can you tell me about some success stories that have resulted from use of the Ecosystem Approach? What made these efforts successful?
- (7) What do you think needs to be done to improve the effectiveness of the Ecosystem Approach?

To ensure data quality, a panel of experts consisting of the FWS Oversight Committee and some other selected FWS personnel reviewed the interview protocol for construct and content validity. The interview protocol was field tested in Region 7 for suitability. Data quality was tested and showed an inter-rater reliability of 92%. Interview questions were agreed upon by the Assessment Team. The Oversight Committee, which given earlier input into the process, agreed with the questions.

The interviewers, in keeping with the emergent design nature of the project, asked extensive follow-up questions and followed emerging themes and ideas, both within individual interviews and between interviewers.

Both interview and focus group results were content-analyzed for common themes. After final master list of themes was created, the interview and focus group results were re-analyzed, with qualification of themes. Written comments on questionnaires were also content analyzed using these themes. These themes are shown in Appendix VIII.

The interview subjects were deemed representative of senior management of the Service. Three people from the interview list were not interviewed because of

conflicting schedules. Also, because of ongoing changes in the organization, some interviewees were new incumbents in their positions, and thus were less familiar with the Ecosystem Approach. They often responded based on their former positions rather than their current responsibility.

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III D. The Focus Group Interviews

A total of two hundred and fifteen people participated in the focus group interviews. The project design called for twenty focus groups, consisting of seven to ten people each. Groups from which focus group participants would be drawn were identified as Washington Office Division Chiefs, Washington Office support staff, regional field Project Leaders in each region, Regional Office staff in each region, one group each of a programmatic Project Leaders from each region for Ecological Services, Wildlife and Refuges, and Fisheries, and a group consisting of regional ecosystem coordinators. During the project, nine additional focus groups were added; the final summary of focus groups convened is summarized below:

	Washington	Regions	Cross-Region
WO Division Chiefs	2	-	-
Office Support Staff	1	10	1
Field Project Leaders	-	8	3
Field Staff	-	3	-
NCTC Staff	1	-	-
Total Focus Groups: 29			

A peer selection process was used to choose focus group participants in order to minimize selection bias with respect to valence of opinions. However, the selection process may have selected for personnel who had higher strength of opinion and/or for individuals seen as vocal opinion leaders. For this reason, the data generated from the focus groups were probably indicative of the breadth of opinion and ideas in the Service, but represented greater than average strength of opinion. See Appendix IX for a description of the focus group selection process.

Focus group discussions were guided by four questions, as follow:

- (1) What impact is the Ecosystem Approach having on your effectiveness in conserving fish and wildlife?
- (2) What impact is the Ecosystem Approach having on your effectiveness in forming and maintaining partnerships with external stakeholders?
- (3) What impact is the Ecosystem Approach having on cross-program collaboration within the Service?
- (4) What do you think needs to be done to increase the positive impact of the Ecosystem Approach?

A panel of experts, consisting of the FWS Oversight Committee and other selected FWS personnel checked the construct and content validity of the focus group protocol developed by the Assessment Team. The two Assessment Team members leading the focus group changed roles between facilitator and note-taker to reduce facilitator bias. After each session the facilitator summarized what was heard and this was checked against the recorded notes to remove inconsistencies.

The two hour focus group sessions involved participants in a discussion around four questions. After introductory comments about the purpose of the Ecosystem Approach evaluation process, the facilitator asked each participant to complete a short worksheet that included the four questions (See Appendix IV). Participants were asked to use the worksheet to record ideas and answers to the questions that they wanted to ensure were raised during the discussion.

Each group was instructed to discuss the answers to the four questions and that the facilitator would keep the conversation focused and would record their answers on flip charts. They were also told the note-taker would be capturing a summary of the conversation, and highlighting stories and anecdotes. Participants were assured that no comments would be attributed to individuals in the evaluation report. They were asked to respect the comments of other participants by not attributing statements when asked about their experience in the focus group interview.

At the end of the focus group discussions, participants were asked to indicate their level of agreement with and support for the items generated under each of the four questions. Each person was given three "dots" and asked to place them on the flip charts next to the items for which they felt the most support. They could use their dots on each of three items, or group them into one or two items. None of the items generated in the discussion were eliminated from the list during data analysis, but the voting helped indicate strength of agreement, especially for contradictory items on the lists. (This closure exercise is a modification of traditional focus group strategies). The dot votes were used to develop a strength of agreement measure. Strength of agreement could vary from 1.0 to 3.0, with 1.00 to 1.40 considered weak, 1.41 to 1.79 considered medium and 1.80 to 3.00 considered strong.

Two final questions were asked of each focus group at the conclusion of the session. Each person was asked to indicate on the worksheet (a) the degree to which they felt comfortable sharing their opinions in the group discussion, and (b) the degree to which he/she would feel comfortable sharing these opinions with regional or national level FWS management. For both questions, a 1-5 scale was used, with 1 being "very comfortable" and 5 being "not at all comfortable." When asked to rate their comfort with expressing their views during the session, participants gave an average score of 1.38 indicating that the format and facilitation of the focus group interviews encouraged open, honest participation.

Both interviews and focus group results were content-analyzed for common themes. A final, master list of themes was created; then the interview and focus group results were re-analyzed, with qualification of themes. Written comments on questionnaires were also content analyzed using these themes. These themes are shown in Appendix VIII.

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III E. The Stakeholder Letters

External stakeholders were included in the study. Initially a total of five hundred individuals or groups were to be randomly selected across all regions. After compilation of lists submitted by all regions, eight hundred and eighty-seven letters were sent. Approximately fifteen percent of the letters were returned because of inaccurate addresses. Approximately one half of those returned included the postal service forwarding address and were repackaged and mailed again.

Stakeholders received a letter drafted jointly by the Assessment Team and the Oversight Committee. Effort was made to focus respondents on the open-end questions about ecosystem issues while giving them enough leeway to structure their responses around their experiences and knowledge. External reviewers, editors, two natural resource faculty and three graduate students in The Ohio State University School of Natural Resources helped refine the letter (see letter in Appendix IV).

Of the eight hundred and eighty-seven stakeholder letters mailed, 84 responses were received in written or fax form and five telephone interviews, resulting in a total response rate of 10.0%.

Stakeholder response was poor and not representative (across regions, state government, citizen groups, industry). The high returns of incorrect addresses indicated the lists were outdated and were not being used on a regular basis. This response rate was low, but it was consistent with that experienced when the Service asked for stakeholders' comments before instituting the Ecosystem Approach in 1994-95.

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IV A. Introduction

The Findings (IV) are presented around four global research questions:

1. How is the Ecosystem Approach conceptualized and operationalized in the Service?
2. How has the Ecosystem Approach been implemented in the Service and what are the impacts on the agency?
3. What are the Ecosystem Approach outcomes identified in this assessment?
4. What adjustments are needed to better support the Service's Ecosystem Approach?

These four questions are based on the questions from the FWS/OSU contract, including the issues raised in the Acting Director's All Employee memo dated 5/13/97. Appendix VI shows a matrix of how the contract questions relate to these four global questions.

The global questions are a framework for presenting and discussing the findings of this assessment. It is important to keep in mind that each piece of data is important; however, all data must be analyzed in the context of entire constructs. Over-analysis of any one piece of data may result in violation of measurement assumptions of the study, or may result in becoming sidetracked by one item and ignoring the dominant themes from the findings.

Appendix VII provides a complete frequency listing for the questionnaire generated data. Where a number of questionnaire items make up one large question, it is because these were written as sets to jointly measure one construct. For example, Question 11 in Section Four provides three constructs made up from the twenty-one items. It is the summed score/mean that is meaningful, not any one item. Qualitative data from the interviews and focus groups can be found in Appendix VIII.

In each section that follows, a global question is answered first with relevant quantitative data from the questionnaires. Qualitative themes from the questionnaire comments, from the interviews, and from the focus groups are then presented. The focus group themes include a strength of agreement measure, (weak, medium, strong) that indicates how the focus groups "voted" on each theme during a closure exercise. Finally, a summary answer is presented for the global question. Representative anecdotal comments also appear in both the quantitative and qualitative sections. These comments, which came from interviews, focus groups, and other conversations with Service personnel, add depth and character to the interpretation of the findings.

Data were gathered using a large number of questions. Some questions were treated as single item questions, but most were not. New scores were created for sets of questions based on a prior decision, or as the result of factor analysis.

Table 2 presents the data collected, with construct conversions, using the question number from the long form. (All short form data were merged with long form data.)

Because questions were asked in different order in the two questionnaires, readers should refer to question numbers from the "Detailed Questionnaire" in Appendix IV. Constructs appear where several items from a question were combined to measure one phenomenon. Data were recoded where necessary to show negative/poor/wrong/not desirable/unsatisfied as the low score.

TABLE 2	
Data Collected from Questionnaires	
Q1.	What is the current knowledge of personnel of the Ecosystem Approach?
Q2.	To what extent have personnel been involved with an Ecosystem Approach?
Q3.	To what extent can personnel distinguish EA changes from other organizational changes? Construct 1: Correct items (3.1, 3.4, 3.5, 3.6, 3.8, 3.9, 3.10, 3.11, 3.12) Construct 2: Incorrect items - non-EA changes (3.2, 3.3, 3.7)
Q4.	Are these changes to the Service having a positive or negative effect on everyday work?
Q5.	Have organizational communication methods been effective communicating change?
Q6.	How do personnel rate the existing guidance on the Ecosystem Approach? Item 1: Washington Guidance Item 2: Regional Guidance
Q7.	How do personnel rate the Service's success at attainment for 17 agency goals? Construct 1: Success before 1994 Construct 2: Success currently Construct 3: Change in success between 1994 and currently
Q8.	To what extent have specific EA changes affected FWS attainment of 17 agency goals? Construct 1: Hurt/helped by cross program teams Construct 2: Hurt/helped by change from ARDs to GARDs
Q9.	What are Service personnel attitudes toward EA components? Construct 1: GARDs (9.5, 9.9, 9.13, 9.16) Construct 2: Ecosystem teams (9.2, 9.6, 9.10, 9.11, 9.15) Construct 3: General Ecosystem Approach (9.1, 9.3, 9.4, 9.7, 9.8, 9.12, 9.14)
Q10.	Were you previously, and are you now on an ecosystem team?
Q11.	What have been members' experience with ecosystem teams? Construct 1: Team operations (11.1, 11.2, 11.3, 11.6, 11.7, 11.11, 11.16, 11.17, 11.18, 11.19) Construct 2: Team outcomes (11.4, 11.5, 11.13, 11.14, 11.15) Construct 3: Team support (11.8, 11.9, 11.10, 11.12, 11.20, 11.21)
Q12.	What are personnel knowledge and training needs for specific aspects of EA implementation? Construct 1: Current knowledge level Construct 2: Desired training

Q13.	What are Ecosystem Approach resource successes, and what are critical success factors?
Q14.	<p>What changes would personnel like to see in the organizational aspects of EA implementation?</p> <p>Construct 1: Organizational consistency between regions (14.2, 14.7)</p> <p>Construct 2: Organizational consistency between Washington office and regions (14.1, 14.9)</p> <p>Construct 3: Align budget responsibility with supervisory responsibility (14.3, 14.5)</p> <p>Construct 4: Maintain cross-program teams (14.4, 14.6)</p> <p>Construct 5: Continue to combine program ARD with GARD positions (14.8, 14.10)</p>
Q15.	<p>What is the job satisfaction of Service personnel?</p> <p>Construct 1: Organizational climate (15.6, 15.8, 15.10, 15.11, 15.19)</p> <p>Construct 2: The work itself (15.14, 15.15, 15.16, 15.17)</p> <p>Construct 3: Reward systems (15.2, 15.4, 15.5, 15.7)</p> <p>Construct 4: Support (15.3, 15.9, 15.12, 15.13, 15.18)</p> <p>Construct 5: Training (15.1)</p>
Q16.	Which job satisfaction items are most important in FWS?
Q17 - Q27.	Demographics of respondents

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IV B. Global Question 1

How is the Ecosystem Approach conceptualized and operationalized in the Service?

The ability of any organization to institute change is partially based on participants' understanding of the concept and associated change process. From an Ecosystem Approach (EA) perspective this global question centers on clarity of definition, level of participation, and planning issues relevant to the Service's efforts to implement an Ecosystem Approach to Fish and Wildlife Conservation.

Quantitative Findings

Most participants (37.1%) rated their level of knowledge about the Ecosystem Approach (EA) as 3 on a scale of 1 = low to 5 = high (Question 1). The mean for all respondents was 3.2 ("I have a general understanding of this approach") with a standard deviation (s.d.) of 1.0 (n=3,176). In analyzing this perceived level of knowledge by the demographics, (demographics are defined by Questions 17 through 27 on the detailed questionnaire), there was a trend toward increased understanding of the approach with years of service in FWS; people who had worked for the Service longer tended to report greater knowledge (15% explained variance). There was no significant difference in how respondents rated their knowledge based on GS-level, supervisory role, station, region, or program area.

In Question 12, ten EA-related concepts were presented and respondents were asked to self-report their current knowledge/ability level. The mean rating for the ten items was 3.62 (s.d. = 0.66) on a 1 to 5 scale, indicating a modest understanding of the concepts. Fewer than 50% of the respondents answered this question. When asked "Do you desire additional training?" (1=no, 3=maybe, 5=yes), the mean response for the same ten items was 2.74 (s.d. = 1.04). Again, fewer than 50% of the respondents answered this question. When the individual items were analyzed to ascertain whether any specific training needs were indicated, there were no significant differences between the choices. Either Service personnel did not feel a need for training about the Ecosystem Approach specifically, or placed little value on training generally. However, the large standard deviation for the desired training items indicated that many, though not most, respondents did desire additional training.

Early in the assessment it became clear that Service personnel might be having difficulty in distinguishing aspects of the Ecosystem Approach implementation from other organizational changes. In an effort to assess the extent to which personnel were able to distinguish between EA activities and other Service changes, all employees were asked which of twelve changes "do you directly attribute to the Ecosystem Approach?" Three items (Q3.2, Q3.3, and Q3.7) were scored as not being (routinely) part of the Ecosystem Approach and the other nine items were considered part of the approach (Q3.13 was not numerically scored). Right/wrong calculations were made. By not marking items Q3.2, 3.3, and 3.7, and marking the other nine items, a respondent could score a +12. All incorrect answers would score a -12. The mean correct score was 1.5 (s.d. = 4.3). Demographically, there were no statistical differences in how respondents answered this question. These answers showed that

employees did not usually distinguish between changes made to implement the Ecosystem Approach and other changes, such as downsizing and reassignment of personnel. Thus, it can be expected that attitudes toward these other changes will affect attitudes toward the Ecosystem Approach.

The same 12 items used in Q3 were used to assess employee attitudes toward the various changes the Service has undergone (Q4). Respondents rated each change from 1 = negative effect on their everyday work to 3 = positive effect on their everyday work. The mean score for the nine items that represented changes made to enhance implementation of the Ecosystem Approach was 2.24 (s.d. = 0.21), while the mean score for the non-EA changes was 1.70 (s.d. = 0.24). Thus, employees tended to see the EA changes as a whole as having a somewhat positive effect on their everyday work, and tended to see the other changes as having a negative effect. However, as shown in Question 3, employees were not able to distinguish which of these changes were attributable to the Ecosystem Approach.

To more fully understand how employees rated the impact of FWS changes on their everyday work, the responses from Q4 were factor analyzed. This statistical technique grouped items that tended to vary together across respondents; constructs were built from similarities. Two factors emerged from the responses from Q4, as shown in Table 3. The first factor covered EA philosophy, partnerships, biological and socioeconomic bases for decisions, adaptive management, and completion of cross-program projects. It reflected an "Ecosystem Philosophy Focus." Respondents rated this factor favorably, with a mean of 2.53 (s.d. = 0.24). Ecosystem Philosophy Focus, when analyzed by demographics, showed that personnel stationed at Regional and Washington offices rated this factor higher than other personnel, both with means of 2.60 (s.d. = 0.43). Programmatically, External Affairs personnel rated this factor most favorably with a mean of 2.85 (s.d. = 0.43), and Law Enforcement personnel rated it least favorably, with a mean of 2.38 (s.d. = 0.43).

TABLE 3	
Q4 - Effect on Daily Work	
Factor 1: Ecosystem Philosophy Focus	
4.8 - Focus on landscape-scale issues	
4.9 - Emphasis on external partnerships	
4.10 - Emphasis on biological and socioeconomic aspects	
4.11 - Practicing adaptive management	
4.12 - Increased number of completed cross-program projects	
Factor 2: Organizational Focus	
4.1 - Change from ARDs to GARDs	
4.2 - Reassignment of personnel to different stations	
4.3 - Changes in programmatic responsibilities for some personnel	
4.5 - Shifts in budget allocations	
4.6 - Some personnel reporting to new supervisors	

The second factor found in the analysis consisted of the change to GARDs, reassignment of personnel, changes in programmatic responsibilities, changes in

budget allocations, and changes in supervisors. This factor was named "Organizational Focus." Respondents rated this factor unfavorably, with a mean of 1.89 (s.d. = 0.26). Organizational Focus, when analyzed by demographics, showed that Washington office personnel rated this factor nearly neutral, with a mean of 1.99 (s.d. = 0.57). By program, personnel from External Affairs rated this factor favorably, with a mean score of 2.18 (s.d. = 0.54), and personnel from Refuges and Wildlife rated this factor most negatively, with a mean score of 1.70 (s.d. = 0.54).

The Ecosystem Philosophy Focus and Organizational Focus factors were not predetermined, rather, they arose from the responses to the questionnaire. That FWS personnel rated the Ecosystem Theory Focus as having a positive impact on their work, and rated the Organizational Focus as having a negative impact on their work is supported by the themes found in the qualitative data, as discussed in the next section. One Service manager, when asked about the Ecosystem Approach, said "It's great; the problem is we've been downsized, right-sized, damn near capsized."

Understanding one's self-perception of involvement in an innovation is an important measure of adoption. When asked the question "To what extent have you been involved in an Ecosystem Approach?" (Q2), the mean score was 2.8 on a five-point scale. Standard deviation was 1.3. Of the 3,130 employees who answered this question, 1,323 (42.3%) responded 1 ("not at all") or 2. Only 931 (29.7%) responded 5 ("to a great extent") or 4. When viewed by demographics, there was no significant difference by region, program area, station, or supervisory role. However, there was a statistically significant difference based on tenure with the Service. Personnel with longer years of service reported that they had been more involved than those with less tenure (explained variance = 15%). This finding indicates that a large group of Service employees were not involved in the Ecosystem Approach. Comments from the focus groups and questionnaires confirmed this finding. Many project leaders indicated they had not involved their program staff in EA activities; instead, they had chosen to shield them from an initiative they feared was a "fad of the month."

Qualitative Findings

The n (responses) and percentages in the qualitative findings represent statements made in open discussion, not responses to closed-ended questions. Thus, a 40% response does not mean that 60% disagreed, but only that 40% made this comment in an open-ended context.

While FWS personnel supported the philosophy of EA, they expressed the view that the definition of EA within the Service was unclear. Of the focus groups, 59% (17 of 29) stated that the definition of EA was unclear, they often expressed frustration with the Service's focus on organization rather than on resource actions. One group stated that "FWS has focused on organizational context rather than philosophical; we don't all have the same idea of EA." This theme had a medium strength of agreement in the focus groups. Only 3% (3 of 91) of interviewees stated that the definition of EA was unclear, otherwise clarity of definition was not mentioned by interviewees.

This concern about the definition of EA was clearly demonstrated by the initial conversations that took place in almost every focus group. Focus group participants invariably asked the Assessment Team members facilitating their session to define

the Ecosystem Approach. In an attempt to determine how Service personnel were defining EA, the facilitators chose not to define it, but to ask the group to define it. A lengthy conversation or even argument generally ensued, which meant the facilitators had to offer the definition that appears in the questionnaires. One focus group participant commented that "This is the first definition of the Ecosystem Approach I have ever seen." This frequent occurrence was a clear demonstration that the Ecosystem Approach and its intent were misunderstood.

Service partners, in their letters to the Assessment Team, also stated that the Service has no policy guidelines on the Ecosystem Approach. It is not clear whether this is an observation from these stakeholders, or if it is a result of FWS personnel sharing their frustrations with these external stakeholders.

Although FWS personnel had concerns about the level of understanding for EA, they generally expressed support for the philosophy associated with it. Thirty-nine percent (9 of 29) of the focus groups reported that the philosophy of EA was positive, with a high strength of agreement. Note that this theme of agreement with EA was not offset by a theme of disagreement--themes were not matched sets. Sample focus group comments were "EA is a good approach to natural resources management" and "the ecological focus is good." Interviewees, including individuals from all programs, levels, and all regions also supported the philosophy of EA; 25% (23 of 91) stated this theme directly. Also, this was one of the most common written comments on the questionnaires. This finding supports the quantitative findings, as demonstrated by the favorable rating for the Ecosystem Philosophy Focus factor discussed earlier.

Summary for Global Question 1

The findings presented under Global Question 1 (How is the Ecosystem Approach conceptualized and operationalized in the Service?) indicate that Service personnel have a wide variety of definitions for the Ecosystem Approach. Some define it simply as a concept of how resources should be managed, while others associate it with a whole set of organizational changes. Individuals generally have a positive attitude toward the conceptual aspects of EA, yet a negative impression of the organizational changes made to operationalize it. Regardless of three years of EA implementation, nearly half of the Service seems not to have been involved to a great extent in EA-related activities.

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IV. C. Global Question 2

How has the Ecosystem Approach been implemented in the Service and what are the impacts on the agency?

As shown under Global Question 1, Service personnel have an unfavorable view of many of the internal changes that have occurred in FWS, even though they tend to support the philosophy of the Ecosystem Approach. In this section, the process and impact of change on the organization will be explored more fully. While change always causes strong emotional reactions, how change is implemented can affect how those emotional reactions impact the outcomes of the change.

The following specific issues will be addressed in the upcoming paragraphs: 1) the degree to which personnel have been impacted by Service communication about EA, 2) the degree to which EA has been integrated into daily work, and 3) perceptions of leadership and accountability for EA.

Quantitative Finding

As shown under Global Question 1, 42.3% of the respondents had little or no involvement in the Ecosystem Approach. This lack of involvement directly impacted their understanding and acceptance of the change process. While direct involvement in a change process may be the most important component of change acceptance, communication is a close second. Communication of the critical changes associated with EA were assessed with Question 5.

In Question 5, respondents were given a list of ten organizational communication media and asked from which they had received information concerning two of the major organizational changes associated with the implementation of the Ecosystem Approach: 1) the implementation of ecosystem teams, and 2) the change from programmatic ARDs to Geographic ARDs. They were asked to determine to what extent 1) they had been introduced to these changes through the ten media, and 2) if they received ongoing information about the change through these media. Of the ten media identified for each change, the mean number of blocks checked by respondents was 2.89. When the scores were viewed demographically, the Washington office (3.66) and Regional office (5.34) staffs were significantly higher than field station (2.10) and substation (1.98) personnel. Likewise, higher GS level personnel reported higher numbers of communication, as shown in Table 4.

TABLE 4	
Organizational Communication by GS Level	
<u>GS Level</u>	<u>Mean Media Checked</u>
9	0.19
11	0.60
12	2.75
13	4.70

14	5.56
15	7.66

By program, higher communication scores were reported by respondents in External Affairs (4.11), Federal Aid (4.64), and Refuges and Wildlife (3.26). Law Enforcement personnel reported the lowest mean score of 2.05.

In addition to the general sources and flow of information measured in Q5, respondents were asked in Q6 to rate the quality of EA guidance from the Washington and Regional offices. Respondents rated guidance from Washington at a mean of 1.8 (s.d. = 0.9) on a five point scale (1 = poor; 5 = excellent). Guidance from the Region rated a mean of 2.3 (s.d. = 1.0) on the same scale. Although the scores for Regional office guidance were slightly higher than those for Washington office guidance, both scores indicated a perceived lack of guidance from management about the Ecosystem Approach.

As shown under Global Question 1, FWS personnel have strong concerns and negative opinions about the organizational aspects of the Service's implementation of the Ecosystem Approach. Specifically, the creation of Geographic Assistant Regional Directors (GARDs) was viewed negatively. In Question 9, respondents gave low scores for attitude toward the concept of GARDs (see Global Question 3 for a complete discussion of Question 9). Similarly, Question 8B asked respondents to rate whether the change to GARDs had hurt (score of 1), had no effect (2) or helped (score of 3) the Service achieve 17 goals. The mean score was 1.87, indicating that personnel believe the change to GARDs hurt the ability of the Service to achieve its goals.

Although job satisfaction can be affected by many things, the Assessment Team was interested in measuring Service personnel job satisfaction level currently, compared to recollections of four years earlier. Many individuals in the focus groups indicated that job satisfaction had been negatively impacted by the organizational changes associated with EA.

Job satisfaction, and how it has changed since the introduction of the Ecosystem Approach was measured in the questionnaire. Question 15B asked about current satisfaction levels along five constructs (1 = not satisfied, 5 = very satisfied). In order to understand how satisfaction for these five constructs had changed, respondents were asked in Q15A to think back four years and tell whether these items are now (1) worse, (2) the same, or (3) better. Table 5 shows these results.

Construct	Satisfaction Today (1-5)	Comparison Pre-1994 (1-3)
Climate	x =3.04 (s.d. = 0.89)	x =1.93 (s.d. = 0.49)
Work Itself	x =3.29 (s.d. = 0.82)	x =1.97 (s.d. = 0.45)
Rewards and Recognition	x =3.13 (s.d. = 0.80)	x =1.95 (s.d. = 0.39)
Support	x =2.56 (s.d. = 0.86)	x =1.74 (s.d. = 0.48)

Training Opportunity	$\bar{x} = 3.58$ (s.d. = 1.03)	$\bar{x} = 2.04$ (s.d. = 0.51)
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Overall, employees' perception of organizational climate was in the middle in terms of satisfaction level and was the same as pre-1994. The work itself continued to be a source of satisfaction in both instances. Rewards and recognition, like climate, were in the middle of the scales. In terms of support, there was a negative feeling for job satisfaction and the perception that support had declined since pre-1994. Respondents were satisfied with training opportunities, as they were four years earlier.

Analyzing the Satisfaction Today results for demographic trends, Refuges and Wildlife (RW) personnel reported the lowest satisfaction with the work itself, with a mean of 3.20 (s.d. = 0.82), along with Ecological Services with a mean of 3.25 (s.d. = 0.82); Human Resources (HR) reported the highest with a mean of 3.89 (s.d. = 0.82). Regional Office personnel reported higher satisfaction with Training Opportunities with a mean of 3.82 (s.d. = 1.13). Satisfaction with Support was lowest in the field and sub-offices with means of 2.41 (s.d. = 0.85), and highest in Washington at a mean of 2.81 (s.d. = 0.85). It was higher with non-supervisors (mean = 2.79, s.d. = 0.85) than supervisors (mean = 2.47, s.d. = 0.85). Analyzing the Comparison pre-1994 data for demographic trends, ES and RW report that the work itself was worse (means of 1.91 and 1.93, s.d. = 0.44), while EA and HR reported it is better (means of 2.18 and 2.21, s.d. = 0.44). Sub-office personnel reported that rewards were worse (mean = 1.81, s.d. = 0.39).

Q16A asked what element in the items from the job satisfaction list (19 questions) were the first, second, and third most important to the respondent. The three most chosen responses were first, "your opportunity in your daily job to have a positive impact upon the protection of fish and wildlife resources," second "the meaningfulness of your daily work," and third "working with a good supervisor." Two other popular choices were "strong support for your program responsibilities" and "operating in an atmosphere of trust."

Qualitative Findings

Participants in the interviews and focus groups also felt strongly that FWS had not integrated EA into the way work was carried out. They felt it was treated as an additional stand-alone effort. Of the focus groups, 66% (19 of 29) reported this observation, with medium strength of agreement. Groups stated that program managers had repackaged projects to fit ecosystems, the teams were not inclusive, and EA was going away. Thirty-four percent (31 of 91) of interviewees reported this set of comments, including 73% of the Refuges and Wildlife personnel interviewed. Some of the questionnaires also included this theme in the written comments.

Many examples of the Ecosystem Approach not being integrated into the daily business of the Service were shared with Assessment Team members. Service personnel cited statements from Washington office officials like "I don't care about that ecosystem crap, where are the program accomplishments?" or lack of consideration of team efforts as evidence that EA was not important. Others talked about EA and team activities as something separate and different from their "normal" jobs, and they resented spending the time associated with these efforts.

Stakeholder letters and interviews also highlighted the belief that EA was not integrated into the "normal" work of the Service. Partners commented that there was still a lack of planning in the Service, and that the agency remained a top-down organization. Specifically, several stakeholders commented that while FWS professed holistic management, national wildlife refuges continued to manage on a species-by-species basis. Perhaps the most telling comment was from a federal agency regional office that stated those personnel were not aware the Service's region in their locale was engaged in ecosystem-level activities.

Three important themes dealt with concerns from personnel regarding the effect of the Ecosystem Approach implementation on the Service. First, 90% (26 of 29) of focus groups, with a medium strength of agreement, stated that personnel were confused, and gave as examples that people were confused about where to route mail, who should be on a surname list, and whom to call about a specific issue. Of the interviewees, 60% (54 of 91) said that people in the Service were confused and many of the written comments in the questionnaires expressed this view. In a private interview, however, one manager said that "people are confused because they want to be."

Another concern with EA implementation was that the reorganization had led to a loss of technical focus, expertise, and consistency in the Service. Fifty-nine percent (17 of 29) of the focus groups reported this theme, with medium strength of agreement; 48% (43 of 91) of the interview subjects expressed this concern, including 100% of interviewees from Refuges and Wildlife and 71% of the interviewees from Ecological Services. This theme also appeared in the written comments in the questionnaires. Concerns were expressed over GARDs supervising personnel from other programs, poor decision-making, confusion over priorities, lack of program advocacy, and loss of policy consistency. A frequent comment in the focus groups was that employees wanted to report to a supervisor with more technical knowledge than the employee.

The third strong theme was that personnel were frustrated by inefficiencies in the organization that were viewed as arising from the EA implementation. Forty-eight percent (43 of 91) of the interview subjects expressed this frustration, including 80% from Refuges and Wildlife and 71% from Ecological Services; 57% of Regional Directors interviewed expressed this view. Of the focus groups, 66% (19 of 29) stated this theme, with a medium strength of agreement. Frustration with inefficiency was the second most common written comment in the questionnaires. Causes of inefficiencies were reported as too many people being involved in decisions, too much effort involved in communicating, and too much effort expended in accomplishment reporting.

The people who provided data were split on whether the organizational realignment was required to achieve the goals of EA. Of the focus groups 79% (23 to 29), reported with a strong strength of agreement, that the objectives of EA could have been achieved without changing to geographic supervision. None of the focus groups felt that the reorganization was required. In the personal interviews, 18% (16 of 91) of the respondents believed that the reorganization was not needed, while 14% (13 of 91) of interview subjects stated this theme, including 93% of people interviewed from Refuges and Wildlife. In the questionnaires, many of the written comments

suggested that the reorganization was not required to implement the Ecosystem Approach.

In addition to the organizational concerns noted above, a strong theme emerged regarding the lack of leadership, guidance, and accountability in the Service. Of the focus groups, 59% (17 of 29), with a medium strength of agreement, stated that leadership, guidance, and accountability were lacking in the Service. Thirty-one percent (28 of 91) of interviewees also reported this theme, including personnel from all regions and all programs. Written comments about a lack of leadership and accountability were the most common in the questionnaires. Stakeholders went further, some commenting that problems with the Ecosystem Approach were more problems with leadership than with philosophy or structure.

Employees also reported that the Ecosystem Approach had empowered FWS personnel. Twenty-eight percent of the focus groups (8 of 29) reported this theme, with a weak strength of agreement. Of the interview subjects, 10% (9 of 91) reported that Service employees were more empowered than in the past, especially at the field level. Some employees saw this as positive, while others felt abandoned. One impact of this was when Service partners, in their letters to the Assessment Team, commented that morale in the Service was low, and it showed when stakeholders collaborated with FWS.

The qualitative data also showed that the budget process was not consistent with the EA philosophy or its implementation through the teams. Seventeen percent (5 of 29) of the focus groups stated this theme, with a strong strength of agreement. Nine percent (8 of 91) of the interviewees made this observation. It was also included in some of the written comments in the questionnaires.

Global Question 2 Summary

The overall message from the findings from Global Question 2 (How has the Ecosystem Approach been implemented in the Service and what are the impacts on the agency?) is that EA as a concept, and the activities associated with it, have not been integrated into the normal daily business of the Service. A high percentage of personnel have little involvement in EA and few of the communication channels have been used effectively to help people define and understand EA from a common perspective. However, there is strong concern that the organizational changes that accompanied the EA implementation led to confusion, inefficiency, and loss of expertise. Many personnel do not believe their leaders have adequately led the implementation of EA, provided guidance, or held people accountable to new standards of performance.

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IV. D Global Question 3

What Are the Ecosystem Approach Outcomes Identified by this Assessment?

Global Questions 1 and 2 focused on the actions the Service has taken to implement the Ecosystem Approach to Fish and Wildlife Conservation and the current state of that effort. Global Question 3 begins to address the degree to which the stated goals of EA are being achieved. Perceptions of Service personnel and stakeholders will be presented in answer to this question.

The Service had three stated goals for the Ecosystem Approach: 1) improved effectiveness in conserving fish and wildlife resources, 2) increased cross-program coordination, and 3) more effective partnerships with external stakeholders. The degree to which people feel each of these is being accomplished will be examined in the pages that follow.

Quantitative Findings

The analysis of Service Ecosystem Approach goal accomplishment begins with Question 7, which asked respondents to rate how successful FWS was at accomplishing 17 goals before 1994, and how successful FWS was meeting those goals currently on a 1 to 5 scale. For the pre-1994 items, respondents had a mean score of 3.21, while for the current situation they had a mean score of 2.89. This shows that employees believed the Service was somewhat less effective in achieving its goals than four years ago. To better understand this phenomenon, the pre-1994 scores were subtracted from the current situation scores to derive a score showing how the respondents believed the Service had changed in achieving these goals since 1994. The resulting scale ranged from -4 (the Service has gone from Very Successful to Not Successful) to +4 (The Service has gone from Not Successful to Very Successful). These data were then factor analyzed.

The first factor found in the analysis reflected "Meeting External Goals." These items included external partnerships, cross-program collaboration, protecting fish and wildlife resources, serving FWS customers, and Service methods to achieve these goals, as shown in Table 6. This factor was rated as slightly improved since 1994, with a mean of 0.02 (s.d. = 0.78) on a -4 to +4 scale.

The second factor reflected "Meeting Internal Goals." These items included internal communications, employee satisfaction, decision making, and policy implementation, as shown in Table 6. Because of very low response rates on several of these items, further statistical analysis of this factor is inappropriate. The only conclusion that can be drawn from the data is that personnel view the items from this factor differently than the first factor.

TABLE 6
Q7 - Service Goal Attainment

Factor 1 - Meeting External Goals

- Q7.1 Creating external partnerships
- Q7.2 Maintaining and enhancing existing external partnerships
- Q7.3 Being successful with cross-program collaboration
- Q7.6 Conserving fish and wildlife resources
- Q7.7 Providing assistance to FWS customers
- Q7.8 Being creative in solving problems
- Q7.11 Fostering feelings of employees being successful
- Q7.12 Promoting employee involvement in decisions
- Q7.13 Focusing limited resources on priority needs
- Q7.14 Fostering understanding of resource issues in cross-program areas
- Q7.17 Creating a situation where people can do their jobs

Factor 2 - Meeting Internal Goals

- Q7.4 Communicating effectively between Regional and field offices
- Q7.5 Communicating effectively between Washington and Regional offices
- Q7.7 Providing assistance to FWS customers
- Q7.9 Maintaining and enhancing employee satisfaction
- Q7.10 Communicating effectively within offices
- Q7.11 Fostering feelings of employees being successful
- Q7.12 Promoting employee involvement in decisions
- Q7.13 Focusing limited resources on priority needs
- Q7.15 Ensuring consistent policy management
- Q7.17 Creating a situation where people can do their jobs

Some of the individual items in Question 7 provided insight into these phenomena. In order to evaluate whether the following items were significantly different so that they could be analyzed separately, t-tests were used. Most items were not statistically different, but the following items were significant at a $p=.05$ level: 1) Conserving fish and wildlife resources (Q7.6), while viewed as successful both before 1994 and currently, had deteriorated during the four years from a mean score of 3.69 to a mean score of 3.43. 2) Being successful with cross-program collaboration and coordination within FWS (Q7.3) has improved from a mean score of 2.65 for pre-1994 to a mean score of 3.22 for the current situation. 3) Similarly, fostering an understanding of important resource issues in cross-program areas (Q7.14) also improved from a mean of 2.74 pre-1994 to 3.22 for the current situation. 4) Maintaining and enhancing current partnerships with external organizations (Q7.2) had improved, from a mean score of 3.35 before 1994 to 3.46 currently.

In Q9, the 16 questions were designed to measure respondents' attitudes toward three issues--1) ecosystem teams, 2) the Ecosystem Approach generally, and 3) supervision by GARDs. Items were scored on a 1 to 5 scale, with 1 = very poor attitude toward, and 5 = very good attitude toward. Attitude toward ecosystem teams was the most positive of the three issues with a mean of 3.16 (s.d. = 0.82). The Ecosystem Approach received a mean rating of 2.69 (s.d. = 0.71), and the concept ARD/GARD had a mean of 2.32 (s.d. = 0.84). These results showed that personnel had a generally favorable attitude toward ecosystem teams, but held neutral to unfavorable attitudes toward the Ecosystem Approach in general and toward supervision by GARDs in

particular.

In Question 13, respondents were asked to name a resource action success in which they had been involved. No answer was provided by 61% of the respondents. Another 25% of the respondents provided an answer that was not identifiable (for example, they said "purchased land for a refuge"). Table 7 lists the five most named resource action successes. Respondents were also asked to rate to what extent the implementation of the Ecosystem Approach contributed to the identified resource action success (on a scale from 1 = not at all, to 5 = to a great extent). The mean score for respondents who named a resource action success was 2.5 (s.d. 1.5). A score of 1, meaning the success was not at all attributable to EA, was given by 41.9% of the respondents. Mean scores are shown for the top five named resource actions in Table 7.

<u>Success</u>	<u>Respondents Naming</u>	<u>To What Extent Did EA Contribute?*</u>
Ohio River Valley Mussel Team	14	4.6
Region 1 Salmon Production	5	1.6
Northwest Forest Plan	5	3.4
Platte River	4	3.3
Salton Sea	4	3.0
* 1 = not at all, 5 = to a great extent		

Question 13 also included an open-ended question asking for respondents to identify the factors that contributed to the named success. The most frequently named success factors are shown in Table 8. The table shows percentage of respondents who answered the question and who identified each factor. Because some respondents identified more than one factor, the total exceeds 100%.

<u>Named Success Factor</u>	<u>Percent of Respondents</u>
Working with partners and stakeholders	42%
X-program contributions and support	24%
Secured project funds	14%
Good teamwork	13%
Good communication	10%
X-program identification of priorities	9%
Management Support	6%
Good leadership	4%
Trust building	2%

Attitudes toward teams (from Question 9) were somewhat positive; this result analyzed by demographics indicated that personnel from Refuges and Wildlife (mean = 3.07, s.d. = 0.80) had a lower mean attitude toward ecosystem teams than personnel from Ecological Services (mean = 3.22, s.d. = 0.85) on a 1 to 5 scale. Personnel from the Washington office (mean = 3.42, s.d. = 0.84) and Regional offices (mean = 3.29, s.d. = 0.84) had higher mean attitudes toward ecosystem teams than did personnel in field offices (mean = 3.10, s.d. = 0.81) and sub-offices (mean = 3.18, s.d. = 0.81).

Although teams were viewed somewhat favorably, respondents indicated that their impact on FWS' accomplishing its mission (Question 8A) was negative. A mean score of 1.86 (s.d. = 0.35) was reported on a three-point scale (1 = hurt, 2 = neither, and 3 = helped) calculated from the sum of responses to seventeen questions about outcomes from ecosystem teams. Analyzing this result by demographics, personnel from Refuges and Wildlife had the lowest mean (1.82, s.d. = 0.35), while those from External Affairs (2.03, s.d. = 0.35) and Human Resources (2.01, s.d. = 0.35) had the highest means for how teams impacted FWS in meeting its mission (these were statistically significant differences). The Assessment Teams heard many comments, particularly in the focus groups, that the time project leaders spent in team meetings was time away from working on the resource, and that money spent in travel was taking away from vital resource projects. An often heard comment was that teams spent \$50,000 trying to determine how to spend \$15,000.

Question 10 provided a basis for better understanding cross-program team functions and who, with what team experience, held which perception of ecosystem teams. Respondents were asked to indicate whether they had 1) never served on a team, 2) were serving on their first team, 3) had served on a team in the past but not currently, or 4) were serving on a team and had served on a different one in the past. This categorization allowed better understanding of the team experience. For Question 8A on how ecosystem teams have impacted the Service's ability to achieve its mission, respondents serving on their first team scored highest (mean = 1.94 on a 1 to 3 scale, s.d. = 0.36), followed by personnel serving on a team but not their first (mean = 1.93, s.d. = 0.36), and then by respondents no longer serving on a team (mean = 1.85, s.d. = 0.36).

In Question 11, respondents who had served on ecosystem teams were asked to rate their experience around three constructs: team operations, team support, and team outcomes. On a 1 to 5 scale (1 = unsuccessful and 5 = very successful), respondents rated team operations at a mean score of 3.24 (s.d. = 0.82) and team outcomes at 3.15 (s.d. = 0.91). These results indicated that despite concerns about the impact of teams on FWS mission accomplishment, respondents saw their teams as somewhat successful at operating and achieving results. Respondents rated support for teams at a mean of 2.49 (s.d. = 0.83), indicating that they believed their teams were underfunded, had inadequate resources, and lacked guidance. Table 9 shows these items compared by levels of participation from Q10. Respondents who were not currently on a team, but had served on a team in the past, consistently rated their experiences lower than respondents who were currently serving on teams. This may be an indication that as more teams operated and gained experience, they had become more effective. Comments about teams, particularly in the focus groups, confirmed this interpretation.

	<u>Operations</u>	<u>Support*</u>	<u>Outcomes</u>
Group 1	3.05	2.40	2.88
Group 2	3.32	2.56	3.25
Group 3	<u>3.30</u>	<u>2.46</u>	<u>3.25</u>
Mean, all groups	3.24	2.49	3.15

Scale: 1 = unsuccessful experience, 5 = very successful experience

Group 1 - not currently on a team, but was in the past
 Group 2 - currently on a team, on another in the past
 Group 3 - currently on first team

* - Differences between groups for Support are not statistically significant

Qualitative Finding

The Service's Ecosystem Approach was deemed to have benefitted the resource. In the focus groups, 66% (19 of 29) said that EA had benefitted the resource, with strong strength of agreement. Only 8% of (7 of 91) interview subjects stated this theme. This theme was only occasionally mentioned in the written comments in the questionnaires. Contrary to this finding, some stakeholders expressed a concern that the Service was not employing the "best science" in conserving fish and wildlife resources.

Interviewees were asked to name one or more FWS resource action successes that were either attributable to the Ecosystem Approach or attributable to the principles of EA. They provided 49 different resource action successes; the most commonly named ones are shown below (number of times noted in parentheses):

Ohio River Valley (16)
 Roanoke River (7)
 Upper Colorado River (4)
 Blackfoot Challenge (4)
 Texas Gulf Coast (4)
 Kenai River (4)

With respect to the impact of EA on the resource, the data also showed a concern over ecosystem boundaries. Forty-one percent (12 of 29) of the focus groups stated concerns that current ecosystem boundaries were inappropriate, with weak strength of agreement. Of the interview subjects, 5.6 % (5 of 91) were concerned about ecosystem boundaries. The most common concern about ecosystem boundaries was that watersheds do not correspond to resource issues. Stakeholders also expressed concerns about ecosystem boundaries. They stated that Service boundaries often do not match issues, or, in the case of state agencies, do not match state boundaries.

Both interview and focus group data showed a strong theme that the FWS is developing personnel with stronger cross-program knowledge and a willingness to act cross-programmatically. Ninety percent (26 of 29) of focus groups reported this theme, with a medium strength of agreement. Focus groups reported that more

communications across programs were occurring and that personnel were working across programs and did support each other. Interviewees concurred, with 68% (61 of 91) expressing this theme, including 100% of interviewees from Refuges and Wildlife, 100% from Ecological Services, and 100% of Regional Directors.

Cross-program work was usually operationalized as ecosystem teams by personnel in the focus groups and interviews. Two contradictory themes were reported in the qualitative data concerning teams. The first, that teams were meeting and were productive, was reported in 31% (9 of 29) of the focus groups, with a medium strength of agreement. Sample focus group comments were that "team meetings are useful to avoid surprises" and "teams are sharing staff and resources." Of the interviewees, 29% (26 of 91) reported this theme. The second theme was that teams were not meeting or are in trouble. Fifty-nine percent (17 of 29) of focus groups reported this theme, with medium strength of agreement; 40% (36 of 91) of interview subjects stated this theme. Comments expressed included "teams are dysfunctional," "teams are forced to meet", and "teams are not clear about their purpose."

Three themes, with respect to external partnerships, were identified from the qualitative data. An observation that more attention had been placed on partnerships, and they are improving in quality and quantity, was identified by 59% (28 of 29) of focus groups with a medium strength of agreement, and by 26% (25 of 91) of interviewees. A few of the written comments in the questionnaires supported this theme. In contrast, 97% (28 of 29) of focus groups reported that partnerships were more difficult now than pre-EA, with a strong strength of agreement. Only 17% (15 of 91) of interviewees reported this theme; several people were in Federal Aid. Finally, 38% (11 of 29) of focus groups reported that there had been no change in partnering, with a strong strength of agreement. Only 8% (7 of 91) interviewees reported this theme.

These data, plus the comments made to Assessment Team members, portrayed an increasing concern for partnerships, but an admitted lack of skill in creating them. Service personnel talked about the need to form partnerships to fund needed resource efforts. However, they also talked about how difficult it was to form formal partnerships by involving partners in teams. Many personnel said that they had good informal relationships ("talking over coffee") with local partners, but they struggled to reach out to partners who were less friendly to the Service. None of these comments was attributed to the Ecosystem Approach, although many persons felt that the focus on partnerships within EA was putting pressure on them to involve partners in "unnatural" ways (e.g., in teams, in discussions of ecosystem vs. issues, etc.).

The stakeholder letters provided another insight into partnerships. Eighty-nine stakeholder responses were received. Most of these stakeholders addressed specific local issues and many added overall assessment or global perspectives.

Overall, stakeholders were appreciative of the efforts made by the Service to work more collaboratively. Twenty-one partnership successes were pointed out. One respondent described the partnerships as "a sense of friendship and helping hands." Most felt that it was too soon to see major resource successes but teams and "ecosystem thinking" were viewed as being good approaches. A few people pointed

out that downsizing, loss of funding, etc. may have offset the benefits achieved from the Ecosystem Approach. After the generally complimentary approach to partnerships, teams, and ecosystem thinking, an array of concerns was presented. Almost all concerns were the same as the themes voiced in the employee feedback.

Two issues were raised concerning barriers to partnerships with the Service. Stakeholders mentioned that GARDs had not necessarily been single points of contact (one-stop shopping), in that they lacked a budget, they lacked expertise in all program areas, and they typically could not address cross-ecosystem issues. Second, national-level stakeholders stated that the differences in regional organizational structures confused them and hindered communications.

There was a high error rate in the stakeholder addresses provided to the Assessment Team. Approximately 15% of the stakeholder letters were returned because of inaccurate or expired addresses; this may indicate a lack of emphasis on maintaining stakeholder communications. In addition, the low response rate (10%) from stakeholders also indicated a lack of interest in and/or experience of stakeholders with the Service's Ecosystem Approach.

Although the number of responses from stakeholders was less than desirable, their comments were rich and insightful. Unlike the employee data that sought rigor in data collection and analysis, responses to letters did not reflect those controls. That the stakeholder feedback paralleled both the quantitative and qualitative employee data indicate that the stakeholder respondents perceived what the employees were perceiving or that Service employees are communicating their concerns externally. In all likelihood, both were occurring.

Global Question 3 Summary

The findings from Global Question 3 (What Are the Ecosystem Approach Outcomes Identified by this Assessment?) are summarized as follows:

Resource successes: While it is too early to accurately measure resource success from the Ecosystem Approach, it was felt that EA is benefiting the resource, and both personnel and stakeholders were able to identify specific cases where the Ecosystem Approach, or similar principles, had contributed to a resource action success. However, most employees could not name a resource action success, or they named successes that were not attributable to the Ecosystem Approach. The most named factor in EA successes was working with partners. Concern was expressed over ecosystem boundaries not matching those of other agencies, and not matching critical issues.

Cross-program collaboration: Ecosystem teams were viewed somewhat favorably by employees, with current team members having the most favorable views. While these teams have been successful in achieving some outcomes, much concern was expressed over lack of support for the teams. Furthermore, there appeared to be wide variation in team experiences, with some teams working quite well, and others working poorly, if at all.

Partnerships: While stakeholder partnerships were seen as one of the most important contributors to success stories, there seemed to be a lack of emphasis on developing partnerships by Service personnel. Stakeholders who have been involved in Service projects are generally pleased with the approach, although they see many of the same problems reported by FWS personnel.

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IV E. Global Question 4

What Adjustments are Needed to Better Support the Service's Ecosystem Approach?

Given the current status of the Ecosystem Approach in the Service, this question investigates structural, form issues. Also, specific suggestions from personnel for strengthening the Ecosystem Approach are reviewed.

Quantitative Findings

To help respondents consider various ways FWS could better conserve fish and wildlife resources (organize or reorganize was purposely left out of the question), ten statements, representing five possible ways to adjust the Ecosystem Approach were offered to respondents (Question 14). Choosing among these items, respondents made the following recommendations:

	<u>Yes</u>	<u>No</u>
• Structure all levels of the organization the same:	65.5%	25.2%
• Organize all regions the same:	55.7%	22.6%
• Align budget responsibilities with supervisor responsibilities:	53.2%	15.7%
• Continue with cross-program teams:	48.9%	13.1%
• Continue to combine programmatic ARD and GARD duties:	17.5%	40.6%

These percentages do not total to 100% because many respondents contradicted themselves in their responses (by checking neither the positive nor negative response, or sometimes both responses for each recommendation). Another 9.3% responded by checking the statement that they did not care how the Service is organized.

Qualitative Findings

Twelve recommendations were identified in the data, as summarized in Table 10. These recommendations came from interviews, focus groups, stakeholders, and written comments on the questionnaires.

TABLE 10	
Recommendations from FWS Personnel	
1.	Increase staffing levels in the Regional Office and/or field.
2.	Require consistent organizational structure across regions.
3.	Realign the Washington office to better support the Ecosystem Approach.
4.	Return to programmatic supervision.

5.	Implement a full geographic supervision.
6.	Separate geographic and programmatic supervision into different positions.
7.	Decide on an organizational structure and support it, whatever it is.
8.	Better define the Ecosystem Approach in FWS, and improve planning around the concept.
9.	Hold leaders accountable for the Ecosystem Approach.
10.	Increase importance of forming external partnerships.
11.	Keep ecosystem teams, and provide them better support.
12.	Re-evaluate ecosystem boundaries.

1) Staffing levels in the RO or field should be increased. This was expressed by 34% (10 of 29) of the focus groups, with a medium strength of agreement, and by 18% of the interviewees. This recommendation also appeared in written comments in the questionnaires. Personnel felt either that not enough staff were in the field to accomplish minimum work requirements, or that the Regional offices were understaffed to the point that not enough experts were available to support the field.

2) Require consistency of organizational structure across regions. Thirty-one percent (9 of 29) of the focus groups stated this, with a weak strength of agreement, and 26% (23 of 91) of the interviewees recommended it. Two percent (2 of 91) of the interviewees specifically stated that regional consistency should not be required. That regions should have consistent organizational structures was echoed in the written comments on the questionnaires. This recommendation was often expressed in combination with frustration about knowing whom to contact in each region.

3) With respect to the Washington office (WO) structure, 17% (5 of 29) of the focus groups recommended realigning the WO to better support the EA, with a strong strength of agreement. Only 4% (4 of 91) of the interviewees made this recommendation, and 2% (2 of 91) expressed the recommendation that the WO should not be realigned. Many of the written comments in the questionnaires supported realigning the Washington office to support the Ecosystem Approach. When field and Regional office personnel suggested changing the structure of the Washington office, they often could not identify a better structure, but they felt that some change was needed.

4) Return to programmatic supervision: Ninety-three percent of the focus groups stated this theme, with a strong strength of agreement. Of the interviewees, 28% (25 of 91) made this recommendation, including 73% of Refuges and Wildlife personnel. This was the second most common recommendation in the written comments from the questionnaires. Contrary to this finding, nine percent (8 of 91) of the interviewees specifically recommended not returning to programmatic supervision.

5) Some personnel preferred to adopt a fully geographic supervision organizational structure: Twenty-one (6 of 29) of the focus groups stated this recommendation, with a medium strength of agreement. Of the interviewees, 3% (3 of 91) made this recommendation, while one recommended against it. Both recommendations were found in the written comments from the questionnaires.

6) No focus groups recommended separate geographic and program supervision. But, 6% (6 of 91) of the interview subjects recommend that FWS use both geographic and programmatic ARDs rather than combining the functions in one manager. Finally,

10% (9 of 21) of interviewees recommended not changing the organizational structure at all.

7) Another theme about organization structure was that the Service needed to make a decision and move on. This was expressed as "I don't care about structure; just do something!" In the focus groups, 48 % (15 of 29) expressed this view, with medium strength of agreement. Ten percent (9 of 91) of the interview subjects made this recommendation. Written comments in the questionnaires also expressed this theme.

8) Interviewees and focus group participants made recommendations for increasing support for and understanding of the Ecosystem Approach. They stated that the FWS needed to improve strategic and technical planning. Seventy-six percent (22 of 29) of the focus groups recommended strengthening planning with a medium strength of agreement; this included "re-examine the goals of EA," "better define priorities", and "define values and then do strategic planning." Thirteen percent (12 of 91) of interviewees also recommended improving strategic and tactical planning. Written comments in the questionnaires often reflected this recommendation. Focus groups also recommended that the meaning of EA in the context of FWS be more clearly defined. Forty-five percent (13 of 29) expressed this theme, although with a low strength of agreement. Only 3% (3 of 91) interviewees recommended clarifying the definition of EA. Interviewees did recommend that better education and clearer guidance about EA be provided. Twenty-four percent (7 of 29) focus groups stated this theme, with a strong strength of agreement, and 11.1% (10 of 91) of interviewees also expressed this idea. Written comments in the questionnaires also expressed this recommendation. Another suggestion was to improve cross-program communication and understanding; 59% (17 of 29) of focus groups reported this theme with a weak strength of agreement. Nine percent (8 of 91) of interview subjects made this recommendation. This recommendation was also found in the written comments in the questionnaires.

9) Interviewees and focus group participants made suggestions regarding leadership in the Service: Seventy-two (21 of 29) percent of the focus groups recommended holding managers accountable for actions supporting EA, with a medium strength of agreement; 37% of interview subjects expressed the same sentiment. This recommendation was often included in written comments in the questionnaires. People stated that EA should be part of performance plans and that the Directorate should visibly support EA. As shown in Global Question 2, FWS leaders were observed to not support the Ecosystem Approach; personnel stated that holding managers accountable for EA implementation would greatly improve the success "on the ground."

10) Improving partnerships was often recommended: Of the focus groups, 59% (17 of 29) made this recommendation, with a weak strength of agreement, and 13% (12 of 91) of interviewees made this suggestion.

11) Two clear team recommendations emerged in the data: The first was a recommendation that ecosystem teams be kept. Of the focus groups 97% (28 of 29) recommended that teams be kept, with a medium strength of agreement. Focus group ideas included providing funds for teams, re-forming teams around issues, and being more inclusive of Service personnel. Of the interview subjects, 41% (37 of 91) gave this recommendation. This theme was especially strong from interviewees in Refuges and Wildlife (67%) and Regional Directors (71%). These themes were the strongest in the written comments in the questionnaires.

12) Finally, it was recommended that ecosystem boundaries be re-evaluated. Twenty-four percent (7 of 29) of focus groups made this recommendation, with weak strength of agreement, and 7% (6 of 91) of interview subjects voiced this recommendation. Reasons offered for making this re-evaluation varied; common examples were to make ecosystem boundaries match issues, to make boundaries match other agencies' boundaries, or to match state boundaries.

External stakeholders also made several recommendation in their letters to the Assessment Team. Major stakeholder themes are summarized below:

- Engage in planning and include stakeholders as equal partners
- Recognize limitations and restrictions with which stakeholders must deal
- Regions must aid ecosystem type activities
- Train GARDs and give them resources; often GARDs are not well-prepared to lead planning activities
- Train teams in how to function
- Offer more mentoring, direction, and leadership needed
- Train Refuge Managers in the Ecosystem Approach
- Focus on funding and culture, not organizational structure

Global Question 4 Summary

There was much concern among FWS employees about organizational issues. The implementation of GARDs as middle managers in the Service was seen as hindering the ability of the Service to achieve its mission. Loss of technical expertise and creation of policy inconsistencies were of particular concern to employees. There was strong sentiment for the Service to eliminate the GARD role, and unite budget and supervisory responsibility. Employees also desired more consistency among the regional organizations, and between the regional and Washington structures. It was strongly recommended that Ecosystem Teams remain active.

Many other recommendations were made in interviews and focus groups. These ranged from recommendations about FWS function, such as to improve planning, to FWS form, such as returning to programmatic supervision. In general, more sentiment was evident for structural, rather than procedural, recommendations.

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V A. Introduction

The evaluation data collected from interviews, focus groups, questionnaires, and stakeholder letters were reviewed in Chapter IV. Each source of data provided insights into the actions people would like to see the Service implement. This section of the report amplifies those recommendations with the professional judgment of the Assessment Team. The result is a set of actions that will move the Service forward with its agenda of operating from an Ecosystem Approach philosophy while refining the organizational processes and structure.

Organizations are like organisms. The more fully the form of the organism or its components follows the function for which it is intended, the more effectively and efficiently it can accomplish that function. As such, these recommendations do address the form or structure of the Service, but focus even more heavily on creating the direction, guidance, and leadership behaviors that will make the structure operational. Without both pieces, the form and the function working in concert, the agency's future will be a rocky one.

One additional perspective should be noted. The unprecedented change the Service has experienced in the past three years is not likely to subside. Increases in mandated work, media and Congressional attention, conflicting partner demands, and changes in leadership are all likely to continue. Peter Vaill (1989), noted author on leadership and organizational change, likens the environment of most modern organizations to "permanent whitewater." While in the past organizations could look forward to periods of change followed by periods of stability, Vaill describes the successful organization of today as one that is constantly adapting to the external pressures impacting it. This behavior is much like a living organism that is able to survive in the wild.

This constant sense of adaptation will be unsettling to many in the Service. Technical experts, like those working for the Service, pride themselves on their ability to solve problems once and move on. A constant need for change signals to them that problems were not solved satisfactorily in the past and that change is an outgrowth of leadership incompetence. Such is not the case in organizational science. Adaptive management and evolutionary planning will be the norm if the Ecosystem Approach philosophy is to be operationalized successfully and if the Service is to flourish. Leadership effectiveness in communicating direction and helping people adjust to change will eventually need to replace the policy and procedural constancy of the past. As structure of the organization and the budget become more fluid teamwork and partnership will replace them as prominent foci.

The recommendations offered here simply represent the next logical phase in the agency's evolution. They are based on a basic assumption:

The Service must operate and be structured in a way that results in high quality resource management decisions, supported by partners and implemented in a way that is as efficient as effectiveness will allow.

In stating this, "high quality resource management decisions" are defined as those that take into consideration multiple species, activities, and opportunities beyond Service property, and economic, social, and physical needs and implications.

There are four major sets of recommendations: 1) Planning and Definition, 2) Leadership and Accountability, 3) Boundaries, Teams, and Partnering, and 5) Structure and Budget. Some of the recommendations are consistent with those suggested by Service personnel. Those that are not will be explained accordingly. Together, they represent an integrated package of actions, any one of which would be difficult to accomplish without the others. The ordering of presentation is also important as earlier recommended actions build a foundation for those later in the list. However, this ordering should not be interpreted as linear for implementation purposes. Many of the recommended actions can be implemented in parallel fashion, but most address needs for constant attention as opposed to one action that can be completed and forgotten.

These recommendations are intended to make the Ecosystem Approach to Fish and Wildlife Conservation as the usual way the Service conducts its daily business, not a separate set of activities that are engaged in as an add-on to normal duties.

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V B. Planning and Definition

In a world of constant change, planning is a relative concept. However, it is clear from the data that the FWS does not have internal leadership agreement about where the agency needs to head, especially as it relates to implementing the Ecosystem Approach philosophy or organizational processes. This lack of agreement has resulted in multiple interpretations of priorities, policies, and practices. It has also created an even keener atmosphere of competition for resources. Priorities of the agency have not been well defined, accepted, or enacted consistently. Consistent communications delivered by multiple leaders can convey to people that they can trust that the leadership team is truly leading the agency. FWS needs to build this sense of trust.

Recommendation 1: The FWS Directorate must work in concert to formulate, communicate, and implement a direction for the Service that is consistent. This direction will undoubtedly change over time, but changes will be implemented through coordinated understanding and action.

Organizational practices down through the ranks mirror the dynamics that occur within the senior leadership team. A clear sense of direction communicated by a Directorate that is in concert, speaking the same language, and emphasizing the same things, eliminates competition and results in unity of purpose within the organization. Regardless of whether the direction is formulated by the group or determined by the Director, ongoing dialogue about its meaning, translation into daily activity, and intended impact is critical in coalescing the leadership team into a group that can truly lead the agency.

It is not recommended that the Directorate publish another Service plan, although written documents may result from planning discussions. It is more critical that the Directorate members spend time talking about what they, as a group, are trying to accomplish through the Service. All of the members then need to actively communicate the products of these discussions throughout the agency. The discussion process should be replicated by each Directorate member with his/her leadership team and should be an ongoing feature of Service operations.

Recommendation 2: The FWS Directorate must create a clear definition and intent of the Ecosystem Approach to Fish and Wildlife Conservation that can be communicated consistently across the agency through multiple channels.

This assessment assumes that the FWS will continue to pursue full implementation of an Ecosystem Approach to Fish and Wildlife Conservation. If this is the case, people throughout the agency need a better understanding of the intent and meaning of the approach. At the time of the assessment, understanding, definition, and statement of intent were not consistent within the Directorate or within the Agency. Regardless of the existence of written documents that defined and described the Ecosystem Approach philosophy, people in the Regions and in the field were confused about its meaning. Even people who claimed they understood it defined it in widely divergent terms. As indicated in Chapter IV, in many cases people were not aware of existing

documents or messages.

The Directorate needs to develop dialogue that results in a consistent perspective about how the agency is going to approach resource management challenges. The approach may emerge from the group or be offered by the Director, but it needs to be thoroughly understood and communicated throughout the agency.

The dialogue and subsequent communication throughout the organization must openly acknowledge the challenges the Service faces in enacting an Ecosystem Approach philosophy. Today there is a strong sense within the Service that leaders are unwilling to talk and write about an ecosystem approach because Congress and selected partners find the approach unacceptable. If this is the case, the Directorate should return to Recommendation 1 and decide whether or not an Ecosystem Approach philosophy is appropriate for the Service. It is impossible to implement action in an organization when people are unwilling to talk about it openly, unless leaders are willing to establish an unprecedented culture of command and control.

The Directorate dialogue must begin from a common technical understanding of ecosystem management. As such the Directorate should participate together in the Service training course that addresses the subject.

The concrete enactment of Recommendations 1 and 2 will undoubtedly require more frequent Directorate meetings, especially in the short term. These meetings can be face-to-face and/or technology assisted. It is recommended that the Service Directorate utilize a facilitator to assist in the initial stages of planning. A facilitator can help the group confront the norms in their behavior that have made consistency in philosophy and approach difficult to achieve in the past.

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V C. Leadership and Accountability

The products of Recommendations 1 and 2 are likely to be written down and communicated throughout the agency. However, the importance of leadership, through oral communication, problem solving, and accountability processes cannot be emphasized enough. The Service has been a paper driven organization, with most information communicated through memo or directive. As reported in the Chapter IV, these documents have had an uneven impact. Though they are still an important means of communication, leaders in the Service must spend more time making these documents come alive for people. Paper communicates, leaders lead change.

The Recommendations for leadership and accountability should be implemented at every level of the agency. They are specifically framed from the perspective of enacting an ecosystem philosophy to resource management; however, they could apply to leading any change within the agency. These recommendations, specifically and in general, are intended to help make the Ecosystem Approach philosophy the way the Service conducts its daily business, instead of a separate activity that is engaged in as an add-on to normal duties. The data indicated that the integration of an Ecosystem Approach philosophy into daily work has not yet generally occurred.

Recommendation 3: Leaders at all levels must actively communicate the definition, expectations, and rationale for the Ecosystem Approach, orally and through written communication. Leaders must be visible proponents of the EA.

Implementation of an Ecosystem Approach philosophy involves a major change in mindset and approach for many in the Service. Although some have been taking this approach for years, others need encouragement. Some have wanted to take this approach in the past, but have found the practices and unwritten rules of the organization less than supportive of it.

Leaders at all levels and across all programs of the Service must be visible in their support for the Ecosystem Approach, educated in their actions, and realistic in their actions. People throughout the Service watch carefully to see what is "en vogue" by listening to what their leaders say and reading what they write. If they never see reference to ecosystems, they assume these approaches are not important, which means that leaders need to include references to ecosystems in the formal documents they write and in the presentations they give.

Celebrating and publicizing examples of good ecosystem management, whether or not it is attributable to formal initiatives, is critical. People involved in the data collection effort suggested that the FWS has missed opportunities to celebrate success because there has been such a focus on not attributing success to the "Ecosystem Approach". The timing of and motivation for good resource decision making are immaterial. People need to see clear examples of success.

Service leaders must ensure that existing communications are received by getting personally involved in delivering them and highlighting them. While written

documents are important, they must be delivered in ways that stimulate attention, and must be discussed actively so that people realize their importance. It appears from the data that leaders need to spend more time talking with people directly about organizational expectations, status, and issues. The data show that this direct form of communication is not used widely today. It is critical that leaders be visible and available during change, even if their contact with people puts them in situations where they must answer tough questions or work with people to solve problems.

This recommendation creates a critical dilemma for some FWS leaders. How do you actively and convincingly communicate support for an idea that you do not believe in or is against what you have espoused in the past? How do you maintain a sense and image of integrity? The key is honesty. Leaders must be honest with themselves, with other leaders, and with Service personnel. Leaders who simply cannot embrace the philosophy and agreements defined by the Directorate, should step aside, or be encouraged to do so. One of the worst mistakes organizations in transition make is expecting that all of their previous leaders will be able to lead in the new way of doing business.

Leaders that have spoken out against or have been lukewarm in their support for the Ecosystem Approach can recoup if they are now truly supportive of the effort. Open and honest discussion about how their minds were changed and where they stand today will garner some support initially. In the long-term, the actions they take will communicate their true level of support.

Recommendation 4: Eliminate or change organizational practices that are not consistent with an Ecosystem Approach to Fish and Wildlife Conservation. Leaders must be the problem solvers who ensure that people can and will take an Ecosystem Approach and will make the organizational aspects of it work.

Leaders need to be active watchdogs for practices, policies, procedures, and informal ways of doing business that stand in the way of people acting from an Ecosystem Approach. The qualitative data collected for this assessment were full of examples of how leaders asked people to take an Ecosystem Approach mindset, but did little to create conditions in their organizations (programmatically, geographically, or in administrative functions) that supported the approach. Creating buy-in to change is nearly impossible if people do not see change occurring.

Even when changes have been made, the data suggest that leaders often appeared to expend little effort to help personnel make sense of and fully implement the changes. For example, all Regions created geographic organizations and put GARDs in supervisory roles. However, it was reported that Washington and Regional leaders often acted as if business was being conducted in a traditional manner. They reportedly asked questions, expected reports, and communicated as if traditional lines of authority were still in place. People in the Regional Office and the field became confused, frustrated, and ineffective.

It is the responsibility of leaders to help people make change real. If there is confusion about how to route mail, a common complaint in the agency, it is the leaders' responsibility to bring people together to resolve the problem or to resolve it through edict. Letting it fester creates more problems. Some of these operational

problems will need national attention and should be the responsibility of the Directorate; however, most can and should be solved at a local level.

As discussed in Recommendations 1-4, the practices of Service managers and leaders are critical to the future of the agency. The Assessment Team strongly recommends that the Service invest more in the education of people in these roles. The interview, focus group, and questionnaire comment data revealed that even the most basic supervisory practices are being performed inconsistently and ineffectively. Training that focuses on the following topics appears to be sorely needed and should be required for each individual in a leadership role (from project manager to Director): 1) developing roles of managers and leaders, 2) leading change, 3) maintaining an atmosphere of open communication, 4) providing performance feedback, and 5) managing conflict. Data from the survey suggests that people do not think training is needed and they are not interested in participating; getting people to participate will require leadership.

Recommendation 5: Hold people accountable for taking actions that are in concert with an Ecosystem Approach to Fish and Wildlife Conservation.

During the data collection period, many instances were observed of leaders working effectively with their people to solve operational problems associated with recent Service changes. However, unfortunately, the opposite was more often the case. Many fairly simple operational problems were left unsolved. The distinct impression was given that lack of support for the Ecosystem Approach and poor leadership skills were at the root of these situations. The Assessment Team was told that fundamental operational changes that would have alleviated confusion had not been made because there was full expectation that the Service would return to its previous structure. In some cases it was obvious that the leaders in place, at whatever level, simply did not have the skills needed to lead the organization. It appears that both of these conditions have developed through lack of accountability.

If the Service is serious about moving forward with change, whether in philosophy or operation, leaders and personnel must be held accountable for enacting the changes. In many cases people were known to be standing in the way of change. Often their managers told the Assessment Team members that they were a problem either because 1) they were resistant, or 2) did not have needed skills. These same managers had a hard time defining what was being done to ensure that the person either enacted the change, got the skills, or was replaced.

People must be able to see, through their performance plans and the feedback they receive, that an Ecosystem Approach philosophy is valued. If they need skills development or training, they should be expected to get it. If they are resistant, their behavior should be confronted. If they can not change, they should be put into a position where their behavior will not have a negative impact or they should be asked to leave (obviously with appropriate documentation). Very few people interviewed or included in focus groups had a sense that they were in any way being held accountable for the key actions associated with implementing an Ecosystem Approach--cross program collaboration, partnering, teaming, etc. Most, at all levels, when asked what they were held accountable for replied (paraphrase) "doing everything necessary to making sure that problems don't occur in my area of

responsibility". This is not a message that is consistent with an Ecosystem Approach philosophy.

Recommendation 6: Select and promote people who have demonstrated the understanding and ability to use an Ecosystem Approach, regardless of their position. Provide training and experiences to prepare people for opportunities.

Promotion is a form of reward. People watch who is promoted and judge from their credentials and behaviors what is important. It is critical that the Service promote people who demonstrate the Ecosystem Approach philosophy, especially in the short term. It is also important that the people being selected into the Service come with a philosophy and set of career expectations that are broad enough to allow them to take a cross functional perspective. This is not to say that technical experts should be undervalued, but everyone should be willing and able to think beyond their area of technical expertise.

Accomplishing these challenges will require specific training and development, which may require changes to the Service recruiting process. According to the data collected for this evaluation, the pool of candidates for future opportunities is shallow, if Ecosystem Approach support and experience are key selection criteria. Training in conservation biology, approaches to ecosystem management, partnering, and teamwork is available but utilized infrequently. Training is regarded by many as a punishment for poor performance rather than as qualification for responsibility. Also conscious effort is not made to include people on ecosystem teams, task forces, or related activities that will better prepare them for future opportunities. These activities need to be viewed as much as training grounds as they are seen as mechanisms to accomplish work.

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V D. Ecosystem Boundaries, Teams, and Partnering

These three aspects of the Ecosystem Approach were often discussed or commented on in parallel. The ecosystem boundaries set the parameters within which teams operated and the teams were seen as mechanisms for promoting more effective partner involvement. Each of these issues also received much attention during discussion of recommendations.

Recommendation 7: Leave the ecosystem boundaries as they are.

As reported in Chapter IV, several individuals interviewed and focus groups involved in the data collection process felt that the Service should reconsider its current ecosystem boundaries. Some expressed concern that the boundaries do not match those of other agencies and therefore make partnership difficult. Others cited the fact that critical ecosystems, such as the Prairie Potholes region, were artificially divided through the use of watershed boundaries. Finally, the existence of ecosystems that cut across Regional lines reportedly create situations where either 1) competition for control is keen, or 2) the exact opposite, where the ecosystem and its issues are ignored by all Regions involved. The impact of ecosystem boundaries was not addressed in the questionnaire, but comments written by respondents were consistent with these observations.

Although these concerns are valid and should be addressed by the Service as the Ecosystem Approach philosophy is further implemented, the magnitude of their impact does not seem to warrant a reconfiguration of boundaries and the subsequent disruption. There are too many higher priority actions currently facing the Service. The Assessment Team recommends that the watershed boundaries continue to be used and that the Regional Directors who have concerns about the impact of boundary definitions on resource management decision making or partnerships raise these issues for discussion and resolution. Some of this discussion may result in minor redrawing of boundaries.

Recommendation 8: Keep the ecosystem teams in place, but support them in becoming more issue focused.

As noted above, the Assessment Team recommends that ecosystem boundaries remain intact. In concert with this it is recommended that the teams formed for each ecosystem continue to meet. It was the overwhelming opinion of Service personnel that the cross program understanding and resource sharing that resulted from team activity is the greatest accomplishment thus far of the Ecosystem Approach and associated organizational changes. However, there was a strong cry to provide the teams with additional guidance and support. These findings were consistent across all data collected.

Many of the ecosystem teams exist in name only. Some, however, are flourishing. The differences seem slight, but significant. The teams that are functioning effectively have two key elements in common. They have coalesced around one or a

small number of key resource management issues that are often of concern to partners and stakeholders as well. Through their mutual concern and interest, team members and partners have found creative ways to cooperate, share resources, and learn from one another.

There is also a spark of nontraditional leadership present in the teams that seem to be operating successfully. One or more people in these teams have motivated the group to grasp of situation and work to improve it, regardless of whether or not they have funding or formal authority. Often these groups have successfully worked outside traditional channels although they have been careful to inform themselves fully of the political climate in which they are operating.

As a result of these findings the Assessment Team recommends that each ecosystem continue to have at least one team. This is consistent with the recommendations discussed in Chapter IV. In most ecosystems however, multiple subteams should be formed to address specific resource issues. For instance, in the interviews and focus groups, several references were made to the difficulty the full Upper Mississippi ecosystem team has had in coming together around a common set of concerns. The extent of geography and range of issues have made identifying a central list of issues, of concern to all, nearly impossible to achieve. However, there are critical issues associated with the river itself and with the plains on either side. This group should be encouraged to meet once or twice a year as a full group to share information and to discuss emerging issues. However, the major activity should be focused in subgroups. Though subteams exist in some ecosystems today, they should become more the norm than the exception.

In some cases, issues may cross ecosystem boundaries and/or Regional lines. Subteam leaders should be encouraged to disregard boundaries when soliciting membership. Membership should be determined by the issue and resource management challenge, not the administrative jurisdiction. Managers should still be involved in the final approval of their people as members of teams, but should be sensitive to resource needs when making their decisions. They should be applauded and rewarded for their efforts to support critical activity outside their area of responsibility.

The questionnaire, interview, and focus group data showed that many teams currently involve only project leaders. The cross-programmatic understanding that has developed due to team activity has touched a small percentage of Service personnel. Washington and Regional office staff should be included on teams as issues warrant and these individuals should be encouraged, if not expected, to participate in teams that are discussing issues they are interested in and can assist in addressing. Technical experts (e.g., a contaminants expert) could serve as full members of teams or as technical advisors to many teams. Project leaders should be held accountable for involving their staffs in the issue-focused subteams that develop over time.

Most people who discussed teams in their interviews, focus groups, or questionnaires comments recommended that the teams not be held accountable for budget responsibility or for the creation of elaborate written plans. The recommended funding mechanisms for team activities will be discussed in the Structure and Budget section later in this document. Most people did recommend that the teams be held accountable for addressing on-the-ground resource issues. The Assessment Team

members agree with all of these recommendations. Teams and subteams should spend their time sharing information and dealing with resource challenges. People in management roles with team input should create budgets and reports necessary to support the work.

Team members need more guidance and education about how to work together in teams and how to anticipate and manage the unique political and social circumstances in which they are functioning. The first of these needs should be addressed through training and the support of a facilitator (in many cases Ecosystem Coordinators have played this role successfully).

The second need must be addressed by Service leaders. Many people involved in the data collection processes suggested that teams were often left to make decisions in the name of "empowerment," but were not informed enough to make good decisions that addressed all of the relevant technical, political, and social considerations. As a result, team decisions were overruled and the teams lost energy. It is the responsibility of leaders to educate teams and then hold them accountable for making effective decisions. This theme will be addressed again in the Structure and Budget section.

Recommendation 9: More fully incorporate partners and stakeholders in teams.

Data collected for this assessment generally showed that the Service has become more active in partnering over the past three years. However, the extent of partnering is well below the expectations of most people who participated in the data collection effort and partnering was usually not mentioned by most interviewees without prompting. The full enactment of an Ecosystem Approach mindset and the demands of today's political, economic, and social environment suggest that partnering needs to become more prevalent.

Like ecosystem management, partnering needs to take place at many levels. Formal partnerships should be created at the Washington level with the National offices of other agencies and constituency groups. This process should be replicated at the Regional level. The Regional Directors and some Washington officials seem able to foster these types of partnerships, but Service leadership in general needs more of these skills. In addition, there is a reported need to focus more attention on potential partners who do not always agree with Service policies. The stories told through the partner letters, the interviews and focus groups revealed a concern that the Service talks only to people who generally agree with the agency.

At the local level, partnerships seems to be a confusing concept. Many field people reported a history of working informally with local constituents, agencies, and landowners. They expressed concern that the recent focus on partnerships has resulted in a "if you can't count it, it doesn't exist" mentality, which requires a formality to partnerships that is unrealistic and unproductive at the local level. One interviewee said "you are never going to get a farmer to sign a formal partnership agreement, but he might well work with you to reestablish a wetland on his land if you let him graze a few cows on part of your land. This is the type of deal you strike over coffee, not in a formal partnership meeting." The issue-focused subteams should

become a major focus of the informal and formal partnering activities at the local level. Issue-focused subteams should be expected to develop a partnership strategy that identifies and targets important potential partners and involves them appropriately. In some cases, the subteam may decide to join actions already begun by potential or current partners. In others it may work to motivate partners to charter discussions around their issues of interest. The partnership strategy they choose should be consistent with the political and social norms of their geographic area. However, they should be held accountable for partnering with both friends and objectors.

Both informal and formal partnership activity needs to be fostered and people need to be trained in how to effectively create and negotiate partnerships. There is a great deal of confusion between the terms "partners" and "stakeholders" which needs clarification. These terms apparently take on specific meanings in the courses the Service offers, but these meaning do not seem to be utilized in official documents about partnering. These terminology inconsistencies should be addressed.

Comments from the stakeholder letters also indicate that Service personnel need to learn to function as team members in settings where majority interest in an issue is held by a partner or partner(s). Stakeholders pointed out that Service personnel often try to assume leadership and agenda setting without considering the stake held by other federal and/or state agencies. Since most landscape scale ecosystem issues require consideration beyond Service holdings, negotiating skills and an understanding of collaboration are critical. In some cases, Service personnel may be involved in influencing a partner to initiate team activities; in others they may simply be joining an existing team or discussion.

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V E. Structure and Budgets

A rather lengthy discussion of the need for organizational form to follow function was presented at the beginning of this recommendation section. The logic of that argument has been developed through the preceding recommendations as the focus rested first on defining what the Service wants to accomplish (Planning and Direction) and then putting the leadership and accountability processes in place to make it happen. The last section, Boundaries, Teams, and Partnerships, began to focus on operational structures to enact an Ecosystem Approach philosophy. This section focuses on the most overused mechanism for change in most government agencies, organizational structure, and the most overlooked, the budget process.

Most agencies reorganize as a primary signal to their workforce and to constituents that their philosophy and way of operating is changing. Often reorganization accomplishes only the public relations goal of convincing outsiders that things may be changing. Rarely do agencies do a good job of actually changing the way they operate because they do not 1) clearly define and support new expectations for their people, 2) hold them accountable to these new expectations, or 3) change operational systems to make the desired changes realistic and achievable. The budgeting process, however, is rarely modified as part of an agency change effort. However, a modification in the way budgets are created and money is allocated can be a more powerful motivator of change than any other single action an organization can take.

Recommendation 10: Strengthen programmatic focus consistently across Regions.

All of the recommendations made thus far could be accomplished within the existing structure of the agency. However, if the Service wants to further improve its ability to enact an Ecosystem Approach perspective to fish and wildlife conservation, structural modifications are recommended.

Several themes about agency structure emerged from the evaluation data. Many people involved in the data collection process were angry and frustrated with the inefficiencies they attributed to the agency's structure. The responses showed that there is a strong perception that operations have become more cumbersome over the past four years. Interviewees and focus group participants cited the need to have multiple people involved in decisions and confusion over where to route mail and calls as symptoms of structural problems. Regional office personnel in particular cited stories about leaders who were not willing to make decisions and who often shuffled problems to others for resolution. Field people reported not having contacts in the Regional Office to help them expedite their work, while people in Washington expressed frustration at not knowing whom to call or not being able to get people on the phone. Structural inconsistencies between Regions and between geographic organizations within Regions further complicated the problem.

The existence of the GARDs (Geographic Assistant Regional Director), a role that expects one person to provide both programmatic and geographic leadership, was cited as a major concern. Even the GARDs, many of whom enjoyed their new responsibilities, found the role too overwhelming for one person. Washington, Regional, and field people complained that they could never make contact with the GARDs because they were never in their offices. People were concerned that critical decisions were delayed because of GARD travel schedules.

The strongest theme, however, related to technical (expressed as "programmatic") expertise. Many people at the Regional and field levels reported that their technical expertise was suffering under the current organization structure. They complained about having fewer technical experts to turn to for advice. Many, from all programs, were very concerned that decisions were being made on a daily basis that threatened consistency in technical approach within and across Regions. They feared, and had experiences to back them, that inconsistencies would open the agency to criticism and potential legal action.

Field people and Regional people assigned to GARDs often expressed concern that they were working for a GARD who did not have knowledge of their program. It was apparent from the focus groups and interviews that GARDs who had good management and leadership skills were more likely to succeed in gaining support from and mobilizing people outside their program background. One focus group participant said "My GARD is not a fisheries person, but he is willing to listen and learn. He treats me right and he gives me authority to make decisions. We are doing OK. It is the GARDs who think they know or should know everything about everybody's program who have trouble. They make all the decisions and most of them are wrong. Nobody helps them."

It is the conclusion of the Assessment Team that the concerns expressed about structure are real concerns, but that most do not relate directly to structure. The first set of concerns described above, those focusing on confusion, frustration, and inefficiency, are less structural concerns than leadership issues. All structures have inherent weaknesses and inefficiencies. It is the responsibility of leaders to identify problems created by existing structure and to forge agreements about how these problems will be overcome. In many cases, the evaluators did not find that leaders had taken action to solve day-to-day operational problems. Again, in some cases it was the assessment of the people involved in the data collection effort that operational problems were going unresolved because of an expectation that the Service would soon return to its previous programmatic structure.

Concerns about erosion of programmatic expertise are of greatest concern to the evaluators. In one regard these problems could be solved without structural change. Many people cited the fact that the GARDs are becoming more programmatically astute and that over time their knowledge and ability to make decisions will increase. The issue that their role is too overwhelming could be solved by creating more geographic areas within a Region so that each GARD has fewer responsibilities. In most Regions there are three GARDs because there are three programs that must be supervised and because there have traditionally been three ARDs. There is nothing, the Assessment Team concluded, that stands in the way of a region being divided into small territories.

The Assessment Team concluded that the erosion in technical ("programmatic") expertise and consistency, and the issue of consistency across the agency need to be addressed if the agency is to move forward with enactment of an Ecosystem Approach to Fish and Wildlife Conservation. The Team does not, however, agree with the vast majority of respondents who recommended a return to a programmatic structure. It is the strong opinion of the Assessment Team that a programmatic structure would cement the barriers between programs (at Washington and Regional levels particularly) even more securely than before 1994 and make adoption of an Ecosystem Approach philosophy virtually impossible to accomplish. Many people involved in the data collection process argued that barriers did not exist between programs or that the Ecosystem Approach philosophy could be implemented within a programmatic structure. Anecdotal conversations, official documents published by the Service, and observation of the ways the Service has conducted and currently conducts its business suggest otherwise.

Strengthening technical expertise and consistency with a geographic context is critical. The recommended structure (Figure 1) seeks to accomplish this. The structure does not maximize efficiency; in fact, it could result in more inefficiency and confusion if it is not managed well. It does, however create a set of relationships that maintains both technical focus (Science and Policy Offices) and attention to geographic issues of importance (GM structure). The Assessment Team is convinced that these relationships must be maintained if an Ecosystem Approach perspective is going to be the underpinning of the agency's operation. A return to programmatic structure, a strong recommendation from within the Service, would, in the opinion of the Assessment Team, cement the FWS in a outdated mindset that is inconsistent with an Ecosystem Approach.

The recommended structure has as its features: 1) maintenance of a geographic line structure, 2) the establishment of small Regional Science and Policy Offices with technical/programmatic leadership responsibility, 3) the realignment of Wildlife programs with Fisheries programs, and 4) creation of a Washington Landscape Ecology Office. It is strongly suggested that each Region adopt this structure and that ongoing Directorate discussions be used as a forum for making ongoing structural adjustments. In most cases these changes should not require a need for additional people, but the reassignment of programmatic leaders and staff from one part of the organization to another. However, in some Regions that were hit hard by downsizing, there appears to be a need to restaff critical programmatic positions.

A suggested set of responsibilities for each major new player under this recommended structure is listed in Table 11. Budget responsibilities will be discussed under the next recommendation.

FIGURE 1
Recommended Organizational Structure

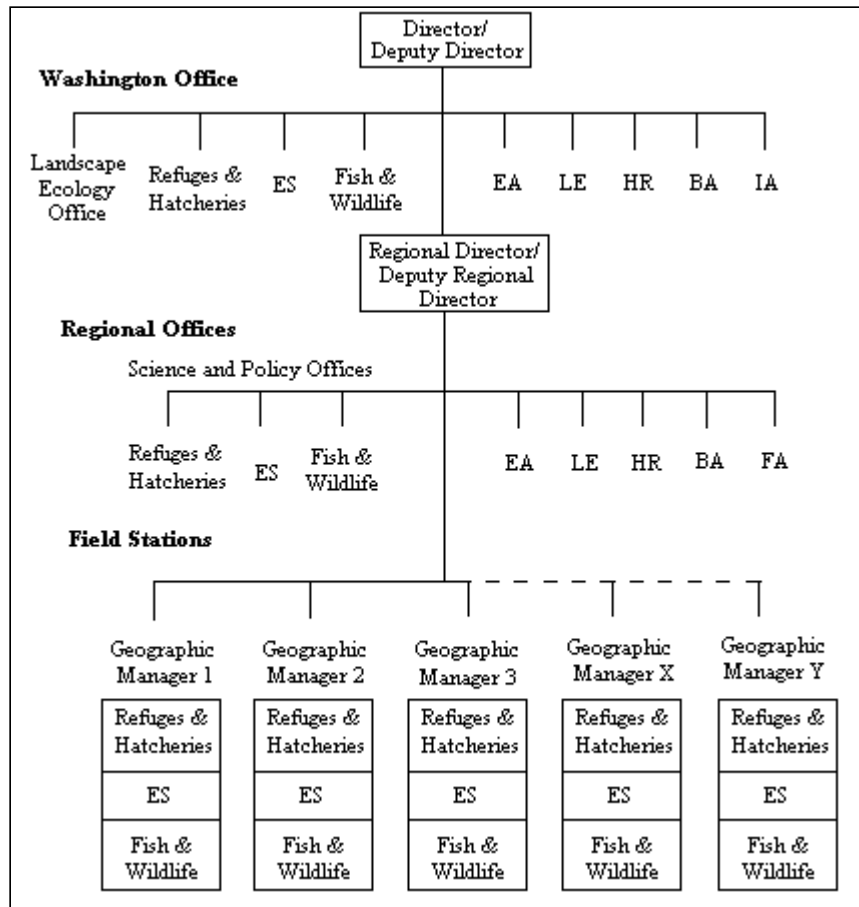


TABLE 11		
Suggested Roles and Responsibilities		
Science and Policy Office Chief	Geographic Manager (GM)	Regional Director
<p>Supervise Regional Science and Policy staff and help them solve operational problems.</p> <p>Ensure that programmatic policies and priorities are well understood throughout the Region.</p> <p>Serve as technical advisor to GMs and RD (an/or delegate role to staff members).</p> <p>Maintain technical expertise throughout the Region in area of</p>	<p>Supervise Field Station Personnel and work with SPO Chiefs to ensure technical excellence.</p> <p>Utilize Science and Policy Office input in decision making.</p> <p>Coordinate Ecosystem Teams/subteams and ensure high priority resource issues at the focus of subteam activities.</p> <p>Serve as local partner contact (or delegate) and state SPOC.</p>	<p>Delegate day-to-day decision making responsibility to GMs.</p> <p>Lead the Directorate team in a way that ensures both programmatic and geographic issues are dealt with effectively.</p> <p>Hold SPO Chiefs and GMs responsible for negotiating agreements that solve on-the-ground problems in ways that are consistent with agency policy and technical, political, economic,</p>

<p>responsibility (have input into hiring decisions, provide and recommend training,...).</p> <p>Identify opportunities for, initiate, and coordinate high priority resource activities that cut across geographic areas or Regional boundaries (e.g. North American, regional specific projects...).</p> <p>Coordinate research efforts in support of GMs.</p> <p>Serve as primary contact for Washington program office.</p> <p>Operate as a member of Regional Directorate</p>	<p>Anticipate and ensure that local problems are solved</p> <p>Maintain the field station infrastructure.</p> <p>Operate as member of Regional Directorate.</p>	<p>and social needs. Facilitate these negotiations.</p> <p>Ensure that operational problems associated with movement to the new structure are resolved.</p> <p>Foster programmatic and geographic communication throughout the Region.</p> <p>Prevent geographic areas from becoming isolated silos.</p> <p>Ensure that successes are publicized and celebrated.</p> <p>Operate as leader of the Regional Directorate and member of the Service Directorate.</p>
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Creation of the Science and Policy Offices (SPOs) reconstitutes the role of the technical expert formerly played by the ARD, without compromising the need to deal with Field level issues cross- programmatically. Regional office staff would be concentrated in the SPOs and once again have consistent technical supervision. The creation of the SPOs does not necessarily increase efficiency; this will disappoint many who completed the questionnaires and participated in other aspects of the data collection process. SPOs will still be required to coordinate policy decisions and communications across several Geographic Areas. However, there will be a clearer line of policy and programmatic communication between Washington and the Region and a consistent source of policy guidance within the Region.

In addition to serving in an advisory capacity, the SPO should be an initiator and coordinator of research and resource management projects that cut across Geographic Areas and Regions. For instance, the North American program responsibility and funding should reside in the SPO for Fisheries and Wildlife. The SPOs should also be expected to generate an ongoing list of long-term research and resource management projects within the Region that do not fall within any specific GMs' responsibilities, but which need attention.

The SPOs within each program would be the backbone of the Service's technical strength. As such, the people in these offices must be encouraged to continue

deepening their technical expertise. Update training in technical subjects and ongoing programmatic information exchange will be critical. SPO Chiefs from around the country should meet regularly to discuss experiences, raise concerns, make decisions, and hear about new Service activities/policies that apply to their role.

The recommendation to combine Wildlife Programs with Fisheries comes from a strong theme in the data that the Refuge Program needs more concentrated attention and leadership. In Washington as in most Regions, it appeared that Wildlife and Fisheries were compatible enough that one person could grasp the issues associated with both. Although the programs may require different forms of technical expertise, the difference is no greater than that between the Wildlife and Refuges programs that are currently combined. Both the Wildlife and Fisheries programs have many efforts that cut across Regions and require consistent perspectives. The Service could choose to place fish hatcheries under the auspices of the Refuges program while combining Fisheries Resources with Wildlife efforts, thus combining all land management related activities in one place. This might, however, fragment attention to vocal constituents.

The operational strength of the recommended structure is focused in local decision making through the GMs and their Geographic organizations. It is up to the Regional Directors and their Deputies to hold GMs accountable for working with the SPO Chiefs to ensure programmatic and technical consistency across the Region. GMs are responsible for ensuring that local problems are anticipated and resolved, that their full ecosystem teams meet and share information, and that subteams are constructed (including people from their geographic area and from outside) to address long-term resource management issues. These individuals and their staffs should be the focal point of local partnerships. They should support their teams in identifying critical partnerships and fostering them. They should also serve as a Single Point of Contact (SPOC) for the state or states for which they have primary responsibility. The appropriateness of the SPOC role may vary from Region to Region.

Because of the critical nature of the GM role, care should be taken to select individuals for the position who have a broad range of experience and strong supervisory skills. GMs should receive ongoing attention and training. A specific curriculum should be developed for new and existing GMs that focuses on continuing development of knowledge and skills in: 1) conservation biology, 2) supervision, 3) the philosophies and policies of the various FWS programs, 4) partner development and maintenance, and 5) conflict management. GMs from around the country should meet regularly to discuss experiences, raise concerns, make decisions, and hear about new Service activities/policies that apply to their role.

Under this structure, as with the current structure, the RD and their Deputy are orchestra leaders; ensuring that the SPO Chiefs and GMs are prepared to make sound decisions and that decisions get made. The amount of communication and negotiation this structure requires will not come naturally and may seem inefficient to many within the Service. Most technical people prefer individual technical work. It is the role of the RD and the DRD to ensure that regular communication takes place. In the short-term this will require selecting and developing leaders

who have strong communication skills. It may also require creating forums where people must communicate and avoiding the temptation to play adjudicator when conflicts arise. In the longer term it will require holding people accountable for creating these forums on their own. The RD and DRD need to be facilitators of decision making if the local decision making process, so inherent in an Ecosystem Approach philosophy, is to be enacted.

RDs also must be the change leaders, operational problem solvers, and communication channels for the Region. Their attention should be placed on helping the people in their organization to understand the 1) direction of the Service, 2) expectations being placed upon them, and 3) the tools they have available to do their work in new ways. This is an ongoing responsibility as the direction of the Service changes over time. In the short term, it requires that RDs/DRDs take responsibility for fully enacting an Ecosystem Approach, ensuring that both programmatic and geographic decisions be made from an ecosystem, long-term, multi-variable perspective. Regional Directors must expect GMs and SPO Chiefs to work effectively together and hold them accountable for such. They must communicate with each in a way that fosters this collaboration. In the ultimate analysis, the RD is responsible for translating the direction of the Service Directorate into operational effectiveness in both the Regional Offices and Field Stations.

This might be a typical ecosystem scenario under the suggested organization and team structure: The GM responsible for this ecosystem is the supervisor of all the field stations in the ecosystem, regardless of their programmatic affiliation. Throughout the year, issues emerge and decisions need to be made that require the GM to gather small groups of people together from throughout the ecosystem (either in person or in tele/video conferences). Every six months or so, all the project leaders within the ecosystem meet to discuss information being passed on from Washington or the Region. In these meetings they update one another on their current work.

They also spend part of their time identifying and discussing resource management issues within the ecosystem that require cross programmatic attention. They might invite people from the SPOs to participate in the discussions. Some of these issues may need a level of attention that the full group cannot give them. In these cases, they may form a subteam to address the issue and involve people below their level in ongoing discussions and work with partners. SPO members with issue-relevant expertise might also be asked to join the subteam. The subteams would be expected to report back at future ecosystem meetings. The lifespan of a subteam would vary by issue; some subteams might have very short lives, while others might need to meet over long periods of time. During all of this activity it would be the GM's responsibility to ensure that appropriate contact and input were initiated with the SPOs. GM briefing of SPO Chiefs on team activity would facilitate this process.

Recommendation 11: Strengthen ecosystem focus at the Washington level by creating an Landscape Ecology Office at the Assistant Director level.

The structure displayed in Figure 1 suggests the addition of a program office in Washington; the Landscape Ecology Office. It is recommended that this Office be

headed by an Assistant Director (AD) and that it focus on the implementation of an Ecosystem Approach philosophy throughout the agency. The recommended responsibilities of this Program Office are displayed in Table 12.

TABLE 12
Washington Landscape Ecology Office Responsibilities
Ensure understanding of the Ecosystem Approach to Fish and Wildlife Conservation throughout the agency.
Ensure that GMs have both the technical experience and the negotiating skills to effectively perform their role.
Serve as point of contact for GMs across Regions, convening them periodically to discuss issues and solve problems
Administer special funding projects to provide money for team activities (see Budget recommendation)
Identify and facilitate cross programmatic efforts nationally.

This new program office should be required by the Director to ensure that the agency is taking an Ecosystem Approach to all resource management decisions and that the appropriate infrastructure is in place to make this happen. The Program Office should not take on the role of leading all ecosystem related activity, but each AD and RD should be held accountable for taking actions to incorporate an Ecosystem Approach into all Service actions.

The Landscape Ecology Office should, however, administer a special funding program to provide supplemental funding for team activities at the local level. The Program Office should foster major efforts within and across Regions that do not necessarily fall within programmatic funding guidelines. This will be discussed in detail in the Budgeting section of this report.

The Program Office should be staffed with individuals highly versed in both cross programmatic technical knowledge and the principles of conservation biology. These people should serve as advisors and watchdogs as decisions are made throughout the agency. They should ensure that cross-programmatic issues are taken into consideration, that field level perspectives are adequately represented, and that partners are effectively involved. They should seek to educate all leaders within the Service about landscape ecology and conservation biology approaches to resource decision making and should pay particular attention to the knowledge and skills sets of ADs, RDs, and GMs. The Landscape Ecology Office should view the GMs as their programmatic point of contact in the Regions for day-to-day operations.

The AD for Landscape Ecology, at least initially, should be an experienced Service employee who can gain respect from other leaders and who is willing to create a role for a new program with fairly ambiguous guidelines. The AD should be willing to challenge traditional decision making and work outside the normal channels of communication to accomplish results. He/she should be a trusted

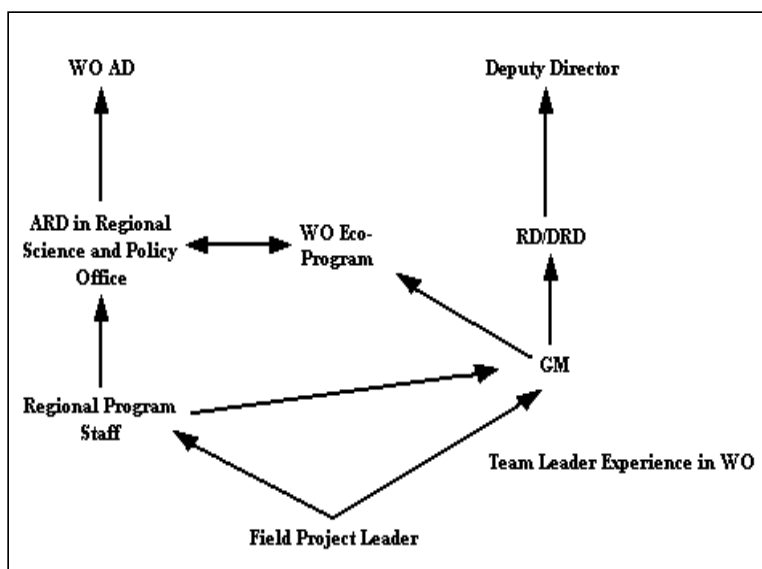
advisor to the Director and possess excellent negotiation and writing skills.

Given the recommended structure, the career paths for Service leaders becomes more clearly defined. A proposed career path structure is displayed in Figure 2 . It is based on an ideal set of progression scenarios which will undoubtedly vary from individual to individual. However, it could be used as a guide for long-term leader selection and staff development. In Figure 2 all career progression begins in the Field. Although not all technical professionals hired into the Service begin in the field, it is strongly suggested that at some point in their career, generally early on, they all get field experience.

The dual career path has two arms: one arm that emphasizes depth of technical knowledge and one that emphasizes breadth of technical experience. It provides a field project leader with a critical choice between pursuing a Regional Program role or a Geographic Manager (GM) role. Preparation for the GM role should also include team leader responsibilities and exposure to the Washington Office. If the Regional Program role is chosen, the person signals an interest in furthering his/her focus programmatically and may ultimately aspire to become a program AD in Washington.

If the GM route is chosen, the person signals an interest in increasing the breadth of his/her knowledge, and would expect to use interpersonal and leadership skills to progress through leadership roles. The recommended career path to Deputy Director, the highest career position in the Service, is through this GM route. The addition of the Washington Landscape Ecology Office creates some opportunity for crossover between the two paths, and the potential for movement from a Regional staff role to a GM position. Again, these career paths should not be considered as rigid routes of progression, but simply as guides to the types of experiences that will adequately prepare people for greater responsibility.

FIGURE 2
Career Paths



Recommendation 12: Reconstitute the budgeting process.

The FWS budget structure received considerable attention from the Service personnel involved in the data collection process. The programmatic structure of the budget was seen by many who wrote comments on the questionnaire or who participated in interviews or focus groups as a sign that the agency had not fully embraced an ecosystem perspective to resource management. These people generally recommended that the budget structure be changed or the Ecosystem Approach be abandoned. However, most people reported that the programmatic structure of the Service budget served an important purpose--that of allowing constituents, including Congress, to see how appropriated dollars were being spent. Many felt that changing the budget structure would require the agency to spend considerable time educating Congress and other constituents which was a strategy most thought would yield little benefit.

The budget formulation and allocation process was seen as a major area for improvement and an area where the Assessment Team also recommends changes. A startling consensus emerged from the focus groups and interviews conducted outside of Washington. People in the Regional Office and Field Offices felt strongly that the resource priorities expressed in the Service budget were not in line with the actual resource management needs on the ground. They reported frustration concerning their perceived need to "package" their accomplishments in terms that relate to the Service budget priorities. Many expressed concern that they might be held accountable for doing all the things the budget reports suggested, when indeed they had used allocated money to address more pressing resource needs. Most felt that actions taken in the name of Ecosystem Approach often had to be hidden under relevant programmatic themes even though they were the right actions to take, given resource needs. The existence of these disconnects was evident in that questionnaire respondents suggested a significant difference between work plans/reports sent to or received from Washington and the work they actually did.

This disconnect suggested a serious lack of field input into the budgeting process. Field Project Leaders expressed this lack of opportunity for input. It was also unclear to most people how the yearly Department of Interior and Service priorities were defined and whether there was a mechanism to reconcile these priorities with those of the field. The Service's attempt to fund ecosystem team projects in the early stages of the Ecosystem Approach effort made these disconnects particularly evident. Instead of changing the budgeting process substantially at that point, most Regions reverted to pure programmatic funding. Most proponents of the Ecosystem Approach suggested that the Service needed to find a way to include more "bottom's up" input into the budgeting process. Many felt that this would require longer budgeting lead times and more serious attention to a two year budgeting window. It was felt that the GPRA process would facilitate this type of planning.

There were major frustrations associated with perceived redundancy in the budgeting process. Administrative officers and program analysts were particularly frustrated that budgets had to be configured programmatically and then reconfigured geographically. Their analysis process, the technology they were using, and the structure of the budget accounts seem to make this an excruciating process. Many of these people recommended returning to a pure programmatic

organization.

While the Assessment Team does not recommend changing the programmatic structure of the budget that is sent to Congress, the team does strongly recommend a complete analysis of the budgeting process to align it more fully with the recommended organization structure and the requirements of an Ecosystem Approach. The priority setting process in Washington should be evaluated and improvements should be made to align the priorities more fully with the field level resource needs. This has to occur for the Ecosystem Approach philosophy to be fully enacted and for people at the Regional and field levels to take the effort seriously.

The Regional Directorates need to formulate a budget that reflects the resource management priorities of the Region and communicate this budget to Washington in programmatic terms. Initially the Regional budget should include 1) dollars for environmental and infrastructure maintenance within each geographic area, 2) money for Region-wide research and resource management projects and components of National efforts, both coordinated out of the Science and Policy Offices, and 3) money for high priority efforts of ecosystem teams that can be funded within programmatic guidelines. Over time the Regional Directorate may want to establish a funding strategy that suggests the general percentage of dollars they plan to allocate to each of these areas based on definition of Regional priorities.

The Regional Directorate should seek to maintain the integrity of team funding packages, not allowing them to be dismantled into programmatic components that are judged against one another. This dismantling process was cited as a major problem in previous attempts to fund team efforts. Teams became disenchanted when they were encouraged to make ecosystem based decisions and then found that perhaps only one of three key components of their resource management strategy was funded; without the other two components, the integrity of the strategy was lost and it was often abandoned.

Within the Region, GMs should be held responsible for generating the aforementioned portions 1 (maintenance) and 3 (team needs) of the budget and for expressing them in terms of programmatic components. They should use teams for input, but should not impose budgeting responsibility on the teams. SPO Chiefs should generate the Science and Policy inputs. Both groups should work within the defined Regional and National priorities. Together with the RD/DRD, the leaders should formulate the final budget. When monies are allocated to the Region, the Directorate should again meet to further refine priorities. Money should then be allocated to the SPO Chief and GMs, who should be held accountable for spending it as requested.

Though this is not the most efficient budget process that could be designed, it is an appropriate process to support the Service's cross functional Ecosystem Approach to Fish and Wildlife Conservation. Its cornerstone is negotiation and checks/balances. Any process that concentrates budget decision making and spending authority in either a programmatic or geographic line of responsibility cannot foster the type of priority-setting ecosystem management requires. Consolidation of accounts and improved budgeting software that supports quicker

budget reconfiguration (programmatic to geographic and vice versa) will significantly ease administrative burdens.

One additional funding strategy could further improve support for ecosystem related activities. The Assessment Team recommends that the Landscape Ecology Office in Washington reserve a sum of money to fund team projects that are important, but which do not fall within the structure of a Region or clearly within current programmatic priorities. Regions should be encouraged to submit team funding packages that have not been included in Regional budgets and that show significant efforts to involve partners. The willingness of partners to jointly fund efforts should be considered as a criteria for funding. This effort could be operated much like the current Challenge Grant effort and could be highly publicized throughout the Service. It could increase funding for worthy projects, enhance incentives for teams to attend to resource issues from an ecosystem philosophy, and reward teams for doing so. It would also focus attention on positive activities that are already underway. Because the money set aside for this effort should be fairly substantial, it will most likely have to come from other programs. Eventually, the Service may want create a budget line item to cover this effort.

The data collection process revealed a prevalent concern that money being spent on team activities was "siphoned" off of existing programs in a way that threatened the Service's effectiveness. It is highly unlikely that the Service will receive additional money to fund activities identified through an Ecosystem Approach and the associated organizational processes discussed in this section. Therefore, the Service and its personnel must look at budgeting and funding efforts from the standpoint of priority, not from a stance of programmatic equity. Currently, it appears that programs vie with one another for what they see as equitable distribution of resources. Instead, the Directorate in Washington and in each Region periodically needs to establish resource management priorities and then budget and allocate funds accordingly. The empowerment of GMs and teams will increase competitiveness until prioritization and alignment of funding are accomplished.

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V F. Summary

The recommendations offered in this report are substantial, too many for the Service to focus on at one time. From a practical standpoint, the structure and teaming efforts will probably get first attention because individuals throughout the agency are waiting for structure decisions to be announced before they fill critical positions or move forward with new efforts.

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However, the critical importance of the Planning, Definition, Leadership, and Accountability recommendations should not be overlooked. The long term success of the Service will not hinge on its structure or its teams. Long-term success will depend on the quality of leadership provided by the Service Directorate and leaders at all levels of the agency. Fundamental to this leadership will be the ability to solicit and act upon input from within and outside the Service in ways that are in the best interest of the resource.

Communicating the recommendations and the data behind them is the first important step in enhancing the leadership process. Service personnel need to see the results of this assessment, they need to be aware of the recommendations, and they need to know the rationale behind the decisions made by the Directorate. The Directorate must speak with one voice as these pieces of information are communicated and the Director should hold Regional and programmatic leaders accountable for communicating the importance and urgency of these actions. Regional leaders must then work to reconfigure their organizations to solve the resulting operational problems. These changes will be more dramatic in some Regions than in others. Washington Office leaders must establish contact with new players in the Regions and work with them to create and staff the Landscape Ecology Office.

Fundamentally, Service leaders will need to be patient and persistent, because complaints about organizational changes are not likely to decrease. Leaders must hold people accountable for accomplishing results and support them in being able to achieve results. Leaders must defuse complaints by solving problems and by communicating and reinforcing clear expectations. People should be kept busy solving organizational problems not complaining about them. This will take time and constant communication.

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Sources Cited

- Beattie, M. (1996). An Ecosystem Approach to Fish and Wildlife Conservation. Ecological Applications, 6, (pp. 696-699).
- Bridges, W. (1991). Managing Transitions: Making the Most of Change. Reading, MA: Addition-Wesley Publishing Company, Inc.
- Christensen, et. al. (1996). The Report of the Ecological Society of America Committee on the Scientific Basis of Ecosystem Management (and a series of related articles). Ecological Applications, 6 (3).
- Clarke, J.N. & McCool, D. (1997). Staking out the Terrain, Second Edition. Albany, NY: State University of New York.
- Clarke, J.N. & McCool, D. (1985). Staking out the Terrain. Albany, NY: State University of New York.
- Clark, J.R. (1997). Campfire Note - Strengthening the Refuge System.
- Decker, D. J., Brown, T. L., & Knuth, B. A. (1996). Human dimensions research: its importance in natural resource management. In Ewert, A. W. (Ed.) Natural resource management--the human dimension. Oxford: Westview Press, Inc.
- Defenders of Wildlife. (1992). Putting Wildlife First - Recommendations for Reforming Our Troubled Refuge System. Washington, D.C.
- Department of Interior (TASC Quality Management Center). (1994). Organizational Climate Assessment - Summary Report. Washington, D.C.
- Department of Interior. (1995) Memorandum of Understanding to Foster the Ecosystem Approach. Washington, D.C.
- Driver, B. L., Manning, C. J., & Peterson, G. L. (1996). Toward better integration of the social and biophysical components of ecosystems management. In Ewert, A. W. (Ed.) Natural resource management - the human dimension. Oxford: Westview Press, Inc. pp. 109-127.
- General Accounting Office. (1994). National Wildlife Refuge System: Contributions Being Made to Endangered Species Recovery. Washington, D.C.

Grumbine, R.E. (1994). What is Ecosystem Management? Conservation Biology, 8, 27-38.

Grumbine, R.E. (1996). Reflections on "What is Ecosystem Management?" Conservation Biology, 11(1). pp. 41-47.

Knight, R.L. and Meffe, G.K. (1997). Ecosystem Management: Agency Liberation from Command and Control. Wildlife Society Bulletin, 25(3). pp.676-678.

Kotter, J.P. (1996). Leading Change. Boston, MA: Harvard Business School Press.

Leopold, Starker (1968). [A Study of the National Wildlife Refuge System](#).

McIntosh, R. P. (1985). The Background of Ecology--Concept and Theory. Cambridge: Cambridge University Press.

Mullins, G.W.; Spieles, B.A.; & Stolz, G.M. (1997). Ecosystem Approach to Fish and Wildlife Conservations: A Stakeholder Involvement and Training Needs Assessment. Columbus, OH: The Ohio State University, School of Natural Resources.

National Wildlife Refuge System Task Force. (1978). Recommendations on the Management of the National Wildlife Refuge System (with comments from Director, U.S. Fish and Wildlife Service).

Prichett, P. & Pound, R. (1993). High-Velocity Change: A Handbook for Managers. Dallas, TX: Pritchett Publishing Company.

Public Employees for Environmental Responsibility (1997). National Wildlife Refuge Manager Survey. Washington, D.C.

United States Fish and Wildlife Service. (1995). Ecosystem Approach to Fish and Wildlife Conservation: Concept Document. Washington, D.C.

Vaill, P.B. (1989). Managing as a Performing Art. San Francisco, CA: Jossey Bass Publishers.

Yaffee, S.L. (1996). Ecosystem Management in Practice: The Importance of Human Institutions. Ecological Applications, 6, 724-727.

Yaffee, S.L. (1997). Why Environmental Policy Nightmares Recur. Conservation Biology, 11(2). pp.328-337.

