

U.S. Fish and Wildlife Service 2018-2023 Geospatial Services 5 Year Strategic Plan (GSSP)
Annual Action Plan for Fiscal Year 2019

These Actions and Tasks will be reviewed and updated yearly by the FWS GIS Steering Committee (SC)

2020 Action Items

Tasks are listed below: More information in the workplan

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DETAILS				
		Objective	Action Item	Tasks
1	Goal 1: Governance - Provide leadership and direction regarding the use of geospatial science to accomplish the Service mission. Identify and prioritize geospatial needs, align Service and Departmental strategies and activities, and provide policy and oversight to ensure progress in achieving geospatial services goals.	1.1 Update the Service Geospatial Services Strategic Plan (GSSP) every 5 years.	No AI in 2020	No Task in 2020
		Objective 1.2 Implement the GSSP by reviewing and updating the Service Geospatial Services Strategic	1.2.1 Review action items at Annual Face to Face meeting	1.2.1.1 Review Action Items at SC Meetings. Plan S.M.A.R.T. actions items annually.
				1.2.1.2 Web Mapping Technical Group
		Objective 1.3 Participate in and coordinate with Department of the Interior geospatial committees & FWS Data Governance Board.	Action Item 1.3.1 Ensure communication of Department, Federal information and data calls related to Geospatial Science are distributed throughout the FWS.	Task 1.3.1.1 - Report on DOI, Federal, and National Groups during monthly GIS Steering Committee Meetings via notes.
		Objective 1.4 Coordinate and collaborate on geospatial science activities at a national level.	Action Item 1.4.1 Hold FWS National GIS Steering Committee Face to Face Meetings to develop yearly work plans/action items and ensure communication (None)	Task 1.4.1.1 Organize the 2020 Face to Face meeting in Bozeman, MT on the dates of October 5th - 9th including meeting agenda, notes and information dissemination (BGDS, Matt Heller)
			Action Item 1.4.2 Coordinate attendance and involvement in geospatial user conferences (None)	Task 1.4.2.1 Coordinate FWS involvement in the 2019 conferences related to our Esri ELA including attendance process, passes, poster sessions, and meetings.
				Task 1.4.2.2 Communicate FWS involvement in geospatial related conferences through including them in the Steering Meeting notes and email communications

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	Action Item 1.4.3 - Prioritize Steering Committee representation and communication on national geospatial related working groups and assess needs and outcomes to improve efficiency.	Task 1.4.3.1 Develop a cost/benefit analysis of important and necessary national level groups, committees, meeting and coordination efforts.
		Task 1.4.3.2 Encourage Regional/Program representation on the FWS GIS Steering Committee
		Task 1.4.3.3 Identify current groups, representatives and update the existing contacts information on GIS sharepoint: https://fishnet.fws.doi.net/projects/gisnew/gisinfo/Lists/FWS_Contacts/AllItems.aspx
		Task 1.4.3.4 Find a new Remote Sensing Task Group Lead
		Task 1.4.3.5 Establish replacement FWS Representative to the National Digital Orthoimagery Program NDOP (April 2020)
	Action Item 1.4.4: Review and identify sections of the USFWS Manual chapter on GIS (270 FW 8) that require revision.	Task 1.4.4.1: Develop a process for the manual chapter to be updated by the Steering Committee, identify outcomes, and lead discussion on a regularly scheduled meeting (May, Goal Group 1) https://www.fws.gov/policy/270fw8.html
	Action Item 1.4.5: Update the FWS IT bulletin on geospatial metadata.	Task 1.4.5.1: Review the FWS IT bulletin on geospatial metadata and identify update needs.
		Task 1.4.5.2: Solicit comments from the FWS SC, edit and review FWS IT bulletin on geospatial metadata.

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		Task 1.4.5.3: Publish, distribute and implement the FWS IT bulletin on geospatial metadata
	Action Item 1.4.7 Plan for Reference System Transitions	Task 1.4.7.1 Datum Overview Presentation @ FWS Workshop (Feb. 2020)
	Action Item 1.4.8 Geospatial Data Act (GDA) Assessment	Task 1.4.8.1 Review/Comment on OMB A-16 Revision (Jan. 2020)
	Action Item 1.4.9 AGOL Governance	Task 1.4.9.1 Review NPS Acceptable Use Policy and determine if document should be used as the foundation of a "FWS Acceptable Use Policy".
	Action Item 1.4.10 Review of GIS Governance Models at other Fed Agencies	Task 1.4.10.1 Gather data from appropriate agencies detailing the structure of GIS Governance throughout their Bureau/Department.
		Task 1.4.10.2 Analyze data for common trends that can be adopted by USFWS GIS Steering Committee.

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2	<p>Goal 2: Business Processes - Ensure common, unified, geospatial processes are integrated into priority Service activities and support improved decision making.</p>	<p>Objective 2.1 Ensure improved geospatial processes are integrated with high priority Service activities. Identify and prioritize high priority FWS business activities with leadership and encourage geospatial analysis in the development and implementation of project plans.</p>	<p>Action Item 2.1.1 Identify priority Service activities that could benefit from geospatial technologies and provide support for consistent standards and best practices. ()</p>	<p>Task 2.1.1.1 During national website transition to SharePoint, bring together both the national SSA website and the SE SSA websites, and assist in any GIS components</p>
				<p>Task 2.1.1.2 Develop processes and aid in using geospatial science for At-Risk Species projects and data gathering efforts</p>
				<p>Task 2.1.1.3 Coordinate with national HF Coordinator id in using geospatial science for Hunting and Fishing efforts</p>
			<p>Action Item 2.1.2 Identify, assess, and improve high-level dedicated GIS capacity and user support across FWS.</p>	<p>Task 2.1.2.4 Assess existing support for desktop and online GIS use and compare to similar agencies/Bureaus</p>
				<p>Task 2.1.2.5 Propose way to address any issues raised in Task 2.1.2.4</p>
			<p>Action Item 2.1.3 Promote use and distribution of applications that have the potential to be useful at the national level.</p>	<p>Task 2.1.3.1 Engage with CMS development team to support integration of GIS functionality</p>
				<p>Task 2.1.3.2 Support implementation of mdEditor and ServCat for metadata management</p>

Goal 2: Business Processes - Ensure common, unified, geospatial processes are integrated into priority Service activities and support improved decision making.

Objective 2.2 Encourage Service's new Data Management Team and Regional Data Management Workgroups to develop data management strategies with adequate geospatial representation to improve and complement both data science and geospatial science.

Action Item 2.2.1 Effectively engage in Service-wide data management efforts and developmental processes.

Task 2.2.1.1 Attend National Data Engagement monthly calls

Task 2.2.1.2 Attend Regional Data Management calls if there is a team

Task 2.2.1.3 Review Data Governance Board activities with Chief Data Officer

Task 2.2.1.4 Encourage membership on Data Science Committee from both the SC and Regions

Task 2.2.1.5 Disseminate information, requests, and policies from Data Management efforts out to Regions and Programs

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3	<p>Goal 3: Data Architecture - Provide Service staff, partners, and the public with the standardized geospatial information needed to carry out Service business processes, partner conservation needs, and/or make informed decisions.</p>	<p><i>Objective 3.1</i> Promote best practices in geospatial data resource management as identified in 378 DM 1 (DOI Data Resource Management Policy).</p>	<p>Action Item 3.1.1 Develop and deliver at least 1 working session to data stewards and data professionals who manage Service enterprise geospatial datasets</p>	<p>Task 3.1.1.1: Develop a work session(s) regarding enterprise GIS datasets for data stewards and data professionals that manage enterprise GIS datasets. Session topics may include available resources, policy, workflows, data management plans, required metadata, repositories, etc.</p>
			<p>Action Item 3.1.2 Inform data stewards the publishing process for cataloging enterprise geospatial datasets to the appropriate repositories.</p>	<p>Task 3.1.2.1 Identify appropriate repositories (e.g. Servcat, data.gov, data.doi.gov, AGOL, etc.) and based on available enterprise datasets listed, catalog existing repositories utilized by each dataset, and post to the FWS sharepoint site.</p>
				<p>Task 3.1.2.2 Inform enterprise geospatial datasets data managers the appropriate repositories for publishing datasets and inform them of work session.</p>
		<p><i>Objective 3.2</i> Identify and make available all actively maintained, complete enterprise datasets with compliant FGDC metadata and comprehensive database documentation.</p>	<p>Action Item 3.2.1 Identify existing enterprise geospatial datasets</p>	<p>Task 3.2.1.2 Enterprise dataset list</p>
			<p>Action Item 3.2.2. Maturity of enterprise datasets</p>	<p>Task 3.2.2.1 Maturity rating classification</p>
				<p>Task 3.2.2.2 Assign maturity to enterprise datasets</p>
			<p>Action Item 3.2.3 Repositories for enterprise datasets</p>	<p>Task 3.2.3.1 Catalog repositories for datasets</p>
				<p>Task 3.2.3.2 Inform dataset managers of repositories</p>

DETAILS

		Objective	Action Item	Tasks
4	<p>Goal 4: Application & Technology Architecture - Provide Service staff and partners with recommended standardized geospatial infrastructure, applications and web mapping solutions. Enable the technology to collect, maintain, use, and publish geospatial data in support of the Service mission and business requirements. Support enterprise efforts that enable the design and implementation of a standard, enterprise-wide technical architecture.</p>	<p><i>Objective 4.1</i> Achieve efficiencies and cost savings by centralizing Service geospatial technology and applications where appropriate.</p>	<p>Action Item 4.1.1 Implement Enterprise Data Warehouse (EDW) components to comply with data center consolidation and other IT security compliance needs. (None)</p>	<p>Task 4.1.1.1 Assist in the development of strategies, plans, communications, and outreach for implementation of the components of the Enterprise Data Warehouse initiative.</p>
				<p>Task 4.1.1.2 Geospatial Data Services (GDS) will maintain a High Performance Computing Environment (HPER) infrastructure to analyze aircraft, satellite, and UAS remote sensing data.</p>
			<p>Action Item 4.1.2 Support best practices and platforms for enterprise server integration to host geospatial data and raster data as part of EDW.</p>	<p>Tasks 4.1.2.1 - GDS will develop and optimize the ArcGIS Enterprise platform and databases for Service-wide use to increase efficiencies by clustering resources.</p>
				<p>Tasks 4.1.2.2 - GDS will research, implement, and manage internet and intranet platforms for geospatial data hosting and map sharing including ArcGIS Online and FWSInsideMaps as well as testing FWSInsideMaps as part of the GeoPlatform cloud hosting platform.</p>
				<p>Task 4.1.2.3 - Define Key Performance Indicators (KPIs) for ArcGIS Online, FWSInsideMaps, & ArcGIS Servers; Develop tracking procedures and reporting for FWS GIS Steering Committee</p>
			<p>Action Item 4.1.3 GDS and SC will research, implement, and maintain enterprise shared drive solutions to promote Service-wide collaboration through shared infrastructure as part of EDW</p>	<p>Task 4.1.3.1 Branch of Geospatial and Data Service (GDS) will implement and maintain an enterprise shared drive solution (hardware and data structure) to promote Service-wide collaboration of GIS and remote sensing data through shared infrastructure to be usable by everyone.</p>
				<p>Task 4.1.3.2 GDS and the Steering Committee will research and develop best practices and proposals for housing large quantities of raster data. Specifically when to use AGOL or Image Server</p>

Goal 4: Application & Technology Architecture - Provide Service staff and partners with recommended standardized geospatial infrastructure, applications and web mapping solutions. Enable the technology to collect, maintain, use, and publish geospatial data in support of the Service mission and business requirements. Support enterprise efforts that enable the design and implementation of a standard, enterprise-wide technical architecture.

	Action Item 4.1.4 Report on available metrics to show we are achieving the objective of increasing efficiencies and saving money.	Task 4.1.4.1 Develop specific workflow statistics showing cost savings using enterprise GIS solution.
Objective 4.2 Manage and consolidate national geospatial software to reduce costs and duplication of effort.	Action Item 4.2.1 Implement and manage enterprise level software agreements, national servers, and software distribution processes.	Task 4.2.1.1 GDS will monitor software use and streamline national software acquisition to increase cost avoidance and lower administrative costs and research new acquisitions based on user needs to include in shared costs narratives.
		Task 4.2.1.2 GDS and volunteers will maintain a software testing process and distribute enterprise software and installation guides through AppsToGo, SCCM, and the GIS sharepoint site.
		Task 4.2.1.3 GDS will continue to purchase, maintain, and distribute software licensing as part of the Esri and GIS Toolset suite of software
Objective 4.3 Provide technical support to Service end users on software use, technology, and architecture.	Action Item 4.3.1 Maintain an information site with best practices and user guides to encourage information dissemination and awareness.	Task 4.3.1.1 - GDS and the SC will maintain SharePoint, website, user access forms, how-tos, and videos to be updated on a regular basis and upgrade to the new version of SharePoint
		Task 4.3.1.2 Update SharePoint to SharePoint Online; update content and modernize the interface. Use site/page views metrics from SharePoint 2010 to prioritize which sites/pages are migrated.
	Action Item 4.3.2 Promote communication of remote sensing in the FWS through membership on national committees and groups dealing with remote sensing.	Task 4.3.2.1 Collaborate and coordinate on RS groups: 3D Elevation Working Group, National Digital Orthoimagery Program, Multi Resolution Land Characteristics Consortium , DOI Remote Sensing Working Group, DOI Unmanned Aircraft System Group, FWS Remote Sensing Task Group, and the FWS Unmanned Aircraft System Task Group
		Task 4.3.2.2 Remote Sensing Task Group (RSTG) will coordinate and create the FWS component of the Annual DOI Remote Sensing Report and Annual President's Aeronautics and Space Report and all other RS related datacalls

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		Task 4.3.2.3 Improve distribution and access to remote sensing products for the Service using existing interagency and public sites.
		Task 4.3.2.4 RSTG will maintain a well-managed SharePoint Site for Remote Sensing resources and assist with the implementation of the remote sensing component of the shared drive
		4..3.2.6 Establish replacement FWS representative to the NDOP
Objective 4.4 Foster compliance with Information Technology policies, directives and bulletins.	Action Item 4.4.1 Update geospatial related IT bulletins and GIS manual chapters to comply with IT policies related to geospatial applications and technology.	Task 4.4.1.1 GDS and SC will work on reviewing IT bulletins for geospatial related impacts
		Task 4.4.1.2 GDS and SC will work with IT on geospatial related IT policies.
	Action Item 4.4.2 Support network improvements for geospatial application and technology use by encouraging documentation of network issues and resolutions	Task 4.4.2.1 Educate end users to submit IT help tickets on network issues and possibly provide a map and system for monitoring the station network connections

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		Task 4.4.2.2 Work towards quantifying and spatially locating (likely) low bandwidth offices by working with IT to identify offices dependent on LAN to LAN connection
		Task 4.4.2.3 White paper to show the impacts that poor network connectivity is having on the ability to do GIS in some locations. Need to build case to get IT to work on this. Or tell stations why they can't use these tools (that we are spending millions of dollars on
		Task 4.4.2.4 Develop alternate solutions, or best practices for remote stations to deal with poor connectivity which results in their inability to fully utilize GIS software.
		Task 4.4.2.5 Develop specific white paper to state importance of Wi-Fi for field data collection workflows.
<i>Objective 4.5</i> Coordinate GPS and mobile activities to enable technology, hardware, software and infrastructure to support the Service mission and business processes.	Action Item 4.5.1 Promote communication of mobile technologies and GPS in the FWS through membership on national committees and groups dealing with mobile technology.	Task 4.5.1.1 Attend meetings and contribute to national efforts on the DOI Geospatial Advisory Committee Position, Navigation, and Timing Group
	Action Item 4.5.2 The Mobile and GPS Task Group (MGPSTG) will maintain a well-managed SharePoint Site for mobile and GPS resources for Service personnel.	Task 4.5.2.1 Create and maintain a Mobile and GPS Newsletter which provides purchase and use decision support guidance for field users with yearly updates and additions of hardware
		Task 4.5.2.3 MGPSTG will support Mobile and GPS collection processes and application technology

DETAILS

		Objective	Action Item	Tasks
5	Goal 5: Education, Promotion and Applications - Promote the education and effective application of geospatial science across all programs and applicable conservation efforts within the Service.	5.1 Build support for Geospatial science at all levels (management and staff) of the organization.	Action Item 5.1.1: Maintain a Directorate level liaison for continued management support.	5.1.1.1 Liaison to SC
			Action Item 5.1.3: Create a chartered Geospatial Science Education Task Group (GeoED) to further build capacity and work on training action Items. This Group would interface with NCTC regularly and manage needs surveys.	Task 5.1.3.3 Maintain an instructor corps for NCTC and Regional training and prepare them (i.e., Train the Trainer and other formats).
			Action Item 5.1.4: Communicate between Committee members to improve collaboration	Task 5.1.4.2. Monthly knowledge transfers during the Steering Committee Face to Face meetings
			Action Item 5.1.5: Foster communication of Geospatial Science throughout the Service	Task 5.1.5.1: Continue to create a 2-page newsletter (first page general for all Service employees and second page specific to GIS users) on a quarterly basis and distribute by fws-gis email list serve
		Objective 5.2 Increase capabilities of Service workforce to effectively use and apply geospatial science.	Action Item 5.2.1: Follow on the FY18 ArcGIS Pro training strategy for the FWS workforce to migrate to ArcGIS Pro.	Task 5.2.1.3 Develop a way to determine how many more Pro classes are needed and what aspects of Pro are needed (Beginner, Intermediate, manage data, layouts, etc.) possibly through a survey
				5.2.1.4 Explore additional distance learning options
				5.2.1.5 Stretch the 4-hour transitioning to ArcGIS Pro course to 8 hours to teach more content
				5.2.1.6 Develop list of FWS GIS User Types & their needs & skill sets. Possibly a survey
			Action Item 5.2.3: Start the planning for the next Geospatial Training Workshop in Feb 2020.	Task 5.2.3.1: Review and evaluate the post Geospatial Training Workshop evaluations/survey, to see if we want use the same format
				Task 5.2.3.2: Nominate and establish the new members of the Geospatial Training Workshop planning committee for 2022

Goal 5: Education, Promotion and Applications - Promote the education and effective application of geospatial science across all programs and applicable conservation efforts within the Service.

Action Item 5.2.5. Review the current places to house reference material and make a proposal for a centralized location. Topics could include ArcGIS Pro, AGOL, Collector, Survey123 and others so that users can have ready access. Determine top ideas for consideration by the SC.

Task 5.2.5.2 Implement the selected options for sharing information and develop training and presentations to support end users

Action Item 5.2.6: Develop a survey (or similar) to determine what all training needs are for next fiscal year both online and classroom

5.2.6.1 Survey & class needs for 2021 and beyond

5.2.6.2 Create a process for requesting & prioritizing Regional NCTC Trainings.