ORBS Database Improvements

FY 2013 Proposal

Daniel Erickson, Maggie Sommer
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1. Overview

1.1. Sponsor
Russell Porter

1.2. Focus Group
Information Management

1.3. Background
The Oregon Department of Fish and Wildlife has stored data collected through its Ocean Recreational Boat Survey (ORBS) in a customized desktop Microsoft Access database. ODFW is modernizing legacy data systems agency-wide to a SQL Server platform, which provides substantial improvements in stability, flexibility, and reporting capabilities. The current ORBS database imposes limitations on the types of data collected, stored, exported, and reported, and presents challenges when requried to mesh with other data systems.

1.4. Project Description
ODFW is seeking funding in partial support of ODFW staff and contractor time for work on migrating the existing ORBS data system to SQL Server.

1.5. Public Description

1.6. Objectives
Duplicate the existing ORBS database in SQL Server; make changes as needed to improve flexibility, accomodate additional data elements, etc.; import existing ORBS data into the new database; and develop exports and custom reports to meet current and anticipated needs for ORBS data. If approved, this funding would partially support the ORBS migration project.

1.7. References

2. Methodology

2.1. Methodology
Work with ODFW staff and contract database developer to migrate ORBS database and associated functions to a SQL server platform. Design and develop custom reports to meet needs of ODFW ORBS data users.

2.2. Region

2.3. Geographic Coverage
N/A

2.4. Temporal Coverage
2013

2.5. Frequency
N/A

2.6. Unit of Analysis
N/A

2.7. Collection Mode
N/A

3. Communication

3.1. Internal Communication
Internal project team, including the contractor(s), will communicate at least weekly by phone, email, and in person. Documents will be shared/distributed using Microsoft SharePoint.

3.2. External Communication

Monthly reports and a detailed final report will be submitted to the MRIP OT via the MDMS site, or otherwise as requested by MRIP.

4. Assumptions/Constraints

4.1. New Data Collection
N

4.2. Is funding needed for this project?

4.3. Funding Vehicle
New MRIP grant

4.4. Data Resources
Existing ORBS data.

4.5. Other Resources
N/A

4.6. Regulations
N/A

4.7. Other
Assumptions include successful hiring/retention of required staff and contractor, availability of other funds supporting this project, and prioritization of ORBS-related work by ODFW information services team.

5. Final Deliverables

5.1. Additional Reports
None (final report only)

5.2. New Data Set(s)
N/A

5.3. New System(s)
SQL ORBS database

6. Project Leadership

6.1. Project Leader and Members

First Name	Last Name	Title	Role	Organization	Email	Phone 1	Phone 2
Suzanne	Bauer	Programmer/Analyst	Team Member	ODFW		541-867-4741	
Mark	Freeman	Marine Information Management Project Leader	Team Member	ODFW	mark.d.freeman@state.or.us	541-867-4741	
Maggie	Sommer	Marine Technical & Data Services Section Leader	Team Leader	ODFW	maggie.sommer@state.or.us	541-867-4741	

7. Project Estimates

7.1. Project Schedule

Task #	Schedule Description	Prerequisite	Schedule Start Date	Schedule Finish Date	Milestone
1	ORBS SQL database & report development work (dates TBD depending on when MRIP $ becomes available)		04/01/2013	02/01/2014	
2	Summarize results in final report	1	02/01/2014	03/31/2014	Y

7.2. Cost Estimates

Cost Name	Cost Description	Cost Amount	Date Needed
ODFW Indirect (overhead)	22.5% (NOT APPLIED TO CONTRACT SERVICES)	$2890.00	06/01/2013
Contract services	subcontract for database/application development	$41000.00	05/01/2013
Personnel services	salary & benefits for 2 months programmer/analyst	$12845.00	05/01/2013
TOTAL COST		$56735.00	

8. Risk

8.1. Project Risk

Risk Description	Risk Impact	Risk Probability	Risk Mitigation Approach
Loss of other supporting funding.	This MRIP funding request is for only partial support of the ORBS database migration work. If other funding sources are significantly reduced, the entire project may be delayed or not completed.	Low	Proactive budgeting and project planning. Ongoing efforts to develop additional fundign sources for this work.
Contracting delay/obstacles	Potential delay in project completion.	Low	Early and frequent internal communication between ODFW's ORBS staff, Information Services staff, and Procurement (contracting) staff.

9. Supporting Documents
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Project Plan

MARINE RECREATIONAL INFORMATION PROGRAM

FY 2013 Project Plan

ORBS Application & Database Replacement

MAGGIE SOMMER

Created on 10/16/2012

Revised 8/4/2013

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1. Overview

1.1. Background

The Oregon Department of Fish and Wildlife's Marine Resources Program (ODFW/MRP) annually surveys the marine recreational boat-based fishery in order to make effort and catch estimates by species, and to collect biological samples used in stock assessment. This long-term project, the Ocean Recreational Boat Survey (ORBS), provides information critical for management and conservation of groundfish, ocean salmon, Pacific halibut, and other species caught in the ocean sport fishery.   ORBS data are currently entered into a custom desktop MS Access database; reports are created using Access, and analysis is done using a variety of platforms.   This is an outdated system and it is available to a limited number of computers.   In addition, the current ORBS database imposes limitations on the types of data collected, stored, exported, and reported; and presents challenges when required to mesh with other data systems.   These issues are common across multiple data systems within ODFW.   ODFW is in the process of modernizing legacy data systems agency-wide to a SQL Server platform, which provides substantial improvements in stability, flexibility, and reporting capabilities.

1.2. Project Description

The MRP will develop an independent SQL Server ORBS database and a web application front end for the upload and management of the ORBS data.   In addition, required data reports will be developed using SQL Server Reporting Services to meet known user needs.

1.3. Objectives

Duplicate the existing ORBS database in SQL Server; make changes as needed to improve flexibility, accommodate additional data elements, etc.; import existing ORBS data into the new database; develop web-based interfaces for data entry and query/report building; develop exports and custom reports to meet current and anticipated needs for ORBS data.   If approved, this funding would partially support the ORBS migration project.

1.4. References

2. Methodology

2.1. Methodology

ODFW staff and a contracted developer with appropriate expertise (ASP.NET MVC4) will complete the development of a SQL ORBS database, web application for data entry and export/reporting capabilities, and will migrate existing data and functionality to the new system.

Key components of the work include:
1. Development of SQL server ORBS database structures
2. Hire contractor with MVC4 expertise to provide initial training for the MRP's application developer and ongoing consultation/review as needed during this project
3. Develop web front end in MVC4
4. Develop SQL code for catch & effort estimate calculations
5. Develop SQL code for expansion calculations
6. Develop reports and queries for data validation
7. Develop reports for data analysis
8. Develop data feeds for RecFIN and other internal ORBS data recipients
9. Import existing ORBS data into new database
10. Provide user training for MRP ORBS data technician and other staff TBD

2.2. Geographic Coverage

N/A

2.3. Temporal Coverage

The work will be conducted between 9/1/2013 and 6/30/2014. The ORBS database houses recreational catch and effort data from Oregon's ocean boat fisheries from seasonal sampling in most ports and year-round sampling in several major ports.

2.4. Frequency

N/A

2.5. Unit of Analysis

N/A

2.6. Collection Mode

N/A

3. Communications Plan

3.1. Internal

The internal project team will communicate at least weekly by phone, email, and in person.   Communications will include the contractor(s) as needed during the contract period (to be determined).

3.2. External

Monthly reports and a detailed final report will be submitted to the MRIP OT via the MDMS site, or otherwise as requested by MRIP.

4. Assumptions and Constraints

4.1. Data Resources

Existing ORBS data.

4.2. Other Resources

ODFW's IT application development standards and guidelines, and RecFIN specifications.

4.3. Regulations

N/A

4.4. Other

Assumptions include successful hiring/retention of required staff and contractor, and availability of other funds supporting this project.

5. Risk

5.1. Project Risk

Table 1: Project Risk

Risk Description	Risk Impact	Risk Probability	Risk Mitigation Approach
Contracting delay/obstacles	Potential delay in project completion.	Low	Early and frequent internal communication between ODFW's ORBS staff, Information Services staff, and Procurement (contracting) staff.
Loss of other supporting funding.	This MRIP funding request is for only partial support of the ORBS database migration work. If other funding sources are significantly reduced, the entire project may be delayed or not completed.	Low	Proactive budgeting and project planning. Ongoing efforts to develop additional funding sources for this work.

6. Final Deliverables

6.1. Additional Reports

None (final report only).

6.2. New Data Sets

N/A

6.3. New Systems

SQL Server ORBS database and web application for data entry/reporting/export.

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7. Project Leadership

7.1. Project Leader and Members

Table 2: Project Members

Project Role	Name	Organization	Title	Email	Phone 1
Team Leader	Maggie Sommer	ODFW	Marine Technical & Data Services Section Leader	maggie.sommer@state.or.us	541-867-4741
Team Member	Suzanne Bauer	ODFW	MRP Programmer/Analyst	Suzanne.w.bauer@state.or.us	541-867-4741
Team Member	Mark Freeman	ODFW	Marine Information Management Project Leader	mark.freeman@state.or.us	541-867-4741

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8. Project Estimates

8.1. Project Schedule

Table 3: Project Schedule - Major Tasks and Milestones

#	Schedule Description	Planned Start	Planned Finish	Prerequisites	Milestones
1	Hire contractor	09/01/2013	12/01/2013		
2	ORBS SQL database & data entry /report screen development	11/01/2013	06/30/2014		
3	Summarize results in final report	06/01/2014	06/30/2014	1	Y

8.2. Cost Estimates

Table 4: Cost Estimates

Project Need	Cost Description	Date Needed	Estimated Cost
ODFW Indirect (overhead)	26% (NOT APPLIED TO CONTRACT SERVICES)	09/01/2013	$9,098
Contract services	subcontract for database/application development	09/01/2013	$10,000 (up to)
Personnel services	salary & benefits for 5 months programmer/analyst	09/01/2013	$34,992
PSMFC Admin Fee	1.02%	09/01/2013	$579
TOTAL			$54,090