Request for Proposals (RFP)

Commercial Fishery Vessel Monitoring Database and Web Application Tools

Issue Date: 3/6/2024
DEADLINE FOR PROPOSALS: 4/8/2024

RFP Process Schedule

Mar 6, 2024	Request for Proposal (RFP) issued and distributed
Mar 25, 2024	Deadline for written questions regarding this RFP
	Please email questions to Michael Arredondo at marredondo@psmfc.org
Mar 29, 2024	Q&A document, including the answer to the written questions posted on the PSMFC website at: http://www.psmfc.org/procurements/blog
Apr 8, 2024	Deadline for submission of proposals
	Proposals need to be submitted by e-mail to: marredondo@psmfc.org
	Subject line for submissions: Electronic Logbook Smart Phone App
	Faxed and hard copy proposals **will not** be accepted.
Apr 9-12, 2024	Proposal review
Apr 15, 2024	Project finalist selected

Overview

Pacific States Marine Fisheries Commission (PSMFC) is seeking to subcontract with an information technology (IT) company to provide database and data tools that support monitoring vessel locations. The primary areas of work needed are expected to be:

- **Database support**: maintain and develop relational database schemas and scripted database management procedures in SQL Server, monitor automated ETL processes, and conduct routine data process QA/QC;
- **Spatial data analysis:** create data processing and calculation tools with spatial dependencies or using GIS layers;
- **API and web services:** maintain and develop Rest API tools;
- **Web application support:** develop secure online data query and reporting tools where authorized users may pull a variety of reports or data outputs;
- **Client support:** provide ongoing technical support to PSMFC, web application users, and data users; ensure all tools remain operational and data integrity is maintained; and address critical technical issues rapidly and efficiently.

The initial contract period for the vendor selected from this RFP will be for one year, with possibility of extension for up to five years.

Background

Dungeness crab fishery managers in Washington, Oregon, and California have, or plan to, institute requirements for vessels to carry loggers that collect location data. These loggers transmit locations back to logger vendors when in cellular range. PSMFC is supporting these electronic monitoring efforts for the states by receiving, storing and processing data from these vendors. Although current work pertains to the Dungeness crab fishery, similar tools are being considered in other fisheries so future work may include additional fisheries.

PSMFC currently has built a database to house the data and tools to receive data (API endpoints to be used by any vendor, as well as a Powershell/SSIS package to pull files from Azure file store for one vendor). Data then is pulled by our GIS department into a Python post-processing package and is then made available to state fishery managers in a dashboard utility maintained by our GIS team. These products are all in early phases of development, and it likely that work will be needed to move some parts of the post-processing into the database for efficiency. We also anticipate that new tools may be needed such as an application for users to query data or pull data reports and therefore will give preference to vendors able to meet both current work needs as well as possible future areas of expansion.

Scope of Work

Current Work

1. **Existing Database Administration (SQL Server)**

1.1. Assist with database administration tasks as directed.

1.2. Upgrade software or utilities as needed and approved.

1.3. Respond to and troubleshoot system outages.

1.4. Make modifications to existing databases when user needs are identified or when requested by state and federal stakeholders, ranging from simple changes to lookup lists to major updates.

1.5. Oversee testing and deployments of updates.

1.6. Coordinate with PSMFC GIS staff any changes to ensure their data processing and visualization tools are not impacted.

1.7. Documentation of schema changes or automated processes.

1.8. User management.

2. **Data and Spatial Analysis Development (SQL Server)**

2.1. Create new database infrastructure as needed within new and existing databases including tables, schemas, ETLs for making calculations and data modifications, etc.

2.2. Add spatial analysis tools as needed. Examples of this work include determining if a vessel is in/out of a protected area or other management zone based on shapefile data, determining the seafloor depth at location, calculating distances traveled, etc.

2.3. Test and troubleshoot new data processes.

3. **User Support**

3.1. Respond to technical support questions from PSMFC, state and federal agencies, GPS logger vendors and other contractors relating to web applications and web services.

3.2. Work with PSMFC GIS staff who maintain current Python post-processing to ensure data changes work with their processes.

3.3. Update or create user guides and documentation as needed.

4. **API and Data Processing**

4.1. Maintain and develop Rest API tools to receive data from logger vendors.

4.2. Manage user access to APIs.

4.3. Monitor and maintain Powershell/SSIS package to pull files from Azure file store.

4.4. Work with PSMFC and state or federal agencies as needed to set up new data transfers.

Anticipated Work

5. **Improvements for data efficiency**

5.1. Incoming data volume is expected to be hundreds of millions of records per year.

5.2. Monitor existing database and processes to determine if existing tools are sufficient to handle data needs.

5.3. Advise and make updates as needed either within SQL Server, or advise and develop alternative tools to handle data volume and processing.

6. **Web application development**

6.1. Create a web application for users to access vessel tracking data

6.1.1. The web application will include queries to download data by certain parameters (for example, by vessel and date range) in various file formats such as csv and Google Earth compatible files.

6.1.2. The web application will include access to data reports with parameterization.

6.1.3. Currently the data is viewed through a separate GIS dashboard tool. While there are no immediate plans to change this, the application might eventually be expanded to include map tools for visualizing the data, so an approach for the the web application that would support this potential addition at a later date is preferred.

6.2. Administer user roles and access to confidential data.

Other Expectations

7. **Client Relationship and Support**

7.1. PSMFC expects to work with the contractors in a close and dynamic relationship; open and frequent communication is expected to detail the specific work requirements of the vendor.

7.2. Meet routinely with PSMFC staff to discuss new issues, address questions, set timelines for work, and prioritize tasks.

7.3. Participate in meetings with other agency staff or stakeholders to discuss projects as needed.

7.4. Educate PSMFC staff about all data structures and tools as requested.

8. **Data Confidentiality and Security**

8.1. Ensure that all data access via database, web applications or web services is provided only to authorized users.

8.2. Per federal fisheries requirements, a confidentiality agreement must be signed by the contractor to ensure complete confidentiality of all data. No copies of confidential data will be retained by the contractor without the written consent of PSMFC.

9. **Ownership**

9.1. All applications, databases, and other tools developed within the scope of the contract will be owned by PSMFC. The vendor may adapt products for use in other projects or to sell to other clients, but PSMFC will have the right to all tools and associated code such that they may adapt and further develop the product independently.

9.2. All data collected will be owned by PSMFC or the agencies PSMFC represents.

Anticipated Project Funding

Funding sources are available for this project but have not been secured at this time. Assuming successful funding, the initial contract will be for one year, but it may be extended for up to five years.

The contractor is expected to bill work based on time and materials.

Proposal Requirements and Scoring

Proposal Requirements

Proposals should detail each of the three areas described below:

- **Experience**.

  - o **Company experience**: Explain the qualifications of the company and its specialized experience and technical competence that qualify it to perform the tasks described in the scope of work. Please also detail any work with fisheries data.

  - o **Personnel**: Include the qualifications and experience of the primary personnel who will be involved in supporting the contract.

  - o **References**: Provide a list of three clients and contact information for whom similar services have been provided. If you have references from work with fisheries data, please include these.

  - o **Subcontractors:** A list of all, if any, third parties and/or subcontractors that vendor intends to use or may use in connection with meeting the scope of work.

- **Technical Approach.** Describe your approach to meeting the new work elements in the scope of work (items 2, 5 & 6 in the scope of work)

- **Cost Proposal.** Vendor must submit a budget that includes the hourly rates and expected work assignments for all staff to meet the described scope of work.
  - o Include in the cost proposal the rates of work for each task in the scope of work
  - o Include rate quotes for 5 years
  - o Provide a specific quote for item 6 (Web application development) in the scope of work. While the specific requirements have not been fully defined, for the sake of this quote you may assume:
    - The web application will allow the user to query location data by vessel and date range and download as CSV or Google Earth file type
    - The web application will include 5 static reports and 2 reports with user requested date ranges. The queries to back up these reports will be provided by PSMFC.
    - Access to specific reports and data will be divided by state (CA, OR, WA) so user roles must restrict access to data based on the state agency they represent. There will also be some users who should be able to access data from all 3 states

Scoring

- **Experience (50%)**
- **Technical Approach (20%)**
- **Cost (30%)**