Request for Proposals (RFP)

2024 Data Management Systems Support, Development, Analytics, and Reporting

Issue Date: 5/7/2024

DEADLINE FOR PROPOSALS: 6/24/2024

RFP Process Schedule

May 7, 2024 Request for Proposal (RFP) issued and distributed

May 27, 2024 Deadline for written questions regarding this RFP

Please email questions to Michael_Arredondo@psmfc.org

June 3, 2024 Deadline for when responses to questions will be made available

Responses to questions will be posted on the Pacific States Marine Fisheries Commission RFP webpage.

June 24, 2024 Deadline for submission of proposals

Proposals need to be submitted by e-mail to:
Michael_Arredondo@psmfc.org

Subject line for submissions: 2024 Data Management Systems Support, Development, Analytics, and Reporting

Faxed and hard-copy proposals **will not** be accepted.

June 25 - 28, 2024 Proposal review and selection

Overview

The Pacific States Marine Fisheries Commission (PSMFC) maintains multiple databases that integrate and consolidate fisheries-dependent and independent data from various state and federal agencies, as well as other data sources, to support fisheries management goals and objectives in Alaska, the West Coast, and the Pacific Islands. PSMFC programs associated with these databases include the four Fisheries Information Networks (FIN), namely the Alaska Fisheries Information Network (AKFIN), Pacific Fisheries Information Network (PacFIN), Western Pacific Fisheries Information Network (WPacFIN) and Pacific Coast Recreational Fisheries Information Network (RecFIN). The information within these databases are used extensively by fishery managers, analysts, and scientists to assess existing management policies, as well as to promote the advancement of new policies to manage the public's fishery resources.

Pacific States Marine Fisheries Commission is seeking to subcontract with an information technology company to assist with data management systems support, development, analytics, and reporting. The primary areas of work include:

- Database support and development: Develop, maintain, and update relational Oracle databases, including database objects, schemas, and scripted procedures. In addition, monitor automated Extract, Transform, Load (ETL) processes and conduct and create routines for data quality assurance/quality control (QA/QC).

- API and web services: Develop, maintain, and update Rest API tools.

- Web application support and development: Develop, maintain, and update public and private reports, as well as secure online data query tools. Functionality includes the ability of authorized users to filter and download a variety of reports or data outputs. These Oracle APEX applications and products need to meet data user needs with ongoing technical support to ensure the functionality of all reports, graphics, and related products.

- Data analytics: Develop, maintain, and update data processes and products for spatial and artificial intelligence (AI) initiatives in Python, such as data mining, computer vision, natural language processing, and predictive analytics.

- Client support: Provide ongoing technical support to FIN programs, web application users, and data users; ensure all tools remain operational and data integrity is maintained; and address critical technical issues rapidly and efficiently; coordinate with FIN staff, data users, and agency staff to determine reporting needs, translate needs into business rules/report logic, design and create online reports, demo reports and products during development, and work with users to alter the reports as additional needs arise; develop detailed documentation of analysis creation, updates and user guides.

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

Formed by Congress in 1947, PSMFC helps resource agencies and the fishing industry sustainably manage our public Pacific Ocean resources in the region along the West coast of the United States.

PSMFC's primary goal is to promote and support policies and actions to conserve, develop, and manage our fishery resources in California, Oregon, Washington, Idaho, Alaska, and Pacific Island region. We accomplish this through coordinating research activities, monitoring fishing activities, facilitating a wide variety of projects and collecting, processing and disseminating fisheries-related data. The four FIN programs are fundamental to these efforts and maintain regional databases that are accessible by fishery managers, fishing industry staff, scientists, and state agency personnel either directly via the databases or through reporting tools.

PSMFC's activities are funded through federal grants, special contracts, and dues from its member states. PSMFC regularly serves as a primary contractor on grants, projects, and contracts for states and other organizations in large part due to our low overhead and our proven management ability. Because most of PSMFC's operating funds are from Federal grants and contracts, PSMFC must adhere to federal accounting rules and cost principles.

Scope of Work

PSMFC has experienced network administrators who maintain on-premise information technology infrastructure and the FIN databases in Portland, Oregon. The WPacFIN database is housed at the NOAA facility in Hawaii. The vendor selected will work with all four FIN programs and a diverse portfolio of projects. The data systems, storage, processing, and reporting are primarily in Oracle, but other technical skills and knowledge are needed and required. A successful vendor will have experience and expertise in:

- Oracle SQL and PL/SQL
- Oracle Application Express (APEX)
- Oracle Business Intelligence Enterprise Edition (OBIEE)
- Windows and Linux operating systems and associated software
- Python, R, JavaScript, C#, and Java programming languages
- GitHub
- Atlassian software, including Jira and Confluence

Primary Work Tasks

1. Database Development (Oracle)
    1.1. Create new database infrastructure as needed within existing and new databases.
    1.2. Maintain, develop, and update database objects, schemas, ETLs (both manual and automated) for existing and new data streams, etc.
    1.3. Test, validate, and troubleshoot new data processes.
    1.4. Create and update Entity-Relationship Diagrams for databases, as well as technical documentation for database marts as needed.

2. API/Web Services and Data Processing
    2.1. Maintain and develop Rest API tools.
    2.2. Manage user access to APIs.
    2.3. Work with FIN programs, state, and federal agencies as needed to set up new data transfers and troubleshoot existing data transfers.
    2.4. Create technical documentation as needed.

3. Improvements for data efficiency
    3.1. Monitor existing databases and processes to determine if existing tools are sufficient to handle data needs, currently and in the future.
    3.2. Advise and make updates as needed either within the Oracle environment, or advise and develop alternative tools to handle data volume and processing.

4. Data Analytics
    4.1. Assist with AI projects involving current and future data streams of structured and unstructured data.
    4.2. Assist in the development and automation of ETL processes and data pipelines for AI projects, as well as connections between AI server and databases.
    4.3. Assist in the development of data analytics for ongoing and future projects, including the analysis of vessel position data and environmental data.

5. Application development
    5.1. Develop and maintain web-applications, including Oracle APEX applications, both public and private, as needed. This includes the development of graphical user web-based interfaces for data entry, queries, and reports.
    5.2. Administer user roles and access to confidential data.

6. User Support

6.1. Respond to technical support questions from FIN staff, state, and federal agencies, and other contractors relating to databases, web applications and APIs/web services.
6.2. Update or create user guides and documentation as needed.

Other Expectations

7. Client Relationship and Support
    7.1. FIN programs expect 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 FIN 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 FIN 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 API/web services is provided only to authorized users.
    8.2. Per state and 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 FIN program staff or PSMFC.

9. Ownership
    9.1. All applications, databases, and other tools developed within the scope of the contract will be owned by FIN programs and PSMFC. The vendor may adapt products for use in other projects or to sell to other clients, but the FIN programs and 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 the FIN programs and PSMFC or the agencies PSMFC represents.

Anticipated Project Funding

- Funding for this work is generally allocated annually
- Contracts are usually written and executed within the PSMFC fiscal year of July 1 - June 30, though exceptions do occur
- The anticipated duration of the work under this this RFP is 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 two areas described below:

Experience

- 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. Priority will be given to vendors that have worked with commercial and/or recreational fisheries data in the past two years.
- Personnel:
    - Include the qualifications and experience of the primary personnel who will be involved in supporting the contract.
- Project References:
    - Provide a brief description and contact information from three projects where similar services were provided.
- Subcontractors:
    - A list of all, if any, third parties and/or subcontractors that the vendor intends to use or may use in connection with meeting the scope of work.

Cost Proposal

- Rate proposal:
    - The vendor must submit a budget that includes the hourly rates and expected work assignments for all staff to meet the described scope of work tasks.
    - Include in the cost proposal the rates of work for each task in the scope of work.
    - Include rate quotes for 5 years (either specific rate or intended measure of inflation).
- Example pricing:
    - Provide a specific quote for item 5 (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 is a public facing report and displays summarized data on West Coast commercial albacore tuna landings (catch) stratified by state (CA, OR, and WA), month, and year. Key landing metrics include weight (metric tons), value (dollars), count of

unique vessels and dealers, and the confidentiality of each record/strata.

- The report would allow users to filter by state, month, and year, with the added functionality to download the filtered dataset as either a CSV or an Excel file.
- All confidential records/strata would require suppression of landing metrics (weight and value) if the count of unique vessels is fewer than three or the count of unique dealers is fewer than three. In place of the metrics would be an asterisk and a footnote.

Scoring

- **Experience (60%)**
- **Cost (40%)**