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CALIFORNIA COASTAL COMMISSION

# November 18, 2011

#### TO: Coastal Commissioners and Interested Public

FROM: Charles Lester, Executive Director Susan Hansch, Chief Deputy Director Alfred Wanger, Deputy Director Pamela Wu, Chief, Fiscal & Business Services Jessica Chan, Contract & Facilities Analyst, Business Services

# SUBJECT: Contract Award for Database Software procurement for public hearing and Commission action, Item F5, Friday, December 9, 2011

# STAFF RECOMMENDATION

Staff recommends that the California Coastal Commission (Commission) authorize the Executive Director or his designee to approve and sign a contract for an amount not to exceed \$500,000 to procure software and licensing for a database software system that will upgrade and replace the Commission's Permit Tracking and Data Management System.

# MOTION

"I move that the Commission authorize the Executive Director or his designee to enter into a contract for an amount not to exceed \$500,000 to procure software and licensing for a database software system that will upgrade and replace the Commission's Permit Tracking and Data Management System, in accordance with the Department of General Services instructions."

Staff recommends a YES vote.

### BACKGROUND

The Commission currently maintains a statewide Permit Tracking System (PTS) and other stand alone databases containing records on more than 100,000 permit decisions made within its jurisdiction. The PTS contains data from 1996 to the present; records of the approximately 75,000 permit decisions prior to 1996 are maintained as paper records. The PTS was developed in-house by staff during the mid-1990's and is comprised of several linked Microsoft Access databases. The Commission's current data management system, as currently architected in Microsoft Access, is technically incapable of meeting the Commission's business needs for permitting, land use, enforcement and other program functions.

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The Commission intends to replace its existing PTS and related databases with a Commercial off the Shelf (COTS) database software solution to collect, store, organize and analyze data and information to meet the business needs and objectives of the Commission. The system will also provide linkage to the Commission's Geographic Information Systems (GIS) to support spatial analysis, and provide integration with records management system.

Beginning in 2006, Commission staff sought funding to upgrade the existing dabase systems through grant applications, budget augmentations and other sources. In 2010, Commission staff, working with staff from the California Natural Resources Agency and the California Technology Agency developed a Feasibility Study Report (FSR) for the Commission's Coastal Data Management System upgrade project. A completed and approved FSR is a requirement for funding IT related projects for all state agecies. The FSR for the Commission project was approved in April 2011.

Concurrent with the completion of the FSR, Commission staff developed a Budget Change Proposal (BCP) seeking augmentation of \$1,136,000 to the Commission's Operating Expenses and Equipment (OE&E) budget from a recent deposit to the Violation Remediation Account Fund 0565 (VRA) (non-general fund) from the settlement of an old Coastal Act violation case. The VRA is the depository account for fines and penalties paid to settle violations of the Coastal Act. The VRA is administered by the State Coastal Conservancy. Funds from the VRA are appropriated by the Legislature to be expended for carrying out the provisions of the Coastal Act. State Coastal Conservancy Management Staff concurred with the direct appropriation of VRA settlement monies to the Commission for this essential database modernization project. The BCP was approved in April 2011 and included in the Governors budget for FY 2011-12, which was signed by the Governor in June 2011.

In addition, the Commission obtained a one-time federal grant for the project from the Department of Commerce through the National Oceanic and Atmospheric Administration (NOAA). NOAA is providing \$176,783 for the Commission to support scoping, design and database configuration of the new Coastal Data Management System.

The first phase of this two year project involves the procurement of appropriate database software that meets the objectives and requirements of the Commission's Coastal Data Management System project. The second phase will include the procurement of consultant services to design and configure the system, migrate existing data into the new database system and train staff in the administration and operation of the new system.

# **CONTRACT SPECIFICATIONS**

In accordance with state contracting requirements, a Request for Quotes for IT Goods (RFQ-ITG) was prepared by the Commission staff and posted on BidSync on November 1, 2011. Copies of the RFQ were emailed to three vendors who had previously been in contact with Commission staff regarding the project and requested notification

The RFQ-ITG stated the Commission's goals and objectives for obtaining said goods, specified all required technical specifications and requirements to be provided by the database software, and outlined the criteria upon which quotes would be evaluated. The RFQ-ITG included the following specifications:

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# **Enterprise Architecture Requirements**

The following list of enterprise technology architecture requirements guides the interoperability and sustainability of the California Natural Resources Agency and its' Departments' technology environments. The proposed solution should clearly illustrate how each of these architectural requirements are satisfied or receive an exemption from the California Natural Resources Agency Chief Information Officer or his designee the Agency Chief Enterprise IT Architect.

- 1. Systems that utilize a relational data base must use the Department's current standard of either Oracle 11gR2 or Microsoft SQL Server 2008SP2.
- 2. Systems must be able to run on one of the Department's standard server operating systems, which currently are: Red Hat Linux 5.x or Windows 2008 64-bit.
- 3. Solution must be able to operate in a VMware ESX environment.
- 4. Open standards and the use of common interfaces are required. Use of open standards such as J2EE, Net, XML, Flex and others allow for ease of integration and provides for a reduction in complexity.
- 5. Reusable services must be accessible throughout the heterogeneous Natural Resources Agency/Department network. Web services will be mediated through an enterprise service bus, provided by the Natural Resource Agency.
- 6. Solution must be able to function through a reverse-proxy.
- 7. The system must support multiple document types (i.e. XML, XSL, .doc, .xls, .mpp, .vsd, pdf etc.).
- 8. The system must have the ability to support device independence at the presentation layer.
- 9. The system must use messaging when transportation of information leaves the boundary of application or service.
- 10. The system must have the ability to support web services including Simple Object Access Protocol v1.2 (SOAP) and WSDL 2.0 for shared services.
- 11. The solution must adhere to security architecture standards including authentication and data flow security.
- 12. The system must separate the data, rules for managing the data, and the methods of accessing the data from the application. Infrastructure, data, and applications will be designed in such a way that they can be maintained independently of each other.
- 13. The system must have the native ability to present or supply business data as XML.
- 14. The system must have the native ability to render data as PDF, HTML, CSV and XML.

- 15. The solution must be LDAP V3 compatible.
- 16. Solution must be able to run on minimum desktop configuration of single CPU, 2GHz, 3GB RAM.
- 17. Solution must be able to run on both 32-bit and 64-bit desktop environments.
- 18. Solution should be able to run on common industry browsers (IE8, Firefox, Safari, etc.)
- 19. Solution should not impose limits on elements, files, volumes, and records.
- 20. Solution logic will be developed to a n-tier architecture.
- 21. Solution performance will be defined during the analysis phase of the project.
- 22. Geospatial solution should be able to utilize Oracle 11gR2 Spatial.
- 23. Geospatial solution components must utilize ESRI v10.x products such as ArcServer, ArcSDE, Image Server, etc.

# **Functional Requirements**

- The system must be compatible with the Commission's Microsoft based computer and network environment. The Commission operates on a standard TCP/IP-based network, with Active Directory domain services. Microsoft XP Professional SP3 is the current Commission supported client computing platform, with Microsoft Windows 7 Business being the next planned supported operating system, proposed solution must operate on both Windows XP and Windows 7 platform.
- 2. The system must support at least 130 users, and be scalable to support additional users in the future.
- 3. The user interface for the system must be simple web enabled (or use a browser style interface), to allow for easy and simple data input, retrieval, query and analysis.
- 4. All business functions of the selected solution must integrate with Microsoft Office 2003 and Adobe Acrobat/Reader as the production software suites, and be compatible with later versions of these software suites as system upgrades occur in the future. In addition, supportability with all major internet browsers is required, especially Microsoft Internet Explorer (version 6.0 or later) and Mozilla FireFox (version 3.x or later) is required.
- 5. The system must have the capability to handle a yearly flow of at least 2,000 permits, with projected peak of 250 permits/month and manage a wide range of permit types, scales, and durations, and associated schedules.
- 6. The system must be capable of integrating with existing PTS data. The existing PTS database (in Microsoft Access) is approximately 200 MB in size. The PTS contains

approximately 100,000 permit records, of which approximately 3200 are active or open permit files.

- 7. The system must accommodate any and all of the unique features, functions or report output requirements of the existing PTS. These include standard queries and output reports (currently numbering approximately 25), and standard forms, letters and documents (currently numbering approximately 20).
- 8. The system must provide report generating capabilities for producing routine notices, permits and related documents, and other reports directly from the new database system. (A simplified permit processing workflow diagram is attached as Attachment 2.)
- 9. The system must allow for simple modification of document templates or creation of additional reports, as needed, and must be compatible with existing Microsoft word processing software.
- 10. The system must have the capacity to include or integrate the Commission's historic permit information (1973-1996) and related documents, and provide flexibility to expand data management capacities in the future.
- 11. The system must be compliant with applicable accessibility requirements (Government Code, Section 11135 and Section 508 of the Rehabilitation Act of 1973.)
- 12. The system must allow for easy management and administration by IT and administrative staffs.
- 13. The system must include a simplified administrative interface that does not require programming to use, maintain, configure or modify the database system.
- 14. System administration must allow for restricting access to data as required.
- 15. The system must have adequate QA/QC controls to enforce data consistency and completeness, support error-checking and standardization in data-entry forms to ensure that database is complete and accurate.
- 16. The system must support the integration and replacement of multiple existing databases into a single database system (all existing databases are currently created using Microsoft Access).
- 17. The system must support integrating all unique data and attributes from separate databases into the new database system.
- 18. The system must accommodate any and all of the unique features, functions or report output requirements of these stand alone databases.
- 19. The system must support configuration to capture all of the necessary program, permit and other regulatory data to comply with the federal program reporting requirements. The system must have adequate controls to enforce data completeness requirements and create necessary reports to meet federal reporting

requirements. The system must support the capture and storage of all unique data and attributes currently collected by the Commission in electronic and paper formats.

- 20. The system must provide capabilities to create both standardized and customized data queries and reports. The system must provide the ability to quickly and easily select and gather information, analyze data, identify trends or timelines, or create output reports to assist in evaluating compliance with statutory or regulatory requirements, program effectiveness or improvements in the Commission's programs and operations.
- 21. The system must provide calendaring and "tickler" functions to alert staff of a pending or overdue inspection of permits, condition compliance deadlines, or other relevant regulatory deadlines.
- 22. The system must allow for flexible management of these notifications through the use of advanced calendaring, email notification and other mechanisms to support these tracking needs.
- 23. These functions must provide accessibility to calendars and schedules to all staff throughout the agency.
- 24. The system must support permit and condition compliance monitoring. The system must provide quick access to reliable and up to date parcel, permit, condition, and violation information (e.g. application status, permit status, violation status, recorded document status).
- 25. This automated tracking of permit condition, mitigation and reporting requirements, including associated easements, OTDs, and deed restrictions must be tied to the calendaring and "tickler" functions, discussed above. These functions must provide accessibility to calendars and schedules to all staff throughout the agency.
- 26. The system must allow linkage to external web based data sources currently used by the Commission (e.g., CoreLogic Realquest services).
- 27. The system must link to the Commission's GIS and support the use of geospatial analytical tools by staff.
- 28. The system must be compatible with ESRI GIS software systems and products.
- 29. The system must provide ability to save a map image, with an option to show the legend, as a .jpg or .pdf file so that it can be sent via e-mail or included in a report.
- 30. The system must provide capability to mark up a map with temporary graphics (points, lines or polygons) and text annotation.
- 31. The system must provide ability to query the system in real time and dynamically display the locations of current permits, activities or cases on the map. The system must support queries of database information (and relevant attributes) from both the database and map interfaces.

- 32. The system must provide the ability to leverage multiple map services in a single integrated map viewer.
- 33. The system must have the capability to include data and tracking of LCP amendments and processing, statewide planning data, provide linkage to approved LCP policies, ordinances or zoning information for specific jurisdictions or geographic areas.
- 34. The system must have the capability to include similar data and tracking of Public Works Plans and University Long-Range Development Plans, Port Master Plans or Port Master Plan Amendments, and provide approved policies, ordinances or zoning information for relevant jurisdictions or geographic areas.
- 35. The system must support online public access to permits and reports via the internet.
- 36. The system must provide document management capabilities.
  - a. Must be able to link to documents, forms and/or reports related to specific permits, LCPs or items tracked in the database.
  - b. Include or be able to integrate with records management software, such as Documentum or equivalent.
  - c. Provide linkage to the Commission's electronic storage of digital documents, reports and data on projects and LCPs, and other regulatory documents.

# CONCLUSION

Staff is currently completing the review of three submitted responses to the RFQ-ITG. Upon completing review of all quotes and completion of a mandatory 5 day protest period, the vendor receiving the highest value/cost score based upon RFQ-ITG specifications will be awarded the database software contract, as stated above. Staff recommends that the Commission authorize the Executive Director or his designee to approve and sign a contract for an amount not to exceed \$500,000 to procure software and licensing for a database software system with the vendor awarded the contract.