SCOPE OF WORK

PARS ENHANCEMENTS 2014

HRPDC and URS Corporation (the A-E) have been working to develop and implement a web-based Permit Administration and Review System (PARS) since June 2007. The PARS database was developed initially to help localities comply with data reporting requirements in their Municipal Separate Storm Sewer System (MS4) permits. The database tracks the construction and inspection of stormwater management facilities (BMPs), and many other activities related to MS4 Permit compliance, including: outfall monitoring and mapping; public education and outreach; erosion and sediment control program activities; training; environmental complaints; dry weather screening; and operations and maintenance.

Recent changes in MS4-related regulations put more pressure on local MS4 Program Administrators to achieve compliance with the terms and conditions of their permits. HRPDC Stormwater Committee members have requested that the PARS system be upgraded to alleviate some of this pressure. This Scope of Work provides funding to enhance the capabilities of the PARS system in response to recently promulgated changes to the applicable stormwater regulations.

The A-E shall use Virginia Technology Group as a subconsultant on this assignment. The A-E and Virginia Technology Group have completed similar web development and implementation assignments for HRPDC in the past, and enjoy a good working relationship with HRPDC and its member jurisdictions.

Task 1: Basic Services

The A-E and its sub-consultant (Virginia Technology Group) shall provide coding and design services to upgrade PARS as described below.

Basic Enhancements
1. Add project tracking functionality that allows users to track specific land disturbing projects (many of which span more than one real estate parcel—such as construction of a regional BMP or roadway project). The information to be tracked will include:
   a. Total acres of the project
   b. Total pervious and impervious acres treated by BMPs
   c. Total acres of the project that are "new development" and "redevelopment"
   d. Nutrient trading data specific to the project (if any), specifically noting the locality where the offset exists, and connecting the credits to the project.
   e. Links to BMPs on the project (BMP data will continue to be entered in PARS as in the past, but now the BMPs will be linked to parcels *and/or* projects)

f. Whether or not the project was grandfathered under the VSMP Regulations

g. Total acres qualifying as a retrofit project

2. Overhaul the BMP types in PARS. Over the past seven years Virginia has used a BMP Clearinghouse sponsored by the Departments of Conservation and Recreation and Environmental Quality to establish performance and inspection standards for an increasing number of BMPs. Considerable effort was invested by HRPDC committee members when PARS was initially developed to simplify, aggregate and standardize BMP types and inspection forms for use in Hampton Roads. The original PARS development committee settled on 13 BMP types with common inspection forms. The HRPDC Stormwater Committee will select BMPs from the Clearinghouse to be included in PARS, and will agree to common inspection form elements for each BMP, with the goal of minimizing the total number of distinct inspection requirements. For example 20 BMP types might have 12 or so distinct forms. The A-E will code the selected BMP types into PARS, with their appropriate inspection requirements (as defined by the HRPDC Stormwater Committee). Note: the Clearinghouse typically defines two performance levels for most of their BMPs, such as a Wet Pond 1/Wet Pond 2 or Constructed Wetland 1/Constructed Wetland 2. Each pair of BMP design standards can be accommodated as one BMP type for the purposes of PARS. As of June 2014 there are 15 non-proprietary BMP types on the [Clearinghouse website]. Proprietary and Manufactured BMPs will be treated as a single BMP with inspection requirements defined by the HRPDC Stormwater Committee.

3. Provide coding to accommodate the switching of BMP types by the user. For example, the user may wish to reclassify a BMP that has been historically tracked and inspected in PARS as a different type of BMP based upon the new Clearinghouse definitions. This switching capability will be available only to PARS administrators through the BMP menu (to minimize potential data entry problems). If a BMP has been switched to a different type, the PARS reports and data exports will be upgraded under this task to note the switch. A field will be added in the PARS reports to note if the BMP type has been switched.

4. If the HRPDC Stormwater Committee decides to make sweeping BMP type changes, such as "all BMPs previously classified as a *detention basin* will henceforth be classified as an *Extended Detention Pond 1*," these changes will be made on the underlying database by the A-E, and a crosswalk document created as part of the PARS documentation.

5. Based upon explicit direction from the HRPDC Stormwater Committee, field names in PARS forms and reports will be modified—where appropriate—to match the current terminology used by DEQ. For example, the "date online" for BMPs could be changed to read "date installed." It will be up to the HRPDC Stormwater Committee to agree upon and direct these changes, as terms are interpreted differently across jurisdictions.

Attachment 9-A

6. Add a Total Suspended Solids (TSS) field to the database and reports that track annual TSS pounds removed (similar to the existing capability for TN and TP).
7. Update the PARS documentation to reflect the enhancements described above.
8. Conduct a one-hour training session at HRPDC.

Assumptions and Limitations:
This Scope of Work is a continuation of certain services formerly performed by the A-E and Virginia Technology Group for HRPDC. The work described herein is priced using the following assumptions and limitations:

i. Services are in addition to the monthly maintenance provided separately in another work order between the A-E and HRPDC.
ii. HRPDC shall provide a single PARS liaison to represent the HRPDC Stormwater Committee to the A-E. Coordination with the committee will generally be handled by the liason without the A-E having to attend meetings (to preserve budget).
iii. This scope of work does not include preparing reports as may be required under the terms of any permit.
iv. This project will be developed assuming the following design:
   a. The site will support the current major browsers (IE, Firefox, and Chrome) with a "Current Version minus Two" approach, meaning the current version, plus the previous two versions, (currently 11, 24, 30, respectively).
   b. Microsoft Azure Websites and VMs
   c. Microsoft SQL Azure
   d. Microsoft Azure Table and Blob Storage
   e. SendGrid
   f. ASP.NET 4.0+ MVC 3+ (Server)

v. In order to keep development costs down, cross-browser compatibility is not part of these design requirements, nor is compatibility with alternate operating systems or database systems. The A-E will try to avoid design components that are problematic across different browser platforms, but will use the browser specification above for this assignment.
vi. The A-E will host the PARS development and testing environments under a separate task order with HRPDC. No additional charges are required under this task order.
vii. The proposed web pages will not be designed to any web coding standard, requirement, code, or protocol, such as the Americans with Disabilities Act.
viii. Follow-up support will be provided under separate work orders already in place (i.e. this particular scope of work does not provide funding for follow-on support beyond the initial rollout of the system enhancements described above).
ix. The A-E shall provide updated 'Help' documentation similar to that produced for previous versions of PARS (in electronic format only, directly accessible from the PARS web site).
x. This project involves a great deal of development and coding within a limited budget. HRPDC and the A-E shall work to shape the project deliverables to fit reasonably within the available budget.

Attachment 9-A

Deliverables and Schedule:
The A-E shall work to substantially complete the work described above and implement the upgraded PARS system within **120 days** of receipt of notice to proceed. This schedule does include providing a one-hour training session using electronic documentation, similar to those sessions provided by the A-E in the past (facility and computers to be provided by HRPDC and/or others). This schedule does not include allowances for delays that are beyond the A-E's control, such as delays in receiving guidance from the PARS Committee, or regulatory guidance.

Optional Services:
The A-E can provide the following optional services if directed. Any optional services shall be negotiated as either as an addendum to this work order, or as a separate work order.

9. Add functionality for follow-up and re-inspection of BMPs. Add a filter query and report for follow-up and re-inspection actions required for BMPs.

10. Add the ability to "copy the prior inspection." Don't copy dates but do copy radio button settings and comments. Add a pop-out for reviewing prior inspection records, and add the capability to copy records to current inspection report.

11. Add a zoom on the Google Maps feature to each specific street address when the mapping function is invoked (currently the default is center of Hampton).

12. Add a limited database spreadsheet editing or import capability so users can sort information and make adjustments without having to type in file numbers one-at-a-time in PARS web forms.

13. Add functionality for tracking land use changes such as buffer/wetland restorations and oyster reefs.

14. For Phase II permittees, add the capability to identify: 1) Urban vs. non-urban BMPs; and CBPA vs. non-CBPA BMPs.

15. Streamline ASP code to reflect changes in ASP.NET since the last major development effort.

16. Improve the PARS menu system by rearrange and categorize Forms and Reports. PARS has grown to have a large and number of forms and reports that can now be streamlined to simplify the menu system.

Attachment 9-A