

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 28, 2016

TO: Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)

FROM: Jim Smitherman, NNWPC Water Resources Program Manager

SUBJECT: Review and possible approval of a scope of work and budget, not to exceed \$5,000 per year for two years from the Regional Water Management Fund ("RWMF"), for the Truckee Meadows Regional Planning Agency (“TMRPA”) ArcGIS Server Maintenance project; and, if approved, authorize the Program Manager to execute an interlocal agreement with the TMRPA Regional Planning Governing Board for that purpose; possible direction to staff.

SUMMARY

Staff requests that the NNWPC review and approve the Scope of Work and Budget (attached “Exhibit A”) for the proposed ArcGIS Server Maintenance project which will provide for maintenance of data sets, GIS processing and internet-based data sharing capabilities between TMRPA, NNWPC and other agencies. Water and wastewater GIS data sets, developed as part of the Regional Data Development and Analytical Program and stored on the TMRPA ArcGIS server, have been used to develop projections of regional water use and wastewater flow associated with various 20-year growth scenarios and provided for use in the Regional Water Management Plan 2016 update. This item, if approved, will provide for ongoing maintenance of the ArcGIS server during Fiscal Years (“FY”) 2016-2017 and 2017-2018.

BACKGROUND

The Regional Data Development and Analytical Program was completed as of June 30, 2016. TMRPA accomplished the scope of work and finished significantly under budget, leaving an unexpended balance of approximately \$300,000.

FISCAL IMPACT

Funding for the TMRPA ArcGIS Server Maintenance project is included in the RWMF Routine Operating Expense budget for FY 2016-2017. Budget authority is located in Fund 7066, under Cost Center WP310707, Account Number 710100.

RECOMMENDATION

Staff recommends that the NNWPC approve the scope of work and budget and authorize the Program Manager to execute an interlocal agreement with the Regional Planning Governing Board for the project.

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Attachment: Scope of Work and Budget

Exhibit A

Scope of Work and Budget

ArcGIS Server Maintenance

Truckee Meadows Regional Planning Agency

The Truckee Meadows Regional Planning Agency (TMRPA) staff and the Western Regional Water Commission (“WRWC”) staff began working cooperatively in 2011 on the Regional Data Development and Analytical Program. Completed as of June 30, 2016, the program developed significant geospatial data sets for water and sewer services and facilities, which are housed on TMRPA’s ArcGIS server. These data sets, combined with TMRPA’s GIS processing and modeling capability, provided valuable input for the Regional Water Management Plan 2016 update, particularly projections for population, water demands and wastewater flows. WRWC staff and TMRPA staff are interested in continued cooperation for maintaining data sets, GIS processing and internet-based data sharing capabilities.

Current and future uses:

TMRPA has leveraged its ArcGIS Server software and architecture to serve many community needs that benefit from the use of GIS data. The majority of this work has a direct link to water resource planning efforts in the region, especially as this software product helps TMRPA perform spatial modeling of future population and employment within the Truckee Meadows. Some relevant uses and products created by TMRPA using ArcGIS Server are listed below.

- Scenario planning efforts such as the TMRPA Housing Study, wherein the region is examining the relative cost difference to serve new residential developments with water and sewer service when considering 4 distinct scenarios of future residential growth in the Truckee Meadows. The server product allows GIS data sharing over the internet with participating water and wastewater staff members that do not typically use GIS. This, in turn, allows for collaboration and coordination in assessing the impact of different development futures.
- TMRPA has created several online viewers for the dissemination of planning-related GIS data about our region. Some of these are listed below:
 - Regional Plan Data Viewer – an online viewer application that allows interactive viewing of the GIS data layers and boundaries associated with the Truckee Meadows Regional Plan
 - Approved Future Units Viewer – knowing where future residential developments are planned/approved is a crucial component of predicting future build out. This tool allows planners and the public alike to query proposed (and realized) housing units in active tentative map areas and in planned unit developments.

- Regional Economic Resource Portal (RERP) – an online viewer of business point data that allows the Economic Development Authority of Western Nevada to query business information (e.g. number of employees) by location, name and industry type.
- Publishing online map services for use in third-party applications. For example, an app on the Regional Transportation Commission’s website utilizes an online map service from TMRPA to let potential customers know whether or not their address falls within the ADA Paratransit service boundary.

Technical Information:

TMRPA utilizes a suite of geographic information systems software distributed by the Environmental Systems Research Institute (ESRI). One crucial component of this software suite is ArcGIS Server. ArcGIS Server allows an organization to centralize GIS data in an enterprise geodatabase that can be accessed using desktop applications such as ArcMap, but also provides the capacity to serve up geospatial data on the internet through the use of online map services. After initial purchase, the ArcGIS Server license requires an annual maintenance fee for technical support and for access to new versions of the ArcGIS Server software.

Currently, TMRPA uses a four-core application server to manage and distribute data from the TMRPA Regional Data Warehouse. ESRI charges an annual licensing fee of \$5,000 for a server of this configuration. Paying the license maintenance allows TMRPA access to the most current ArcGIS Server software version and thus ensures that TMRPA map data and web mapping applications remain compatible with the constantly evolving web protocols, security standards and development environments found on today’s internet.

Furthermore, staying current with license maintenance fees will guarantee that ESRI support staff are available to assist TMRPA in the event of technical issues which may arise around the storage, management and distribution of important regional geospatial datasets. Additionally, staying current with license maintenance allows TMRPA the use of several online services from ESRI such as the creation of story maps, smartphone and tablet applications, real-time data processing and much more.

Budget

109216 ArcGIS for Server Enterprise Standard Up to Four Cores Maintenance Start Date: 02/21/2016 End Date: 02/20/2017	5,000.00	5,000.00
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