



**Water Business Group**  
Recharge Fresno Program Office  
2101 G Street, Bldg A  
Fresno, CA 93706  
(559) 621-1614  
www.ch2m.com

April 25, 2017

Fresno P.O. No.: 0000071366, 0000070907, 0000071006, and 0000071005  
CH2M Project No.: 482124

Mr. Michael Carbajal  
City of Fresno  
Department of Public Utilities – Water Division  
2101 G Street, Bldg A  
Fresno, CA 93706-1620

Subject: Fresno Metro Program – Program Management Services  
CH2M Program Management Contract Annual Summary Report for FY 2017

Dear Mr. Carbajal:

I am pleased to submit the attached Program Management Contract Annual Summary Report for FY 2017 programmatic activities, summarizing the CH2M team's fiscal-year-to-date financial performance, staffing, accomplishments and activities for FY 2017 program management services provided under our Professional Consultant Agreement approved by City Council on October 31<sup>st</sup>, 2013.

Please note that this report is currently submitted prior to completion of the fiscal year. Therefore, unbilled activity has been estimated to enable approximation of final expenditure values.

CH2M is proud to serve you in implementing your Water Capital Improvement Program. I hope that this summary report provides appropriate and adequate information regarding FY2017 activities and accomplishments.

If you have questions or would like to discuss this document, please contact me at your convenience.

Sincerely,

A handwritten signature in blue ink that reads 'Gino Rapagna'.

Gino Rapagna  
Senior Program Manager  
CH2M

## **EXECUTIVE SUMMARY:**

On October 31, 2013, the City Council approved a professional consultant agreement with CH2M HILL for Program Management Services, in the amount of \$6,993,000. Since then, CH2M HILL has engaged in program support services related to program oversight and operations; project management, construction management, engineering and technical support, program controls; project validation and budget planning; financial and funding support; document management; stakeholder communication; public outreach and communication; Administration and Council communication support; CIP planning; regulatory and environmental support; permitting support; hydraulic modeling and GIS support; business and operational improvement planning and implementation; resource planning and staff projections; development of a Program Management Plan and set of delivery guidelines; program systems development and maintenance (PMIS, DMS, SharePoint, Public Website, etc.); professional outreach and awards facilitation as well as many other as-needed and as-requested support activities. The purpose of these activities is to enable accurate budget forecasting, appropriate planning for project implementation, use of best and most efficient practices in project delivery, reduction of overall CIP implementation costs and improved asset management, during current and future heightened levels of CIP activity.

On August 5, 2014, the City approved Amendment No. 1 to the original professional consultant agreement, extending the period of service for original contract (FY2014) funding through July 2014.

On August 28, 2014, the City Council approved Amendment No. 2 to the original professional consultant agreement, providing additional funding in the amount of \$6,900,000 for FY2015.

On June 18, 2015, the City Council approved Amendment No. 3 to the original professional consultant agreement, providing additional funding in the amount of \$7,100,000 for FY2016.

On August 5, 2015, the City Council approved Amendment No. 4 to the original professional consultant agreement, providing additional funding in the amount of \$1,140,000 for FY2016.

On May 19, 2016, the City Council approved Amendment No. 5 to the original professional consultant agreement, providing additional funding in the amount of \$11,950,000 for FY2017.

Program Management Services are focused on achieving the following goals:

- Develop best-in class Program and project management systems to enable on-schedule and on-budget project delivery.
- Improve effectiveness and efficiency of project delivery and O&M activities.
- Communicate the value of the Water Capital Plan to customers and all stakeholders, maximize involvement of local business, and create opportunities for economic development.
- Ensure a safe potable water supply to customers while mitigating impacts from pending regulations.
- Implement Water Capital Plan projects to enable a balanced water supply by maximizing use of surface water supplies, reducing groundwater pumping, and increasing groundwater recharge, water conservation and water reuse.
- Apply asset management strategies to renew aging infrastructure.
- Enable knowledge transfer to support professional development and certification for Water Division professionals.

This report summarizes the CH2M HILL team's financial performance, staffing, accomplishments and activities for FY 2017 program management services provided under the Professional Consultant Agreement approved by City Council on October 31<sup>st</sup>, 2013.

Including actual billings through the end of March and projected billings for April through June, expenditures against Amendment #5 are estimated at \$11.95 million, in comparison to an \$11.95 million budget. Thus, it is anticipated that no surplus budget will remain.

Current integrated team staffing is currently at 49 team members, including 12 City staff, 36 CH2M HILL Team staff and 1 safety consultant. Size of the integrated team may increase or decrease as necessary to assure effective delivery of the Department of Public Utilities' CIP. The integrated team is supplemented by staff assigned to local and remote consultant/subconsultant offices, these staff bringing necessary and valuable

expertise in many areas of program delivery, design and construction management. Included in the current integrated team staff are 13 from local subconsultants, 6 local hires, and 11 staff that have relocated their homes to the Fresno area.

A list and description of significant program and project-specific accomplishments and activities may be found starting on Page 2 of this report. These accomplishments contribute greatly to the City's future success in implementing the many important projects of Recharge Fresno, the Metropolitan Water Resources Management Plan, the Recycled Water Master Plan, and the overall Department of Public Utilities CIP.

**PROGRAM MANAGEMENT SERVICES AMENDMENT #5 BUDGET PERFORMANCE:**

<b>FY 2017 Budget, Billings and Surplus:</b>	
Authorized Budget, Amendments #5:	\$ 11,950,000
Actual Billings, through February 2017:	\$ 7,083,175
Estimated Billings, March through June 2017:	\$ 4,866,825
Estimated Billings, through June 2017:	\$ 11,950,000
Estimated % spent, through June 2017:	100 %
Estimated Surplus, at end of June 2017:	\$ 0

**FY 2017 INTEGRATED STAFFING:**

<b>Integrated Team Members (thru Mar 2017):</b>	<b>City Staff</b>	<b>CH2M Team Staff <sup>(1)</sup></b>	<b>Total</b>
Program Management	1	1	2
CIP Project Management	3	3	6
Engineering & Technical Support	7	2	9
Construction Management		22	22
Permitting and Real Estate		1	1
Community Relations		3	3
Program Controls		2	2
Document Mgmt and Administrative Support	1	2	3
Safety Oversight (SafeWork)	1		1
Interns			0
<b>Total</b>	<b>13</b>	<b>36</b>	<b>49</b>

<sup>(1)</sup> Includes current CH2M HILL Team staff who are integrated full- or part-time into the Program team. Does not include staff which support the Program on an as-needed basis from other offices. Does not include City staff assigned to Wastewater Division's CIP projects

**FY 2017 ACCOMPLISHMENTS:**

Listed below are highlighted accomplishments of the integrated Program Management Team during FY2017, to date.

Progress on Major CIP Projects

- Friant-Kern Canal Pipeline (FKCP):
  - *Initiated and progressed construction through approximate 90% completion level by end of fiscal year.*
  - *Completed "in-canal" work at Friant-Kern Diversion site on schedule and in time to allow necessary flood releases from Millerton Lake.*

- Kings River Pipeline (KRP):
  - *Initiated and progressed construction through approximate 35% completion level by end of fiscal year.*
  - *Completed "in-canal" work at Kings River Diversion site on schedule and in time to allow potential increased flood releases from Pine Flat Lake.*
  - *Maintained strong public and stakeholder outreach as related to construction phase communications for work occurring along the pipeline route.*
- Southeast Surface Water Treatment Facility (SESWTF):
  - *Progressed construction through approximate 50% completion level, including anticipated completion of major off-site (pipeline and frontage road construction) by end of fiscal year.*
  - *Completed construction of most major concrete structures and anticipate to begin heavy mechanical installation by end of fiscal year.*
  - *Anticipate completion of acceptance testing of plant control system (SCADA) in June 2017.*
- Regional Transmission Mains (RTMs):
  - *For Segments A1, initiated and progressed construction through approximate 50% completion level by end of fiscal year.*
  - *For Segments A2, initiated and progressed construction through approximate 25% completion level by end of fiscal year.*
  - *For Segments B, completed bidding of construction contract and anticipate contract award by end of fiscal year.*
  - *For Segments C, completed design and anticipate completion of construction contract bidding by end of fiscal year.*
  - *Maintained strong public and stakeholder outreach as related to construction phase communications for work occurring along the pipeline routes.*
- Recycled Water Transmission Mains (RWTMs):
  - *For Segments SW1C, completed construction and testing.*
  - *For Segments SW1B and SW1C, anticipate completion of construction and testing, and readiness for start-up, by end of fiscal year.*
  - *For Segment SW1C2, anticipate finalizing design and bidding contract by end of fiscal year.*
  - *For Segments SW1D and SW4, anticipate progressing design to 90% completion, for bidding next fiscal year.*
- Northeast SWTF Water Storage Tank:
  - *Initiated and completed preparation of procurement documents for design-build solicitation.*
  - *Anticipate selection of design-build contractor and award of design-build contract by end of fiscal year.*

#### Program and Project Delivery

- Closely collaborated with construction contractors to elevate safety as a top priority of the Recharge Fresno Program, enhance the safety orientation and culture of Program team, avoid significant personal injury, and maintain a low OSHA Recordable Incident Rate for the overall Program.
- Managed cost and delay risk to maintain on-schedule and on-budget performance for overall program.
- Enhanced project delivery systems and continued to employ Earned Value Management (EVM) practices to accurately track and forecast progress in alignment with spending.
- Initiated and maintained comprehensive reporting to Capital Project Oversight Board regarding status and change for all large construction contracts.
- Enhanced project budgeting, approval and change management practices and tools.
- Further improved front end specifications to support effective construction management and risk mitigation.

- Maintained strong public outreach to keep community up to date on major construction activities and impacts to the community. Improved communication media including the RechargeFresno.com public website and printed materials.
- Collaborated with Fresno Irrigation District and County of Fresno to assure best coordination of construction related traffic control and public outreach activities.
- Coordinated with utility companies to best manage utility conflict risks during construction.
- Increased participation of local consultant and contractors through inclusion of local consultants on Program Manager's construction management teams, and through right-sizing of construction contracts.
- Consistently and effectively managed contractor prequalification for all major projects to meet requirements of the Construction Management Act and to minimize risk of protest by contractors.
- Maintained level of construction management staffing to assure appropriate resources are in place for effective construction oversight and quality control, and to minimize cost by most efficiently utilizing assigned staff across multiple projects.
- Further enhanced Project Management Information System (PMIS), including the Program Delivery Portal, Program Performance Dashboards, and document management systems.
- Further enhanced on-line tools for construction contract, change and records management, reporting and maintained consistency in construction contract management practices across all projects.
- Started application of improved project management, planning and engineering practices to recycled water distribution system projects, similar as has been applied to Recharge Fresno water projects over the past few years.

### **FY 2017 ACTIVITY:**

To accomplish goals listed in the Executive Summary, program management services have been categorized in the following three areas of activity:

- Program Management and Administration - This area of activity focuses on ongoing program-level activities to support programmatic oversight and execution.
- Program Initiation - This area of activity includes activities necessary for program set-up and to enable readiness for ongoing program management and project delivery functions. These tasks are essentially complete, although certain systems are being further developed and refined.
- Project Delivery - This area of activity includes staff augmentation for project-specific project management and technical support, to enable successful and efficient delivery of planned capital projects.

The following table includes general descriptions of activities performed within each task during FY 2017, although it is not inclusive of all program activity.

<b>CH2M Task Number and Description</b>	<b>Activity Description</b>
<b>Task 01</b> <b>Program Management &amp; Administration</b> (Task 01 activities are generically described to reflect ongoing program efforts.)	
01.01.PM - Program Mgmt	Management, oversight and/or support for all program activities, including: Staffing and staff oversight; Management, administration and council communication; Team communication; Planning; Financial planning and funding; Project management and engineering; Construction management, quality assurance and control; Program controls and document management; Change management; Risk management; Environmental review and permitting; Land acquisition; Procurement; Public outreach and community relations; Operations, commissioning and start-up support; Business and operational improvement support; and Training and skills transfer; as well as management and oversight of all activities relating to CH2M's service to the City of Fresno. Also provided support for preparation of materials and presentations for communication with City Administration and Council Members and the community, and guidance to City team leadership regarding Program and CIP management practices.
01.01.AD - Program Admin	CH2M contract budgeting, financial management and invoicing; subconsultant procurement, administration and financial/contract management, labor compliance management, and program/construction offices administrative support.
01.01.SM - Safety Management	Safety-related guidance and support, including advising and consulting with the Program Leadership Team and the City's Safety Oversight Lead to drive best practices and safety culture development; as well as CH2M-specific safety reviews/direction as related to CH2M construction management activities, including periodic (quarterly) visits to the Program office and active construction sites.
01.01.PJ – Project Management Oversight, Support and Coordination	Oversight of CIP project management (PM) activities, including providing overall PM coordination, facilitating PM meetings, working with PMs to understand and improve CIP project performance, communicating and driving consistent use of established PM practices and guidelines, and other general PM-related activities.

<b>CH2M Task Number and Description</b>	<b>Activity Description</b>
01.01.CM - Construction Management Oversight, Support and Coordination	<p>Oversight of Construction Management (CM) activities, providing overall CM planning, procurement, coordination, and control of construction projects from award through completion. Ensure functionally and financially viable construction projects by managing quality assurance and driving consistent use of established CM best practices and guidelines. Further development of construction guidelines and construction related contract specification standards. Standardization of processes, systems and tools for construction management, including support for development, testing, deployment, and training. Monitoring and mitigation of general construction related issues and risks, including and especially those related to cost, schedule, quality and safety.</p> <p>Perform quality control inspection, special inspection (shop fabrication inspection and weld inspection), and construction materials sampling and testing for FKCP, KRP, RTM A1, RTM A2, RTM B, RWTM SW1A, RWTM SW1B and RWTM SW1C pipeline construction projects.</p> <p>Work with the project teams contractors and other parties to consider recovery schedule alternatives for mitigation of potential project delays and to consider and minimize contract change.</p>
01.01.PL - Permit and Land Acquisition Management	<p>Permitting and land acquisition support to Program and project teams; guidance on environmental and permitting issues; support of State Revolving Fund loan applications and reporting; maintenance of permitting and real estate documentation; oversight of permitting and environmental related field activities; response to field issues (findings, coordination with regulatory agencies, etc.). Note that most Permit and Land Acquisition work is charged to individual projects. Only non-project-specific activity would be charges to this task.</p>
01.01.PC - Program Controls	<p>Program-level controls for cost and schedule management by schedulers, cost analysts and estimators including cost and schedule database management; operation of cost and schedule systems and software; integration of City of Fresno financial data; posting of performance data to PMIS (Performance Dashboards) and other applications; preparation of monthly and ad-hoc reports; preparation of budget/funding requests; preparation of schedules and cost reports for all CIP projects; earned value management (EVM) and KPI analysis; identification and understanding of budget/schedule variances; and other program controls related activities.</p> <p>Special activities included maintaining city-wide major projects schedule for CMO; further developing and optimizing cost projection processes; developing and improving templates for program- and project-level performance reports.</p>

<b>CH2M Task Number and Description</b>	<b>Activity Description</b>
01.01.DM - Document Management	Monitoring and maintenance of all team collaboration tools and document management applications, including the Program Delivery Portal, programmatic document libraries, CM document and photo libraries, and all CM contract compliance applications (Submittal, RFIs Meeting Minutes, Daily Inspection Report, Transmittal, Contractor Payment Application, COR, RFP, WCD, CO), and other data and application accessed through the Program Delivery Portal; Creation and maintenance of CM Project Sites and associated applications for new and ongoing construction projects; Training of project team members on use of CM Project Sites and associated applications; Production of status reports for project teams to summarize outstanding RFIs, Submittals and Daily Inspection Reports; User support for project team members on all systems.
01.01.PV - Project Validation & Budget Planning	Validation and assessment of projects to support as-needed revisions to the CIP, to accommodate new projects, and project deferrals necessary to meet projected reduced revenue limitations. Work with rate consultant to analyze CIP changes and validate revised expenditure projections against approved rate plan. Coordinate CIP budget preparation process for Fiscal Years 2016 through 2021, including project cost and schedule review/modification, synchronization of CIP/project implementation plan with finance, confirmation of funding sources, and preparation for data transfer to finance.
01.01.PR - Procurement and Contracts Support	Support for preparation and coordination of consulting and construction solicitations (RFQs, RFPs and construction bid advertisements), and associated selection processes.
01.01.EP - Engineering & Planning (General)	Non-project-specific, CIP-related engineering and planning efforts. Special activities included the following: <ul style="list-style-type: none"> <li>• Engineering and tech support for preparation of NESWTF DB procurement documents, including conceptual/preliminary design, contract, RFQ, etc., and other support for implementation of DB.</li> </ul>
01.01.GT – General Technical Support	Non-project-specific engineering and planning efforts that are not related to CIP delivery. Special activities included the following: <ul style="list-style-type: none"> <li>• Technical and advisory support regarding water resource modelling.</li> <li>• Technical and advisory support for Northeast and Southeast water quality analysis.</li> </ul>
01.01.OC - Operations & Commissioning Support	Activities included operations-related technical and advisory support for Northeast SWTP water quality management.
01.01.TS - Training & Skills Transfer	Much of training and skills transfer is through interaction of team as part of other program and project activities. Charges to this task would include special activities related to training and skills development of City team members, aimed toward broadening capabilities within roles, or to transfer understanding and skills related to management of programmatic processes, system and tools which have been put in place.



<b>CH2M Task Number and Description</b>	<b>Activity Description</b>
01.01.PO - Public Outreach (General)	Maintenance and update of major project outreach plans; participation in PM meetings and other program/project meetings to provide status updates and discuss strategy for public outreach; coordination and/or support for stakeholder communications, including meetings to discuss construction impacts and provide information regarding Recharge Fresno projects; coordination with project teams to collect raw data, information and documents (narrative and photos) for use in preparing public outreach content; preparation, maintenance/update and distribution of public outreach materials (letters, notifications, door hangers, fact sheets, maps, signage, web site content, FAQs and other outreach documents), including coordination of materials and content translation for multi-lingual audiences; monitoring and logging of stakeholder communications, media and social media commentary, Recharge Fresno Information Line and e-mail inquiries, and other stakeholder correspondence, and coordination of response as appropriate; maintenance and update of Recharge Fresno website content; and coordination and development of website enhancements.
01.01.PS and 01.01.PE - PMIS Administration and Enhancements Development	Development, testing, administration and maintenance of PMIS (Performance Dashboards), Program Portal, Public Website and other applications, including help-desk support for all hosted applications. Significant activities included completion of upgrade of all construction change management applications.
01.03 - Office Establishment	Coordination and set up of temporary CM office for RTM and RWTM projects.
01.83 – Misc programmatic Labor and Expense	Miscellaneous programmatic labor and expenses, not directly related to CIP project delivery.
01.EX - Expenses - Program Mgmt, Admin & Support	Programmatic expenses, directly related to CIP project delivery.
<b>Task 03</b> <b>Project Delivery</b> (Task 03 activities include ongoing program efforts that are specific to City of Fresno CIP jobs.)	
All associated subtasks, as aligned with specific CIP projects	Project management and technical support directly and specifically associated with City of Fresno CIP jobs (as indicated on invoice by CIP job number). Aligned with City of Fresno activity codes, work efforts may have included any of the following: Project Mgmt; Scope, Cost and Schedule Mgmt; Project Controls, Cost Estimating and Scheduling; Communication Mgmt; Risk Mgmt; Change Mgmt; Contract Administration and Procurement Support; Planning; Regulatory and Environmental Support; Permitting Support ; Land Acquisition Support; Engineering, Design Oversight and Quality Control; Construction Mgmt, Inspection and Administration; Operations, Commissioning and Start-up Support; Document Mgmt; Design and other Technical Support. Projects with significant activity during FY2017 include: <ul style="list-style-type: none"> <li>• Friant-Kern Canal Pipeline</li> <li>• Kings River Pipeline</li> <li>• Southeast Surface Water Treatment Facility</li> <li>• Regional Transmission Mains (potable water)</li> <li>• Recycled Water Transmission Mains</li> <li>• NESWTF Finished Water Storage tank DB</li> <li>• Well construction and rehabilitation projects</li> <li>• Pipeline rehabilitation and replacement projects</li> </ul>