

# EXHIBIT A - SCOPE OF SERVICES

## Understanding and Approach

Special Districts must provide Chromium IV treatment for its five wells within County Service Area 70J by October 1, 2027. Recent groundwater samples have shown that these wells are above the California drinking water Maximum Contaminant Level (MCL) of 10 parts per billion (ppb) for Cr-6. Wells 1 through 5 are in the Oak Hills Area of San Bernardino County, within the City of Hesperia. Wells 1 and 2 are located on adjacent parcels, and Wells 3 and 4 are located on adjacent parcels; all are located east of the I-15 freeway near Maple Avenue. Well 5 is located on the west side of I-15 freeway. If possible, Special Districts desires to minimize the number of treatment facilities by combining the flow from as many wells as practical. Special Districts desires to have three treatment technologies evaluated as part of the preliminary design.



*Well 1*

WEBB has teamed with Trussell Technology, SPEC Services, and Tang Structural Engineers to provide an experienced team to handle all aspects of this project. WEBB has extensive experience with municipal well equipping design and the integration of various treatment processes for Ion Exchange wellhead treatment with existing and new well equipping projects. WEBB will lead the project and provide all civil,

mechanical, and hydraulic engineering tasks, as well as any optional survey services.

Trussell Technology is a leader in treatment processes and will provide expertise in evaluating possible Chromium IV treatment processes, selecting appropriate media, and coordinating treatment process suppliers. Trussell's expertise spans every project phase—including process evaluation, design, procurement, construction, permitting, and start-up support—ensuring efficient execution and long-term success. Trussell's approach is designed to address several of the Project's critical issues. Trussell will lead the development of the SWWCB Compliance plan and coordination with regulators on the specifics of the selected treatment processes.

SPEC Services will lead the electrical and controls design, integrating the new processes into the existing electrical and SCADA facilities for a smooth transition upon start-up. Tang Structural Engineers will provide the structural design for the media vessel footings to ensure these meet the current seismic requirements.

Based on our site tour on April 10, 2025, we understand the existing facilities to be configured as follows: Well 1 and Well 2 discharge untreated groundwater into a common tank at the Well 2 site, and then water is pumped into the water distribution system via a separate pump. Liquid chlorine solution is dosed into the well discharge pipelines at the tank inlet, independently for each well. There is a similar configuration for Wells 3 and 4, with the common Tank 3 and pump station located at the Well 3 site. Well 5 has a chlorine dosing system using chlorine tabs. Well 5 pumps directly into Tank 2a through a dedicated discharge pipeline.

Three proposed treatment systems are anticipated to be constructed: one for Wells 1 and 2, a second for Wells 3 and 4, and a third at Well 5. Each site appears to have enough space to accommodate the additional facilities. Our team has identified several critical issues for this project.

## Treatment Technology/Process Selection

Tailoring the treatment system technology for the operational needs of the existing water quality parameters and integrating the selected technology into a user-friendly operation compatible with existing infrastructure will be critical for the project's success. Trussell will take the lead in evaluating the treatment technology, and WEBB will evaluate how each technology integrates into the existing system configuration. Our team will prepare a technical memorandum that outlines our findings, addressing the following issues: treatment process, longevity of the media and anticipated recharge cycles, controls, piping layout, space required, cost of construction, and cost of operation. Trussell has an intimate working knowledge of the Best Available Technologies (BATs) for Cr-6 removal. This will allow the Project to hit the ground running to support the District in critically selecting a treatment strategy. Trussell has established working relationships with the leading vendors for these technologies, which will inform our designs and development of specifications.

Trussell most recently prepared a Hexavalent Chromium Technical Assessment and Cost Estimate for the 2025 Public Health Goals Report for the San Francisco Public Utilities Commission, compiling the latest industry knowledge on Cr-6 removal, including up-to-date preliminary cost estimates. BATs for Cr-6 treatment include reduction, coagulation, filtration (RCF); weak base anion ion exchange (WBA); and strong base anion ion exchange (SBA). RCF involves the addition of aqueous ferrous iron ( $\text{Fe}^{2+}$ ) to the water, which reduces Cr-6 to trivalent chromium (Cr-3). Cr-3 then co-precipitates and/or adsorbs to iron hydroxide particles and can be removed via filtration to reduce the total chromium concentration in the finished water. WBA and SBA are ion exchange (IX) processes which use sorption to exchange Cr-6 in the water, primarily present in the anionic form of chromate ( $\text{CrO}_4^{2-}$ ) or bichromate ( $\text{HCrO}_4^-$ ), with anions preloaded on the surface

of positively charged resin arranged as a bed inside pressurized vessels. These vessels are generally operated in a lead-lag configuration to maximize the utilization of the resin while still protecting public health. Unlike SBA, WBA resins require the pH to be depressed to 6.0 or less for treatment optimization. While all three technologies can produce water below the Cr-6 MCL, SBA and WBA can generally reduce the Cr-6 effluent concentration to lower levels than RCF and can be less operationally complex. The team will also investigate the possibility of treating only a portion of the flow from each well, which could reduce the treatment needs and capital expenditure, and blending the treated and untreated flows to achieve regulatory compliance with the MCL.



*Chlorine Dosing for Wells 1 and 2*

## Regulatory Mastery

Trussell has deep knowledge of compliance requirements to streamline approvals and ensure long-term sustainability. Trussell brings A key differentiator to this project: a unique understanding that design and permitting must be approached as linked pursuits. Regulatory uncertainty surrounding Cr-6 treatment requires tight integration between the permitting and design teams. Trussell has earned a reputation for successfully navigating regulatory challenges across California, helping clients effectively engage with California drinking water regulators to gain permitting approvals. Our strategy hinges

on early collaboration with regulators, transparent communication of the safety and effectiveness of proposed solutions, and proactively addressing any potential concerns to gain permitting approval.

The California State Water Resources Control Board's Division of Drinking Water (DDW) has repeatedly sought out Trussell's expertise due to Trussell's long history of developing innovative, compliant projects that safely treat contaminated water sources for potable reuse. For example, DDW selected Trussell to lead three of six research efforts to resolve public health challenges around chemical and microbial contaminants in potable reuse.

Trussell gained DDW approval in a month for a new groundwater permitting approach that saved a client from having to notify customers of an exceedance of a PFOA response level. Using data-based arguments, Trussell convinced DDW to move a regulatory compliance point after blending and use a flow-weighted average to reassess the values from earlier samples. Trussell developed and received DDW approval for a blending plan that lowered PFOA concentrations while maintaining other contaminants below their MCLs.



Well 3

## Operational Proficiency

Trussell is a trusted leader who provides operational support for water treatment processes. Our expert team is skilled in a wide range of treatment technologies, including IX, GAC, and reverse osmosis (RO), among many others. This practical proficiency translates directly to our approach for preparing operations and maintenance materials to equip operators with the requisite knowledge for successful project implementation. Trussell has worked closely with clients to develop robust Standard Operating Procedures (SOPs) for IX treatment, among other processes, and continues to refine them based on real-world operator feedback. Trussell has also delivered numerous classroom and field trainings for Operations and Maintenance Technicians, including those working with IX treatment.

## Accelerated Implementation

Per SWRCB-DDW-21-003, the District's deadline for compliance with the Cr-6 MCL is October 1, 2027. The District has specified that final plans and specifications for the Project be completed in advance by March 1, 2026, to allow enough time for construction completion by the compliance deadline. To meet the stringent project schedule, we propose a proactive approach to expedite treatment technology selection and system implementation. Once the District's preferred treatment technology is selected and the Basis of Design Report (BODR) has been finalized, we propose pre-purchasing treatment equipment to mitigate supply chain risks and avoid delays. Critical equipment like pressure vessels for IX treatment often represents a project's longest lead-time item, with recent vessel lead times extending from 6 to 9 months. The consultant team will maximize the timeline to hit benchmarks without sacrificing quality or reducing communication with the District.

Compliance with the Cr-6 MCL of 10 ppb is determined on a running annual average of quarterly samples. Upon receiving the lab result

that triggers the MCL to be exceeded, the District has 90 days to submit a Compliance Plan describing to the State Water Resource Control Board's Division of Drinking Water (DDW) how it proposes to comply with the MCL. Trussell's extensive knowledge of the BATs for Cr-6 removal will enable the Project to expedite selection of a treatment technology and develop a preliminary construction schedule so that the District will only need to submit a single Compliance Plan for the proposed treatment facilities before the deadline.

## Headloss Through the New Treatment Vessels

There will be pressure loss through any treatment system and flowrates will drop using the existing pumps. WEBB will evaluate the impact on the flowrate and capacity of the existing pumps and wells depending on how the new treatment system is integrated into the system. As part of the preliminary design, WEBB will determine if existing pumps can remain or new pumps will be required. WEBB will create a detailed process flow diagram and analyze the hydraulics of each approach, looking at how best to utilize the existing pumps and if new pumps are warranted. WEBB will also review the existing pump curves and recent well pump test data to determine if existing pumps should be replaced based on their current efficiencies. SPEC Services will determine if the electrical systems are compatible with potentially required increased motor horsepower and new pumps that may be recommended.

## Redundancy

For any critical water supply treatment process for a contaminant with an MCL, redundancy in the treatment process is warranted to maintain the water service throughout the calendar year, even in peak demand months. The redundancy needs to address normal operational needs, media change-outs, and emergency needs in the event of system failures. WEBB will request seasonal demand and pump production data

to determine the maximum day flow and review where treatment capacity redundancy should be included. As part of the preliminary design, WEBB will present our findings and recommendations to Special Districts staff to validate the level of redundancy needed and the strategies to be employed when the proposed processes are out of service.

## Site Piping/Layout Plan and Access for Changing-Out Media

Once the treatment process is selected, WEBB will develop a site piping plan and process layout plan to evaluate how the systems will be operated and maintained. The County has limited as-built information and WEBB understands that all available data has been provided by the County during the RFP phase. WEBB will perform visual verification and potholing as needed. Clear access for media change-outs and repairs to critical equipment, such as motor-operated valves, will be engineered into the layout plan. WEBB will hold a workshop to review our findings and recommendations with Special Districts staff and receive their input.



Well 4

# Statement of Proposed Services

## TASK 1: PROJECT MANAGEMENT

Management will include the following tasks per RFP requirements.

### ► Project Management

WEBB will prepare and maintain a project design schedule, submit it to the District for review at each major project submittal, and provide a three-week look-ahead for all other submittals.

#### Deliverables:

- Updated Project Schedule
- Status Report to the District

### ► Field Reviews

WEBB will lead a comprehensive field review with our electrical sub-consultant, SPEC Services, to understand the details of the existing facilities and identify any constraints associated with each site.

#### Deliverables:

- Field Notes and Photographs

### ► Meetings

WEBB will hold a kick-off meeting with District Staff soon after authorization to discuss the project parameters, critical success factors, project schedule, and approach, as well as confirm project contacts and communications. WEBB will also hold monthly coordination meetings (up to 5 budgeted) to discuss the project progress and schedule, as well as resolve key issues related to the project.

WEBB and Trussell will hold an Alternatives workshop, a Basis of Design workshop, and two final design workshops to present our findings and receive input from Special Districts.

#### Deliverables:

- Meeting Agendas
- Meeting Summaries
- Updated Action Item List

### ► Project Schedule

WEBB will prepare and maintain a project schedule to be presented and updated at each meeting.

#### Deliverables:

- Project Schedule and Monthly Updates

### ► Invoicing

WEBB will provide itemized monthly invoices, in arrears, in a format acceptable to the District for services performed under this Contract. The invoice shall include the effort performed for the period, reimbursable, subconsultant fees, and the percentage of project completion along with a narrative of work performed during the billing period and expected tasks, milestones, and deliverables planned for the next period.

#### Deliverables:

- Monthly Itemized Invoice

### ► QA/QC Program

WEBB will prepare and implement a quality assurance/quality control program during the project. Key staff will be involved in design reviews and as technical advisors. At minimum, our chief design engineer with over 40 years of experience and one of our senior engineers with over 20 years of experience will be involved in the QA/QC process.

#### Deliverables:

- QA/QC Review Documents, signed and dated by Staff

## TASK 2: PRELIMINARY ENGINEERING AND REPORTS

The WEBB team will provide a detailed analysis and recommendation, reviewing three treatment options. Trussell will lead the development of three (3) treatment alternatives for the Project utilizing the BATs listed by DDW: RCF, WBA, and SBA. The preliminary design of these treatment alternatives will be based on the data gathered in Subtask 2.1 and communications with equipment vendors. Trussell will include in the evaluation several vendors provided by the County among others identified by other means. The alternatives analysis will evaluate multiple factors, including, but not limited to:

- Capital and life cycle costs
- Footprint and configuration
- Ability to achieve treatment targets
- Construction and permitting challenges
- Operations and Maintenance (O&M) considerations
- Waste generation (if applicable)

WEBB will lead the development of preliminary layouts for the alternatives in AutoCAD. Class 5 cost estimates will be developed for each of the three (3) alternatives. Trussell will produce a draft and final Alternatives Analysis TM describing each alternative, the Class 5 cost estimates and layout for each alternative, and the alternatives analysis results.

The Basis of Design Report (BoDR) will also address the proposed plant layouts, preliminary process and instrumentation diagrams (P&ID) for each site, hydraulic analysis, and pump analysis and selection if needed. The team will prepare 35% plans and cost estimates for each site. Trussell will lead process and instrumentation design, including development of process flow diagrams (PFDs) and support for process and instrumentation (P&ID) drawings. SPEC Services will provide the electrical design for the project, including confirmation of how the proposed facilities will be controlled and powered. An anticipated list of specification sections will also be included in the PDR.

Trussell will prepare a preliminary Compliance Plan for all three treatment options on behalf of the District. Once the district selects the preferred treatment alternative, the Compliance Plan for that alternative will be finalized and submitted to the State Water Resources Control Board's Division of Drinking Water (DDW).

The Compliance Plan will summarize the District's plan to comply with the Cr-6 MCL before the October 1, 2027, compliance deadline. As required by DDW, the Compliance Plan will describe the proposed method of compliance (i.e., providing treatment at the wells) and how the proposed treatment facilities were selected. The plan will also specify the dates by which final plans and specifications for the proposed treatment facilities will be submitted to DDW and start and end dates for construction. Lastly, the Compliance Plan will specify the anticipated date by which a Hexavalent Chromium Operations Plan will be completed and submitted to DDW.



Well 5

Our team will hold two workshops related to the Preliminary Design. The first workshop will focus on the treatment process evaluation and recommendations. Trussell will lead a 2-hour Alternatives Analysis Workshop with the District and WEBB to review the TM and discuss feedback on a preferred alternative. Trussell will create a slide deck for the workshop that will be shared with the District after the workshop has concluded. The workshop will last up to two hours and include a designated discussion time to determine the preferred treatment technology. The team will present the various treatment options and cover such topics as treatment capability, robustness, complexity, compliance potential, capital cost, footprint required, comparative life cycle operating costs, and other issues identified during the research. The objective of this first workshop is to select the treatment process for this project. The second workshop will present the findings and conclusions of the preliminary design report and receive Special Districts' input on the report and 35% plans.

**☐ Deliverables:**

- ☑ Treatment Plant Options
- ☑ Basis of Design Report (draft and final)
- ☑ 35% Plans
- ☑ Cost Estimate
- ☑ SWRCB/Hexavalent Chromium Compliance Plan

**TASK 3: ENGINEERING PLANS AND SPECIFICATIONS**

The WEBB team will prepare plans at the 65%, 95%, and final plan level. One plan set is anticipated. The plan set is expected to include the following:

- Title Sheet
- Notes, Legend, Abbreviations
- Sheet Index
- Site Plan (3)
- Grading Plan (3)
- Mechanical Plan (3)

- Mechanical Details
- Sections and Profiles as required
- Civil Details
- Electrical – General Notes and Symbols
- P&ID (3)
- Electrical – Site Plan (3)
- Electrical – Single Line Diagram
- Electrical Details
- Structural Plan and Notes (3)
- Structural Details

Structural Calculations for shade structures, slabs, and foundations will be prepared and submitted for review and comment. Final structural calculations will be submitted with the final package. Bid Items and Quantities will be prepared, along with an Engineer's Estimate of Probable Construction Cost. The WEBB team will prepare specifications based on Special Districts' standard boilerplate documents and technical specifications, where available. The WEBB team will prepare all other technical specifications for the project as needed. The specifications will be submitted in draft form with the 65% and 95% plan submittals and in final form with the Final Plans, addressing Special Districts' comments.

Pre-purchase specifications - To expedite project implementation and meet the stringent project schedule, in parallel with the BODR Trussell and WEBB will develop technical specifications and front-end bid documents for the District to pre-purchase equipment where feasible (e.g., filter vessels, filter media). The specs/bid documents for pre-purchased equipment will be completed and reviewed separately from the BODR and other design tasks to begin pre-procurement as early as possible in the cycle.

Trussell will lead the development of an Operations Plan for the Cr-6 treatment facilities, as DDW requires. The Operations Plan will detail the operations of the proposed treatment facilities, including, at a minimum:

- Performance monitoring program
- Equipment maintenance program
- Descriptions of unit process operation
- Chemical dose procedures (if applicable)

- Reliability features (e.g., alarms, automated shutdown features, etc.)
- Media inspection program (if applicable)
- Standard Operating Procedures (SOPs) for major process equipment

To support operations and maintenance staff, Trussell will develop up to seven (7) Standard Operating Procedures (SOPs) for inclusion in the Operations Plan. Trussell will submit the draft SOPs for review by the District and shall revise them based on any comments received. Trussell will submit the Operations Plan to DDW at least six (6) months before anticipated facility start-up to allow DDW sufficient time for review, comments, and permit preparation. Additionally, Trussell will update the final Operations Plan two (2) months after facility start-up, or as specified in the permit, to incorporate any necessary modifications to facility operations.

**☐ Deliverables:**

- ☑ 65%, 95%, and Final Plans
- ☑ Specifications and Estimates
- ☑ Structural Calculations

**TASK 4: UTILITIES**

Limited utility interferences are anticipated since much of the work will be on Special Districts' parcels. WEBB will lead the utility research and coordination with other utility companies and Special Districts. Key information will be the as-built data of existing Special Districts facilities. WEBB will track all utility research and plot the utilities on the base maps. As an optional service, WEBB, in conjunction with C-Below, will perform up to 10 potholes for the project. WEBB will prepare a recommended potholing plan for approval by Special Districts before implementation.

**☐ Deliverables:**

- ☑ Utility Log and Mapping
- ☑ Potholing Report (optional)

**TASK 5: DESIGN SURVEY (OPTIONAL TASK)**

Based on our initial review of the survey required for this project, all five well sites will be surveyed. However, Wells 1 and 4 may not need to be surveyed as we plan to add the treatment facilities to Wells 2, 3, and 5. Exact costs for the optional tasks requested by Special Districts will be determined.

► **Field Topographic Survey (Well Sites 1 through 5)**

WEBB will locate and recover an existing benchmark to establish a survey datum for the project. The vertical datum will be based on the North American Vertical Datum of 1988 (NAVD 88), while the horizontal control will utilize the North American Datum of 1983 (NAD 83) State Plane Coordinates, Zone V, unless otherwise requested.

WEBB will conduct a field topographic survey of Well Sites 1 through 5 to gather information on existing ground elevations and surface features. These features include tanks, structures, fence lines, drainage swales, slopes, ditches, curbs, gutters, pavement areas, sidewalks, utility appurtenances, and other visible aspects.

WEBB will provide a digital topographic survey of the project areas at a minimum scale of 1" = 40', with one-foot contour intervals. The survey data will be processed and drafted, and electronic CAD files will be prepared for the existing ground features (FT) file, the Civil 3D existing ground surface (TO) file, and the existing plan (XP) file for use by the design teams.

► **Boundary Survey (Well Sites 1 & 2 and 3 & 4)**

WEBB will use Record of Survey 19-0053, RS165/92 (Well Sites 1 & 2), and Record of Survey 00-079, RS114/16 (Well Sites 3 & 4), along with available public records, to research and compile all relevant reference materials related to the properties. This includes reference Record Maps, Corner Records, Tie Sheets,

Vesting Deeds, Right-of-Way Deeds, and Easement Documents.

WEBB will conduct a field survey to locate and recover existing survey monuments while establishing survey control for the project. The horizontal control datum and bearings basis will be based on the California State Plane Coordinate System, North American Datum of 1983 (NAD83), Zone VI.

WEBB will prepare one boundary survey for Well Sites 1 & 2 and another boundary survey for Well Sites 3 & 4, mapping the existing property lines and easements based on the recorded information gathered. Additionally, WEBB will create an electronic CAD file for the existing property boundaries, easements, street centerlines, and right-of-way (PB file) for the design team's use and reference.

► **Record of Survey (Well Site 5)**

WEBB will obtain and provide one (1) Title Report from a title company for APN 3039-271-13 (Well Site 5). This title report will be used to obtain the current vesting deed, verify legal ownership, provide a legal description of the property, and identify any easements or encumbrances. Additionally, WEBB will utilize the title report to research and compile all relevant reference materials related to the property, including referenced Record Maps, Corner Records, Tie Sheets, and Right-of-Way maps.

WEBB will perform a field survey to locate and verify existing monuments and property corners.

WEBB will prepare a Record of Survey for APN 3039-271-13 (Well Site 5) based on the property legal descriptions outlined in the vesting deed. This will establish the existing property lines, easements, and right-of-way for Well Site 5, following San Bernardino County requirements. The record will include a Map Title, Surveyor Notes, Map Body, relevant Map Data, and a Legend as applicable.

Furthermore, WEBB will set survey monuments according to San Bernardino County standards

for property corners. They will also prepare the Record of Survey application and compile all necessary research and reference documents. After completing these preparations, WEBB will submit the Record of Survey application and process it through the San Bernardino County Survey Department for review and recordation.

► **Survey Monument Preservation/Corner Records**

WEBB will identify and address a maximum of two (2) survey monuments that are missing or disturbed during our field survey to locate and verify existing survey monuments. We will verify and set ties to the identified survey monument(s) following San Bernardino County standards. WEBB will complete up to two Corner Record forms and applications, compiling all research and reference documents related to any new survey monuments established and/or any survey monuments found that do not match the character and nature of those recorded in the current survey records. We will submit up to two (2) Corner Record applications to the San Bernardino County Survey Department for review and recordation.

□ **Deliverables:**

- ☑ Boundary Surveys (Well Sites 1 & 2 and Well Site 3 & 4)
- ☑ Record of Survey (Well Site 5)
- ☑ Digital photos of found survey monuments
- ☑ Corner Records
- ☑ AutoCAD Civil 3D files
- ☑ Survey Field Notes

**TASK 6: ENVIRONMENTAL COMPLIANCE, PERMITS, AND CLEARANCE**

Based on our initial review of the sites and our understanding that the treatment systems will consist of vessels and other improvements at the three well sites and no pipelines or other facilities would be constructed outside of the well sites, the project appears consistent with

the provisions for a Class 1 Existing Facilities Categorical Exemption per CEQA Guidelines § 15301. Thus, a Notice of Exemption (NOE) is likely the appropriate level of CEQA documentation required. The key consideration for a Class 1 exemption is that the project entails a minor modification of an existing public facility and involves negligible or no expansion of use. The County will prepare and process all CEQA NOE documentation. WEBB will identify permitting requirements and provide applications as needed for County signatures.

**Deliverables:**

- ☑ List of Permits and Draft Permit Applications

**TASK 7: GEOLOGICAL/ GEOTECHNICAL INVESTIGATION AND REPORTS (OPTIONAL)**

WEBB’s sub-consultant, Ninyo & Moore, will perform a geotechnical investigation for each site, three total. Borings will be performed at the anticipated location of the treatment vessel. Ninyo & Moore will prepare and submit a report documenting all the findings of the field work, seismic parameters, soils testing, and conclusions/recommendations.

**Deliverables:**

- ☑ Geotechnical Investigation Report (draft and final)

**TASK 8: ADVERTISING/BIDDING SUPPORT SERVICES (OPTIONAL)**

WEBB will attend the pre-bid meeting and support the Special Districts’ project manager during bidding. We will review and respond to bidders’ questions and prepare addenda (up to two). Based on the addenda, WEBB will create finalized plans and specifications.

**Deliverables:**

- ☑ Responses to potential bidder-submitted questions and develop addenda (up to two addenda)
- ☑ Conformed Set Plans and Specifications in PDF format

**TASK 9: CONSTRUCTION SUPPORT (OPTIONAL)**

WEBB will plan to attend up to eight (8) virtual construction meetings and one (1) preconstruction conference to assist Special Districts during construction. Contractor-submitted requests for information (RFIs) will be reviewed and answered within five (5) business days; a total of ten (10) RFIs are budgeted.

WEBB will review up to thirty (30) submittals, and shop drawings will be conducted for conformity with Special and Technical Provisions. Submittal reviews will be completed within ten (10) business days of being received by WEBB and shall include up to two revisions per submittal. Due to the critical nature of the project schedule, WEBB will strive to expedite the submittal reviews, and prioritize reviews for any items with a critical delivery schedule. WEBB will prepare plan revisions when necessary to accompany change orders; up to three plan revisions are included.

Upon receipt of documentation prepared during construction by the Contractor and the Special Districts’ inspector, WEBB will revise the design plans and prepare final as-builts for the project. Two hard copies and an electronic set of final “As-Constructed” drawings will be submitted to Special Districts for review and comment, and a final version of the documents and electronic file will be submitted to Special Districts after revisions (if any) are complete.

Spec Services will provide the PLC programming and develop the control philosophy narrative for the project. Our anticipated budget is based on what we believe is worst case scenario, however

plans and control philosophy have not yet been developed, therefore, this budget may be subject to change when final design is complete.

**☐ Deliverables:**

- ☑ Submittal Review and comment, up to 50 submittals
- ☑ RFI review and responses, up to 10 RFI's
- ☑ Plan Revisions, up to 3 revisions
- ☑ PLC Programming and Control Philosophy Narrative
- ☑ Two hard copies of the draft "As-Constructed" drawings
- ☑ One electronic Copy of draft "As-Constructed" drawings in PDF format
- ☑ Two hard copies of final "As-Constructed" drawings
- ☑ One electronic copy of the final "As-Constructed" drawings on a thumb drive containing AutoCAD (.dwg) drawings

### **TASK 10: CONSTRUCTION SURVEY/STAKING (OPTIONAL)**

WEBB will provide miscellaneous field survey/staking for each well site based on contractor/client needs. The budget for this task includes three 8-hour field survey crew days.

## **Assumptions or Constraints**

- Improvements at all three facilities will be covered under a single set of contract documents and will be bid as one combined project.
- One set of Pre-Purchase Specifications will cover all three sites.
- Existing Sites have enough space for the proposed improvements.
- Existing Electrical Services have enough capacity for the increased loads.
- A single CEQA NOE document will cover the proposed improvements at all three sites.
- Project Management effort is based on the proposed schedule.
- If an optional services is not authorized for the WEBB team, Special Districts or another consultant will provide those services under a separate authorization.
- No improvements will be proposed or constructed outside of the limits of the sites for Well 2, Well 3, and Well 5.

# Work Plan

## Management Philosophy

### Albert A. Webb Associates (WEBB)

understands the absolute need for strong project management. We recognize the critical issues associated with schedule, budget management, and communication. Communication and coordination between the engineering consultant and Special Districts is paramount to each project. To guarantee continuous and effective communication, a project manager will be assigned to each project to serve as the primary point-of-contact to Special Districts and a principal-in-charge will be monitoring the entire process. Our project manager makes it a priority to attend all meetings between Special Districts and the project proponents during the project. This will ensure a constant and effective way of communication resulting in strong budget and schedule control.

## Responsiveness and Proximity

Our project management and delivery approach has two major elements: (1) use an experienced project management team with detailed experience of the project area, clear understanding of Special Districts's facilities and preferences, and clearly defined responsibilities and proven management tools to deliver this complex project that meets the Special Districts's needs on budget and on schedule, and (2) have a detailed delivery plan that is understood and accepted by the Special Districts and the consultant team, with deliverables completed on schedule for timely decision making.

## Management Responsibilities and Procedures

Bruce Davis will be the direct point-of-contact with the Special Districts's project manager for all contractual matters focusing on resolving any critical contract issues as soon as they are identified. Bruce Davis have the authority to commit firm resources and will support the

project manager in managing the overall scope, schedule, and budget. Bruce Davis's experience on large multi-disciplinary projects has trained them to look forward to identify and prevent potential delay-causing issues.

The project manager will be responsible for the day-to-day project and technical management which includes:

- Facilitating frequent and consistent communications with Special Districts
- Implementing the overall delivery plan
- Managing the overall scope, schedule, and budget
- Implementing the QA/QC Program
- Overseeing the project controls staff for timely project management reports

Shane Bloomfield will be responsible for facilitating final decisions by Special Districts, coordination, management, communicating to the project team and Special Districts project manager, preparing and reviewing design deliverables, and directing design support service disciplines and specialty subcontractors. WEBB's project manager will assist in presenting the technical work at meetings and documenting action items and decisions.



*Well 2 Facilities with tank, pump station and chlorine*

## Project Management Plan

The Team QA/QC and **Project Management Plan** will facilitate successful project execution. Management tools, procedures, and a delivery plan are all contained in a comprehensive Project Methodology Plan that is prepared at the beginning of the project and is updated throughout the project. Having a comprehensive and detailed Project Management Plan is essential for delivering a major design project with an integrated team consisting of the Special Districts, multiple stakeholders, multiple disciplines, and many deliverables. Special Districts input into the plan will be essential to make certain it is an effective tool, adequately used, and meets your needs.

### Kick-off Meeting - Initial Design Meeting

After project award and notice-to-proceed, our project team will conduct a Kick-off Meeting and Initial Design Meeting with all members of the project team and key Special Districts Staff. The meeting is structured to establish communication protocols for the project, as well as to identify critical success factors and processes, activities, and tasks that must be carried out to achieve project goals. The meeting is an important step to ensure all parties are focused on the same project goals and help clarify the critical path issues, key outside stakeholders, milestones, and third-party approvals.

### Scope Management

A detailed Work Breakdown Structure (WBS) is typically included in our fee budget proposal and will be utilized for the project duration with detailed tasks. With input from the Special Districts, the scope will be finalized and adopted for the overall project. During the execution of the project, the scope will be utilized as a baseline by our project manager, who will manage the scope and work product. If potential changes are identified as the project develops, our project manager will work with the Special Districts to clarify and approve any additional tasks necessary to complete the project.

### Schedule Management

A preliminary schedule will be prepared, provided, and discussed. In collaboration with the Special Districts, the project schedule and milestones will be evaluated and then modifications will be made

to set the final baseline schedule during the initial project kick-off process. The baseline schedule will be monitored and tracked by our project manager to maintain the project milestones and manage critical path items. A tracking schedule will be provided with monthly updates and all schedule variances identified. Actions required to correct schedule deviations will be developed and implemented by the team. The project schedule is an effective management tool when developed and maintained to guide the design team through the tasks required to successfully complete a project. WEBB uses Microsoft Project software to schedule and track project tasks.

### Cost/Budget Management Plan

The proposed project budget will be prepared based on tasks required to successfully complete the project. Our project manager will track the final budget compared to the actual earned value, task completion, and cost-to-date and will identify any project cost variance monthly. Corrective actions will be taken to maintain the project budget. If changes to the scope and budget are deemed necessary, our project manager will work with the Special Districts to justify the need and clearly define the impacts.

### Communication Plan and Management

Communication between all team members and the Special Districts is critical to its success. A key differentiator between our project team and our competitors is our physical location and our ability to meet with the clients and stakeholders quickly. We are committed to providing consistent communication by having required members of the project team available for all Special Districts meetings.

### Issue Management/Risk Management

The tracking of project issues and management of risks is facilitated through a tracking log and available to the Special Districts and the project team. With issues being raised through email, phone calls, and meetings throughout the duration of the project, having a centralized document ensures project impacts are identified, logged, assigned, analyzed, acted upon, and addressed as part of the design process.

## Quality Management Plan (QMP)

The quality control for this project will be embedded in every stage of the project development. Our QA/QC Program is designed to enhance the cooperation and synergy between the disciplines in-house, our design teams, sub-consultants, and Special Districts. Our entire staff is part of the QA/QC Program and each plays a significant role in its implementation. As an underlying principle of our QA/QC Program, WEBB will utilize senior level staff to review work the product to utilize the experience and knowledge to each aspect of the project.

Our quality assurance begins with developing a close and continuous line of communication between the design team and the Special Districts. Our experience indicates good communication is a critical element to project success. Under our project protocol, we keep an organized directory of all project-related communication, meeting minutes and action items, documents, images, data, and plan sets, which allows us to respond quickly to requests. We will seek the input of operations and engineering staff throughout the project development to ensure the project meets the needs of Special Districts.

The proposed project schedule and work plan, developed by the project manager, will be evaluated by our internal peer review team. We recognize a comprehensive, realistic project schedule is critical to the decision-making process for the Special Districts. This schedule will include all interim milestones, reviews, third party reviews, and deliverables for the project.

As part of the preliminary design and evaluation of project alternatives, the key project team members will meet and discuss the challenges of each of the proposed alternatives. By bringing these disciplines together early in the project, we can recommend the best project alternative and develop a list of critical design issues that need to be addressed as detailed design is implemented.

A key aspect of our Quality Control Program is the location of existing utilities. These must be confirmed in order to select the most cost-effective alignment. Our in-house utility coordination will acquire the alignments of the existing utilities from the utility companies and combine them for the initial conflict control maps. Our engineers will then walk each of the proposed alternatives and compare the mapped utilities to the site conditions to confirm the correlation between the mapping and the actual locations of bus stops, vaults, valves, catch basins, manholes, and overhead utilities. Potholing of utility crossings will be done to confirm x and y coordinates at each utility crossing so an accurate plan and profile can be designed.

After the preliminary design has been developed, the project will receive a comprehensive internal peer review prior to submittal and coordination with Special Districts. This peer review will be utilized to ensure the preliminary design is clear, concise, comprehensive, and most importantly, meets the objectives of Special Districts.

Joseph Caldwell, will use his/her years of project management experience and will serve on the QA/QC Team. Joseph has been responsible for the successful delivery of large-scale, multi million dollar water supply, and delivery projects for water agencies throughout the region. Joseph will be the lead in performing quality control reviews for the projects. Joseph has over 20 years of experience in the planning, design, and construction of various pipeline projects.

## QA / QC PROCESS



