

**CITY OF CLOVERDALE CITY COUNCIL
RESOLUTION NO. 053-2012**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVERDALE
APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH COASTLAND CIVIL ENGINEERING, INC. TO
PROVIDE ENGINEERING SERVICES FOR THE COMPLETION OF WELL 11**

WHEREAS, after several years of lower peak summer water demands than in previous years, the summer of 2012 had an increase which brought the City's water system close to its full capacity; and

WHEREAS, in response to the rebound in demands, on September 12, 2012, City Staff presented a water supply action plan to Council which detailed Interim, Near-Term, and Long-Term phases; and

WHEREAS, the connection of a new well (Well 11) to the water system was included in the interim phase as a means to increase water supply ahead of the summer of 2013; and

WHEREAS, the City hired Coastland in 2006 to locate, design and manage the construction of a new water well at the City's well field; and

WHEREAS, in 2006 Coastland located a new well (Well 11) approximately 250 feet to the north of existing Well 8 and completed construction drawings and specifications, environmental documents and began permitting of the well; and

WHEREAS, a flow test was completed after the Well 11 construction contract was awarded which resulted in a lower flow than what was expected and Coastland and the contractor then applied the construction contract to locating and installation of a well in a different location (known now as replacement Well 3); and

WHEREAS, replacement Well 3 was successfully constructed and brought into service and Well 11 was left unconnected to the system; and

WHEREAS, in August 2012, Well 11 was flow tested and the flow of 200 gallons per minute (300,000 gallons per day) was confirmed during low summertime groundwater levels; and

WHEREAS, since Coastland Consulting Engineers prepared the construction drawings and specifications in 2006 for Well 11, Staff requested and Coastland provided a proposal to modify those drawings and provide bidding assistance for the completion of Well 11 ahead of the increased water demands expected in 2013; and

WHEREAS, Staff has reviewed the Coastland proposal and finds it to be fair and reasonable;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF CLOVERDALE AS FOLLOWS:

The City Manager is hereby authorized to execute a professional services agreement, with Coastland Civil Engineers to Provide Engineering Services for the Completion of Well 11 in the not-to-exceed amount of \$48,950.00

It is hereby certified that the foregoing Resolution No. 053-2012 was duly introduced and duly adopted by the City Council of the City of Cloverdale at its regular meeting held on the 12th day of December, 2012 by the following roll call vote: (4-ayes, 0-noes, 1-abstain)

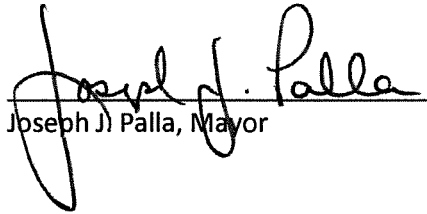
AYES in favor of: Mayor Palla, Vice Mayor Russell, Councilmember Cox, Councilmember Maacks

NOES:

ABSENT:

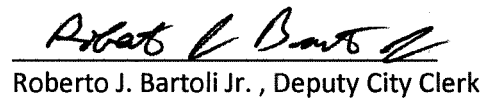
ABSTAIN: Councilmember Brigham

APPROVED:



Joseph J. Palla, Mayor

ATTESTED:



Roberto J. Bartoli Jr., Deputy City Clerk



Coastland

Civil Engineering - Construction Management - Building Dept. Services

November 15, 2012

Mr. Craig Scott, P.E.
City of Cloverdale
124, N. Cloverdale Boulevard
Cloverdale, CA 95425

Subject: Proposal to Provide Engineering Services for Completion of Well 11

Dear Craig:

Coastland appreciates the opportunity to assist the City of Cloverdale in the preparation of final design of Well 11. Coastland has a 21-year track record of providing engineering services to the City. As a result, we have a thorough understanding of the City's water system and the challenges it faces.

As you know, Coastland prepared the original plans for Well 11 in 2006. Because of our previous design of these facilities, we can update the plans in an efficient and cost effective manner to provide Cloverdale with a final design that will ultimately save the City time and money. We propose to include Luhdorff & Scalmanini (LSCE) on our design team. LSCE has been providing hydrogeological services to the City of Cloverdale since 2008 and has a good understanding of the City's well field and current well operations.

We look forward to working with you and your staff. Coastland is committed to providing our clients with the highest possible level of service. Feel free to contact me if you have any questions or are in need of additional information. Thank you for this opportunity.

Sincerely,

for
John Wanger, P.E.

Project Background and Understanding

In 2005 the City of Cloverdale began working to establish a new water supply well adjacent to the City's water treatment plant to augment the supply from the three existing wells. This was known as City CIP Project WA-037. Two test holes were drilled and pump tests were conducted. Based on the results from the test wells, a site for a new well was chosen and plans and specifications were prepared. The project was put out to bid in early 2006. A contract to construct the new well was awarded to Bartley Pump in May of 2006. The new well, known as Well 11, was drilled and test pumping completed. The results showed sustained production to be around 200-230 gpm. Various efforts to increase the production of Well 11, including the installation of additional perforations in the casing, did not result in increased production. Consequently, because of the lower yield rates, the City decided to stop the work on Well 11 and pursued other locations for a new well. This ultimately resulted in the construction of Well 12 which was later renamed New Well 3.

The current supply source for the City consists of four active wells (Wells 3, 6, 7 and 8) situated adjacent to the Russian River that pump directly to the City's Water Treatment Plant. With this supply source the City is just able to keep up with peak demands during the summer. Potential development that would increase water demand is on hold pending increased production. Although the City has been pursuing well field improvements designed to increase production as part of a larger project known as the 2011 Water System Improvements, that project has been held up pending completion of USDA funding requirements. The City has determined that a more immediate course of action to increase water production would be to complete Well 11 and put it in service. Although the expected production of around 200 gpm is relatively modest compared to the historic production of the other wells, this additional amount is believed to be sufficient to meet current peak demands and possibly allow for the addition of new water demands. The goal is to have Well 11 in service prior to the 2013 peak summer demands. We have attached a design schedule that will allow for the award of a construction contract in May of 2013 which should allow for the completion of construction prior to the peak demands.

In preparing this proposal, we reviewed the original well design, construction records and recent pump tests. In addition, we have had several conversations with Luhdorff & Scalmanini Consulting Engineers (LSCE). LSCE has been providing hydrogeological services to the City of Cloverdale since 2008 and has a good understanding of the City's well field and the issues that are limiting water production. LSCE has expressed concern that, given the elevations of the screens (perforations) in the Well 11 casing relative to the recent pump test drawdown data, Well 11 is likely to have cascading in the well column at very low pumping rates (under 200 gpm). Cascading in the well column of the other existing wells causes air entrainment that can disrupt the filters at the Water Treatment Plant. Entrained air is believed to be a primary limiting factor in current well field production capacity. Both Coastland and LSCE have expressed concern that Well 11 may produce air entrainment problems even at very low pumping rates. After weighing these concerns, the City is proceeding with equipping Well 11 with a well pump capable of producing up to 200 gpm.

In order to put Well 11 in service, it will be necessary to clearly document what improvements were constructed in 2006. The well design will need to be modified to reflect the expected production and the plans will need to be updated to reflect the work that was completed in 2006. The bid documents and specifications will need to be updated to current standards and requirements. We understand the City's desire to reduce the project costs by eliminating the proposed well house and instead constructing a fence enclosure around the well. In addition, it will be necessary to determine whether the existing electrical service at the water treatment



plant is adequate to supply power to an additional well. This will be a critical early task in the work since coordination with PG&E to increase electrical service could end up being the controlling item of work.

Included in the improvements proposed in the 2011 Water System Improvement Project are well station monitoring and flow control improvements for existing wells that would allow operators to optimize the production from the well field (see LSCE Technical Memo dated March 15, 2010). While it would be ideal to add the same monitoring and flow control improvements to Well 11 as part of this project, this would add significant cost to this project. Consequently, the design will not include a radio read pressure transducer, remote read flow meter or motor control flow valve. It will, however, provide for the addition of these monitoring and flow control improvements in the future.

The City approved a CEQA Negative Declaration and filed a Notice of Determination for Well 11 in March of 2006. It is assumed that this environmental clearance is still valid and that no additional environmental work is necessary.

Based on our understanding of the project as described herein, we have prepared the following Scope of Services. As noted, we propose to retain Luhdorff & Scalmanini Consulting Engineers and Industrial Power Technology as subconsultants to assist us in the completion of these tasks.

We have not included construction management and inspection services in this proposal. However, we would be happy to revise this proposal to include those services, or provide a separate proposal for those services at a later date.

Engineering Design Scope of Services

Task 1 – Project Management and Coordination

This task will include project monitoring, contract administration and quality control/quality assurance (QA/QC). It will also include conducting a kick-off meeting with City staff to discuss project approach, details and schedule as well two (2) progress meetings to review work products and go over comments.

Task 2 – Background Research and Site Investigation

We will assemble all of the available information pertaining to the project including the original Well 11 plans, specifications, construction records, driller's log, pump tests, and pressure transducer logs, as well as the Water Treatment Plant plans and any additional information pertinent to the project.

One of the goals of this task will be to clearly document the Well 11 improvements that were constructed in 2006. We will interview the inspectors and conduct a site investigation as part of this task and document our findings. It may be necessary to pothole to determine the limits of the electrical conduits that were installed in 2006. We will coordinate this work, but we assume that the actual digging will be performed by the City or others.



Task 3 – Evaluate Power Supply

This task will include an evaluation of the existing electrical service capacity and total power demands on the Water Treatment Plant and wells including Well 11. This task also include an initial consultation with PG&E regarding increasing the electrical service to the plant to meet current and future demands.

If it is determined that the existing electrical service does not have capacity to add Well 11, IPT and Coastland are prepared to design upgrades to service equipment to accommodate new and future loads. However, these services are not part of this proposal. If it is determined that these services are necessary, we will provide the City with a proposal to complete the work for an additional fee.

Task 4 – Coordinate with CDPH and Permitting

Early in the design process we will discuss the well permitting requirements with the local Drinking Water Field Operations Branch of the California Department of Public Health (CDPH) to confirm the process, testing and documentation necessary to place Well 11 in service. We will summarize these requirements, provide a schedule for the completion of the required documents and go over roles and responsibilities with the City. Our proposal includes preparation of all necessary documentation, but any necessary lab testing is not included within our scope of work.

Task 5 – 65% Improvement Plans, Specifications and Estimate

The well design details will include the well pump, motor, pedestal, air/vacuum release valve, pressure gauge, sample tap, flow meter, flow control valve and station piping. Site improvement design will include the completion of necessary yard piping, as well as electrical conduit and wiring necessary to bring power from the WTP panel to Well 11.

The 65% submittal will include an update of the prior plans and specifications to reflect the completed improvements and the necessary remaining work. The design will be revised to reflect appropriate pump and motor sizing and controls, as well as the replacement of the well house with a fence enclosure. The option of a submersible pump will be explored to potentially reduce costs. We will submit three (3) sets of preliminary plans, draft specifications and a preliminary estimate of probable construction costs.

Note that while we will coordinate with the City's SCADA consultant (TESCO) during the design of the controls, we assume that they will be working directly for the City under a separate contract.

Task 6 – 90% Improvement Plans, Specifications and Estimate

The project design will essentially be complete for this submittal. All comments from the 65% submittal review will be addressed. Included in the submittal will be three (3) full-size sets of plans, technical specifications, bid documents and an engineer's estimate.

Task 7 – Final Plans, Specifications and Estimate

We will address all comments on the 90% submittal and provide the City with two (2) full-size sets of drawings and electronic technical specifications and bid documents for final review to ensure that all comments have been addressed. Following the City's final review we will



prepare final bid documents, including stamped and signed mylar drawings and camera-ready specifications. An electronic copy of the drawings and specifications will also be provided.

Task 8 – Bid Assistance

Coastland will prepare the Notice to Bidders as part of the above tasks. The City will be responsible for placing the advertisement for bidding in the local paper. Coastland will reproduce and distribute the bid documents, including placing the bid packages in up to five (5) local plan rooms. We will answer any questions that may arise during bidding and maintain a phone log of inquiries. We will prepare any addendum that may be necessary. We assume that there will not be a pre-bid meeting for this project. Coastland will attend the bid opening in Cloverdale, and, if desired, tabulate results and forward the bid summary package to the City for bid award concurrence.

The City will be responsible for awarding the contract and reviewing the insurance and bonds prior to issuing a notice to proceed.

Exceptions to Scope of Services

The following work is not included in our proposal. However, Coastland would be pleased to provide these services if the City desires:

- Survey (we will use the topographic survey from 2005).
- Soil and environmental investigations.
- Right-of-way or easement determination.
- Permitting fees.
- Utility coordination beyond that noted above.
- Design of an upgraded electrical service (will be provided in additional task if it is determined that this will be needed after our meeting with PG&E.)
- Potholing of utility locations and associated survey.
- Meetings beyond those noted above.
- SCADA design and programming services (to be done by TESCO.)
- Construction Management, inspection and testing.



Design Schedule

WELL 11 DESIGN SCHEDULE 2012-2013								
Task	Task Description	Weeks	December	January	February	March	April	May
NTP	Notice to Proceed	12/17/2012	X					
1	Meetings with City	3 meetings	X		X	X		
2	Background Research	2 weeks						
3	Evaluate Power Supply	2 weeks						
4	Coordination with CDPH	7 weeks						
5	65% PS&E	6 weeks						
~	City Review	1 week						
6	90% PS&E	3 weeks						
~	City Review	1 week						
7	Final PS&E Submittal	1 week						
8	Bid Assistance	4 weeks						



Work Estimate

Based on our Scope of Services, we have prepared a detailed budget that identifies staffing rates, total cost per task, and direct expenses. We are proposing that the services associated with this project all be completed for a not-to-exceed fee of \$48,950 (see Work Estimate below). This amount assumes all of the work for this project will fall under the Scope of Services described in our proposal.

The above fee quotation should be considered a negotiable offer. If the City wishes to modify the Scope of Services, we would be happy to discuss such a change and how it would affect the overall project cost. We can either discuss amendments to the existing Scope or provide these services on a time and materials basis per our adopted schedule of hourly rates and then modify the Work Estimate accordingly.

Please also note that in the not-to-exceed amount, we have included an estimated amount of \$600 for reimbursable expenses (i.e. printing, plotting, etc). These reimbursable costs will be billed at cost plus 15%.





WORK ESTIMATE

City of Cloverdale - Completion of Well #11

Task Information		Billing Classification & Rate				Hours & Cost Information		
Task #	Task Description	Principal Engineer \$175	Supervising Engineer \$154	Associate Engineer \$115	CAD Designer \$100	Total Coastland Hours	TOTAL FEE	Subconsultant / Notes
1 Project Management and Meetings								
	Contract Management	2				2	\$350	
	QA/QC	4				4	\$700	
	Meetings (3)	4	12	4		20	\$3,008	
	Subtotal					26	\$4,058	
2 Background Research and Site Investigation								
	Background Research	8	16			24	\$3,864	
	Site Investigation		6			6	\$924	
	Subtotal					30	\$4,788	
3 Evaluate Power Supply								
	Evaluate Electrical Service					0	\$1,100	IPT
	Coordinate with Subconsultants		2			2	\$308	
	Consult with PG&E		4			4	\$616	
	Subtotal					6	\$2,024	
4 Coordinate with CDPH and Permitting								
	Coordination with Agencies		10			10	\$1,540	
	Permitting		8	8		16	\$2,152	
	Subtotal					26	\$3,692	
5 65% Improvement Plans, Specifications and Estimate								
	Prelim. Improvement Plans		12	12	30	54	\$6,228	
	Prelim. Specifications		8	12		20	\$2,612	
	Cost Estimate		4	8		12	\$1,536	
	Subconsultant(s)					0	\$9,900	\$2,200 IPT + \$7,700 LSCE
	Coordinate with subconsultants		4		2	6	\$816	
	Subtotal					92	\$21,092	
6 90% Improvement Plans, Specifications and Estimate								
	Improvement Plans		8	8	12	28	\$3,352	
	Specifications		4	4		8	\$1,076	
	Cost Estimate		2	2		4	\$538	
	Subconsultant(s)					0	\$1,870	LSCE
	Coordinate with subconsultants		4		2	6	\$816	
	Subtotal					46	\$7,652	
7 Final PS&E								
	Final Documents		4	8	8	20	\$2,336	
	Subtotal					20	\$2,336	
8 Bid Assistance								
	Addendum and Questions		4	4	2	10	\$1,276	
	Bid Opening		4			4	\$616	
	Bid Tabulation and Review		4		2	6	\$816	
	Subtotal					20	\$2,708	
	Direct Costs						\$600	Mileage, printing, reproduction
TOTAL COST		18	120	70	58	266	\$48,950	