



October 21, 2020

TO: Utilities Advisory Committee (UAC)
FROM: Ron Munds, General Manager
Rob Miller, PE, District Engineer
SUBJECT: Agenda Item 2 – 10/21/2020 Board Meeting
Program C Well Site Selection

DESCRIPTION

President
Charles L. Cesena

Vice President
Christine M. Womack

Directors
Matthew D. Fourcroy
Vicki L. Milledge
Marshall E. Ochylski

The District has been pursuing one addition lower aquifer well in the Central Area of the basin. In November 2018, the Board approved moving forward with a test well at Site A which is adjacent to the Los Osos Middle School. At that time, four alternative sites were under consideration. The test well work was completed in January 2020 with disappointing results. It was determined that the geology of the area is not suitable for a community water supply wellsite. This report summarizes the strategy and steps taken since January to select a suitable site for the Program C Well.

STAFF RECOMMENDATION

Motion: I move that the UAC recommend to the Board:

- 1. The approval of the selection of Site E as the preferred location of the Program C well; and***
- 2. The approval of moving forward with Phase 2 of the California Environmental Quality Act (CEQA) analysis.***

General Manager
Ron Munds

District Accountant
Robert Stilts, CPA

Unit Chief
Scott M. Jalbert

Battalion Chief
Paul Provence

DISCUSSION

Background

Section 10.4 of the Basin Plan describes Basin Infrastructure Program C as a production shift in the lower aquifer from the Western Area to the Central Area. In review, Section 10.4 of the Basin Plan describes Infrastructure Program C as follows:

Program C includes a set of infrastructure improvements that would allow the Purveyors to shift some groundwater production within the Lower Aquifer from the Western Area to the Central Area. Since groundwater production from the Central Area induces less seawater intrusion than the same amount of production from the Western Area, this landward shift increases the Sustainable Yield of the Basin.

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In November 2018, the Board approved moving forward with a test well at Site A which is adjacent to the Los Osos Middle School. At that time, four alternative sites were under consideration. The test well work was completed in January 2020 with disappointing results. It was determined that the geology of the area is not suitable for a community water supply well site.

After receiving the results of the test well at Site A, staff reviewed the existing data on the remaining three sites that were originally considered and requested that Cleath-Harris Hydrogeologist (CHG) perform a preliminary assessment of two additional sites previously not on the list (Attachment 1). Upon completion of the analysis of the new sites, it was determined that Sites E and F meet the criteria in the Basin Plan and were added to the list of potential sites.

After the initial screening of the sites by the District Engineer, CHG and staff, it was decided it would be prudent to complete the preliminary environmental work before making a recommendation to the Board for a specific well site. At the May 7, 2020 Board meeting, the Board approved an agreement with SWCA to perform an Environmental Constraints Analysis of the five sites and subsequent CEQA work. As work started on the Constraints Analysis, Site D had to be eliminated from the list because the property owner was not responsive to the District's request for a right of entry to the property. The sites are described below.

The Five Identified Well Sites:

Site B – Sage Avenue: This is an undeveloped property and has two potential sites where a new municipal well could be located. It has an agricultural well in the general area of one of the potential well locations. The site is privately owned and if chosen, would require an easement (cost to be determined) to the well location. The total depth of a well at this site would be on the order of 350 feet, and production would be focused on Zones D and E.

Site C – Andre Avenue: This site would be located on a developed 1-acre residential property. The site is privately owned and if chosen, in return for a low cost easement to the well location, the property owner has requested a water reservation of water from the production of the well for future new development at a site(s) to be determined (Attachment 2). The total depth of the well would be on the order of 600 feet, and production would be focused on Zones D and E.

Site E – Former Bayridge Estates wastewater treatment site on Bay Oaks Drive: The facility was decommissioned and has been inactive for the last three years and is owned by the District. The total depth of the well would be up to 700 feet, and production would be focused on Zones D and E but also has the potential for pulling water from Zone C.

Site F – County right-of-way adjacent to Ramona Avenue in the LOCSO water service area. The public right-of-way extends up to 80 feet south of the travel lane along Ramona Avenue when approaching South Bay Boulevard which could provide sufficient space for a well site. To date, the County has not been approached on the availability of the site for this type of activity. If selected, an easement with the County would need to be negotiated. The total depth of the well would be on the order of 400 feet, and production would be focused on Zones D and E.

Environmental Constraints Analysis Results

The Environmental Constraints Analysis (Constraints Analysis) analyzed potential environmental constraints associated with development and operation of a new well at the four sites (Attachment 3). The Constraints Analysis provides a preliminary-level discussion of applicable topic areas identified under Appendix G of the California Environmental Quality Act (CEQA) Guidelines reflecting potential impacts during the short-term construction period and long-term operation of the project. The analysis specifically looked at the environmental resources identified in the following table.

Environmental Resources	
Aesthetics	Hazardous Materials
Air Quality	Hydrology & Water Quality
Biological	Land Use & Planning
Cultural & Tribal	Minerals

Geology & Soil	Population & Housing
Noise	Public Services & Recreation
Ag & Forestry	Transportation & Circulation
Green House Gas	Utilities & Service Systems

As summarized in the Constraints Analysis, Site E has been determined to be the least constrained and the preferred alternative from a resource perspective. The following is the ranking based on the Constraints Analysis.

Environmental Constraints Analysis Rankings	
Ranking	Site
1	E
2	C
3	F
4	B

Well Site Comparison

As previously cited, Cleath-Harris Geologists (CHG) compiled a technical memorandum, at the request of the District, to update the information on the previous considered sites and added Sites E and F to the analysis. As indicated in the memorandum, Sites C and E are likely to provide the greatest production potential, 200 acre feet per year, as compared to Sites B and F. Site E will provide greater production flexibility for water system operations than Site B and F. Sites C provides for larger increases in basin yield than Sites B, E and F.

Well production and basin yield are not the only factors that need to be considered when selecting the well site. Other key criteria include, but are not limited to the following, which are not listed in order of priority:

- Proximity to existing conveyance infrastructure (cost)
- Neighborhood and community acceptance
- Property owner status and land acquisition cost
- Environmental constraints
- Site layout and access
- Environmental permits and Coastal Development Permit

The District's Engineer, General Manager, and CHG Hydrogeologist, Spencer Harris, discussed and establish a weighting system of values for the criteria listed above. In the table below, values have been assigned to each criteria and are based on the current data available and known issues for each site. Since the objectives of the Program C well are to increase yield and production, these values are weighted higher than the other factors. The weighting system is somewhat subjective and the table is meant to be used as a tool to understand each sites characteristics in comparison to the others in order to make a decision on the well siting. The points scale is based on the following guidelines:

- 1 = we know there are significant challenges
- 2 = known issues somewhere between a 1 and 3
- 3 = if all the sites issues were more or less equal in terms of the factor listed

4 = known issues somewhere between a 4 and 5
 5 = greatly superior to the other sites

The following are the weighting system of values for the criteria results:

Factor	Site B	Site C	Site E	Site F
Proximity to infrastructure	3	3	3	4
Community acceptance	2	2	3	3
Property owner status/land cost	3	5	5	4
Environmental Constraints	2	4	5	3
Site layout/access	3	3	4	4
Permitting	3	3	4	3
Production	3	5	5	3
Yield	4	5	4	3
Total (equal weight)	23	30	33	27
Total 2x prod/yield	31	40	42	33

Summary of the Recommendation

It is clear that Sites C and E are fairly equal in the ranking are the top two choices for a new well sites. In the absence of permitting and community acceptance factors, Sites C and E would have essentially the same score, and Site C would likely be selected based on its higher yield increase of 140 acre feet per year (AFY) versus 80 AFY for Site E. However, there are additional consideration and advantages to selecting Site E which include:

- The site is District owned which means no outside agreements are necessary and no easement conditions such as the water reservation requested by the owner of Site C will be applicable.
- The property is zoned Public Facilities which means the project is considered compatible with existing on-site land uses and is generally compatible with surrounding uses. Because of its current zoning, the site is not subject discretionary development permits from the County which means the project can proceed more quickly through the approval process but may be subject to appeal to the Coastal Commission. It is important to note that if the selected site is appealed to the Coastal Commission, there may be delays following project approval by the Board, and the project may be denied through appeal, or if approved, subject to conditions including an alternative project with reduced impacts. Given the recent fluctuations in the chloride metric within the groundwater basin, time is of the essence for implementing the project.
- Access to the site for ongoing repairs and maintenance is superior to the other sites.

- In terms of constructability of the well, during the decommissioning of the septic tanks, a large area was leveled which would provide room for well drilling activities. Additionally, adjacent to the level pad there is a detention basin that could be used for the well discharge water during pump testing and construction.
- Per the Environmental Constraints Analysis, the site is the least constrained and, environmentally, is the preferred alternative.
- Upper Aquifer development at Site E (either through a combined aquifer (Zone C/D/E) well or a separate well) could reduce the difference in yield between Site C and Site E, and would also provide increased production capacity at Site E, compared to Site C.

Based on the information, data and considerations presented as part of this report, staff is recommending the selection of Site E for the District's Program C Well.

Next Steps

Upon the selection of the well site, per SWCA's approved contract and scope of work, they will continue environmental work as follows:

Task	Fee
Task 1.1B Field Review/Constraints Analysis (all five sites)	\$13,990 (complete)
Task 1.2 Initial Study/Mitigated Negative Declaration	\$9,137
Task 1.3 Meetings	\$979
Total	\$24,106

Additional Tasks	Fee
Visual Impact Assessment	\$3,000 - \$5,000
Phase 1 Environmental Assessment	\$1,700 - \$3,000
Morro Shoulderband Snail Surveys and Report	\$2,000 - \$3,500
Phase I Archaeological Survey Study	\$1,800 - \$3,500
TOTAL	\$8,500 - \$15,000

After circulation and approval of the required environmental document, Staff will bring back a professional services contract for Board consideration for the drilling phase of the well project, which will include the preparation of bidding documents for the well construction and subsequent testing. The District would then solicit bids from drilling contractors and award the drilling contract. Once the well is installed and the quantity and quality of water are tested, engineering documents can be prepared for equipping and connecting the well for service, including the final pump design and water transmission pipeline (if needed).

Financial Impact

At this point in the project, there is no additional financial impact associated with approving the recommended action. As indicated, the Board approved an agreement with SWCA to complete the environmental work upon the selection of the well site which part of the next steps.

Attachments

- Attachment 1- CHG Technical Memorandum regarding Program C Well Site Production and Yield
- Attachment 2- Site C Owner Letter of Intent
- Attachment 3- Environmental Constraints Analysis Report
- Attachment 4- Andre Avenue Neighborhood Letter of Concern

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(805) 543-1413



Technical Memorandum

Date: February 19, 2020

From: Spencer Harris, HG 633

To: Rob Miller, P.E., District Engineer
Los Osos Community Services District

SUBJECT: Los Osos Basin Plan Program C Expansion Well No. 2 Sites Alternatives Update

Dear Mr. Miller:

As requested, Cleath-Harris Geologists (CHG) has reviewed Program C well siting alternatives with respect to Basin sustainable yield. This memorandum presents an update of the well sites being considered with Basin yield comparisons.

Background

Los Osos Basin Plan (LOBP) Program C includes a set of infrastructure improvements that would allow the water purveyors to shift some groundwater production within the Lower Aquifer from the Western Area to the Central Area. Groundwater production from the Central Area generally results in less seawater intrusion than the same amount of production from the Western Area, which increases the sustainable yield of the Basin. Program C consists of three Expansion Wells located on the eastern side of the Central Area and associated pipelines. Implementation of Program C would have a direct, beneficial impact on mitigating seawater intrusion¹.

The LOBP estimated that, without supplemental water, the existing population scenario would require 2,230 acre-feet per year (AFY) of groundwater to meet basin demand (LOBP Table 46). In recent years, water demand has declined due to conservation efforts from 2,560 acre-feet in 2013 to 2,030 acre-feet in 2018². As a result of significantly lower water demand for the existing population, a reduction from three to two Expansion Wells for Program C was recommended³.

Summary of Program C Well Sites

Expansion Well No. 1 was originally planned in the vicinity of Buckskin Avenue north of Los Osos Valley Road and within the Golden State Water Company service area (Site C on Figure

¹ISJ, Los Osos Basin Plan Update, January 2015

²CHG, Los Osos Basin Plan Groundwater Monitoring Program, 2018 Annual Monitoring Report, June 2019

³CHG, Los Osos Basin Plan Metric Trends Review and Infrastructure Program C Evaluation, February 28, 2019.



1). Expansion Well No. 1 was relocated to Los Olivos Avenue and GSWC constructed a new Lower Aquifer well there in 2016 (Figure 1).

The Los Osos Community Services District (LOCS D) is tasked with developing Expansion Well No. 2 and has been working on site selection since 2016. The minimum production objective for Expansion Well No. 2 is a nominal 100 gallons per minute capacity with an annual yield of 100 AFY. General areas for the three Program C Expansion Wells were described in the LOBP (pages 239-240). These areas, with additional alternative sites, are shown in Figure 2 and summarized below.

SITE A (eliminated) - South parking lot of the Los Osos Middle School play fields along Pismo Avenue right-of-way. This site has been eliminated from further Program C consideration due to insufficient Lower Aquifer thickness to meet the minimum production objectives, as determined from test hole drilling⁴.

SITE B - Vicinity of north end of Sage Avenue east of the LOCS D service area. In 2016, a 36-hour pumping test at an existing irrigation well was performed that indicated Site B would meet the minimum production objectives⁵.

SITE C - Vicinity of Andre Avenue and Buckskin Avenue in the GSWC service area, similar to the original area identified for Expansion Well No. 2 in the LOBP. There are a few parcels that may be considered for Site C, but they are not differentiated for the purposes of this Basin yield evaluation. Due to multiple private wells in the proximity, a well survey and groundwater impacts evaluation was performed for the site⁶. Site C is expected to meet minimum production objectives.

SITE D - Vicinity of the mobile home parks south of Los Osos Valley Road in the GSWC service area. Two locations may be considered, and are not differentiated for this Basin yield evaluation. Site D is expected to meet minimum production objectives.

The above sites (except Site A, which was eliminated) are on private property. Two additional sites have been identified that would be expected to meet minimum production objectives, one on LOCS D property and one in County right-of-way. These alternative sites are as follows:

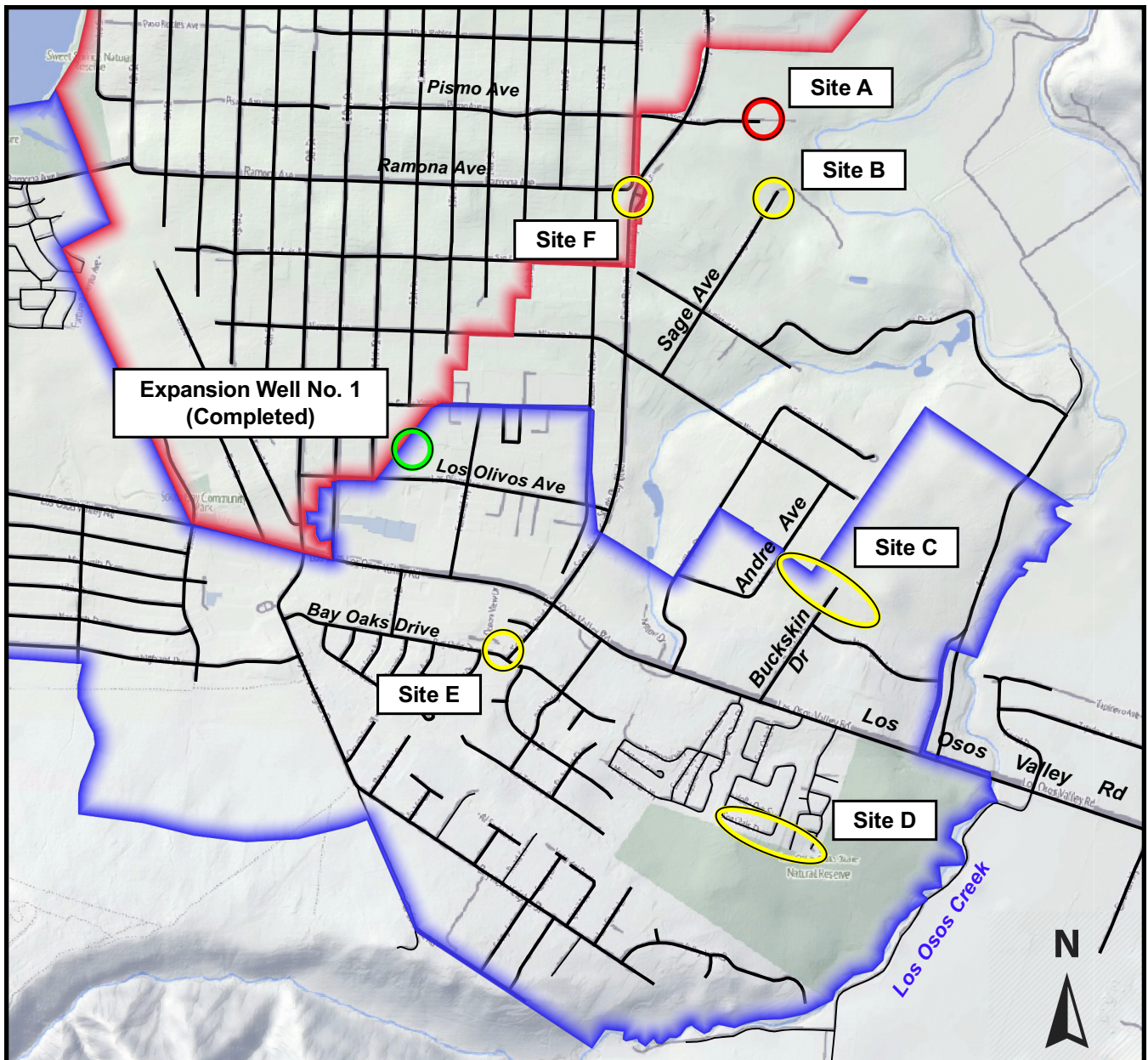
SITE E - Former Bayridge Estates wastewater treatment site on Bay Oaks Drive in the GSWC service area. The facility was decommissioned and has been inactive for the last three years.

SITE F - County right-of-way along Ramona Avenue in the LOCS D service area. The public right-of-way extends up to 80 feet south of the travel lane along Ramona Avenue when approaching South Bay Boulevard, and could provide sufficient space for a well site.

⁴CHG, Test Hole results for Program C Expansion Well Site A, January 23, 2020

⁵CHG, Pump Test Results, Irrigation Well 30/S/11E-17C1, Sage Avenue, Los Osos, August 26, 2016

⁶CHG, DRAFT Well Survey and Groundwater Impacts Evaluation related to Site C Expansion Well, Los Osos Groundwater Basin, August 27, 2018.



Base Image: Stamen-Terrain

0 750 1500 2250 3000 ft



Scale: 1 inch ≈ 1,500 feet

Explanation

- Completed Expansion Well Site
- Potential Expansion Well Site
- Eliminated Expansion Well Site

Water Systems

- Golden State Water Company - Los Osos
- Los Osos CSD

Figure 1
Potential Well Locations
Los Osos Groundwater Basin
Program C Alternatives TM

Cleath-Harris Geologists



Basin Sustainable Yield Comparisons

With Expansion Well No. 1 completed, the estimated sustainable yield under current (baseline) infrastructure is 2,760 AFY⁷. The Basin Model has been used to estimate increased sustainable yield from a second Program C well at each of the sites shown in Figure 1. Due to potential variability of production between different sites, two sets of Basin yield estimates were prepared, one for the minimum production objective of 100 AFY, which is expected to be met at all sites, and a second for the anticipated annual production capacity at each site.

Note that basin yield would increase by shifting production eastward from existing purveyor wells to a new Expansion Well No. 2. This shift reduces seawater intrusion and increases basin recharge from the Los Osos Creek valley, allowing more water to be produced at the Expansion Well than used for the production shift. The closer an Expansion Well is to the creek valley, the more effective the well is at increasing Basin yield. Basin yield comparisons at the minimum production objective (100 AFY) for Expansion Well No. 2 are summarized in Table 1.

Table 1 – Basin Sustainable Yield Estimates with Minimum Production Objective (100 AFY) for Expansion Well No. 2			
Expansion Well No. 2 Site	Production at Expansion Well No. 2	Estimated Sustainable Yield	Increase over Baseline
		Acre-Feet per Year	
Baseline (no Well No. 2)	--	2,760	0
Site B – Sage	100	2,840	80
Site C – Andre/Buckskin	100	2,850	90
Site D – Mobile Home Parks	100	2,860	100
Site E – Bay Oaks	100	2,830	70
Site F – Ramona	100	2,830	70

As shown in Table 1, at 100 AFY production, the ability of Expansion Well No. 2 to increase basin yield ranges from 70 AFY at Site E (Bay Oaks) or Site F (Ramona Avenue) to 100 AFY at Site D (mobile home parks). Sites E and F require 30 AFY of pumping to be eliminated at other purveyor wells to mitigate seawater intrusion, while Site D does not require any production to be shifted from other purveyor wells in the Basin Model, indicating all of the production at Site D (up to 100 AFY) is replenished from the creek valley.

The Basin Model, however, also shows that the ratio between increased Basin yield and produced water from Expansion Well No. 2 is not constant, but decreases as production increases. For example, Site D, which is 100 percent efficient at the minimum production objective, provides 130 AFY of increased yield when production increases to 150 AFY, with 20

⁷CHG, Los Osos Basin Plan Metric Trends Review and Infrastructure Program C Evaluation, February 28, 2019



AFY of reduced pumping at other purveyor wells required to mitigate seawater intrusion (87 percent efficient). Similarly, Site C, which was 90 percent efficient at the minimum production objective, provides 140 AFY of increased yield when production increases to 200 AFY (70 percent efficient).

Some of the well locations lose efficiency for converting production to Basin yield more rapidly than others, based on their position relative to the seawater intrusion front and other purveyor wells. Site E, which is relatively close to existing purveyor wells in the downtown area, is 70 percent efficient at 100 AFY production, but declines to 40 percent efficiency at 200 AFY. Basin yield comparisons at the anticipated production rates for each well site are present in Table 2.

Table 2 – Basin Sustainable Yield Estimates with Anticipated Production for Expansion Well No. 2			
Expansion Well No. 2 Site	Production at Expansion Well No. 2	Estimated Sustainable Yield	Increase over Baseline
		Acre-Feet per Year	
Baseline (none)	--	2,760	0
Site B	100	2,840	80
Site C	200	2,900	140
Site D*	150	2,890	130
Site E	200	2,840	80
Site F	100	2,830	70

*anticipated production estimate at Site D reduced from prior work

The anticipated production listed in Table 2 for individual Expansion Well sites are approximations based on comparison with existing purveyor well sites. Site C and Site E are likely to provide the greatest production potential (200 AFY), while Site B and Site F would likely only meet the minimum production objective (100 AFY). Despite losing efficiency at the higher production rate, Site E matches or exceeds Basin yield increases at Sites B and F while providing greater production flexibility for water system operations.

Next Steps

Finding a suitable location for a municipal well site involves many factors. Production capacity and yield, water quality, environmental impacts, constructability, property ownership/easement agreements, and project costs are all important to consider. This memorandum has focused on Expansion Well No. 2 production capacity and yield, with water quality being addressed in terms of seawater intrusion mitigation. The next steps would be to screen the sites for other factors to help identify a preferred site.



June 23, 2020

Los Osos Community Services District
2122 9th Street
Los Osos, CA 93402
Attention: Ron Munds, General Manager

Subject: Program C Well/Site C – 2030 Andre Ave., Los Osos, CA

Dear Mr. Munds,

Allow this letter to convey Anastasi Developments Company's ("ADC") commitment to work with the Los Osos Community Services District ("LOCS") to secure the best possible solution relative to the assessment, acquisition, development and servicing of a new Program C well site.

As you are aware, at the Regular Meeting dated May 7, 2020, the Board of Directors approved an agreement with SWCA to perform an Initial Study ("IS") of five (5) well sites for Program C. ADC believes the IS will conclude the best site is located at 2030 Andre Avenue, Los Osos ("Andre"). "Best site" being defined as the site that would yield the greatest acre feet of water at the lowest cost. ADC understands there may be other variables to consider and we would like to address a few of those in this letter and remain available to discuss any additional issues the LOCS deems important to assist it in making a reasoned assessment of the sites.

As we understand it the three main objections to the Andre site are 1) encroachment on existing individual water supply wells; 2) reservation of water yield for ADC; and 3) cost of the easement on Andre to development well.

Community well will not encroach on existing individual water supply: Residents of the Andre/Willow/Nipomo area use numerous individual water supply wells for each respective residential development. It is important to understand these are relatively shallow wells of approximately 200 feet in depth drawing from Zone C of the Los Osos Groundwater Basin. In sharp contrast, a new community supply well in this location would draw from a depth of approximately 600 feet in Zones D/E. This fact is borne out by the Technical Memorandum dated August 27, 2018 prepared by CHG. In short, ground water for the community well is not drawn from the same zone as the individual wells and therefore will not affect the individual well water supply.

Reservation of water yield: From the beginning of this process ADC has been upfront and honest about its interest to develop homes on the property it owns in Los Osos. However, ADC does not believe those interests are in conflict with to LOCS's interest to build a community well. It is common for public/private partnerships to yield benefits for all parties. This type of participation is not without precedent. Some 20 years ago ADC in agreement with GSWC (formerly California Cities Water

Company) developed a community supply well near the northeast corner of South Bay Blvd. and Los Osos Valley Road to service the community including a new development, Monarch Grove subdivision. This has obviously been a benefit for all parties. Now, will reserving a small percentage of water for ADC guaranty it will be able to develop property? No, but it will remove one of our obstacles. Will the well help the community solve its issue with water supply? Yes. It should be noted that all the water from the community well will be used for the community. The only question is whether there will be additional residents sharing the community.


A Dollar for an easement: The appraisal conducted on the Andre site to determine the value of the easement needed to develop and service a community well was placed at One Hundred Thousand Dollars (\$100,000). ADC realizes the cost of the easement may be prohibitive and the best site might be sacrificed for a less productive site to avoid the cost of acquisition. ADC would like to remove this cost impediment by providing the easement for One Dollar (\$1.00). In short, the most cost-effective manner for LOCSD to take possession of the easement is what ADC will do to accommodate the LOSCD.

It is critically important that science and hydrogeology guide the decision of site selection for what may be the last Program C well developed in accordance with the LOBP for the foreseeable future. As in the past, ADC can contribute to the solution. We look forward to working with the water purveyors to optimize water system supply and delivery to the customers/ratepayers in Los Osos/Baywood Park in the most affordable manner possible.

In advance, thank you for your consideration and willingness to partner in such an important aspect of the community.

Sincerely,

Anastasi Development Co., LLC



Scott Anastasi
Senior Vice President

Preliminary Environmental
Constraints Analysis for the
Los Osos Community Services
District Program C Well Project,
Los Osos, San Luis Obispo County,
California

OCTOBER 2020

PREPARED FOR

Los Osos Community Services District

PREPARED BY

SWCA Environmental Consultants

**PRELIMINARY
ENVIRONMENTAL CONSTRAINTS ANALYSIS FOR THE
PROGRAM C WELL PROJECT,
LOS OSOS, SAN LUIS OBISPO COUNTY, CALIFORNIA**

Prepared for

Los Osos Community Services District
2122 9th Street
Los Osos, CA 93402
Attn: Ron Munds

Prepared by

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SWCA Project No. 60804

October 2020

CONTENTS

1	Introduction	1
2	Project Description	1
2.1	Potential Well locations	1
2.1.1	Site B	1
2.1.2	Site C	2
2.1.3	Site E.....	2
2.1.4	Site F	2
3	Environmental Constraints Analysis.....	2
3.1	Aesthetics.....	8
3.1.1	Site B	8
3.1.2	Site C	8
3.1.3	Site E.....	8
3.1.4	Site F.....	9
3.1.5	Summary of Aesthetics Constraints and Recommendation.....	9
3.2	Air Quality.....	9
3.2.1	Site B	9
3.2.2	Site C	9
3.2.3	Site E.....	10
3.2.4	Site F.....	10
3.2.5	Summary of Air Quality Constraints and Recommendation	10
3.3	Biological Resources	10
3.3.1	Existing Conditions.....	11
3.3.2	Potentially Jurisdictional Waters	12
3.3.3	Sensitive Natural Communities	12
3.3.4	Environmentally Sensitive Habitat Areas	12
3.3.5	Designated Critical habitat.....	13
3.3.6	Special-Status Plant Species	13
3.3.7	Special-Status Wildlife Species	14
3.3.8	Summary of Biological Resources Constraints and Recommendations.....	15
3.4	Cultural Resources and Tribal Cultural Resources.....	16
3.4.1	Existing Conditions.....	16
3.4.2	Summary of Cultural Resources Constraints and Recommendations.....	17
3.5	Geology and Soils.....	17
3.5.1	Summary of Geologic Constraints and Recommendation.....	17
3.6	Noise.....	18
3.6.1	Summary of Noise Constraints and Recommendation	19
3.7	Other Issue Areas.....	19
3.7.1	Agriculture and Forestry Resources.....	19
3.7.2	Greenhouse Gas Emissions	19
3.7.3	Hazards and Hazardous Materials	19
3.7.4	Hydrology and Water Quality.....	20
3.7.5	Land Use and Planning	20
3.7.6	Mineral Resources	21
3.7.7	Paleontological Resources	21
3.7.8	Population and Housing.....	21
3.7.9	Public Services and Recreation.....	21

3.7.10 Transportation and Circulation 22
3.7.11 Utilities and Service Systems..... 22
4 Property Acquisition and Permitting Processes 22
5 Constraints Summary and Site Recommendation 23
6 References 25

Figures

Figure 1. Project location map. 3
Figure 2. Site B project area. 4
Figure 3. Site C project area. 5
Figure 4. Site E project area..... 6
Figure 5. Site F project area..... 7

Tables

Table 1. Summary of Biological Resources Constraints by Site 15
Table 2. Typical Noise Levels for Construction Equipment..... 18

1 INTRODUCTION

The Los Osos Community Services District (LOCSD) is considering the construction and operation of a new lower aquifer well to serve the community's water supply needs (project) as identified in Program C of the Los Osos Basin Plan. Program C includes a set of infrastructure improvements that would allow water purveyors to shift some groundwater production within the Lower Aquifer of the Los Osos Groundwater Basin from the Western Area to the Central Area. Moving groundwater production to the Central Area induces less seawater intrusion than the same amount of production from the Western Area and was designed to achieve sustainability of the groundwater basin for the existing population (ISJ 2015). Implementation of Program C would increase the sustainable yield of the Los Osos Groundwater Basin by 460 acre-feet per year over 2012 baseline conditions (ISJ 2015).

As part of this process, five potential well sites on four parcels are being evaluated for the new municipal well in Los Osos, San Luis Obispo County, California (Figure 1). SWCA Environmental Consultants (SWCA) has prepared this Environmental Constraints Analysis at the request of LOCSD to analyze potential environmental constraints associated with development and operation of a new well at these locations.

2 PROJECT DESCRIPTION

The project would result in the drilling of a new water well west of Los Osos Creek, in the central portion of the Los Osos Groundwater Basin, at one of the five locations (Figures 2 through 5) described below. Construction of the well would typically include use of a drilling rig, mud tank, water truck with shaker table and desanders, service rig, dump truck, pipe trailer, weir tank, and backhoe. The equipment requires a drilling area of approximately 80 × 40 feet. The wells would be constructed with carbon steel and stainless steel well casings in a borehole with a cement grout sanitary seal. Minimal site grading is anticipated for construction activities and may include constructing a temporary pad for staging drilling equipment and forming berms to control development water on-site. Additionally, a discharge basin would be constructed that would be used for long-term maintenance and well flushing and would be designed to hold 2–3 times the casing volume. Drilling cuttings and fluids will be removed from the site for disposal. Operational components would include a well pump, well meter, and well house. Fencing would be constructed around the perimeter of the well location for safety and security purposes. An extension of existing pipeline would be required to connect the new well to the existing LOCSD distribution system.

2.1 Potential Well locations

2.1.1 Site B

Two potential well locations are being considered at Site B, located at 1710 Sage Avenue (see Figure 2). The two sites are located in the southwestern and southeastern corners of Site B. The proposed well sites consist primarily of veldt grassland and remnant coastal dune scrub species. An outbuilding/accessory structure is located adjacent to and north of the westernmost proposed well site. The proposed pipeline alignment includes the existing asphalt road and adjacent right-of-way (ROW) of Sage and Nipomo Avenues (2,500 linear feet). The Site B segment begins at the proposed well sites and continues south to Nipomo Avenue and then west to Mountain View Drive. Site B and the pipeline alignment are bordered by industrial/agricultural structures and single-family homes. A well at this site would be drilled approximately 350 feet deep.

2.1.2 Site C

Site C is located at 2030 Andre Avenue (see Figure 3). The parcel is developed with a single-family residence and detached garage/studio that would be demolished. In return for a low-cost easement to the well location, the property owner has requested a water reservation from the production of the well for future new development at a site or sites to be determined. Site C and the pipeline alignment are surrounded primarily by residential uses and accessory buildings. The proposed well site would be located within the garage/studio footprint. The site is primarily developed, but vegetable gardens and grass border the driveway. The Site C pipeline alignment would run west in the residential driveway and then south in Andre Avenue for approximately 640 linear feet. In lieu of constructing a pipeline, it is LOCSD's intent to negotiate a water wheeling agreement with Golden State Water Company (GSWC) to utilize their water distribution system to convey water to LOCSD. A well at this site would be drilled approximately 600 feet deep.

2.1.3 Site E

Site E is located at the northwest corner of the intersection of Bay Oaks Drive and South Bay Boulevard (see Figure 4). The site is located on a vacant parcel that is the former Bayridge Estates wastewater treatment plant site and is mostly bare with minimal occurrences of grass. The well would be located in the eastern one-third of Site E and the western two-thirds of the parcel would remain a detention basin. The proposed pipeline alignment includes Bay Oaks Drive adjacent to the well site parcel west to 9th Street (2,200 linear feet), or north along South Bay Boulevard from the well site parcel to Nipomo Avenue (3,400 linear feet). In lieu of constructing a pipeline, it is LOCSD's intent to negotiate a water wheeling agreement with GSWC to utilize their water distribution system to convey water to LOCSD. The entire pipeline alignment is in asphalt. Site E and the pipeline alignment are surrounded by residential and commercial/office uses. A well at this site would be drilled up to approximately 700 feet deep.

2.1.4 Site F

Site F is located at the eastern terminus of Ramona Avenue, at the intersection with 18th Street, west of and adjacent to South Bay Boulevard, in the public ROW (see Figure 5). Surrounding uses include residences and accessory buildings. Vegetation at this site includes grass and shrubs. The proposed pipeline alignment is in the unpaved portion of Ramona Avenue from 18th Street to 17th Street and would be approximately 320 linear feet. A well at this site would be drilled approximately 400 feet deep.

3 ENVIRONMENTAL CONSTRAINTS ANALYSIS

This Environmental Constraints Analysis provides a preliminary-level discussion of applicable topic areas identified under Appendix G of the California Environmental Quality Act (CEQA) Guidelines reflecting potential impacts during the short-term construction period and long-term operation of the project. The constraints analysis is based on site visits, biological and cultural site surveys, and a review of aerial photos and available literature. The purpose of this document is to evaluate the environmental constraints associated with each of the well sites and gather and evaluate information on a general level regarding environmental resources that may constrain development of wells on each site. Where potential constraints to future development of the land are identified, recommendations for additional studies and avoidance and minimization measures to address the constraints are provided.

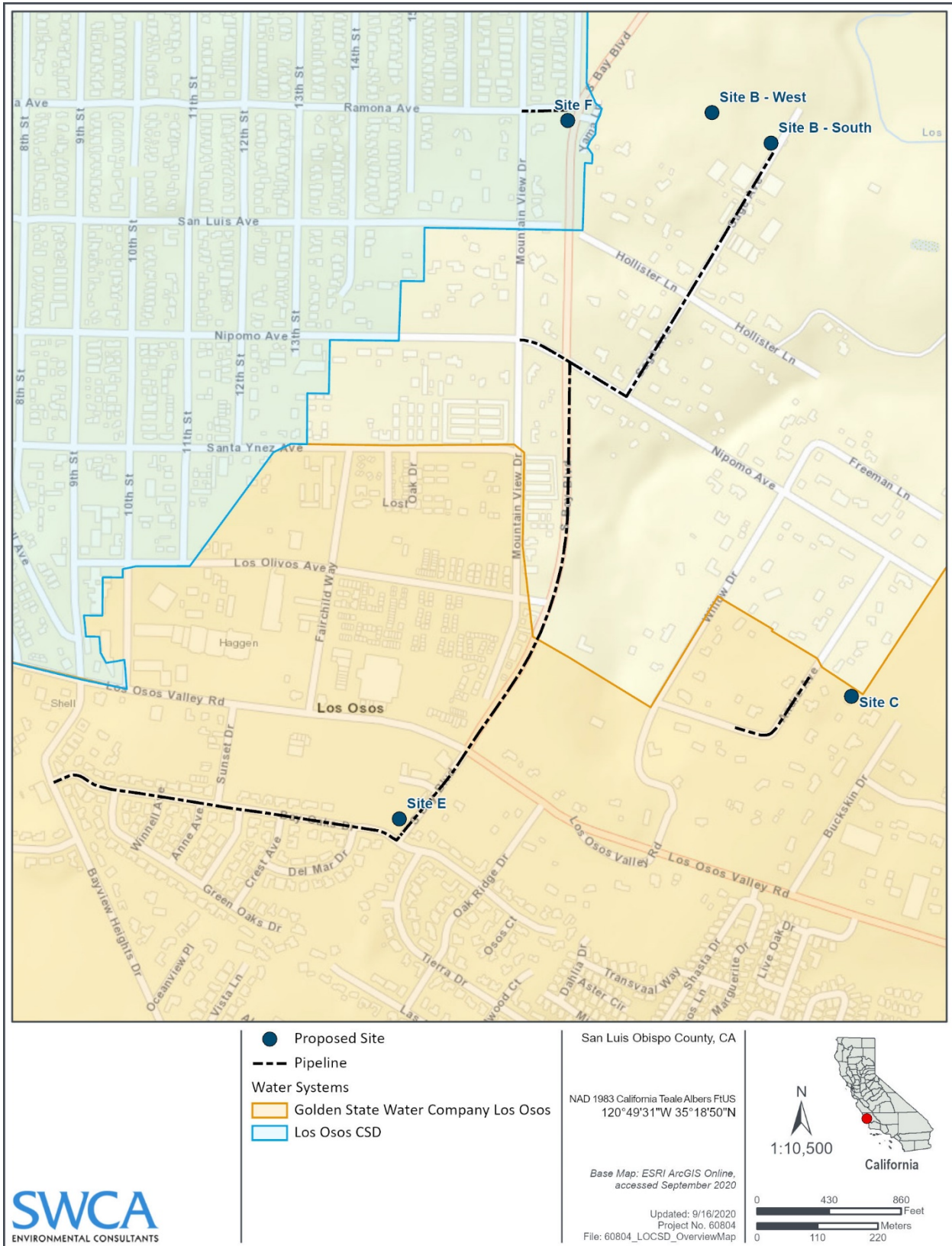


Figure 1. Project location map.

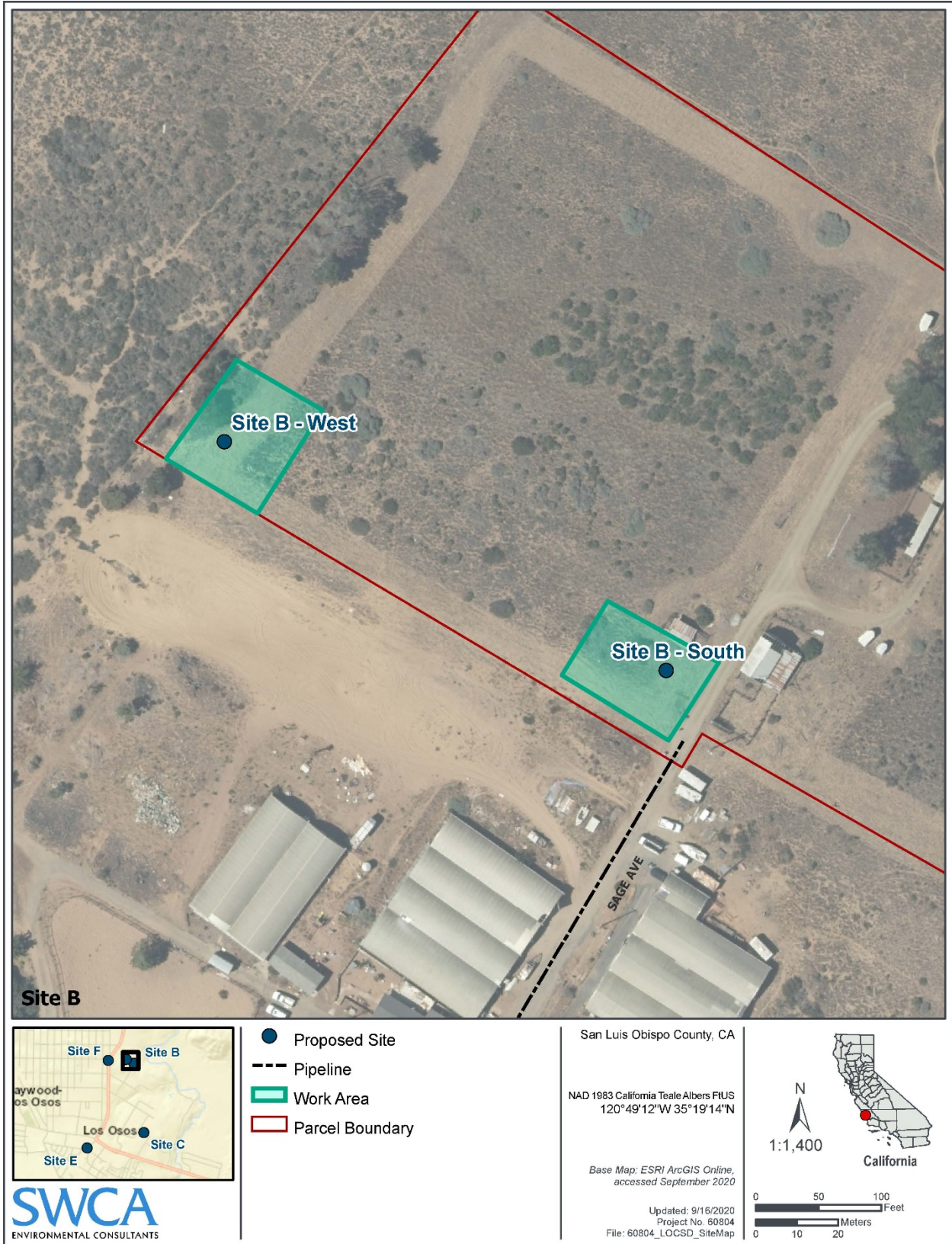


Figure 2. Site B project area.



Figure 3. Site C project area.



Figure 4. Site E project area.

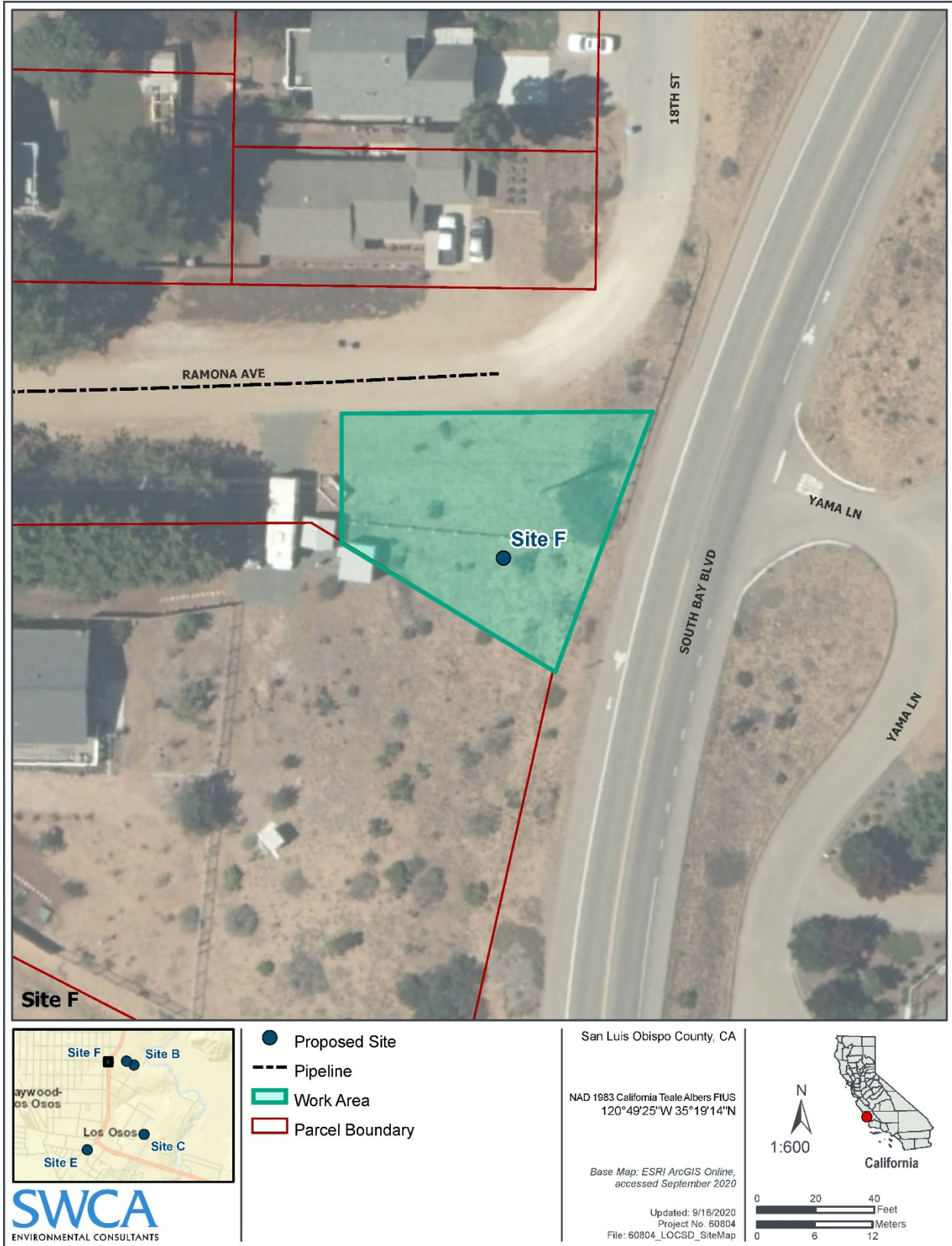


Figure 5. Site F project area.

For most of the sites, the project would be subject to local discretionary permits and regulations and be considered a California Coastal Commission appealable development. This is due to the fact that the development would be considered a “Public Utility Facilities” use (this use type includes public water system wells). Based on Table O of the County of San Luis Obispo (County) Local Coastal Program (LCP), this use type is considered a “special use” (S-13) in all land use categories except for Public Facilities, where it is a “principally permitted use.” Section 23.01.023(c)(4) of the Coastal Zone Land Use Ordinance (CZLUO) states that any uses that are not principally permitted uses are appealable to the California Coastal Commission. Additionally, Section 23.08.288 of the CZLUO states that when a Public Utility Facilities use is an S-13 special use, it requires Development Plan approval by the County. Site E is the exception to the County’s land use permit requirement as this parcel has a Public Facilities land use designation; a Coastal Development may be required.

3.1 Aesthetics

Los Osos Valley Road and South Bay Boulevard are arterial roads and are considered the primary public viewing areas that could be affected by construction of the proposed project. In addition, several of the potential well locations would be visible from local residential streets.

3.1.1 Site B

There are two possible locations for a well at Site B and both are located near the dead end of Sage Avenue. Both potential well locations at Site B are only visible to the public from the last 200 feet of Sage Avenue south of the site, and briefly to southbound travelers along South Bay Boulevard, approximately near the intersection of Pismo Avenue, for about 200 feet. There is a single undeveloped parcel beyond this point of Sage Avenue and therefore this site encounters very little public traffic. Construction activities would be visible to the public, particularly those related to the pipeline installation. Viewers along South Bay Boulevard may briefly glimpse the fencing or top of the well house, depending on materials and height of those structures. Overall, the project would not be significantly noticeable from a public viewing area.

3.1.2 Site C

There is a garage located on the potential well site that would be demolished. The potential well site is protected from views that can be seen from public streets, including South Bay Boulevard and Los Osos Valley Road, due to intervening development and vegetation. This residential area has light public traffic, and views caused by temporary construction activities may have a slight impact if construction vehicles or equipment were to stage on the public road or in the driveway leading to the house. Construction of the pipeline on Andre Avenue would also be visible to the public. The well infrastructure would be less visible than the current garage and would not be easily seen from public areas.

3.1.3 Site E

Any construction activity would be seen by public traveling on South Bay Boulevard, Bay Oaks Drive, Tierra Drive, and Del Mar Drive, and from Los Osos Valley Road depending on the pipeline alignment. The site is located near residential development and viewers to the site would primarily be residents passing through. Construction activity would be temporary in nature, and the completed project would be consistent with existing development on the site and is not expected to significantly degrade existing views of the area.

3.1.4 Site F

The potential site is located directly adjacent to South Bay Boulevard and would be highly visible to viewers traveling between Los Osos and Morro Bay. This site would experience a high volume of public traffic and temporary views from construction activity would have a short-term, temporary impact on public views. Depending on the height and materials of fencing and the well house, this site would likely require some level of vegetative screening.

3.1.5 Summary of Aesthetics Constraints and Recommendation

Construction of a new well site and connecting pipelines could result in a temporary change to these public viewing areas. Temporary changes would likely include but are not limited to the staging of construction equipment and construction-related signage. Construction impacts would be temporary in nature and duration and therefore likely insignificant for all five well sites.

Site C appears to have the least potential for aesthetic impacts, while Site F appears to have the most potential. Depending on the final site selection and design of improvements, vegetative screening may be required to mitigate any potential impacts.

3.2 Air Quality

Construction of the project is expected to include minor site disturbance and use of construction equipment. Drilling of the well may run continuously for 24 hours or more depending on underground conditions. These activities have the potential to create construction dust, as well as short-term vehicle emissions and diesel particulate matter (DPM), reactive organic gases (ROGs), nitrogen oxide (NO_x), and particulate matter (PM). Construction activities are not expected to exceed San Luis Obispo County Air Pollution Control District (SLOAPCD) thresholds. However, dust control measures and limits on idling for both on- and off-road construction equipment can reduce public health risks associated with respirable particulate matter and DPM emissions. Potential construction-related impacts to air quality should be quantified and, at minimum, standard measures for reducing DPM emissions from construction equipment (limits on idling) and reducing fugitive dust emissions from site disturbance activities should be implemented to reduce impacts.

3.2.1 Site B

Drilling of the approximately 350-foot deep well would result in a drilling rig operating continuously for several hours, which has the potential to emit DPM, ROG, and NO_x. The construction of approximately 2,500 linear feet of pipeline would occur within a paved road and would require trenching that would likely generate short-term dust (PM). A basin to accommodate well flushing would also require grading that could result in PM emissions. The surrounding area consists of scattered residential and agricultural development, and Los Osos Middle School is located approximately 1,000 feet north of the project site. Residences and schools are considered sensitive receptors and may be affected by construction-related emissions.

3.2.2 Site C

Drilling of the approximately 600-foot deep well at Site C would result in a drilling rig operating continuously for several hours, which has the potential to emit ROG, NO_x, and DPM. In lieu of constructing a pipeline, it is LOCSD's intent to negotiate a water wheeling agreement with GSWC to utilize their water distribution system to convey water to LOCSD. However, if an agreement cannot be

reached, the construction of approximately 640 linear feet of pipeline for the proposed project would require trenching along paved roads that would likely generate short-term dust. A basin to accommodate well flushing would also require grading that could result in PM emissions. The surrounding area consists of residential units, which are considered sensitive receptors and may be affected by construction-related emissions. This site would also require demolition of an approximately 2,000-square-foot garage. Demolition would likely include removal of any existing utilities and trenching along the existing paved driveway to the street. These activities would require additional construction equipment and vehicles that have the potential to generate additional ROG, NO_x, and DPM emissions.

3.2.3 Site E

Drilling of the approximately 700-foot-deep well would result in a drilling rig operating continuously for several hours, which has the potential to emit DPM, ROG, and NO_x. In lieu of constructing a pipeline, it is LOCS D's intent to negotiate a water wheeling agreement with GSWC to utilize their water distribution system to convey water to LOCS D. However, if an agreement cannot be reached, the construction of pipeline for the proposed project would occur along paved roads and would be between 2,200 linear feet and 3,400 linear feet, depending on the alignment. The trenching for the pipeline, and the grading associated with the basin to accommodate well flushing, would result in PM emissions. The surrounding area consists of commercial office development to the north and residential units in all other directions. Residential units are considered sensitive receptors and may be affected by construction-related emissions.

3.2.4 Site F

Drilling of the approximately 400-foot deep well would result in a drilling rig operating continuously for several hours, which has the potential to emit ROG, NO_x, and DPM. The construction of approximately 320 linear feet of pipeline for the proposed project would require trenching along unpaved, dirt roads, which has the potential to generate more short-term dust. The surrounding area consists primarily of residential units, and Los Osos Middle School is located approximately 1,000 feet northeast of the site. These uses are considered sensitive receptors and may be affected by construction-related emissions.

3.2.5 Summary of Air Quality Constraints and Recommendation

Air quality emissions would be similar across all four sites, and all four sites are located in proximity to sensitive receptors (residential dwellings and Los Osos Middle School). All sites would require some level of standard mitigation to reduce DPM impacts to sensitive receptors. The project would require minimal operation and maintenance trips and would generate limited vehicle emissions and dust associated with these trips. However, operational emissions would be negligible, and the project would not generate substantial long-term air quality emissions.

3.3 Biological Resources

SWCA conducted a reconnaissance survey at the four potential well sites and the associated pipeline alignments on August 6, 2020. Prior to conducting the survey, SWCA queried the California Natural Diversity Database (CNDDDB) to gain insight on which special-status species and sensitive natural communities have been documented in the Los Osos area. The survey and CNDDDB data provided information regarding biological resources occurring or potentially occurring in the well sites and the associated constraints the resources may have on the proposed project. The findings of the survey and the background review are provided below.

3.3.1 Existing Conditions

3.3.1.1 SITE B

Two sites are being considered at the southern property boundary of Site B. The proposed sites include mowed veldt grass grassland and intact (not mowed) veldt grass grassland. The portions of the well sites that are not mowed support remnant coastal dune scrub species, including mock heather (*Ericameria ericoides*), buckbrush (*Ceanothus cuneatus*), California croton (*Croton setigerus*), and coyote brush (*Baccharis pilularis*). An accessory structure is in the southern proposed well site, and the decaying wood of the structure provides good Morro shoulderband snail (MSS) (*Helminthoglypta walkeriana*) habitat. SWCA conducted seasonal botanical surveys and protocol MSS surveys on the entire parcel in 2016–2017 (SWCA 2017). The conditions at the proposed well sites have not changed since the previous survey effort. No special-status plant species were observed during the previous or 2020 surveys. Live MSS were observed in the two proposed well sites in 2016/2017.

The proposed pipeline alignment includes the existing asphalt road and adjacent ROW of Sage and Nipomo Avenues. The Sage Avenue segment begins at the proposed well sites and continues south to Nipomo Avenue, and is bordered by agriculture/industrial structures and single-family homes. Minimal roadside vegetation occurs in the agriculture/industrial area. The ROW in the residential portions of the pipeline alignment supports landscaping, with some patches of veldt grass, ice plant (*Carpobrotus* sp.), woodchips, and native shrubs. Two occurrences of sand almond (*Prunus fasciculata* var. *punctata*) occur in the ROW at the intersection of Sage and Nipomo Avenues.

3.3.1.2 SITE C

Site C is located on a developed property at 2030 Andre Avenue. The proposed well site is currently a vacant garage or studio room and does not support any vegetation or biological resources. The land adjacent to the garage supports veldt grass, which provides marginal habitat for MSS.

In lieu of constructing a pipeline, it is LOCSD’s intent to negotiate a water wheeling agreement with GSWC to utilize their water distribution system to convey water to LOCSD. However, if an agreement cannot be reached, the Site C pipeline alignment would run west in the residential driveway and then south and west in Andre Avenue. The areas bordering the driveway support unmaintained vegetable gardens and veldt grass. The Andre Avenue road shoulders include veldt grass, landscaping, and coast live oak (*Quercus agrifolia*) trees.

3.3.1.3 SITE E

Site E is on a vacant parcel that is the former Bayridge Estates wastewater treatment plant site at the corner of South Bay Boulevard and Bay Oaks Drive. The site is largely bare soil with minimal occurrences of weedy plants, including veldt grass, Bermuda grass (*Cynodon dactylon*), and New Zealand spinach (*Tetragonia tetragonioides*). Two eucalyptus (*Eucalyptus* spp.) trees occur in the northeast corner of the site. The western two-thirds of the parcel is a detention basin. The floor of the detention basin supports wetland vegetation, and the banks of the basin support ice plant, arroyo willows (*Salix lasiolepis*), and coast live oak trees. The banks of the detention basin and the base of the fence line provide low-quality habitat for MSS.

In lieu of constructing a pipeline, it is LOCSD’s intent to negotiate a water wheeling agreement with GSWC to utilize their water distribution system to convey water to LOCSD. However, if an agreement cannot be reached, the proposed pipeline alignment includes Bay Oaks Drive adjacent to the well site parcel and either South Bay Boulevard south from the well site parcel to Nipomo Avenue, or west along

Bay Oaks Drive to Bayview Heights Drive. The entire pipeline alignment is in asphalt. The road shoulders in the alignment include landscaping, ruderal vegetation, bare areas, veldt grass grassland, ice plant, and arroyo willow thickets. MSS is known to occur in patches of ice plant and veldt grass adjacent to South Bay Boulevard.

3.3.1.4 SITE F

Site F includes a triangular portion of the Ramona Avenue ROW located at the eastern terminus of Ramona Avenue and the southern terminus of 18th Street. Site F includes mowed veldt grass with few native shrubs, including black sage (*Salvia mellifera*), California sage (*Artemisia californica*), and mock heather. Most of the shrubs are at the eastern boundary of the site. The native shrubs and an old pile of lumber provide suitable MSS habitat.

The proposed pipeline alignment is in the unpaved portion of Ramona Avenue. In this location, the road shoulders include landscaping, mowed Bermuda and veldt grasses, and woodchips.

3.3.2 Potentially Jurisdictional Waters

SWCA did not observe any wetland or non-wetland “other waters” features in any of the proposed well sites. The South Bay Boulevard pipeline alignment for Site E would be adjacent to arroyo willow thickets associated with a tributary to Willow Creek and a roadside wetland at Los Olivos Avenue. The arroyo willow thickets are likely Waters of the State, the tributary channel is potentially Waters of the United States, and the wetlands are likely Waters of the State.

3.3.3 Sensitive Natural Communities

The California Department of Fish and Wildlife (CDFW) maintains a list of Sensitive Natural Communities that are evaluated using the NatureServe Heritage Methodology to assign Global and State rankings to the communities (NatureServe 2018). Natural Communities with ranks of “S1” through “S3” are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents. The Global and State ranking system does not imply that specific actions are required in review of projects that may impact the community; however, regulatory agencies may request that impacts to these communities be addressed in environmental documents. The Los Osos area supports coast live oak woodlands, coastal dune scrub, arroyo willow thickets, freshwater marsh, salt marsh, and maritime chaparral communities that are listed in the Sensitive Natural Communities list. None of these communities occur in the proposed well sites. Development of the well sites would not impact sensitive natural communities. Arroyo willow thicket and wetland areas occur adjacent to the Site E pipeline alignment. Avoidance of the willow thickets and wetlands along the Site E South Bay Boulevard pipeline segment is recommended.

3.3.4 Environmentally Sensitive Habitat Areas

Los Osos is in the coastal zone and is included in the County’s LCP Policy Document. The LCP identifies and protects sensitive habitat areas through the designation of appropriate land uses and management techniques. Environmentally sensitive habitat areas (ESHA) are defined as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.”

The four potential well sites and most of the pipeline alignment ROW areas support disturbed nonnative veldt grass grassland, ruderal plants, and few remnant native shrubs. Although these disturbed areas provide potential habitat for northern California legless lizard (*Anniella pulchra pulchra*), MSS, coast

horned lizard (*Phrynosoma coronatum*), and nesting birds, the habitats in these areas are not rare or especially valuable. Disturbed veldt grass grassland with mixed ruderal species and sporadic native shrubs is very common in Los Osos and does not constitute ESHA.

The South Bay Boulevard pipeline alignment for Site E, if needed, would be adjacent to arroyo willow thickets associated with a tributary to Willow Creek and roadside wetlands at Los Olivos Avenue. The arroyo willow thickets and wetlands are considered ESHA under the LCP. The detention basin on the Site E parcel contains wetland vegetation that would likely be considered ESHA, as well. The CZLUO requires that development within or adjacent to ESHA be designed and located to avoid any significant disruption or degradation of habitat values. It is anticipated that construction of the well would be able to be located outside of the potential ESHA of the detention basin. At this time, it is unknown whether a pipeline alignment for Site E would be required. Potential ESHA impacts would be analyzed further in the project's CEQA document.

3.3.5 Designated Critical habitat

None of the proposed well site alternatives are in designated critical habitat units. Sites B and E are located just outside of MSS designated critical habitat units.

3.3.6 Special-Status Plant Species

SWCA evaluated 63 special-status plant species for potential to occur in the proposed well sites and associated pipeline alignments. SWCA compared the known habitat requirements of those 63 species to the well site's existing conditions, elevation, and soils. The analysis determined that the elevation and soils for the following plant species are present in the well sites:

- Hoover's bent grass
(*Agrostis hooveri*)
- Morro manzanita
(*Arctostaphylos morroensis*)
- sand mesa manzanita
(*Arctostaphylos rudis*)
- Coulter's saltbush
(*Atriplex coulteri*)
- coastal goosefoot
(*Chenopodium littoreum*)
- popcorn lichen
(*Cladonia firma*)
- Blochman's leafy daisy
(*Erigeron blochmaniae*)
- mesa horkelia
(*Horkelia cuneata* ssp. *puberula*)
- Kellogg's horkelia
(*Horkelia cuneata* ssp. *sericea*)
- perennial goldfields
(*Lasthenia californica* ssp. *macrantha*)
- southern curly-leaved monardella
(*Monardella sinuata* ssp. *sinuata*)
- coast woolly-heads
(*Nemacaulis denudata* var. *denudate*)
- sand almond
(*Prunus fasciculata* var. *punctata*)

The elevation and soils in the well sites are correct to support these species; however, the well sites are very disturbed. Due to the disturbed conditions in the well sites, it is highly unlikely that special-status plant species occur in any of the sites. Based on the floristic surveys conducted in Site B, the absence of special-status plants has been confirmed in Site B. Sand almond and Morro manzanita are relatively common in the ROWs in Los Osos. Two sand almond individuals were observed at the corner of Sage and Nipomo Avenues in the Site B pipeline alignment. The sand almond plants can be avoided by designing the project so that the pipeline alignment stays in the existing asphalt at this location. Morro

manzanita is a perennial species that can be identified most of the year. SWCA targeted this species during the 2020 survey. Morro manzanita was not observed in any of the well sites or the ROWs adjacent to the pipeline alignments. Based on the conditions of the well sites and the results of the survey efforts, it is SWCA's opinion that development of any of the well sites would not impact special-status plant species. This assumes that the sand almond in the Site B pipeline alignment would be avoided and that all other pipelines would be in the existing streets.

3.3.7 Special-Status Wildlife Species

SWCA evaluated 37 special-status wildlife species for potential to occur in the proposed well sites and associated pipeline alignments. Because the list of evaluated species is regional, an analysis of the range and habitat preferences of those animal species was conducted to identify which sensitive wildlife species have the potential to occur in the well sites and pipeline alignments. SWCA determined that the following special-status animal species and migratory birds have potential to occur in select locations:

- Cooper's hawk (*Accipiter cooperii*): Cooper's hawk is relatively common in the Los Osos area. There are known pairs nesting in eucalyptus trees approximately 700 feet west of Site F. There are suitable nesting trees adjacent to Site C, a suitable nesting tree in Site B-West, suitable nesting trees in Site E, and suitable nesting trees adjacent to all the pipeline alignments.
- Northern harrier (*Circus cyaneus*): Northern harriers tend to nest in shrubs among open habitats for foraging. The shrubs in Site B can support nesting northern harriers.
- Northern California legless lizard (*Anniella pulchra pulchra*): California legless lizards are relatively common in areas of Los Osos that contain Baywood fine sand. All the proposed well sites and associated pipeline alignments contain Baywood fine sand. The presence of California legless lizards can be inferred in all project areas that are not currently hardscaped (e.g., asphalt, concrete, etc.) and have some vegetation or woody debris cover.
- Morro shoulderband snail (*Helminthoglypta walkeriana*): MSS are found in parts of Los Osos that contain Baywood fine sand and ample vegetative or woody debris cover. All the well sites and pipeline alignments are in Baywood fine sand; however, most of the study areas lack the necessary cover for MSS. Potential habitat for MSS occurs at the following locations:
 - Site B: MSS is known to occur at Site B, where the species uses the veldt grass and shrubs as shelter.
 - Site C: Although the building that the well site is proposed to replace does not support suitable MSS habitat, the veldt grass and ice plant located around the structure and the driveway can support MSS. The ROW adjacent to the proposed pipeline alignment is largely maintained or mowed, and supports limited shelter opportunities for MSS.
 - Site E: The fence line and ROW adjacent to the parcel support marginal MSS habitat. The banks of the detention basin support marginal MSS habitat. MSS are known to occur in the western South Bay Boulevard ROW adjacent to the proposed pipeline alignment.
 - Site F: The few native shrubs and a pile of lumber support suitable MSS habitat. One class B MSS shell was observed in the pile of lumber.
- Morro Bay blue butterfly (*Plebejus icarioides moroensis*): Dune lupine shrubs at Site B can support this species.
- Coast horned lizard (*Phrynosoma coronatum*): The veldt grass and native shrub vegetation at Site B can support this species.
- Nesting birds: Select locations of all the well sites and pipeline alignments support potential nesting habitats.

3.3.8 Summary of Biological Resources Constraints and Recommendations

Table 1 provides a summary of the biological constraints by site, and the constraints are discussed below.

Table 1. Summary of Biological Resources Constraints by Site

Biological Resources Constraints	Site			
	B	C	E	F
Jurisdictional Waters				
Critical Habitat				
Environmentally Sensitive Habitat Areas			X	
Special-Status Plants	X			
Cooper's Hawk	X	X	X	X
Northern Harrier	X			
Northern California Legless Lizard	X	X	X	X
Morro Shoulderband Snail	X	X	X	X
Morro Bay Blue Butterfly	X			
Coast Horned Lizard	X			
Nesting Birds	X	X	X	X

In terms of biological resources, Site B is the most constrained site. Site B is known to support a good population of MSS, has high potential to support northern California legless lizard and nesting birds, and has moderate potential to support coast horned lizard and Morro Bay blue butterfly. Although the occurrence can easily be avoided, the Site B pipeline alignment is the only site that harbors a special-status plant occurrence.

Sites C and F are less constrained than Site B because they have a low potential to support MSS, northern California legless lizard, and nesting birds. In addition, the pipeline alignments associated with these sites are free of biological constraints.

Site E is the least constrained site. Site E has the lowest potential to support MSS and northern California legless lizard. The only potential MSS and legless lizard habitat is along the parcel fence line and the ROW at the eastern parcel boundary, which has two small patches of ice plant and vegetative debris. The proposed well site parcel itself does not support suitable MSS or legless lizard habitat. The portions of the ROW adjacent to the Site E pipeline alignment on South Bay Boulevard support MSS. However, these occurrences can be avoided by designing the pipeline to be in the existing asphalt. The two eucalyptus trees and an old shed provide the only potential avian nesting habitat on the site. The detention basin wetlands adjacent to Site E and the willow thickets and wetland adjacent to the Site E pipeline alignment constitute ESHA. However, these ESHA can be avoided.

SWCA has provided the following recommendations to assist the LOCSD in designing and developing a well and pipeline project that avoids or minimizes impacts to biological resources and reduces mitigation costs:

- Design all pipeline alignments to occur in existing streets. The ROWs adjacent to the existing streets have potential to support biological resources that should be avoided. Avoiding these areas will reduce mitigation costs.
- Avoid altering the detention basin floor at Site E. Avoid the arroyo willow thickets and wetlands located in the ROW of South Bay Boulevard. The wetland vegetation in the detention basin and ROW may be considered ESHA under the County's LCP. The CZLUO requires that development within or adjacent to ESHA be designed and located to avoid any significant disruption or degradation of habitat values. It is anticipated that construction of the well would be able to be located outside of the potential ESHA of the detention basin. At this time, it is unknown whether a pipeline alignment for Site E would be required. Potential ESHA impacts would be analyzed further in the project's CEQA document.
- Although the Program C project would be covered under the upcoming MSS Habitat Conservation Plan and associated Incidental Take Permit (ITP), it is possible that development of sites C, E, and F may not result in take of MSS. If Site C, E, or F are chosen for development, the LOCSD may consider conducting protocol MSS surveys in the chosen site to establish absence of MSS. Establishing absence of MSS would negate the need for an ITP.
- Regardless of which site is developed, LOCSD should anticipate needing to retain a biological monitor to conduct pre-disturbance surveys for northern California legless lizards, nesting birds, and other biological resources.

3.4 Cultural Resources and Tribal Cultural Resources

SWCA requested a records search for the potential locations from the Central Coast Information Center (CCIC) of the California Historical Resources Information System (CHRIS), located at the University of California, Santa Barbara. The records search results included all previously documented archaeological resources within 0.25 mile of each potential well site. A reconnaissance pedestrian survey of the well sites and pipeline alignments was conducted on August 6, 2020.

3.4.1 Existing Conditions

3.4.1.1 SITE B

Three previously documented prehistoric archaeological resources are within 100 feet of the proposed well sites and the associated pipeline alignment. Site B is considered highly sensitive for the presence of known and unknown archaeological resources.

3.4.1.2 SITE C

Six previously documented prehistoric archaeological resources are within 0.25 mile of Site C and the associated pipeline alignment. Site C is considered highly sensitive for the presence of known and unknown archaeological resources.

3.4.1.3 SITE E

There are two previously documented prehistoric archaeological resources within 100 feet of Site E and the associated pipeline alignment. Site E is considered highly sensitive for the presence of known and unknown archaeological resources.

3.4.1.4 SITE F

No known resources are located within or adjacent to Site F and the associated pipeline alignment. Site F is considered to have low sensitivity for the presence of unknown resources.

3.4.2 Summary of Cultural Resources Constraints and Recommendations

Previously documented prehistoric archaeological resources are located within close proximity to Sites B, C, and E, and their associated pipeline alignments. If any of these are chosen as the preferred option, the project(s) may require additional cultural resources study such as evaluation for California Register of Historical Resources (CRHR) eligibility, mitigation in the event the resource(s) are in fact eligible, tribal coordination, and potentially construction monitoring. The level of effort for future study would be dependent on the proposed project footprint as it relates to these previously documented resources. Given the available information, at this time, the level of effort with regards to avoiding and/or minimizing impacts to archaeological resources for Sites B, C, and E and their associated pipeline alignments is comparable, with no clear differentiators.

Site F has the lowest sensitivity for the presence of unknown archaeological resources, and subsequently, the least likelihood of requiring further cultural resources study or location-specific conditions and/or mitigation. Sites B, C, and E and their associated pipeline alignments would require additional archaeological study and may result in adverse impacts to significant archaeological resources.

3.5 Geology and Soils

According to the Natural Resource Conservation Survey (NRCS) Web Soil Survey (NRCS 2020), the soil at all sites is comprised of Baywood fine sand, 2 to 9 percent slopes. The soil is somewhat excessively drained, has rapid permeability, and very low runoff. The depth to water table is more than 80 inches.

Based on the County Parcel Viewer (County of San Luis Obispo 2016) and U.S. Geological Survey (USGS) Interactive Fault Map, the project sites are located within the Los Osos Fault Zone, which contains capable faults. According to the Southern California Earthquake Data Center (SCEDC), the Los Osos fault was last active in the current Holocene era (California Department of Conservation 2015). There is always potential for groundshaking along the coast of California; therefore, construction standards and regulations, including the California Building Code, should be followed for any development.

The County's Coastal Zone Land Use and Planning map does not consider any of the potential sites to be within a Geologic Study Area (GSA). Therefore, the project does not require disturbance or development on geologically unstable conditions that would potentially exacerbate geologic or seismic hazards associated with the study area.

3.5.1 Summary of Geologic Constraints and Recommendation

All four sites have similar geologic conditions and potential impacts are anticipated to be similar. Construction activity for the project may cause erosive runoff; therefore, standard construction sedimentation and erosion control measures should be implemented to reduce potential erosion.

3.6 Noise

During the construction phase of the project, noise generated from construction activities, including drilling of the new well site and construction of pipelines, may intermittently dominate the noise environment in the immediate area. Table 2 details the typical noise levels for construction equipment.

Table 2. Typical Noise Levels for Construction Equipment

Equipment	Typical Noise Level (dBA)* 50 Feet from Source
Backhoes, excavators	80–85
Concrete pumps, mixers	82–85
Cranes (moveable)	81
Pick-up truck	55
Dump truck	76
Equipment/tool van	55
Dozer	82
Compactors	82
Water truck	76
Grader	85
Drill rigs	70–85
Pneumatic tools	85
Rock transport	76
Roller	80
Hole auger	84
Line truck and trailer	55

*dBA = A-weighted decibels

Source: U.S. Environmental Protection Agency 1971.

The County’s CZLUO (23.06.042.d) states that noise related to construction activity should take place between 7:00 a.m. and 9:00 p.m. (Monday–Friday) and between 8:00 a.m. and 5:00 p.m. (Saturday–Sunday). Noise associated with construction activities taking place during these hours are exempt from the County’s noise standards. Certain phases of the drilling and well construction over an approximate 1–2 week period can require round-the-clock operations to maintain hole stability. If feasible, additional noise minimization measures (e.g., noise attenuation barriers, muffling of grading equipment) should be considered if construction equipment is expected to generate noise levels in excess of 95 decibels (dB) or otherwise exceed noise standards during non-exempt periods.

The project would require minimal long-term operational activities and maintenance and would not generate substantial long-term noise or vibration. Noise associated with maintenance work on public utilities is exempt from the County’s noise standards. Minimal noise would be associated with the well pump, but this noise would attenuate before reaching nearby property lines and is not expected to exceed County noise regulations of 50 dB daytime or 45 dB nighttime. The project is not located within an airport land use plan or within the vicinity of a private airstrip or other significant noise-generating uses.

3.6.1 Summary of Noise Constraints and Recommendation

Noise associated with construction activities taking place during specified hours are exempt from the County's noise standards, as are maintenance activities. If feasible, noise minimization measures (e.g., noise attenuation barriers, muffling of grading equipment) should be considered if construction equipment is expected to generate noise levels in excess of 95 dB. In the event equipment at the well site would exceed County noise regulations of 50 dB daytime or 45 dB nighttime, mitigation measures would be required.

3.7 Other Issue Areas

The project is not anticipated to result in substantial impacts to the remaining issue areas listed in Appendix G of the State CEQA Guidelines, which are briefly outlined below.

3.7.1 Agriculture and Forestry Resources

According to the NRCS Web Soil Survey (NRCS 2020), all study areas are underlain by Baywood fine sand, 2 to 9 percent slopes. The soil is somewhat excessively drained, has rapid permeability, and very low runoff. The depth to water table is more than 80 inches.

The project sites do not contain any Prime Agricultural Land Classification by the Farmland Mapping and Monitoring Program (FMMP) and none of the sites are subject to the Williamson Act. The potential project sites do not contain more than 10% native tree coverage and are not considered forestland. None of the sites have an Agricultural land use designation or are engaged in active agricultural activities.

Project operation would not conflict with adjacent agricultural uses or reduce available agricultural water supplies. The wells drilled as part of Program C would be located to prevent or minimize impacts to private wells already producing groundwater from the Central Area. This would be possible because the new wells would be located within the Lower Aquifer of the Los Osos Groundwater Basin, whereas existing wells are concentrated in the Upper Aquifer (ISJ 2015).

3.7.2 Greenhouse Gas Emissions

The construction and operational activities would not generate considerable greenhouse gas (GHG) emissions and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

3.7.3 Hazards and Hazardous Materials

According to the State Water Resources Control Board (SWRCB) Geotracker website, there are no pending hazardous waste cleanup sites within a 0.5-mile radius of the potential project sites. The nearest Cleanup Program Site and California Department of Toxic Substances Control (DTSC) Cleanup Site is an active cleanup site that is located just outside of a 0.5-mile radius of Site E near the Shell Gas Station on Los Osos Valley Road. Limited hazardous materials would be transported to the study area during construction, namely oil and fuel for construction equipment and vehicles. The construction phase of the project would include the potential for spills to occur; therefore, implementation of standard spill prevention and response measures would be recommended. The project does not include the routine transport, use, or disposal of hazardous materials or hazardous emissions.

3.7.4 Hydrology and Water Quality

Los Osos Creek runs through Los Osos until it discharges to Morro Bay. Sites B, C, and F are located within a 0.5-mile radius of Los Osos Creek. Site B is nearest to the creek (0.1 mile) and Site E is the farthest (0.8 mile). Project construction of a new well site and connector pipeline would not result in any substantial impacts to hydrology or water quality of surface waters or groundwater resources. Operation of the well would not result in new pumping but would instead offset pumping from another part of the basin.

Increases to basin sustainable yield and associated seawater intrusion mitigation are anticipated from shifting groundwater production to a new Program C well (Cleath-Harris Geologists [CHG] 2020). The potential benefits increase as the new well location moves farther east toward the Los Osos Creek valley, where recharge from stream seepage in Los Osos Creek helps offset seawater intrusion. Site C is estimated to provide the greatest potential basin yield increase, but would also result in more recharge from stream seepage than the other sites, therefore impacting Los Osos Creek surface flows more than Sites B, E, and F. Sites B, E, and F have similar basin yield benefits and less potential impacts to surface flow in Los Osos Creek from stream seepage than Site C. However, note that overall stream seepage from Los Osos Creek under Los Osos Basin Plan infrastructure Program C is projected to be similar to historical stream seepage following significant decreases in purveyor production from water conservation by existing development (compare 2015 ISJ Los Osos Basin Plan Update Figure 73, 2012 Water Balance, and Figure 74, No Further Development Scenario E+U+AC).

Potential impacts to water levels at private domestic wells from pumping a new Program C well will vary between the sites. Site C is estimated to have the greatest potential for water level impacts to nearby private domestic wells, based on the site location with respect to purveyor service area boundaries, the residential parcel density outside of those service areas, and the amount of anticipated production. A prior draft study estimated 3–6 feet of water level drawdown at nearby Upper Aquifer wells from operating a Lower Aquifer well at Site C, and the study also recommended mitigation measures (CHG 2018). Other sites are anticipated to have a lower potential for water level impacts.

The project would not alter the course of a stream or river, substantially alter the existing drainage pattern of the site, or substantially increase the rate or volume of runoff. No sites are located within the 100-year flood zone. The small development footprint would not substantially increase the rate or volume of runoff or alter existing drainage of the site or area that could result in increased erosion, siltation, or flooding. A small drainage basin would be constructed in compliance with Regional Water Quality Control Board (RWQCB) standards and would be utilized for well maintenance and flushing.

3.7.5 Land Use and Planning

According to the County’s Estero Planning Area Land Use Map, Site B is designated as Residential Rural, Sites C and F are designated as Residential Suburban, and Site E is designated as Public Facilities. The project is considered compatible with existing on-site land uses and is generally compatible with surrounding uses. The project would not physically divide an established community and is not expected to conflict with applicable plans or policies. Coastal Development Permits and County Development Plans would be required for Sites B, C, and F due to the land use being a “special use” rather than a “principally permitted use,” per the County’s LCP. Site E may be appealable to the California Coastal Commission as a Major Public Works project pursuant to Section 23.01.043(c)(5) of the CZLUO, and may require a Coastal Development Permit. These permits would be appealable to the California Coastal Commission (see Section 4, Property Acquisition and Permitting, for further discussion). The project is considered compatible with existing on-site uses and surrounding land uses and would not physically divide an established community or conflict with any applicable land use plan, policy, or regulation.

3.7.6 Mineral Resources

The County's Coastal Land Use Ordinance states that any surface ground mining or underground mining must require a permit before mining activity occurs. The study areas are not located near any county mines. However, there are U.S. Environmental Protection Agency (USEPA) mines located along Los Osos Creek, which is in close proximity to Sites B, C, and F. The limited amount of grading, earthwork, and construction activities proposed would not substantially affect valuable mineral resources that may be located on-site or in surrounding areas.

3.7.7 Paleontological Resources

Based on the Los Osos Community Plan Final Environmental Impact Report (EIR), the study area is underlain by old eolian deposits (County of San Luis Obispo 2020). This formation consists of fine to coarse sand and fine gravel and is often capped with well-developed soil. Previous fossil encounters in the area have been identified in alluvial deposits; eolian sediments are typically accumulated in depositional environments that are not generally favorable for fossil preservation.

3.7.8 Population and Housing

This project would implement Program C of the Los Osos Basin Plan. The purpose of this program is to shift some groundwater production within the Lower Aquifer of the Los Osos Groundwater Basin from the Western Area to the Central Area, which experiences less seawater intrusion and similar production yields. Implementation of Program C would increase the sustainable yield of the Los Osos Groundwater Basin by 460 acre-feet per year over baseline conditions (ISJ 2015).

The Los Osos Basin Plan does not dictate the appropriate level of future development, but rather contemplates the additional development determined by other planning processes. The County's draft Los Osos Community Plan Update anticipates a buildout population (year 2040) of 18,001, an increase of 29% from the current population of 13,944. In order to ensure that growth does not result in further impacts on the Los Osos Groundwater Basin, the County proposes to use the Growth Management Ordinance as a tool for allocating construction permits for new residence (County of San Luis Obispo 2020).

In the event Site C is selected, the property owner would provide a low-cost easement to LOCSD in exchange for a water reservation from the well. Such water reservation would be used for future new development at a site or sites yet to be determined. The nature, location, and timing of such development could have the potential to be growth inducing. For the purposes of this Environmental Constraints Analysis, such impacts from this exchange are speculative and therefore are not discussed in depth. Generally, growth-inducing impacts could result in additional biological, cultural, and transportation-related impacts. Should Site C be selected, the CEQA analysis would analyze these impacts in greater detail. Additional coordination with the County would be required to analyze these impacts.

The project would not displace any housing or people.

3.7.9 Public Services and Recreation

The project would not substantially affect public services or facilities, including fire, police, emergency services, parks, recreation facilities, or other public services as the project would not create additional employment opportunities. The new well would not induce population growth (see above), and therefore demand for these services would not be increased.

3.7.10 Transportation and Circulation

The construction phase of the project would result in a minor increase in traffic to and from the study area. An increase in traffic may also temporarily occur on surrounding streets as a result of partial road blockages during construction of connector pipelines. Any road closure caused by implementation of the well or pipelines would be temporary in nature and the LOCS D would be required to create a construction traffic control plan as part of the encroachment permit from the County. Project operation and maintenance would require minimal traffic to and from the study area; however, these operational trips would be negligible. Vehicle miles traveled (VMT) related to operation and maintenance trips would be minimal and would originate from the LOCS D water yard located at 8th Street and El Moro Street. The project would not conflict with an applicable transportation plan, ordinance, policy, or congestion management plan. Long-term transportation and traffic operations would be very similar to existing conditions.

3.7.11 Utilities and Service Systems

Construction of the project would shift LOCS D’s groundwater production from the western area of the basin to the central area and would not substantially increase water demand, wastewater supply, or solid waste generation. Construction waste would be hauled off-site by the contractor to an approved waste disposal site. It is expected that a portable restroom would be placed on-site for the duration of construction activities and be hauled off by the restroom provider at the completion of construction. Construction would not result in an exceedance of wastewater treatment requirements or require the construction of new stormwater drainage facilities beyond what is required by the Central Coast RWQCB’s existing post-construction stormwater management requirements. Short-term interruptions in utilities or service systems (e.g., water, electricity) are not anticipated. If required, it is recommended that affected customers and service providers be notified in advance.

4 PROPERTY ACQUISITION AND PERMITTING PROCESSES

For the project to be feasibly constructed, LOCS D would likely be required to purchase easements from the property owners of Sites B, C, and F to facilitate development of the water well. The lease of the potential well sites could have permitting implications, as briefly summarized below.

Per the County’s LCP, Public Utility Facilities uses, including municipal wells, require Development Plan approval by the County on all sites except for Site E, which has a Public Facilities land use designation, of which Public Utility Facilities are a principally permitted (ministerial) use. The Development Plan requirement for Sites B, C, and F would also trigger a Coastal Development Permit, which would be appealable to the California Coastal Commission. This is due to the fact that Table O of the County’s LCP identifies Public Utility Facilities as a “special use” (S-13) in all land use categories except for Public Facilities, where it is a “principally permitted use.” Section 23.01.023(c)(4) of the CZLUO states that any uses that are not principally permitted uses are appealable to the California Coastal Commission.

Site E is the exception to the Development Plan requirement as this parcel has a Public Facilities land use designation. However, Section 23.01.043(c)(5) of the CZLUO states that “[a]ny development that constitutes a Major Public Works Project or Major Energy Facility [is appealable to the California Coastal Commission]. “Major Public Works Project” or “Major Energy Facility” shall mean any proposed public works project or energy facility exceeding \$100,000 in estimated construction cost, pursuant to Section 13012, Title 14 of the California Administrative Code.” Although the project may be exempt from County Development Plan requirements, a Coastal Development Permit may be required.

5 CONSTRAINTS SUMMARY AND SITE RECOMMENDATION

The following is a discussion on each of the four sites, from least constrained to most constrained:

- **Site E:** Site E is the least constrained site as it has the lowest potential to support MSS and northern California legless lizard. The site is highly sensitive for cultural resources, which is consistent with the sensitivity of most of the other sites. Aesthetic impacts at this site are not expected to be significant. Site E would achieve similar basin yield as Sites B and F and would result in less potential impacts to surface flow in Los Osos Creek from stream seepage than Site C. Site E is also the least constrained in regards to permitting, as it is owned by the LOCS D and would not require a Development Plan from the County. The project may be appealable to the California Coastal Commission and may require a Coastal Development Permit per Section 23.01.043(c)(5) of the CZLUO. Taking into consideration potential environmental constraints as well as permitting considerations associated with the four sites included in Program C, it is SWCA's professional opinion that Site E should be considered the preferred alternative.
- **Site C:** Site C also has potential to support MSS, northern California legless lizard, and nesting birds. The pipeline alignments associated with this site are free of biological constraints. Site C is, however, highly sensitive for the presence of known and unknown cultural resources. There are six previously documented prehistoric archaeological resources within 0.25 mile of Site C and the associated pipeline alignment. Site C would provide a greater basin yield than Sites B, E, and F, but would also result in more recharge from stream seepage than the other sites, therefore impacting Los Osos Creek surface flows more than Sites B, E, and F. Site C would require the LOCS D to obtain an easement from the property owner and would require discretionary Development Permits or Coastal Development Permits from the County. The Coastal Development Permits would be appealable to the California Coastal Commission.
- **Site F:** Site F has similar biological constraints as Site C and has potential to support MSS, northern California legless lizard, and nesting birds. The pipeline alignments associated with this site are free of biological constraints. No known cultural resources are located within or adjacent to Site F and the associated pipeline. Site F has the highest potential for aesthetic impacts and would likely require some level of screening, either with fencing, landscaping, or a combination of the two. This screening would add to the maintenance requirements of the site. Site F would achieve similar basin yield as Sites B and E and would result in less potential impacts to surface flow in Los Osos Creek from stream seepage than Site C. Site F would require encroachment permits from the County as well as discretionary Development Permits or Coastal Development Permits from the County. The Coastal Development Permits would be appealable to the California Coastal Commission.
- **Site B:** Site B is the most constrained site due to sensitive biological resources and high sensitivity for nearby cultural resources. Site B is known to support a good population of MSS, has high potential to support northern California legless lizard and nesting birds, and moderate potential to support coast horned lizard and Morro Bay blue butterfly. The Site B pipeline alignment is the only site that contains a special-status plant occurrence. Three previously documented prehistoric archaeological resources are within 100 feet of the proposed Site B well sites and associated pipeline. Site B would require acquisition of an easement and would require discretionary Development Permits or Coastal Development Permits from the County. The Coastal Development Permits would be appealable to the California Coastal Commission.

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June 26, 2020

Comments for khensley@co.slo.ca.us

We are some of the private domestic well users that rely on groundwater from the Los Osos Water Basin. We have concerns about Program C in the Basin Management Plan and concerns about the building of future dwellings in the next five years.

First, we are against the Andre site as a possible Program C municipal well. We believe the proximity of this site will negatively affect the available water for our private wells. In the BMC plan, a Program C well is meant to balance the basin for existing water users in Los Osos and not for development. An added point of confusion is that the Andre site is owned by a developer who will obtain water benefits for development.

Second, with the basin at or approaching overdraft condition, we are concerned that building over 400 new dwellings in the next five years will have negative impacts on the private wells and the communities water. The BMC metrics have only been in place for five years; it seems much too soon to predict the plausibility of future growth based on them.

We would like to echo the concerns stated by the BMC water purveyors from the last BMC meeting by concluding: Before Los Osos commits to building new housing, we need a safe and reliable water supply for all the current users in the basin. Let's not put our community water at risk.

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Ketting

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| 1. <u>Mary Ketting</u> | 12. <u>Bob</u> |
| 2. <u>[Signature]</u> | 13. <u>Bob Whitworth</u> |
| 3. <u>Brenda Hock</u> | 14. <u>Ed Van Fleet</u> |
| 4. <u>Jules Hock</u> | 15. <u>Judy Van Fleet</u> |
| 5. <u>Wayne D. Sibley</u> | 16. <u>Ralph B Ward Jr</u> |
| 6. <u>[Signature]</u> | 17. <u>Shirley Ward</u> |
| 7. <u>[Signature]</u> | 18. <u>Sheldon Macdon</u> |
| 8. <u>Sabra Scott Lodge</u> | 19. <u>Alta E Medison</u> |
| 9. <u>[Signature]</u> | 20. <u>Alice Smith</u> |
| 10. <u>Katharine [Signature]</u> | 21. <u>Stephani Kendrick</u> |
| 11. <u>Gail Freiler</u> | 22. <u>[Signature]</u> |
| 26. <u>[Signature]</u> | 23. <u>[Signature] ROBERT J. COHEN</u> |
| | 24. <u>Lynda L. Cohen</u> |
| | 25. <u>Paula K Logan (PAMELA K LOGAN)</u> |

- 27 Marie Neumann
28 Ike (Jim Neumann)
29 Emie Palacios
30 Thotie Valdes
31 Susan Clifford
32 DA Cliff (David Clifford)
33 Susan Choy
34 Maynt
35 M. S. (Michael Sumner)
36 Dawn Riments
37 M. S.
38 Larry Bender (LARRY Bender)
39 Marcia M. Page (MARCIA M. PAGE)