HERITAGE RANCH COMMUNITY SERVICES DISTRICT

MEMORANDUM

TO: Board of Directors

FROM: Scott Duffield, General Manager
Operations and Engineering Committee (Barker, Cousineau)
Steve Tanaka, District Engineer

DATE: September 20, 2018

SUBJECT: Request to receive and file a draft update to the District Standard Specifications and Drawings and set October 18, 2018 for considering adoption of a final draft.

Recommendation

It is recommended that the Board of Directors receive and file a draft update to the District Standard Specifications and Drawings and set October 18, 2018 for considering adoption of a final draft.

Background

The current Standards were developed by the District Engineer and adopted by the Board of Directors in November 2004. The Standards are policy for anyone who may want or need to build, repair, or work on or near our infrastructure, including developers, land owners, utility companies, etc. They are also used for in-house improvements and repairs.

Discussion

The Standards provide specifications and drawings for all water and sewer related items. It should be noted the document does not provide specifications for any items that are not under the authority of the District. For example, there are no specifications for street lighting or road design. The specifications for those items are under the authority of other agencies; however, consideration for the authority of SLO County and Heritage Ranch Owners Assosication are noted throughout the Standards where applicable.

Staff meet with the District Engineer numerous times during development of the updates. The Operations & Engineering Committee has also provided comments to the draft updates. By introducing this item today, it will allow for the Board and the community to provide any additional comments. Staff intends to return to your Board with a request to adopt a final draft of the Standards at the October 18th meeting.

Fiscal Considerations

There are no direct fiscal considerations for this item. The cost for this item is included in the FY 2018/19 Budget.

Results

Approval of the recommended action will provide the District, developers, and the community with the most up-to-date standard specifications and drawings.

Attachment: Draft Standard Specifications and Drawings

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT

STANDARD SPECIFICATIONS AND DRAWINGS

Adopted by the
Heritage Ranch Community Services District
October 18, 2018

STANDARD SPECIFICATIONS AND DRAWINGS

Approvals:

Scott B. Duffield, PE C78026 Date
General Manager

Steven G. Tanaka, PE C49779 Date
District Engineer

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CHAPTER 1
GENERAL REQUIREMENTS

1.1 PURPOSE

The purpose of these Standard Specifications and Drawings (Standards) is to provide minimum requirements for the design, methods of construction, types and uses of materials, and the preparation of plans for new construction, repair/replacement, or alteration of District facilities for sewer and water utilities, within the Heritage Ranch Community Services District (HRCSD).

Any items which are not included in these Standards shall be constructed in accordance with the latest edition of San Luis Obispo County Department of Public Works Standards, or other HRCSD-approved standards.

Where water or sewer systems are being constructed, operated and maintained in County road right-of-way, plans and specifications must be approved by both HRCSD and County. Where discrepancies or conflict exist between agencies' standards, HRCSD standards shall prevail.

1.2 DEFINITIONS

In these Standard Specifications and Drawings, the intent and meaning of the terms that are used shall be as defined in Section 1 of the State Standards, except as noted below.

A. ***Applicant*** - Shall mean the owner of land where any improvements are proposed to be constructed for eventual acceptance by HRCSD. The applicant may also be referred to as the Developer or Owner.

B. ***ASTM*** - Shall mean the industry standards and the society known as the American Society of Testing Materials, the latest revision thereof.

C. ***AWWA*** - Shall mean the industry standards and the society known as the American Water Works Association, the latest revision thereof.

D. ***Contractor*** - Shall mean any person or persons, firm, partnership, corporation or combination thereof who has/have entered into a contract with any person, corporation, company, or the HRCSD as party or parties of the second part, or their legal representatives, for the construction of any improvement or portion of any improvement within the HRCSD.

E. ***County*** - Shall mean the County of San Luis Obispo.

F. ***County Standards*** - The Standards and Specifications for the County of San Luis Obispo Department of Public Works & Transportation, latest edition.

G. ***District*** - Shall mean the Heritage Ranch Community Services District.

H. ***District Engineer*** - Shall mean the authorized registered civil engineer acting on behalf of the District for general engineering matters. The current District Engineer is Wallace Group, a California Corporation, San Luis Obispo, California

I. ***Engineer*** - Shall mean the General Manager for HRCSD acting directly or through his authorized representative, or District Engineer.

J. ***Engineer-of-Record*** - Shall mean any person or persons, firm, partnership or corporation legally authorized to practice civil engineering in the State of California designated by an Applicant who prepares and submits improvement plans and specifications on behalf of the Applicant, and who certifies the Record Drawings of the final construction.

K. ***HRCSD*** - Heritage Ranch Community Services District.

L. ***HRCSD Inspector*** – HRCSD or designated Inspector directed to provide inspection services on behalf of HRCSD.

M. ***Improvements*** - Any or all work submitted, or expected to be submitted to HRCSD for acceptance into the HRCSD water and/or sewr system.

N. ***State*** - When State Standards are applicable, the word "State" as used in the State Standards shall mean HRCSD.

O. ***State Standards*** - Shall mean the latest edition of the Standard Specifications of the State of California, Department of Transportation (Caltrans).

P. ***UBC*** - Shall mean Uniform Building Code, latest edition.

Q. ***UFC*** - Shall mean Uniform Fire Code, latest edition.

R. ***UPC*** - Shall mean Uniform Plumbing Code, latest edition.

1.3 ALTERNATE STANDARDS

Alternate materials or methods of construction may be accepted by HRCSD on a case-by-case basis in lieu of these Standards; provided the proposed alternate is of equal or greater utility and quality, provided that it does not pose a threat to public health or safety, and provided that such alternate materials or methods are in conformance with County Standards when within the public right-of-way. Alternates shall not be used until first approved in writing by the Engineer. All costs associated with approved alternate standards shall borne by the Applicant.

1.4 PERMITS

A. ***HRCSD Permits***. Any Contractor and/or Applicant wishing to do work under these Standards shall first obtain a permit or approved plans from the District. If such permit or approved plans has not been obtained, the work shall be stopped at the direction of the Engineer, who may cause the work already completed to be removed and the site restored to its original condition. For new buildings and dwellings, HRCSD shall receive approved building permits from the County of San Luis Obispo Planning Department, prior to the HRCSD issuing permits for such new work.

B. ***County Permits***. Any Contractor performing work within the County right-of-way shall also obtain a County encroachment permit, which includes requirements beyond those contained in these Standards.

C. ***CAL/OSHA***. Any Contractor doing excavations of 5 feet or more in depth shall possess a current CAL/OSHA permit. A copy of such permit shall be presented to the District upon request.

D. ***State License***. Any Contractor performing work under these Standards shall possess an appropriate, valid license to perform such work, from the California State License Board. The Contractor or his duly authorized representative must be available on the job site during the time when any work is in progress. If such is not the case, work shall be stopped at the direction of the Engineer. For water and sewer utility work at HRCSD, Contractors shall possess an "A" General Engineering license, unless otherwise specified or approved in the construction documents. Other specialty licensing may be required at the discretion of the HRCSD, for specific types of work.

1.5 SAFETY

The Contractor shall assume all responsibility for job site safety during construction and shall agree to hold HRCSD harmless in conformance with OSHA and CAL/OSHA construction safety requirements. OSHA and CAL/OSHA requirements must be met at all times. Additionally, all work performed shall conform to the requirements of either

the State of California Construction Safety Orders, or the Federal Safety Codes, whichever are more stringent.

A. ***Excavations***. All excavations shall be performed, protected and supported as required for safety and in the manner set forth in the operations rules, orders and regulations set forth by the Division of Industrial Safety of the State of California.

Shoring Plan. Any excavation for a trench 5-feet or more in depth may require a shoring plan. When necessary, the Contractor shall prepare a shoring plan in accordance with OSHA and CAL/OSHA requirements. If required by the District, the shoring plan shall be submitted to the District for their files; however, the District will not review and approve such plans related to Contractor's safety. When requested by the HRCSD, such plan shall be submitted at least 5 working days before the Contractor intends to begin work on the trench. The plan shall be prepared by a California Registered Civil or Structural Engineer.

Nothing herein shall be deemed to allow the use of any shoring, sloping or protective system less effective than that required by the Construction Safety Orders.

B. ***Confined Spaces***. All work being performed on HRCSD facilities that constitutes work in a confined space as defined by CAL/OSHA, shall meet the regulations and safety requirements, including permits where necessary.

C. ***Traffic Plans***. Applicant shall prepare Traffic Control Plans for approval by the HROA and HRCSD, and the County of San Luis Obispo Department of Public Works when Work is in County right-of-way. All signs, signals, flares, barricades, flagmen, or other warning devices necessary for the protection and convenience of the public during the construction phase shall be furnished, installed and maintained by the Contractor in accordance with the latest edition of the State of California "Manual of Traffic Control." Signs and other traffic warning devices must be in accordance with the latest edition of the State of California "Manual of Warning Signs, Lights, and Devices For Use in Performance of Work Upon Highways."

D. ***Stockpiles and Trenches***. Excavated material shall be stockpiled in such a manner that it will not endanger the work or public at any time. Temporary stockpiles within the right-of-way will be allowed by HRCSD on a case-by-case basis; however, no stockpiles shall remain in the right-of-way during non-work hours at any time. Open trenches and waste piles shall be adequately barricaded. Trenches in or adjacent to roadways shall be backfilled at the close of each working day, or adequately trench plated using non-skid traffic plates conforming to State requirements.

1.6 CONSTRUCTION PROGRESS

A. ***Prior to Construction***. No construction shall be allowed without improvement plans approved by the District. Construction started without approved plans is at the Contractor's own risk and the Engineer may require that the improvements be removed as well as the area restored to its original condition. In addition, the following are required prior to the start of construction.

1. Three sets of approved plans shall be provided to HRCSD.
2. An Engineers cost estimate of the improvements which are subject to HRCSD inspection.
3. An executed inspection agreement shall be provided.
4. A minimum two working day notice for inspection shall be provided to HRCSD.
5. Upon request by the Engineer, a pre-construction conference shall be held. The preconstruction conference shall be attended by the Applicant, EOR, Contractor, and other involved agencies or utilities.

B. ***During Construction.*** All work being performed under these Standards, or subject to District approval, shall be inspected by the HRCSD Inspector, and/or all required testing shall be performed by Contractor in the presence of the HRCSD Inspector. The Contractor shall fully cooperate with and provide full access to the HRCSD Inspector at all times during construction in progress for the purposes of inspection. The inspection of the work shall not relieve the Applicant, Developer, EOR or Contractor of their obligations to construct the improvements in accordance with these Standards and the approved plans.

1. *Underground Utilities.* Prior to beginning any excavation work, the Contractor shall call "USA" line locators in order to locate any underground facilities at 811. Such notation shall appear on the front sheet of all approved plans. Work shall not commence until such time member utility agencies have been afforded the opportunity to mark utilities in the field in accordance with the timeline stated in the USAlert ticket, a minimum of two working days but no longer than 14 calendar days from the time of notification. If Contractor elects to begin work after the legal minimum two working days notice, Contractor shall take all reasonable measures to ensure that all utility agencies that may have utilities in the area of the work, have been notified. Contractor shall be responsible for protection of underground utilities in the area of work, regardless of whether underground utilities have been marked or not.

2. *Engineer-of-Record*. The Applicant, at its sole expense, shall retain the services of a registered civil engineer for overseeing the construction of improvements. At a minimum the Engineer-of-Record shall perform the following:

(1) Arrange for and conduct the preconstruction meeting.
(2) Provide interpretation of the approved plans for the Contractor, as required.
(3) Perform shop drawing review of materials and equipment supplied for the improvements.
(4) Provide construction oversight for the Contractor.
(5) Maintain and complete Record Drawings of the improvements.
(6) Obtain HRCSD approval prior to the release of any revised drawings or specifications. Provide copies of revised drawings or specifications to HRCSD.
(7) Provide certification (see HRCSD Standard Dwg. N-03) that the Contractor's work conforms to the approved plans, specifications, and submittals.

3. *Work Schedule*. No work shall be performed on Saturday, Sunday, or any legal holiday unless prior arrangements are made with the District. If work is arranged with the District on Saturdays, Sundays, or legal holidays, the Applicant will be responsible for overtime payment of all District employees involved. A two working day advance notice will be required prior to beginning construction on any work subject to HRCSD inspection.

4. *Construction Water*. All water drawn from HRCSD facilities shall be metered and shall be subject to current HRCSD regulation and water rates. Construction water shall only be drawn from facilities designated by HRCSD. Construction water service may be terminated by HRCSD if such action is necessary to maintain public health and safety of the water supply (including maintaining adequate minimum pressure in the system). Furthermore, during severe drought conditions, the District reserves the right to temporarily deny construction water metered service.

5. *Theft of Water*. Any unauthorized drawing of water from the HRCSD system constitutes a misdemeanor and is in violation of State Penal Code 498. Violators will be prosecuted.

1.7 FINAL ACCEPTANCE

Except as specifically authorized by the Engineer, facilities constructed which are to be operated or maintained by HRCSD may not be placed into service or otherwise utilized until the improvements have been accepted by HRCSD.

A. ***Final Inspection***. At the completion of construction the Contractor may request a final inspection. Within 5 working days of the request, the Engineer will inspect the improvements constructed under these specifications and note any defects or deficiencies. The Contractor will be notified in writing (punchlist) of any

deficiencies which require correction. After correction of the defects or deficiencies, a second final inspection will be scheduled.

Prior to requesting final inspection, the Contractor shall complete all required improvements, and shall thoroughly clean the site of all rubbish, excess material and equipment. All portions of the site shall be left in a neat and orderly condition satisfactory to the Engineer.

In addition, the following are required prior to the final inspection:

1. Engineer's Improvement Certification (Standard Dwg. N-03).
2. Soil testing reports.
3. Material Compliance reports.
4. A reproducible mylar set of the Record Drawings approved by the District.
5. All applicable Operating and Maintenance Manuals and warranties.
6. An electronic copy of improvement plans with record drawing changes, in AutoCAD and PDF format.
7. All necessary easements and right-of-way dedications.
8. All fees shall be paid.

B. ***Acceptance Notice***. When the Contractor has completed construction to the satisfaction of the Engineer, and has submitted all required information necessary to obtain a successful final inspection, the Engineer will so notify the Applicant and will recommend acceptance of the improvements by the District Board of Directors

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CHAPTER 2
CONSTRUCTION PLANS

2.1 PLANS REQUIRED

Complete plans and specifications for all proposed facilities, including any necessary dedications and easements, and an Engineer's Opinion of Probable Construction Cost of the improvements subject to HRCSD inspection shall be submitted to the Engineer for approval and must receive the required approval prior to the beginning of construction of any such improvements.

2.2 RESPONSIBILITY

Responsibility for the design of improvements is the sole obligation of the Applicant and EOR. Notwithstanding the requirements of these specifications, the Applicant/EOR shall comply with all Federal and State Laws, Local Ordinances or Resolutions, and generally accepted engineering practice. This responsibility shall apply even though errors, omissions or conflicts may have been overlooked in the review of the plans.

The District approval of the EOR's plans does not relieve the Applicant of this obligation.

2.3 STANDARD IMPROVEMENT PLAN FORMAT

Improvement plans shall be prepared in accordance with the following standard format:

A. Plans shall be prepared on 24" x 36" sheets, properly scaled with North Arrows on all plan views.
B. Lettering shall be Inked, clearly legible, and a minimum of 0.08" high. All text and drawing information shall be clearly legible when reduced to half-size.
C. "Stickyback" adhesive line work shall not be allowed under any circumstances. PDF images used on drawings shall be clear and legible.
D. Minimum scales used on the plans shall be:
   1"=40' for plan views
   1"=4' vertical for profile views.
E. A composite utility plan shall be included for all Tract projects. For smaller projects such as Parcel Maps, the composite utility plan requirement may be waived by the Engineer.
F. All rights-of-way and easements shall be shown on the plans.
G. Existing topography shall be shown which indicates all pertinent topographic features which may affect the design. This shall include existing underground and overhead utilities.
H. On the first sheet of the plans, the following shall be shown:

1. A vicinity map.
2. HRCSD Standard notes.
3. A signature block for each utility.
4. A signature block for the HRCSD General Manager and District Engineer (provide a signature or initial block for the HRCSD General Manager and District Engineer on each sheet showing HRCSD utilities).
5. A signature block for the County Fire Chief, where applicable.
6. USA Notification (Dig Alert).
7. Plans which exceed 2 sheets shall have a title sheet with a drawing index.

I. Plan and Profile plan sheets shall be drawn to scale, and shall show all facilities to be constructed, and their relationship to existing and future facilities within the construction area. Plan and Profile sheets shall show all existing or proposed:
1. Sewer manholes, cleanouts, pipes, laterals, etc.
2. Water valves, air releases, blow offs, fire hydrants, thrust block location and size, restrained joint interval and corresponding calculations, pipes, services, sampling stations etc.
3. Storm drain system (County approval required).
4. Public utilities.
5. Street or surface improvements.
6. Profile sheets shall show water, sewer and storm drain pipes to scale, and shall clearly show all utility crossings.

J. The EOR shall sign and seal all sheets of the plans.

2.4 PLAN APPROVAL

Plans submitted to HRCSD for review shall include an approved reimbursement agreement for all HRCSD costs incurred during plan check process. Upon receipt of the executive agreement, HRCSD will review the plans for conformance to these Standards and District requirements. Prior to the start of Construction, the Applicant/EOR shall provide HRCSD with 3 copies of the improvement plans as approved by HRCSD.

HRCSD may require water and sewer modeling, capacity analyses, and other efforts deemed necessary to review plans and proposed projects. Costs for such services will be borne by the Applicant and included as part of the reimbursement agreement.

2.5 PLAN CHANGES

Any changes made to the plans after HRCSD approval shall be approved by the Engineer-of-Record and HRCSD by means of:

A. Prior to award of contract to Contractor, by addendum with revisions clouded;

B. After award of contract to Contractor, by written change order accompanied by drawing modifications noted as a revision with corresponding date(s) noted.

2.6 RECORD DRAWINGS

During the progress of the work, the EOR and Contractor shall maintain one set of prints of the improvement plans showing all constructed changes from the original approved plans. Each change shall be approved by the Engineer before being made. Upon completion of the work, the Applicant/EOR shall revise the original tracings of the improvement plans to reflect all construction changes. The Applicant/EOR shall submit check prints of the Record Drawings to the Engineer for review prior to requesting final inspection. After any required revisions are made and the District Engineer has approved the Drawings, the Applicant/EOR shall furnish the District with one reproducible Mylar set, two full-size bond copies, and the AutoCAD and PDF electronic files of the completed Drawings.

CHAPTER 3
SEWER IMPROVEMENTS

3.1 DESIGN STANDARDS

A. ***Design Flow***. Developer shall provide sewage flow calculations for approval by HRCSD and Engineer. Such flow calculations shall provide average flow expressed per equivalent dwelling unit (EDU). Peak flow shall be considered to be 2.5 times the average flow. Sewer pipes up to 12-inch diameter shall be sized to handle the peak flow when the pipe is flowing half full (d/D=0.5) and for 15 inch diameter sewers and larger, sized to handle peak flow when the pipe is flowing 3/4 full (d/D=0.75).

B. ***Grades***. Sanitary sewer grades shall be designed to provide a minimum velocity of 2 feet per second when flowing at peak flow. The following table indicates the slopes which will provide that velocity when flowing half full, and these shall be used as the minimum standard for design. Lesser slopes may be approved by the Engineer only when topography conditions preclude the use of these values.

MINIMUM SEWER GRADES	
Diameter	**Slope in Feet/Foot Minimum Acceptable Slope**
6"	.0050
8"	.0050
10"	.0025
12"	.0020
15"	.0015
18"	.0012
House Lateral	.0208

Unless special provisions for erosion protection have been provided, and approved by the Engineer, design velocities for sanitary sewers shall not exceed 10 feet per second. The maximum design discharge shall not exceed the flow at critical slope and velocity. Sanitary sewers should not be designed for flow conditions at critical slope and velocity.

3.2 LOCATION AND ALIGNMENT

All sewer facilities designed for operation or maintenance by HRCSD shall be constructed within a right of way dedicated for a public street or road, unless such location is deemed impractical by the Engineer. Any sewer facilities not constructed in a public right of way shall be constructed within a recorded easement dedicated to the District. Easements shall be a minimum of 20 feet wide, and shall be in a form acceptable to the District.

A. ***Access***. Access for maintenance shall be provided for all sewer facilities. At a minimum, this shall require an all-weather access road to each manhole and cleanout. All weather access roads shall be within a public right of way or dedicated easement.

B. ***Curved Sewers***. Whenever possible, sewer lines shall be straight from manhole to manhole. In special circumstances, and with approval from the Engineer, sewers may be curved horizontally in accordance with the manufacturer's recommendations for maximum joint deflection. Bending of the pipe shall not be allowed under any circumstances. When designing a curved sewer, the EOR shall include the manufacturer's name and recommended practice for joint deflection as a part of the construction documents. Sewers shall maintain uniform slope between sewer manholes at all times.

When a sewer main is deflected in a horizontal curve, the construction shall include a 12 gauge insulated tracer wire in the trench. The wire shall be terminated in a manner acceptable to the Engineer.

C. ***Separation from Water Mains***. All new sewer mains, force mains, house service laterals and appurtenant items shall be installed in conformance with standards for separation from water facilities described in Section 4.3 and as shown on the Standard Drawings.

D. ***Depth***. The normal design depth of a sanitary sewer system shall be such as to obtain a minimum cover of 36 inches for the house service lateral at the property line, and a minimum cover of 60 inches for sewer main, trunk, and interceptor sewer lines. Under certain topographic conditions lesser depths may be allowed by the Engineer on a case-by-case basis.

Sewer mains and laterals shall be designed so as to function by gravity flow from each lot without the need for an ejector pump. Exceptions may be granted by the Engineer on a case-by-case basis, when there is no other means of conveying sewage flows from the dwelling or structure.

3.3 PRE-TREATMENT

The State Water Resources Control Board (SWRCB) Sanitary Sewer System (SSS) Order No. 2006-0003-DWQ and WQ 2008-0002-EXEC require the HRCSD to prepare a Sewer System Management Plan (SSMP) conforming to these Orders, to prevent sewer system overflows (SSOs) in the sewer collection system. These SSMP requirements may warrant the need for the District to require pretreatment devices (interceptors, grease traps, monitoring manholes, etc.) to prevent the discharge of sand, oil, grease, or other deleterious substances from entering the sewer system. On a case-by-case basis, the HRCSD may require certain facilities such as restaurants or other facilities that may generate such substances, to provide such measures to prevent and minimize the discharge of fats, oils and grease (FOG) into the sewer collection system. In such cases, the District will require the Applicant/EOR to submit plans for the proper management of FOG, subject to the approval of the HRCSD and District Engineer.

3.4 GRAVITY SEWERS

Normally, all new gravity sewer lines and fittings shall be PVC pipe. In special circumstances, the Engineer may require that sewer pipe and fittings be Ductile Iron, particularly in the case of shallow bury conditions (less than 3 feet cover).

A. ***PVC Sewer Lines***. Polyvinyl Chloride (PVC) Sewer lines up to 15-inches in diameter shall conform to ASTM D-3034 (SDR 35). PVC pipe 18 to 36 inches shall conform to ASTM F-794 (Vylon).

1. ***Joints***. All pipe joints for PVC Sewer Lines shall be with elastomeric gaskets conforming to ASTM F-477. Wherever possible, PVC pipe shall have integral bell and spigots. Solvent weld joints and caulder type couplings shall not be used.

B. ***DIP Sewer Lines***. Ductile Iron (DIP) pipe and fittings for sewer mains shall conform to AWWA C-151, Class 350. Joints shall be an approved type mechanical joint. On a case-by-case basis, HRCSD may require special interior lining (Protecto 401 ceramic epoxy lining or equal) in lieu of cement mortar lining, for corrosive sewer applications. Exterior coating shall be as specified in Section 4.5.C.

C. ***Sewer Main Size***. The minimum size for a sewer main shall be 8 inches inside diameter unless otherwise approved by the Engineer.

D. ***Connection to Existing Main.*** Whenever possible, the tie-in of a new sewer main or lateral to an existing sewer shall be the last phase of a new installation. A tie-in shall not be performed without notification to the HRCSD inspector. At the time of the tie-in, an inflatable plug shall be installed in the inlet of the nearest manhole upstream of the tie-in. If necessary to maintain service, the Contractor shall

provide temporary pumping facilities.

Connections (tie in) to existing sewer mains shall be constructed with the use of either a PVC double bell stop coupling (ring-tite), or a PVC adapter (ring-tite), depending on the type of pipe being connected to.

E. ***Repairs.*** For new sewer construction, any damaged pipe shall be removed and replaced with new materials of current HRCSD standards, such that only new material in good condition and proper installation is provided. Replacement materials shall be of equal or better quality than the damaged materials being replaced. For existing HRCSD sewer mains, repairs to damaged sewer mains shall be completed with the use of a new section of PVC pipe, ½ inch shorter than the section removed and two PVC double bell couplings.

F. ***Trenching and Backfill.*** Trenching and backfill for sewer main trenches shall be the same as for water mains (Section 4.6). Refer to Detail W-07 for other trench requirements, including warning tape and tracer wire.

3.5 SEWAGE PUMP STATIONS

Sewer systems shall be designed to avoid the need for sewage pump stations wherever possible. Whenever the design of a sewer system requires the design of a sewage pump station, the design shall be given special consideration by the Engineer. The Applicant/EOR shall submit a preliminary design report (PDR) including supporting calculations, for consideration prior to submitting completed design drawings.

A. ***Force Mains***. Sewer force mains shall be Class 200 (DR 21) PVC pipe conforming to AWWA C-900, and shall be a minimum diameter of 4 inches. To maintain cleansing velocities in the force main, the lift station pumps shall be sized to pump at a minimum of 100 gpm. Exceptions to this requirement may be allowed by the Engineer on a case by case basis. Construction and testing of the force main shall be in accordance with the requirements for water main construction, including warning tape and tracer wire requirements. Standard Dwg. W-09 shall be followed for adequate separation from potable water mains, and/or special construction requirements should separation criteria not be capable of being met due to existing utility constraints. Force mains shall be provided with minimum 4 feet of cover, top of pipe to finished grade/surface. Thrust restraint requirements in Section 4.5E shall apply to sewer force mains.

3.6 SEWER LATERALS

Separate service laterals shall be provided for each parcel of land. Homes (including secondary homes) or buildings under separate ownership, or occupied by separate tenants shall also be provided with separate laterals. Sewer laterals and cleanouts shall conform to the latest edition of the Uniform Plumbing Code, unless otherwise specified.

Exception: Guest houses (as defined by the County Building Code) shall not be required to have a separate lateral.

A. ***Maintenance.*** In accordance with the adopted District code of ordinances, sewer laterals are owned and maintained by the Property Owner. This maintenance responsibility includes the entire lateral from the wye connection at the main to the house connection.

B. ***Size of Lateral***. The minimum size of sewer lateral to serve individual residences or commercial uses shall be 4 inches diameter. The actual size of sewer laterals larger than 4 inches shall be determined by fixture unit calculations in accordance with the current edition of the UPC. Upon request by the Engineer, the EOR shall supply fixture unit calculations for a proposed sewer service.

C. ***Large Laterals.*** Laterals required to be larger than 4 inches based on fixture unit calculations (lateral flowing one half full) shall be connected to the sewer main at a manhole. All joints shall use elastomeric gasketed (ring-tite) joints.

D. ***Existing Sewer Main.*** All sewer laterals connected to existing sewer mains shall be constructed in accordance with the Standard Drawings. When connecting to an existing sewer main, the main shall be saddled and tapped. Laterals shall be constructed in accordance with Drawing S-03. All joints shall use elastomeric gasketed (ring-tite) joints.

E. ***New Sewer Main and Lateral.*** When a new main is being installed, all new laterals shall be installed at the same time. The new sewer laterals shall be connected to the main with a wye connection. Laterals shall be constructed in accordance with Drawing S-03. All joints shall use elastomeric gasketed (ring-tite) joints. New sewer laterals shall be per HRCSD Standard Drawing S-03, and minimum 4" diameter SDR 35 PVC pipe.

F. ***Sewer Lateral Clean-outs.*** A one-way clean-out shall be installed at the property line.

G. ***Future Laterals.*** On laterals left for future connection, the clean-out shall be plugged on the inlet side and a four-inch PVC riser shall extend to at least three inches above grade as shown on Standard Dwg. S-03.1. The riser shall be covered with a PVC cap. This riser may be lowered to grade once the building is occupied and/or the lateral is placed in service.

H. ***Curb Marking.*** In areas with curbs, the location of sewer lateral shall be marked with an “S”" on the face of the curb, as shown on Drawing S-03.1. For asphalt berms where no concrete sidewalk or curb is available, or in unsurfaced dirt areas, Contractor shall install tracer wire on the sewer lateral the entire length of the lateral.

I. ***Sewer Lateral Testing and Inspection.*** All sewer laterals shall be inspected and approved by the District before sewer service will be provided. Up to the time of inspection, all work shall remain uncovered and convenient for the HRCSD's examination; Contractor shall be responsible for ensuring safe conditions and to safeguard the public from any open trenches. The inspection shall be made within two working days of receipt of the notice by the HRCSD Inspector. The new sewer lateral connection work shall be completed within sixty (60) calendar days of the date the application was received by the HRCSD; if connection work is not completed within this specified time frame, then the Applicant shall submit a new fee for such connection work that will be documented by the HRCSD by Customer Service Order.

New sewer laterals shall be tested in accordance with Section 3.10, Testing of Sewer Mains. No private sewer lateral shall be covered or put into use until it has been tested and approved as prescribed herein. The Contractor shall supply all equipment and materials to complete the test.

The Customer shall comply with the provisions of the San Luis Obispo County Code of Building Regulations, the San Luis Obispo County Plumbing Code and the HRCSD Code of Ordinances pertaining to the design and construction and use of private sewer lines. The Customer shall at all times keep such private laterals in good operating condition.

3.7 SEWER MANHOLES

Sewer manhole construction shall be watertight and shall conform to Drawing S-01.

A. ***Ladders.*** Ladder rungs shall not be installed in manholes.

B. ***Manhole Spacing.*** The normal maximum spacing for manholes on conventional straight-aligned sewers shall be 400'. A sewer on a curved alignment with a radius of less than 400' shall have manholes spaced at a maximum of 300' or adjusted to fit the individual case. The maximum spacing of manholes on trunk sewer lines shall be as follows:

- 6" to 10" diameter 400'
- 12" to 24" diameter 500'
- 27" to 36" diameter 600'

C. ***Future Stub Outs.*** A stub out for future mains shall be installed where the main can be expected to be extended, particularly at intersections. Short stub outs shall be a minimum of 5 feet, and when approved by the Engineer, may be constructed without a clean out. Where a stub line on a sewer main exceeds 200 feet in length, a manhole shall be installed at the end. Where a stub line on a sewer main is less than 200 feet in length, a clean-out may be installed with District approval.

All stub-outs shall be capped/terminated in a manner approved by HRCSD.

D. ***Manhole Elevations.*** Whenever a change in the size of the pipe, or an angle of 20 degrees or greater in alignment occurs, the flowline of the pipe flowing into the manhole shall be a minimum of 0.15 feet above the flowline of the pipe flowing from the manhole, or an amount necessary to match the inside crowns of the pipes, whichever is greater. The minimum elevation drop across each manhole shall be 0.1 feet, unless otherwise approved by HRCSD.

E. ***Cast in Place Bases.*** Cast in place concrete manhole bases shall be constructed in accordance with Drawing S-01 and the following:

1. *Straight runs.* Where manholes are constructed on straight runs, the manholes may be constructed with the pipe laid through. The portion of the pipe within the manhole shall be cut out and removed once the manhole base is cured.

2. *Waterstops*. PVC adaptor rings (waterstops) shall be installed on all PVC pipe within manholes. If the pipe is laid through, these gaskets shall be protected until the manhole base is poured.

F. ***Precast Manhole Base***. When approved by the Engineer, a precast manhole base may be used for sewer manholes. Precast manhole bases shall be constructed in accordance with Drawing S-01.

G. ***Drop Manholes.*** The need for the construction of drop manholes should be avoided, whenever possible, by the adjustment of sewer pipe gradients during design. When avoidance is not possible, the District may allow, on a case-by-case basis, a standard drop manhole to be constructed in conformance with the County of San Luis Obispo Standard Drawings, Drawing S-1a or as otherwise approved by the District.

H. ***Connection to Existing Manholes***. Connections to existing manholes shall be made by coring the manhole. The core shall be of the proper size to allow the use of a flexible pipe-to-manhole connector. The flexible connector shall be manufactured by Kor-N-Seal or approved equal. A flow channel shall be provided within the existing manhole and shall be shaped to provide a smooth flow condition.

The Contractor shall provide at least a two working day notice to HRCSD and the District Engineer prior to any connection to existing manholes.

3.8 LAYING SEWER PIPE

A. ***Verification of Grades***. Sewer pipe shall be constructed to the lines and grades shown on the approved plans. Each pipe length shall be checked to verify the

grade line.

B. ***Handling***. Sewer pipe shall be handled with care to avoid damage. The interior and machined ends of the pipe and fittings shall be kept free of dirt and foreign matter at all times. Pipe or fittings which have been damaged in such a way that they cannot be repaired to the Engineer's satisfaction shall be replaced at the Contractor's expense.

C. ***Placement***. Sewer pipe shall be laid continuously upgrade with the bell of the pipe facing forward (upstream). Each length of pipe shall be laid on a firm bed and shall have a true bearing for the entire length, except for coupling holes. Prior to lowering the pipe in the trench, coupling holes shall be dug of sufficient size to allow assembly and provide a 2 inch minimum clearance around the coupling.

D. ***Joining***. Both bell and spigot shall be clean before the joint is made, and care shall be taken that nothing but the joint-making material enters the joints. Sewer pipe shall not be deflected horizontally at joints more than 50% of the manufacturers' recommended maximum joint deflection.

E. ***Temporary Plug***. Whenever pipe laying is not in progress, the open ends of the pipe shall be closed by an appropriate means to prevent the entry of trench water or other foreign matter into the pipe.

F. ***Wet Conditions***. Whenever water is present in the trench, enough backfill shall be placed over the pipe to prevent floating. Any pipe that has floated shall be removed and relaid as directed by the Engineer. No pipe shall be laid in wet trench conditions that preclude proper bedding, or when in the opinion of the Engineer, the trench conditions or the weather are unsuitable for proper installation.

3.9 DISCHARGE INTO SEWERS

Except for potable water used for testing or cleaning, nothing shall be discharged into the HRCSD sewer system until all of the requirements for new work have been met. Special care shall be taken to prevent entry of surface run-off into the sewer laterals, manholes, exposed ends of pipe, and any other potential point of entry.

A. ***Flushing Water Lines***. At no time shall chlorinated water used for flushing newly constructed water mains be discharged into the HRCSD sewer system. Dechlorinated water may be discharged to the sewer, with advanced approval by the District.

3.10 TESTING OF SEWER MAINS

Prior to acceptance by HRCSD, newly constructed sewer mains shall be tested for leakage by a low pressure air test, and deflection by a mandrel test. In addition, the sewer shall be inspected by video.

A. ***Sewer Cleaning***. Prior to video inspection, and after leakage testing, new sewer shall be cleaned by hydro-jetting and vacuuming the sewer line.

B. ***Leakage Testing***. The leakage test shall be performed by the Contractor under the observation of a HRCSD inspector. The inspector shall be provided at least two working day notice prior to the test. The leakage test shall be performed by a low pressure air test as follows:

The Contractor shall furnish all labor, air test equipment, and all other materials for making the required air test at his own expense.

After the sewer lines have been properly backfilled to a depth where additional backfilling will not disturb the position of the pipe, all or any sections that the Engineer may select may be tested. In no case shall the required minimum backfill be less than four feet above the top of the pipe before subjecting the line to the test.

Each section of sanitary sewer between two successive manholes shall be tested by plugging all pipe outlets with suitable test plugs. Air shall be slowly added until the internal pressure is raised to 4.0 pounds per square inch (psi).

The compressor used to add air to the pipe shall have a blow-off valve set at 5 psi to assure that the internal pressure of the pipe does not exceed 5 psi.

The internal pressure of 4 psi shall be maintained for at least two minutes to allow the air temperature to stabilize after which the air supply shall be disconnected and the pressure allowed to decrease to 3.5 psi. The time in minutes that is required for the internal air pressure to drop from 3.5 psi to 2.5 psi shall be measured and the results compared with the values tabulate below.

If the pressure drop from 3.5 psig to 2.5 psig occurs in less time than the above tabulated or calculated values, the pipe shall be repaired and, if necessary, replaced and re-laid at the Contractor's expense until the joints and pipe hold air pressure satisfactorily under this test.

SEWER PIPE PRESSURE TEST	
Pipe Diameter Inches	**Minimum time (minutes) for pressure to drop from 3.5 psi to 2.5 psi, per 100 feet of pipe:**
4	0.3
6	0.7
8	1.2
10	1.5
12	1.8
15	2.1
18	2.4
21	3.0
24	3.6

C. ***Deflection Test***. Mandrel test (deflection test) shall be performed by the Contractor in order to verify the roundness and proper backfilling/installation of the pipeline.

1. *Mandrel type*. Mandrels shall be approved by the Engineer prior to use and shall meet the following requirements:

   (a) When requested, the Contractor shall make the mandrels available to the Engineer for verification of size and suitability.

   (b) Mandrels shall be sized to indicate a maximum allowable 7% deflection, and shall be the nine-fin type.

2. *Test procedure*. The deflection test shall consist of testing pipe for proper installation as follows:

   After the pipeline has been installed and backfill materials have been compacted to their required standard densities, the mandrel shall be pulled by hand through the pipeline with a suitable rope or cable that is connected to an eyebolt at one end of the gauge.

   A similar rope or cable shall be attached to the eyebolt at the opposite end of the mandrel and tension shall be applied to it. This will ensure that the

mandrel maintains its correct position during testing and also to remove the mandrel if it should become lodged in an excessively deflected pipeline. Winching or other means of forcing the mandrel through the pipeline are unacceptable. After completion of the mandrel test, Contractor shall clean the tested sewer reach by hydro-jetting and vacuuming. This cleaning shall be performed prior to the video inspection.

D. ***Video Inspection***. Prior to acceptance by HRCSD, newly constructed sewer mains shall be video inspected. The video inspection shall be made on a new, high quality digital video in color and have a continuous display of date, time, and footage. The digital video inspection shall document the main being inspected (i.e. street and reach), existence of and lateral locations of wyes, laterals, manholes, and any unusual features such as misaligned joints, breaks, infiltration, standing water and the like.

Video inspection shall be performed prior to acceptance but after the main is completely installed, the trench is backfilled and compacted, and the main has been balled and flushed. Any section of main that is replaced or altered after the video inspection shall be re-inspected by video upon completion.

1. *Acceptance*. In general, sewer mains shall be constructed to a continuous grade, and the video shall indicate this by showing an absence of ponded water. In unusual circumstances, the Engineer may accept a sewer main when the video indicates isolated instances of ponding up to 1/4 inch deep, extending for no more than 10 feet.

   In no case will a sewer main be accepted which ponds in excess of this amount, or which otherwise is constructed to a non-uniform grade, in the opinion of the Engineer.

2. *Submittal*. Electronic copies of the video inspections along with a written log containing all of the features and distances shall be submitted to HRCSD for review. The video and written log shall become property of HRCSD upon submittal.

CHAPTER 4
WATER IMPROVEMENTS

4.1 DESIGN STANDARDS

The distribution system, wherever possible, shall be laid out in a grid system with no dead ends. Where dead ends cannot be avoided the dead end main shall be constructed with a fire hydrant assembly or blow-off, refer to Section 4.5.

A. ***Design Flow***. The distribution system shall be designed to provide for the maximum required fire flow, concurrent with the maximum day demand. Fire flow shall be as shown in the current HRCSD Water Master Plan, or as designated by SLO County Fire, whichever is greater. Minimum supply requirements shall be 1,000 gpm at 20 psi residual pressure (during fire flow conditions). Maximum day demand factors shall be as designated in the HRCSD Water Master Plan for the months of July-August. All water system criteria and demands will be confirmed and approved by the Engineer as part of the plan check process.

B. ***Design Pressure***. The distribution system shall be designed to provide minimum residual pressure during a fire, of 20 psi, and minimum water service pressure of 40 psi (meeting State Division of Drinking Water standards) anywhere in the distribution system. These pressures shall be obtained with the HRCSD storage tanks at ½ full. In special cases where the proposed building pad elevation is such that the minimum 40 psi pressure cannot reasonably be achieved, the Engineer will consider on a case-by-case basis, the use of individual booster pumps to serve an individual customer (Such individual booster pump will be the responsibility of the Property Owner to operate and maintain) or creation of a separate boosted water pressure zone at the expense of the Applicant. Where system pressures exceed 80 psi, Applicant may be required to create a separate pressure zone separted with a pressure reducing valve (PRV) to maintain pressure at or below 80 psi. On a case-by-case basis, individual PRVs to homes may be allowed in lieu of creation of new pressure zone, at the discretion of HRCSD.

C. ***Design Velocity***. The system shall be designed, where possible, with a maximum velocity of 10 feet per second under maximum day demand plus fire demand conditions. Where the maximum velocity exceeds 10 fps, when warranted, the Engineer may require the preparation of surge calculations demonstrating that allowable pipe pressures will not be exceeded under surge conditions, and/or the provision for surge relief improvements such as pressure relief valves or other devices to control and prevent water system damage from excessive surge pressures.

D. ***Planned System***. Water Distribution System improvements shall be designed to show the planned buildout of the area. Facilities shown on future improvement in the HRCSD Water Master Plan shall be considered as minimum size improvements for this purpose.

In general, the size of new water mains shall be 8-inch minimum. With prior approval of the Engineer, smaller mains may be used, for instance, for short (400 ft) dead end lines not serving a fire hydrant.

4.2 LOCATION AND ALIGNMENT

All water facilities designed for operation and maintenance by HRCSD shall be constructed within a right of way dedicated for a public street or road, unless such location is deemed impractical by the Engineer. Any water facilities not constructed in a public right of way shall be constructed within a recorded easement dedicated to the District. Easements shall be a minimum of 20 feet wide, and shall be in a form acceptable to the District.

A. ***Access***. Access for maintenance shall be provided for all water facilities. At a minimum, this shall require an all-weather access road to each fire hydrant and valve. All weather access roads shall be within public rights of way or dedicated easements.

B. ***Alignment Transitions***. Water mains may transition horizontally and vertically by use of standard fittings, joint deflection (no bending of pipe shall be allowed), and approved pipe couplings. Joint deflection shall not exceed more than 50% of manufacturers' recommendations. When designing such water mains, the EOR shall include the manufacturers' name and recommended maximum joint deflection as a part of the construction documents.

C. ***Depth***. Except as noted on the improvement plans, water mains shall be set at a profile which provides at least three feet of cover over the top of the pipe. Depths shallower than three feet of cover will be considered and approved on a case-by-case basis. It shall be the EOR's responsibility to design and propose pipe concrete encasement when minimum depth of cover cannot be achieved, subject to approval by the Engineer. When pipe cover is shallow, Class 350 ductile iron pipe shall be used in lieu of C900 PVC pipe.

D. ***Valving***. The distribution system shall be equipped with a sufficient number of valves so that no single shut down will result in a removal from service of a length of main greater than 500 feet in commercial or residential areas; 800 feet when the area is zoned for 1 acre or larger lots. Valves shall be provided where required by the Engineer for system isolation and general water system operations.

All water main intersections (crosses or tees) shall have a valve on each run. Engineer may grant exceptions to this where a new valve on a run may be redundant to an already existing valve on the water main.

E. ***Fire Hydrant Locations***. Where possible, fire hydrants shall be placed at street intersection at intervals not exceeding 300 feet in commercial or industrial areas and 400 feet in other areas. The location of the hydrants shall be approved by SLO County Fire, and HRCSD. Fire hydrants shall be constructed in accordance with Drawing W-01, also shall be located in accordance with Drawing W-02, including the requirement for blue retroreflective markers in the roadway to delineate hydrant locations during night-time hours.

4.3 SEPARATION FROM SEWER OR STORM DRAIN

All new water mains, house services and appurtenant items shall be installed in conformance with the State of California Division of Drinking Water (DDW, formerly Department of Health Services) requirements for separation and special construction. Additionally, all new sewer and water installation shall conform to Standard Drawings.

A. Special Construction in Areas of Conflict Between Water and Sewer Lines

1. *Notes and Definitions*.

(a) Health Agency - The Division of Drinking Water.
(b) Water Supplier - "Person operating a public water system" or "supplier of water" means any person who owns or operates a public water system.
(c) Low Head Water Main - Any water main which has a pressure of five psi or less at any time at any point in the main.
(d) Compression Joint - A push-on joint that seals by means of compression or a rubber ring or gasket between the pipe and a bell or coupling.
(e) Mechanical Joints - Bolted joints.
(f) Rated Working Water Pressure or Pressure Class - A pipe classification system based upon internal working pressure of the fluid in the pipe, type of pipe material, and the thickness of the pipe wall.
(g) Fused Joint - The jointing of sections of pipe using thermal or chemical bonding processes.
(h) Sleeve - A protective tube of steel with a wall thickness of not less than 1/4-inch into which pipe is inserted.
(i) Ground Water - Subsurface water found in the saturation zone.
(j) House Lateral - A sewer connecting the building drain and the main sewer line.

B. ***Basic Separation Standards***. The "California Waterworks Standards" sets forth the minimum separation requirements between water mains and sewer lines. These Standards, contained in Section 64630, Title 22, California Administrative Code, specify:

1. *Parallel Construction*. Parallel construction is the horizontal distance between pressure water and sewer lines shall be at least 10 feet, and between pressure water main and storm drain the horizontal separation shall be 4 feet.

2. *Perpendicular Construction (Crossing)*. Pressure water mains shall be at least one foot above sanitary sewer and storm drain lines where these lines must cross.

   (a) Separation distances shall be measured from the nearest edges of the utilities.

   (b) Common Trench: Water mains and sewer lines must not be installed in the same trench.

   When water mains and sanitary sewers or storm drains are not adequately separated, the potential for contamination of the water supply increases. Therefore, when adequate physical separation cannot be obtained, an increase in the factor of safety shall be provided by increasing the structural integrity of both the pipe materials and joints. Such special construction standards are shown on Drawing W-08 and W-09.

C. ***Exceptions to Basic Separation Standards***. Local conditions, such as available space, limited slope, existing structures, etc., may create a situation where there is no alternative but to install water mains or sewer lines at a distance less than that required by the Basic Separation Standards. In such cases, alternative construction criteria as specified below should be followed, subject to the special provisions. The DDW has also issued supplemental guidance for sanitary separation between potable water mains and non-potable water mains such as recycled water or raw water pipelines. Engineer will consider on a case-by-case basis, exceptions to the basic separation standards if such conditions arise. A copy of the DDW Guidance Memorandum, dated October 16, 2003, is included as Appendix A to these specifications. As of the date of issuance of these HRCSD standards, the Engineer has confirmed that the 2003 Guidance Memorandum is still valid and that DDW has not issued updated separation criteria since the date of the 2003 Guidance Memorandum.

Installations of water mains and sewer lines 24 inches diameter or larger should be reviewed and approved by the health agency prior to construction.

D. ***Special Provisions***.

1. The Basic Separation Standards are applicable under normal conditions for sewerage collection lines and water distribution mains. More stringent requirements may be necessary if conditions, such as high groundwater, exist.

2. Sewer lines shall not be installed within 25 feet horizontally of a low head (5 psi or less) water main.

E. ***Alternate Criteria for Construction***. The construction criteria for sewer lines or water mains where the Basic Separation Standards cannot be met are shown in Drawings W-9 and W-10. There are two situations encountered:

Case 1--New sewer line--new existing water main.
Case 2--New water main--existing sewer line.

For Case 1, the alternate construction criteria apply to the sewer line.
For Case 2, the alternate construction criteria apply to either or both the water main and sewer line.

The construction criteria also apply to the sewer laterals that cross above a pressure water main but not to those sewer laterals that cross below a pressure water main.

4.4 CROSS CONNECTIONS

A. ***Backflow Prevention.*** Backflow prevention devices shall be installed on all service connections determined by the Engineer to pose a potential threat to the health and safety of the HRCSD water system. At a minimum the following services connections shall require backflow prevention.

1. All landscape irrigation services, unless otherwise approved by District
2. Medical and health care facilities
3. Areas served by private wells
4. Restaurants and other food preparation facilities
5. Private fire protection lines
6. Laboratories
7. Commercial and Industrial facilities.

B. ***Backflow Device.*** The type of backflow device shall be in accordance with the California DDW regulations relating to cross-connections (California Administrative Code - Title 17 - Article 2,7604). The type of device and the method of installation shall also be subject to review and approval of the County Environmental Health Department.

C. ***Location of Backflow Devices.*** Backflow devices shall be constructed according

to Drawings W-14 and W-15. Backflow devices shall be located as close as practical to the point of connection, and on the "customer side" or on private property. In addition, backflow devices shall be located in accordance with Section 7603, Article 2 of the California Administrative Code, Title 17.

D. ***Ownership and Maintenance.*** Ownership and maintenance of backflow preventers shall remain with the property owner/customer and not with HRCSD. Customer shall be responsible for retaining the services of a qualified backflow tester, to comply with annual backflow device testing and reporting. Customer shall be responsible for ensuring required annual testing results and paperwork is filed with the County each year. Failure to do so may result in temporary shutoff of water service until such time Customer complies with this requirement.

4.5 WATER MAIN

All new buried water mains shall be Polyvinyl chloride (PVC) C900 pipe, except that where required by the Engineer, new water main shall be ductile iron pipe (DIP). All above ground water main shall be DIP. If requested by the Engineer, the supplier shall furnish a certificate that all pipe, valves, fittings, protective coatings, and all other materials meet the requirements of these Standards. The minimum size of new water main shall be 8 inches diameter, except that on a short (400 ft) dead end not serving a fire hydrant, the minimum shall be 6 inches. All dead-end mains shall be provided with a standard blow-off, hydrant or other acceptable means of flushing, at the discretion of the HRCSD.

A. ***PVC Water Main.*** PVC water pipes shall be a minimum of Class 160 (DR 26) and shall conform to AWWA C-900.

B. ***Joints.*** Wherever possible, PVC pipes shall have integral bell and spigots. All PVC pipe joints shall have elastomeric gaskets conforming to ASTM F477. Solvent cement joints shall not be used.

C. ***DIP Water Main.*** Buried DIP shall be coated with standard bituminous coal tar coating of 1 mil thick and polyethylene encased, and cement mortar lined in accordance with AWWA C-104, C-105, and C-151. Joints shall be approved mechanical joints.

1. Above ground DIP shall be thickness class 350 minimum, shall be cement mortar lined, shall have flanged joints, and shall conform to AWWA C-104, and C-151. Above ground pipe and fittings shall be coated with standard asphaltic coating as specified above, or epoxy painted blue, at the direction of the Engineer. If painting of DIP is specified, such pipe shall be ordered/delivered without the standard asphaltic coating, and factory-coated (epoxy) prior to shipping.

D. ***Fittings for Water Main.*** Bends, elbows, tees, crosses, and special fittings shall be cast iron or ductile iron conforming to AWWA C-110, or compact ductile iron fittings per C-153, or approved equal. Eccentric reducers shall be installed when required to minimize air pockets.

1. Fittings shall be cement mortar lined in accordance with AWWA C-104. Fittings lined in the field will not be considered as conforming to AWWA C-104 and will not be accepted.

2. The outside of cast iron fittings for general use shall have a bituminous coating of coal tar approximately 1 mil thick, unless otherwise specified. The finishing coat shall be continuous and smooth. It shall be neither brittle when cold nor sticky when exposed to the sun, and shall adhere strongly to the pipe.

E. ***Tracer Wire.*** Twelve gauge insulated copper tracer wire shall be laid in the trench above the pipe and branched to all water service laterals, fire hydrants, air relief valves and blowoffs. The tracer wire shall be brought to finish grade through all meter boxes and valve access boxes. At fire hydrants, the tracer wire shall be brought to six inches above finish grade and secured to the hydrant bolt flange.

F. ***Thrust Restraint.*** Thrust restraint shall be accomplished through the use of thrust blocks or restrained joints. Thrust blocks shall be constructed at all pipe bends greater than 5 degrees, at tees, at valves, at dead ends, and at other locations where there is the potential for thrust. Thrust block sizing shall conform to Standard Drawing W-16. Concrete for thrust blocks shall conform to State Standard Class A (5-1/2-sack) minimum. Vertical thrust restraint shall be accomplished by restrained joints of adequate length to counter-act the thrust force; Engineer may also approve gravity thrust blocks in lieu of restrained joints. If restrained joints are used, thrust blocks shall still be required at all horizontal and vertical fittings of 22-1/2 degrees and greater. With prior approval of the Engineer, alternate thrust restraints to thrust blocks may be provided. At a minimum, EOR shall submit restrained joint calculations for review and approval by Engineer, that supports the design plans and thrust restraint proposed.

Before any thrust block is poured against a waterline or fitting, the fitting shall be wrapped in polyethylene plastic sheets. No concrete shall be poured against bare pipe or fittings.

Regardless of type of thrust restraint used, at all pipe dead ends, thrust blocks shall be required. This includes at future tie-in points at crosses and tees.

4.6 TRENCHING AND BACKFILL

A. ***Safety.*** All trenching and backfill shall comply with Section 1.5 regarding safety precautions.

B. ***Trench Excavation***. Unless otherwise specified, the excavation for water pipe shall be an open trench, excavated to 6 inches below the bottom of the pipe. This undercutting shall be refilled with suitable bedding material as described in these Specifications.

C. ***Existing Paving.*** When the trench is in an existing paved area, the pavement shall be sawcut and removed ahead of the trenching operations. Grinding will be considered an acceptable alternative method of removal provided that a clean sawcut pavement edge shall be provided prior to final paving. The proper tools and equipment shall be used in marking and breaking so that the pavement will be cut accurately on neat and parallel lines. When the trench is in an existing paved area, HROA/County requirements for removal and restoration of the paving shall be followed. When in the opinion of the Engineer the remaining paving has been damaged during construction, additional pavement restoration may be required, as required by the Engineer, at no additional cost to HRCSD.

D. ***Unsuitable Material.*** Whenever the bottom of the trench is soft, yielding, or unsuitable as a foundation for the pipe, the unsuitable material shall be removed to a depth determined by the Engineer, and replaced with compacted bedding material. It is the intention of these specifications, that a firm uniform bedding be provided for the pipe.

E. ***Dewatering.*** When water is encountered, the trench shall be kept dewatered until the laying and jointing of the pipe, and placing of the bedding material has been completed, inspected, and approved. The groundwater removed from the trench shall be disposed of in such a manner that it will not cause any damage to public or private property, and that it will not be a menace or inconvenience to the public or the environment.

F. ***Bedding***. Bedding material, approved by the Engineer and meeting the minimum standards listed below, shall be deposited and compacted to 90% relative compaction in the trench. The compacted bedding material shall extend to a minimum of 6 inches below and to the sides of the pipe, and 12 inches above the top of the pipe in conformance with standard drawing W-7. Bedding material shall be non plastic sand meeting the following specifications:

TRENCH BEDDING MATERIAL	
Sieve Size	Percentage Passing Sieve
1/2 inch	100
No. 4	80 - 100
No. 200	0 - 15
Sand Equivalent	20

G. ***Subsequent Backfill.*** All trenches shall be backfilled to the full width of the trench, after pipe, fittings, appurtenances and bedding material have been installed, and before the required pressure and leakage tests are performed. The backfill under and around the pipe shall be thoroughly consolidated before any additional material is placed.

Subject to the provisions herein, and where deemed acceptable by a qualified Soils Engineer and supporting Soils Report, native material or material from the project excavations may be used as backfill, provided that all organic material, rubbish, debris, and other objectionable material are first removed. Broken concrete and pavement from the project excavations will be subject to the same limitations as rocks.

Rocks larger than 3 inches in any dimension will not be permitted in backfill placed between 1 foot above the top of the pipe and 12 inches below pavement subgrade. Where rocks are included in the backfill, they shall be mixed with suitable excavated materials so as to eliminate voids.

Controlled low strength material (CLSM) or sand cement slurry backfill may be required under certain conditions, such as beneath areas of utility congestion where conventional backfill and compaction is difficult. Such requirement will be at the discretion of the Engineer on a case-by-case basis.

H. ***Compaction.*** Compaction shall be as shown on the plans and Standard Drawings. Compaction methods must be carried out so no damage or displacement of the pipe results.

Any trenches improperly backfilled, or where settlement occurs, shall be reopened to the depth required for proper compaction, then refilled and compacted, with the surface restored to the required grade and compacted and smoothed off.

I. ***Pavement Replacement***. Replacement of roadway paving shall be in conformance with Heritage Ranch Owners Association specifications. However,

for County roadways, the pavement replacement shall meet County requirements. In addition, roadway replacement shall meet the following minimum standards:

Paving replacement shall not proceed until the all backfilling and compaction requirements have been met.

The replacement of roadway structural section over all cuts in existing bituminous pavement shall be 6 inches minimum of Class 2 aggregate base and 3 inches minimum of Type B asphalt concrete. However, in no case shall the structural section be less than the existing adjacent pavement section.

1. *Temporary Surfacing*. Until the permanent pavement is placed, the material at the surface of the trench shall be maintained at all times at a grade level with the street, suitable for the safe passage of traffic. Temporary surfacing shall be cold patch asphalt unless otherwise approved by the Engineer. When ready for resurfacing, the upper portion of the trench shall be excavated to a depth sufficient for installation of the required structural section.

   In any case where a trench is cut across a main thoroughfare, or if noted on the drawings, a temporary asphalt plant-mix-cutback surface shall be placed immediately after the backfill has been completed and removed just prior to placing the permanent surfacing material.

2. Aggregate base shall be placed, compacted and graded. Edges of the existing asphalt concrete shall be trimmed to provide a neat and straight vertical joint. The joint face shall then be cleaned and tacked with asphaltic emulsion. Type B asphalt concrete shall be placed in accordance with Section 39 of the State Standard Specifications.

J. ***Asphaltic Emulsion (Paint Binder).*** Asphaltic emulsion shall be applied to the pavement edges, free of loose material, in accordance with the provisions of Section 94 of the State Standard Specifications.

Asphaltic emulsion shall be Type SS-1h and shall be applied as directed by the Engineer.

K. ***Asphaltic Concrete.*** Asphaltic concrete shall be type B and shall conform to the provisions in Section 39 of the State Standard Specifications, and the following:

1. The amount of asphalt binder to be mixed with the aggregate shall be between 6.1 percent and 6.2 percent by weight of the dry aggregate as determined by the Engineer.

2. Spreading and compacting shall be performed by methods that will produce surfaces of uniform smoothness, texture, and density.

L. ***Restoration.*** All restoration and cleanup work shall follow closely the completed trench paving operation. All traffic striping and markings, including hydrant reflectors and other delineators, shall be restored to pre-construction condition or better.

4.7 LAYING WATER PIPE

A. ***Lines and Grades***. Water pipe shall be laid to the lines and grades shown on the approved plans.

B. ***Handling.*** Water pipe shall be handled with care to avoid damage. The interior and machined ends of the pipe and fittings shall be kept free of dirt and foreign matter at all times. Pipe stored overnight shall remain covered in in tarps or plastic, or ends of pipe shall be plugged to minimize entry of foreign matter and animals/vermin. Pipe or fittings which have been damaged in such a way that they cannot be repaired to the Engineer's satisfaction shall be replaced at the Contractor's expense.

C. ***Placement.*** Each length of pipe shall be laid on a firm bed and shall have a true bearing for the entire length, except for coupling holes. Prior to lowering the pipe in the trench, coupling holes shall be dug of sufficient size to allow assembly and provide a 2 inch minimum clearance around the coupling.

D. ***Joining.*** Both bell and spigot shall be clean before the joint is made, and care shall be taken that nothing but the joint-making material enters the joints. Water pipe shall not be deflected either vertically or horizontally, more than the manufacturers' recommendation.

E. ***Temporary Plug.*** Whenever pipe laying is not in progress, the open ends of the pipe shall be closed by an appropriate means to prevent the entry of trench water, other foreign matter and animals/vermin into the pipe.

F. ***Wet Conditions.*** Whenever water is present in the trench, enough backfill shall be placed over the pipe to prevent floating. Any pipe that has floated shall be removed and relaid as directed by the Engineer. No pipe shall be laid in wet trench conditions that preclude proper bedding, or when in the opinion of the Engineer, the trench conditions or the weather are unsuitable for proper installation.

4.8 VALVES

All water valves shall be epoxy lined, resilient seated gate valves conforming to AWWA C-509 and these specifications. Valves 6 inch through 16 inches shall be Mueller, Clow, or approved equal. Valves larger than 16-inch shall be butterfly valves as approved by HRCSD. Valve installations shall conform to Standard Drawing W-03. Concrete valve

anchors shall be required for all in-line valves as shown on the Standard Drawing. All fittings shall be wrapped in plastic to protect bolts from being covered in concrete.

4.9 FIRE HYDRANT ASSEMBLIES

Fire Hydrants shall be approved by SLO County Fire and HRCSD, and shall be of the wet-barrel type unless otherwise specified. The main body, shall be painted safety yellow. Fire hydrant installations shall conform to Standard Drawing W-01 and W-02, including providing blue reflector in street delineating location of hydrant.

4.10 BLOW-OFFS

Water line blow-offs shall be installed at all dead ends, at low points, or other places where sediments may collect, and where required by the Engineer. Where possible, fire hydrants shall be used as blow-offs. Blow-off assembly installations shall conform to Standard Drawing W-15.

4.11 AIR AND VACUUM RELEASE VALVES

Unless otherwise specified, all air release valves shall be combination air and vacuum release valves, to expel air pockets that may form, and to allow introduction of air when internal pipe pressures create pressure conditions below atmospheric pressure. Air and vacuum release valves (air/vacs) shall be installed at high points and where air pockets may form, and at locations required by the Engineer. Air/vac installations shall conform to Standard Drawing W-10.

4.12 SAMPLING STATIONS

Sampling stations shall be installed at locations specified by HRCSD. Sampling stations shall comply with County Department of Public Works Standard W-07, unless otherwise specified by HRCSD. At a minimum, the following shall apply:

1. Provide a minimum of one sampling station in each discrete pressure zone.
2. Sampling stations shall be located a minimum of 100 feet from a fire hydrant.
3. Sampling stations shall not be placed past the last service connection on a dead-end main.
4. If a system has more than one service loop, there shall be at least one sampling station in each service loop.

4.13 WATER SERVICES

Separate water service laterals shall be provided for each parcel of land, unless otherwise approved by HRCSD. Multiple service laterals to an individual parcel may be approved by HRCSD on a case-by-case basis. Homes (including secondary homes) or buildings under separate ownership or occupied by separate tenants shall also be provided with

separate service connections. Exception: Guest houses (as defined by the County Building Code) shall not be required to have a separate service lateral.

Water service connections shall conform to Standard Drawing W-04, W-05 and W-06.

A. ***Size of Meter and Service***. The size of the water meter and service shall conform to the District's policies. Minimum water service size shall be 1" unless otherwise approved by the Engineer. The HRCSD's approved rate structure and policies define appropriate capital charges for service based on actual meter size required, for those services less than 1" size.

B. ***Connection to Existing Main (Tie-in).*** HRCSD and affected customers shall be given written notice a minimum of at least 3 working days prior to any prepared shut down. HRCSD will perform all water main shutdowns. Scheduling of shutdown times will be at the discretion of HRCSD. Prior to any shutdown for a tie-in the following must be performed:

1. All encroachment permits and rights-of-entry must be obtained;
2. 3 working days prior notice shall be given to HRCSD and the affected customers;
3. All necessary materials must be on-site and fully assembled;
4. The point of tie-in shall be fully exposed.

C. ***New Water Main.*** When a new water main is being installed, all new water services shall be installed at the same time.

4.14 TESTING

All new water system installations shall be tested for leakage and disinfection. The Contractor shall provide at least two working day notice to HRCSD prior to performing any tests.

A. ***Pressure (Leakage) Test.*** The Contractor shall perform a pressure test, which shall be observed by the Engineer. The test shall be performed as follows:

1. A pressure test will only be made after all backfilling is completed, and not before all concrete thrust blocks have reached full strength.

2. The test pressure will be equal to the pressure class of the pipe, plus 50 psi (at the lowest point in the reach of water pipe to be tested), unless otherwise approved by the Engineer. The duration of the test will be 2 hours unless specified otherwise by the Engineer.

3. The water system shall first be slowly filled with water and all air expelled. All valves controlling the section shall be closed and allowed to set for at least 24 hours.

4. The pipe shall be raised to test pressure by a method acceptable to the Engineer. All pressure gauges shall be acceptable to the Engineer.

5. During the test, all air shall be expelled from the piping. If necessary, a temporary service saddle shall be installed to permit air to escape. After the testing is completed this saddle shall be plugged and backfilled. The Contractor shall also install all such temporary valves as necessary for isolating the test section.

6. Any cracked or defective pipe, fittings, valves or hydrants discovered during the test shall be removed and replaced with sound material and the test repeated until the system is proved satisfactory.

7. The allowable leakage in the test section shall not exceed the following rates:

WATER SYSTEM LEAKAGE TEST		
Allowable leakage (gph) per 1000 feet of pipe or 50 joints:		
Pipe Size, Inches	**160 psi**	**210 psi**
4	0.33	0.41
6	0.50	0.61
8	0.66	0.81
10	0.83	1.02
12	0.99	1.22

8. After completion of the pressure testing, the mains, hydrants, blow-offs, and service connections shall be flushed until the water is free of all pipe lubricant, foreign material, and excess chlorine.

B. ***Disinfection.*** New water mains shall be disinfected in accordance with AWWA C-651 using the HTH tablet (calcium hypochlorite) method; except that the initial dosage shall be 50 mg/L with a residual of at least 10 mg/L after a 24-hour period. Disinfection of the main shall be performed in conjunction with the pressure testing.

Following successful pressure testing and disinfection, bacteriological testing and standard plate counts shall be performed by HRCSD personnel. The cost of the first bacti test shall be borne by HRCSD. Subsequent costs incurred for failed testing shall be reimbursed by the Applicant prior to final acceptance.

The new mains shall remain shut-off and isolated from the existing system until cleared by HRCSD. A tie-in to the HRCSD system does not constitute acceptance of the mains by HRCSD.

For all new construction, where new water mains tie-in to the existing HRCSD water system, Contractor shall provide a written plan that describes how the new water main will be adequately isolated from the existing system, and how the new water utilities will be hydrostatically tested and disinfected. This plan shall be approved by the Engineer prior to such Work taking place.

C. ***Discharge into Sewers.*** At no time shall the water used for flushing newly constructed water mains be discharged into the HRCSD sewer system, without prior approval of HRCSD. Dechlorination of such water may be required prior to discharge.

APPENDIX A

GUIDANCE MEMO NO. 2003-02
GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES

State of California Department of Health Services

Memorandum

Date: April 14, 2003 **(Revised Date: October 16, 2003)**

To: Regional and District Engineers

From: David P. Spath, Ph.D., Chief *(Original signed by Dave)*
Drinking Water and Environmental Management
601 North 7th Street, MS 216
Sacramento, CA 95814
(916) 322-2308

Subject: **GUIDANCE MEMO NO. 2003-02: GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES**

The purpose of this memo is to update guidance dated April 5, 1983 for consistency with proposed 2003 regulations. Should there be any modification to the proposed Water Works Standards that may impact the content of this guidance, the guidance will be amended accordingly.

GUIDANCE: CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES

BACKGROUND

When buried water mains are in close proximity to non-potable pipelines, the water mains are vulnerable to contamination that can pose a risk of waterborne disease outbreaks. For example, sewers (sanitary sewer mains and sewage force mains) frequently leak and saturate the surrounding soil with sewage due to structural failure, improperly constructed joints, and/or subsidence or upheaval of the soil encasing the sewer. If a nearby water main is depressurized and no pressure or negative pressure occurs, that situation is a public health hazard that is compounded if an existing sewer is broken during the installation or repair of the water main. Further, failure of a water main in close proximity to other pipelines may disturb their bedding and cause them to fail. In the event of an earthquake or other disaster, simultaneous failure of all pipelines could occur.

The most effective protection against this type of drinking water contamination is adequate construction and separation of non-potable pipelines and water mains. The Waterworks Standards (Title 22, Chapter 16, Section 64572) provide separation criteria for new construction. However, when these criteria cannot be met, the risk of contamination can be reduced by increasing the structural integrity of pipe materials and joints, and ensuring minimum separation requirements are met. Therefore, the following guidance details construction criteria for the installation of water mains and non-potable pipelines to minimize the risk of contamination of drinking water.

DEFINITIONS

- COMPRESSION JOINT - A push-on joint that seals by means of the compression of a rubber ring or gasket between the pipe and a bell or coupling.
- CONTINUOUS SLEEVE - A protective tube of high-density-polyethylene (HDPE) pipe with heat fusion joints or other non-potable metallic casing without joints into which a pipe is inserted.
- DISINFECTED TERTIARY RECYCLED WATER - Wastewater that has been filtered and subsequently disinfected in accordance with Section 60301.230, Chapter 3 (Water Recycling Criteria), Title 22, California Code of Regulations.
- HOUSE LATERAL - A sewer line connecting the building drain and the sanitary sewer main serving the street.
- SUPPLY LINE - Pipelines conveying raw water to be treated for drinking purposes in accordance with Section 64572 ©, **proposed** Water Works Standards.
- WATER MAIN – Means any pipeline, except for user service lines, within the distribution system in accordance with Section 64551.70, **proposed** Water Works Standards.
- RATED WORKING WATER PRESSURE - A pipe classification system based on internal working pressure of the fluid in the pipe, type of pipe material, and the thickness of the pipe wall.
- SANITARY SEWER MAIN - A gravity sewer conveying untreated municipal wastewater.
- SEWAGE FORCE MAIN - A pressurized sewer conveying untreated municipal wastewater.

APPLICABILITY

Note that the construction criteria presented in this document apply to house laterals that cross above a water main, but not to those house laterals that cross below a water main.

Water mains or non-potable pipelines that are 24-inches in diameter or larger may pose a higher degree of public health concern because of the large volumes of flow involved. Therefore, installation of water mains or non-potable pipelines 24-inches in diameter or larger should be reviewed and approved in writing by the Department on a case-by-case basis prior to construction.

In no case, should water mains and non-potable pipelines conveying sewage or other liquids be installed in the same trench.

REGULATORY REQUIREMENTS

Any new development project in which all the underground facilities are being constructed for the first time must comply with the following regulatory requirements:

Existing requirements:

Section 64630.(Title 22 CA Code of Regulations) Water Main Installation"

(c) Water mains shall be installed at least:

(1) Ten feet (3 meters) horizontally from and 1 foot (0.3 meters) higher than sanitary sewer mains located parallel to the main.

(2) One foot (0.3 meters) higher than sanitary sewer mains crossing the main.

(3) Ten feet (3 meters), and preferably 25 feet (7.5 meters), horizontally from sewage leach fields, cesspools, seepage pits and septic tanks.

(d) Separation distances specified in (c) shall be measured from the nearest outside edges of the facilities.

(e) Where the requirements of (c) and (d) cannot be met due to topography, inadequate right-of-way easements, or conflicts with other provisions of these regulations, lesser separation is permissible if:

(1) The water main and the sewer are located as far apart as feasible within the conditions listed above.

(2) The water main and the sewer are not installed within the same trench.

(3) The water main is appropriately constructed to prevent contamination of the water in the main by sewer leakage.

(f) Water mains shall be disinfected according to AWWA Standard C601-81 before being placed in service.

(g) Installation of water mains near the following sources of potential contamination shall be subject to written approval by the Department on a case-by-case basis:

(1) Storage ponds or land disposal sites for wastewater or industrial process water containing toxic materials or pathogenic organisms.

(2) Solid waste disposal sites.

(3) Facilities such as storage tanks and pipe mains where malfunction of the facility would subject the water in the main to toxic or pathogenic contamination.

Although the following requirements have not yet been adopted, they should be within the next two years and should be used as guidance for future construction.

Proposed requirements as of the date of this document:

Section 64572. Water Main Separation

(a) New water mains and new supply lines shall not be installed in the same trench as, and shall be at least 10 feet horizontally from, and one foot vertically above, any parallel pipeline conveying:

(1) Untreated sewage,
(2) Primary or secondary treated sewage,
(3) Disinfected secondary-2.2 recycled water (defined in section 60301.220),
(4) Disinfected secondary-23 recycled water (defined in section 60301.225), and
(5) Hazardous fluids such as fuels, industrial wastes, and wastewater sludge.

(b) New water mains and new supply lines shall be installed at least 4 feet horizontally from, and one foot vertically above, any parallel pipeline conveying:

(1) Disinfected tertiary recycled water (defined in section 60301.230), and
(2) Storm drainage.

(c) New supply lines conveying raw water to be treated for drinking purposes shall be installed at least 4 feet horizontally from, and one foot vertically below, any water main.

(d) If crossing a pipeline conveying a fluid listed in subsection (a) or (b), a new water main shall be constructed perpendicular to and at least one foot above that pipeline. No connection joints shall be made in the water main within eight horizontal feet of fluid pipeline.

(e) The vertical separation specified in subsections (a), (b), and (c) is required only when the horizontal distance between a water main and pipeline is ten feet or less.

(f) New water mains shall not be installed within 100 horizontal feet of any sanitary landfill, wastewater disposal pond, or hazardous waste disposal site, or within 25 feet of any cesspool, septic tank, sewage leach field, seepage pit, or groundwater recharge project site.

(g) The minimum separation distances set forth in this section shall be measured from the nearest outside edge of each pipe barrel.

ALTERNATIVE CRITERIA FOR CONSTRUCTION

Water Mains, and Sewers and Other Non-potable Fluid-carrying Pipelines

When new water mains, new sanitary sewer mains, or other non-potable fluid-carrying pipelines are being installed in existing developed areas, local conditions (e.g., available space, limited slope, existing structures) may create a situation in which there is no alternative but to install water mains, sanitary sewer mains, or other non-potable pipelines at a distance less than that required by the regulations [existing Section 64630 (proposed Section 64572)]. In such cases, through permit action, the Department may approve

alternative construction criteria. The alternative approach is allowed under the proposed regulation Section 64551(c):

> "A water system that proposes to use an alternative to the requirements in this chapter shall demonstrate to the Department how it will institute additional mitigation measures to ensure that the proposed alternative would not result in an increased risk to public health."

Appropriate alternative construction criteria for two different cases in which the regulatory criteria for sanitary sewer main and water main separation cannot be met are shown in **Figures 1 and 2**.

- **Case 1** - New sanitary sewer main and a new or existing water main; alternative construction criteria apply to the sanitary sewer main.
- **Case 2** - New water main and an existing sanitary sewer main; alternative construction criteria may apply to either or both the water main and sanitary sewer main.

Case 1: New Sanitary Sewer Main Installation (Figures 1 and 2)

Zone	***Special Construction Required for Sanitary Sewer Main***
A	Sanitary sewer mains parallel to water mains shall not be permitted in this zone without prior written approval from the Department and public water system.
B	If the water main paralleling the sanitary sewer main does not meet the Case 2 Zone B requirements, the sanitary sewer main should be constructed of one of the following: 1. High-density-polyethylene (HDPE) pipe with fusion welded joints (per AWWA C906-99); 2. Spirally-reinforced HDPE pipe with gasketed joints (per ASTM F-894); 3. Extra strength vitrified clay pipe with compression joints; 4. Class 4000, Type II, asbestos-cement pipe with rubber gasket joints; 5. PVC sewer pipe with rubber ring joints (per ASTM D3034) or equivalent; 6. Cast or ductile iron pipe with compression joints; or 7. Reinforced concrete pressure pipe with compression joints (per AWWA C302-95).

C If the water main crossing below the sanitary sewer main does not meet the requirements for Case 2 Zone C, the sanitary sewer main should have no joints within ten feet from either side of the water main (in Zone C) and should be constructed of one of the following:

1. A continuous section of ductile iron pipe with hot dip bituminous coating; or

2. One of the Zone D options 1, 3, 4, or 5 below.

D If the water main crossing above the sanitary sewer main does not meet the Case 2 Zone D requirements, the sanitary sewer main should have no joints within four feet from either side of the water main (in Zone D) and be constructed of one of the following:

1. HDPE pipe with fusion-welded joints (per AWWA C906-99);

2. Ductile iron pipe with hot dip bituminous coating and mechanical joints (gasketed, bolted joints);

3. A continuous section of Class 200 (DR 14 per AWWA C900-97) PVC pipe or equivalent, centered over the pipe being crossed;

4. A continuous section of reinforced concrete pressure pipe (per AWWA C302-95) centered over the pipe being crossed; or

5. Any sanitary sewer main within a continuous sleeve.

Case 2: New water mains Installation (Figures 1 and 2)

Zone Special Construction Required for Water Main

A No water mains parallel to sanitary sewer mains shall be constructed without prior written approval from the Department.

B If the sanitary sewer main paralleling the water main does not meet the Case 1 Zone B requirements, the water main should be constructed of one of the following:

1. HDPE pipe with fusion welded joints (per AWWA C906-99);

2. Ductile iron pipe with hot dip bituminous coating;

3. Dipped and wrapped one-fourth-inch-thick welded steel pipe;

4. Class 200, Type II, asbestos-cement pressure pipe;

5. Class 200 pressure rated PVC water pipe (DR 14 per AWWA C900-97 & C905-97) or equivalent; or

6. Reinforced concrete pressure pipe, steel cylinder type, per AWWA (C300-97 or C302-99 or C303-95).

C If the sanitary sewer main crossing above the water main does not meet the Case 1 Zone C requirements, the water main should have no joints within ten feet from either side of the sanitary sewer main (in Zone C) and be constructed of one of the following:

1. HDPE pipe with fusion-welded joints (per AWWA C906-99);

2. Ductile iron pipe with hot dip bituminous coating;

3. Dipped and wrapped one-fourth-inch-thick welded steel pipe;

4. Class 200 pressure rated PVC water pipe (DR 14 per AWWA C900-97 & C905-97); or

5. Reinforced concrete pressure pipe, steel cylinder type, per AWWA (C300-97 or C301-99 or C303-95).

D If the sanitary sewer main crossing below the water main does not meet the requirements for Case 1 Zone D, the water main should have no joints within eight feet from either side of the sanitary sewer main (in Zone D) and should be constructed as for Zone C.

Water Mains and Pipelines Conveying Non-potable Fluids

When the basic separation criteria cannot be met between water mains and pipelines conveying non-potable fluids, the requirements described above for sanitary sewer mains should apply. This includes the requirements for selecting special construction materials and the separation requirements shown in Figures 1 and 2. Note that not all construction materials allowed for sanitary sewer mains will be appropriate for other non-potable fluid lines. For example, certain plastic lines may not be appropriate for the transport of some fuel products. The selection of compatible materials of construction for non-potable fluids is a decision to be made by the project engineer.

Water Mains and Sewage Force Mains

- Sewage force mains shall not be installed within ten feet (horizontally) of a water main.

- When a sewage force main must cross a water main, the crossing should be as close as practical to the perpendicular. The sewage force main should be at least one foot below the water main.

- When a new sewage force main crosses under an existing water main, and a one-foot vertical separation cannot be provided, all portions of the sewage force main within eight feet (horizontally) of the outside walls of the water main should be enclosed in a continuous sleeve. In these cases, a minimum vertical separation distance of 4 inches should be maintained between the outside edge of the bottom of the water main and the top of the continuous sleeve.

- When a new water main crosses over an existing sewage force main, the water main should be constructed of pipe materials with a minimum rated working pressure of 200 psig or the equivalent.

Water Mains and Tertiary Treated Recycled Water or Storm Drainage

The basic separation criteria for water mains and pipelines conveying tertiary treated recycled water or storm drainage lines are a 4-foot horizontal separation where lines are running parallel and a 1-foot vertical separation (water line above recycled or storm drainage) where the lines cross each other.

When these criteria cannot be met, the Zone A criteria apply where lines are running parallel, and the Zone C and Zone D criteria apply where the lines cross each other as shown on Figures 1 and 2. For these situations, the Zone "P" criteria are in effect and prohibit construction less than 1 foot in parallel installations and less than 4 inches in vertical (crossing) situations.

For tertiary treated recycled water and storm drainage lines, the Zone B criteria (requirements for special pipe) do not apply as the basic separation criteria is a four-foot horizontal separation criteria for parallel lines. The tertiary treated recycled water lines should be constructed in accordance with the color-coding, and labeling requirements per Section 116815, California Health and Safety Code of Regulations.

MISCELLANEOUS GUIDANCE

- More stringent requirements may be necessary if conditions such as high groundwater exist. HDPE or similar pipe may be required to provide flexibility to move without potential joint leaks.

- Sanitary sewer mains should not be installed within 25 feet horizontally of a low head (5 psig or less pressure) water main.

- New water mains and sanitary sewer mains should be pressure tested in accordance with manufacturer's specifications.

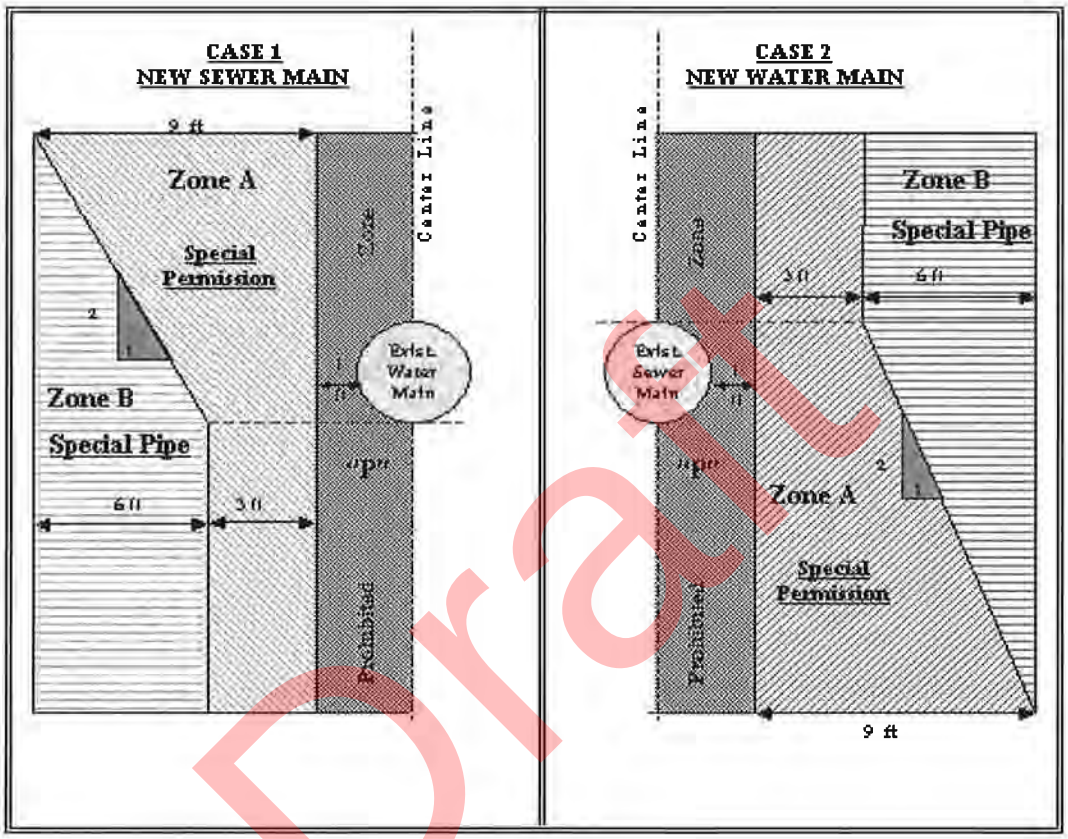
- When installing water mains, sewers, or other pipelines, measures should be taken to prevent or minimize disturbances of existing pipelines. Disturbance of the conduit's supporting base could eventually result in pipeline failure.

- Special consideration should be given to the selection of pipe materials if corrosive conditions are likely to exist. These conditions may be due to soil type and/or the nature of the fluid conveyed in the conduit, such as a septic sewage producing corrosive hydrogen sulfide.

NOTE: Dimensions are from the outside of the water main to the outside of the other pipeline, manhole, or sleeve.

FIGURE 1 PARALLEL CONSTRUCTION

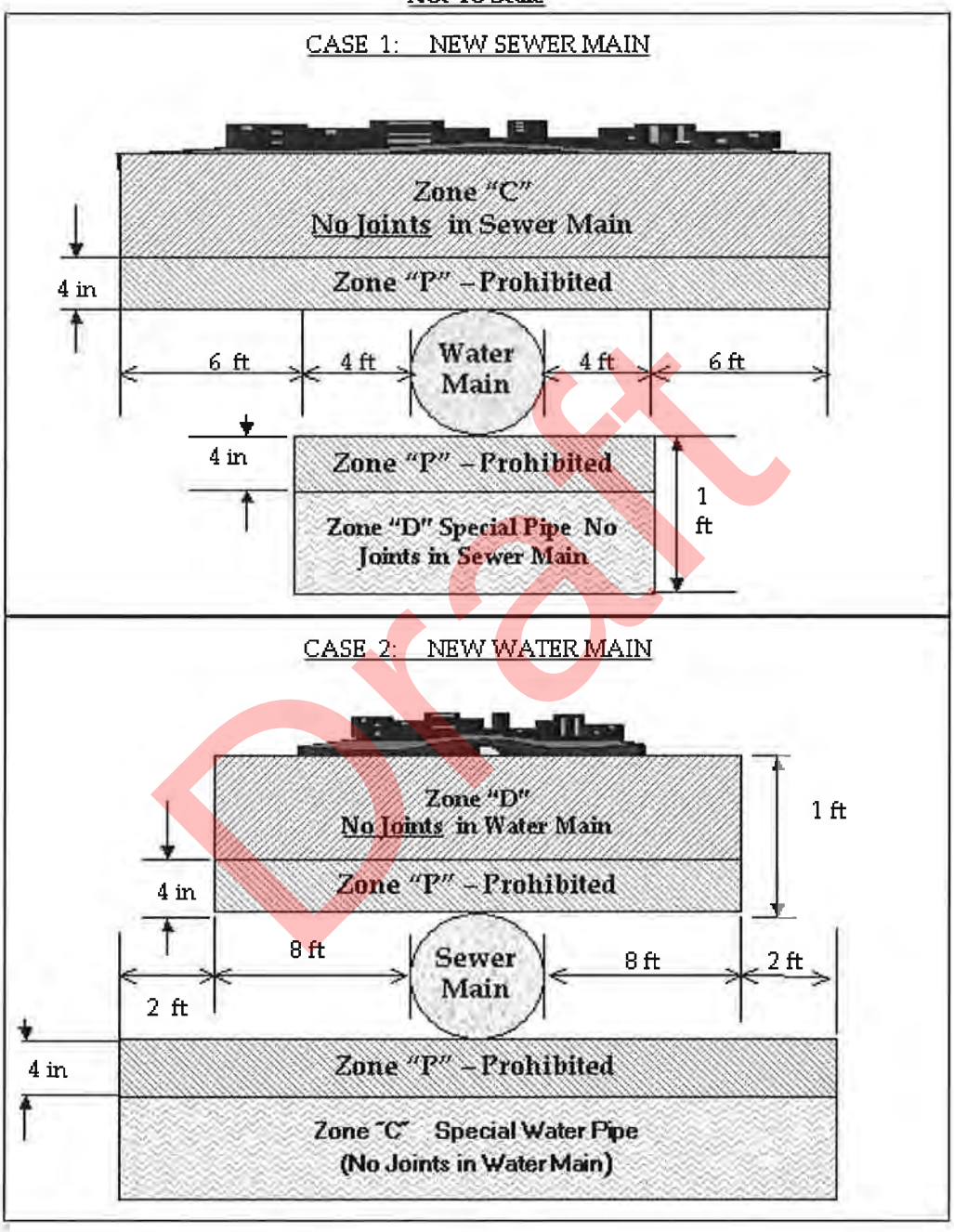
Not To Scale



Note: Zones identical on either side of center lines

Zones "P" is a prohibited zone. Section 64630 (e) (2) California Code of Regulations, Title 22 (Current); or Section 64572 (a) California Code of Regulations, Title 22 (Proposed).

FIGURE 2 CROSSINGS
Not To Scale



HERITAGE RANCH COMMUNITY SERVICES DISTRICT
STANDARD CONSTRUCTION NOTES

1. ***Approved Plans*** - No construction shall be started without plans approved by the Heritage Ranch Community Services District (HRCSD), and where applicable, by San Luis Obispo County. The HRCSD Inspector shall be notified at least two working days prior to starting of construction and any inspection. Any construction done without approved plans and prior to notification to the HRCSD Inspector may be rejected and will be at the Contractor's and/or Owner's risk.

   The Contractor shall have copies of the approved plans for this project on the site at all times and shall be familiar with all applicable standards and specifications.

2. ***Standard Specifications*** - All construction work and installations shall conform to the HRCSD Standard Specifications and Drawings, and all work shall be subject to the approval of the HRCSD Engineer.

3. ***Inspection Agreement*** - An executed inspection agreement is required prior to the start of construction.

4. ***Inspection*** - The HRCSD Inspector, acting on behalf of the HRCSD Engineer, may require revisions to the approved Plans and Specifications to solve unforeseen problems that may arise in the field.

5. ***Encroachment Permits*** - No work within a County or Caltrans right-of-way shall be performed without an executed encroachment permit.

6. ***Utility Notification*** - Prior to beginning any earthwork, the Contractor shall be responsible for contacting all agencies involved and shall locate all facilities prior to excavation in any area. The Contractor shall call Underground Service Alert (USA), toll free at 811 at least two working days prior to the start of construction.

7. ***Existing Utilities*** - The locations and elevations of existing utilities where shown on the plans are based on available records, and are approximate only. The Contractor agrees to assume sole and complete responsibility for locating or having located all underground utilities and other facilities and for protecting the same during the course of constructing the project. Any deviations from the plan location of any existing facilities shall be immediately brought to the attention of the HRCSD Inspector.

8. ***Safety*** - Neither the Heritage Ranch Community Services District or the Engineer of Record will be responsible for compliance with safety measures or regulations. The Contractor (including the Owner/Builder) shall design, construct, and maintain all safety devices, and shall be solely responsible for conforming to all Local, State, and Federal, Safety and Health Standards, Laws, and Regulations.

9. ***Indemnification*** - The Applicant agrees that in accordance with generally accepted construction practices, Applicant shall assume sole and complete responsibility for the condition of the job site during the course of the project, including the safety of persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and the Applicant shall defend, indemnify, and hold the District and District's agents, employees and consultants harmless from any and all claims, demands, damages, costs, expenses (including attorney's fees), judgements or liabilities arising out of the performance or attempted performance of the work on this project; except those claims, demands, damages, costs, expenses (including attorney's fees), judgements or liabilities resulting from the negligence or willful misconduct of the District.

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

STANDARD
CONSTRUCTIONS NOTES

SHEET: **N-01**
DATE:
DRAWN BY: DRD
SCALE: NONE

10. ***Protection of Property*** - The Contractor shall be responsible for the protection of Public and Private property adjacent to his work, and shall exercise due caution to avoid damage to such property. The Contractor shall replace or repair to their original condition, all improvements within or adjacent to the work area which are not designated for removal, and which are damaged or removed as a result of his operations.

11. ***Site Conditions*** - The Contractor shall continually review job site conditions. Conditions requiring construction different from that shown on the plans shall be reported to the Engineer, and HRCSD prior to proceeding with the affected construction. All deviations from approved plans shall be approved by HRCSD prior to the start of such changed work.

12. ***Contractors Record of Changes*** - The Contractor shall maintain a current, complete, and accurate record of all changes which deviate from the construction as shown on these Plans and Specifications for the purpose of providing the Engineer of Record with a basis for the preparation of Record Drawings.

13. ***Record Drawings*** - The Engineer of Record shall prepare drawings based on Contractor's Record of changes, following final inspection of the work by HRCSD. Record Drawings ("As-Builts") shall be prepared by the Engineer of Record and approved by HRCSD prior to Final Acceptance of the work by the HRCSD. Final acceptance will only be granted after receiving Record Drawings which include one full-size mylar copy, one electronic copy (PDF), and AutoCAD Drawings which inclkude the documented "As-Built" changes.

14. ***Plan Corrections*** - The Plan Check and Approval of these plans by the HRCSD does not relieve the Engineer of Record from any discrepancies, errors, or omissions, which may become apparent prior to the completion of construction. The Engineer of Record shall be responsible for correcting any design deficiencies, errors, or omissions to the approval of the HRCSD Engineer in accordance with the HRCSD Standard Plans and Specifications.

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

STANDARD
CONSTRUCTION NOTES

SHEET: **N-02**
DATE:
DRAWN BY: DRD
SCALE: NONE

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

ENGINEER OF WORK/ENGINEER OF RECORD CERTIFICATION

I, _____ R.C.E No. _____, hereby state that I have inspected the improvements required for the approval of:

_____
(Project Name)

and shown on the improvement plans thereof prepared by:

_____
(Engineer of Record)

and approved on:_____, 20___, and that said improvements were constructed in substantial conformance with the horizontal and vertical alignment in accordance with those plans and specifications approved by HRCSD, including approved changes shown on the record drawings prepared by me and dated:_____, 20___.

I have taken, or have had provided to me by other qualified engineers, sufficient quality control tests to assure that the specifications have been met. Copies of inspection logs, record drawings and appropriate quality control tests are attached.

_____ _____
RCE Signature Date

_____
RCE License No.

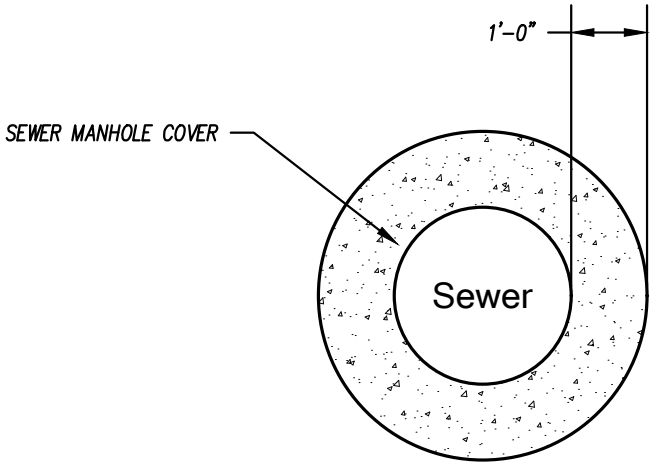
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

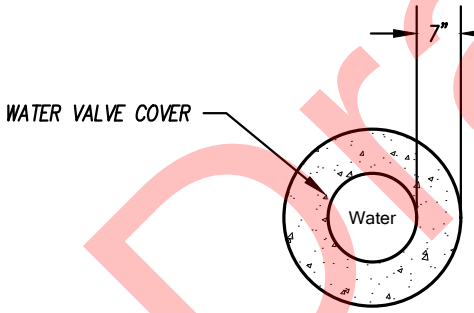
HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

ENGINEER'S CERTIFICATION

SHEET: N-03
DATE:
DRAWN BY: DRD
SCALE: NONE



SEWER MANHOLE



WATER VALVE

NOTES:

1. CONCRETE SHALL BE 520-C-2500 (5 ½ SACK, ¾" AGGREGATE MIN.) CLASS A CONCRETE.
2. ALLOW CONCRETE TO CURE 48 HOURS PRIOR TO TRAFFIC USE. IN AREAS OF HIGH TRAFFIC, SUBMIT TO HRCSD FOR APPROVAL, HIGH EARLY STRENGTH CONCRETE THAT CAN ALLOW TRAFFIC USE IN 12 HOURS.
3. TROWEL TO STREET GRADE WITH A ¼" LIP. IN UNPAVED AREAS, TROWEL TO ½" ABOVE FINISHED GROUND, INSTALL LEVEL.
4. ALL COVERS AND LIDS SHALL BE RATTLE FREE WITHOUT USE OF SEALANT.
5. ALL CAST IRON TO BE HEAVY DUTY FOR TRAFFIC SERVICES.
6. UNLESS OTHERWISE SHOWN, CONCRETE COLLAR THICKNESS SHALL BE 10".
7. COLLARS SHALL BE CIRCULAR UNLESS OTHERWISE SHOWN AND APPROVED BY HRCSD.

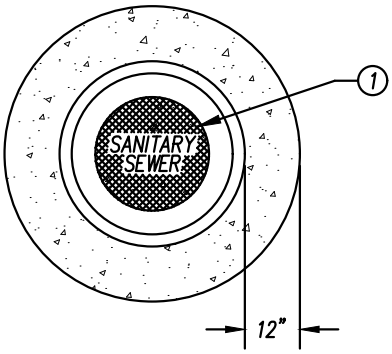
Revisions	Appd.	Dates

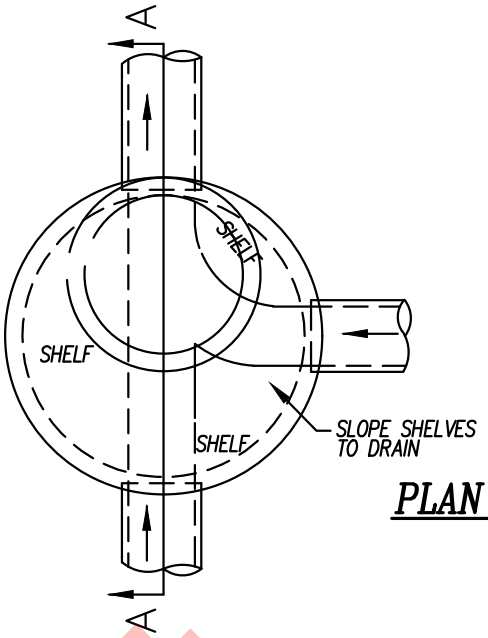
APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

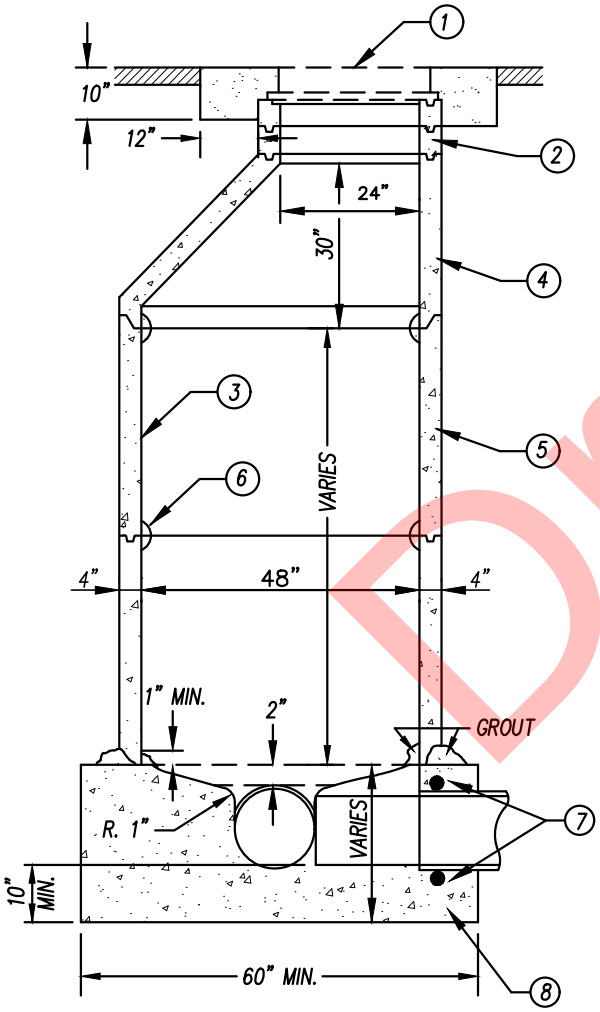
WATER VALVE AND SEWER MANHOLE COVER CONCRETE COLLAR

SHEET: **N-04**
DATE:
DRAWN BY: DRD
SCALE: 1" = 2'





PLAN VIEW



SECTION A–A

NOTES:

1. COVER – MANHOLE FRAMES AND COVER SHALL CONFORM TO HS20 TRAFFIC LOADING, AND SHALL HAVE A 24" CLEAR OPENING AND A SEALED BLIND PICKHOLE. THE COVER SHALL BE LETTERED "SANITARY SEWER". THE INSIDE OF THE FRAME SHALL BE GROUTED WITH NON– SHRINK GROUT. LID SHALL BE RATTLE FREE WITHOUT THE USE OF A SEALANT. SEE DETAIL N–03 FOR CONCRETE COLLAR.
2. ADJUSTMENTS – RINGS SHALL BE 3" OR 6". TOP OF CONE TO TOP OF FRAME SHALL NOT EXCEED 15". GRADE RINGS AND MANHOLE FRAME SHALL BE SEALED AT EVERY JOINT WITH BUTYL RUBBER (CONSEAL CS–102 OR EQUAL) AND GROUTED ON THE INSIDE.
3. INTERIOR MANHOLE PROTECTIVE LINING SHALL BE REQUIRED WHEN INDICATED ON PROJECT PLANS AND/OR SPECIFICATIONS.
4. CONE – CONE SHALL BE ECCENTRIC AND CONFORM TO THE REQUIREMENTS FOR RISERS. THE STRAIGHT SIDE OF THE CONE SHALL BE POSITIONED OVER THE MANHOLE OUTLET. CONCENTRIC CONES MAY BE USED ONLY IN SPECIAL CASES WITH THE PRIOR WRITTEN CONSENT OF THE ENGINEER.
5. MANHOLE RISERS SHALL BE 48" IN DIAMETER, PRECAST CONCRETE CONFORMING TO ASTM C478–61T CLASS 2 REINFORCED CONCRETE PIPE, OR AS APPROVED BY DISTRICT.
6. JOINTS – JOINTS SHALL BE SET WITH BUTYL RUBBER SEALANT (CONSEAL CS–102). INSIDE OF JOINTS SHALL BE GROUTED WITH NON–SHRINK GROUT.
7. WATER STOPS – WHEN PVC USED, I.E. ADAPTER RINGS [KOR–N–SEAL]
8. BASE – MANHOLE BASE SHALL CONFORM TO STANDARD PLANS S–02.

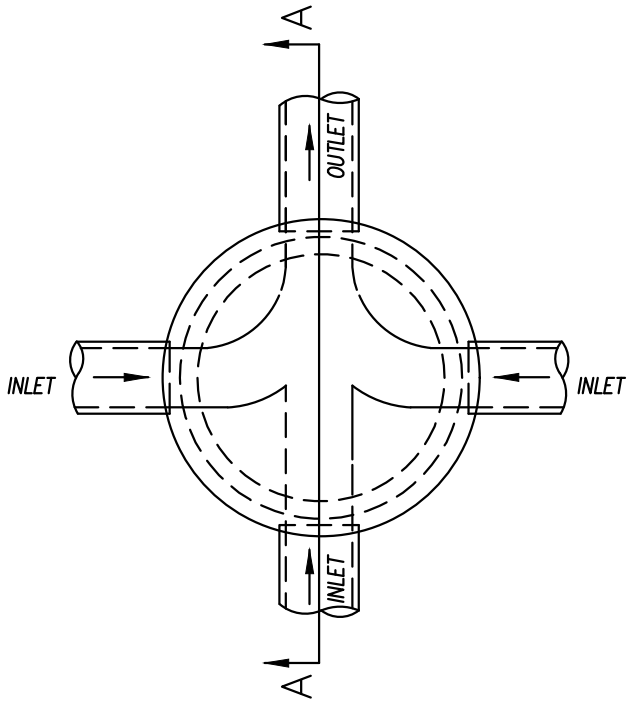
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

STANDARD SEWER MANHOLE

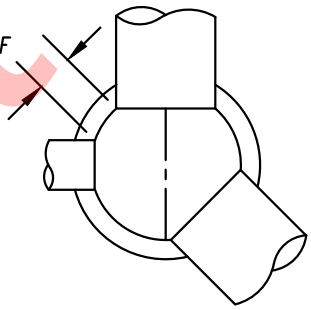
SHEET: **S-01**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



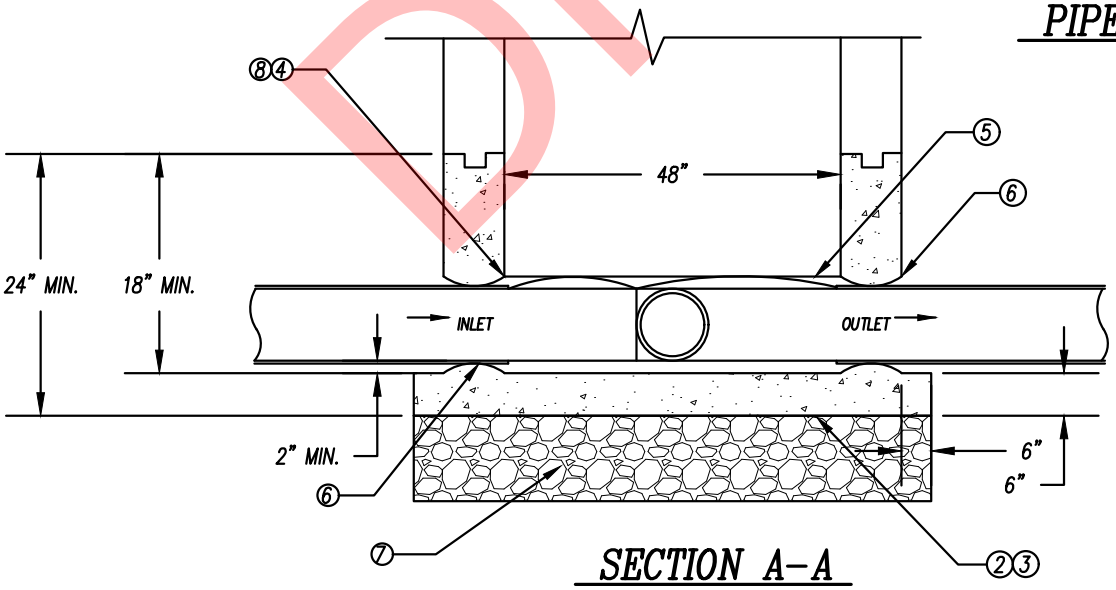
PLAN VIEW

NOTES:

1. MANHOLE BASE MAY BE CONSTRUCTED IN FIELD OR PRECAST BASE CONFORMING TO ASTM C478 MAY BE USED.
2. CONCRETE SHALL BE PER NOTE 1, DWG. N-03.
3. REINFORCING STEEL SHALL HAVE A 2" COVER (MIN.) OVER THE STEEL ON THE INSIDE FACE. USE #5 @ 9" O.C. EACH WAY (MIN.)
4. INVERT CHANNELS AND SHELF MAY BE CONSTRUCTED AT A FACTORY OR IN THE FIELD. DEPTH OF CHANNEL SHALL EQUAL THE PIPE DIAMETER FOR ALL SIZES OF PIPE. CHANNEL SHALL RECEIVE A STEEL TROWEL FINISH.
5. SLOPE SHELF TOWARDS CHANNEL. SHELF AREAS SHALL RECEIVE A BROOM FINISH.
6. CEMENT MORTAR JOINTS SHALL NOT EXCEED 3/8" IN THICKNESS. DO NOT MORTAR EXTERIOR PERIMETER OF PIPE OPENING OR TOP HALF OF PIPE.
7. MANHOLE BASE SHALL BE PLACED OVER 6" CLEAN SAND OR GRAVEL (MIN.). IF GRAVEL IS USED, GEOTEXTILE FABRIC SHALL COVER SUBGRADE. SUBGRADE SHALL BE COMPACTED TO 95%.
8. UNLESS OTHERWISE SHOWN AND APPROVED BY HRCSD, A 0.1 FOOT DROP SHALL BE PROVIDED ACROSS MANHOLE BOTTOM TO MINIMIZE SOLIDS DEPOSITION.



PIPE SPACING



SECTION A-A

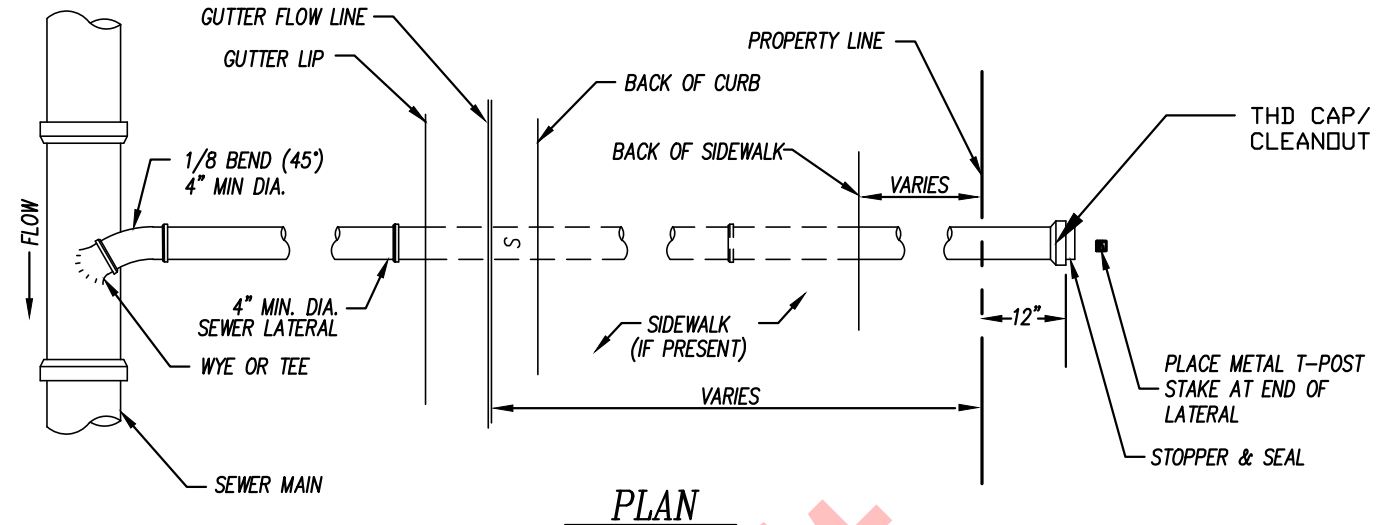
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

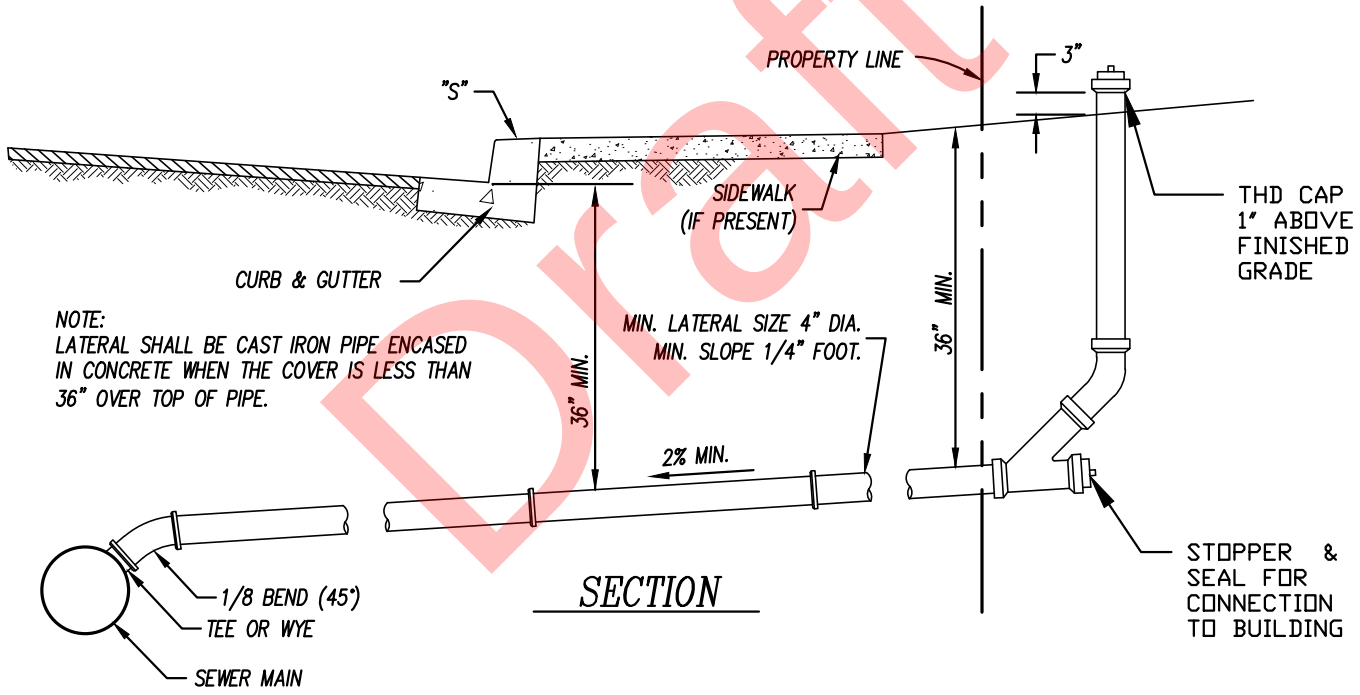
HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

STANDARD SEWER
MANHOLE BASE

SHEET: **S-02**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



PLAN



SECTION

NOTES: (SEE DWG S-03.2)

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

SEWER LATERAL LOCATION
SINGLE SERVICE

SHEET: S-03.1
DATE:
DRAWN BY: DRD
SCALE: N.T.S.

NOTES (FOR DWG S-03.1)

1. "S" SHALL BE MARKED ON CURB FACE OVER LATERAL WHEN CURB AND GUTTER ONLY IS TO BE CONSTRUCTED, OR EXISTS. IN THE CASE OF EXISTING OR NEW ASPHALT BERM, PROVIDE TRACER WIRE ALONG ENTIRE LENGTH OF SEWER LATERAL BETWEEN SEWER MAIN AND PROPERTY LINE CLEANOUT, SEE NOTE 10, DWG. W-01.
2. "S" SHALL BE MARKED ON BACK OF SIDEWALK OVER LATERAL WHEN BOTH CURB AND GUTTER AND SIDEWALK IS TO BE CONSTRUCTED, OR EXISTS.
3. THE "S" SHALL BE STAMPED INTO NEW CONCRETE AND SHALL BE CHISELED INTO EXISTING CONCRETE.
4. THE "S" SHALL BE NOT LESS THAN 3" HIGH, 2" WIDE, AND 3/16" DEEP.
5. SEWER LATERAL LOCATION TO CONFORM TO REQUIREMENTS OF W-08.
6. UNLESS SPECIFICALLY APPROVED BY DISTRICT, ALL LATERALS, FROM CLEANOUT TO MAIN, SHALL BE INSTALLED AT AN EXACT 90° ANGLE TO SEWER MAIN. IN CASES WHERE ALIGNMENT DEVIATES FROM THIS REQUIREMENT, INSTALL TRACER WIRE SAME AS REQUIRED FOR WATER SERVICE, DETAIL W-4.
7. LATERAL CONNECTION TO SEWER MAIN SHALL BE WITH A 1/8 (45°) BEND. BEND SHALL POINT DOWNSTREAM AND ENTER MAIN AT VERTICAL ANGLE OF NOT LESS THAN 5° OR MORE THAN 45°.
8. FOR SEWER LATERALS CONNECTING ONTO EXISTING SEWER MAIN, A SADDLE TEE-BRANCH MAY BE USED IF APPROVED BY THE DISTRICT.
9. SADDLE CONNECTIONS ARE NOT PERMITTED ON NEW SEWER MAINS.
10. SEWER LATERAL SHALL BE 4"ø PVC PIPE AND SHALL MEET ASTM STANDARD D 3034, SDR 35.
11. MAINTAIN A 5' MINIMUM SEPARATION BETWEEN WATER AND SEWER SERVICE LATERALS.
12. SEWER LATERALS SHALL NOT BE LOCATED UNDER DRIVEWAYS.
13. PVC SEWER LATERAL MUST PASS A SOLID BALL TEST FOR DEFLECTION.
14. INSTALL WIRE OR METALLIC STRIP FOR LOCATING SEWER LATERALS, WHERE REQUIRED BY HRCSD.
15. UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUTTERS.
16. ALL SEWER LATERAL TRANSITIONS SHALL AT A MINIMUM, MEET UNIFORM PLUMBING REQUIREMENTS, AND SHALL BE APPROVED BY HRCSD PRIOR TO INSTALLATION.

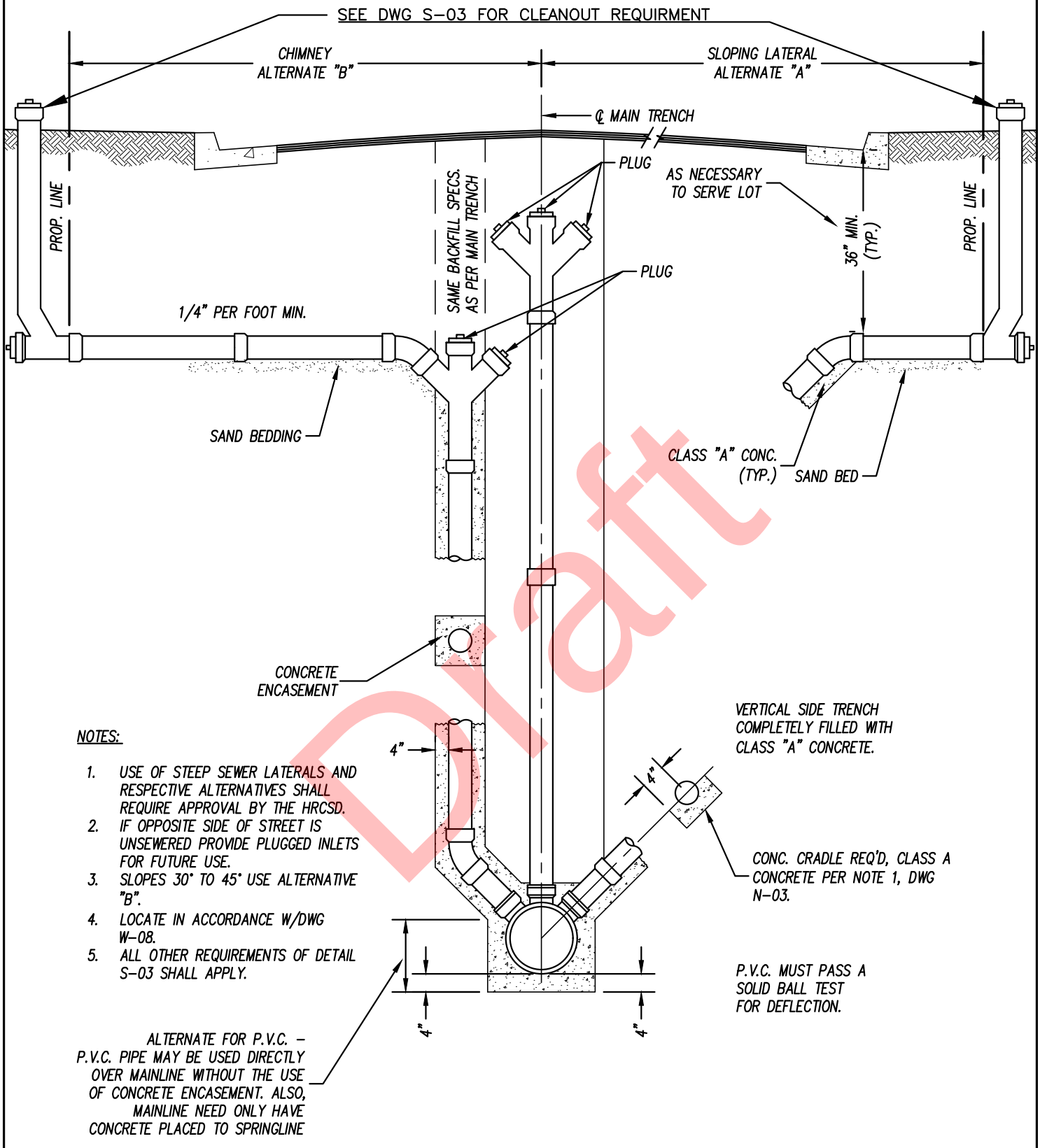
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

SEWER LATERAL LOCATION
SINGLE SERVICE

SHEET: S-03.2
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



NOTES:

1. USE OF STEEP SEWER LATERALS AND RESPECTIVE ALTERNATIVES SHALL REQUIRE APPROVAL BY THE HRCSD.
2. IF OPPOSITE SIDE OF STREET IS UNSEWERED PROVIDE PLUGGED INLETS FOR FUTURE USE.
3. SLOPES 30° TO 45° USE ALTERNATIVE "B".
4. LOCATE IN ACCORDANCE W/DWG W-08.
5. ALL OTHER REQUIREMENTS OF DETAIL S-03 SHALL APPLY.

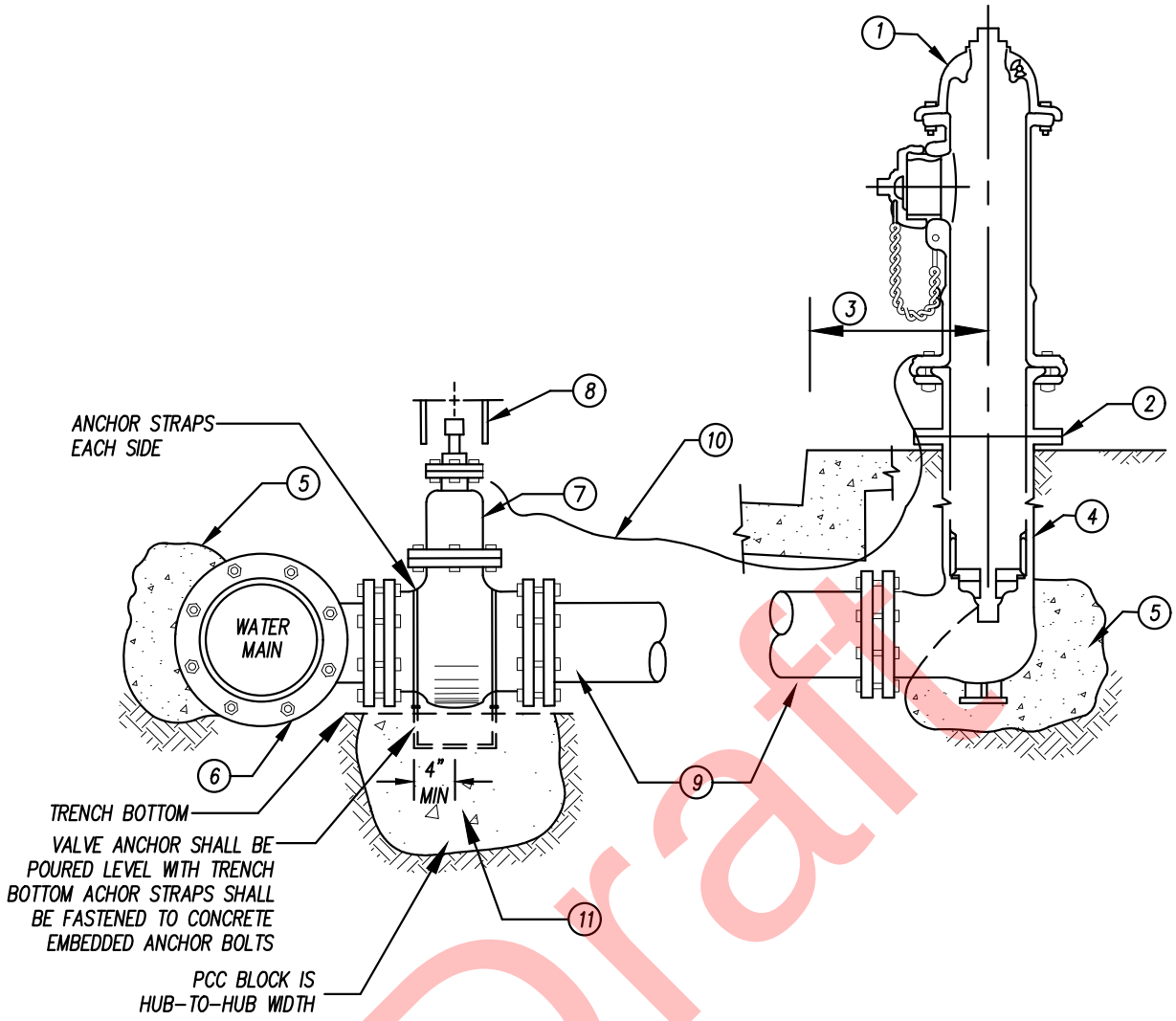
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

STEEP SEWER SERVICE LATERALS

SHEET: **S-04**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



NOTES:

1. FIRE HYDRANT PER STD DWG W-17B, PAINTED SAFETY YELLOW.
2. 6" BREAKAWAY SPOOL – INSTALL HYDRANT TO PROVIDE 3" TO 4" CLEARANCE UNDER THE FLANGE. USE 5/8" X 3" BREAKAWAY BOLTS WITH BOLT HEADS ON BOTTOM BREAKAWAY SPOOL (SPOOL TO BE 4" MIN).
3. THE HYDRANT SHALL BE LOCATED PER DRAWING W-02.
4. STANDARD HYDRANT BURY.
5. THRUST BLOCK PER DRAWING W-16, SHIELD CONCRETE FROM FLANGES AND BLOTS. CONCRETE PER NOTE 1, DRAWING N-03.
6. FLANGED TEE.
7. VALVE PER DRAWING W-03.
8. VALVE BOX PER DRAWING W-03.
9. MINIMUM 6" DIAMETER PVC OR DIP HYDRANT LATERAL WITH MECHANICAL JOINT AT EACH END.
10. NO. 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
11. VALVE ANCHOR AS SHOWN, CONCRETE PER NOTE 1, DRAWING N-03.

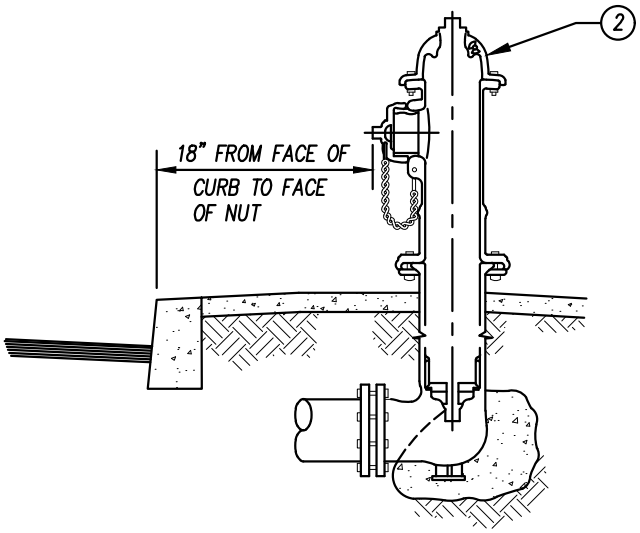
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

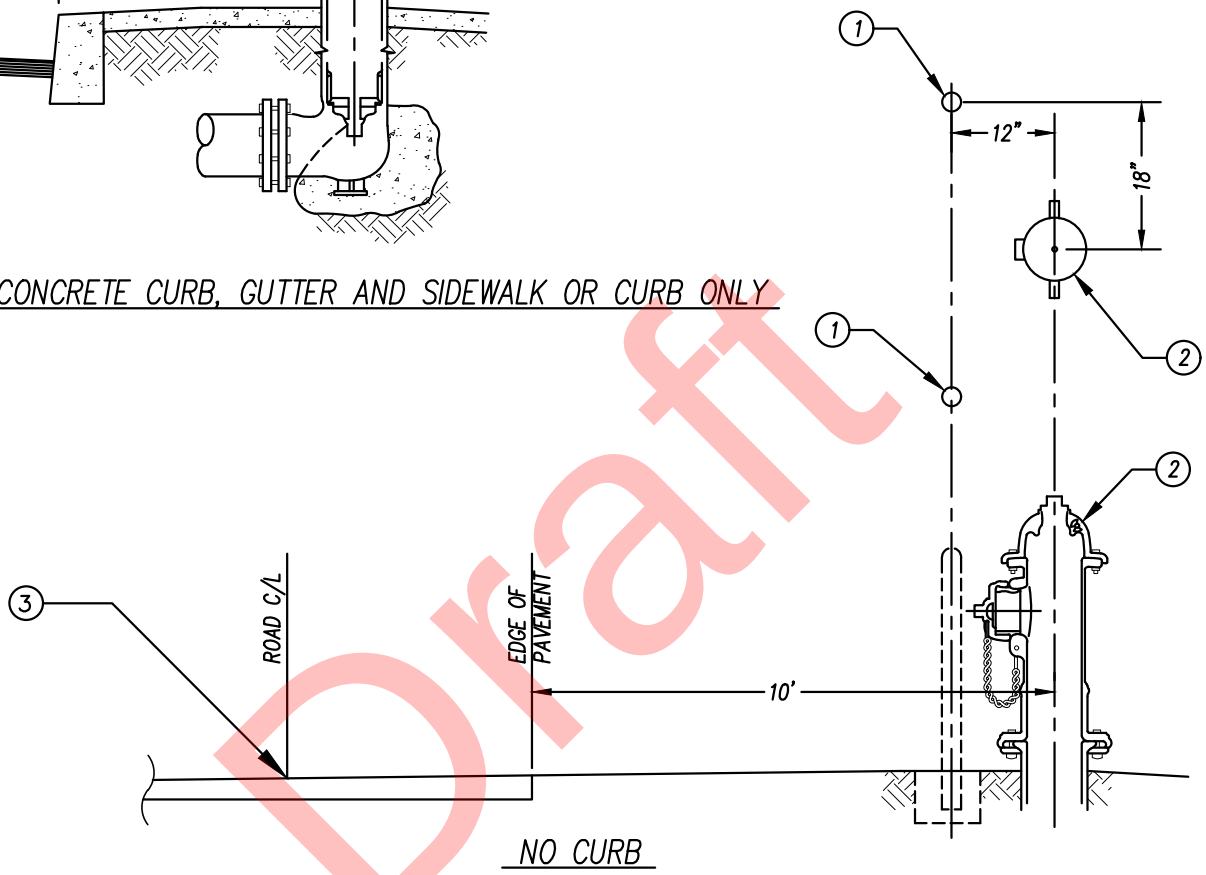
HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

FIRE HYDRANT ASSEMBLY

SHEET: **W-01**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



CONCRETE CURB, GUTTER AND SIDEWALK OR CURB ONLY



NO CURB

NOTES

1. WHERE SHOWN ON PLANS, 6" STEEL BOLLARD FILLED WITH CONCRETE. EXTEND 36" ABOVE GROUND, SET IN 24" DEEP, 18" DIAMETER CONCRETE FOOTING.
2. FIRE HYDRANT ASSEMBLY PER W-01 SHALL BE PLACED WITHIN A DEDICATED PUBLIC RIGHT-OF-WAY APPROVED EASEMENT.
3. PROVIDE BLUE RETROREFLECTIVE MARKER AT ROAD MIDPOINT OR CENTERLINE, MEETING CALTRANS 2015 STANDARD SPECIFICATIONS FOR MATERIALS AND INSTALLATION.
4. ALL FIRE HYDRANT LOCATIONS SHALL BE APPROVED BY HRCSD PRIOR TO PLACEMENT IN FIELD.

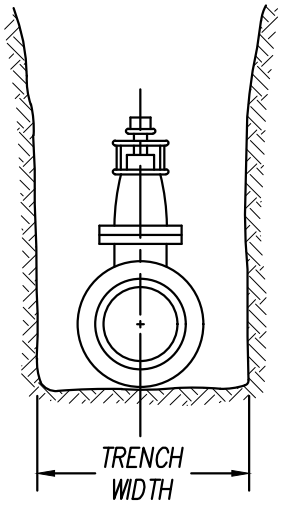
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

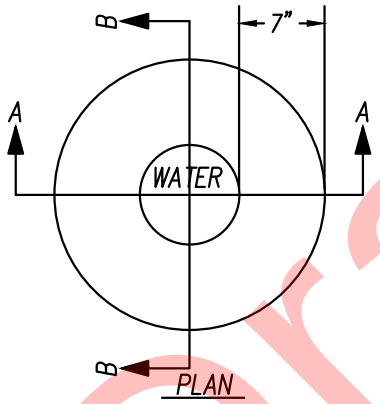
HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

FIRE HYDRANT LOCATION

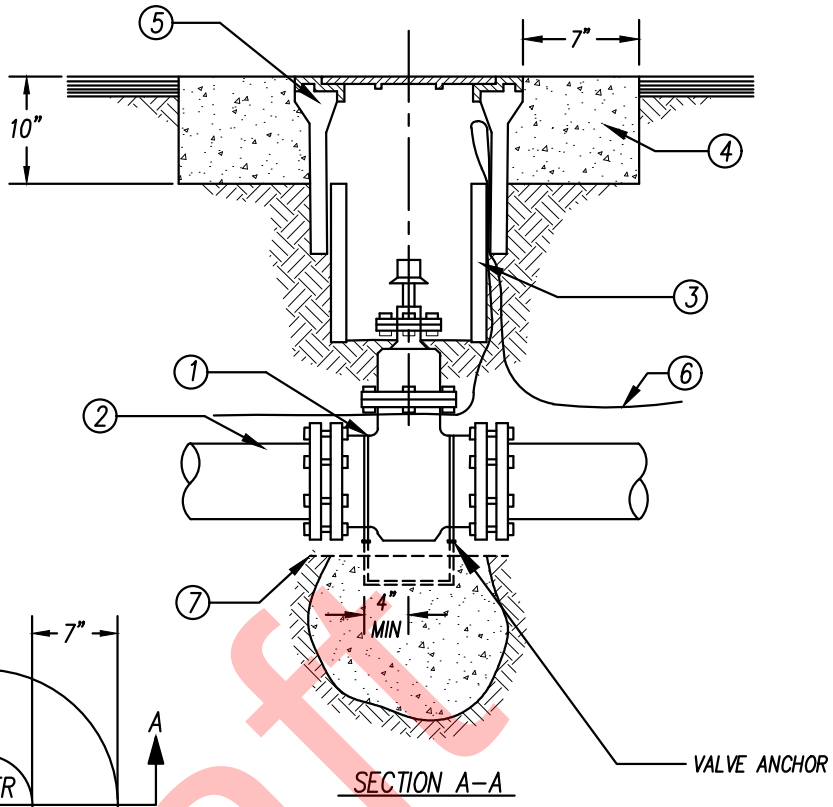
SHEET: **W-02**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



SECTION B–B



PLAN



SECTION A–A

NOTES:

1. WATER VALVE, FOR 12 INCH AND SMALLER MAINS, THE VALVE SHALL BE AS FOLLOWS:
   - GATE VALVE, MJ X MJ.
   - RESILIENT SEATED.
   - EPOXY COATED INSIDE AND OUTSIDE.
   - FULL–SIZE WATERWAY.
   - NON–RISING WATERWAY.
   - NON RISING STEM, OPEN TO THE LEFT, WITH O–RING SEALS.
2. WATER MAIN.
3. RISER, 6 INCH MINIMUM DIAMETER. USE ONE CONTINUOUS SECTION OF MINIMUM SDR 35 PVC.
4. CONCRETE COLLAR PER DRAWING N–03.
5. TRAFFIC VALVE WELL AND COVER. CHRISTY G–5 OR APPROVED EQUAL WITH LID MARKED "WATER."
6. NO. 12, INSULATED THW COPPER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
7. WRAP ALL BOLTS IN PLASTIC TO PREVENT ENCASING BOLTS IN CONCRETE.

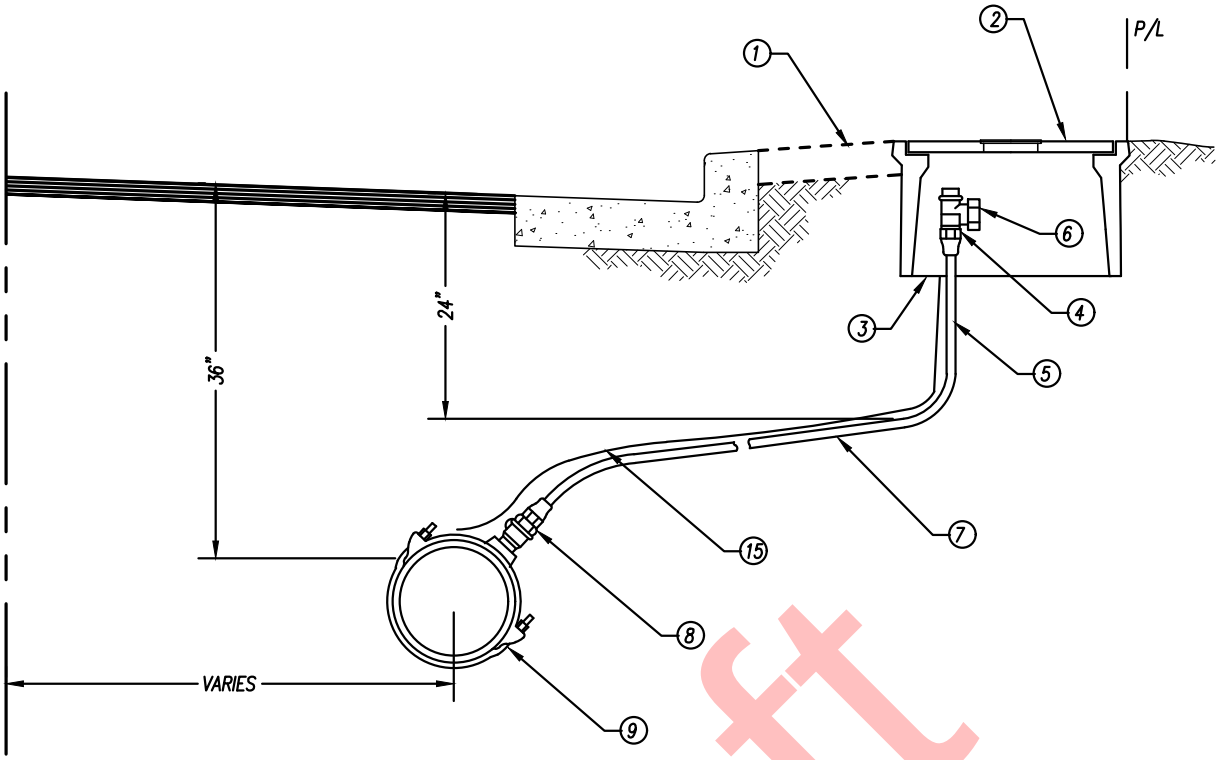
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

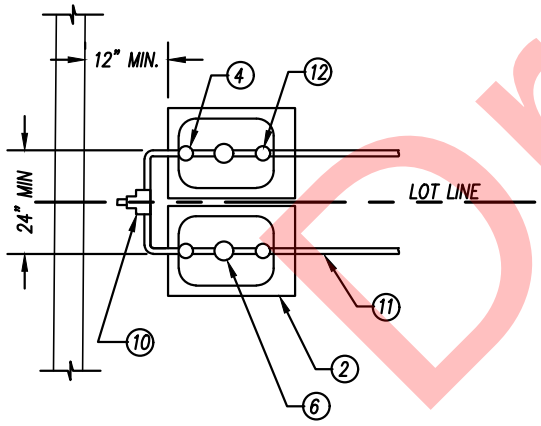
HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER VALVE

SHEET: **W-03**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



ALTERNATE I



ALL MATERIALS AND INSTALLATION SHALL CONFORM WITH APPLICABLE SECTIONS OF THE HRCSD STANDARD. EXCEPT WHERE SPECIFIED, ALL MATERIALS SHOWN PROVIDED BY DEVELOPER / HOME OWNER.

NOTES:

1. IN UNPAVED AREAS, SET BOX 1" ABOVE SURROUNDING GRADE, LEVEL. SEE DWG W-06 FOR SERVICE LOCATION IN UNPAVED AREAS.
2. METERBOX (USE CHRISTY B-24 BOX TYP FOR BOTH SINGLE AND DOUBLE SERVICES). SEE STD DWG W-17.1.
3. ½" HARDWARE CLOTH UNDER BOX.
4. ANGLE METER STOP; MUELLER FITTING, OR APP. EQUAL, SAME SIZE AS WATER SERVICE.
5. POLYETHYLENE OR APPROVED PVC CLASS TO BE SAME AS MAIN OR BETTER.
6. WATER METER – BY HRCSD.
7. 1" MIN. I.D. FOR SINGLE SERVICE, 1" MIN. I.D. FOR DOUBLE SERVICES. SEE DETAIL W-17.1.
8. 1" CORP. STOP; MUELLER FITTING, OR APP. EQUAL.
9. DOUBLE CLAMP (EPOXY-COATED 30455 PER W-17.1).
10. "U" BRANCH, DIMENSION TO MATCH METER BOX SPACING.
11. SERVICE PIPE – PROVIDED BY CONTRACTOR,
12. 1" BALL VALVE – PROVIDED BY OWNER/DEVELOPER,
13. IN UNPAVED AREAS, A 4" THICK X 12" WIDE PCC PAD SHALL BE PLACED AROUND BOX.
14. ADJACENT SERVICE LATERAL SHALL BE SEPERATED BY AT LEAST 24".
15. NO 12 INSULATED TRACER SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
16. UNLESS OTHERWISE SHOWN, SERVICE LATERALS SHALL BE INSTALLED AT 90° ANGLE TO WATER MAIN.

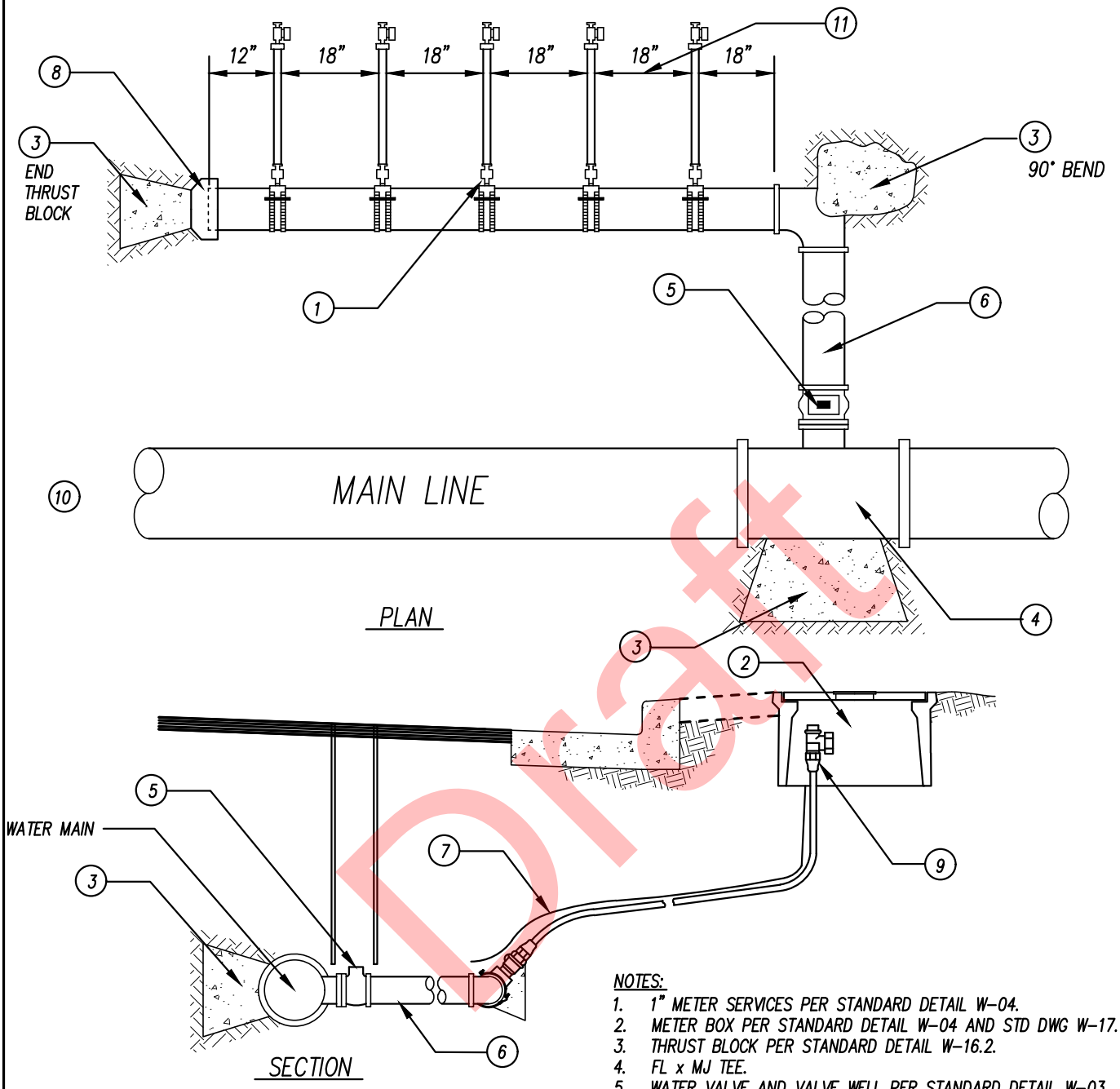
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER SERVICE CONNECTION

SHEET: **W-04**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



NOTES:

1. 1" METER SERVICES PER STANDARD DETAIL W-04.
2. METER BOX PER STANDARD DETAIL W-04 AND STD DWG W-17.1.
3. THRUST BLOCK PER STANDARD DETAIL W-16.2.
4. FL x MJ TEE.
5. WATER VALVE AND VALVE WELL PER STANDARD DETAIL W-03.
6. MIN. 4" DIA. C900PVC OR DIP LATERAL.
7. NO. 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND ND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
8. RESTRAINED CAP OR FLANGED END.
9. ANGLE METER STOP.
10. WATER SERVICE MAINFOLD ALLOWED ONLY WITH APPROVAL OF HRCSD.
11. SERVICE SPACING MAY VARY DEPENDING ON METER BOX DIMENSIONS.

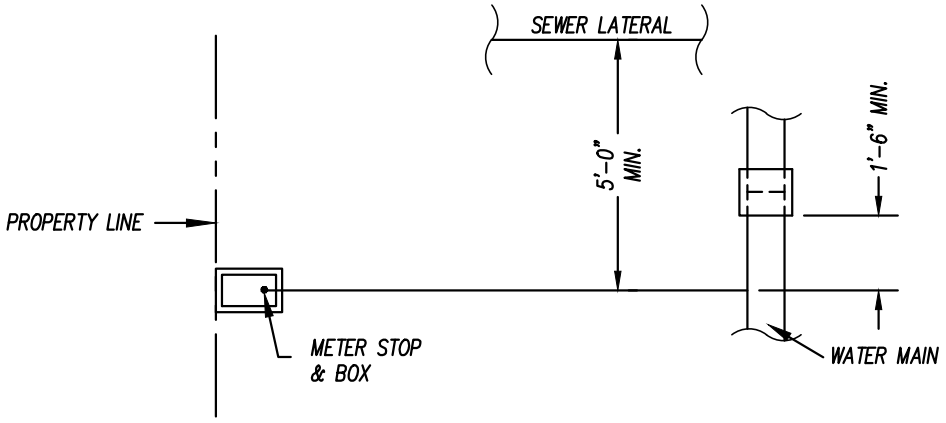
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

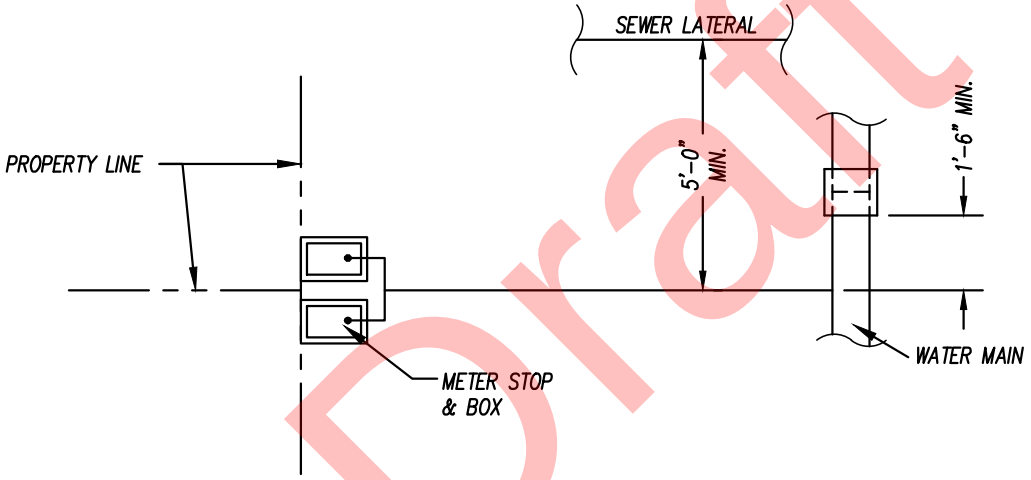
HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER SERVICE MANIFOLD
[5 OR MORE 3/4" OR 1" SERVICES]

SHEET: **W-05**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



A. WITHOUT CURB AND SIDEWALK



B. WITHOUT CURB AND SIDEWALK – DOUBLE SERVICES

NOTE: ALL BOXES ARE STANDARD METER BOXES (SINGLE AND DOUBLE SERVICE USE CHRISTI B-24 TYP).

1. WATER LATERAL SHALL BE 5 FEET MINIMUM FROM A SEWER LATERAL UNLESS APPROVED OTHERWISE.
2. WATER CONNECTION SHALL BE 1 ½ FEET MINIMUM FROM A WATER MAIN JOINT.
3. METER BOX AND SERVICE PER DRAWING W-04
4. WATER SERVICE CONNECTIONS TO THE MAIN SHALL BE SEPERATED BY AT LEAST 24 INCHES.
5. SEE NOTE 11, DWG W-05.

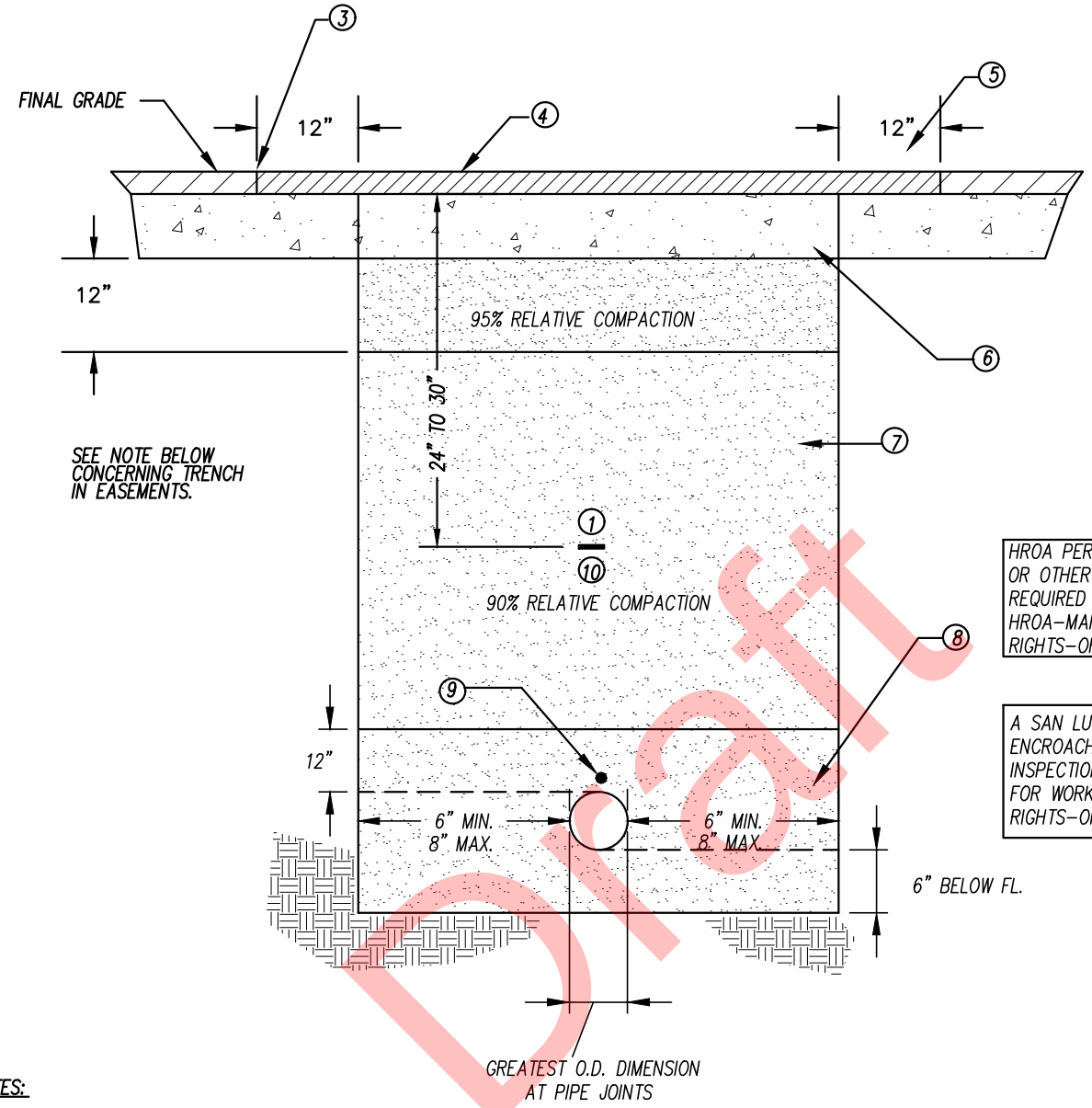
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER SERVICE LOCATION -
NO CURB AND SIDEWALK

SHEET: W-06
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



HROA PERMITS, INSPECTIONS, OR OTHER APPROVALS ARE REQUIRED FOR WORK IN HROA-MAINTAINED RIGHTS-OF-WAY.

A SAN LUIS OBISPO COUNTY ENCROACHMENT PERMIT AND INSPECTION ARE REQUIRED FOR WORK IN PUBLIC RIGHTS-OF-WAY.

NOTES:

1. A MINIMUM OF 90% RELATIVE COMPACTION IS PERMITTED IN A NON-ROADWAY TRENCH WHEN NO STRUCTURES (PAVEMENT, FLATWORK) ARE TO BE BUILT OVER THE TRENCH. IF STRUCTURES ARE TO BE BUILT OVER THE TRENCH, USE RELATIVE COMPACTIONS SHOWN ON THE TRENCH SECTION ABOVE.
2. PAVEMENT AND BASE SECTIONS ARE MINIMUMS. PAVEMENT AND BASE SECTIONS SHOWN IN THIS STANDARD DRAWING SHALL BE NO LESS THAN EXISTING STRUCTURAL SECTIONS, AND SHALL BE AS REQUIRED BY HROA OR SAN LUIS OBISPO COUNTY ROADS.
3. CUT EXISTING ROADWAY TO PROVIDE VERTICAL SURFACES AND SQUARE CORNERS. CUT EDGES SHALL BE STRAIGHT AND NEAT IN APPEARANCE.
4. MINIMUM 2 INCHES ASPHALT, OR OTHERWISE MATCH EXISTING.
5. PROVIDE MIN 12" BENCH INTO UNDISTRIBUTED ROAD BED (BOTH SIDES).
6. MIN 6" CLASS 2 AGGREGATE BASE.
7. SELECT BACKFILL FREE FROM DEBRIS AND DELETERIOUS MATERIAL.
8. COMPACTED SAND OR APPROVED GRANULAR MATERIAL.
9. NO 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER WATER MAINS AND SEWER FORCE MAINS, AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
10. 3" WIDE POLYETHYLENE UTILITY WARNING TAPE, MARKED AND COLOR CODED PER DESIGN STANDARDS/SPECIFICATIONS.
11. SEE HRCSD STD. SPEC. PARA. 4.6 TRENCHING AND BACKFILL REGARDING USE OF SLURRY BACKFILL.

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER AND SEWER TRENCH

SHEET: **W-07**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.

CRITERIA FOR THE SEPARATION OF WATER MAINS, SANITARY SEWERS, AND STORM DRAINS

CASE 1
NEW SEWER MAIN OR STORM DRAIN BEING INSTALLED
(See Figure 1 / W-9)

ZONE	SPECIAL CONSTRUCTION REQUIRED FOR SEWER AND STORM DRAIN:
A	Sewer lines and storm drains parallel to water mains shall not be permitted in this zone without approval from the responsible health agency and water supplier.
B	A sewer line placed parallel to a water line shall be constructed of: 1. Plastic sewer pipe with rubber ring joints (per ASTM D3034) or equivalent. 2. Cast or Ductile iron pipe with compression joints.
C	A sewer line crossing a water main shall be constructed of: 1. Ductile iron pipe with hot dip bituminous coating and mechanical joints. 2. A continuous section of Class 200 (DR 14 per AWWA C900) plastic pipe, or equivalent. centered over the pipe being crossed. 3. Any sewer pipe within a continuous sleeve.
D	A sewer line crossing a water main shall be constructed of: 1. A continuous section of ductile iron pipe with hot dip bituminous coating. 2. A continuous section of Class 200 (DR 14 per AWWA C900) plastic pipe or equivalent. centered over the pipe being crossed. 3. Any sewer pipe within a continuous sleeve. 4. Any sewer pipe separated by a ten-foot by ten-foot, four-inch thick reinforced concrete slab.

CASE 2
NEW WATER MAIN BEING INSTALLED
(See Figure 2 / W-9)

ZONE	SPECIAL CONSTRUCTION REQUIRED FOR WATER:
A	No water mains parallel to service shall be constructed without approval from the health agency.
B	If the sewer or storm drain paralleling the water main does not meet the Case 1, Zone B requirements, the water main shall be constructed of: 1. Ductile iron pipe with hot dip bituminous coating. 2. Dipped and wrapped one-fourth-inch-thick welded steel pipe. 3. Class 200 pressure rated plastic water pipe (DR 14 per AWWA C900) or equivalent. 4. Reinforced concrete pressure pipe, steel cylinder type, per AWWA (C300-74, C301-79 or C303-70). 5. Class 200, Type II, asbestos-cement pressure pipe.
C	If the sewer or storm drain crossing the water main does not meet the Case 1, Zone C requirements, the water main shall have no joints in Zone C and be constucted of: 1, 2, 3 or 4 as in Zone B, above.
D	If the sewer or storm drain crossing the water main does not meet the Case 1, Zone D requirements, the water main shall have no joints within four feet from either side of the sewer and shall be constructed of: 1, 2, 3 or 4 as in Zone B, above.

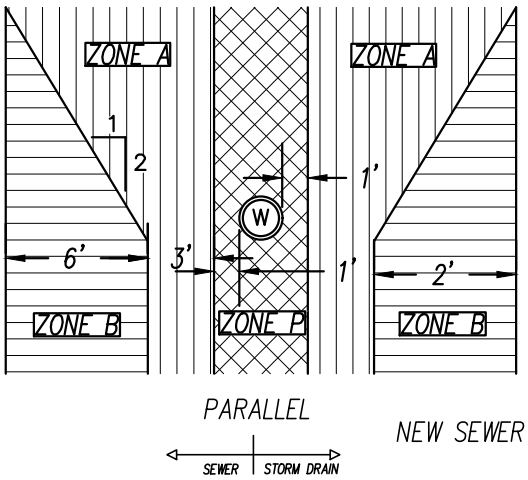
Revisions	Appd.	Dates

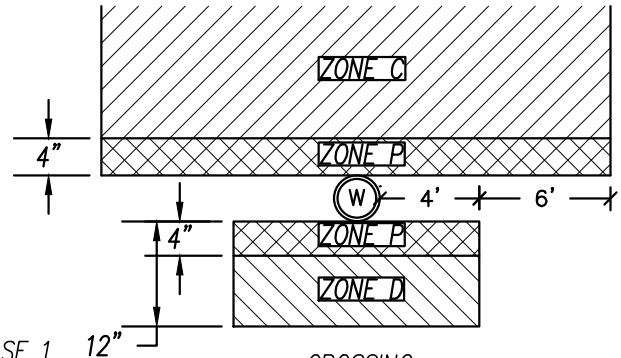
APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER AND SEWER
SEPARATION NOTES

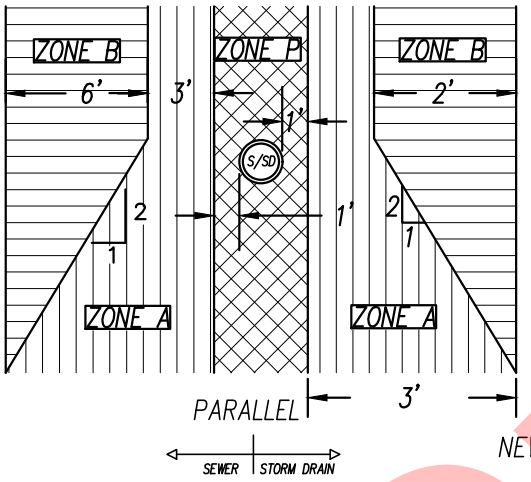
SHEET: W-08
DATE:
DRAWN BY: DRD
SCALE: N.T.S.

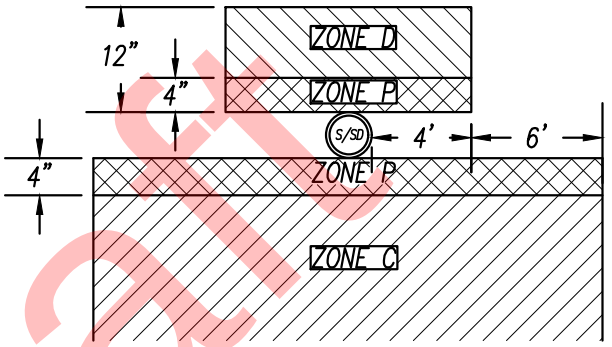




CASE 1
NEW SEWER MAIN OR STORM DRAIN
Figure 1

ZONE P is a prohibited zone. Section 64630(e)(2) California Administrative Code, Title 22.





CASE 2
NEW WATER MAIN
Figure 2

NOTES AND DEFINITIONS

- COMPRESSION JOINT – A push-on joint that seals by means of the compression of a rubber ring or gasket between the pipe and a bell or coupling.
- DIMENSIONS are from the outside of water main to outside of sewer line or manhole.
- FUSED JOINT – The joining of sections of pipe using thermal or chemical bonding processes.
- GROUND WATER – Subsurface water found in the saturation zone.
- HEALTH AGENCY – The State Depoartment of Health Services. For those water systems supplying less than 200 service connections, the local health officer shall act for the Department of Health Services.
- HOUSE LATERAL – A sewer pipe connecting the building drain and the main sewer line.
- LOW HEAD WATER MAIN – Any water main which has a pressure of 5 psi or less at any time at any point in the main.
- MECHANICAL JOINT – Bolted joint
- RATED WORKING WATER PRESSURE or PRESSURE CLASS – A pipe classification system based upon internal working pressure of the fluid in the pipe, type of pipe material, and the thickness of the pipe wall.
- SLEEVE – A protective tube of steel with a wall thickness of not less than one-fourth inch into which a pipe is inserted.
- WATER SUPPLIER – Any person who owns or operates a public water system

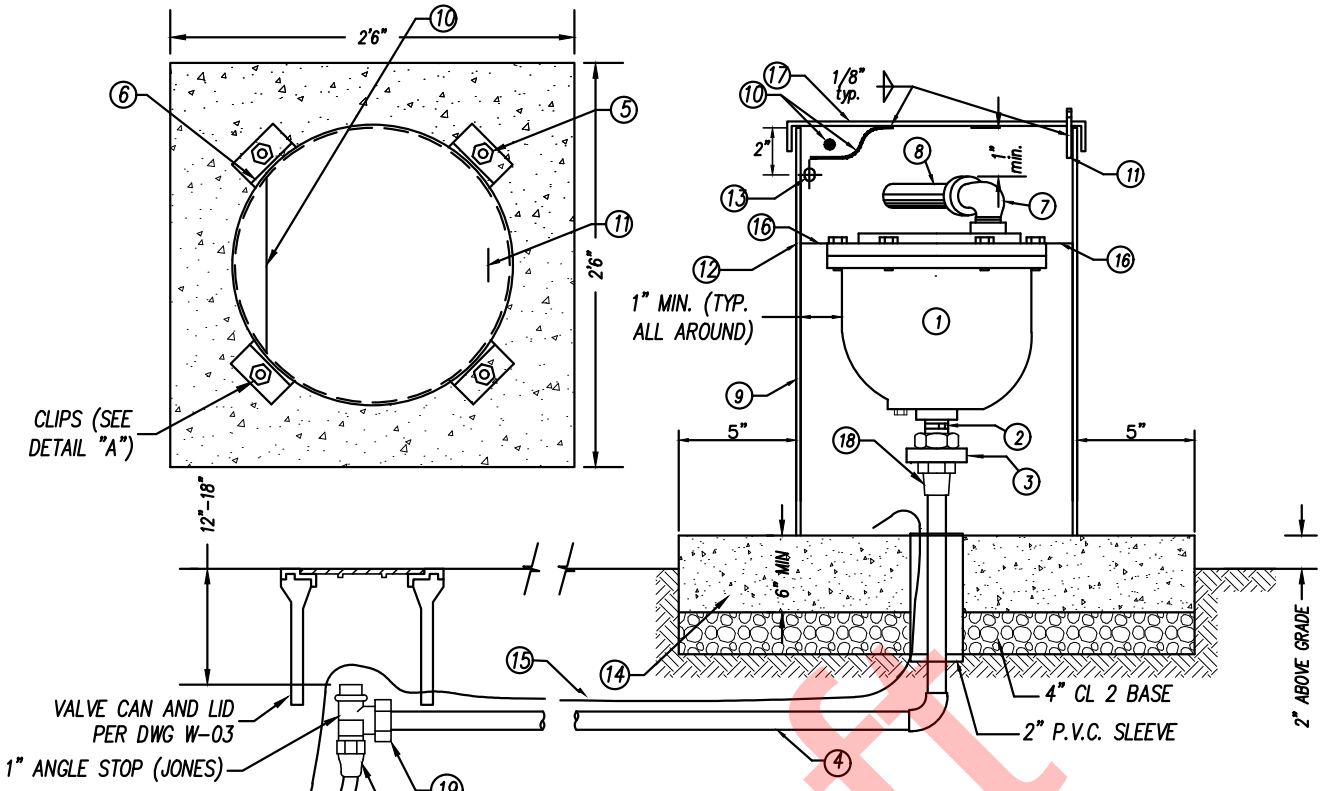
Revisions	Appd.	Dates

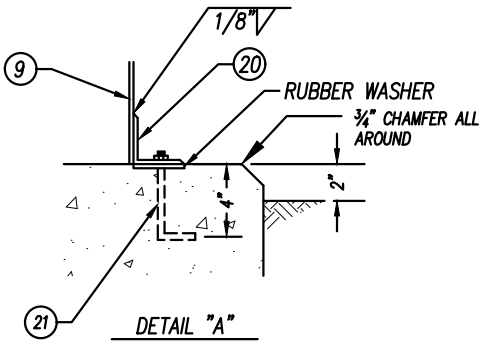
APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER AND SEWER
SEPARATION DIAGRAM

SHEET: W-09
DATE:
DRAWN BY: DRD
SCALE: N.T.S.





1. COMBINATION AIR RELEASE VALVE – PER MATERIALS LIST W-17
2. NIPPLE – GALVANIZED STEEL, SHORT
3. DIELECTRIC UNION
4. 1" COPPER PIPE
5. CADMIUM PLATED BENT BOLTS 1/2" (TYP. 4 PLACES) WITH NUTS
6. ANGLE – GALV. STEEL 1 1/2" X 1 1/2", 2" LONG (TYP. 4 PLACES)
7. STREET ELBOW – GALV.
8. NIPPLE – 10" GALV. WITH SCREEN COVER
9. 20" DIA, 24" TALL. MIN. 10 GA. GALV. STEEL BARREL
10. # 4 REBAR. BEND COVER PLATE REBAR AS SHOWN.
11. 1" X 3/16" STEEL TAB WELDED TO CAN. CUT SLOT FOR TAB IN COVER PLATE. DRILL 3/8"ø HOLE IN TOP OF TAB FOR PADLOCK.
12. PAINT WITH ZINC-OXIDE PRIMER AND 2 COATS OF DAWN BLUE 325
13. DRILL MIN. OF (6) 1/2" DIA. HOLES ON CIRCUMFERENCES EVENLY SPACED
14. P.C.C. SLAB – 30"X30"X6" THICK, 3000 PSI CLASS 2 CONCRETE
15. NO. 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES
16. GALV STEEL STRAP WITH BOLTED CONNECTIONS
17. 3/16" STEEL COVER WITH 3/4" X 3/16" STEEL BAND, WELDED TO COVER.
18. S X MT MALE ADAPTER (COPPER)
19. 1" THREADED FEMALE NPT
20. 3" GALV. STEEL CLIPS
21. 5/8" DIA. GALV. ANCHOR BOLT WITH 3/4" PROJECTION
22. DOUBLE CLAMP (EPOXY-BONDED TAPPED COUPLING IS ACCEPTABLE ALTERNATE W/ A.C. PIPE)

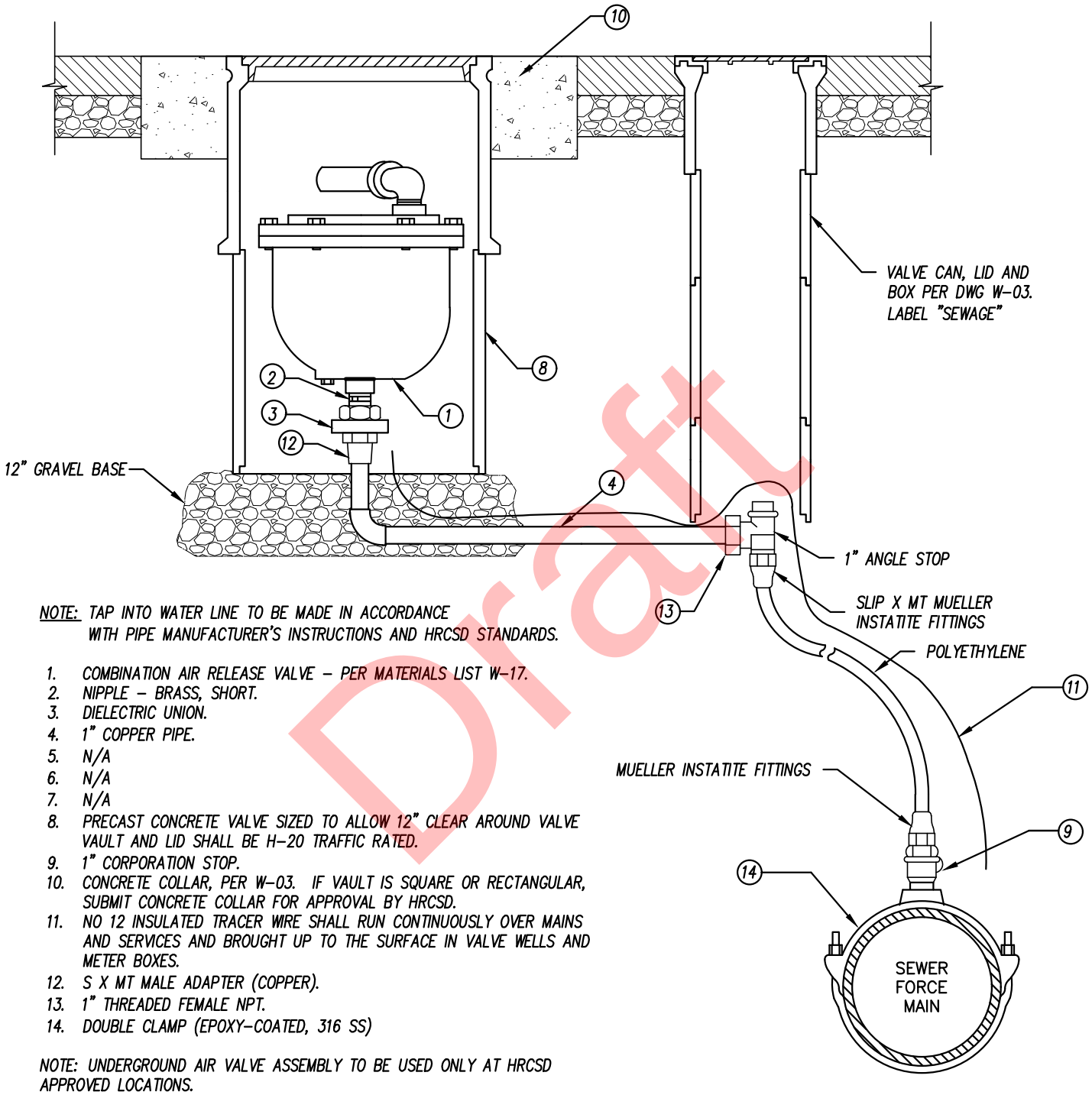
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

1" COMBINATION AIR VALVE ASSEMBLY ABOVE GROUND

SHEET: **W-10**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



NOTE: TAP INTO WATER LINE TO BE MADE IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTRUCTIONS AND HRCSD STANDARDS.

1. COMBINATION AIR RELEASE VALVE – PER MATERIALS LIST W-17.
2. NIPPLE – BRASS, SHORT.
3. DIELECTRIC UNION.
4. 1" COPPER PIPE.
5. N/A
6. N/A
7. N/A
8. PRECAST CONCRETE VALVE SIZED TO ALLOW 12" CLEAR AROUND VALVE VAULT AND LID SHALL BE H-20 TRAFFIC RATED.
9. 1" CORPORATION STOP.
10. CONCRETE COLLAR, PER W-03. IF VAULT IS SQUARE OR RECTANGULAR, SUBMIT CONCRETE COLLAR FOR APPROVAL BY HRCSD.
11. NO 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
12. S X MT MALE ADAPTER (COPPER).
13. 1" THREADED FEMALE NPT.
14. DOUBLE CLAMP (EPOXY-COATED, 316 SS)

NOTE: UNDERGROUND AIR VALVE ASSEMBLY TO BE USED ONLY AT HRCSD APPROVED LOCATIONS.

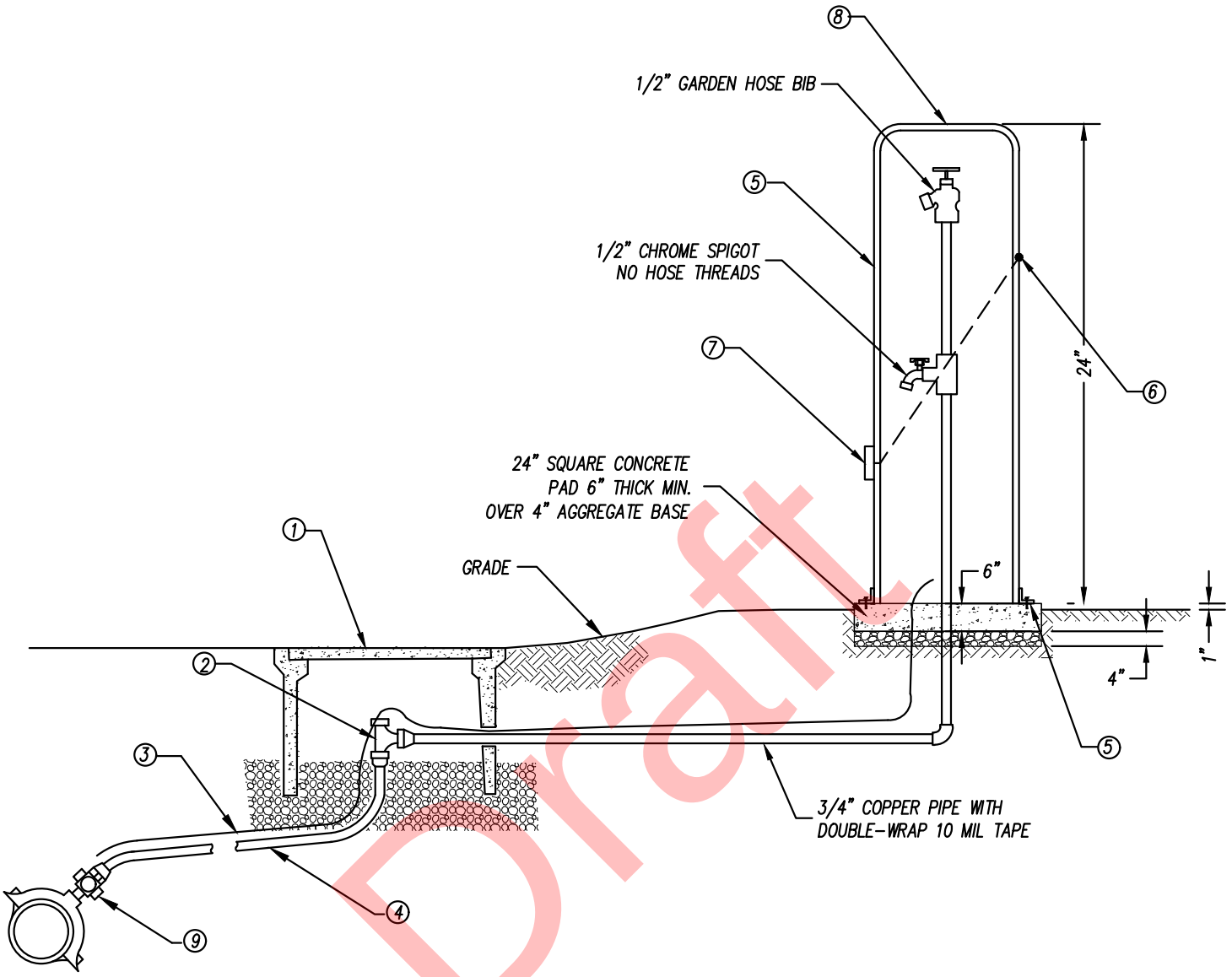
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

1" COMBINATION AIR VALVE ASSEMBLY
UNDERGROUND SEWAGE A&V

SHEET: **W-11**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



NOTES:

1. METER BOX PER DWG W-04. METER BOX TO BE INSTALLED AT LOCATION APPROVED BY HRCSD, OUTSIDE OF TRAVEL WAY.
2. ANGLE METER VALVE PER W-04
3. NO. 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
4. 1" SERVICE PER DETAIL W-04
5. CLIPS PER W-10 DETAIL "A"
6. HINGE
7. CLASP FOR PAD LOCK
8. BOLT DOWN METAL CAN WITH TOP HATCH. CAN TO BE PAINTED WITH ZINC-OXIDE PRIMER AND 2 COATS OF DAWN BLUE 325.
9. CORP STOP PER STD. DWG. W-04

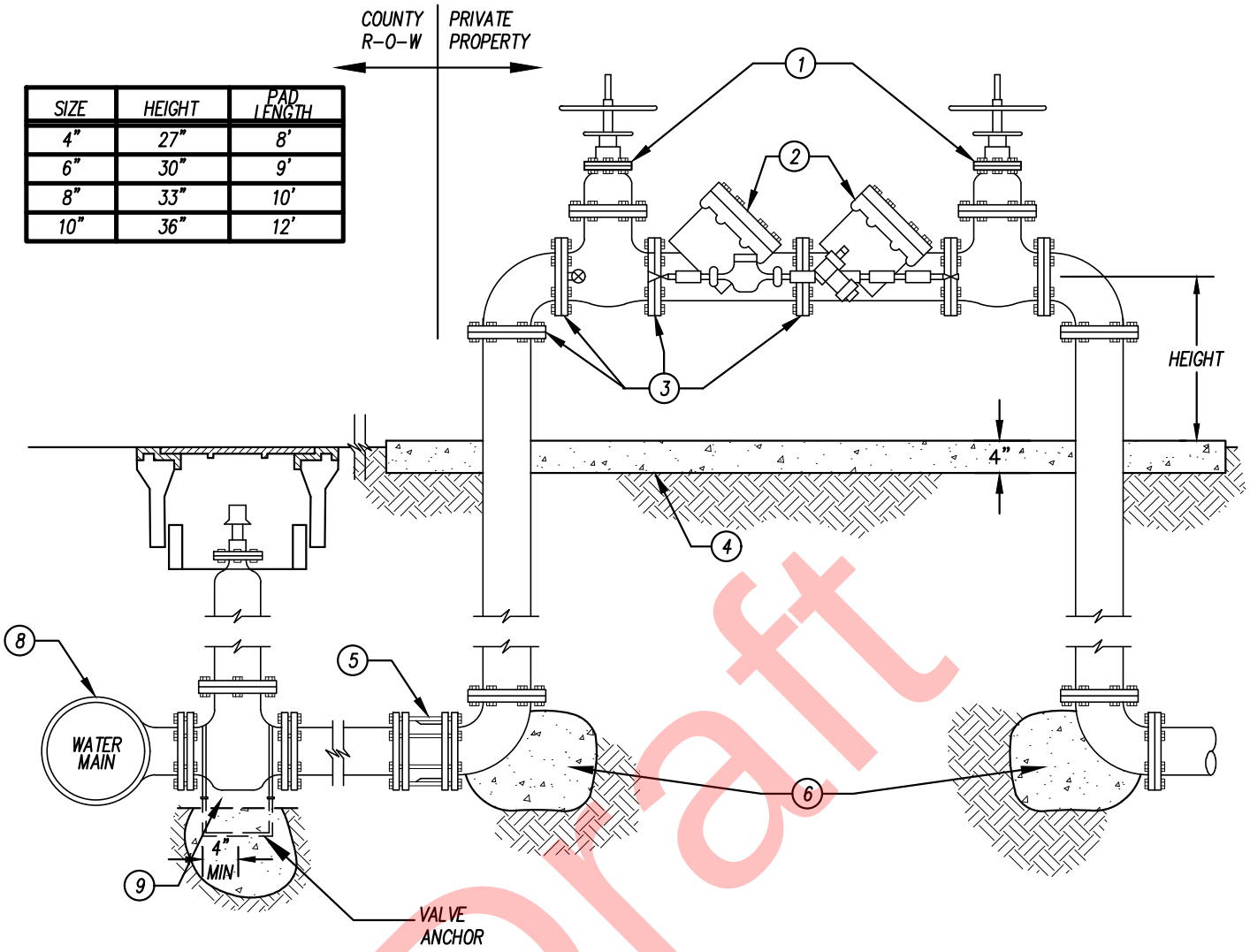
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

WATER SAMPLING STATION

SHEET: **W-12**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



NOTES:

1. OS&Y GATE VALVE WITH FULLY-ENCAPSULATED RESILIENT SEAT – CLOW, MUELLER, OR AVK. (CONFORMING TO THE LATEST EDITION OF THE AWWA STANDARD C509-80).
2. ASC APPROVED DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTER ASSEMBLY, WITH ¾" NON-VALVED BYPASS METER ASSEMBLY. ASSEMBLY LOCATION SHALL BE APPROVED BY HRCSD PRIOR TO PLACEMENT.
3. ALL RISERS AND ABOVE-GROUND MAINLINE FITTINGS SHALL BE DIP FLANGE-TYPE.
4. PCC PAD, 12" MINIMUM AROUND RISERS, CONCRETE PER NOTE 1, DWG N-03.
5. MJ X FLANGE ADAPTOR (OR MJ X FLANGE 90° ELL).
6. THRUST BLOCKS PER DWG W-16.2.
7. OS&Y GATE VALVES AND BACKFLOW PREVENTER TO HAVE FACTORY APPLIED EPOXY COATING.
8. NO 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
9. WATER VALVE BOX AND LID PER W-03.

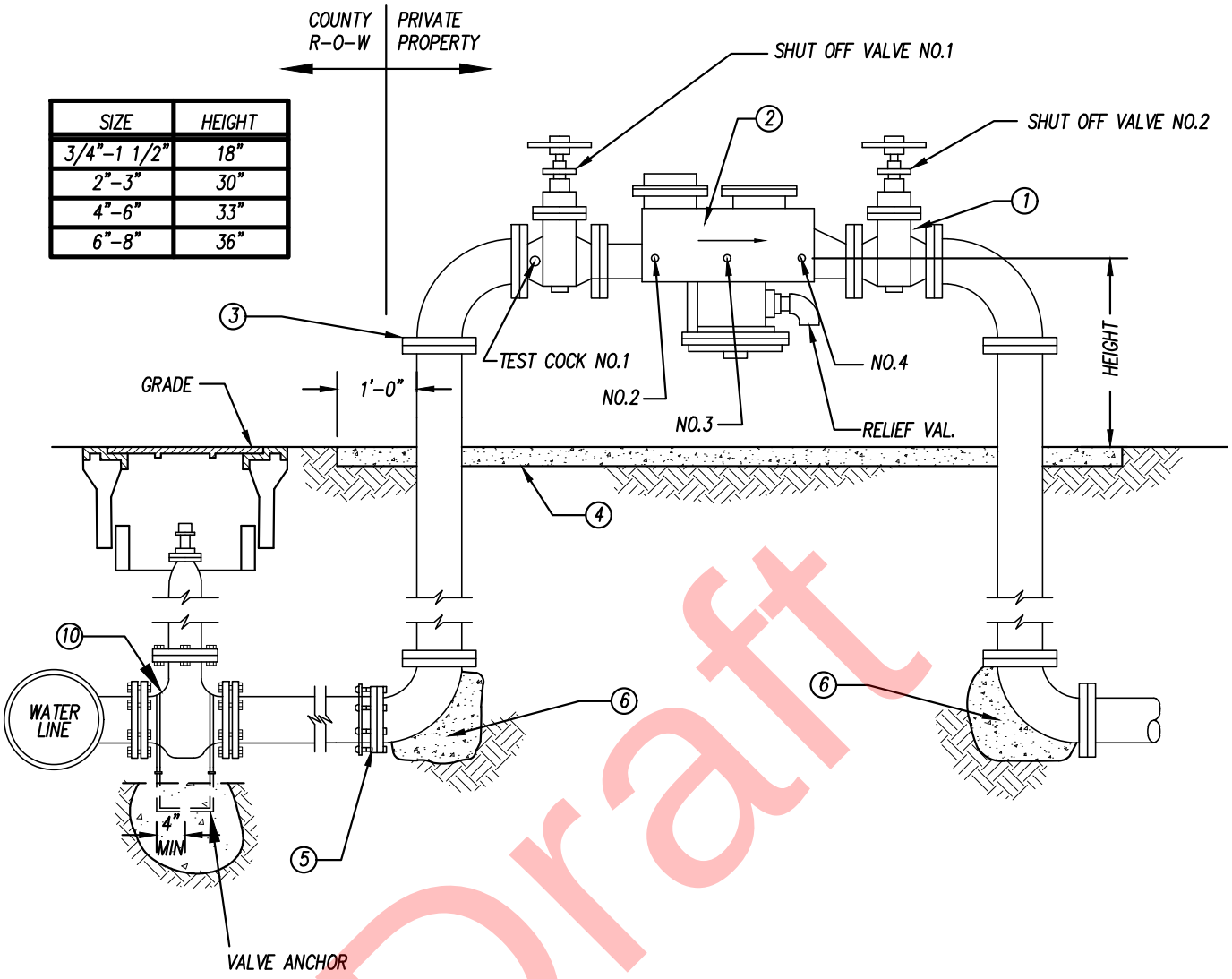
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

DOUBLE CHECK VALVE ASSEMBLY

SHEET: **W-13**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



SIZE	HEIGHT
3/4"-1 1/2"	18"
2"-3"	30"
4"-6"	33"
6"-8"	36"

NOTES:

1. 4" & LARGER, USE O.S.&Y. GATE VALVE WITH FULLY-ENCAPSULATED RESILIENT SEAT – CLOW, MUELLER, OR A.V.K. (CONFORMING TO THE LATEST EDITION OF THE AWWA STANDARD C509-80).
2. USC APPROVED OR AVK (CONFORMING TO THE LATEST EDITION OF THE AWWA STANDARD C509-80) WITH ¾" NON-VALVED BYPASS METER ASSEMBLY.
3. FOR 4" LARGER, ALL RISERS AND ABOVE-GROUND MAINLINE FITTINGS SHALL BE FLANGE-TYPE.
4. PCC PAD 18" MINIMUM AROUND RISERS, 5-SACK.
5. MJ X FLANGE TYPE ADAPTOR (OR MJ X FLANGE 90° ELL)
6. THRUST BLOCK PER DWG W-16.2.
7. FOR 4" AND SMALLER, USE GALVANIZED IRON PIPE FITTINGS.
8. OS&Y GATE VALVES AND BACKFLOW PREVENTER TO HAVE FACTORY APPLIED EPOXY COATING.
9. NO 12 INSULATED TRACER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
10. WATER VALVE PER W-03.

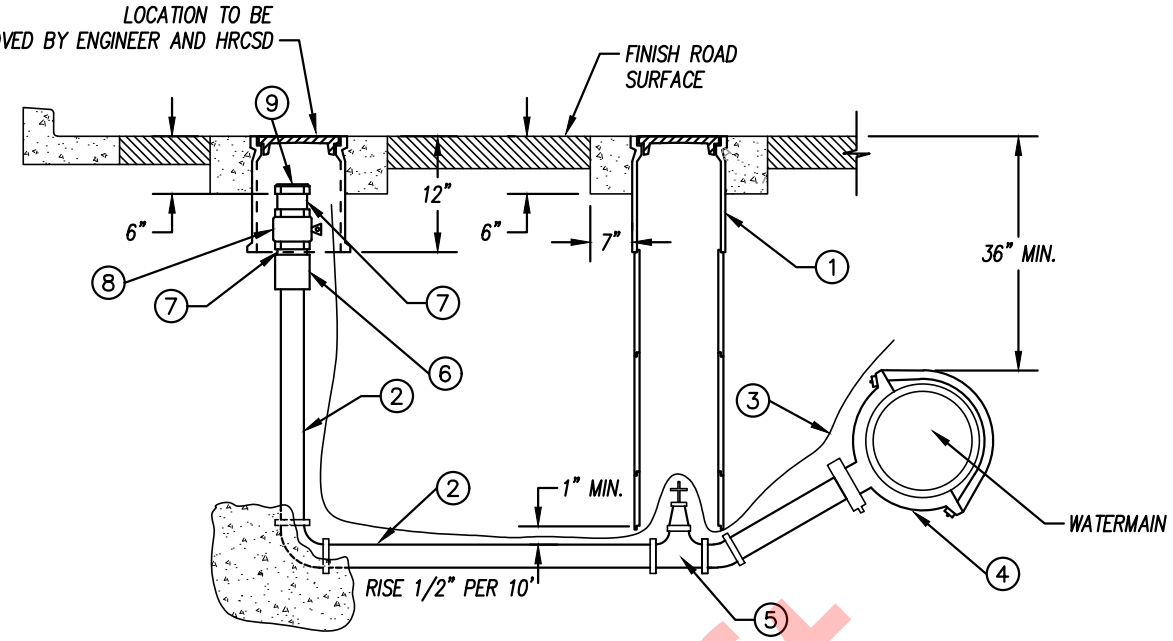
Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

REDUCED PRESSURE VALVE ASSEMBLY

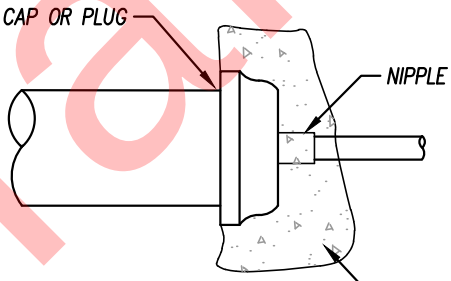
SHEET: **W-14**
DATE:
DRAWN BY: DRD
SCALE: N.T.S.



ON-RUN CONNECTION OR DEAD-END

PLUG
DRILLED FOR 2" BLOW-OFF ON 4" - 8" WATER MAIN

FOR 10" OR LARGER, BLOW-OFF SIZE AND LOCATION
TO BE DETERMINED BY DISTRICT ENGINEER



DEAD-END CONNECTION

NOTES:

1. STANDARD VALVE BOX AND COLLAR, SEE STANDARD DWG W-03 AND DWG N-03.
2. SCH 80 PVC PIPE, 2" OR 4" TO MATCH BO SIZE.
3. NO. 12 INSULATED THW COPPER WIRE SHALL RUN CONTINUOUSLY OVER MAINS AND SERVICES AND BROUGHT UP TO THE SURFACE IN VALVE WELLS AND METER BOXES.
4. SERVICE CLAMP FOR IN-LINE BO, USE DEAD-END CONNECTION ON DEAD-ENDS.
5. GATE VALVE (2").
6. 2" ADAPTER - IP THREAD X PVC SLIP.
7. 2" IP GALVANIZED NIPPLE.
8. 2" CURB STOP - JAMES JONES J-40, MUELLER H-10012, OAE.
9. 2" IP GALVANIZED CAP.

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

BLOW - OFF ASSEMBLY

SHEET: W-15
DATE:
DRAWN BY: DRD
SCALE: N.T.S.

TABLE 1

Pipe Dia (in)	Pipe Class	Nom. I.D. (in)	Area (A) (sq in)	THRUST (T) AT FITTING, lbs				
				TEES	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	PVC Class 165 (DR 25)	4.39	15	3,254	4,602	2,491	1,270	638
4"	PVC Class 235 (DR 18)	4.23	14	4,005	5,664	3,065	1,563	785
4"	PVC Class 305 (DR 14)	4.07	13	4,619	6,532	3,535	1,802	905
6"	PVC Class 165 (DR 25)	6.31	31	6,723	9,508	5,146	2,623	1,318
6"	PVC Class 235 (DR 18)	6.09	29	8,302	11,740	6,354	3,239	1,627
6"	PVC Class 305 (DR 14)	5.86	27	9,574	13,540	7,328	3,736	1,877
8"	PVC Class 165 (DR 25)	8.28	54	11,577	16,372	8,861	4,517	2,269
8"	PVC Class 235 (DR 18)	7.98	50	14,254	20,158	10,910	5,562	2,794
8"	PVC Class 305 (DR 14)	7.68	46	16,445	23,257	12,587	6,417	3,224
10"	PVC Class 165 (DR 25)	10.16	81	17,431	24,651	13,341	6,801	3,417
10"	PVC Class 235 (DR 18)	9.79	75	21,454	30,340	16,420	8,371	4,206
10"	PVC Class 305 (DR 14)	9.42	70	24,741	34,989	18,936	9,654	4,850
12"	PVC Class 165 (DR 25)	12.08	115	24,641	34,848	18,860	9,615	4,831
12"	PVC Class 235 (DR 18)	11.65	107	30,380	42,964	23,252	11,854	5,956
12"	PVC Class 305 (DR 14)	11.2	99	34,975	49,462	26,768	13,646	6,856
	AWWA PVC C-900 PIPE			BASED ON P = 165 + 50 = 215 psi BASED ON P = 235 + 50 = 285 psi BASED ON P = 305 + 50 = 355 psi				

TABLE 2

HORIZONTAL BEARING STRENGTHS FOR COMMON SOILS	
SOIL TYPE	HORIZONTAL BEARING STRENGTH (Sb), lbs/sf
MUCK	0
SOFT CLAY	500
SAND	1,000
SAND & GRAVEL	1,500
SAND & GRAVEL CEMENTED WITH CLAY	2,000

1. *ALTHOUGH THE ABOVE BEARING STRENGTH VALUES HAVE BEEN USED SUCCESSFULLY IN THE DESIGN OF THRUST BLOCKS AND ARE CONSIDERED TO BE CONSERVATIVE, THEIR ACCURACY IS TOTALLY DEPENDENT ON ACCURATE SOIL IDENTIFICATION AND EVALUATION. THE ULTIMATE RESPONSIBILITY FOR SELECTING THE PROPER BEARING STRENGTH OF A PARTICULAR SOIL TYPE SHALL BE THE RESPONSIBILITY OF THE PROJECTS ENGINEER.*
2. *ALL THRUST BLOCK AREAS SHALL BE PROVIDED ON THE APPROVED PLANS.*
3. *CONCRETE THRUST BLOCKS SHALL CONFORM TO STATE STANDARD 90-1.01, 470 LBS/CY CEMENTITIOUS MATERIAL [5 SACK].*
4. *THRUST RESTRAINT FOR VERTICAL BENDS SHALL USE RESTRAINED JOINT FITTINGS INSTEAD OF THRUST BLOCKS. SUBMIT RESTRAINED JOINT CALCULATIONS PREPARED BY CALIFORNIA REGISTERED CIVIL ENGINEER FOR APPROVAL BY HRCSD.*
5. *THIS THRUST BLOCK DETAIL IS FROM SLO COUNTY DPW, STANDARD W-1.*

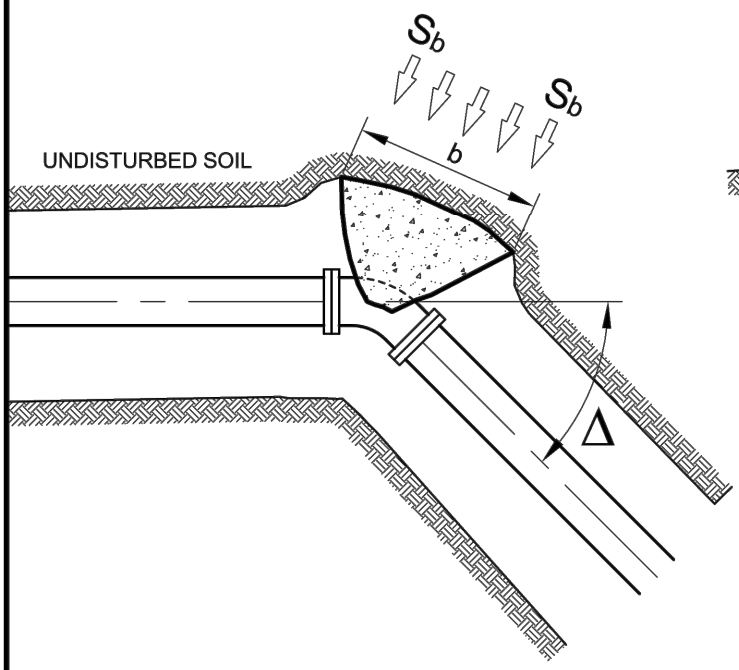
Revisions	Appd.	Dates

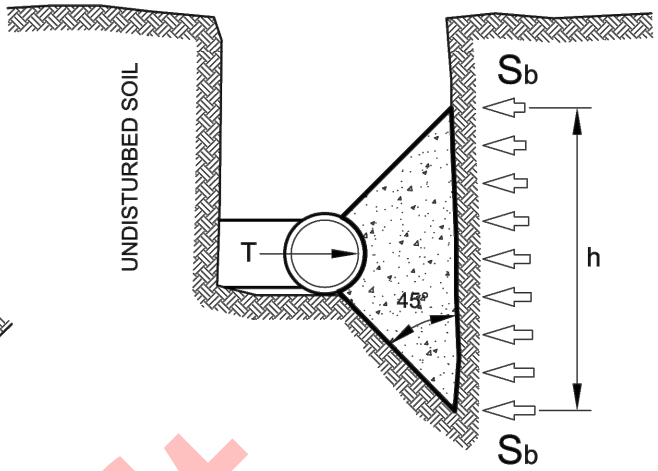
APPROVED BY THE DISTRICT ENGINEER *DATE*

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

THRUST BLOCK
REQUIREMENTS

SHEET: **W-16.1**
DATE:
DRAWN BY: *DRD*
SCALE: *NONE*





LEGEND:
T = THRUST AT FITTING (lbs) [TABLE 1]
Sb = SOIL BEARING PRESSURE (psf) [TABLE 2]
A = INTERNAL AREA (sq in) [TABLE 1]
P = INTERNAL PRESSURE (psi)
Δ = HORIZONTAL DEFLECTION ANGLE (degrees)
Sf = FACTOR OF SAFETY [1.5 FOR THRUST BLOCK DESIGN, TYP]
h = THRUST BLOCK HEIGHT (ft)
b = THRUST BLOCK WIDTH (ft)
Ab = MINIMUM THRUST BLOCK AREA (sq ft)

EQUATIONS:

THRUST AT FITTINGS:
[1] $T = (P)(A)$

THRUST AT HORIZONTAL BEND:
[2] $T = 2(P)(A)\sin(\Delta/2)$

MINIMUM BEARING (THRUST) BLOCK AREA:
[3] $A_b = (h)(b) = [(Sf)(T)]/S_b$

1. THIS THRUST BLOCK CALCULATION IS FROM SLO COUNTY DPW, STANDARD W-1A.

EXAMPLE: DETERMINE THE THRUST BLOCK AREA FOR A 90° BEND, 8" CLASS 165 PIPE IN SAND.

(STEP 1): PRESSURE = 165 + 50 (TEST PRESSURE) = 215 psi. CHOOSE T = 16,372 lbs FROM TABLE 1 SHEET 1/2 (USE EQUATION [2] IF PIPE HAS DIFFERENT INSIDE DIAMETER].

(STEP 2): DETERMINE Sb FROM TABLE 2, SHEET 1/2.

(STEP 3): USE INFORMATION TO CALCULATE Ab USING EQUATION [3]

RESULT: Ab = [Sf(T)/Sb = [(1.5)(16,372)]/1,000] = 24.6 sq ft

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

THRUST BLOCK
REQUIREMENTS

SHEET: W-16.2
DATE:
DRAWN BY: DRD
SCALE: NONE

1" WATER SERVICE

PER DRAWING W-04

1" SERVICES SHALL BE INSTALLED FOR SERVICE TO 5/8", 3/4", AND 1" METERS

SERVICE SADDLE

A. SADDLES FOR C900 PVC WATER MAINS; 1" IP (FIPT) THREADS, BRASS WITH EPOXY COATED 304SS DOUBLE STRAPS; JONES J-969, MUELLER BR2S, FORD 202BS
B. SADDLES FOR AC, CAST IRON, OR DUCTILE IRON WATER MAINS; 1" IP (FIPT) THREADS, BRASS WITH EPOXY COATED 304SS DOUBLE STRAPS; JONES J-969, MUELLER BR2B, FORD 202B

CORPORATION STOP

1" CC INLET THREAD x 1" I.P. OUTLET THREAD; JONES J-45, MUELLER H15000, FORD F400-4

SERVICE PIPE

SCHEDULE 80 PVC OR POLYETHYLENE, 1" DIAMETER

ANGLE METER STOP

FOR 5/8" AND 3/4" METERS, USE 1" x 3/4" SIZE. FOR 1" METERS, USE 1" x 1" SIZE JONES J-4202, FORD KV63-342W, FORD KV63-444W, MUELLER 14266

BALL VALVE

FOR 3/4" BALL VALVE; MUELLER 300 BALL VALVE, JONES SUPER STOP, FORD

METER BOX

METER BOXES FOR 5/8", 3/4", AND 1" METERS; METER BOX: CHRISTY B-24, BROOKS 36 SERIES. LID: B24E LID UNLESS OTHERWISE SPECIFIED; PROVIDE B24-61G LID WHEN REQUIRED BY HRCSD STAFF

AIR & VACUUM RELIEF VALVE ASSEMBLY

PER DRAWING W-10

SERVICE SADDLE

A. SADDLES FOR C900 PVC WATER MAINS; 1", CC THREADS, BRONZE WITH DOUBLE STAINLESS STEEL STRAPS; JONES J-969, A.Y. MCDONALD 3845
B. SADDLES FOR AC, CAST IRON, OR DUCTILE IRON WATER MAINS; 1" CC THREADS, BRONZE WITH DOUBLE STRAPS; JONES J-979, A.Y. MCDONALD 3825

CORPORATION STOP

1" CC INLET THREAD x 1" I.P. OUTLET THREAD; JONES J-45, A.Y. 3128

SERVICE PIPE

SCHEDULE 80 PVC OR POLYETHYLENE, 1" DIAMETER AND 1" COPPER PER PLAN

COMBINATION AIR AND VACUUM RELIEF VALVE

APCO VALVE AND PRIMER CORPORATION 143C, CRISPIN C10 OR APPROVED EQUAL

ANGLE METER STOP

FOR 5/8" AND 3/4" METERS, USE 1" x 3/4" SIZE. FOR 1" METERS, USE 1" x 1" SIZE JONES J-4202, FORD KV63-342W, FORD KV63-444W, MUELLER 14266

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

HRCSD APPROVED MATERIALS LIST

SHEET: W-17.1
DATE:
DRAWN BY: DRD
SCALE: NONE

WATER VALVE AND VALVE WELL

PER DRAWING W-03

3" THROUGH 12" VALVES
GATE VALVE ONLY;
MUELLER RESILIENT WEDGE A2360, CLOW RESILIENT WEDGE

12" AND LARGER VALVES
BUTTERFLY VALVES ONLY;
PRATT GROUNDHOG WITH INTERIOR AND EXTERIOR EPOXY COATING, MUELLER LINESEAL III

VALVE BOX
CHRISTY G-5
BROOKS 3RT

FIRE HYDRANT ASSEMBLY

PER DRAWING W-01

FIRE HYDRANTS SHALL HAVE TWO 2 1/2" AND ONE 4" OUTLETS
FIRE HYDRANTS SHALL HAVE A 6 HOLE BOLT PATTERN

JONES J-3765 W/ METAL CAPS
CLOW 2060 W/ METAL CAPS

BREAK OFF BOLTS SHALL BE 5/8" x 3 1/2" CADMIUM PLATED BREAK AWAY BOLTS.

FIRE HYDRANTS SHALL CONFORM TO CDF REQUIREMENTS. CDF FIRE HYDRANT REQUIREMENTS WILL SUPERSEDE THESE DRAWINGS.

MISCELLANEOUS WATER SYSTEM MATERIALS

TAPPING SLEEVES
ROMAC SST WITH DUCTILE FLANGE
MUELLER H 304 WITH DUCTILE FLANGE
FORD – FAST

WATERTIGHT WIRE CONNECTORS
SPEARS DS 400

FITTING HARDWARE
ALL VALVE AND FITTING CONNECTIONS SHALL BE MADE WITH 304 STAINLESS STEEL NUTS AND BOLTS.
BOLT THREADS SHALL BE COATED WITH ANTI SEIZE COMPOUND PRIOR TO TIGHTENING.

FITTING COATING
ALL DUCTILE OR CASTIRON FITTINGS SHALL BE COVERED WITH KOPPER'S NO. 50 OR 505 BITUMASTIC COMPOUND OR EQUAL, UNLESS FITTINGS ARE FACTORY COATED.
FITTINGS SHALL BE WRAPPED WITH 3 LAYERS OF 8 MIL. POLYETHYLENE. TAPE ENDS WITH 3 LAYERS OF 10 MIL.
PIPE WRAP TAPE AT FITTING ENDS.

Revisions	Appd.	Dates

APPROVED BY THE DISTRICT ENGINEER DATE

HERITAGE RANCH
COMMUNITY SERVICES DISTRICT
STANDARD DRAWING

HRCSD APPROVED MATERIALS LIST

SHEET: W-17.2
DATE:
DRAWN BY: DRD
SCALE: NONE

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

MEMORANDUM

TO: Board of Directors

FROM: Scott Duffield, General Manager

DATE: September 20, 2018

SUBJECT: Request to receive and file the Paso Robles Subbasin Groundwater Sustainability Plan Draft Outline and Chapters.

Recommendation

It is recommended that the Board of Directors receive and file the Paso Robles Subbasin Groundwater Sustainability Plan Draft Outline and Chapters, including:

a. Outline
b. Chapter 1. Introduction
c. Chapter 2. Agency Information
d. Chapter 3. Description of Plan Area
e. Communication and Engagement Plan

Background

The State Legislature signed the Sustainable Groundwater Management Act (SGMA) into law effective January 1, 2015. The HRCSD formed a Groundwater Sustainability Agency (GSA) on June 8, 2017. Your Board also entered into a Memorandum of Agreement (MOA) with four other GSAs in the Paso Basin. The purpose of the MOA group is to develop a single Groundwater Sustainability Plan (GSP) for the entire basin that will be considered for adoption by each individual GSA and subsequently submitted to DWR for approval. The GSP must be submitted to DWR by January 31, 2020.

Discussion

The timeline for these draft documents is shown in the table below:

Published on:	**July 18, 2018**
Received by the Paso Basin Cooperative Committee:	**July 25, 2018**
Posted on PasoGCP.com:	**August 31, 2018**
Close of 45-day public comment period:	**October 15, 2018**

These draft documents are posted on the District's website as well as on the GSP project website at www.pasogcp.com.

Comments from the public are being collected using a comment form. The form can be found online at www.pasogcp.com. A paper form to submit by postal mail is also available at the District office.

Fiscal Considerations

There are no direct fiscal considerations associated with this item. The cost for the GSP work is in the current FY 2018/19 budget.

Results

Approval of the recommended action will ensure the District is working pursuant to the MOA and allow our community an opportunity to provide input on the GSP.

Attachments: Draft Outline
Draft Chapter 1. Introduction
Draft Chapter 2. Agency Information
Draft Chapter 3. Description of Plan Area
Draft Communication and Engagement Plan

DRAFT Outline
Paso Robles Subbasin
Groundwater Sustainability Plan

July 18, 2018

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Draft
Paso Robles Subbasin Groundwater Sustainability Plan Chapters 1 – 3

Prepared for the Paso Robles Subbasin Cooperative Committee and the Groundwater Sustainability Agencies

July 18, 2018

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CHAPTER 1. INTRODUCTION TO PASO ROBLES SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

1.1 PURPOSE OF THE GROUNDWATER SUSTAINABILITY PLAN

In 2014, the State of California enacted the Sustainable Groundwater Management Act (SGMA). This law requires groundwater basins in California that are designated as medium or high priority be managed sustainably. Satisfying the requirements of SGMA generally requires four basic activities:

1. Forming one or multiple Groundwater Sustainability Agency(s) (GSAs) to fully cover a basin;
2. Developing one or multiple Groundwater Sustainability Plan(s) (GSPs) that fully cover the basin;
3. Implementing the GSP and managing to achieve quantifiable objectives; and
4. Regular reporting to the California Department of Water Resources (DWR).

This document fulfills the GSP requirement for the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (Paso Robles Subbasin or Subbasin). This GSP describes the Paso Robles Subbasin, develops quantifiable management objectives that account for the interests of the Subbasin's beneficial groundwater uses and users, and identifies a group of projects and management actions that will allow the Subbasin to achieve sustainability within 20 years of plan adoption.

1.2 DESCRIPTION OF PASO ROBLES SUBBASIN

The Paso Robles Subbasin is identified by DWR in Bulletin 118 as Subbasin No. 3-004.06 (DWR, 2016). The Subbasin is part of the greater Salinas Valley Basin in the Central Coastal region of California. The Subbasin encompasses an area of approximately 438,000 acres, or 684 square miles. The subbasin boundaries as currently defined by DWR cover both Monterey and San Luis Obispo Counties. However, a basin boundary adjustment application has been submitted to DWR that moves the northern boundary of the Paso Robles Area Subbasin to the Monterey/San Luis Obispo county line. The subbasin will then be entirely within San Luis Obispo County (Figure 1-1). This draft document assumes that the proposed basin boundary adjustment is approved by DWR. Unless otherwise noted, all maps and calculations refer to the Paso Robles Subbasin with the approved basin boundary modification. If the basin boundary adjustment is not approved by DWR, this draft document will be modified appropriately to encompass the entire Paso Robles Subbasin.

A second basin boundary adjustment application has been submitted to DWR that proposes removing the land covered by Heritage Ranch Community Services District from the Subbasin. Because Heritage Ranch Community Services District is an active GSA in the basin, and will be reviewing this document, we have not removed the Heritage Ranch Community Services District area from this draft document. If the Heritage Ranch Community Services District basin boundary adjustment is approved, this draft document will be modified appropriately to remove all discussion of the Heritage Ranch Community Services District and the land it overlies.

The Subbasin, as modified by the proposed basin boundary adjustment, encompasses an area of approximately 438,000 acres, or 684 square miles. The Subbasin is bounded by two groundwater basins and two subbasins, as shown on Figure 1-1.

- The Atascadero Area Subbasin (3-004-11) is located southwest of the Paso Robles Subbasin. The boundary with the Subbasin is the Rinconada Fault zone which is a leaky barrier to groundwater flow.
- The Upper Valley Aquifer Subbasin of the Salinas Valley Groundwater Basin is located north of the Paso Robles Subbasin. Its aquifers are in hydraulic continuity with those in the Subbasin.
- The Cholame Valley (3-005) groundwater basin is located east of the Paso Robles Subbasin. Its western boundary is the San Andreas fault that is a barrier to groundwater flow.
- The Carrizo Plain (3-019) groundwater basin is located southeast of the Paso Robles Subbasin. The Carrizo Plain boundary with the Subbasin is a topographic high with sediments in hydraulic continuity with the Basin.

The Atascadero, Carrizo Plain and Cholame Valley groundwater basins are low priority and therefore not required to submit GSPs. Although not required to develop a GSP, the Atascadero Area Subbasin is planning to prepare and adopt a GSP. The Paso Robles Subbasin and Salinas Valley Upper Valley Aquifer Subbasin are subject to SGMA and are required to develop GSPs.

The Subbasin includes the incorporated City of Paso Robles. The Subbasin additionally includes the unincorporated census-designated places of Cholame, Creston, , San Miguel, Shandon, and Whitley Gardens (Figure 1-1).

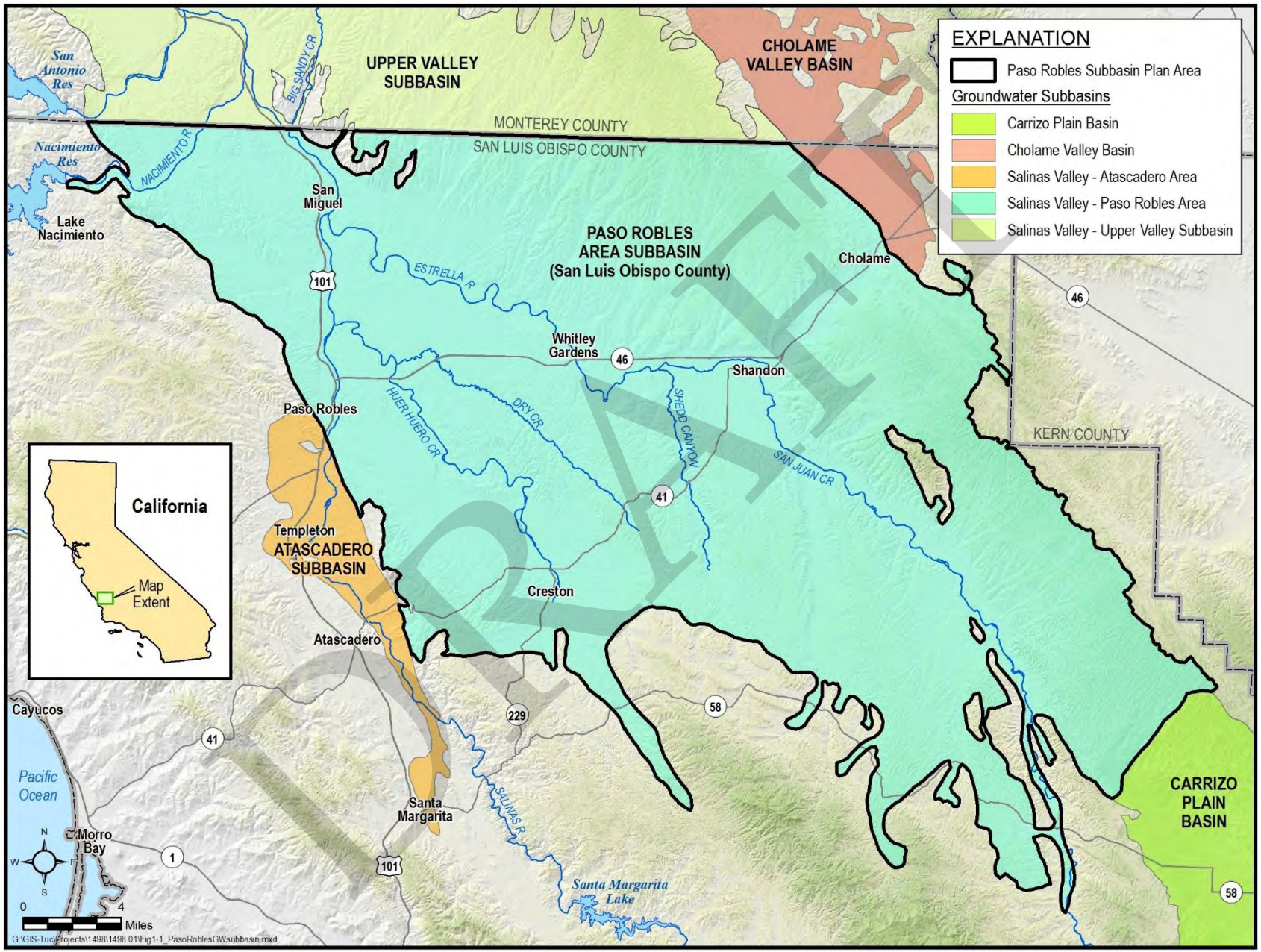

Figure 1-1: Paso Robles Subbasin and Surrounding Subbasins

CHAPTER 2. AGENCIES' INFORMATION

The Paso Robles Subbasin GSP has been jointly developed by five GSAs:

- City of Paso Robles
- Paso Basin - County of San Luis Obispo GSA
- San Miguel Community Services District (CSD)
- Shandon - San Juan GSA
- Heritage Ranch Community Services District (CSD)

2.1 AGENCIES' NAMES AND MAILING ADDRESSES

The following contact information is provided for each GSA pursuant to California Water Code § 10723.8.

City of Paso Robles GSA
1000 Spring Street
City of Paso Robles, CA 93635

Paso Basin - County of San Luis Obispo GSA
C/O County of San Luis Obispo Department of Public Works - Water Resources
County Government Center, Room 206
San Luis Obispo, CA 93408

San Miguel Community Services District
P.O. Box 180
San Miguel, CA 93451

Shandon - San Juan GSA
PO Box 360
Shandon, CA 93461

Heritage Ranch Community Services District
4870 Heritage Road
Paso Robles, CA 93446

2.2 AGENCIES' ORGANIZATION AND MANAGEMENT STRUCTURE

The organization and management structures of each of the five subbasin GSAs are described below. Each of the five GSAs appoints a representative to a Cooperative Committee that is further described in Section 2.3.2.

2.2.1 CITY OF PASO ROBLES GSA

The City of Paso Robles is an incorporated city that operates under a Council-Manager general law form of government. The City Council consists of five members elected at-large, on a non-partisan basis. Council members serve four-year overlapping terms. The mayor is directly elected and serves a two-year term. Decisions on all GSA-related matters require an affirmative vote of a majority of the five-member City Council. One member from the City Council sits on the Cooperative Committee that coordinates activities among all five GSAs. The City of Paso Robles GSA's activities are staffed through the City's Department of Public Works.

2.2.2 PASO BASIN - COUNTY OF SAN LUIS OBISPO GSA

The County of San Luis Obispo is governed by a five-member Board of Supervisors, representing five districts in San Luis Obispo County. Board of Supervisor members are elected to staggered four-year terms. Decisions on all GSA-related matters require an affirmative vote of either a majority of the five-member Board of Supervisors or a super-majority consisting of four affirmative votes. One member from the Board of Supervisors sits on the Cooperative Committee that coordinates activities among all five GSAs. The Paso Basin - County of San Luis Obispo GSA's activities are staffed through the County's Department of Public Works.

2.2.3 SAN MIGUEL COMMUNITY SERVICES DISTRICT (CSD) GSA

San Miguel CSD is governed by a five-member Board of Directors. Directors are elected to four-year terms. Decisions on all GSA-related matters require an affirmative vote of a majority of the five Board of Directors members. One member from the San Miguel CSD Board of Directors sits on the Cooperative Committee that coordinates activities among all five GSAs. The San Miguel CSDs GSA's activities are staffed by the CSD's staff engineer.

2.2.4 SHANDON - SAN JUAN GSA

The Shandon-San Juan Water District is governed by a five-member Board of Directors. The Directors are elected to staggered four-year terms. Decisions on all GSA-related matters

require an affirmative vote of a majority of the five-member Board of Directors. One member from the Shandon - San Juan GSA Board of Directors sits on the Cooperative Committee that coordinates activities among all five GSAs. The Shandon - San Juan GSA's activities are staffed by land owners and registered voters in the Water District.

2.2.5 HERITAGE RANCH COMMUNITY SERVICES DISTRICT

Heritage Ranch CSD is governed by a five-member Board of Directors. Directors are elected to concurrent four-year terms. Decisions on all GSA-related matters require an affirmative vote of a majority of the five Board of Directors members. One member from the Heritage Ranch CSD Board of Directors sits on the Cooperative Committee that coordinates activities among all five GSAs. The Heritage Ranch CSDs GSA's activities are staffed by the CSD's staff engineer.

2.3 AUTHORITY OF AGENCIES

Each of the five GSAs developing this coordinated GSP were formed in accordance with the requirements of California Water Code § 10723 *et seq*. The resolutions of formation for all five GSAs are included in Appendix A. The specific authorities for forming a GSA and implementing the GSP for each of the five agencies that formed GSAs are listed below.

2.3.1 INDIVIDUAL GSAS

2.3.1.1 CITY OF PASO ROBLES GSA

The City of Paso Robles is incorporated under the laws of the State of California. The City provides water supply and land use planning services to its residents. The City is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA. Upon establishing itself as a GSA, the City retains all the rights and authorities provided to GSAs under California Water Code § 10725 *et seq*.

2.3.1.2 PASO BASIN - COUNTY OF SAN LUIS OBISPO GSA

The County of San Luis Obispo has land use authority over the unincorporated areas of the County, including areas overlying the Paso Robles Subbasin. The County of San Luis Obispo is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA. Upon establishing itself as a GSA, the County retains all the rights and authorities provided to GSAs under California Water Code § 10725 *et seq*.

2.3.1.3 SAN MIGUEL COMMUNITY SERVICES DISTRICT GSA

San Miguel CSD is a local public agency of the State of California, organized and operating under the Community Services District Law, Government Code § 6100 *et seq*. San Miguel CSD provides water and sewer services to its residents. San Miguel CSD is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA. Upon establishing itself as a GSA, San Miguel CSD retains all the rights and authorities provided to GSAs under California Water Code § 10725 *et seq*.

2.3.1.4 SHANDON - SAN JUAN WATER DISTRICT GSA

The Shandon - San Juan Water District was formed in accordance with California's Water District Law, California Water Code § 34000 *et seq*. In accordance with California's Water District Law, the Shandon - San Juan Water District retains the water supply and management authorities included in California Water Code § 35300 et seq., with the exception of the ability to export groundwater beyond the boundaries of the Paso Robles subbasin. The Shandon - San Juan Water District is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA. Upon establishing itself as a GSA, the District retains all the rights and authorities provided to GSAs under California Water Code § 10725 *et seq*.

2.3.1.5 HERITAGE RANCH COMMUNITY SERVICES DISTRICT GSA

Heritage Ranch CSD is a local public agency of the State of California, organized and operating under the Community Services District Law, Government Code § 6100 *et seq*. Heritage Ranch CSD provides water and sewer services to its residents. Heritage Ranch CSD is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA. Upon establishing itself as a GSA, Heritage Ranch CSD retains all the rights and authorities provided to GSAs under California Water Code § 10725 *et seq*.

2.3.2 MEMORANDUM OF AGREEMENT FOR GSP DEVELOPMENT

The five GSAs overlying the Subbasin entered into a Memorandum of Agreement (MOA) in September 2017. The purpose of the MOA is to establish a committee to develop a single GSP for the entire Paso Robles Subbasin. The single GSP developed under this MOA will be considered for adoption by each individual GSA and subsequently submitted to DWR for approval. Per §12.2 of the MOA, the MOA shall automatically terminate upon DWR's approval of the adopted GSP. The GSAs may decide to enter into a new agreement to coordinate GSP implementation at that time. A copy of the MOA is included in Appendix A.

The MOA establishes the Paso Basin Cooperative Committee (Cooperative Committee) consisting of one member and one alternate from each of the five GSAs. The Cooperative Committee conducts activities related to GSP development and SGMA implementation. The full list of activities the Cooperative Committee is authorized to undertake are included in the MOA in Appendix A; highlights include:

- Developing a GSP that achieves the goals and objectives outlined in SGMA;
- Reviewing and participating in the selection of consultants related to Cooperative Committee efforts;
- Developing annual budgets and additional funding needs;
- Developing a stakeholder participation plan; and
- Coordinating with neighboring GSAs.

The MOA sets forth each GSAs' weighted voting percentages and the votes needed to implement certain actions or make certain recommendations to the individual GSAs. In particular, the MOA states that the Cooperative Committee must unanimously vote to recommend that the five GSAs adopt the final GSP.

2.3.3 Memorandum of Agreement for GSP Implementation

This section to be completed after GSP is complete

2.3.4 Coordination Agreements

The single GSP developed by the five GSAs completely covers the entire Paso Robles Subbasin. Therefore, no coordination agreements with other GSAs are necessary.

2.3.5 Legal Authority to Implement SGMA Throughout the Plan Area

Figure 2-1 shows the extent of the GSP plan area, along with the extents of each of the five exclusive GSAs cooperating on this GSP. This figure shows that the entire plan area is covered by the five exclusive GSAs, and no portion of the Subbasin is covered by a non-exclusive GSA. Therefore, the combination of the five GSAs provides the legal authority to implement this GSP throughout the entire plan area. No authority is needed from any other GSA to implement this plan.

2.4 Contact Information for Plan Manager

Mr. Dick McKinley
Public Works Director, City of Paso Robles
1000 Spring Street

City of Paso Robles, CA 93635
Phone: 805-237-3861
e-mail: dmckinley@prcity.com

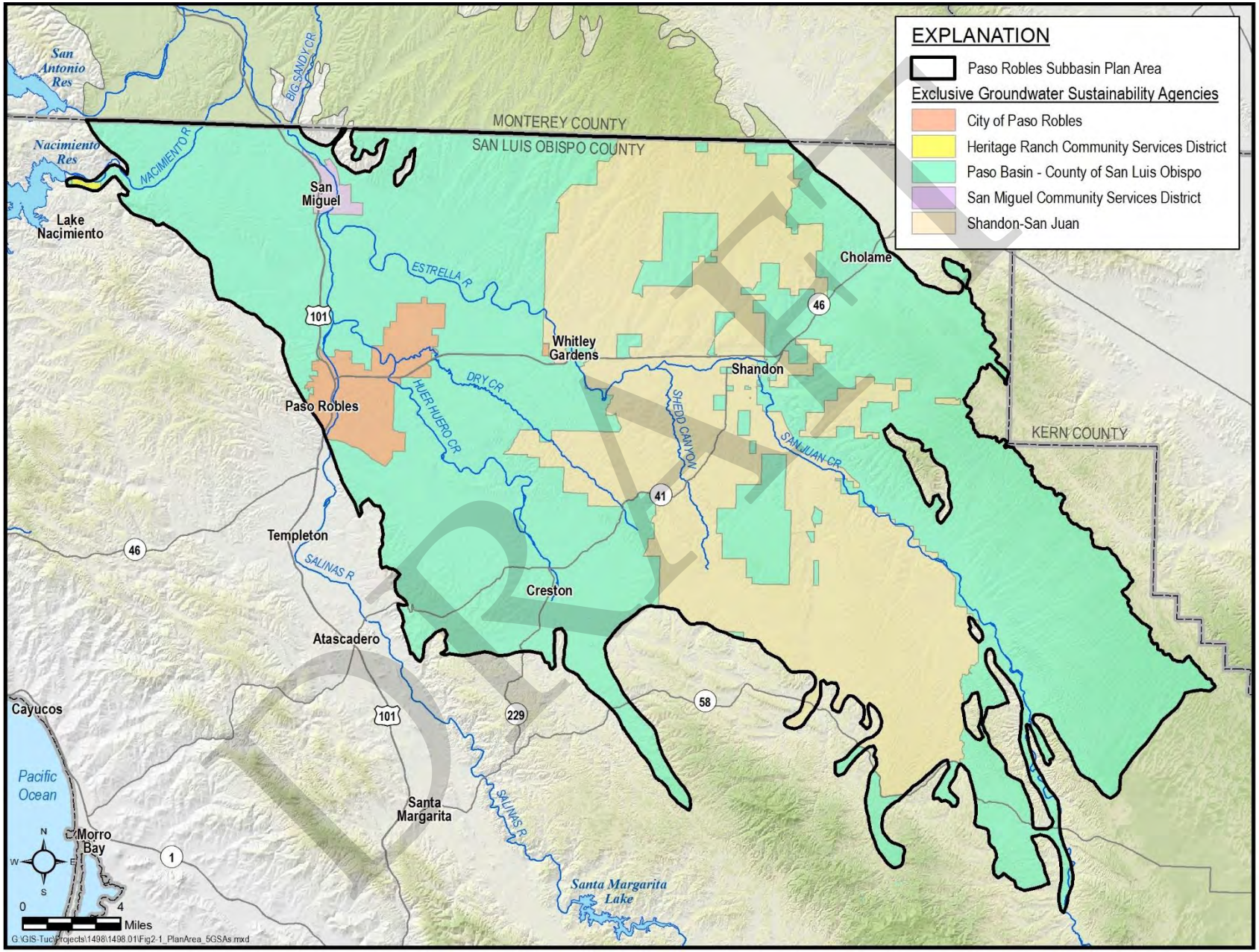

Figure 2-1: Extent of GSP Plan Area and Exclusive Groundwater Sustainability Agencies.

CHAPTER 3. DESCRIPTION OF PLAN AREA

3.1 PASO ROBLES SUBBASIN INTRODUCTION

This GSP covers the entire Paso Robles Subbasin. The Subbasin lies in the northern portion of San Luis Obispo County. The majority of the Subbasin comprises gentle flatlands near the Salinas River Valley, ranging in elevation from approximately 445 to 2,387 feet above mean sea level. The average annual precipitation ranges from 8 to 21 inches and rainfall increases across the Subbasin from the southeast to the northwest (DWR, 2004).

The Subbasin is drained by the Salinas River. Tributaries to the Salinas River include the Estrella River, Huer Huero Creek, and San Juan Creek. Urban communities in the Subbasin are the City of Paso Robles and the communities of San Miguel, Creston, Shandon, and Heritage Ranch. Highway 101 is the most significant north-south highway in the Subbasin, with Highways 41 and 46 running east-west across the Subbasin. Figure 3-1 shows the extent of the plan area as well as the significant water bodies, communities, and highways.

3.2 ADJUDICATED AREAS, OTHER GSAS, AND ALTERNATIVE PLANS

No part of the Subbasin is adjudicated, nor are any surrounding subbasins adjudicated. No other GSAs exist within the Subbasin. No alternative plans have been submitted for any part of the Subbasin, nor for any surrounding subbasin. Because there are no adjudicated areas, other GSAs, or alternative plans in the Subbasin, no map is included in this GSP for these items.

3.3 OTHER JURISDICTIONAL AREAS

In addition to the five GSAs, there are several federal, state, and local agencies that have some degree of water management authority in the Subbasin. Each agency or organization is discussed below. A map of the jurisdictional extent of the Federal and State agencies within the Subbasin is shown on Figure 3-2. A map showing the jurisdictional extent of city and local jurisdictions within the Subbasin is shown on Figure 3-3.

3.3.1 FEDERAL JURISDICTIONS

Federal agencies with land holdings in the Subbasin include the National Forest Service and the Bureau of Land Management. A portion of the Los Padres National Forest covers a small area near the southern boundary of the Subbasin. The Bureau of Land Management owns two small parcels in the Red Hills area that partially overlie the Subbasin.

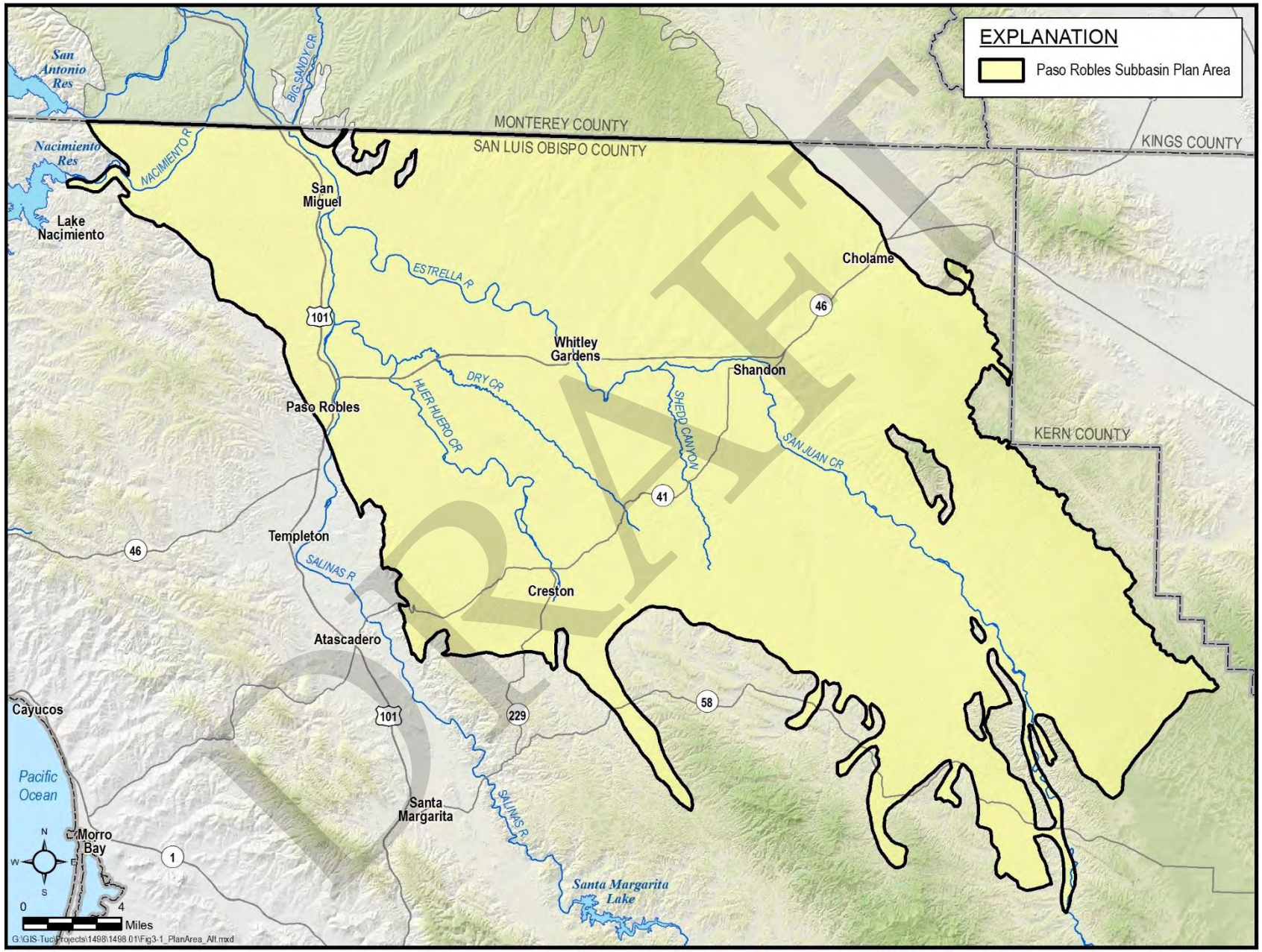

Figure 3-1: Area Covered by GSP

3.3.2 TRIBAL JURISDICTION

The two prominent Native American Tribes in San Luis Obispo County are the Salinan and Northern Chumash Indian tribes. These two tribes do not have any recognized tribal land in the Subbasin.

3.3.3 STATE JURISDICTIONS

State agencies in the Subbasin include the California National Guard and the California Department of Fish and Wildlife. The California National Guard occupies Camp Roberts at the north end of the Subbasin. The California Department of Fish and Wildlife oversees an area along the Salinas River near Camp Roberts. The Department of Fish and Wildlife additionally has three conservation easements that partially overlie the eastern boundary of the Subbasin.

3.3.4 COUNTY JURISDICTION

The County of San Luis Obispo and the associated SLOFCWCD has jurisdiction over the entire Subbasin. Land owned or managed by the County in the Subbasin includes a conservation easement south of the City of Paso Robles operated by the Land Conservancy of San Luis Obispo County; CW Clark Park in Shandon; and Wolf Property Natural Area in San Miguel.

3.3.5 CITY AND LOCAL JURISDICTIONS

The City of Paso Robles lies on the west side of the Subbasin. The City has water management authority over its incorporated area and manages a number of parks and recreational sites. Two community service districts exist in the Subbasin: the San Miguel CSD and the Heritage Ranch CSD. Two primarily agricultural water districts exist in the Subbasin: the Shandon - San Juan Water District and the Estrella-El Pomar-Creston Water District.

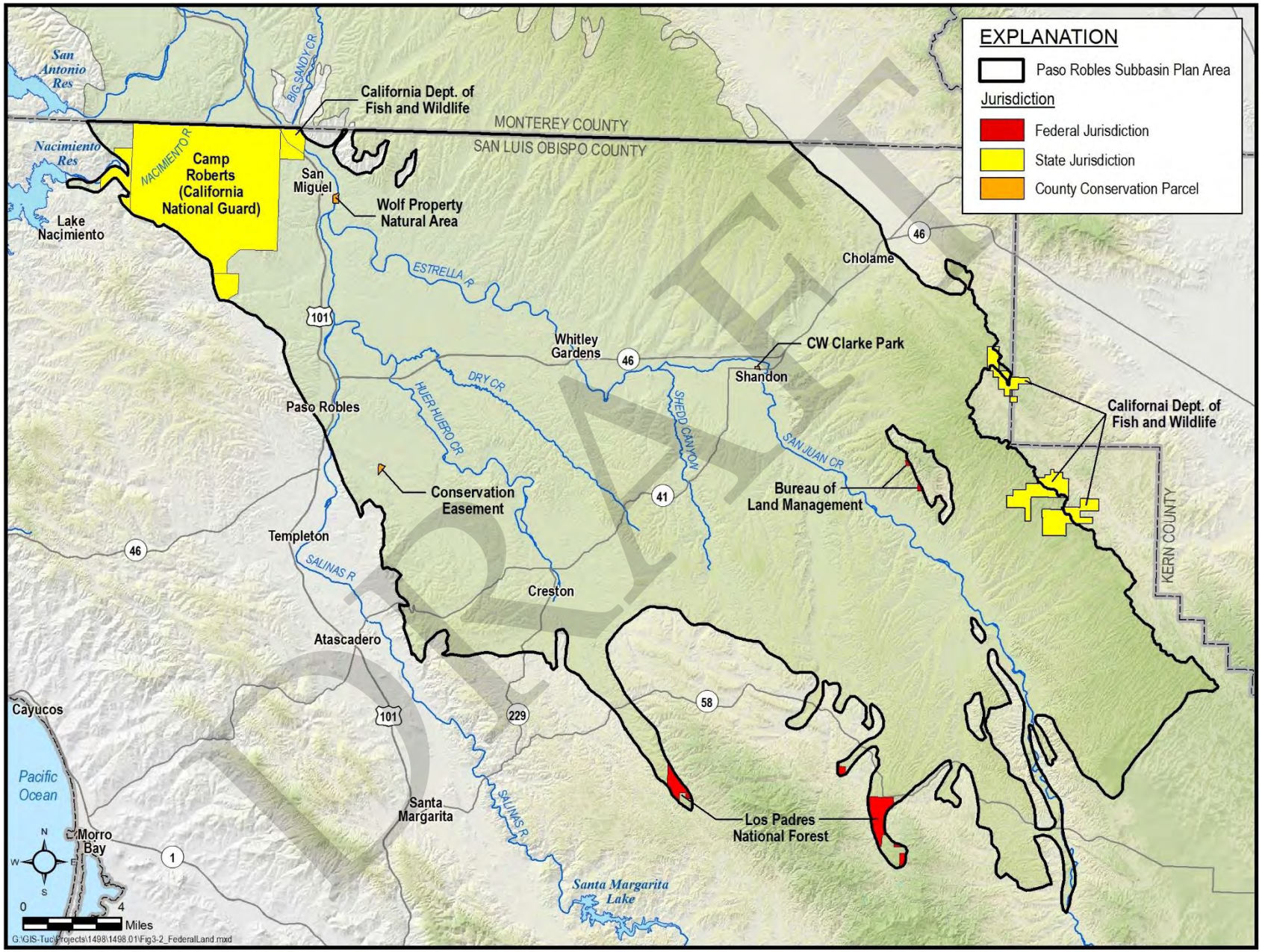

Figure 3-2: Map of Federal Jurisdictional Areas, State Jurisdictional Areas and County Cosnservation Parcels

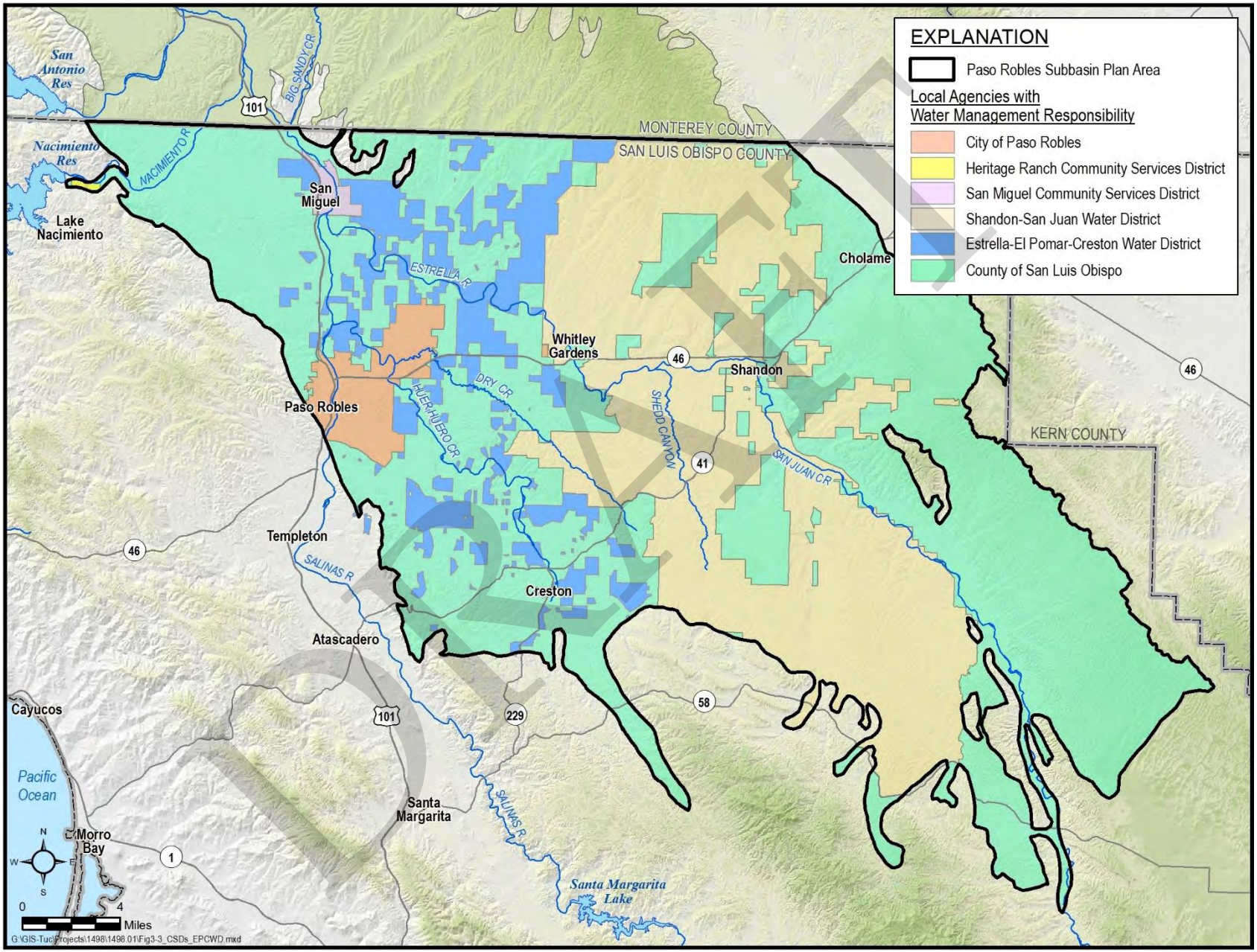

Figure 3-3: Map of City, CSD, and Water District Jurisdictional Areas

3.4 LAND USE

Land use planning authority in the Subbasin is the responsibility of the County of San Luis Obispo and the City of Paso Robles. Land use information for the Subbasin was collected Department of Water Resources, the County of San Luis Obispo's Agricultural Commissioner Offices and from other County departments. Current land use in the Subbasin is shown on Figure 3-4 and is summarized by group in Table 3-1. All land use categories except native vegetation listed on Table 3-1 are the land use categories provided by DWR (2014). The balance of the approximately 438,000 acres in the GSP Plan Area is largely native vegetation and could include dry farmed land.

Table 3-1: Land Use Summary

Land Use Category	Acres
Citrus and subtropical	304
Deciduous fruits and nuts	2,339
Grain and hay crops	266
Idle	10,096
Pasture	3,254
Truck nursery and berry crops	955
Urban	22,199
Vineyard	32,076
Young perennial	71
Native vegetation	366,440
Total	**438,000**

Source: DWR, 2014

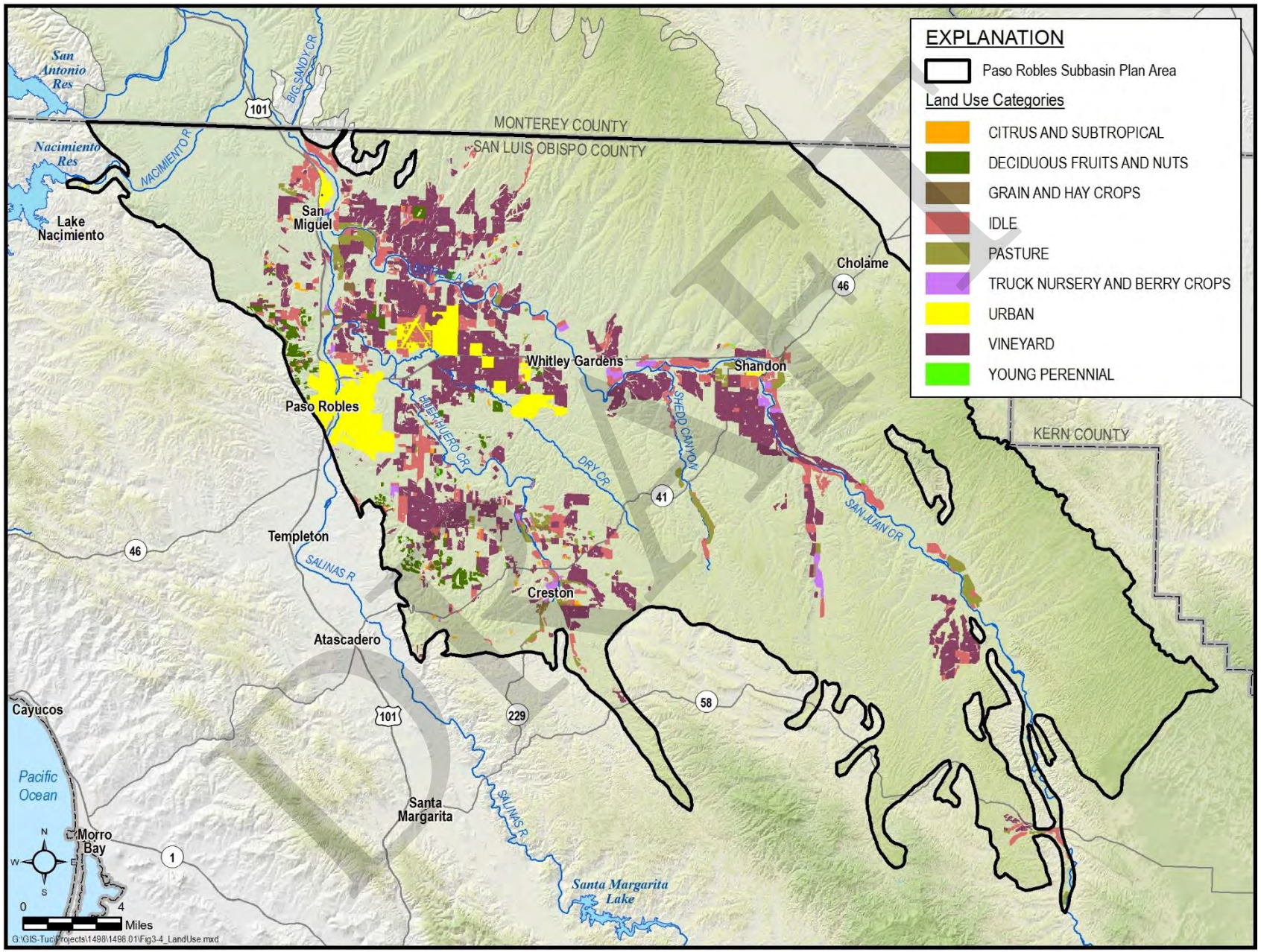

Figure 3-4: Existing Land Use Designations

3.4.1 WATER SOURCE TYPES

The Subbasin has three water source types: groundwater, surface water, and recycled water. Until 2015, all water demands in the Subbasin were met with groundwater. Figure 3-5 shows the communities, including cities and census-designated places, that depend on groundwater as their source of water.

The City of Paso Robles began using Nacimiento Project Water in 2015. (Todd Groundwater, 2016). The City holds a right to 6,488 acre-feet per year (AFY). Community Service Area 16 (CSA16), surrounding the community of Shandon, has a State Water Project (SWP) contract allocation of 100 AFY from the Coastal Branch of the SWP. In 2017, CSA16 took delivery of 99 AF of water, which was the first delivery of SWP water. The locations of the pipelines supplying these water sources are shown on Figure 3-5**,** along with the land areas supplied by these surface water sources.

Historically, recycled water has not been used as a source of water in the Subbasin. The City of Paso Robles, San Miguel CSD, Heritage Ranch CSD, and Camp Roberts operate wastewater treatment plants. The City of Paso Robles is currently upgrading its water treatment system and plans to use its treated wastewater for irrigation and other non-potable uses. San Miguel CSD is also investigating non-potable use of wastewater. Currently, there is no land using wastewater as a water source type.

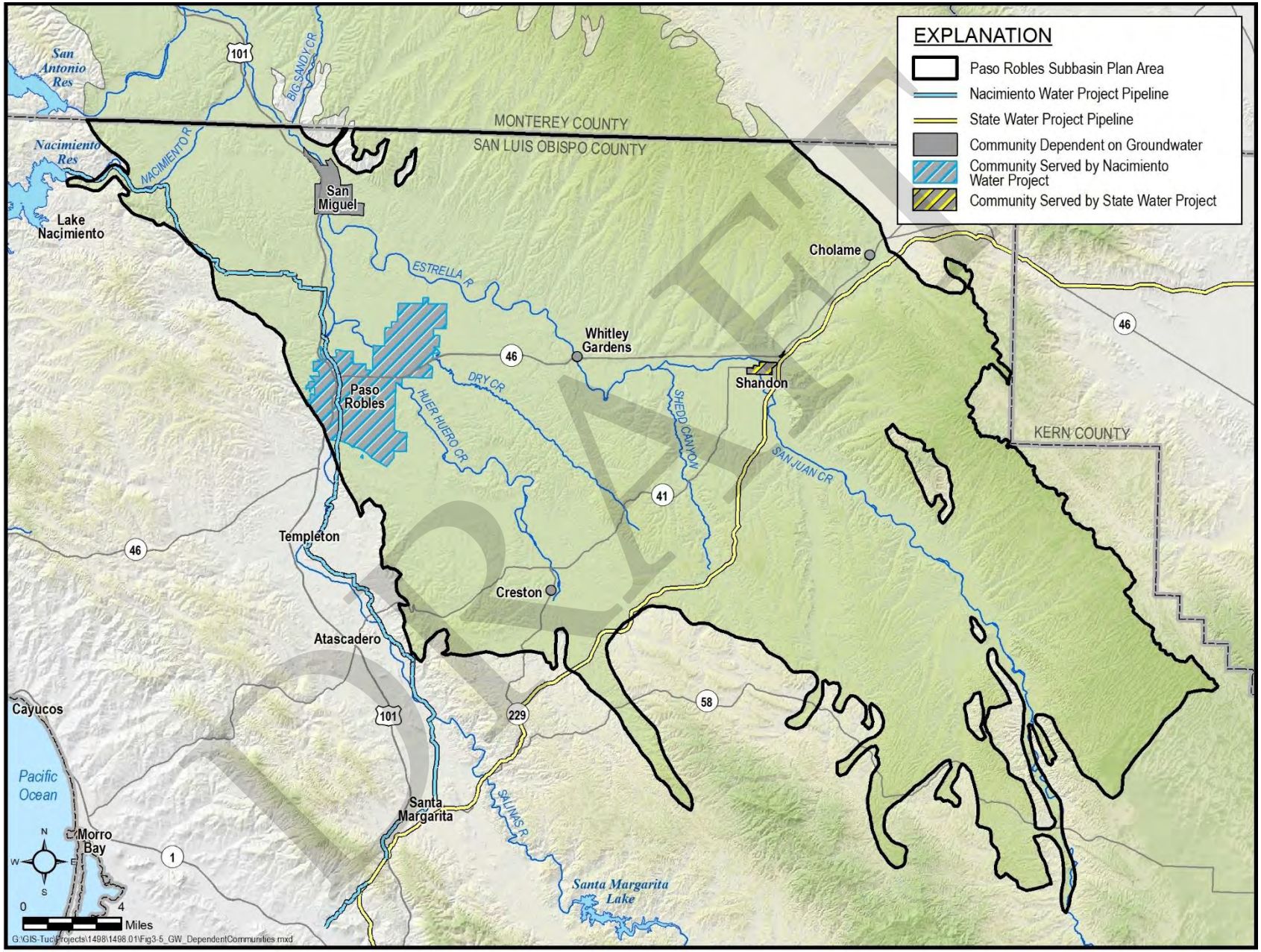

Figure 3-5: Map of location and extent of communities dependent on groundwater

3.4.2 WATER USE SECTORS

Water demands in the Basin are organized into the six water use sectors identified in the GSP emergency regulations. These include:

- **Urban**. Urban water use is assigned to non-agricultural water uses in the cities and census-designated places. Domestic use outside of census-designated places is not considered urban use.
- **Industrial**. There is limited industrial use in the Subbasin. DWR does not have any records of wells in the subbasin that are categorized as for industrial use. Most industrial use is associated with agriculture and is lumped into the agricultural water use sector.
- **Agricultural**. This is the largest water use sector in the Subbasin by water use.
- **Managed wetlands**. There are no managed wetlands in the Subbasin.
- **Managed recharge**. There is no managed recharge in the Subbasin. Recycled water discharge to ponds is included in the urban water use sector
- **Native vegetation.** This is the largest water use sector in the Subbasin by land area. This sector includes rural residential areas.

Figure 3-6 shows the distribution of the water use sectors in the Subbasin.

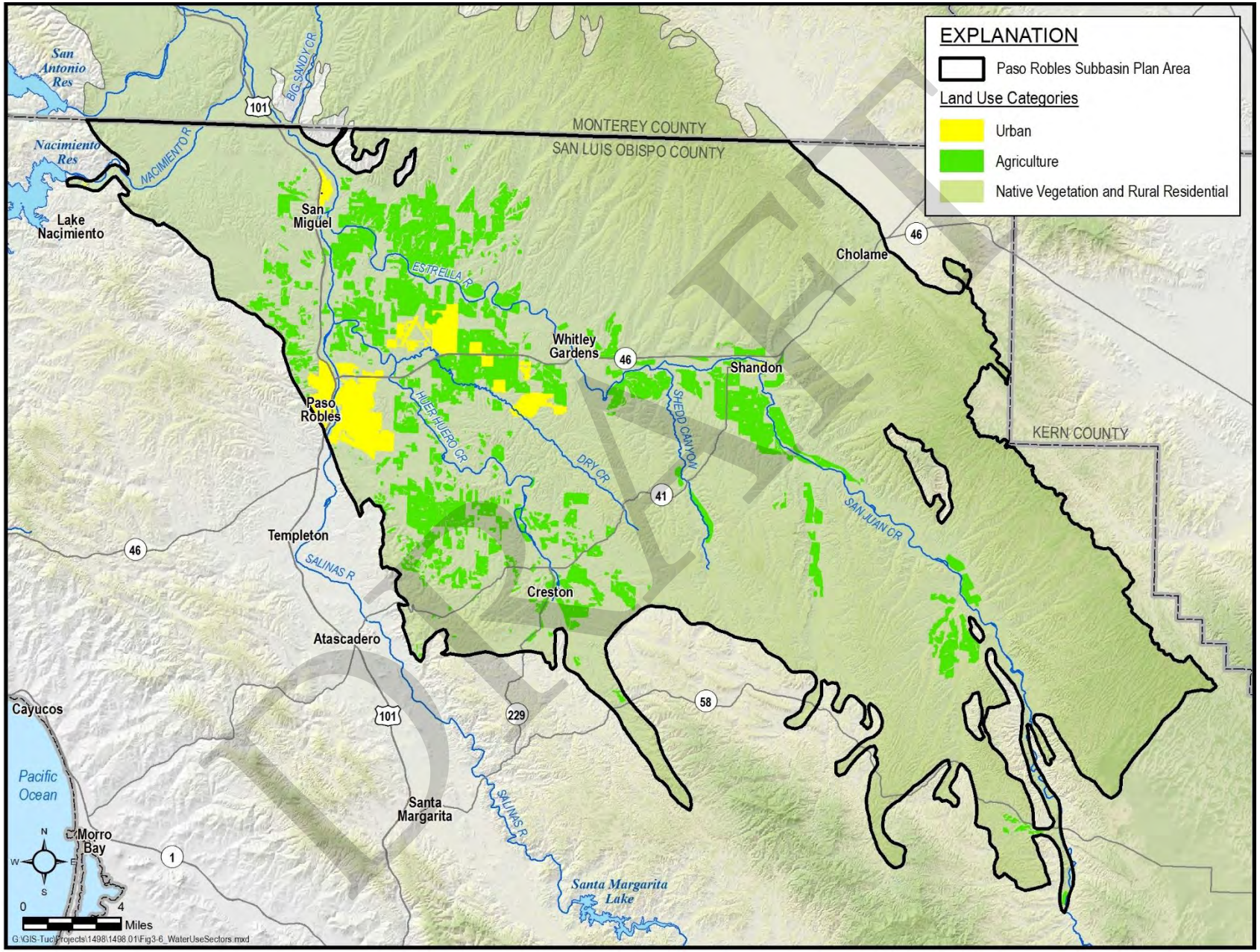

Figure 3-6: Water Use Sectors

3.5 EXISTING WELL TYPES, NUMBERS, AND DENSITY

Well types, well depth data, and well distribution data were downloaded from DWR's *Well completion report map application*. (DWR, 2018). DWR categorizes wells in this mapping application as either domestic, production, or public supply. These categories are based on the well use information submitted with the well logs to DWR. Table 3-2 summarizes the types of well by use for all well logs submitted to DWR. We assume that the majority of the wells categorized on well logs as production wells are used for agriculture. Most of the wells in the Subbasin are used for domestic purposes.

Table 3-2: Types of Wells

Type of Well	Total Wells
Domestic	1,042
Production	99
Public Supply	11
TOTAL	1,152

[1] DWR SGMA Data Viewer – Well Report Statistics in Paso Robles Subbasin; downloaded on June 26, 2018.

Figure 3-7 through Figure 3-9 show the density of wells in the Subbasin by their types of use. These DWR data used to develop these maps are not necessarily the same set of well data held by the County of San Luis Obispo. DWR data were used to develop maps of well densities because they are organized for easy mapping of well density per square mile. These maps should be considered representative of well distributions, but not definitive.

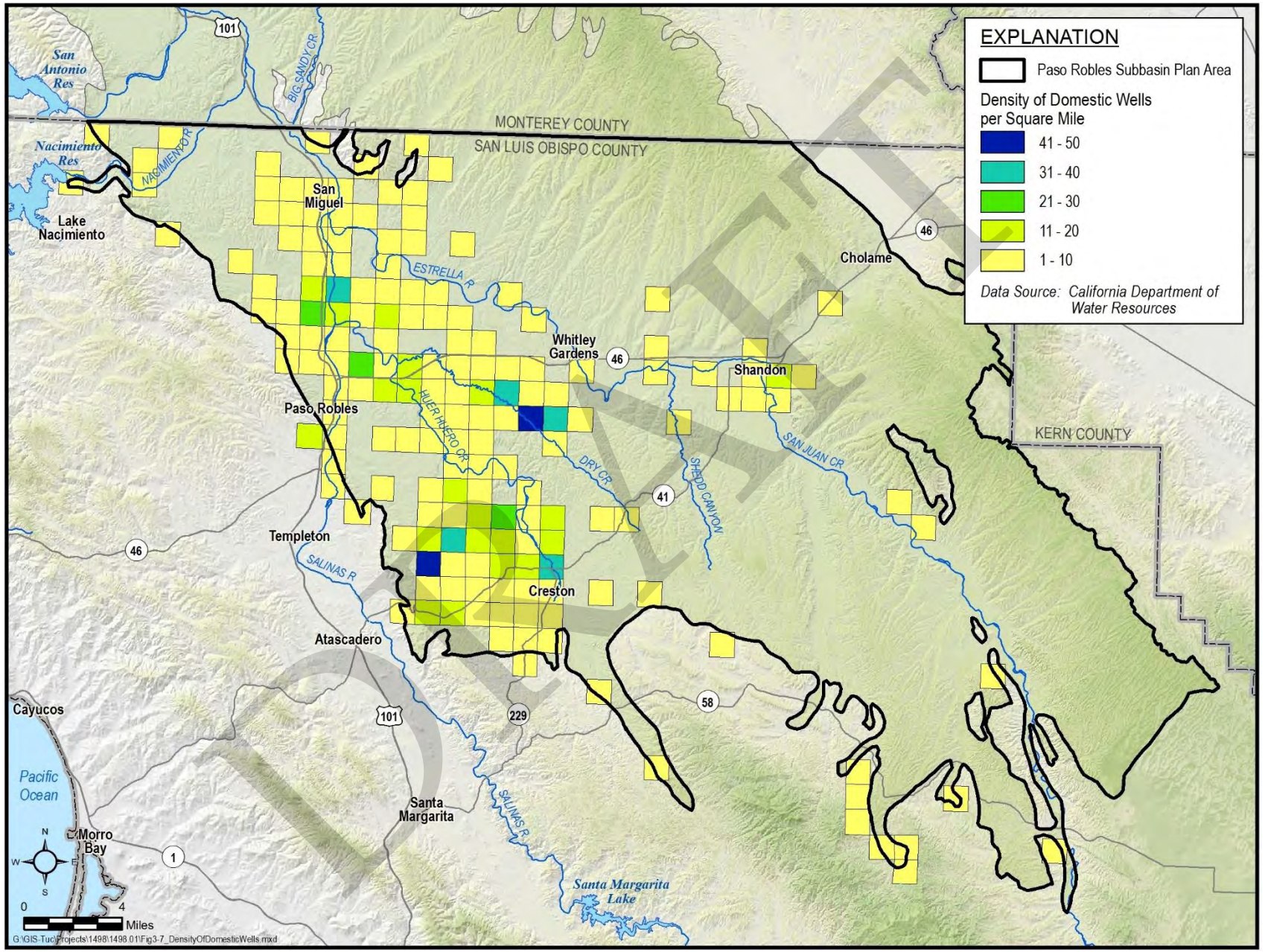

Figure 3-7: Density of Domestic Wells per Square Mile

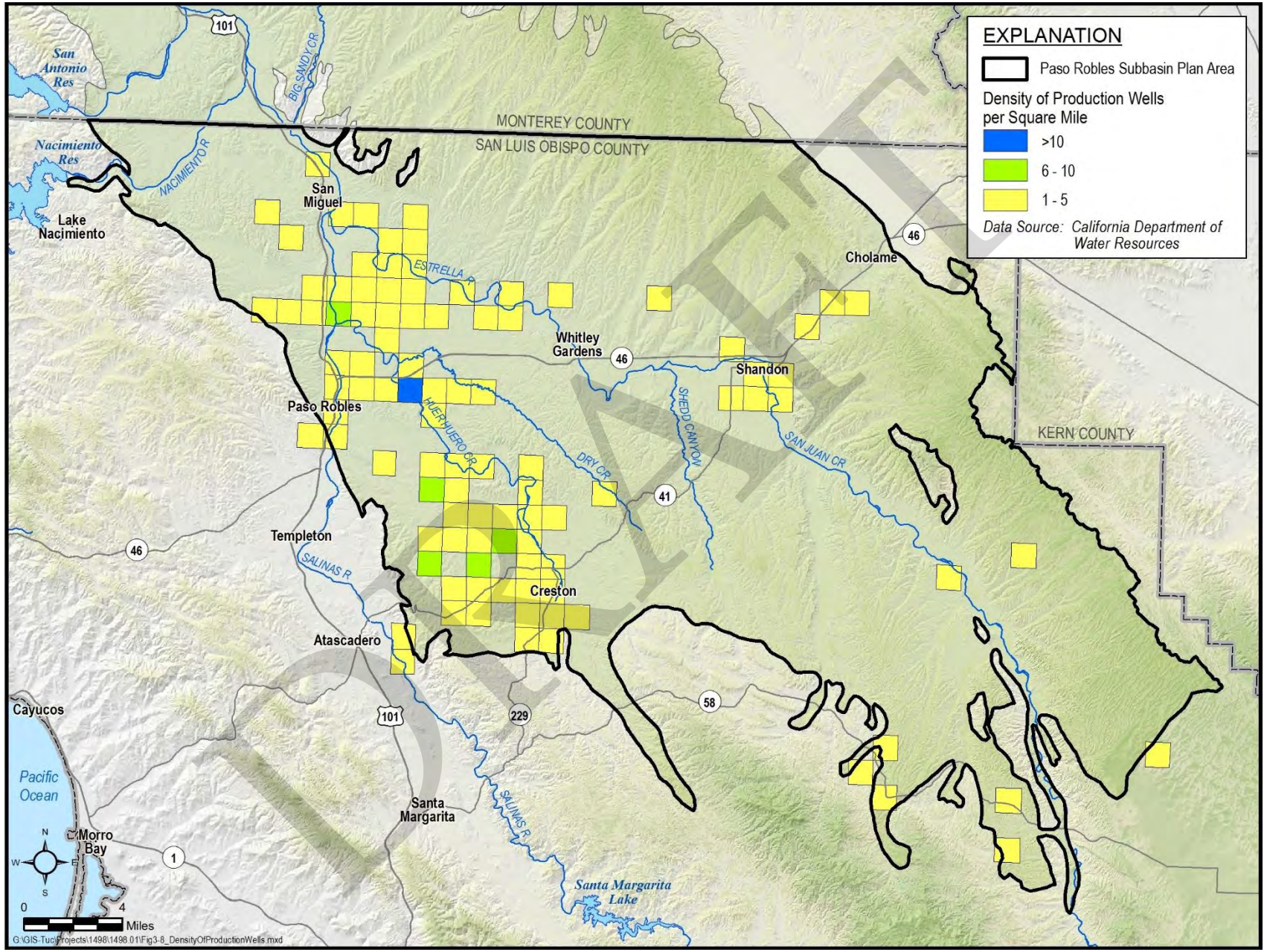

Figure 3-8: Density of Production Wells per Square Mile

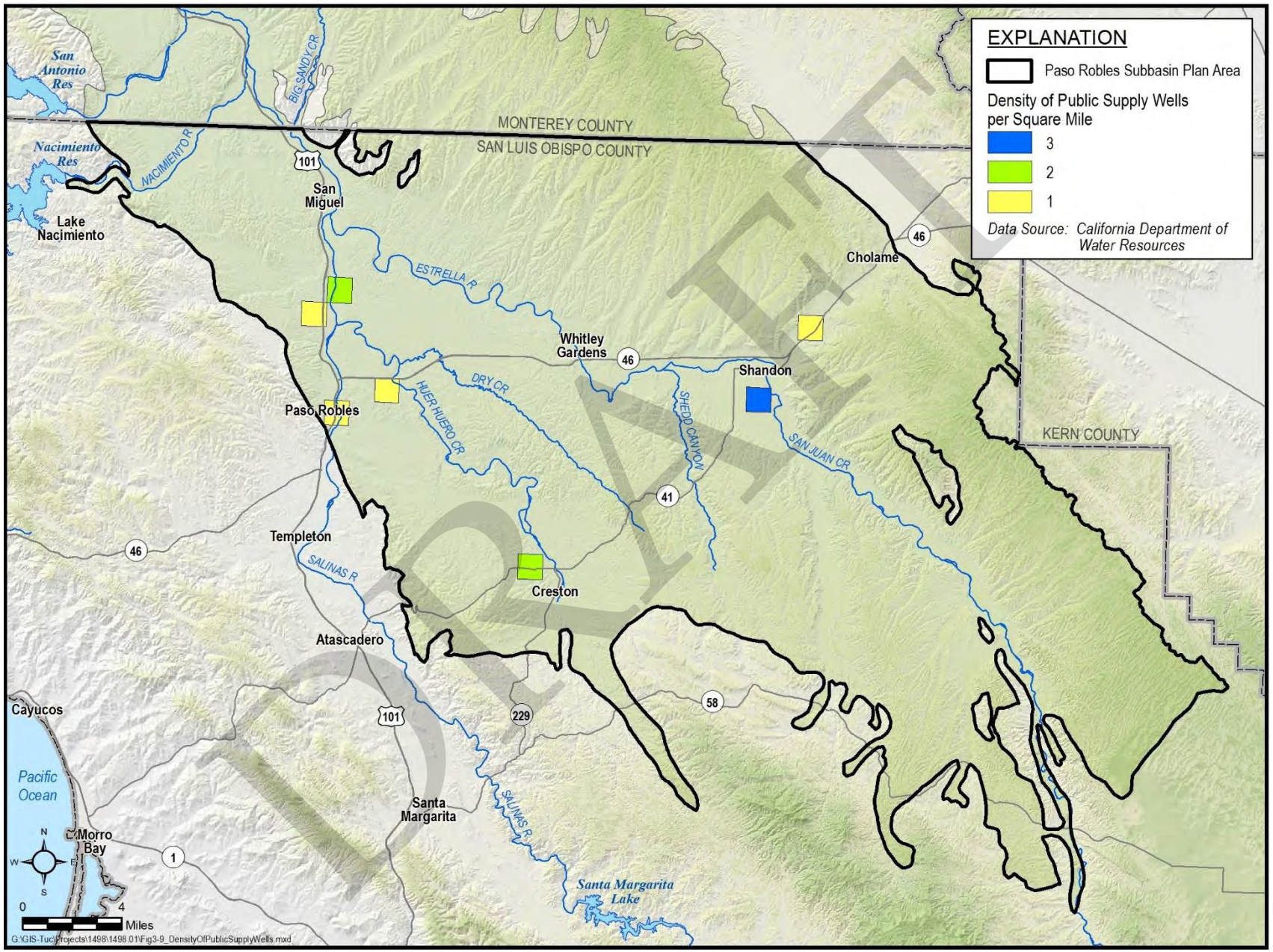

Figure 3-9: Density of Public Water Supply Wells per Square Mile

3.6 EXISTING MONITORING PROGRAMS

3.6.1 GROUNDWATER LEVEL MONITORING

The SLOFCWCD has been monitoring groundwater levels county-wide on a semi-annual basis for more than 50 years to support general planning and for engineering purposes. Groundwater level measurements are taken once in the spring and once in the fall. The monitoring takes place from a voluntary network of wells. The voluntary monitoring network has changed over time as access to wells has been lost or new wells have been added to the network.

The U.S. Geological Survey (USGS) monitors groundwater levels at two monitoring wells in the Basin. The two wells in the Paso Robles Subbasin only have one measurement, collected in November 2017. The frequency for monitoring is given as "periodic" so the frequency is unknown at this time.

Routine monitoring of groundwater levels is conducted by the County in the Subbasin. Figure 3-10 shows the locations of monitor wells in the County's database that are designated as public and the locations of monitor wells reported to the state's California Statewide Groundwater Elevation Monitoring (CASGEM) system. The monitoring network also includes a number of other wells in the Plan Area that are designated as private that are not shown on this map. Additional evaluation of the current monitoring program will be conducted for the GSP to establish a representative monitoring network of public and private wells that will be used during plan implementation to track groundwater elevations and ensure that minimum thresholds have not been exceeded.

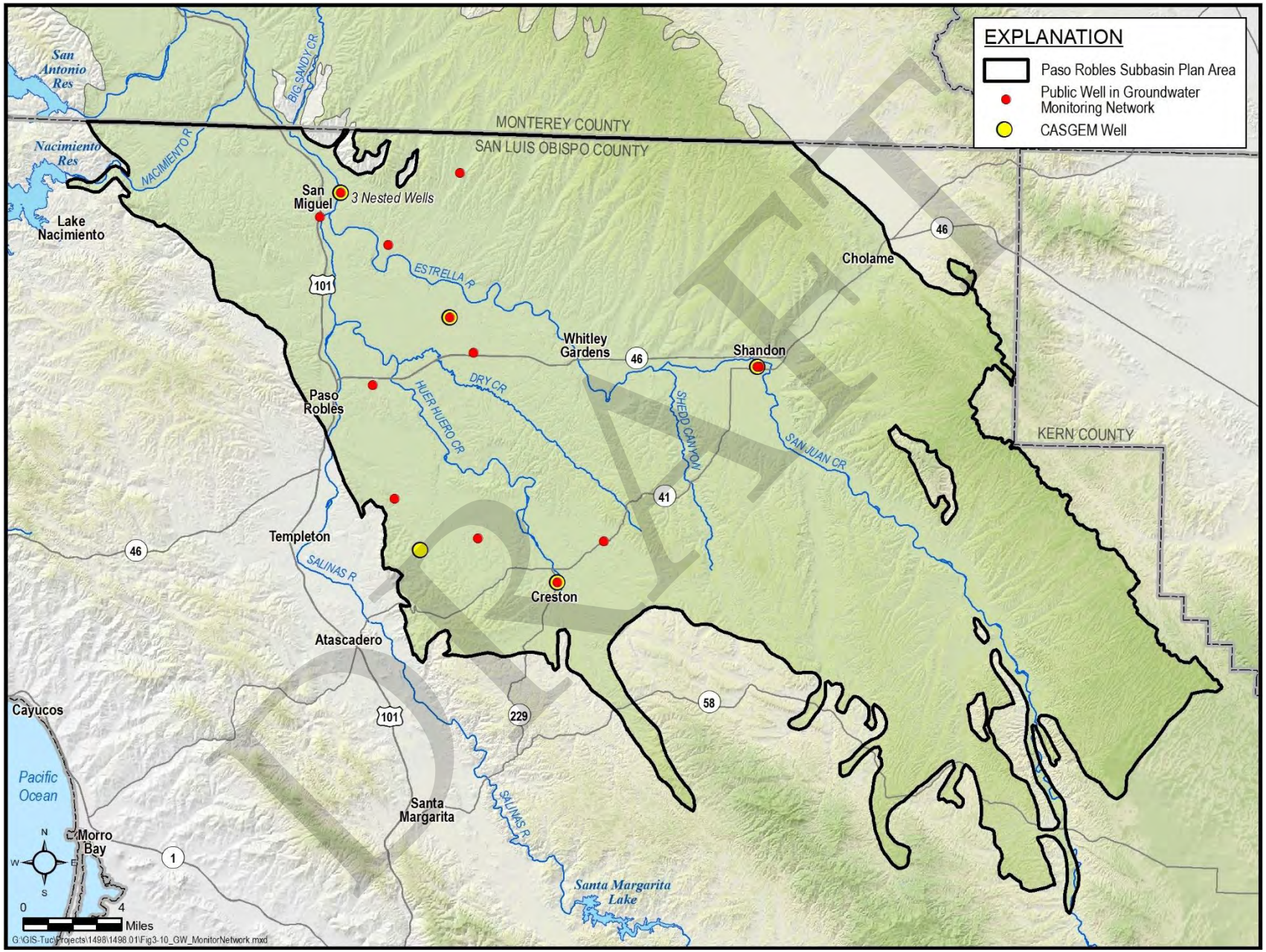

Figure 3-10: Public Wells in the Groundwater Level Monitoring Network

3.6.2 GROUNDWATER QUALITY MONITORING

Groundwater quality is monitored under several different programs and by different agencies including:

- Muncipal and community water purveyors must collect water quality samples on a routine basis for compliance monitoring and reporting to the California Division of Drinking Water.
- The USGS collects water quality data on a routine basis under the Groundwater Ambient Monitoring and Assessment (GAMA) program. These data are stored in the State's GAMA/Geotracker system.
- The State Water Resource Control Board's 2009 Recycled Water Policy required the development of Salt Nutrient Management Plans for groundwater basins in California. This plan was developed in 2015 for the Paso Robles Subbasin (RMC, 2015).
- There are multiple sites that are monitoring groundwater quality as part of investigation or compliance monitoring programs through the Cedntral Coast Regional Water Quality Control Board.

Figure 3-11 shows the location of wells in the State's GAMA Geotracker database. The USGS monitors groundwater quality at two monitoring wells in the Subbasin. Only one sample has been collected (in 2017) from each of the wells. The monitoring frequency is unknown at this time.

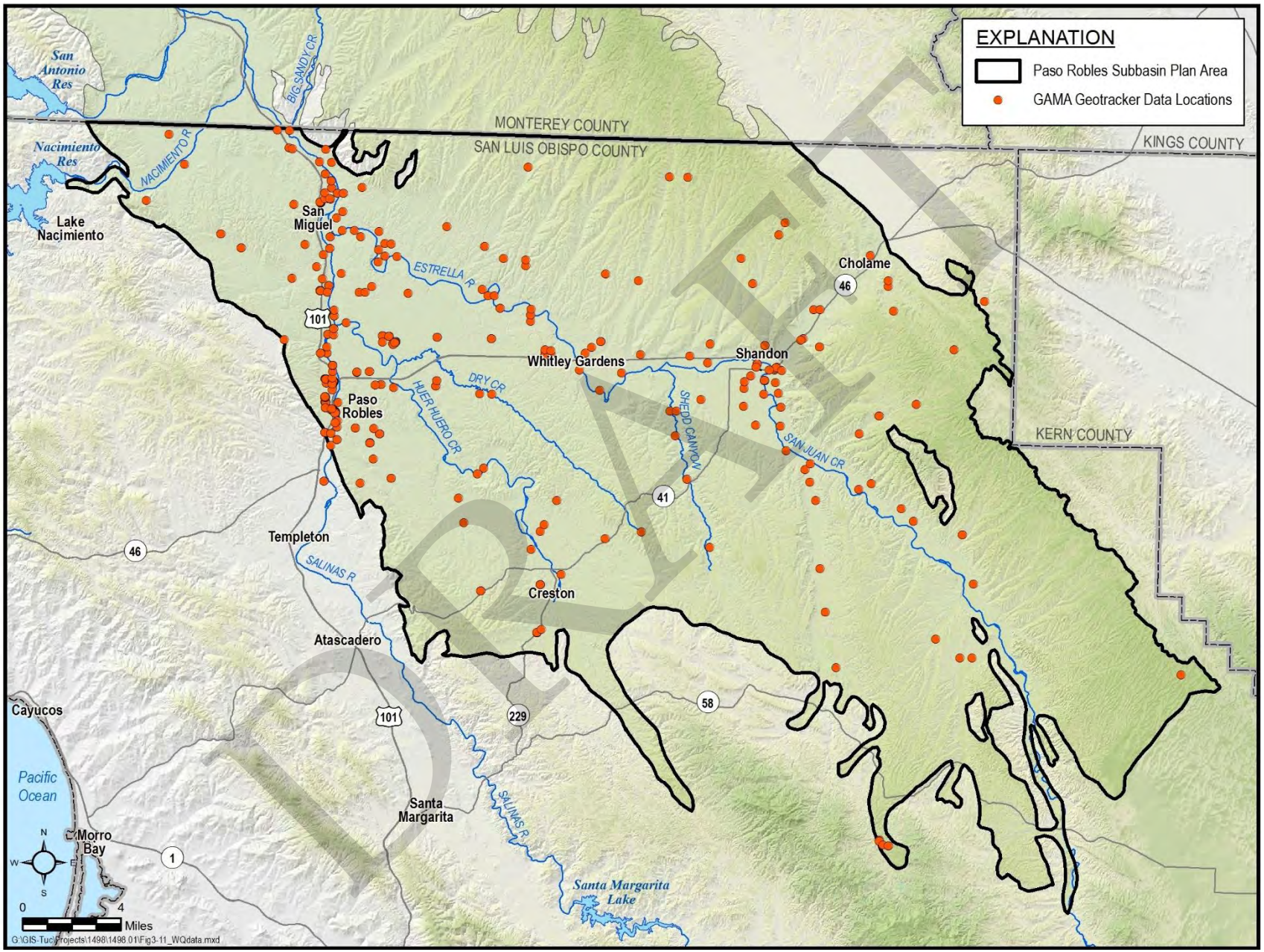

Figure 3-11: Groundwater Quality Monitoring Well Locations

3.6.3 SURFACE WATER MONITORING

Stream gauges have historically been maintained and monitored by the USGS and the SLOFCWCD. Data are stored electronically in National Water Information System (NWIS) files and are retrievable from the USGS Water Resources Internet site.

The SLOFCWCD also stores electronic stream gauge data. There are various SLOFCWCD stream gauges surrounding the Subbasin, but no SLOFCWCD stream gauges lie within the Subbasin. Of the USGS stream gauges with historical data, only three gauges are currently active in the Subbasin:

- Salinas River above the City of Paso Robles,
- Estrella River near Estrella,
- Nacimiento River below the Nacimiento Dam near Bradley,

A fourth stream gauge, the Salinas River gauge, lies at the base of Santa Margarita dam upstream of the Subbasin. This gauge is important for this GSP because it provides estimates of the streamflow released towards the Subbasin. Figure 3-12 shows the locations of the three active stream gauges in the Subbasin and the one County gauge upstream of the Subbasin. These three stream gauges in the study area report daily average stream flows.

3.6.4 CLIMATE MONITORING

Climate data are measured at seven stations located in the Subbasin. Data from these seven stations were obtained from the SLOFCWCD. The locations of the stations are shown on Figure 3-12. Table 3-3 summarizes the long-term averages at the Paso Robles Station. Average annual precipitation at this station varies from 6.2 to 33.2 inches. Figure 3-13 displays the long-term precipitation record at the Paso Robles station.

The Paso Robles precipitation station measures daily temperatures in addition to rainfall. The California Irrigation Management Information System (CIMIS) station number 163 in Atascadero measures a number of climatic factors that allow a calculation of daily reference evapotranspiration for the area. Table 3-4 provides a summary of average monthly rainfall, temperature, and reference evapotranspiration (ETo) for the Basin.

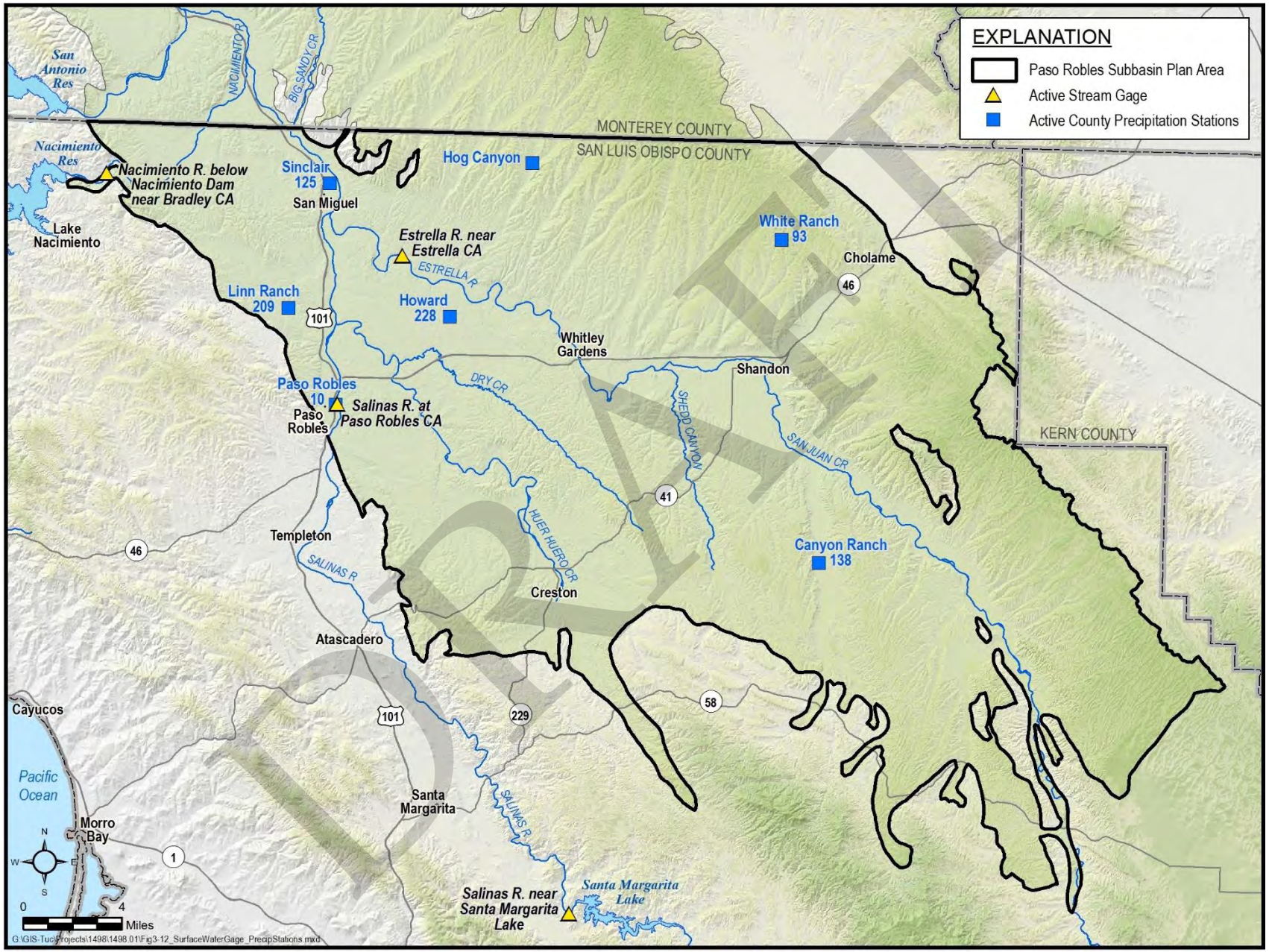

Figure 3-12: Surface Water Gauging and Precipitation Stations

Table 3-3: Precipitation Measurements at the Paso Robles Climate Station from 1989 to 2017

Water Year	Precipitation at Paso Robles[a] Station ID: 046730 (inches)
1989	9.5
1990	7.2
1991	13.9
1992	14.4
1993	26.4
1994	11.5
1995	29.9
1996	13.8
1997	17.6
1998	26.8
1999	9.4
2000	13.2
2001	15.4
2002	8.3
2003	13.8
2004	9.5
2005	33.2
2006	18.3
2007	6.6
2008	13.8
2009	9.1
2010	21.0
2011	22.0
2012	10.8
2013	7.2
2014	6.2
2015	12.4
2016	10.5
2017	23.8
Minimum	6.2
Maximum	33.2
Average	15.0

WWTP = Wastewater Treatment Plant
Data Sources:
[a] NOAA NCDC https://www.ncdc.noaa.gov/cdo-web/search
[b] NOAA NCDC Beta Release Data ftp://ftp.ncdc.noaa.gov/pub/data/hpd/auto/v2/beta/
[c] San Luis Obispo Department of Public Works

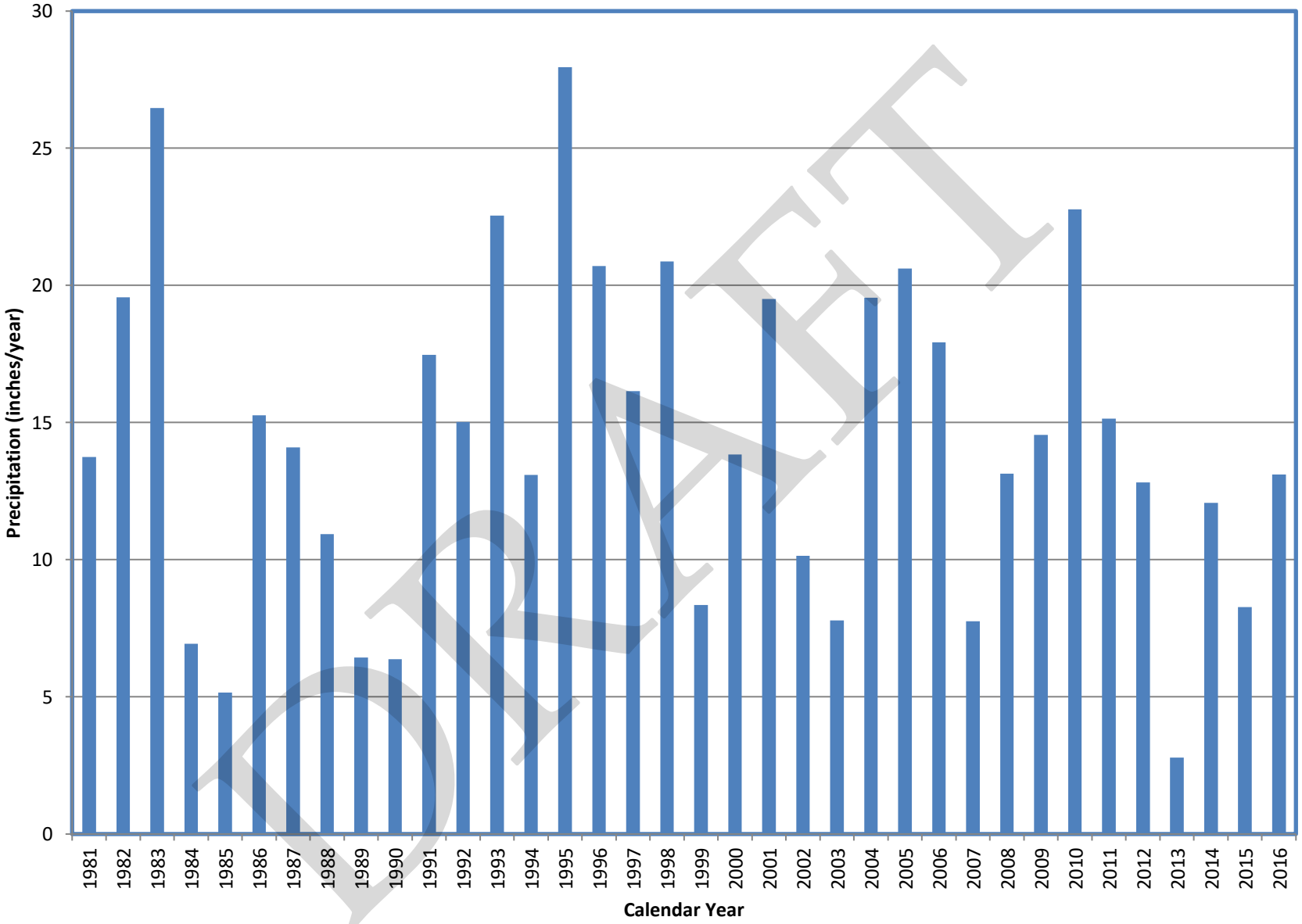

Figure 3-13: Annual Precipitation at the Paso Robles Station.

Table 3-4: Average Monthly Climate Summary

Month	Average Rainfall (inches)[a]	Average ET_o (inches)[b]	Average Daily Temperature (F°)[c]
January	3.4	1.7	46.7
February	3.1	2.1	49.6
March	2.6	3.6	54.0
April	0.8	4.7	57.4
May	0.4	6.5	61.5
June	0.0	7.5	68.6
July	0.1	8.0	70.8
August	0.0	7.2	70.5
September	0.2	5.6	68.4
October	0.9	3.7	60.9
November	1.0	2.3	51.2
December	2.4	1.4	45.2
Monthly Average	1.2	4.5	-
Average Calendar Year[d]	15.0	54.5	58.7

[a] Average of monthly precipitation at Paso Robles Station 046730 for Jan 1989-Dec 2017 (NOAA NCDC).

[b] ET_o = Average of monthly evapotranspiration at Paso Robles Station PR-1 for Jan 1989 through Dec 2017. PR-1 is operated by Western Weather Group. Data prior to Jan 2010 was compiled by Geoscience Support Services, Inc.

[c] Average daily temperature at Paso Robles Station (PR-1) for Jan 2010 through Dec 2017.

[d] Average Calendar Year is not the sum of monthly averages, but rather a historical annual average over the period of record.

3.6.4.1 Incorporating Existing Monitoring Programs Into the GSP

The existing monitoring programs and monitoring networks constitute a well-developed and broadly distributed system that provides representative data throughout the Subbasin. The groundwater elevation monitoring programs are conducted by two of the five GSAs that are cooperatively developing this GSP, and therefore will be incorporated into the GSP monitoring plan. The existing groundwater level monitoring programs will be updated and improved to document the avoidance of undesirable results in each significant aquifer in the Subbasin.

The current water quality monitoring program for from the production wells will be incorporated into this GSP to demonstrate that groundwater quality undesirable results do not occur based on data from a representative number of production wells. The existing stream gauges will also be incorporated into this GSP monitoring plan to validate our projections of surface water depletions from pumping.

This section to be completed after GSP is complete.

3.6.4.2 Limits to Operational Flexibility

The existing monitoring programs are not antcipated to limit the operational flexibility of this GSP.

3.7 Existing Management Plans

There are multiple groundwater and water management plans that cover the Subbasin. These plans are described in the following subsections, along with brief descriptions of how they relate to the management of current water supply, projected water supplies, and land use.

3.7.1 Groundwater Management Plan (2011)

The City of Paso Robles and its partnering agencies developed a Groundwater Management Plan (GMP) (GEI, 2011) that is compliant with AB3030 and SB1938 legislation. The plan covered both the Atascadero and Paso Robles Subbasins but excluded the area between the San Juan and San Andreas Faults. **Appendix B** contains a copy of the plan.

The GMP included a list of 73 groundwater management activities that could be implemented in the Subbasin. The groundwater management activities were grouped into various categories including stakeholder involvement, monitoring and data collection, resource protection, sustainability, and water management. The plan included an implementation schedule and a requirement for periodic updates.

3.7.2 San Luis Obispo County Master Water Report (2012)

The County's Master Water Report (MWR) (Carollo, 2012) is a compilation of the current and future water resource management activities being undertaken by various entities within the County and is organized by Water Planning Areas (WPA). The MWR explores how these activities interrelate, analyzes current and future supplies and demands, identifies future

water management strategies and ways to optimize existing strategies, and documents the role of the MWR in supporting other water resource planning efforts. The MWR evaluates and compares the available water supplies to the water demands for the different water planning areas. This was accomplished by reviewing or developing the following:

- Current water supplies and demands based on available information
- Forecast water demands and water supplies available in the future under current land use policies and designations
- Criteria under which there is a shortfall when looking at supplies versus demands
- Criteria for analyzing potential water resource management strategies, projects, programs, or policies
- Potential water resource management strategies, projects, programs, or policies to resolve potential supply deficiencies.

3.7.3 San Luis Obispo County Region Integrated Regional Water Management Plan (2014)

The San Luis Obispo County Integrated Regional Water Management Plan (IRWMP) was initally developed and adopted by the SLOFCWCD in 2005 (GEI Consultants, 2005), and has been updated several times. The 2014 IRWMP (San Luis Obispo County, 2014) included goals and objectives that provide the basis for decision-making and are used to evaluate project benefits. The goals and objectives reflect input from interested stakeholders on the region's major water resources issues.

The SLOFCWCD, in cooperation with the SLOFCWCD's Water Resources Advisory Committee (WRAC), prepared the IRWMP to align the County's water resources management planning efforts with the State's planning efforts. The IRWMP is used to support the Region's water resource management planning and submittal of grant applications to fund these efforts. The IRWMP integrated 19 different water management strategies that have or will have a role in protecting the region's water supply reliability, water quality, ecosystems, groundwater, and flood management objectives. The integration of these strategies resulted in a list of action items (projects, programs, and studies) needed to implement the IRWMP. The IRWMP the Plan is currently being updated with a DWR submittal target date of December 2018,

3.7.4 SALT AND NUTRIENT MANAGEMENT PLAN FOR THE PASO ROBLES GROUNDWATER BASIN (2015)

The City of Paso Robles, along with the City of Atascadero, San Miguel CSD, Templeton CSD, Heritage Ranch CSD, County of San Luis Obispo, and Camp Roberts, prepared a Salt and Nutrient Management Plan (SNMP) for the Subbasin in accordance with State's 2009 Recycled Water Policy (RMC, 2015).

In the SNMP, baseline groundwater quality conditions were established as a framework under which salt and nutrient issues can be managed, and to streamline the permitting process of new recycled water projects while meeting water quality objectives and protecting beneficial uses. The SNMP will eventually be used by the Central Coast Regional Water Quality Control Board (CCRWQCB) to aid in the management of basin groundwater quality.

3.7.5 CITY OF PASO ROBLES URBAN WATER MANAGEMENT PLAN (2016)

The Urban Water Management Plan (UWMP) (Todd Groundwater, 2016) describes the City's current and future water demands, identifies current water supply sources, and assesses supply reliability for the City. The UWMP describes the City's reliance on groundwater and its support for efforts to avoid overdraft by developing additional sources. The UWMP provides a forecast of future growth, water demand and water sources for the City through 2035. These sources include water conservation, surface water from Lake Nacimiento, and the use of recycled water for irrigation. The UWMP identifies beneficial impacts to groundwater quality through the use of these sources.

3.8 EXISTING GROUNDWATER REGULATORY PROGRAMS

The following regulatory programs are not formal management plans, but may influence groundwater management or guide the development of Sustainable Management Criteria.

3.8.1 SALINAS RIVER LIVE STREAM REQUIREMENTS (SWRCB, 1972)

In 1972, the State Water Resources Control Board (SWRCB) issued a decision regarding the storage of water at Salinas Reservoir in order to protect vested downstream rights. The decision presumed that downstream rights would be met if a visible surface flow (i.e., a "live" stream) existed in the Salinas River between the Salinas Reservoir and the confluence with the Nacimiento River. If there was no live stream, then total daily inflow to the Salinas Reservoir was to be released to pass downstream.

The Live Stream Agreement was first implemented in 1972 using flow at the stream gauge on the Salinas River near the City of Paso Robles as an indicator of "live" stream conditions. In 1976, a set of six observation points was established to determine "visible surface flow". A seventh observation point, located immediately upstream of the Graves Creek confluence, was added in 1978. It is this seventh point that has always been the first point to go dry, triggering the live stream release period.

3.8.2 GROUNDWATER EXPORT ORDINANCE (2015)

In 2015, the County of San Luis Obispo passed an Exportation of Groundwater ordinance that requires a permit for the export of groundwater out of a groundwater basin or out of the County. An export permit is only approved if the Department of Public Works Director or his/her designee finds that moving the water would not have any adverse impacts to groundwater resources, such as causing aquifer levels to drop, disrupting the flow of neighboring wells or resulting in seawater intrusion. Export permits are only valid for one year.

3.8.3 COUNTY OF SAN LUIS OBISPO WATER DEMAND OFFSET ORDINANCE (2015)

In October 2015, the Board of Supervisors adopted the Ordinance and Resolution 2015-288. The Ordinance limited new or expanded irrigated agriculture in areas within the Subbasin except by offset of existing irrigated agriculture either on the same property or on a different property in the Subbasin. The ordinance also identified areas of severe decline in groundwater elevation and properties overlying these areas would be further restricted from planting new or expanding irrigated agriculture except for those converting irrigated agriculture on the same property into a different crop type. Resolution 2015-288 established the Countywide Water Conservation Program (CWWCP). The CWWCP helps to substantially reduce increases in groundwater extraction in areas that have been certified Level of Severity (LOS) III.

3.8.4 AGRICULTURAL ORDER (RWQCB, 2017)

In 2017 the CCRWQCB issued Agricultural Order No. R3-2017-0002, a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order). The permit requires that growers implement practices to reduce nitrate leaching into groundwater and improve surface receiving water quality. Specific requirements for individual growers are structured into three tiers based on the relative risk their operations pose to water quality.

Growers must enroll, pay fees, and meet various monitoring and reporting requirements according to the tier to which they are assigned. All growers are required to implement groundwater monitoring, either individually or as part of a cooperative regional monitoring program. Growers electing to implement individual monitoring (i.e., not participating in the regional monitoring program implemented by the Central Coast Groundwater Coalition or CCGC) are required to test all on-farm domestic wells and the primary irrigation supply well for nitrate or nitrate plus nitrite, and general minerals (including, but not limited to, TDS, sodium, chloride and sulfate).

3.8.4.1 WATER QUALITY CONTROL PLAN FOR THE CENTRAL COAST BASINS (SWRCB, 2017)

The Water Quality Control Plan for the Central Coastal Basin (Basin Plan) was most recently updated in September 2017. The objective of the Basin Plan is to outline how the quality of the surface water and groundwater in the Central Coast Region should be managed to provide the highest water quality reasonably possible.

The Basin Plan lists benceficial users, describes the water quality which must be maintained to allow those uses, provides an implementation plan, details SWRCB and CCRWQCB plans and polices to protect water quality and a statewide survelliance and monitoring program as well as regional surveillance and monitoring programs.

Present and potential future beneficial uses for inland waters in the Basin are: surface water and groundwater as municipal supply (water for community, military or individual water supplies); agricultural; groundwater recharge; recreational water contact and non-contact; sport fishing; warm fresh water habitat; wildlife habitat; rare, threatened or endangered species; and, spawning, reproduction, and/or early development of fish.

Water Quality Objectives for both groundwater (drinking water and irrigation) and surface water are provided in the Basin Plan.

Total Maximum Daily Load (TMDLs) requirements have been developed for Fecal Indicator Bacteria and Alternative Implementation Program for the Cholame Creek Watershed and Lower San Antonio River Subwatershed in San Luis Obispo and Monterey Counties. A TMDL for boron in the Estrella River Subwatershed, San Luis Obispo and Monterey Counties has also been developed. A TDML for to the Upper Salinas River has not been developed.

The Basin Plan identified actions to be implemented inthe Basin, including:

- Dischargers along the Salinas River should remain as separate treatment facilities with land disposal to evaporation/percolation systems and land application (irrigation)

systems where possible. Disposal should be managed to provide maximum nitrogen reduction (e.g., through crop irrigation or wet and dry cycle percolation).

- The City of Paso Robles owns and operates a nominal 5 mgd secondary wastewater treatment plant. Treated wastewater is discharged to the Salinas River channel. Beneficial use of reclaimed water should be investigated and implemented, if feasible.
- The City of Paso Robles also owns and operates the wastewater facility serving the California Youth Authority and Paso Robles Airport. Wastewater from the California Youth Authority is currently treated at the City of Paso Robles' WWTP. This wastewater is part of the Recycled Water project that is currently in construction.

3.8.4.2 REQUIREMENTS FOR NEW WELLS

In October, 2017, Governor Brown signed Senate Bill (SB) 252 which became effective on January 1, 2018. SB 252 requires well permit applicants in critically overdrafted basins to include information about the proposed well, such as location, depth, and pumping capacity. The bill also requires the permitting agency to make the information easily accessible to the public and the GSAs.

3.8.4.3 TITLE 22 DRINKING WATER PROGRAM (SWRCB)

The SWRCB Division of Drinking Water (DDW) regulates public water systems in the State to ensure the delivery of safe drinking water to the public. A public water system is defined as a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. Private domestic wells, wells associated with drinking water systems with less than 15 residential service connections, industrial and irrigation wells are not regulated by the DDW.

The SWRCB-DDW enforces the monitoring requirements established in Title 22 of the California Code of Regulations (CCR) for public water system wells, and all the data collected must be reported to the DDW. Title 22 also designates the regulatory limits (e.g., maximum contaminant levels [MCLs]) for various waterborne contaminants, including volatile organic compounds, non-volatile synthetic organic compounds, inorganic chemicals, radionuclides, disinfection byproducts, general physical constituents, and other parameters.

3.8.4.4 INCORPORATION INTO GSP

Information in these various plans have been incorporated into this GSP and used during the preparation of Sustainability Goals, when setting Minimum Thresholds and Measurable Objectives and were considered during development of Projects and Management Actions.

This section to be completed after GSP is complete.

3.8.4.5 Limits to Operational Flexibility

Some of the existing management plans and ordinances will limit operational flexibility. These limits to operational flexibility have already been incorporated into the sustainability projects and programs included in this GSP. Examples of limits on operational flexibility include:

- The Groundwater Export Ordinance prevents export of water out of the Subbasin. This is likely not a significant limitation because exporting water out of the Subbasin hinders sustainability.
- The Basin Plan and the Title 22 Drinking Water Program restrict the quality of water that can be recharged into the Subbasin.

This section to be completed after GSP is complete.

3.9 Conjunctive Use Programs

There are no active conjunctive use programs currently operating within the Subbasin.

3.10 Land Use Plans

The County of San Luis Obispo, the City of Paso Robles and Camp Roberts have land use authority. The five GSAs do not have land use authority. Land use is an important factor in water management as described below. The following sections provide a general description of these land use plans and how implementation may affect groundwater.

3.10.1 City of Paso Robles General Plan (2011)

The City of Paso Robles General Plan is the fundamental land use policy document of the City of Paso Robles. The City's General Plan was developed to address several areas within the City's Planning Area; which includes areas defined as City Limits, the Sphere of Influence, and the Planning Impact Area. The City's General Plan defines the framework by which the City's physical and economic resources are to be managed and used in the future. This City General Plan has a planning horizon of 2025.

Present City policy recommends that residential growth be managed toward a target population of 44,000 in 2025. Most growth is anticipated to occur within the existing City

limits where services and public facilities are available. Additional growth is likely to occur in the urban area east of the Salinas River, but minor annexations to the City would be necessary in order to fully develop at the densities recommended in the City's General Plan.

3.10.2 SAN LUIS OBISPO COUNTY GENERAL PLAN (2014)

The County of San Luis Obispo General Plan contains three pertinent elements that are related to land use and water supply. Pertinent sections include:

- Land Use Element
- Agricultural Element
- Inland Area Plans Element

The County General Plan also contains programs which are specific, non-mandatory actions or policies recommended by the Land Use and Circulation Element (LUCE) to achieve community or area wide objectives. Implementing each LUCE program is the responsibility of the County or other public agency that is identified in the program. Because programs are recommended actions rather than mandatory requirements, implementation of any program by the County should be based on consideration of community needs and substantial community support for the program and its related cost.

The LUCE, adopted in 2014, consolidates and reorganizes the former Adelaida, El Pomar-Estrella, Las Pilitas, Nacimiento, and Salinas River planning areas, and the northern portions of the Los Padres and Shandon-Carrizo planning areas, into a single watershed-based planning area called the North County planning area. The Planning Area does not conform to the Subbasin boundaries but does provide a general representation of the land use in the area. Figure 3-14 is copied from the County General Plan and shows the planning area.

Article 9 and Article 10 of the LUCE incorporates a number of community plans that were developed for the communities in the Subbasin. These include the Creston Village Plan, the Heritage Ranch Village Plan, the North County Villages Plan, the San Miguel Community Plan, and the Shandon Community Plan.

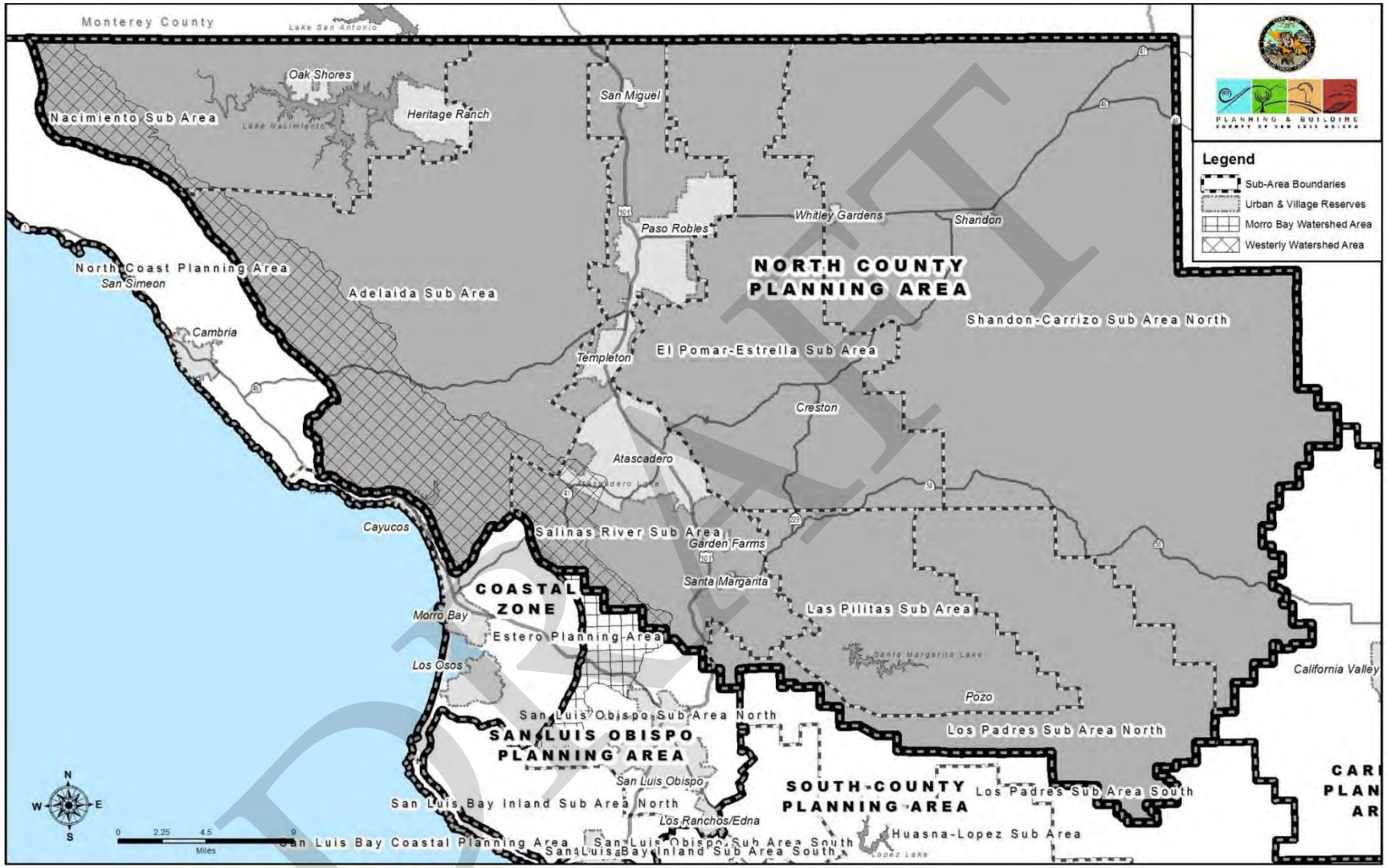

Figure 3-14: North County Planning Subareas

The County General Plan identifies land use types and acres within the North County planning area. The data from the 2014 updatte are summarized on Table 3-5.

Table 3-5: Land Use Acreage

Table 4-1: Rural North County Planning Area Land Use by Sub-area (acres)[1]								
Land Use Category	**Adelaida**	**El Pomar-Estrella**	**Las Pilitas**	**Los Padres North**	**Nacimiento**	**Salinas River**	**Shandon[2]**	**Total**
Agriculture	152,715	104,762	21,270	11,613	36,049	52,954	348,569	**727,932**
Rural Lands	26,711	14,613	3,528	21,133	31,334	7,945	3,941	**109,205**
Recreation	277	0	460	0	2,725	664	0	**4,126**
Open Space	1,352	0	3,520	74,943	9,954	13,630	1,421	**104,820**
Residential Rural	77	11,816	625	0	2,363	5,530	170	**20,581**
Residential Suburban	0	363	0	0	0	82	0	**445**
Residential Single Family	0	0	0	0	0	22	0	**22**
Residential Multi-Family	0	0	0	0	0	0	0	**0**
Commercial Retail	0	0	8	0	0	5	3	**16**
Commercial Service	0	0	0	0	0	87	3	**90**
Industrial	0	0	0	0	0	20	0	**20**
Public Facilities	26,146	2	0	0	0	86	0	**26,234**
Dalidio Ranch	0	0	0	0	0	0	0	**0**
Total	**207,278**	**131,556**	**29,411**	**107,689**	**82,425**	**81,025**	**354,107**	**993,491**

[1]Acreage quantities are current as of the last major update to each of the former North County area plans (refer to Table 1-1).
[2]Northern half of the former Shandon-Carrizo planning area.

Projected growth in the planning subareas in the Subbasin as defined in the County General Plan includes:

- The City of Paso Robles population in 1995 was estimated to be 21,539, or 15.9 percent above the population of 18,138 in 1990, increasing at an average annual growth rate of 3.1 percent.
- The Shandon sub-area outside of CSA 16 will likely experience limited population growth, related only to future increased demands for agricultural labor
- Population in the Adelaida sub-area has been steadily increasing, but slower than the county as a whole. This pattern will likely continue, declining slightly as countywide growth also declines.
- The Las Pilitas sub-area's present population is estimated to be 1,101. Since the sub-area contains no urban areas, a large population increase is not expected. Population growth in the Las Pilitas sub-area has been slightly less than 2 percent per year and is expected to slowly decline as the countywide growth rate also declines.

The SLO County Planning Department estimated potential water demands from rural residential areas in the County. They assumed that a reasonable ultimate build-out equates to development of 75 percent of all possible parcels currently zoned for rural residential areas. This would result in a rural residential demand of just over 37,000 AFY. This estimate includes small community water systems. If ultimate build-out occurred by 2025, the annual growth rate would be an unrealistic 12.8 percent. In order to determine the demand in 2025, a growth rate of 2.3 percent per year was assumed. As a result, the County estimated rural residential pumping in 2025 will be 16,504 AF, which is 44 percent of ultimate build-out.

3.10.3 Camp Roberts Land Use Study

This section to be completed after GSP is complete.

Located north of the City of Paso Robles and spanning nearly 43,000 acres, Camp Roberts is one of the state's three main training bases for the California National Guard and trains more than 15,000 guardsmen in a typical year.

3.10.4 Plan Implementation Effects on Existing Land Use

This section to be completed after GSP is complete.

3.10.5 Plan Implementation Effects on Water Supply

This section to be completed after GSP is complete.

3.10.6 Land Use Plans Outside of Basin

The stakeholders submitting this GSP have not included information regarding the implementation of land use plans outside the subbasins, as these adjacent subbasins are also required to implement SGMA and their GSPs will require them to achieve sustainable groundwater management.

COMMUNICATION & ENGAGEMENT PLAN

FOR THE PASO ROBLES SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

JULY 2018

Paso Robles Subbasin Groundwater Sustainability Agencies

- *County of San Luis Obispo*
- *City of Paso Robles*
- *San Miguel Community Services District*
- *Heritage Ranch Community Services District*
- *Shandon San Juan Water District*




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TABLE OF CONTENTS

1.0 INTRODUCTION

In 2015, the California state legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA requires local agencies in medium- and high-priority groundwater basins, as designated by the California Department of Water Resources (DWR), to form Groundwater Sustainability Agencies (GSAs) and prepare Groundwater Sustainability Plans (GSPs). Because the Paso Robles Subbasin[1] (DWR Bulletin 118 Basin No. 3-4.06) has been designated as a high-priority basin subject to critical conditions of overdraft, the Paso Robles Subbasin GSP is due by January 31, 2020. Whereas, other medium- and high- priority basins not subject to critical conditions of overdraft are due January 31, 2022. During the GSP preparation process, GSP Regulations require public outreach and engagement with basin users, the public, and other stakeholders (collectively referred to in this document as Interested Parties).

The purpose of this Communication and Engagement Plan (C&E Plan) is to outline the process for Interested Parties' involvement in the development of a GSP for the Paso Robles Subbasin.

About Paso Robles Subbasin

The Paso Robles Subbasin lies in northern San Luis Obispo County and extends into southern Monterey County. The Subbasin is bounded by the Santa Lucia Range on the west, the La Panza Range on the south, and the Temblor and Diablo Ranges on the east. The **Figure 1** shows the Paso Robles Subbasin and the GSAs formed therein.

Basin Boundary Modifications

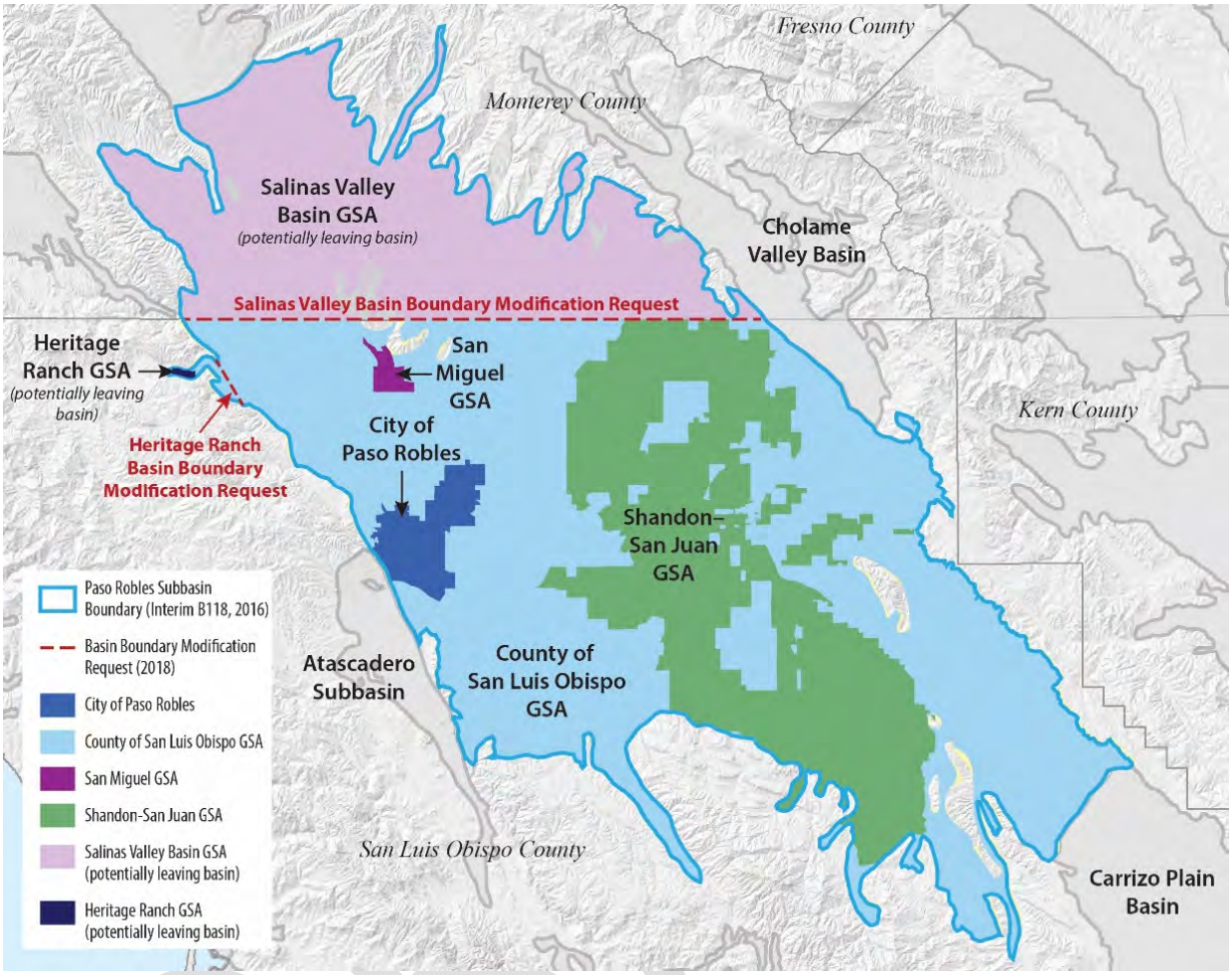
Two GSAs currently included in the Paso Robles Subbasin have filed initial notifications to DWR for a basin boundary modification which would cause them to leave the Paso Robles Subbasin.

- **Salinas Valley Basin GSA** (SVBGSA) submitted an initial notification on May 1, 2018 and a basin boundary modification request on July 5, 2018 to DWR regarding a jurisdictional internal boundary modification at the County line. If SVBGSA is granted the basin boundary modification, they will modify the border between the Upper Valley Aquifer and Paso Robles Subbasin to coincide with the Monterey/San Luis Obispo County line resulting in the Paso Subbasin lying wholly in San Luis Obispo County. The Paso Robles Subbasin GSAs support this request.
- **Heritage Ranch CSD GSA** submitted an initial notification on April 23, 2018 and a basin boundary modification request on June 27, 2018 to DWR regarding a scientific external boundary modification. If the request is granted, the Heritage Ranch CSD GSA area will be excluded from the Paso Robles Subbasin.

If either of these GSAs are granted a basin boundary modification, the Paso Robles Subbasin GSAs will continue to engage and coordinate with them as needed to achieve sustainable groundwater management.

[1] Formally, the Paso Robles Area Subbasin of the Salinas Valley Groundwater Subbasin

Figure 1. ***Paso Robles Subbasin and GSA Boundaries***



Formation of a Single GSP Memorandum of Agreement

In September 2017, through a Memorandum of Agreement (MOA), five GSAs that were formed under the DWR GSA process collectively agreed to develop one GSP for the portion of the Paso Robles Subbasin in San Luis Obispo County. As part of the MOA (Section 4.4(D)) they also decided to collectively develop a stakeholder participation plan that includes public outreach and involves Interested Parties in developing the GSP. These GSAs include:

- Paso Basin – County of San Luis Obispo GSA
- City of Paso Robles GSA
- San Miguel Community Services District GSA
- Shandon–San Juan GSA
- Heritage Ranch Community Services District GSA *(currently seeking basin boundary modification)*

The GSAs above will work together to develop the Paso Subbasin GSP. To streamline GSP development, each GSA provides a representative to serve on the Paso Subbasin Cooperative Committee ("Cooperative Committee"). Details about the Cooperative Committee are discussed in Section 4.0 GSAs' DECISION-MAKING PROCESS.

Our Promise

The Cooperative Committee, comprised of representatives of the five GSAs, *commit to developing a recommended GSP that will safeguard our local groundwater resources through sustainable management and to preserve this invaluable water supply source for future generations. We commit to work with Interested Parties to ensure that their concerns and inputs are considered in GSP development.*

C&E Plan as a Roadmap

This C&E Plan serves as a roadmap to meet the statutory requirements of SGMA and the GSP Regulations as outlined in **Appendix A** and, more importantly, serves to create common understanding and transparency among GSAs and Interested Parties throughout the GSP development process. The GSAs will follow this C&E Plan to engage with and gather input from various Interested Parties to support GSP development. GSP information, meeting schedules, and useful links can be found at the Paso Robles Groundwater Communication Portal (Paso GCP) at: www.pasogcp.com. Anyone may register as an Interested Party to be notified of upcoming events and activities regarding GSP development. For more information on the Paso GCP, refer to **Appendix B**.

2.0 GOALS AND OBJECTIVES

The goal of Paso Robles Subbasin communication and engagement efforts is to involve broad and diverse Interested Parties, including stakeholders, the public, and beneficial users, throughout the GSP development process to ensure Interested Parties' concerns, issues, and aspirations are consistently understood and considered in the GSAs' decision-making process.

Under the umbrella of meeting the statutory requirements of SGMA and the GSP Regulations, the objectives of the GSAs' engagement efforts are as follows:

- Educate Interested Parties about the importance of a GSP, what is and is not feasible, what must be accomplished, and how success will be measured
- Ensure Interested Parties and beneficial users of groundwater are given the opportunity to contribute meaningful input, which is then considered in the decision-making process
- Involve a diverse group of Interested Parties in the GSP process
- Make public participation easy and accessible

Interested Parties discuss potential options for groundwater management in the Paso Robles Subbasin at a public workshop held on May 14, 2018.

3.0 BENEFICIAL USES AND STAKEHOLDER GROUPS

Among the beneficial groundwater uses supported by the Paso Robles Subbasin are various irrigated and non-irrigated agricultural activities (including but not limited to grazing, vineyards, and orchards); rural domestic/residential wells; municipal and industrial supply; and aquatic ecosystems associated with rivers and streams, some of which provide habitat for threatened or endangered species.

Given its location, the Paso Robles Subbasin has diverse land uses including the following:

- Urban (i.e. City of el Paso de Robles)
- Community Services Districts (2)
- Urban Reserve area (e.g. Shandon)
- Village Reserve area (e.g. Creston)
- Rural Residential areas
- Agriculture
- Industrial areas
- Commercial areas
- Natural landscape

The Paso Robles Subbasin also covers a wide range of Interested Parties, including, but not limited to, the following:

- Land use authorities
- Private well users
- Urban users
- Native American Tribal interests
- Business interests
- Agriculture interests
- Public agencies
- Public water systems/ community water systems
- Environmental interests
- Disadvantaged Communities (DACs) – as identified in **Appendix C**
- General public

California Water Code (CWC) §10723.4 requires GSAs to establish and maintain a list of persons interested in receiving notices regarding plan preparation, meeting announcements, and availability of draft plans, maps, and other relevant documents. Any person may request, in writing, to be placed on the list of interested persons. Additionally, the GSAs developed the Paso Robles Groundwater Communication Portal (Paso GCP) where any person may sign up to be added to the list of Interested Parties. The Paso GCP is available at www.pasogcp.com. **Appendix D** includes an initial list of Interested Parties identified at the time of GSA formation. The updated Interested Parties list, with individual registrants, is stored in the Paso GCP, and will be available to DWR at the time of GSP submittal.

Diverse Outreach Practices

The Paso Robles Subbasin GSAs are committed to encouraging the active involvement of diverse social, cultural, and economic interests of the population within the groundwater basin. As such, outreach practices will be diverse as well, as outlined in Section 7.0.

4.0 GSAs' DECISION-MAKING PROCESS

The MOA, as introduced in Section 1.0, lays the framework for governance and decision-making. The MOA established the Cooperative Committee made up of representatives of the five GSAs to develop a single GSP that will be considered for adoption by each individual GSA. It is important to note that the MOA automatically terminates upon the State's approval of the GSP.

To provide for consistent and effective communication among the GSAs, each GSA agreed to designate one Cooperative Committee Member to conduct activities related to GSP development and SGMA implementation. **Table 1** lists the Primary and Alternate Members of the Cooperative Committee, as well as a point of contact for each GSA's staff. Each Cooperative Committee Member represents their respective GSA in the development of a recommended GSP that will be considered for adoption by each individual GSA and subsequently submitted to DWR for approval. GSA Staff works with the GSA Consultant on administrative matters to move the GSP process forward. A copy of the MOA and detailed Cooperative Committee responsibilities in the development of the GSP is available at https://slocountywater.org/site/Water%20Resources/SGMA/paso/pdf/FinalMOA_FullyExecuted.pdf

Table 1. Cooperative Committee Members and Weighted Vote for Decision-Making

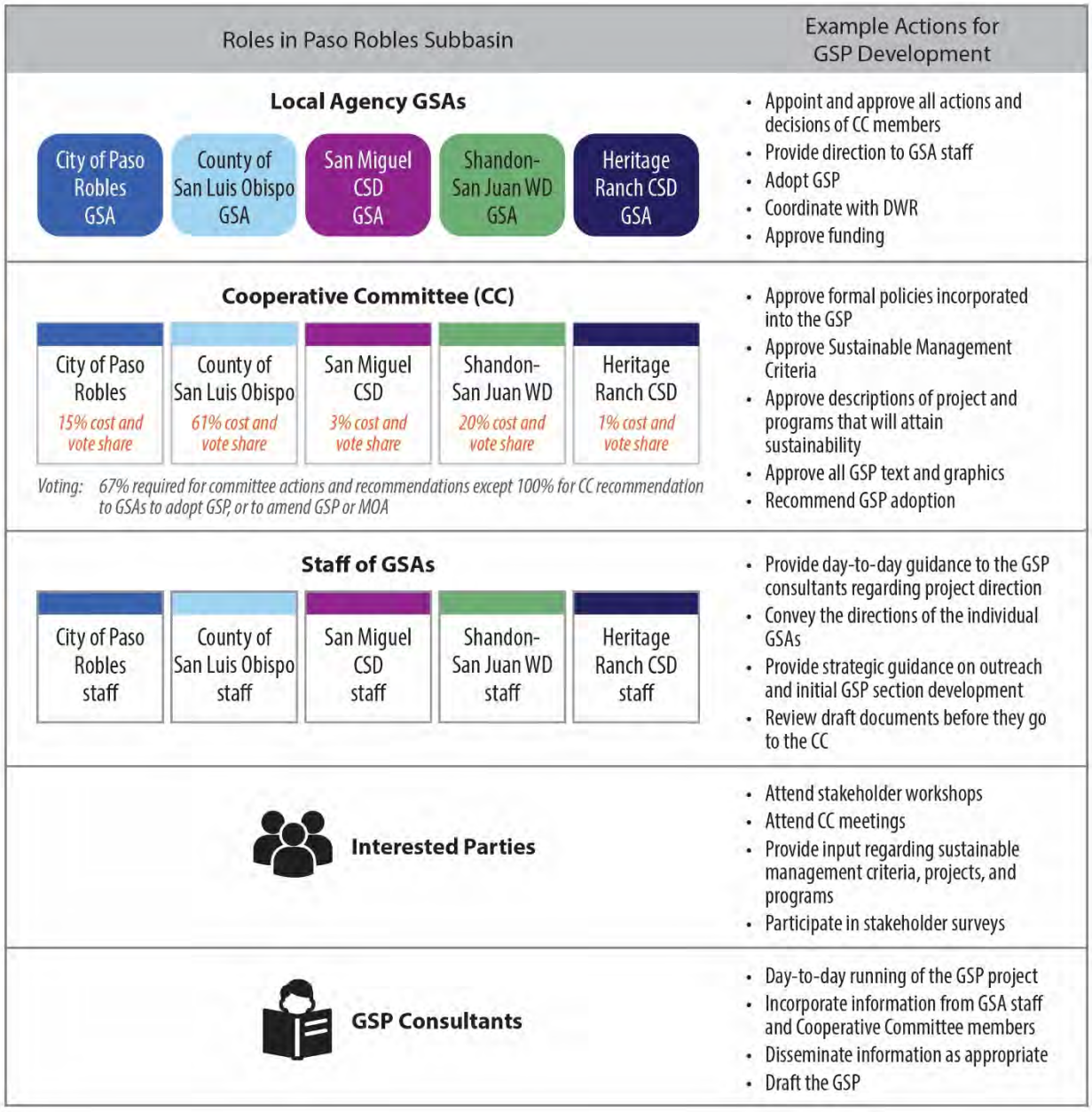
GSA (% Weighted Vote)	Cooperative Committee Member	Cooperative Committee Alternate	GSA's Staff Point of Contact
County of San Luis Obispo (61%)	John Peschong	Debbie Arnold	Angela Ruberto
City of Paso Robles (15%)	John Hamon	Steve Martin	Dick McKinley
Shandon-San Juan Water District (20%)	Willy Cunha	Matt Turrentine	Randy Diffenbaugh
San Miguel CSD (3%)	Joe Parent	Kelly Dodds	Blaine Reely
Heritage Ranch CSD (1%)	Reginald Coussineau	Scott Duffield	Scott Duffield

The Cooperative Committee will consider all beneficial uses and users of groundwater in the Subbasin as well as public input during the decision-making process. Each of the GSAs have weighted voting (see **Table 1**) on decision-making, with the exception of MOA amendments or termination and recommendation that the GSAs adopt the final GSP or any amendments thereto which require a unanimous vote. Portions of the MOA addressing voting are provided below.

> *MOA Section 4.8: Any action or recommendation considered by the Cooperative Committee shall require the affirmative vote of 67 percent based on the percentages set forth in Section 4.6 or 4.7 above (of the MOA), as applicable. Notwithstanding the foregoing,* ***the following shall require the affirmative vote of 100 percent*** *based on the percentages set forth in Section 4.6 or 4.7 above (of the MOA), as applicable: (A) a recommendation that each of the Parties adopt the GSP or adopt any amendment thereto prepared in response to comments from DWR and (B) a recommendation that the Parties amend this MOA.*
>
> *MOA Section 9.2: This MOA may be terminated upon unanimous written consent of all current Parties.*

A summary of the Paso Robles Subbasin roles and actions for GSP development is depicted in **Figure 2**.

Figure 2. ***Paso Robles Subbasin Roles and Example Actions for GSP Development***



The following are descriptions of how each GSA makes their individual GSA decisions and which forums are used to devise their decision-making. Once their decisions are made they report to the Cooperative Committee for discussion.

County of San Luis Obispo GSA

Governing body	**County of San Luis Obispo Board of Supervisors**
Meeting information	**Bi-Monthly, on average; San Luis Obispo County Government Center.** See the complete schedule online. If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The Paso Basin – County of San Luis Obispo GSA's governing body is the **County of San Luis Obispo Board of Supervisors**. The County's SGMA Strategy supports 1) fair and equitable representation in GSAs decision-making processes that include participation by the County and/or an alternative, stakeholder-driven eligible entity, and 2) adequate consultation between any GSA efforts and related County authorities and/or planning/management efforts. The County supports participating in a GSA in a basin to represent one or more of the following key roles and/or authorities:

- Interest 1: Representation of County Service Area(s)
- Interest 2: Representation of otherwise unrepresented beneficial uses/users of groundwater (e.g., rural domestic, agricultural, environmental, etc. as defined by SGMA)
- Interest 3: Land use authority
- Interest 4: Well construction permitting authority
- Interest 5: Integration and alignment of the County's discrete management actions (e.g., groundwater export ordinance) to the GSA's basin-wide, comprehensive management actions

City of Paso Robles GSA

Governing body	**Paso Robles City Council**
Meeting information	**First and third Tuesday of each month, Paso Robles City Hall.** If matters relating to GSP development will be discussed during a City Council meeting, the topic will be shown on the meeting's agenda.

The City of Paso Robles' GSA covers properties in the City limits except that portion of the City that is west of the Rinconada fault and thus in the Atascadero Basin. The GSA's governing body is the **Paso Robles City Council**, acting as the Board of the GSA. The City Council meets on the first and third Tuesday of each month in the Council Chamber in City Hall, but only meets as the GSA Board when there is a specific action item for the GSA.

Shandon-San Juan Water District GSA

Governing body	**Shandon-San Juan Water District Board of Directors**
Meeting information	**Third Tuesday of each month, Shandon High School Library.** If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The Shandon San Juan GSA is formed and governed by an "opt-in" California Water District lying in the northeastern portion of San Luis Obispo County. The GSA's governing body is the **Board of Directors of the Shandon-San Juan Water District** (SSJWD), acting as the Board of the GSA. SSJWD meets on the third Tuesday of each month at the Shandon High School Library.

San Miguel CSD GSA

Governing body	**San Miguel Community Services District Board of Directors**
Meeting information	**Fourth Thursday of each month, San Miguel CSD District Office.** If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The San Miguel Community Services District GSA covers the properties within its District boundaries. The GSA's governing body is the **San Miguel Community Services District Board of Directors**, acting as the Board of the GSA. The District Board of Directors meets on the fourth Thursday of each month at the District office which is located at 1150 Mission St. in San Miguel, CA 93451. The Board of Directors only meets as the GSA Board when there is a specific action item for the GSA on the agenda.

While an initial list of Interested parties was identified for the Paso Robles Subbasin at the time of GSA formation**,** additional Interested Parties specific to San Miguel CSD include the following:

- Disadvantaged communities, including but not limited to, those served by private domestic wells or small community water systems or ratepayers and domestic well owners – the Community of San Miguel, which lies within the District's GSA, is designated as a Disadvantaged Community (DAC)
- Entities listed in Section 10927 that are monitoring and reporting groundwater elevations in all or part of a groundwater basin managed by the GSA – the San Miguel Community Services District files, contributes, and/or maintain California Statewide Groundwater Elevation Monitoring (CASGEM) monitoring data with the DWR through San Luis Obispo County.

Heritage Ranch CSD GSA

Governing body	**Heritage Ranch Community Services District Board of Directors**
Meeting information	**Third Thursday of each month, Heritage Ranch CSD District Office.** If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The Heritage Ranch Community Services District's governing body is a **Board of Directors** of five members. Director terms are four years, with staggered elections of three seats and two seats. They meet at 4:00 p.m. on the third Thursday of every month, in the Board Room located at 4870 Heritage Road, Paso Robles CA, 93446.

The Heritage Ranch Board also has five Committees. The Committees may include two Board members and members of the public. The manager is the staff person assigned to all Committees. The Board President appoints membership to committees at the first regular meeting in December in even number years. Heritage Ranch Committee membership is for two years. The Board President may also appoint ad-hoc committees. In response to SGMA, an ad-hoc SGMA Committee was appointed. The current SGMA Committee is Director Cousineau and Director Barker.

Heritage Ranch Committee motions and recommendations shall be advisory to the Board and shall not commit the District [HRCSD] to any policy, act, or expenditure unless expressly delegated by Board action. Nor may any committee direct staff to perform specific duties unless duly authorized by the Board. The committee chair is authorized to schedule committee meetings as deemed necessary and all such meetings shall be in compliance with Open Meeting Law of California (Brown Act).

Additional Contributors to GSP Development

Interested Parties
Interested Parties can participate in public meetings and hearings, which are posted on the Paso GCP, and communicate with Cooperative Committee members to provide input, obtain information, and review and comment on GSP documents. An initial list of Interested Parties identified for the Paso Robles Subbasin at the time of GSA formation is provided in **Appendix D**. Anyone may register as an Interested Party via the Paso GCP at www.pasogcp.com. Once registered, Interested Parties will receive invitations to meetings and workshops related Paso Robles Subbasin GSP development. The Interested Party list is stored and maintained in the Paso GCP database.

GSP Consultants
A team of consultants will conduct technical studies and investigations, including groundwater modeling, and draft the GSP documents.

Consultant work will be overseen by the GSA staff, who will provide guidance and oversight regarding GSP development, prior to reviewing draft documents with the Cooperative Committee. The consulting firms assisting with GSP development for the Paso Robles Subbasin are listed below.

- Hydrometrics Water Resources, Inc. (lead consultant)
- Montgomery and Associates
- Carollo Engineers
- GEI Consultants, Inc.
- O'Laughlin & Paris, LLP
- Strategy Driver, Inc.
- WestWater Research, LLC

Staff of the GSAs
Staff of the GSAs provide day-to-day guidance to the GSP consultant regarding project direction. Staff of the GSAs review GSP documents before they are passed to the Cooperative Committee. Staff members make interim decisions on the approach and messaging involved in GSP development. Fundamental to this decision-making approach is that staff of each GSA regularly communicate with GSA Boards or Councils and respective Cooperative Committee Members.

Decision-Making Steps

The Paso Robles Subbasin GSP must be developed under a compressed schedule, as the final adopted GSP is due to DWR by January 31, 2020. To ensure the GSP is delivered on time, decision-making during chapter development as well as for final approval must follow a streamlined process. These processes are outlined in **Figure 3** and **Figure 4**, respectively.

Figure 3. ***GSP Chapter Development Process***

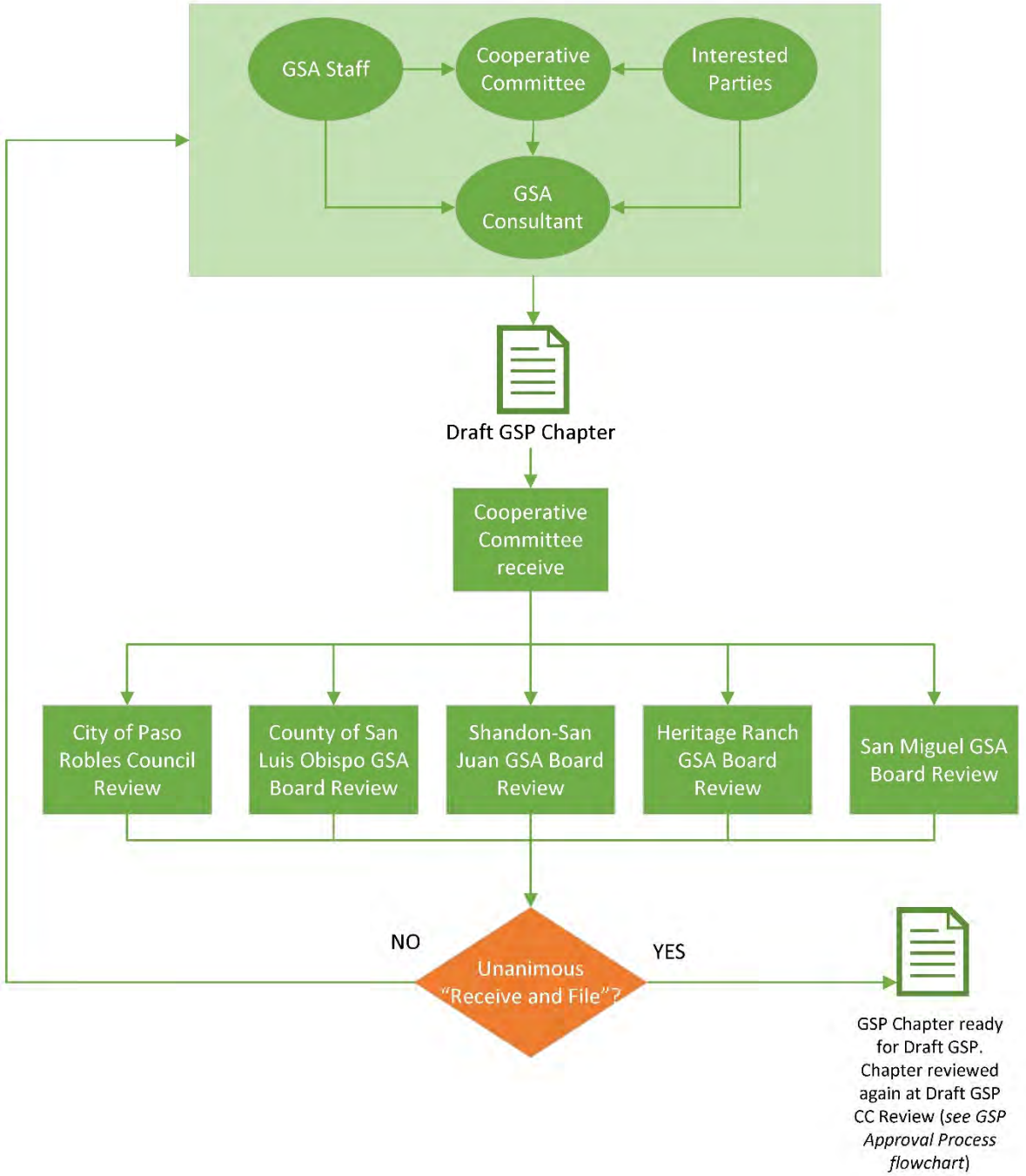
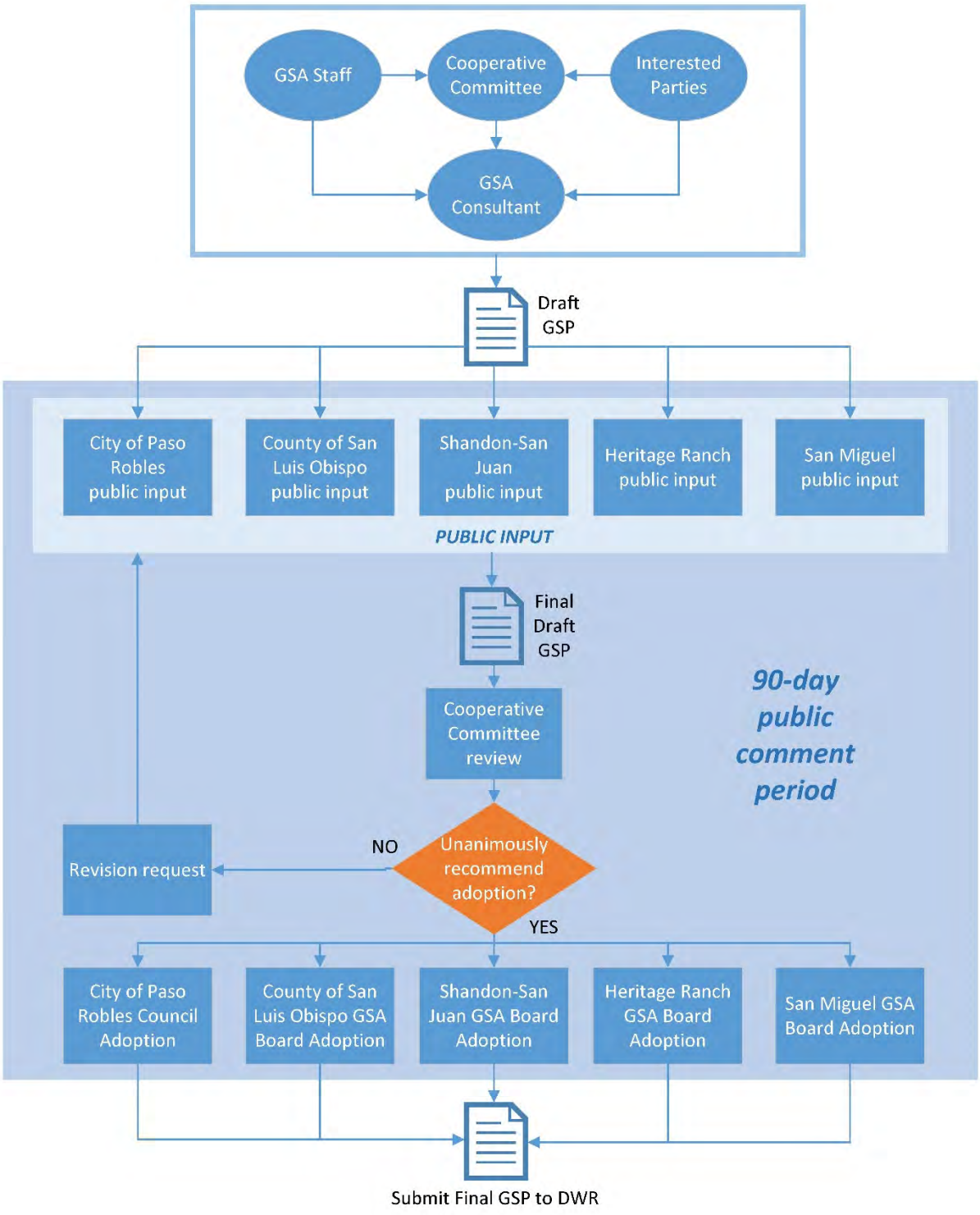


Figure 4. ***GSP Approval Process***



5.0 HOW CAN INTERESTED PARTIES AND PUBLIC GET INVOLVED?

The GSP process for the Paso Robles Subbasin includes both the development and implementation of a GSP. Interested Party participation is vital to the success of the GSP. A first step for Interested Parties to get involved is to sign up through the Paso GCP at www.pasogcp.com and review the content on the following websites:

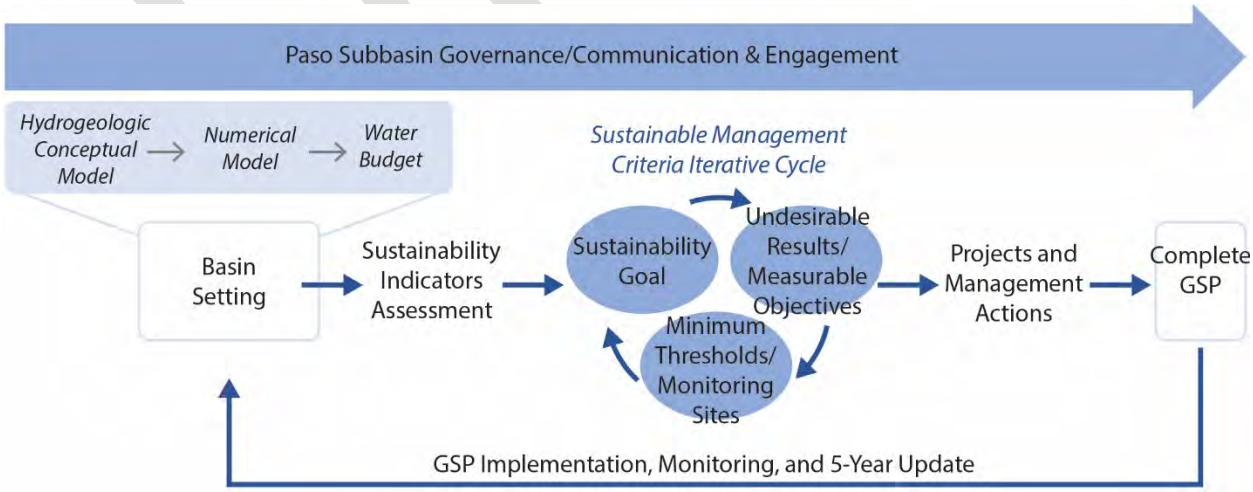
- Paso Robles Subbasin Groundwater Communication Portal (Paso GCP) – www.pasogcp.com
- GSA websites
    - County of San Luis Obispo – www.slocountywater.org
    - Shandon-San Juan Water District – www.ssjwd.org
    - Heritage Ranch CSD – www.heritageranchcsd.com
    - San Miguel CSD – www.sanmiguelcsd.org
    - City of Paso Robles – www.prcity.com
- DWR's SGMA Portal – https://sgma.water.ca.gov/portal/

Meetings of the Paso Subbasin Cooperative Committee are scheduled on a regular basis to provide information to the public and Interested Parties and provide opportunities to ask questions and make suggestions. These meetings are posted on the Paso GCP and announced via email. See **Section 7.0** to learn more ways the GSAs are engaging Interested Parties and inviting participation.

GSP Development Process

The GSP development process for the Paso Robles Subbasin shown in **Figure 5** outlines key tasks and their relationship to one another in developing the GSP. These main tasks roughly follow what will ultimately be the GSP's chapters. GSP development will also include: listing data gaps and how they will be filled during GSP implementation, conducting technical studies, defining the Subbasin's characteristics, accounting for current and planned groundwater uses, considering groundwater dependent ecosystems (GDEs), incorporating land use planning, and developing sustainable management criteria.

Figure 5. ***GSP Development Process***



Appendix E includes a preliminary schedule showing milestones and Interested Party engagement activities. As shown on the schedule, Cooperative Committee meetings will be held at regular intervals. Cooperative Committee meetings are open to the public. Focused workshops will be held as needed. In addition, technical staff will be available throughout the process to communicate and engage with Interested Parties. Interested Parties can be involved in GSP development by providing input throughout the process of completing these tasks. Periodic updates and materials will be posted on the Paso GCP and presented at Cooperative Committee meetings for Interested Parties review and comment.

Above, Interested Parties participate in an interactive workshop (May 14, 2018) about projects and actions.

6.0 DESIRED OUTCOMES

DWR's Stakeholder Communication and Engagement Guidance Document suggests answering a series of questions when setting desired outcomes for GSP Interested Party outreach. The questions and responses for the Paso Robles Subbasin are listed below.

What are we trying to accomplish?
We aim to make opportunities available for Interested Parties to provide input during development of the Paso Robles Subbasin GSP, and ensure the GSP considers input from Interested Parties.

How will we know if we are successful?
We will be successful when various Interested Parties have opportunities to provide their input, ask questions, receive up-to-date information, and comment on GSP development and draft documents.

What are the challenges or barriers?
One of the challenges is making a complete list of Interested Parties and being able to effectively communicate with them. We will make efforts to reach a broad set of Interested Parties and expand the list. We will use several forms of communication outreach such as: meetings, calendar updates with notification automatically sent to Interested Parties, radio and newspaper advertising, and email blasts. For a list of media contacted regarding Paso Subbasin GSP events, see **Appendix F**.

What are the opportunities for communication and engagement?
Available communication and engagement opportunities for Interested Parties include public workshops and hearings, communication through individual GSA webpages, registration as an Interested Party or contact through the Paso GCP, correspondence, phone calls, emails, and Cooperative Committee meetings.

What is the timeframe?
GSP development began in spring 2018 and will progress to adoption before January 31, 2020. During that period, Interested Party communication and engagement will be a continuous process, including the public review period for GSP approval. The Draft Paso Subbasin GSP will be available for 90 days of review during Fall 2019.

When will public input be relevant?
During GSP development, public input will be most relevant when the GSAs are framing the scope of studies, setting sustainable management criteria, developing management actions, identifying groundwater-dependent ecosystems (GDE), collecting existing and planned groundwater use information, and during public review of the draft GSP prior to DWR approval. Workshops and/or surveys will be held or conducted during GSP development for public input when it is most relevant.

How will public input be used?
GSP Regulations (Section 355.4) require that GSAs consider the interests of the beneficial uses and users of groundwater in the Subbasin. In addition, the GSAs as part of the GSP, will consider land use and property interests. Public input is essential in understanding and considering these interests and effects. During the GSP review and approval process, DWR will take public comments into account when determining whether interests within the Subbasin have been considered in the development and implementation of the GSP (Section 353.8).

7.0 COMMUNICATION + ENGAGEMENT TOOLS AND VENUES

Communication and engagement with Interested Parties may include Subbasin-wide outreach as well as engagement specifically within the individual GSA areas. Each GSA area may include a set of Interested Parties with specific interests. Each GSA will decide required levels of communication for its own GSA area and engage with Interested Parties in its GSA area as appropriate.

For Subbasin-wide interests and issues, the Cooperative Committee will communicate with Interested Parties. The Paso Robles Subbasin GSAs are committed to encouraging the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin. Therefore, outreach will be conducted through multiple and varied venues. Descriptions of these venues are presented below.

Paso GCP

Interested Parties are invited to register using the Paso GCP at www.pasogcp.com. Registrants will automatically be invited by email to activities regarding GSP development. Interested Parties may also view a calendar of events, register for upcoming events, and view materials from past events.

GSA Web Pages

Dedicated SGMA webpages for each GSA are listed below and also accessible at www.pasogcp.com. The webpages are designed to provide background information, maps, documents, status updates, useful links, contact information, and a means of communicating between the GSAs and the public.

- City of Paso Robles – www.prcity.com
- County of San Luis Obispo – www.slocountywater.org
- Heritage Ranch CSD – www.heritageranchcsd.com
- San Miguel CSD – www.sanmiguelcsd.org
- Shandon-San Juan Water District – www.ssjwd.org

Cooperative Committee Special Meetings

The Paso Robles Subbasin Cooperative Committee will host Special Meetings as-needed to cover time-sensitive GSP topics. For example, Special Meetings were hosted by the Cooperative Committee in Spring 2018 to launch the GSP process on the following topics:

- GSP Timeline, GSP requirements, and an introduction to Sustainable Management Criteria (April 23, 2018)
- Groundwater law and its connection to SGMA, State of the Subbasin (April 30, 2018)
- Projects and programs for groundwater management (May 14, 2018)
- Further information on the state of the Subbasin, and follow-up to the first three meetings (May 21, 2018)

Unless noticed as a Special Meeting, GSP-related discussions will take place during the regular meetings of the Cooperative Committee.

Cooperative Committee Regular Meetings

The Cooperative Committee meets regularly to carry out GSP activities. Regular Cooperative Committee meetings locations vary, but are typically held in the Paso Robles City Council Chambers. Meeting information, agendas, and other relevant documents are posted on the Paso GCP. The Cooperative Committee prepares and maintains minutes of its meetings, and all meetings of the Cooperative Committee are conducted in accordance with the Ralph M. Brown Act (Government Code §§ 54950 et seq.).

Public Surveys

Public surveys will be conducted when GSP development requires specific input from Interested Parties. Two public surveys were identified as of May 2018. The first was a C&E Survey, the results of which are discussed in **Appendix A** and many suggestions have been incorporated into this C&E Plan. The second survey centered around Sustainable Management Criteria/Minimum Thresholds and was conducted in Summer 2018.

Meeting feedback forms are available at public workshops to encourage Interested Party feedback on how the workshops are conducted. These feedback forms have been useful in helping the Cooperative Committee, GSA staff, and GSP consultants adapt to meet needs of Interested Parties along the way. For example, one meeting feedback form indicated that signage was needed at the meeting location to help find the correct building. Reusable directional signs were produced and displayed at the next meeting and will be available for future meetings. An example of the meeting feedback form is provided in **Appendix H**.

GSAs' Board of Directors/Supervisors/Council Meeting

Table 2 lists meetings of the governing bodies of the GSAs where interim updates regarding GSP development may be discussed as needed. See the linked websites below for the meeting agendas which may list SGMA as a topic. Stakeholders and members of the public may choose to comment at those meetings.

Table 2. GSA Regularly Scheduled Meetings

GSA / WEBSITE	DATE/TIME	LOCATION
County of San Luis Obispo www.slocounty.ca.gov/Departments/Board-of-Supervisors/Board-Meetings,-Agendas-and-Minutes.aspx	On average, twice per month	County Government Center Board of Supervisors Chambers 1055 Monterey Street San Luis Obispo, CA 93408
City of Paso Robles www.prcity.com	As-needed on the agenda of the City Council Meetings, held the first and third Tuesday of each month	Paso Robles City Hall Council Chambers 1000 Spring Street Paso Robles, CA 93446
Shandon-San Juan Water District www.ssjwd.org	As-needed on the agenda of the District Board Meetings, held on the third Tuesday of each month	Shandon High School 151 S. 1st Street Shandon, CA 93461

GSA / WEBSITE	DATE/TIME	LOCATION
Heritage Ranch CSD www.heritageranchcsd.com	As-needed on the agenda of the District Board Meetings, held on the third Thursday of each month	Heritage Ranch CSD District Office 4870 Heritage Road Paso Robles, CA 93446
San Miguel CSD www.sanmiguelcsd.org	As-needed on the agenda of the District Board Meetings, held on the fourth Thursday of each month	San Miguel CSD District Office 1150 Mission Street (Fire Station) San Miguel, CA 93451

eMail

Email blasts (emails to the entire list of Interested Parties) will be sent when there is significant information to communicate regarding GSP development. For example, email blasts are sent when Special Meetings of the Cooperative Committee are scheduled.

Individual emails will also be sent to invite known Interested Party groups to participate. For example, a letter was sent via email to local Native American Tribal governments inviting participation in the GSP process. A copy of the letter is included as **Appendix I**.

Postal Mail

Postal mail will be utilized to reach areas of the groundwater basin that may not otherwise be informed of GSP activities. For example, a postcard was mailed to Interested Parties in the San Miguel CSD GSA service area to announce the Special Meetings and launch of the Paso GCP, because the existing contact list for the San Miguel GSA included postal addresses, but not email addresses. The postcard invited these known Interested Parties in the San Miguel GSA to attend the Cooperative Committee Special Meetings and register their email address online with the Paso GCP. This postcard was also available at the Shandon-San Juan Water District Office for Interested Parties to pick up when they stopped by and was distributed to the rural communities of Jardine, Ground Squirrel Hollow, and Geneseo. The postcard is included with **Appendix J**.

Spanish Language Materials

The Cooperative Committee identified that there are potential Interested Parties who may be primarily Spanish-speaking. Because of this input, additional materials for communication about GSP development will be created in Spanish. Items identified initially for Spanish-language communications include the following:

- Postcard in Spanish to advertise Paso GCP (see **Appendix J**)
- Web page on Paso GCP written in Spanish
- Link on Paso GCP Spanish-language web page to request materials in Spanish

Adjacent Basin Meetings

Members of adjacent basins are welcome to participate in regularly scheduled Cooperative Committee meetings as well as special meetings. In addition, coordination between adjacent basins and individual GSAs will occur as needed. The names and GSP deadlines for basins adjacent are shown in **Table 3**.

Table 3. Basins Adjacent to the Paso Robles Subbasin

Basin	Basin Prioritization	GSP Due Date
Atascadero Subbasin	Draft 2018 DWR basin prioritization as Very Low (subject to change)	Pending final DWR basin prioritization
Lockwood Valley Basin	Very Low	N/A
Salinas Basin - Upper Valley Aquifer	Medium	January 31, 2022
Cholame Valley Basin	Very Low	N/A
Carrizo Plain Basin	Very Low	N/A

Public Hearings

Notices of public hearings are published in a variety of media, including radio and local newspapers, informing the public on meeting information, subject, and how to provide comments prior to decision making. Public hearings will also be noticed through the Paso GCP. At a minimum, a Public Hearing will be held when adopting or amending the GSP, or imposing or increasing a fee.

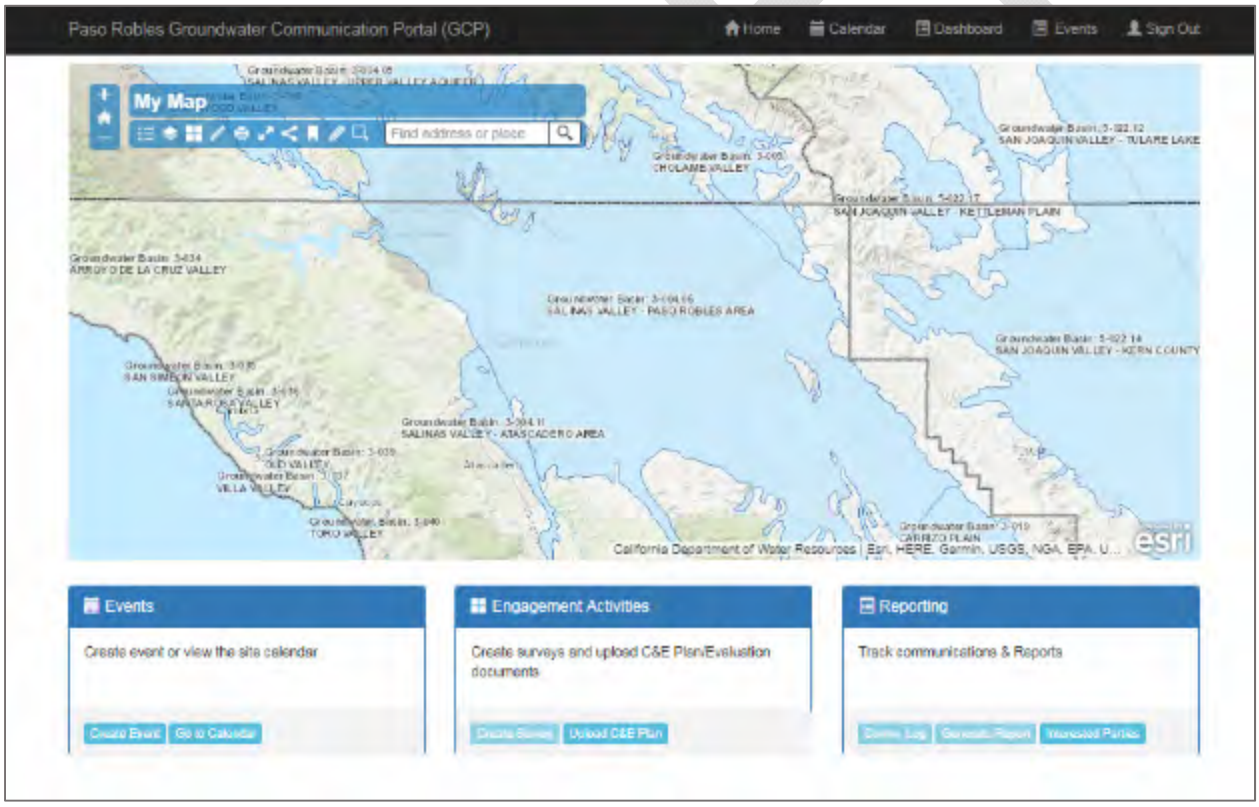
8.0 TRACK AND EVALUATE COMMUNICATIONS AND ENGAGEMENT

The Paso GCP (see **Appendix B**) tracks communications and engagement efforts for the Paso Robles Subbasin GSAs.

The Paso GCP serves as a repository for information about public meetings and interested parties. It tracks outreach efforts by the GSAs in its database; storing meeting attendance information, logging targeted outreach, and hosting the Interested Parties list.

Tool administrators can generate reports about meetings related to GSP planning. The reports include items such as attendance sheets, RSVPs, agendas, minutes, handouts, and presentations. Reports such as these will be included with the final Paso Robles Subbasin GSP as submitted to DWR.

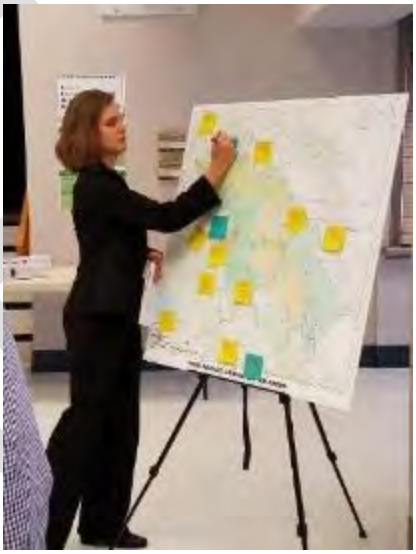
GSAs continually evaluate communications and engagement efforts as they are executed following this C&E Plan. This evaluation is conducted through the Cooperative Committee, GSA Staff, and GSP Consultant observations, as well as through feedback from Interested Parties via online surveys and meeting feedback forms. The Cooperative Committee, GSA Staff, and GSP Consultants will assess needs and update this C&E Plan as necessary.



The Paso GCP is the primary tool for tracking communication and engagement in the Paso Robles Subbasin. Above is a view of the Administrator's dashboard, where site administrators can post events, upload documents, and generate reports regarding communication and engagement.

9.0 SUMMARY

Interested Parties' communication and outreach activities are essential in GSP development. Only through effective communication and outreach can Interested Parties' concerns, issues, and aspirations be consistently understood and considered in the GSAs' decision-making process. Moreover, the C&E Plan process will be ongoing, starting with GSP development and continuing through implementation of the approved GSP for the Paso Robles Subbasin. As in GSP development, periodic reviews and adjustments of the C&E Plan process may be necessary. The goal is to develop and implement a robust Interested Parties C&E Plan process so we may achieve sustainability and manage our valuable shared groundwater resource for future generations.



Interested Parties, GSA Staff Member Dick McKinley of City of Paso Robles GSA, and consultants Matthew Payne and Lydia Holmes at a public workshop in May 2018.

APPENDICES

Appendix A. Statutory Table

Legislative/Regulatory Requirement	Legislative/Regulatory Section Reference	C&E Plan Section
Publish public notices and conduct public meetings when establishing a GSA, adopting or amending a GSP, or imposing or increasing a fee.	SGMA Sections 10723(b), 10728.4, and 10730(b)(1).	7.0
Maintain a list of, and communicate directly with, interested parties.	SGMA Sections 10723.4, 10730(b)(2), and 10723.8(a)	4.0
Consider the interests of all beneficial uses and users of groundwater.	SGMA Section 10723.2	4.0
Provide a written statement describing how interested parties may participate in plan [GSP] development and implementation, as well as a list of interested parties, at the time of GSA formation.	SGMA Sections 10723.8(a) and 10727.8(a)	4.0
Encourage active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin.	SGMA Section 10727.8(a)	7.0
Understand that any federally recognized Indian Tribe may voluntarily agree to participate in the planning, financing, and management of groundwater basins – refer to DWR's Engagement with Tribal Governments Guidance Document for Tribal recommended communication procedures.	SGMA 10720.3(c)	7.0
Description of beneficial uses and users of groundwater in the basin	GSP Regulations §354.10	3.0
List of public meetings at which the Plan [GSP] was discussed or considered	GSP Regulations §354.10	Appendix E
Comments regarding the Plan [GSP] received by the Agency and a summary of responses	GSP Regulations §354.10	N/A at time of publication
A communication section that includes the following (GSP Regulations §354.10):		
Explanation of the Agency's decision-making process	GSP Regulations §354.10	4.0
Identification of opportunities for public engagement and discussion of how public input and response will be used	GSP Regulations §354.10	7.0
Description of how the Agency encourages active involvement of diverse social, cultural, and economic elements of the population within the basin	GSP Regulations §354.10	7.0
The method the Agency will follow to inform the public about progress implementing the Plan [GSP], including the status of projects and actions	GSP Regulations §354.10	7.0

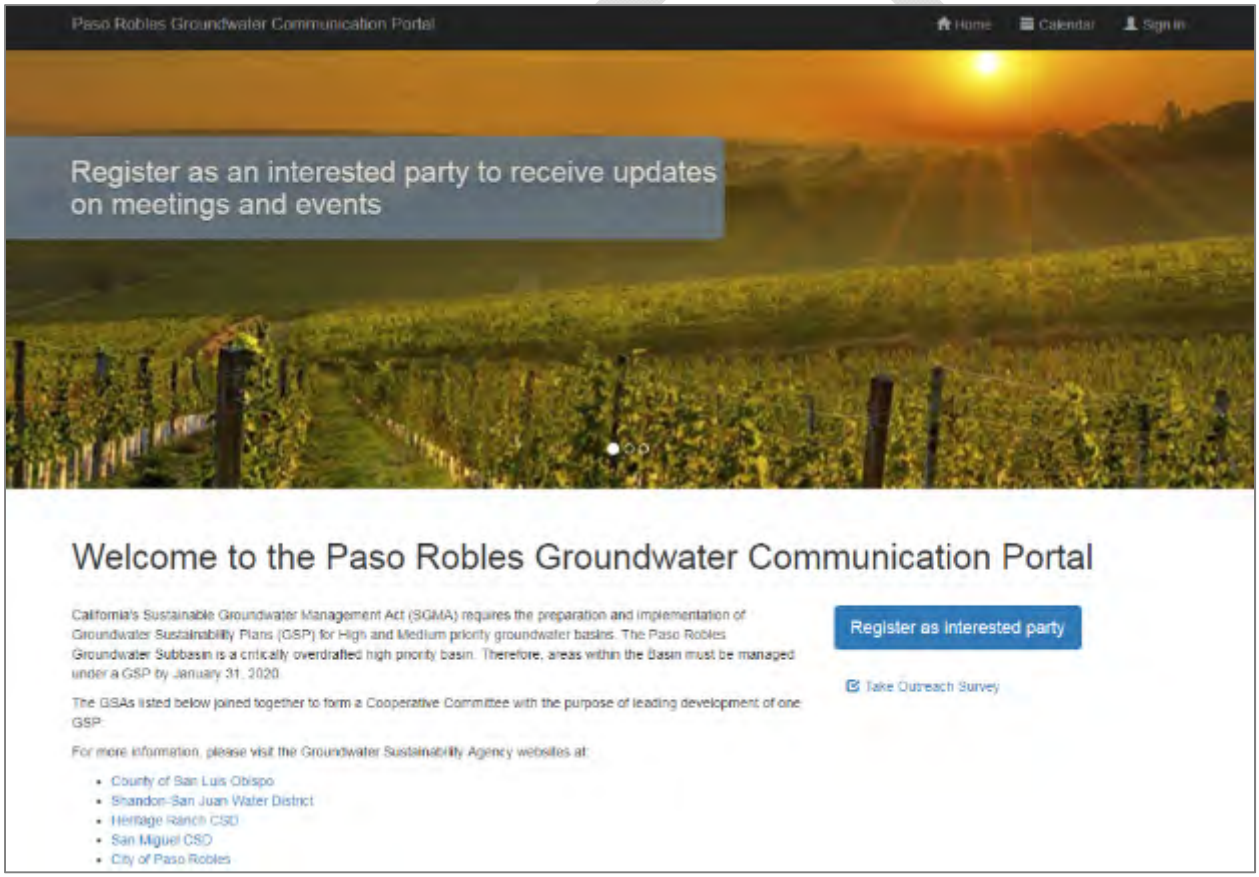
Appendix B. Paso Robles Subbasin Groundwater Communication Portal

The Paso Robles Subbasin Groundwater Communication Portal (Paso GCP) is a web-based outreach tool for Paso Subbasin GSAs to post events and automatically inform Interested Parties about GSP development. Interested Parties can visit the website and register their email address to stay informed about upcoming activities.

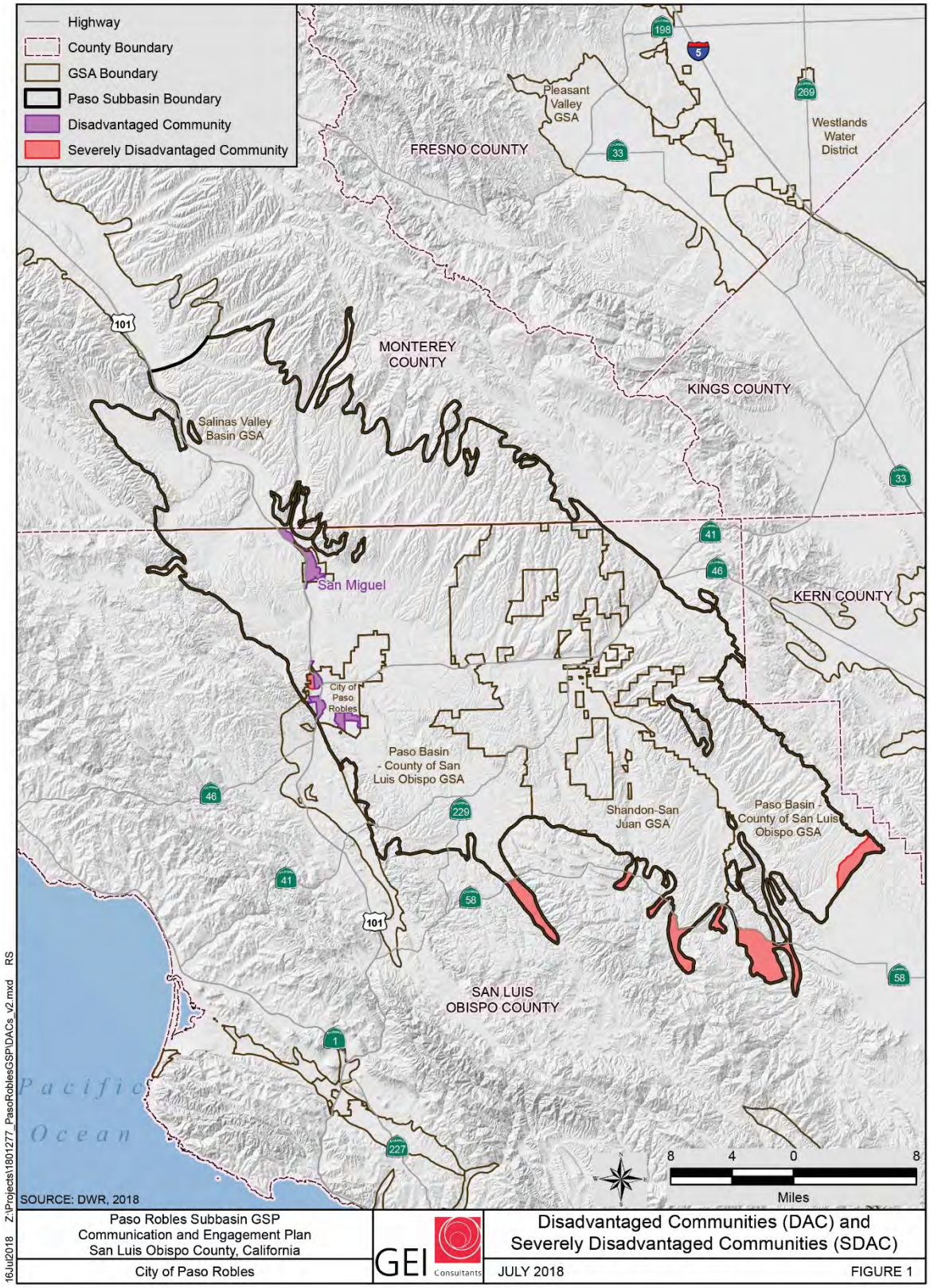
The Paso GCP serves as a repository for GSA information about Paso Robles Subbasin meetings, communications, and Interested Parties. It tracks outreach efforts by the GSAs; storing meeting attendance information, logging targeted outreach, and hosting the interested parties list.

Tool administrators can generate reports about GSP outreach activities. The reports include items such as attendance sheets, RSVPs, agendas, minutes, handouts, and presentations.

Paso GCP Home Page



Appendix C.Disadvantaged Communities in the Paso Robles Subbasin



Appendix D. Initial Interested Parties List

Pursuant to the California Water Code Section 10723.2, the Paso Robles Subbasin GSAs will consider the interest of all beneficial uses and users of groundwater when developing and implementing the Paso Robles Subbasin GSP.

The five Paso Robles Subbasin GSAs[2], party to the MOA, developed lists of Interested Parties and submitted those lists to DWR at the time of GSA formation. A compiled list of those submissions is provided below. This initial list, plus individuals who expressed interest in receiving updates about GSP development via the San Luis Obispo County website, were imported into the Paso GCP (presented in **Appendix B**) in May 2018. The Paso GCP automatically notifies the Interested Parties list via email when GSP-related events are scheduled in the Paso Robles Subbasin. The list continues to grow as additional Interested Parties self-register or are otherwise identified.

Agency

- Atascadero Basin GSA
- City of Paso Robles
- County of Monterey
- County of San Luis Obispo
- Creston School District
- Estrella-El Pomar-Creston Water District
- Heritage Ranch CSD
- Monterey County Parks Department
- Monterey County Water Resources Agency
- Paso Robles Unified School District
- Salinas Valley GSA
- San Luis Obispo County Flood Control & Water Conservation District
- San Miguel CSD
- San Miguel Joint Union School District
- Shandon San Juan Water District
- Shandon Unified School District
- Templeton CSD
- U.S. Department of Commerce – National Oceanic and Atmospheric Administration

Water Corporations Regulated by PUC or a Mutual Water Company

- Atascadero Mutual Water Company
- Green River Mutual Water Company
- Mustang Springs Mutual Water Company
- Rancho Salinas Mutual Benefit Water Company
- Santa Ysabel Ranch Mutual Water Company
- Spanish Lakes Mutual Water Company
- Walnut Hills Mutual Water Company

[2] City of Paso Robles GSA, County of San Luis Obispo GSA, Shandon-San Juan GSA, San Miguel GSA, and Heritage Ranch GSA

Agricultural users

- Agricultural landowners (individuals)_
- Agricultural Liaison Advisory Board (ALAB)
- Central Coast Vineyard Team
- Central Coast Wine Grape Growers Association
- Farm Bureau
- Grower-Shipper Association
- Independent Grape Growers of Paso Robles
- Local Chapter California Certified Organic Farms
- North County Farmers Market Association
- Paso Robles Vintners and Growers Association
- Paso Robles Wine Country Alliance
- SLO County Cattlemen
- SLO County Cattlewomen
- SLO County Farm Supply
- UC Cooperative Extension
- Upper Salinas-Las Tablas Resource Conservation District
- USDA Conservation Service
- USDA Farm Service Agency
- 4-H Clubs

Domestic well owners

- Individual rural residential/suburban landowners

Municipal well operators

- Covered in other categories

Public water systems (per EHS records)

- Almira Water Association
- Arciero Winery
- Cal Trans Shandon Rest Stop
- Camp Roberts
- Creston Country Store
- Creston Elementary School
- El Paso De Robles Youth Correction Facility
- Huerhuero Ranch
- Hunter Ranch Golf Course
- Jack Ranch Cafe
- Links at Lista Del Hombre
- Loading Chute
- Longbranch Saloon
- Los Robles Mobile Estates
- Meridian Vineyard
- North River Road
- Paso Robles RV Ranch
- Paso Robles Truck Plaza (San Paso)

- Pete Johnston GM
- Pleasant Valley Elementary
- SATCOM
- Shandon CSA

Local land use planning agencies

- City of Atascadero
- City of Paso Robles
- County of San Luis Obispo
- San Luis Obispo Council of Government (SLO COG)

Environmental users of groundwater

- Various agencies on this list address environmental concerns related to groundwater and the Paso Robles Subbasin GSAs will work with them to consider and protect such interests.

Surface water users (if hydrologic connection)

- Atascadero Community Services District (CSD)
- City of Paso Robles
- City of San Luis Obispo
- Heritage Ranch CSD
- Templeton CSD

Federal government

- Camp Roberts
- National Marine Fisheries Service
- U.S. Fish & Wildlife

California Native American tribes

- Chumash
- Salinan

Disadvantaged communities

- There are disadvantaged communities in the Paso Robles Subbasin, particularly in the southern portion of the Subbasin, where there are severely disadvantaged communities.

Entities monitoring and reporting groundwater in the Subbasin

- Various of the agencies and water companies listed above collect and report groundwater data including at the County and State level (CASGEM).

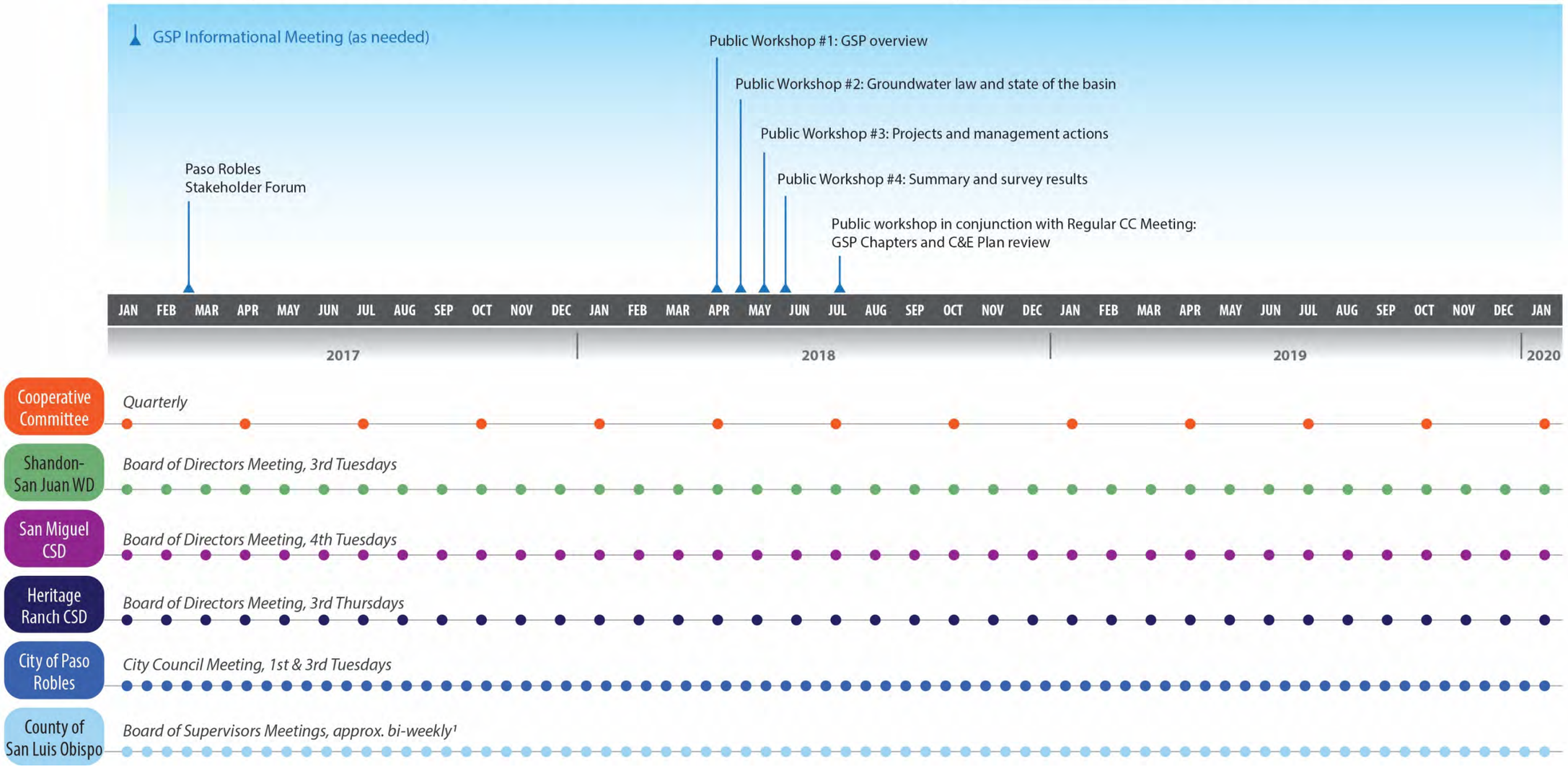
Appendix E. Preliminary Engagement Schedule

NOTES

1. See San Luis Obispo County Board of Supervisors meeting schedule online at http://www.slocounty.ca.gov/Departments/Administrative-Office/Board-of-Supervisors-Agenda.aspx
2. Schedule is representative. Dates subject to change.
3. Visit the Paso Robles Groundwater Communication Portal (Paso GCP) at www.pasogcp.com to see up-to-date information on Interested Party engagement opportunities.

Paso Robles Subbasin GSP Development

Preliminary Stakeholder Engagement Schedule



Appendix F. Media Contacts List

Press releases regarding GSP development public workshops are sent to the following contacts.

- Atascadero Mutual Water Company
- Atascadero News
- City of Atascadero
- City of Paso Robles
- County Administrator
- County Blade
- Cuestonian - Cuesta College
- KCBX
- KCOY-TV (NPG of California)
- KCPR
- KEYT KCOY KKFX
- KGUR
- KIDI FM/ KTAP
- KKJG/ KZOZ/ KKAL/KSTT/KVEC
- KPRL
- KPYG/ KWWV/ KXDZ/ KXTZ/ KYNS
- KSBW
- KSBY-TV
- KSMA/ KVEC/KJUG
- KTAS-TV, Telemundo
- KUHL-AM
- Los Osos Bay News; SLO City News; Coast News
- Monterey County Water Resources Agency
- Monterey Herald
- Mustang Daily
- New Times
- Paso Robles Chamber of Commerce
- Paso Robles Daily News
- Paso Robles Press
- Paso Robles Unified School District
- Pleasant Valley Joint Union School Dist.
- San Luis Obispo County Admin Analyst
- San Luis Obispo County Public Works
- San Miguel Community Services District
- San Miguel Joint School District
- SGMA/Calif Department of Water Resources & RWQCB
- Shandon Unified School District
- SLO County Board of Supervisors Secretary
- Soaring Eagle Press
- Templeton Chamber of Commerce
- Templeton Community Services District
- Templeton Unified School District
- The Tribune / County Digest

Appendix G. C&E Survey Results

From May 4 to May 18, 2018 a public survey was conducted to evaluate best methods for communication and engagement in the Paso Robles Subbasin. An invitation was sent to over 500 Interested Party contacts in the Paso GCP database. Over 100 Interested Parties responded and completed the survey. The results of the survey guided the formation of this C&E Plan and were presented at the May 21, 2018 Special Meeting of the Cooperative Committee. The presentation slides from that meeting are presented on the following pages.

How the Survey Results Were Used

The C&E Survey identified many methods in which the Interested Parties could receive information and provide input into the GSP process. As a result of the Survey, certain communication methods are emphasized in the C&E Plan, such as the development of the Paso Groundwater Communication Portal (Paso GCP) where Interested Parties can receive information in one consolidated location rather than seek information from all five individual GSA websites. Information posted to the Paso GCP includes meeting announcements, notes and materials provided at the meetings, FACT Sheets, frequently asked questions (FAQ), and important documents related to the SGMA GSP development process. In addition, the Paso GCP will provide input opportunities for Interested Parties to comment on the GSP process.

Many of the Interested Parties requests were accommodated through a meeting feedback form (see **Appendix H**) that was available at the four Informational Meetings held in Spring 2018. Subsequent actions as a result of the meeting feedback forms included:

- Providing clear signage to the meeting location
- Incorporating topics of interest expressed by Interested Parties to be discussed at the meetings
- Adding station-facilitated exercises where the Interested Parties could participate in smaller groups with the Cooperative Committee, GSA Staff, and Consultants on-hand for open dialog and interactive discussion for input.
- Developing specific outreach postcards for communities identified by Interested Parties, including both Disadvantaged Communities and Rural communities which may not have received electronic information.

We are appreciative of all those Interested Parties that participated in the online C&E Survey and the meeting feedback forms to improve the Paso GSP outreach process to be most effective.

COMMUNICATION AND ENGAGEMENT SURVEY RESULTS

Paso Robles Basin GSAs
City of Paso Robles
County of San Luis Obispo
Heritage Ranch CSD
San Miguel CSD
Shandon-San Juan Water District

May 21, 2018

Paso Robles Basin

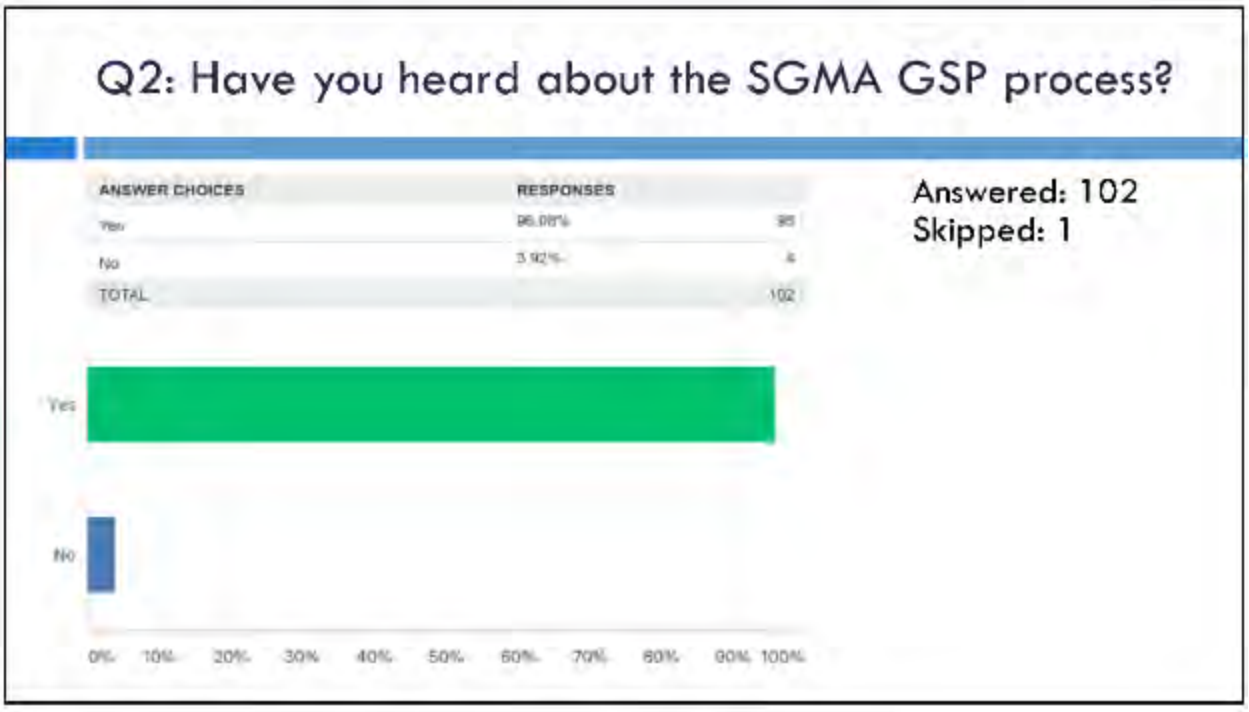
COMMUNICATION AND ENGAGEMENT SURVEY

103

Total Responses

- Date Opened: Friday, May 04, 2018
- Date Closed: Friday, May 18, 2018
- Complete Responses: 103

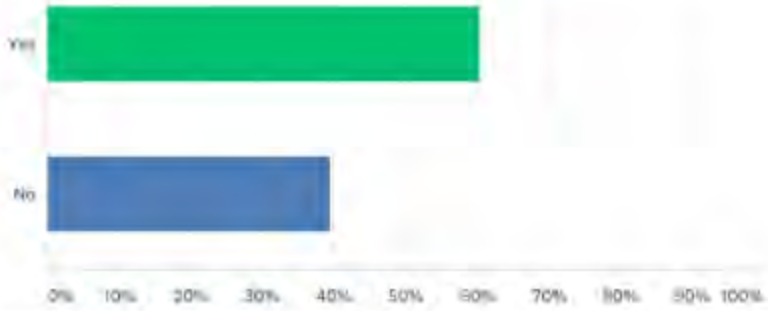

Q1: Have you participated in a public process before?
ANSWER CHOICES
RESPONSES
Yes
75.25%
76
No
24.75%
25
TOTAL
101
Answered: 101
Skipped: 2
Yes
No
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%


Q2: Have you heard about the SGMA GSP process?
ANSWER CHOICES
RESPONSES
Yes
96.08%
98
No
3.92%
4
TOTAL
102
Answered: 102
Skipped: 1
Yes
No
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Q3: Have you been involved in other water supply public processes in the past?

ANSWER CHOICES	RESPONSES	
Yes	60.40%	61
No	39.60%	40
TOTAL		101

Answered: 101
Skipped: 2



Q4: What is your level of interest in providing input on the planning and implementation of the SGMA GSP process?

	LEAST INTEREST ☆	☆☆	☆☆☆	☆☆☆☆	MOST INTEREST ☆☆☆☆☆	TOTAL	WEIGHTED AVERAGE
☆	1.96% 2	1.96% 2	13.73% 14	23.53% 24	58.82% 60	102	4.38

Answered: 102
Skipped: 1

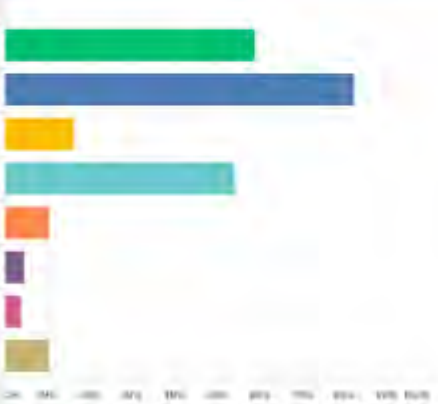
Q5: How would you like to provide input on the SGMA GSP process? Choose all that apply.

ANSWER CHOICES	RESPONSES	
Through a comment portal online	67.96%	70
Using social media	12.62%	13
During in-person meetings	55.34%	57
By reviewing draft project documents	70.87%	73
Other (please specify)	6.80%	7
Total Respondents: 103		

Answered: 103 Skipped: 0

Q6: How would you like to receive information about the GSP process? Choose all that apply.

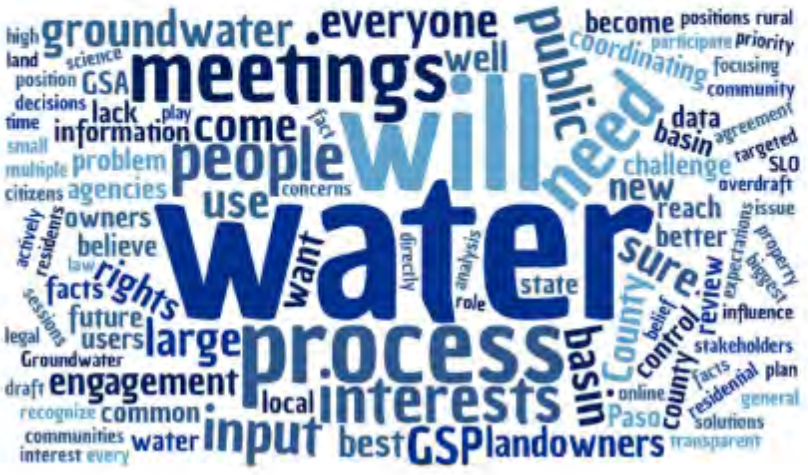
ANSWER CHOICES	RESPONSES	
Website updates	59.22%	61
E-blasts/newsletters	82.52%	85
Flyers/community postings	16.50%	17
Meetings	54.37%	56
Social media: Facebook	10.68%	11
Social media: Nextdoor	4.85%	5
Social media: Twitter	3.88%	4
Other (please specify)	10.68%	11
Total Respondents: 103		



Answered: 103 Skipped: 0

Q7: What SGMA topics and information are of interest to you?

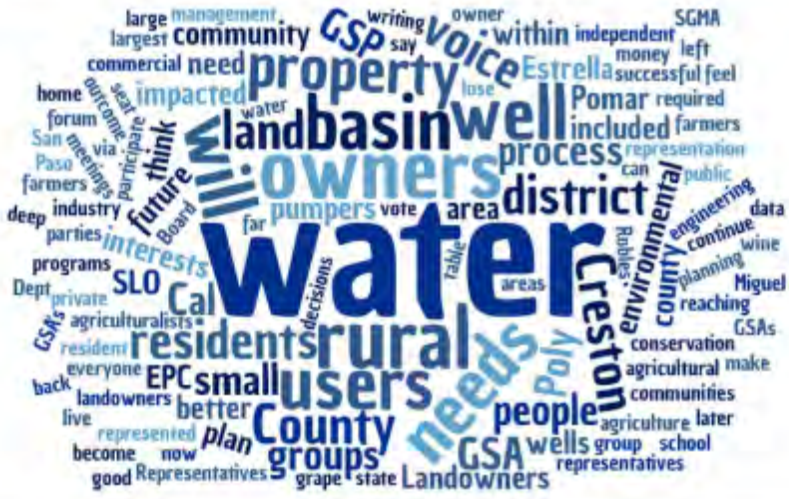
Q8: What potential challenges do you anticipate regarding engagement? How can they be addressed?



Q9: What would be a successful outcome for the GSP from your perspective?

Answered: 97
Skipped: 6

Q10. Who else do you think needs to be involved in the planning and implementation of the SGMA GSP?



Answered: 81
Skipped: 22

Q11. Do you have any other suggestions for the GSAs on communication and engagement methods for the SGMA GSP process?

Answered: 73
Skipped: 30

Appendix H. Meeting Feedback Form

Paso Robles Basin Meeting Survey

Name: _____

Contact: _____

Date: _____

Please provide feedback to improve out communication and engagement process.

Survey Questions		Agree	Disagree
1	Information provided was useful and understandable?		
2	Meeting noticing was timely, informative about location and meeting topic(s)?		
3	Opportunity was provided to comment/ask questions?		
4	Can we contact you regarding your survey to follow up?		
5	Other SGMA topics and information of interest to you include: a. _____ b. _____ c. _____ d. _____		
6	Other suggestions on communication and engagement that would be helpful for the SGMA process: _____ _____ _____ _____		

Example Meeting Feedback Form

Appendix I. Letter Distributed to Native American Tribal Governments

[Variable greeting]

We are writing to notify you that a Groundwater Sustainability Plan (GSP) for the Paso Robles Groundwater Basin is under development and we are inviting you to participate in the GSP process.

In 2015, the State legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA required local agencies to form Groundwater Sustainability Agencies (GSAs) by June 30, 2017 and prepare a GSP. SGMA allows any federally recognized Indian tribe to voluntarily participate in the preparation or administration of a GSP. A federally recognized tribe's actions during participation will be based on the tribe's independent sovereign authority and not the authorities that SGMA provides to local agencies[1]. Regardless of whether a tribe opts to coordinate their groundwater management with SGMA implementation, SGMA requires GSAs to consider the interests of all beneficial uses and users of groundwater, including tribes[2]. For more information on Tribal Government Engagement with GSAs, please see the Discussion Questions[3] paper prepared by the California Department of Water Resources Sustainable Groundwater Management Program Tribal Advisory Group.

We invite you to participate in the Paso Robles Groundwater Basin GSP. If you wish to be included on the list of Interested Parties to receive further information on ways to meaningfully participate in processes related to GSP development in the Paso Robles Basin, please register at the following web address: www.pasogcp.com and feel free to contact our Public Outreach Facilitator, Ellen Cross, with any questions or comments by email at crosse@strategydriver.com or by phone at (510) 316-9657.

Thank you.

The Paso Robles Groundwater Basin Cooperative Committee

- *City of Paso Robles GSA*
- *County of San Luis Obispo GSA*
- *Shandon-San Juan GSA*
- *Heritage Ranch GSA*
- *San Miguel GSA*

[1] Water Code §10720.3(c)
[2] Water Code §10723.2
[3] http://www.water.ca.gov/-/media/DWR-Website/Web-Pages/About/Tribal/Files/Publications/Tribal-Engagement-with-GSA-Discussion-Questions.pdf

[1] Water Code §10720.3(c)
[2] Water Code §10723.2
[3] http://www.water.ca.gov/-/media/DWR-Website/Web-Pages/About/Tribal/Files/Publications/Tribal-Engagement-with-GSA-Discussion-Questions.pdf

Appendix J. Postcard Mailers

Postcard sent to announce the Paso GCP

JOIN THE DISCUSSION

Sustainable Groundwater Management in the
Paso Robles Groundwater Subbasin

JOIN THE DISCUSSION

In accordance with the Sustainable Groundwater Management Act (SGMA), the Paso Robles Groundwater Basin is in the process of preparing a Groundwater Sustainability Plan (GSP).

Interested Parties are encouraged to attend the following workshops to learn more.

Projects and Programs for Groundwater Management Workshop
Monday, May 14, 2018 at 5:30 PM

Summary of the Paso Basin GSP Process Workshop
Monday, May 21, 2018 at 5:30 PM

The workshops above will be held at
Kermit King Elementary
700 Schoolhouse Cir. Paso Robles, CA 93446

For more information, contact the San Miguel CSD offices at (805) 467-3388 or visit www.sanmiguelcsd.org.

After May 15, for all *future* GSP information, register as an Interested Party at **www.pasogcp.com**.

SAN MIGUEL C.S.D.
1150 MISSION ST.
SAN MIGUEL, CA 93451

Postcard sent to invite Interested Parties to attend public workshops

PARTICIPE EN LA DISCUSIÓN

www.pasogcp.com

PARTICIPE EN LA DISCUSIÓN

De acuerdo con la ley de Gestión Sustentable del Agua Subterránea (SGMA), se está desarrollando un Plan de Sustentabilidad de Agua Subterránea para la Cuenca de Paso de Robles (GSP).

El Comité Cooperativo de la Cuenca de Paso de Robles lo invita a registrase como una Parte Interesada para recibir notificaciones sobre eventos acerca de la preparación del GSP y para proporcionar sus ideas.

Para más información y para registrarse como una Parte Interesada, visite el sitio web a continuación.

www.pasogcp.com

¡REGÍSTRESE AHORA!

Enviado en nombre de las Agencias de Sustentabilidad de Agua Subterránea de la Cuenca de Paso de Robles:

GSA del Condado de San Luis Obispo
GSA de la Ciudad de Paso de Robles
GSA del Distrito de Servicios Comunitarios de San Miguel
GSA del Distrito de Servicios Comunitarios de Heritage Ranch
GSA del Distrito de Agua de Shandon-San Juan

HYDROMETRICS
PASO BASIN TEAM
1232 PARK STREET, SUITE 2B
PASO ROBLES, CA 93446

Spanish language postcard for Interested Parties

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

MEMORANDUM

TO: Board of Directors

FROM: Scott Duffield, General Manager
Kristen Gelos, Office Supervisor

DATE: September 20, 2018

SUBJECT: Submittal for approval Resolution 18-11 fixing the employer contribution at an equal amount for employees and annuitants under the Public Employees' Medical and Hospital Care Act.

Recommendation

It is recommended that the Board of Directors adopt Resolution 18-11 fixing the employer contribution at an equal amount for employees and annuitants under the Public Employees' Medical and Hospital Care Act.

Background

The District entered into agreement with CalPERS for medical coverage in 1992. The Resolution stipulates the District will contribute the total amount of insurance premiums for employees and retirees and their dependents.

In 2002, the Board adopted Resolution 02-13 setting health benefits vesting requirements for future retirees. The vesting applies to all employees hired on or after January 2003 and requires the retiree to have worked at least twenty years under the CalPERS system including at least five with the District and limited the employer's contribution to the average cost of CalPERS' various plans.

In 2006, the Board adopted Resolution 06-04 establishing health plans the District will fund for future retirees. The intent of this Resolution is to limit liability to the least expensive HMO or PPO.

In 2010, the Board adopted Resolution 10-01 establishing health plans the District will fund for employees and annuitants. The intent of this Resolution was to limit liability to the lease expensive HMO or PPO.

In 2016, the Board adopted Resolution 16-10 fixing the employer contribution at an equal amount for employees and annuitants under the Public Employees' Medical and Hospital Care Act.

Discussion

The District needs to provide an amended resolution to CalPERS when the specified health plan the District will cover changes, i.e. when the least expensive HMO or PPO changes.

Fiscal Considerations

The attached resolution provides policy regarding the District's contribution for employees and annuitants. The FY 2018/19 Budget reflects the changes to the health plan costs for calendar year 2019.

Results

Approval of the recommended action will provide CalPERS with the documentation required to maintain District provided health coverage.

Attachments: Resolution 18-11

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
RESOLUTION NO. 18-11

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE HERITAGE RANCH COMMUNITY SERVICES DISTRICT FIXING THE EMPLOYER CONTRIBUTION AT AN EQUAL AMOUNT FOR EMPLOYEES AND ANNUITANTS UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT

WHEREAS, the Heritage Ranch Community Services District is a contracting agency under Government Code Section 22920 and subject to the Public Employees' Medical and Hospital Care Act (the "Act"); and

WHEREAS, Government Code Section 22892(a) provides that a contracting agency subject to Act shall fix the amount of the employer contribution by resolution; and

WHEREAS, Government Code Section 22892(b) provides that the employer contribution shall be an equal amount for both employees and annuitants, but may not be less than the amount prescribed by Section 22892(b) of the Act; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the Board of Directors of the Heritage Ranch Community Services District that:

A. The employer contribution for each employee or annuitant shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members in a health benefits plan up to a maximum of:

2019	
Members	**Health Plan Other Southern Region**
Basic Enrollments	PERS Select
Medicare Enrollments	UnitedHealthcare
Combination Enrollments	UnitedHealthcare

Per month, plus administrative fees and Contingency Reserve Fund assessments.

B. Heritage Ranch Community Services District has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above.

C. The participation of the employees and annuitants of Heritage Ranch Community Services District shall be subject to determination of its status as an "agency of instrumentality of the state or political subdivision of a State" that is eligible to participate in a governmental plan within the meaning of Section 414(d) of the Internal Revenue Code, upon publication of final Regulations pursuant to such Section. If it is determined that Heritage Ranch Community Services District would not qualify as an agency or instrumentality of the State of political subdivision of a State under such final Regulations, CalPERS may be obligated,

and reserves the right to terminate the health coverage of all participants of the employer.

D. The executive body appoint and direct, and it does hereby appoint and direct, the General Manager to file with the Board a verified copy of this resolution, and to perform on behalf of Heritage Ranch Community Services District all functions required of it under the Act.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the Heritage Ranch Community Services District on the 20th day of September 2018, by the following roll call vote.

AYES:
NOES:
ABSTAIN:
ABSENT:

APPROVED:_____
Martin Rowley, President
Board of Directors

ATTEST:_____
Kristen Gelos, Secretary
Board of Directors

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

MEMORANDUM

TO: Board of Directors

FROM: Scott Duffield, General Manager

DATE: September 20, 2018

SUBJECT: Presentation recognizing Kristen Gelos for ten years of service with the District.

Recommendation

It is recommended that the Board of Directors receive the presentation.

Discussion

A summary of Kristen's service with the District:

8/28/08	Office Assistant I (hire date)
10/1/13	Office Assistant II
12/8/14	Office Supervisor

Certifications / Organizations:

2010 – present	CSDA SLO Chapter Treasurer
2014 – present	District Board Secretary
2015	Special District Board Secretary / Clerk Program

Fiscal Considerations

There are no direct fiscal considerations. The District has a longevity incentive program included in the budget as a benefit to long term employees who receive salary increases for positive performance evaluations at 10-yr, 15-yr, and 20-yr service anniversaries.

File: Personnel

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS' REGULAR MEETING
Minutes of July 19, 2018

1. 4:00 PM OPEN SESSION / FLAG SALUTE / ROLL CALL

President Rowley called the meeting to order at 4:00 pm and led the flag salute.

Secretary Gelos called the role. Director Capps was absent, all other Directors were present.

Staff present: General Manager Scott Duffield, Office Supervisor/Board Secretary Kristen Gelos, Operations Manager/AGM Jason Molinari.

2. PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

No comments

3. PUBLIC HEARINGS

a. Submittal for approval a resolution authorizing recordation of tax liens for properties in arrears for payment of solid waste fees: President Rowley opened the Public Hearing. Manager Duffield provided a brief summary of the item and answered any questions the Board had. Secretary Gelos provided the Board with any changes to the lien list since publishing.

President Rowley asked if there were any public comments, there were none. President Rowley closed the Public Hearing.

Director Cousineau made a motion to approve Resolution 18-07, as modified, confirming report of District General Manager for delinquent solid waste charges and authorizing the San Luis Obispo County Auditor to assess amounts due as liens against the properties. Director Barker seconded the motion. The motion passed by a unanimous roll-call vote:

Ayes: Directors Barker, Burgess, Cousineau, Rowley
Absent: Director Capps

b. Submittal for approval a resolution adopting adjusted water and sewer system capacity charges: President Rowley opened the Public Hearing. Manager Duffield provided a brief summary of the item and answered any questions the Board had.

President Rowley asked if there were any public comments, there were none. President Rowley closed the Public Hearing.

Director Barker made a motion to approve Resolution 18-08 amending the fee schedule to provide for revised water and sewer system capacity charges. Director Cousineau seconded the motion. The motion passed by a roll-call vote:

Ayes: Directors Barker, Cousineau, Rowley
Noes: Director Burgess
Absent: Director Capps

c. Submittal for approval a resolution adopting a Fiscal Year 2018/19 Final Budget and Salary Schedule: President Rowley opened the Public Hearing. Manager Duffield provided a brief summary of the item and answered any questions the Board had.

President Rowley asked if there were any public comments, there were none. President Rowley closed the Public Hearing.

Director Barker made a motion to approve Resolution 18-09 adopting a fiscal year 2018/19 final budget and salary schedule. Director Cousineau seconded the motion. The motion passed by a unanimous roll-call vote:

Ayes: Directors Barker, Burgess, Cousineau, Rowley
Absent: Director Capps

d. Submittal for approval a resolution declaring drought conditions and implementation of Emergency Water Shortage Regulations and Staged Water Use Reduction Plan: President Rowley opened the Public Hearing. Manager Duffield provided a brief summary of the item and answered any questions the Board had. Directors discussed revising the resolution: removing allotments and surcharges and replacing with a watering schedule per tracts.

President Rowley asked if there were any public comments, there were none. President Rowley closed the Public Hearing.

Director Barker made a motion to approve Resolution 18-10 as revised, declaring drought conditions and implementing emergency water shortage regulations and staged water use reduction plan. Director Cousineau seconded the motion. The motion passed by a unanimous roll-call vote:

Ayes: Directors Barker, Burgess, Cousineau, Rowley
Absent: Director Capps

4. CONSENT ITEMS

a. Regular Meeting Minutes: Receive/approve minutes of regular meeting of June 21, 2018.

b. Warrant Register: Receive/approve June 2018 warrants.

c. Treasurer's Report: Receive/file June 2018 report.

d. Fiscal Report: Receive/file status report June 2018.

e. Manager's Report: Receive/file June 2018 report.

f. Staff Reports: Receive/file June 2018 reports.

Director Barker pulled items E and F (Manager and Staff Reports) and made a motion to approve items A – D as presented. Director Burgess seconded the motion. The motion passed by a unanimous voice vote:

Ayes: Directors Barker, Burgess ,Cousineau, Rowley
Absent: Director Capps

Manager Duffield provided a brief summary of item E (Manager's Report) and answered any questions the Board had. Operations Manager Molinari provided a brief summary of item F (Staff Report) and answered any questions the Board had.

Director Cousineau made a motion to approve items E and F as presented. Director Burgess seconded the motion. The motion passed by a unanimous voice vote:

Ayes: Directors Barker, Burgess, Cousineau, Rowley
Absent: Director Capps

5. DIRECTORS/MANAGER COMMENTS

Director Rowley wanted to inform the Board of possible changes to the County Election process.

6. ADJOURNMENT

On a motion by Director Burgess and seconded by Director Barker, the meeting adjourned at 5:30 pm to the next scheduled meeting on Thursday, August 16, 2018 at 4:00 pm.

APPROVED:

Martin Rowley, Board President

ATTEST:

Kristen Gelos, Board Secretary

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
JULY 2018 WARRANT REGISTER

PACIFIC PREMIER BANK WARRANTS

DATE	NAME OF PAYEE	DESCRIPTION	AMOUNT
7/3/2018	CALPERS HEALTH BENEFITS	CALPERS HEALTH BENEFITS	$ 15,011.90
7/3/2018	CALPERS HEALTH BENEFITS	EMPLOYEE PAID HEALTH BENEFIT	$ 500.92
7/3/2018	CALPERS HEALTH BENEFITS	EMPLOYEE PAID HEALTH BENEFIT	$ 500.92
7/3/2018	STAPLES CREDIT PLAN	OFFICE SUPP./COMPUTER SOFTWARE	$ 334.86
7/3/2018	GREAT WESTERN ALARM	ALARM/ANSWERING SERVICE	$ 284.20
7/3/2018	USA BLUEBOOK	MAINTENANCE FIXED EQUIPMENT	$ 560.85
7/3/2018	KRITZ EXCAVATING & TRUCKING, I	MAINTENANCE FIXED EQUIPMENT	$ 688.03
7/3/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 310.00
7/3/2018	FLUID RESOURCE MANAGEMENT	MAINTENANCE FIXED EQUIPMENT	$ 15,225.00
7/3/2018	U.S. BANK	OFFICE SUPPLIES	$ 26.09
7/3/2018	U.S. BANK	COMPUTER SOFTWARE	$ 1,026.20
7/3/2018	U.S. BANK	COMPUTER SOFTWARE	$ 7.52
7/3/2018	U.S. BANK	MAINTENANCE FIXED EQUIPMENT	$ 363.66
7/3/2018	TUCKFIELD & ASSOCIATES	CAPACITY FEE STUDY	$ 962.64
7/3/2018	SCOTT DUFFIELD	MEDICAL REIMBURSEMENTS	$ 145.88
7/3/2018	KAREN HUFFMAN	FINAL BILL REFND	$ 47.82
7/3/2018	DEMSEY, FILLIGER & ASSOCIATES,	PROFESSIONAL SERVICES	$ 1,500.00
7/3/2018	SPECIAL DISTRICT RISK MANAGEME	W/C INSURANCE FY 2018-19	$ 17,325.29
7/6/2018	R. BRINK	NET PAYROLL	$ 2,040.68
7/6/2018	H. SPEER	NET PAYROLL	$ 2,002.04
7/6/2018	J. MOLINARI	NET PAYROLL	$ 2,818.97
7/6/2018	R. ARNOLD	NET PAYROLL	$ 2,034.98
7/6/2018	J. PRITCHETT	NET PAYROLL	$ 1,994.32
7/6/2018	K. GELOS	NET PAYROLL	$ 2,159.45
7/6/2018	B. BARKER	NET PAYROLL	$ 46.17
7/6/2018	M. ROLWEY	NET PAYROLL	$ 92.34
7/6/2018	R. COUSINEAU	NET PAYROLL	$ 50.00
7/6/2018	S. DUFFIELD	NET PAYROLL	$ 3,403.14
7/6/2018	S. BRENNEMAN	NET PAYROLL	$ 1,456.77
7/7/2018	CALPERS RETIREMENT SYSTEM	EMPLOYER PREMIUM FY 17/18	$ 52.00
7/7/2018	CALPERS RETIREMENT SYSTEM	EMPLOYER PREMIUM FY 17/18	$ 62.40
7/7/2018	CALPERS RETIREMENT SYSTEM	EMPLOYER PREMIUM FY 17/18	$ 374.40
7/9/2018	PG&E	ELECTRICITY	$ 22,734.89
7/10/2018	INTERNAL REVENUE SERVICE	FEDERAL WITHHOLDING TAXES	$ 2,386.93
7/10/2018	INTERNAL REVENUE SERVICE	FICA WITHIHOLDING	$ 24.80
7/10/2018	INTERNAL REVENUE SERVICE	MEDICARE	$ 732.26
7/10/2018	EDD	SDI	$ 250.49
7/10/2018	EDD	STATE WITHHOLDING	$ 859.83
7/13/2018	CALPERS 457 DEFFERED COMP PROG	PERS 457- DEFFERED COMP.	$ 895.00
7/13/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT	$ 3,278.21
7/13/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT TIER 2	$ 742.10
7/13/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT PEPRA	$ 184.28
7/13/2018	CALPERS RETIREMENT SYSTEM	SURVIVOR BENEFIT	$ 7.44

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
JULY 2018 WARRANT REGISTER

DATE	NAME OF PAYEE	DESCRIPTION	AMOUNT
7/16/2018	SPECIAL DISTRICT RISK MANAGEME	PROP/LIABILITY INS. FY 2018-19	$ 25,767.95
7/17/2018	WALLACE GROUP	CONSULTING & ENGINEERING	$ 4,396.78
7/17/2018	ADAMSKI, MOROSKI, MADDEN, CUMB	LEGAL & ATTORNEY	$ 164.00
7/17/2018	RYAN BRINK	CELL/INTERNET ALLOWANCE	$ 80.00
7/17/2018	THE TRIBUNE	ADVERTISING	$ 203.28
7/17/2018	CRYSTAL SPRINGS WATER	LAB TESTING	$ 9.84
7/17/2018	USA BLUEBOOK	LAB TESTING/MAINT. FIXED EQUIP	$ 1,167.15
7/17/2018	BRENNTAG PACIFIC, INC	CHEMICALS	$ 3,490.66
7/17/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 954.00
7/17/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 69.00
7/17/2018	JASON MOLINARI	CELL/INTERNET ALLOWANCE	$ 80.00
7/17/2018	ROY ARNOLD	CELL/INTERNET ALLOWANCE	$ 80.00
7/17/2018	ABALONE COAST ANALYTICAL, INC.	LAB TESTING	$ 1,492.00
7/17/2018	KRISTEN GELOS	CELL/INTERNET ALLOWANCE	$ 40.00
7/17/2018	JAMES A. PRITCHETT	UNIFORM ALLOWANCE	$ 113.78
7/17/2018	JAMES A. PRITCHETT	CELL/INTERNET ALLOWANCE	$ 80.00
7/17/2018	SCOTT DUFFIELD	CELL/INTERNET ALLOWANCE	$ 40.00
7/17/2018	WESTERN EXTERMINATOR COMPANY	STRUCTURES & GROUNDS	$ 300.00
7/17/2018	COUNTY OF SAN LUIS OBISPO	WATER PURCHASE	$ 11,557.00
7/17/2018	CITY OF PASO ROBLES	PASO ROBLES BASIN GSP	$ 1,783.40
7/20/2018	R. BRINK	NET PAYROLL	$ 2,185.48
7/20/2018	H. SPEER	NET PAYROLL	$ 1,993.79
7/20/2018	J. MOLINARI	NET PAYROLL	$ 2,870.06
7/20/2018	R. ARNOLD	NET PAYROLL	$ 2,182.55
7/20/2018	J. PRITCHETT	NET PAYROLL	$ 1,979.91
7/20/2018	K. GELOS	NET PAYROLL	$ 2,201.83
7/20/2018	S. DUFFIELD	NET PAYROLL	$ 3,621.27
7/20/2018	S. BRENNEMAN	NET PAYROLL	$ 1,479.23
7/20/2018	AT&T	TELEPHONE/INTERNET	$ 153.81
7/23/2018	CHARTER COMMUNICATIONS	INTERNET	$ 79.99
7/24/2018	INTERNAL REVENUE SERVICE	FEDERAL WITHHOLDING TAXES	$ 3,534.13
7/24/2018	INTERNAL REVENUE SERVICE	MEDICARE	$ 908.52
7/24/2018	EDD	SDI	$ 313.28
7/24/2018	EDD	STATE WITHHOLDING	$ 1,346.98
7/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT U/L	$ 4,750.86
7/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT U/L	$ 85.79
7/26/2018	PITNEY BOWES	POSTAGE	$ 400.00
7/27/2018	CALPERS 457 DEFFERED COMP PROG	PERS 457- DEFFERED COMP.	$ 895.00
7/27/2018	CALPERS RETIREMENT SYSTEM	EMPLOYER'S CONTRIBUTION	$ 23.26
7/27/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT	$ 3,435.98
7/27/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT TIER 2	$ 778.07
7/27/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT PEPRA	$ 192.50
7/27/2018	CALPERS RETIREMENT SYSTEM	SURVIVOR BENEFIT	$ 7.44
7/30/2018	AT&T	TELEPHONE/INTERNET	$ 234.33

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
JULY 2018 WARRANT REGISTER

DATE	NAME OF PAYEE	DESCRIPTION	AMOUNT
7/31/2018	STAPLES CREDIT PLAN	OFFICE SUPPLIES	$ 31.16
7/31/2018	GREAT WESTERN ALARM	ALARM/ANSWERING SERVICE	$ 282.45
7/31/2018	RYAN BRINK	MEDICAL REIMBURSEMENTS	$ 596.66
7/31/2018	THE TRIBUNE	ADVERTISING	$ 150.04
7/31/2018	THE TRIBUNE	ADVERTISING	$ 183.92
7/31/2018	THE TRIBUNE	ADVERTISING	$ 174.24
7/31/2018	COUNTY OF SAN LUIS OBISPO	LAFCO 2018-19	$ 7,015.25
7/31/2018	HOME DEPOT CREDIT SERVICES	SUPPLIES/MAINT.FIXED EQUIP	$ 415.71
7/31/2018	UNDERGROUND SERVICE ALERT	DUES & SUBS	$ 150.00
7/31/2018	BRENNTAG PACIFIC, INC	CHEMICALS	$ 2,801.51
7/31/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 506.00
7/31/2018	JASON MOLINARI	UNIFORM ALLOWANCE	$ 262.59
7/31/2018	JASON MOLINARI	MEDICAL REIMBURSEMENT	$ 96.59
7/31/2018	WESTERN JANITOR SUPPLY	SUPPLIES	$ 57.92
7/31/2018	WESTERN JANITOR SUPPLY	SUPPLIES	$ 168.07
7/31/2018	WESTERN JANITOR SUPPLY	SUPPLIES	$ 99.09
7/31/2018	COUNTY OF SAN LUIS OBISPO	PROFESSIONAL SVCS X-CONNECTION	$ 147.40
7/31/2018	ANTHONY'S TIRE STORE	VEHICLES	$ 389.02
7/31/2018	FLUID RESOURCE MANAGEMENT	PROFESSIONAL SERVICES	$ 410.00
7/31/2018	NAPA AUTO PARTS	VEHICLES	$ 46.73
7/31/2018	BIG CREEK LUMBER COMPANY	SUPPLIES	$ 221.67
7/31/2018	CORE & MAIN LP	METERS & EQUIPMENT	$ (71.30)
7/31/2018	CORE & MAIN LP	MAINTENANCE FIXED EQUIPMENT	$ 1,263.41
7/31/2018	CORE & MAIN LP	METERS & EQUIPMENT	$ 2,710.63
7/31/2018	PITNEY BOWES INC.	POSTAGE METER INK	$ 80.26
7/31/2018	PITNEY BOWES INC.	POSTAGE METER RENTAL	$ 118.58
7/31/2018	BURT INDUSTRIAL SUPPLY	SUPPLIES & SMALL TOOLS/EQUIP	$ 158.12
7/31/2018	SCOTT DUFFIELD	MEDICAL REIMBURSEMENTS	$ 97.37
7/31/2018	RIVAL TECHNOLOGY INC.	PROFESSIONAL SERVICES	$ 1,800.00
7/31/2018	KRITZ EXCAVATING & TRUCKING, I	KRITZ EXCAVATING & TRUCKING, I	$ 380.87
7/31/2018	STATE WATER RESOURCES CONTROL	LICENSES & PERMITS	$ 90.00
7/31/2018	BAUTISTA'S CLEANING SERVICE	STRUCTURES & GROUNDS	$ 300.00
		GRAND TOTAL FOR ALL WARRANTS	**$ 214,162.53**

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
AUGUST 2018 WARRANT REGISTER

PACIFIC PREMIER BANK WARRANTS

DATE	NAME OF PAYEE	DESCRIPTION	AMOUNT
8/3/2018	R. BRINK	NET PAYROLL	$ 2,375.65
8/3/2018	J. MOLINARI	NET PAYROLL	$ 2,896.66
8/3/2018	R. ARNOLD	NET PAYROLL	$ 2,024.37
8/3/2018	J. PRITCHETT	NET PAYROLL	$ 2,054.57
8/3/2018	K. GELOS	NET PAYROLL	$ 2,201.83
8/3/2018	D. BURGESS	NET PAYROLL	$ 92.35
8/3/2018	R. COUSINEAU	NET PAYROLL	$ 92.35
8/3/2018	S. DUFFIELD	NET PAYROLL	$ 3,454.40
8/3/2018	S. BRENNEMAN	NET PAYROLL	$ 1,479.23
8/3/2018	CALPERS HEALTH BENEFITS	CALPERS HEALTH BENEFITS	$ 14,995.71
8/3/2018	CALPERS HEALTH BENEFITS	EMPLOYEE PAID HEALTH BENEFIT	$ 500.92
8/3/2018	CALPERS HEALTH BENEFITS	EMPLOYEE PAID HEALTH BENEFIT	$ 500.92
8/6/2018	PG&E	ELECTRICITY	$ 23,608.18
8/7/2018	INTERNAL REVENUE SERVICE	FEDERAL WITHHOLDING TAXES	$ 2,165.70
8/7/2018	INTERNAL REVENUE SERVICE	FICA WITHIHOLDING	$ 49.60
8/7/2018	INTERNAL REVENUE SERVICE	MEDICARE	$ 676.48
8/7/2018	EDD	SDI	$ 229.27
8/7/2018	EDD	STATE WITHHOLDING	$ 783.08
8/10/2018	CALPERS 457 DEFFERED COMP PROG	PERS 457- DEFFERED COMP.	$ 795.00
8/10/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT	$ 2,906.89
8/10/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT TIER 2	$ 778.07
8/10/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT PEPRA	$ 192.50
8/10/2018	CALPERS RETIREMENT SYSTEM	SURVIVOR BENEFIT	$ 6.51
8/13/2018	J.B. DEWAR. INC.	FUEL & OIL	$ 845.61
8/13/2018	WALLACE GROUP	CONSULTING & ENGINEERING	$ 359.81
8/13/2018	CRYSTAL SPRINGS WATER	LAB TESTING	$ 24.82
8/13/2018	USA BLUEBOOK	MAINTENANCE FIXED EQUIPMENT	$ 337.23
8/13/2018	USA BLUEBOOK	MAINTENANCE FIXED EQUIPMENT	$ 111.54
8/13/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 100.00
8/13/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 54.00
8/13/2018	FGL ENVIRONMENTAL	LAB TESTING	$ 240.00
8/13/2018	ABALONE COAST ANALYTICAL, INC.	LAB TESTING	$ 737.00
8/13/2018	U.S. BANK	TRAINING & TRAVEL	$ 116.55
8/13/2018	U.S. BANK	OFFICE SUPPLIES	$ 54.36
8/13/2018	U.S. BANK	TRAINING & TRAVEL	$ 50.00
8/13/2018	U.S. BANK	BOARD TRAINING & TRAVEL	$ 25.00
8/13/2018	U.S. BANK	COMPUTERS/SOFTWARE	$ 2,045.02
8/13/2018	U.S. BANK	CHEMICALS	$ 2.84
8/13/2018	CORE & MAIN LP	MAINTENANCE FIXED EQUIPMENT	$ 139.43
8/13/2018	CORE & MAIN LP	MAINTENANCE FIXED EQUIPMENT	$ 49.61
8/13/2018	CORE & MAIN LP	MAINTENANCE FIXED EQUIPMENT	$ 622.05
8/13/2018	BURT INDUSTRIAL SUPPLY	SUPPLIES/SMALL TOOLS & EQUIP.	$ 624.73
8/13/2018	BURT INDUSTRIAL SUPPLY	VEHICLES	$ 121.54

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
AUGUST 2018 WARRANT REGISTER

DATE	NAME OF PAYEE	DESCRIPTION	AMOUNT
8/13/2018	BURT INDUSTRIAL SUPPLY	LS 5 PUMPS & CONTROLS	$ 191.82
8/13/2018	DATA PROSE LLC	JUNE BILLING	$ 1,472.64
8/13/2018	WESTERN EXTERMINATOR COMPANY	STRUCTURES & GROUNDS	$ 86.00
8/13/2018	RIVAL TECHNOLOGY INC.	PROFESSIONAL SERVICES	$ 50.00
8/17/2018	R. BRINK	NET PAYROLL	$ 2,261.00
8/17/2018	J. MOLINARI	NET PAYROLL	$ 2,868.47
8/17/2018	R. ARNOLD	NET PAYROLL	$ 2,355.79
8/17/2018	J. PRITCHETT	NET PAYROLL	$ 2,031.85
8/17/2018	K. GELOS	NET PAYROLL	$ 2,201.84
8/17/2018	S. DUFFIELD	NET PAYROLL	$ 3,454.40
8/17/2018	S. BRENNEMAN	NET PAYROLL	$ 1,479.23
8/20/2018	AT&T	TELEPHONE/INTERNET	$ 155.17
8/21/2018	INTERNAL REVENUE SERVICE	FEDERAL WITHHOLDING TAXES	$ 2,187.06
8/21/2018	INTERNAL REVENUE SERVICE	MEDICARE	$ 671.34
8/21/2018	EDD	SDI	$ 231.50
8/21/2018	EDD	STATE WITHHOLDING	$ 812.73
8/21/2018	CALPERS RETIREMENT SYSTEM	PROFESSIONAL SERVICES	$ 1,050.00
8/23/2018	CHARTER COMMUNICATIONS	INTERNET	$ 79.99
8/23/2018	J.B. DEWAR. INC.	FUEL & OIL	$ 970.49
8/24/2018	CALPERS 457 DEFFERED COMP PROG	PERS 457- DEFFERED COMP.	$ 795.00
8/24/2018	CALPERS RETIREMENT SYSTEM	EMPLOYER'S CONTIBUTION	$ 18.61
8/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT	$ 2,906.88
8/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT TIER 2	$ 778.07
8/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT PEPRA	$ 192.50
8/24/2018	CALPERS RETIREMENT SYSTEM	SURVIVOR BENEFIT	$ 6.51
8/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT U/L	$ 4,750.86
8/24/2018	CALPERS RETIREMENT SYSTEM	PERS RETIREMENT U/L	$ 85.79
8/27/2018	STAPLES CREDIT PLAN	OFFICE SUPPLIES	$ 90.95
8/27/2018	GREAT WESTERN ALARM	ALARM/ANSWERING SERVICE	$ 283.30
8/27/2018	ADAMSKI, MOROSKI, MADDEN, CUMB	LEGAL & ATTORNEY	$ 984.00
8/27/2018	RYAN BRINK	CELL PHONE/INTERNET ALLOWANCE	$ 80.00
8/27/2018	THE UPS STORE	POSTAGE	$ 34.21
8/27/2018	KRITZ EXCAVATING & TRUCKING, I	STRUCTURES & GROUNDS	$ 30.34
8/27/2018	BRENNTAG PACIFIC, INC	CHEMICALS	$ 2,440.37
8/27/2018	BRENNTAG PACIFIC, INC	CHEMICALS	$ 1,216.97
8/27/2018	QUINN COMPANY	SMALL TOOLS & EQUIPMENT	$ (107.11)
8/27/2018	QUINN COMPANY	SMALL TOOLS & EQUIPMENT	$ 114.59
8/27/2018	JASON MOLINARI	CELL PHONE/INTERNET ALLOWANCE	$ 80.00
8/27/2018	C&N TRACTORS	SM TOOLS/EQUIP. FUEL & OIL	$ 71.56
8/27/2018	ROY ARNOLD	CELL PHONE/INTERNET ALLOWANCE	$ 80.00
8/27/2018	KRISTEN GELOS	CELL PHONE/INTERNET ALLOWANCE	$ 40.00
8/27/2018	JAMES A. PRITCHETT	CELL PHONE/INTERNET ALLOWANCE	$ 80.00
8/27/2018	LOWE'S	FIXED EQUIP/STRUCT.GRNDS/P&R	$ 128.16
8/27/2018	ALL SIGNS & GRAPHICS	PROFESSIONAL SERVICES	$ 452.55
8/27/2018	BURT INDUSTRIAL SUPPLY	LS 5 PUMPS & CONTROLS	$ 115.27

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
AUGUST 2018 WARRANT REGISTER

DATE	NAME OF PAYEE	DESCRIPTION	AMOUNT
8/27/2018	BURT INDUSTRIAL SUPPLY	LS 5 PUMPS & CONTROLS	$ 14.50
8/27/2018	SCOTT DUFFIELD	CELL PHONE/INTERNET ALLOWANCE	$ 40.00
8/27/2018	STEPHANIE BRENNEMAN	MEDICAL REIMBURSEMENTS	$ 1,000.00
8/27/2018	CITY OF PASO ROBLES	PASO ROBLES BASIN GSP	$ 2,714.45
8/27/2018	BAUTISTA'S CLEANING SERVICE	STRUCTURES & GROUNDS	$ 180.00
8/29/2018	AT&T	TELEPHONE/INTERNET	$ 237.21
8/30/2018	J.B. DEWAR. INC.	FUEL & OIL	$ 594.51
8/31/2018	R. BRINK	NET PAYROLL	$ 2,108.34
8/31/2018	J. MOLINARI	NET PAYROLL	$ 2,910.59
8/31/2018	R. ARNOLD	NET PAYROLL	$ 2,048.47
8/31/2018	J. PRITCHETT	NET PAYROLL	$ 2,003.70
8/31/2018	K. GELOS	NET PAYROLL	$ 2,201.84
8/31/2018	B. BARKER	NET PAYROLL	$ 92.35
8/31/2018	R. COUSINEAU	NET PAYROLL	$ 92.35
8/31/2018	S. DUFFIELD	NET PAYROLL	$ 3,621.27
8/31/2018	S. BRENNEMAN	NET PAYROLL	$ 1,479.23
7/31/2018	ANTHONY'S TIRE STORE	VEHICLES	$ 389.02
7/31/2018	FLUID RESOURCE MANAGEMENT	PROFESSIONAL SERVICES	$ 410.00
7/31/2018	NAPA AUTO PARTS	VEHICLES	$ 46.73
7/31/2018	BIG CREEK LUMBER COMPANY	SUPPLIES	$ 221.67
7/31/2018	CORE & MAIN LP	METERS & EQUIPMENT	$ (71.30)
7/31/2018	CORE & MAIN LP	MAINTENANCE FIXED EQUIPMENT	$ 1,263.41
7/31/2018	CORE & MAIN LP	METERS & EQUIPMENT	$ 2,710.63
7/31/2018	PITNEY BOWES INC.	POSTAGE METER INK	$ 80.26
7/31/2018	PITNEY BOWES INC.	POSTAGE METER RENTAL	$ 118.58
7/31/2018	BURT INDUSTRIAL SUPPLY	SUPPLIES & SMALL TOOLS/EQUIP	$ 158.12
7/31/2018	SCOTT DUFFIELD	MEDICAL REIMBURSEMENTS	$ 97.37
7/31/2018	RIVAL TECHNOLOGY INC.	PROFESSIONAL SERVICES	$ 1,800.00
7/31/2018	KRITZ EXCAVATING & TRUCKING, I	KRITZ EXCAVATING & TRUCKING	$ 380.87
7/31/2018	STATE WATER RESOURCES CONTROL	LICENSES & PERMITS	$ 90.00
7/31/2018	BAUTISTA'S CLEANING SERVICE	STRUCTURES & GROUNDS	$ 300.00
		GRAND TOTAL FOR ALL WARRANTS	**$ 141,216.25**

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
TREASURER'S REPORT
JULY 2018

SUMMARY REPORT OF ALL ACCOUNTS

Beginning Balance:	$	3,211,961.79
Ending Balance:	$	3,152,563.60
Variance:	$	(59,398.19)
Interest Earnings for the Month Reported:	$	14,018.51
Interest Earnings Fiscal Year-to-Date:	$	14,018.51

ANALYSIS OF REVENUES

Total operating income for water and sewer was:	$	140,226.88
Non-operating income was:	$	14,018.51
Franchise fees paid to the District by San Miguel Garbage was:	$	5,465.12
Interest earnings for the P.P.B. checking account was:	$	3.25
Interest earnings for the P.P.B. DWR Loan Services account was:	$	-
Interest earnings for the P.P.B. DWR Reserve account was:	$	-
Interest earnings for the P.P.B. SRF Loan Services account was:	$	-
Interest earnings for the P.P.B. SRF Reserve account was:	$	-
Interest earnings for the LAIF account was:	$	14,015.26

ANALYSIS OF EXPENSES

Pacific Premier Bank checking account total warrants, fees, and Electronic Fund Transfers was:	$	263,318.01

STATEMENT OF COMPLIANCE

This report was prepared in accordance with the Heritage Ranch Community Services District Statement of Investment Policy. All investment activity was within policy limits. There are sufficient funds to meet the next 30 days obligations. Attached is a status report of all accounts and related bank statements.

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
STATUS REPORT FOR ALL ACCOUNTS
JULY 2018

BEGINNING BALANCE ALL ACCOUNTS		**$ 3,211,961.79**
OPERATING CASH IN DRAWER		**$300.00**
PACIFIC PREMIER BANK - CHECKING		
BEGINNING BALANCE 5/31/2018	$87,369.98	
DEPOSIT REVENUE & MISCELLANEOUS INCOME	$213,994.31	
INTEREST EARNED	$3.25	
TOTAL CHECKS, FEES AND EFT'S	($263,318.01)	
TRANSFER TO LAIF ACCOUNT	$0.00	
ENDING BALANCE 6/30/2018		**$38,049.53**
PACIFIC PREMIER BANK DWR LOAN REPAYMENT (1994-2029):		
LOAN SERVICES ACCOUNT		
BEGINNING BALANCE 5/31/2018	$55.39	
QUARTERLY DEPOSIT	$25,907.00	
INTEREST EARNED	$0.00	
SEMI-ANNUAL PAYMENT	$0.00	
ENDING BALANCE 6/30/2018		**$25,962.39**
PACIFIC PREMIER BANK DWR RESERVE ACCOUNT		
BEGINNING BALANCE 5/31/2018	$112,665.60	
INTEREST EARNED	$0.00	
ENDING BALANCE 6/30/2018		**$112,665.60**
PACIFIC PREMIER BANK SDWSRF LOAN SERVICES ACCOUNT		
BEGINNING BALANCE 5/31/2018	$31.62	
QUARTERLY DEPOSIT	$0.00	
INTEREST EARNED	$0.00	
SEMI-ANNUAL PAYMENT	$0.00	
ENDING BALANCE 6/30/2018		**$31.62**
PACIFIC PREMIER BANK SDWSRF RESERVE ACCOUNT		
BEGINNING BALANCE 5/31/2018	$0.00	
QUARTERLY DEPOSIT	$0.00	
INTEREST EARNED	$0.00	
ENDING BALANCE 6/30/2018		**$0.00**
LOCAL AGENCY INVESTMENT FUND (LAIF)		
BEGINNING BALANCE 5/31/2018	$3,011,839.20	
INTEREST EARNED	$14,015.26	
TRANSFER FROM PACIFIC PREMIER CHECKING	$0.00	
TRANSFER TO PACIFIC PREMIER CHECKING	($50,000.00)	
ENDING BALANCE 6/30/2018		**$2,975,854.46**
ENDING BALANCE ALL ACCOUNTS		**$3,152,563.60**
DIFFERENCE FROM LAST MONTH	**Decrease**	**($59,398.19)**

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
TREASURER'S REPORT
AUGUST 2018

SUMMARY REPORT OF ALL ACCOUNTS

Beginning Balance:	$	3,152,563.60
Ending Balance:	$	3,195,979.39
Variance:	$	43,415.79
Interest Earnings for the Month Reported:	$	4.03
Interest Earnings Fiscal Year-to-Date:	$	14,022.54

ANALYSIS OF REVENUES

Total operating income for water and sewer was:	$	145,682.03
Non-operating income was:	$	22,367.03
Franchise fees paid to the District by San Miguel Garbage was:	$	6,618.48
Interest earnings for the P.P.B. checking account was:	$	4.03
Interest earnings for the P.P.B. DWR Loan Services account was:	$	-
Interest earnings for the P.P.B. DWR Reserve account was:	$	-
Interest earnings for the P.P.B. SRF Loan Services account was:	$	-
Interest earnings for the P.P.B. SRF Reserve account was:	$	-
Interest earnings for the LAIF account was:	$	-

ANALYSIS OF EXPENSES

Pacific Premier Bank checking account total warrants, fees, and Electronic Fund Transfers was:	$	152,069.04

STATEMENT OF COMPLIANCE

This report was prepared in accordance with the Heritage Ranch Community Services District Statement of Investment Policy. All investment activity was within policy limits. There are sufficient funds to meet the next 30 days obligations. Attached is a status report of all accounts and related bank statements.

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
STATUS REPORT FOR ALL ACCOUNTS
AUGUST 2018

BEGINNING BALANCE ALL ACCOUNTS		**$ 3,152,563.60**
OPERATING CASH IN DRAWER		**$300.00**
PACIFIC PREMIER BANK - CHECKING		
BEGINNING BALANCE 7/31/2018	$38,049.53	
DEPOSIT REVENUE & MISCELLANEOUS INCOME	$235,480.80	
INTEREST EARNED	$4.03	
TOTAL CHECKS, FEES AND EFT'S	($152,069.04)	
TRANSFER TO LAIF ACCOUNT	($50,000.00)	
ENDING BALANCE 8/31/2018		**$71,465.32**
PACIFIC PREMIER BANK DWR LOAN REPAYMENT (1994-2029):		
LOAN SERVICES ACCOUNT		
BEGINNING BALANCE 7/31/2018	$25,962.39	
QUARTERLY DEPOSIT	$0.00	
INTEREST EARNED	$0.00	
SEMI-ANNUAL PAYMENT	$0.00	
ENDING BALANCE 8/31/2018		**$25,962.39**
PACIFIC PREMIER BANK DWR RESERVE ACCOUNT		
BEGINNING BALANCE 7/31/2018	$112,665.60	
INTEREST EARNED	$0.00	
ENDING BALANCE 8/31/2018		**$112,665.60**
PACIFIC PREMIER BANK SDWSRF LOAN SERVICES ACCOUNT		
BEGINNING BALANCE 7/31/2018	$31.62	
QUARTERLY DEPOSIT	$0.00	
INTEREST EARNED	$0.00	
SEMI-ANNUAL PAYMENT	$0.00	
ENDING BALANCE 8/31/2018		**$31.62**
PACIFIC PREMIER BANK SDWSRF RESERVE ACCOUNT		
BEGINNING BALANCE 7/31/2018	$0.00	
QUARTERLY DEPOSIT	$0.00	
INTEREST EARNED	$0.00	
ENDING BALANCE 8/31/2018		**$0.00**
LOCAL AGENCY INVESTMENT FUND (LAIF)		
BEGINNING BALANCE 7/31/2018	$2,975,854.46	
INTEREST EARNED	$0.00	
TRANSFER FROM PACIFIC PREMIER CHECKING	$50,000.00	
TRANSFER TO PACIFIC PREMIER CHECKING	($40,000.00)	
ENDING BALANCE 8/31/2018		**$2,985,854.46**
ENDING BALANCE ALL ACCOUNTS		**$3,195,979.39**
DIFFERENCE FROM LAST MONTH	**Increase**	**$43,415.79**

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
ANNUAL TREASURER'S REPORT
FOR THE FISCAL YEAR ENDING
JUNE 30, 2018

INTRODUCTION

This report covers all investments and fund activities of the District for the period of July 1, 2017 to June 30, 2018. This report is prepared in accordance with the District's Statement of Investment Policy, adopted by Resolution No. 96-1.

The Heritage Ranch Community Services District is a public subdivision formed and operated under enabling state law. The District provides water and sewer service, and solid waste collection (via a Franchise Agreement with San Miguel Garbage Company for solid waste removal) which is categorized as an enterprise function (fee for service). The District's latent powers also include parks and recreation, a non-enterprise function, and the only item in this category is the Heritage Village Senior's Center. The District has formally appointed the Manager as the Treasurer. District staff prepares all fiscal reports, and the Treasurer and staff oversee all financial activity and make recommendations to the District Board of Directors.

Treasurer's Reports are submitted on a monthly, quarterly, and annual basis to the Board of Directors. A detailed description of contents for each type of report is contained in Section I of said Statement of Investment Policy, a copy of which is attached as part of this report. The Policy now in force was adopted in accordance with changes in state law, effective 1996.

REVIEW

Table 1 provides the beginning and ending balances, and the variance of all funds combined for each month of the year.

Table 1

PERIOD	BEGINNING BALANCE	ENDING BALANCE	VARIANCE
JUL 17	$2,829,345	$2,779,974	($49,371.00)
AUG 17	$2,779,974	$2,769,326	($10,648.00)
SEPT 17	$2,769,326	$2,740,019	($29,307.00)
OCT 17	$2,740,019	$2,802,728	$62,709.00
NOV 17	$2,802,728	$2,925,343	$122,615.00
DEC 17	$2,925,343	$3,045,160	$119,817.00
JAN 18	$3,045,160	$3,080,269	$35,109.00
FEB 18	$3,080,269	$3,129,760	$49,491.00
MAR 18	$3,129,760	$3,065,808	($63,952.00)
APR 18	$3,065,808	$3,217,398	$151,590.00
MAY 18	$3,217,398	$3,245,572	$28,174.00
JUN 18	$3,245,572	$3,199,067	($46,505.00)

The District maintained a total of seven locations/accounts for its cash during the reporting year. Of these seven, only one is considered an investment; the Local Agency Investment Fund (LAIF). A complete profile of all of the aforementioned accounts follows:

1. Operating cash in cash drawer: Maintained to make change for cash transactions.

2. Pacific Premier Bank Checking: Variable interest-bearing checking account currently at 0.05%, at Pacific Premier branch in Paso Robles used for most of our transactions such as payroll, accounts receivable and accounts payable. Statements are received on a monthly basis.

3. Pacific Premier Bank DWR loan repayments: The Loan Services Account interest earnings rate is 0.25%. Quarterly deposits are made into each account. Semi-annual payments are made from the Loan Services account by the bank, which functions as our fiscal agent, to DWR for repayment of a $2 million loan to partially finance our water treatment plant and water pumping facilities.

4. Pacific Premier Bank DWR reserve: The Reserve Account interest earnings rate is 0.25%. The purpose of the Reserve Account was to build up over ten years an amount equal to debt service for one year, a DWR requirement. Statements are received on a quarterly basis.

5 . Pacific Premier Bank SDWSRF (Safe Drinking Water State Revolving Fund) loan repayments: The Loan Services Account interest earnings rate is 0.25%. Quarterly deposits will be made into the Loan Services. Semi-annual payments will be made from the Loan Services account by the bank, which functions as our fiscal agent, to SDWSRF for repayment of a $714,000 loan to finance upgrades at the water treatment plant. The fund will provide for a twenty (20) year repayment period at a 1.7875 percent interest rate. Statements are received on a quarterly basis.

6. Pacific Premier Bank SDWSRF (Safe Drinking Water State Revolving Fund) reserve: Quarterly deposits will be made into the Reserve Account. The purpose of the Reserve Account is to build up over ten years an amount equal to two semiannual payments, which is based upon the estimated loan principal and interest rate.

7. LAIF: Local Agency Investment Fund, a variable interest-bearing investment fund administered by the California State Treasurer. The majority of our funds are retained in this account. The last reported interest rate was 1.51%. Statements are received on a quarterly basis.

The term "fund" is applied in our operations in two District ways. One application is a reference to services rendered by the District and their related funds, i.e. water and sewer, general and solid waste. These are functions of internal bookkeeping where revenue and expenses are allocated according to revenue source and type of expense. The other application is used to identify moneys within certain accounts. For example, the analysis of the balance in LAIF is reported on each monthly Treasurer's Report, and the allocation of interest earnings from all accounts to funds is based on established policy.

A recap of interest earned in each account is presented in Table 2. Some accounts do not bear interest, as stated in the account profile above, but all accounts are listed for reference. The dollar amounts posted are the totals for the fiscal year for each account.

Table 2

ACCOUNTS	INTEREST EARNINGS	INTEREST RATE
1. Cash Drawer	$0.00	0.00%
2. Pacific Premier Checking	$49.50	0.05%
3. Pacific Premier DWR Loan Services	$26.18	0.25%
4. Pacific Premier DWR Reserve	$273.92	0.25%
5. Pacific Premier SRF Loan Services	$19.75	0.46%
6. Pacific Premier SRF Reserve	$0.00	0.00%
7. LAIF	$30.547.10	1.07% - 1.90%

CONCLUSION

The District appears to be managing its cash and investments in a prudent manner with adherence to optimal safety, yield, and liquidity. Treasurer's Reports are presented to the Board of Directors monthly, quarterly, and annually. A formal Statement of Investment Policy is in place. Internal policies for allocation of earned interest and preparation of reports, including a running analysis of funds deposited in LAIF, is complete and straight-forward.

EXHIBIT "A"

TO RESOLUTION NO. 96-1

STATEMENT OF INVESTMENT POLICY

I. SCOPE:

This Policy shall include monies from all funds of the District.

OBJECTIVES:

1. SAFETY: It is the primary duty and responsibility of the Treasurer to protect, preserve and maintain cash and investments placed in his/her trust on behalf of the property owners within the District.

2. LIQUIDITY: A minimum of 50% of the investment portfolio should be maintained in liquid short-term, 90-day maximum securities to be converted to cash if necessary to meet disbursement requirement. Since all cash requirements cannot be anticipated, investments in securities with action secondary or resale markets may be used. Emphasis is placed on marketable securities to minimize risk due to price fluctuation from a rise or drop in market interest rates.

3. YIELD: Yield shall be a consideration only after requirements of safety and liquidity have been met.

4. LEGAL INVESTMENT AUTHORITY: Investments shall be in accordance with provisions of the Government Code of the State of California and/or local statutes and regulations (California Government Code Section 53600 et. seq.)

5. STATEMENT OF INVESTMENT POLICY: The Treasurer shall submit a "Statement of Investment Policy" annually and any proposed mid-year changes to the Board of Directors for approval. Approval may be by minute order except where changes are made in which case, it shall be done by Resolution.

6. REVERSE REPURCHASE AGREEMENT: Securities shall not be pledged as collateral for temporary borrowing except as authorized by the Board of Directors.

7. SELLING SECURITIES PRIOR TO MATURITY: Losses shall be acceptable only if the proposed swap/trade can clearly enhance yield (value) over the life of the new security on a total return basis.

Sufficient written documentation to facilitate audit of the transaction shall be maintained. Losses shall be recognized and recorded based on transaction date(s).

8. MONTHLY REPORTS: The Treasurer shall file a monthly report with the Board of Directors and its President at each regular monthly meeting.

Minimum required elements of the monthly report are as follows for all securities and rate of interest:

a. Type of investment and rate of interest.
b. Issuer/Institution and statements from same.
c. Date of maturity, par value and dollar value.
d. Statement regarding the report's compliance or non-compliance with the Statement of Investment Policy.
e. Statement that there are sufficient funds to meet the next 30 days' obligations or an explanation as to why sufficient money shall or may not be available.

9. QUARTERLY REPORTS: The Treasurer shall file a quarterly report with the Board of Directors and its President within 30 days after the end of each quarter (i.e., by May 1, August 1, November 1, and February 1).

Minimum required elements of the quarterly report are as follows for all securities, investments and monies:

a. Type of investment, rate of interest, and accrued interest earnings and trends for same.
b. Issuer/Institution and statements from same.
c. Date of maturity, par value and dollar value.
d. A description of funds, investments, or programs held under the management of contracted parties including lending programs.
e. Current market value to all securities held by the District and under the management of any outside party that is not also a local agency or the State of California Local Agency Investment Fund (LAIF).
f. Statement regarding the report's compliance or non-compliance with the Statement of Investment Policy.
g. Statement that there are sufficient funds to meet investment pool's expenditure requirements for the next six months, or an explanation as to why sufficient money shall or may not be available.

10. ANNUAL REPORT: The Treasurer shall file an annual report with the Board of Directors and its President within 30 days after the end of the District's fiscal year.

Minimum required elements of the Annual Report are as follows:

a. The same information required in item (a) above.
b. A copy of the Statement of Investment Policy or Policies in effect during the reporting period.
c. Charts and/or graphs showing (1) trends for account balances and accrued interest earnings and (2) flow or money between said accounts.
d. Explanation for allocation of interest earnings to internal funds.
e. Statement from the District Finance Committee re any comments on the report.
f. Recommendations, if any, on proposed changes to current investment strategies or to the Statement of Investment Policy itself.

II. GUIDELINES:

1. INVESTMENT TRANSACTIONS: Every investment transaction must be reviewed, authorized and documented by the Treasurer.

2. POOLED CASH: Whenever practical, District cash should be consolidated into one bank account and invested on a pooled concept basis. Interest earnings may be allocated according to fund cash and investment balances at predetermined intervals, i.e., monthly, quarterly, etc.

3. COMPETITIVE BIDS: Purchase and sale of securities should be made on the basis of competitive offers and bids when practical.

4. CASH FORECAST: Once investment policies are adopted and internal controls are in place, the cash flow for the District should be analyzed and compared to the receipt of revenues and maturity of investments scheduled so that adequate cash will be available to meet disbursement requirements, as well as developing a basis for the investment strategy.

5. INVESTMENT LIMITATIONS: Security purchases and holdings should be maintained within limits imposed by the Government Code. Current Limits are:

PERMITTED INVESTMENTS/DEPOSITS	PERCENTAGES	MAXIMUM MATURITY
Securities of the U.S. Government	Unlimited	5 years *
Certificates of Deposits	Unlimited	5 years *
Negotiable Certificates of Deposits	30%	5 years *
Bankers Acceptances	40%	270 days
Commercial Paper	30%	180 days
LAIF	100MM***	N/A
Passbook Deposits	--	N/A
Repurchase Agreement	20%	1 year **
Reverse Repurchase Agreements	20%	1 year **
Mutual Funds	15%	N/A
Medium term Notes	30%	5 years *
County Pooled Funds	Unlimited	N/A

*Maximum term unless expressly authorized by the Board of Directors and within the prescribed time frame for said approval.

**Board approval is required, and must comply with Government Codes 53601 (i) and 53635 (i).

***Limit set by LAIF Governing Board, not the Government Code.

6. LIQUIDITY: The marketability (salability) of a security should be considered at the time of purchase, as the security may have to be sold at a later date to meet unanticipated cash demands. The portfolio should therefore consists largely of securities with active secondary or resale markets. This would include short term maturities to limit the effect of market risk on the market price of the securities.

7. LONG-TERM MATURITIES: As a general rule, long term maturities should not represent a significant percentage of the total portfolio, as the principal risk involved can outweigh the potential for higher earnings. Maximum terms should be as specified in the Government Code (currently five years as per Sections 53601/53635 unless previously authorized by the Board of Directors.

8. SELECTION OF DEALERS/BROKERS: It is highly recommended that investment transactions be with previously approved financial institutions. A regular review of the financial statements of the institution should be done to ascertain capital adequacy. Unaudited quarterly reports are generally available within forty (40) days of the end of each quarter.

In addition, it is highly recommended that the Treasurer provide a current edition of the "Statement of Investment Policy" to all dealers/brokers which have been previously approved to handle investment transactions. This will assure that the dealers/brokers are aware of the suitability of the investment instruments they are trying to sell to the District. Receipt of the policy, including confirmation that it has been reviewed by persons handling the District's account should be acknowledged in writing prior to commencing to trade.

9. DIVERSIFICATION: The purpose of diversifying is to reduce the overall portfolio risks while attaining an average market rate of return; therefore, it needs to be conceptualized in terms of maturity, instrument types and issuer. The portfolio should consist of a mix of various types of securities, issuers, and maturities.

10. EVALUATION OF CERTIFICATE OF DEPOSIT:

a.) Time Certificate of Deposit (TCD) should be evaluated in terms of FDIC or FSLIC coverage. For deposits in excess of the insured maximum of $100,000, approved collateral, at the required percentage of market value, should be obtained. (California Government Code Section 53651 and 53652).

b.) Negotiable Certificate of Deposit (NCD) should be evaluated in terms of the credit worthiness of the issuer, as these deposits are uninsured and uncollateralized promissory notes.

c.) Suggested minimum eligibility criteria for banks and savings and loan institutions:

1.) Federally insured (FSLIC, FDIC, NCUIA)

2.) Approved by the Treasurer based on :

a) Financial soundness - some suggested methodologies:

1. In-house ration analysis
2. Use of external rating services, i.e. Keefe, Bruyette & Woods, Inc. (KB), Moody's S&P, Finley Report

b) Experience

c) Personnel

11. PAYMENT: Payment for securities should be on a Delivery Versus Payment (DVP) basis. This is ideally done via the District's third party safekeeping agent. NOTE: Book entry is considered delivery.

12. WIRE TRANSFER: All transfers should be made by authorized personnel in a position commensurate with the significance of the transaction. The District's bank should verify each transaction with predetermined District personnel other than the individual sending the wire transfer.

Whenever possible, use pre-formatted wire transfers to restrict the transfer of funds with pre-authorized accounts only.

13. COLLATERAL: Amount of securities placed with agent of depository shall at all times be maintained as specified in California Government Code Section 53652 and pursuant to Sections 53656 and 53658.

The purchase of Certificates of Deposit requires the depository to secure public funds. If the collateral is government securities, 110% of market value to the face amount of the deposit is required. Promissory notes secured by first mortgages and first trust deeds used as collateral require 150% of marker value to the face amount of the deposit. An irrevocable Letter of Credit issued by the Federal Home Loan Bank of San Francisco requires 105% of market value to the face amount of the public deposit.

Collateral is also identified as the underlying marketable securities provided by a broker/dealer under a repurchase agreement transaction or the marketable securities provided by the District under a reverse repurchase agreement.

Marketable securities which are provided as collateral under a repurchase agreement with a broker/dealer should be held by the District's safekeeping agent at a market value greater than 100%. Request for collateral substitutions and releases should always be subject to the Treasurer's approval.

14. SAFEKEEPING: Securities purchased from brokers/dealers should be held in a third party custodian/safekeeping account. Said securities should be held in a manner that establishes the District's right of ownership.

All securities owned by the District should be held by a third party except the collateral for time deposits in banks and savings and loans. Collateral for time deposits in savings and loans is held by the Federal Home Loan Bank or an approved Agenda of Depository. The collateral for time deposits in banks should be held in the District's name in the bank's Trust Department, or alternately, in the Federal Reserve Bank.

15. CONFIRMATION: Receipts for confirmation of purchase of authorized securities should include the following information. Trade date, par value, maturity, rate, price, yield, settlement date, description of securities purchased, agency's name, net amount due, third-party custodial information insist that confirmation of all investment transactions are to be received by the Treasurer within three (3) business days. These are minimum information requirements.

16. GASB 3: The Governmental Accounting Standards Board issued GASB 3 in April, 1986. Current methods of purchasing and holding securities requires some discretion to classify investments under GASB 3.

The intent of the rating categories is to quantify risk associated with the ownership of various types of investments. The focal point is establishing investment and the entity holding the investment.

The carrying amount and market value of all types of the local entity's investment should be disclosed in total and for each type of investment. The disclosure of the carrying amounts by type of investment should be classified into these three categories of risk:

1) Insured or registered, or securities held by the District or its agent in the District's name.

2) Uninsured and unregistered with the securities held by the counterparty's trust department or agent in the District's name.

3) Uninsured and unregistered, with securities held by the counterparty, or by its trust department or agent, but not the District's name; (This included the portion of the carrying amount of any repurchase agreement that exceeds the market value of the underlying securities).

Interpretation of GASB 3 indicates that the securities do not literally have to be held in the name of the District, but the District must be able to show evidence of ownership. This "chain of custody" can be evidenced through safekeeping or custodial receipts and/or statements.

The rating categories are determined by where the securities are held, how they were transferred, and who the counterparty to each transaction was.

GASB 3 exempts mutual funds. LAIF investments, and County pooled funds from the mandatory risk categorization. Moreover, deposits that are insured or collateralized may be exempt from mandatory risk categorization, if collateral is held by the District or a third party custodian in the District's name.

17. STRATEGY: The following, may help to develop an effective investment strategy. Strategy refers to the ability to manage financial resources in the most advantageous manner.

1) Economic Forecasts: Gather economic forecasts periodically from economist and financial experts through bankers and brokers to assist in the formulation of an investment strategy for the local agency.

2) Implementing Investment Strategy: Executed investment transactions which conform with anticipated interest rate trends and the current investment plan.

3) Rapport: Maintain a close working relationship with District staff. The objective is to pinpoint when large disbursements will hit the District's bank account. It is essential for good cash control that such large expenditures be anticipated, estimated as to dollar amount, and communicated to the Treasurer to insure that the portfolio has sufficient liquidity to meet current obligations with little disruption to the scheduled maturities.

4) Yield Enhancements: The Treasurer may wish to utilize the following investment techniques to increase yield and to maintain a fully invested position:

a) Daily and Week-end Repurchase Agreements.
b) Reverse Repurchase Agreements using only owned and matched maturity securities as collateral.
c) Swaps and Trades.

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

RESOLUTION NO. 96-1

A RESOLUTION OF THE BOARD OF DIRECTORS OF HERITAGE RANCH COMMUNITY SERVICES DISTRICT PROVIDING FOR AUTHORITY OF DISTRICT TREASURER TO DEPOSIT AND INVEST FUNDS OF SAID DISTRICT AND APPROVAL OF STATEMENT OF INVESTMENT POLICY

WHEREAS, the Board of Directors of the Heritage Ranch Community ("District") believes that public funds should, so far as is reasonably possible, be invested in bonds or other securities, or deposited in savings accounts in banks or savings institutions, to produce revenue for the District rather than to remain idle (hereinafter all reference to "banks" shall mean "state or national banks or state or federal savings and loan associations"); and

WHEREAS, from time to time there are District funds which for varying periods of time will not be required for immediate use by the District, and which will, therefore, be available for the purpose of purchasing or investing in bonds or other securities, or for depositing in interest-bearing accounts in banks having offices within this state; and

WHEREAS, it is impractical for the Board of Directors of this District to take individual action authorizing the investment of such funds, bonds or other securities which are permissible investments under Section 53601 of the Government Code when funds are available and not needed for varying periods of time, and the Board of Directors of this District does find and determine that the Treasurer of this District should be authorized to invest such funds in accordance with the provisions of Section 53607 of the California Government Code; and

WHEREAS, it will be more convenient in the handling of said bonds or other securities so purchased that they be kept in safekeeping by said banks while they are the property of this District.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the District that the Treasurer of the District be is hereby authorized to deposit for safekeeping, as far as possible, all money belonging to, or in the custody of the District, pursuant to Section 53635 et. seq. of the Government Code.

BE IT FURTHER RESOLVED, that the Treasurer of this District, pursuant to Section 53607 of said Code, be authorized to purchase bonds and other securities which are permissible investments under Section 53601 of said Code, or deposit in interest bearing accounts with banks, having offices within this state, funds of this District from any of the various accounts of this District when such funds will not be needed for varying periods of time, and to purchase such bonds or other securities when they can be purchased at a price that will be beneficial to this District, provided that such accounts shall be supported by sufficient securities as provided by law to secure the amount of such deposits with interest thereon as it may accrue.

BE IT FURTHER RESOLVED, that the Treasurer of this District, pursuant to Section 53608 of said Code, is authorized to enter into safekeeping, bonds or other securities in which the money of this District is invested, pursuant to the terms and conditions of this Resolution, with any such bank in this state within which he/she has entered into a safekeeping agreement, as herein provided and in which this District maintains an active secure deposit supported by sufficient security as required by law to secure the amount of any collections which may be made by the bank from time to time, pursuant to said safekeeping agreement, and shall be only released from safekeeping for purpose of sale or for collection on maturity with all proceeds credited to the funds of this District.

BE IT FURTHER RESOLVED, that the District hereby adopts a Statement of Investment Policy, attached hereto as Exhibit "A" which supersedes the Policy set forth as Exhibit "A" in Resolution 90-25 effective immediately.

PASSED, APPROVED AND ADOPTED BY THE BOARD OF DIRECTORS OF THE HERITAGE RANCH COMMUNITY SERVICES DISTRICT on February 15, 1996 by the following roll call vote:

AYES: Directors Lemm, Clarke, Forgash, McWilliams & Beser

NOES: None.

ABSTAIN: None.

ABSENT: None.

Rollin G. Lemm, President
Board of Directors

Kit Carter, Secretary
Board of Directors

HERITAGE RANCH COMMUNITY SERVICES DISTRICT - CONSOLIDATED BUDGET
2018/19 Budget

OPERATING INCOME	Budget FY 18/19	Actual July	Actual Year to Date	Percentage Year to Date	Variance Explanation
Water Fees	901,000	90,776	90,776	10%	
Sewer Fees	594,950	47,474	47,474	8%	
Hook-Up Fees	6,000	0	0	0%	
Turn on Fees	3,500	325	325	9%	
Late Fees	16,500	1,653	1,653	10%	
Plan Check & Inspection	10,000	0	0	0%	
Miscellaneous Income	2,000	0	0	0%	
TOTAL OPERATING INCOME	$1,533,950	$140,227	$140,227	9%	
FRANCHISE INCOME					
Solid Waste Franchise Fees	66,000	5,465	5,465	8%	
TOTAL FRANCHISE REVENUE	$66,000	$5,465	$5,465	8%	
NON-OPERATING INCOME					
Standby Charges	242,921	0	0	0%	
Property Tax	341,000	0	0	0%	
Interest	27,000	14,019	14,019	52%	Fluctuates based on activity
Connection Fees	70,250	0	0	0%	
TOTAL NON-OPERATING INCOME	$681,171	$14,019	$14,019	2%	
RESERVE REVENUE					
Capital Reserves	23,000	0	0	0%	
General Reserves	50,000	0	0	0%	
TOTAL RESERVE REVENUE	$73,000	$0	$0	0%	
TOTAL ALL INCOME	$2,354,121	$159,711	$159,711	7%	

HERITAGE RANCH COMMUNITY SERVICES DISTRICT - CONSOLIDATED BUDGET
2018/19 Budget

OPERATING EXPENSES

SALARIES AND BENEFITS	Budget FY 18/19	Actual July	Actual Year to Date	Percentage Year to Date	Variance Explanation
Salaries	654,697	54,596	54,596	8%	
Health Insurance	120,616	11,232	11,232	9%	
Health Insurance - Retiree	58,233	5,125	5,125	9%	
PERS	123,796	9,684	9,684	8%	
Standby	12,500	874	874	7%	
Overtime	11,500	104	104	1%	
Workers Comp. Ins.	22,675	17,325	17,325	76%	Paid Annually
Directors' Fees	7,000	200	200	3%	
Medicare/FICA	10,014	833	833	8%	
Car Allowance	3,000	250	250	8%	
SUI/ETT	1,500	0	0	0%	
Uniforms	3,800	376	376	10%	
TOTAL SALARIES & BENEFITS	$1,029,331	$100,599	$100,599	10%	

UTILITIES					
Electricity	242,800	0	0	0%	
Propane	900	0	0	0%	
Water Purchase	23,114	11,557	11,557	50%	Paid Semiannually
Telephone/Internet	11,830	714	714	6%	
TOTAL UTILITIES EXPENSE	$278,644	$12,271	$12,271	4%	

MAINTENANCE & SUPPLIES					
Chemicals	68,000	6,292	6,292	9%	
Computer/Software	7,000	0	0	0%	
Equip. Rental/Lease	1,000	0	0	0%	
Fixed Equip.	85,000	2,253	2,253	3%	
Fuel & Oil	12,000	0	0	0%	
Lab Testing	24,500	826	826	3%	
Office Supplies	3,000	31	31	1%	
Parks & Recreation	500	54	54	11%	
Struct./Grnds.	6,500	778	778	12%	
Small Tools/Equip.	3,500	117	117	3%	
Supplies	6,000	706	706	12%	
Meters/Equip.	5,000	2,639	2,639	53%	Fluctuates based on activity
Vehicles	8,500	440	440	5%	
TOTAL MAINT. & SUPPLY EXPENSE	$230,500	$14,136	$14,136	6%	

HERITAGE RANCH COMMUNITY SERVICES DISTRICT - CONSOLIDATED BUDGET
2018/19 Budget

GENERAL & ADMINISTRATION	Budget FY 18/19	Actual July	Actual Year to Date	Percentage Year to Date	Variance Explanation
Ads./Advertising	1,500	508	508	34%	Fluctuates based on activity
Alarm/Answering Service	3,275	282	282	9%	
Audit	6,000	0	0	0%	
Bank Charges/Fees	2,000	10	10	0%	
Consulting/Engineering	40,000	0	0	0%	
Dues/Subscription	12,000	150	150	1%	
Elections	1,000	0	0	0%	
Insurance	22,525	25,768	25,768	114%	Paid Annually
LAFCO	8,000	7,015	7,015	88%	Paid Annually
Legal/Attorney	17,000	0	0	0%	
Licenses/Permits	26,000	90	90	0%	
Plan Check & Inspection	10,000	0	0	0%	
Postage/Billing	20,000	599	599	3%	
Professional Service	16,000	2,357	2,357	15%	
Tax Collection	5,300	0	0	0%	
Staff Training & Travel	5,000	0	0	0%	
Board Training & Travel	1,500	0	0	0%	
TOTAL G & A	$197,100	$36,780	$36,780	19%	
CAPITAL PROJECTS & EQUIPMENT					
Structures/Improvements	65,000	0	0	0%	
Equipment	8,000	0	0	0%	
TOTAL CAPITAL EXPENSE	$73,000	0	0	0%	
DEBT					
State Loan Payment	103,629	0	0	0%	
State Loan Payment Phase II	58,740	0	0	0%	
TOTAL DEBT	$162,369	$0	$0		
FUNDED DEPRECIATION	$288,000	$24,000	$24,000	8%	
UNFUNDED DEPRECIATION	$0	$0	$0	0%	
TOTAL EXPENSE	$2,258,944	$187,786	$187,786	8%	
CONNECTION FEES TRANSFER	$70,250	$0	$0	0%	
SOLID WASTE FEES TRANSFER	$29,222	$1,200	$1,200		
FUND TOTAL	**($4,295)**	**($29,276)**	**($29,276)**		

HERITAGE RANCH COMMUNITY SERVICES DISTRICT - CONSOLIDATED BUDGET
2018/19 Budget

OPERATING INCOME	Budget FY 18/19	Actual August	Actual Year to Date	Percentage Year to Date	Variance Explanation
Water Fees	901,000	94,644	185,419	21%	
Sewer Fees	594,950	47,643	95,117	16%	
Hook-Up Fees	6,000	1,800	1,800	30%	
Turn on Fees	3,500	250	575	16%	
Late Fees	16,500	1,345	2,998	18%	
Plan Check & Inspection	10,000	0	0	0%	
Miscellaneous Income	2,000	0	0	0%	
TOTAL OPERATING INCOME	$1,533,950	$145,682	$285,909	19%	
FRANCHISE INCOME					
Solid Waste Franchise Fees	66,000	6,618	12,084	18%	
TOTAL FRANCHISE REVENUE	$66,000	$6,618	$12,084	18%	
NON-OPERATING INCOME					
Standby Charges	242,921	0	0	0%	
Property Tax	341,000	0	0	0%	
Interest	27,000	4	14,023	52%	Fluctuates based on activity
Connection Fees	70,250	22,363	22,363	32%	
TOTAL NON-OPERATING INCOME	$681,171	$22,367	$36,386	5%	
RESERVE REVENUE					
Capital Reserves	23,000	3,036	3,036	13%	
General Reserves	50,000	0	0	0%	
TOTAL RESERVE REVENUE	$73,000	$3,036	$3,036	4%	
TOTAL ALL INCOME	$2,354,121	$177,704	$337,414	14%	

HERITAGE RANCH COMMUNITY SERVICES DISTRICT - CONSOLIDATED BUDGET
2018/19 Budget

OPERATING EXPENSES

SALARIES AND BENEFITS	Budget FY 18/19	Actual August	Actual Year to Date	Percentage Year to Date	Variance Explanation
Salaries	654,697	65,828	120,424	18%	
Health Insurance	120,616	11,707	22,939	19%	
Health Insurance - Retiree	58,233	5,119	10,244	18%	
PERS	123,796	9,242	18,926	15%	
Standby	12,500	1,304	2,178	17%	
Overtime	11,500	685	789	7%	
Workers Comp. Ins.	22,675	0	17,325	76%	Paid Annually
Directors' Fees	7,000	600	800	11%	
Medicare/FICA	10,014	699	1,532	15%	
Car Allowance	3,000	250	500	17%	
SUI/ETT	1,500	0	0	0%	
Uniforms	3,800	0	376	10%	
TOTAL SALARIES & BENEFITS	$1,029,331	$95,433	$196,031	19%	

UTILITIES					
Electricity	242,800	23,608	23,608	10%	
Propane	900	0	0	0%	
Water Purchase	23,114	0	11,557	50%	Paid Semiannually
Telephone/Internet	11,830	872	1,587	13%	
TOTAL UTILITIES EXPENSE	$278,644	$24,481	$36,752	13%	

MAINTENANCE & SUPPLIES					
Chemicals	68,000	3,660	9,952	15%	
Computer/Software	7,000	2,045	2,045	29%	
Equip. Rental/Lease	1,000	0	0	0%	
Fixed Equip.	85,000	1,313	3,566	4%	
Fuel & Oil	12,000	2,439	2,439	20%	
Lab Testing	24,500	1,156	1,982	8%	
Office Supplies	3,000	145	176	6%	
Parks & Recreation	500	14	68	14%	
Struct./Grnds.	6,500	358	1,135	17%	
Small Tools/Equip.	3,500	85	202	6%	
Supplies	6,000	590	1,297	22%	
Meters/Equip.	5,000	0	2,639	53%	Fluctuates based on activity
Vehicles	8,500	122	562	7%	
TOTAL MAINT. & SUPPLY EXPENSE	$230,500	$11,927	$26,063	11%	

HERITAGE RANCH COMMUNITY SERVICES DISTRICT - CONSOLIDATED BUDGET
2018/19 Budget

GENERAL & ADMINISTRATION	Budget FY 18/19	Actual August	Actual Year to Date	Percentage Year to Date	Variance Explanation
Ads./Advertising	1,500	0	508	34%	Fluctuates based on activity
Alarm/Answering Service	3,275	283	566	17%	
Audit	6,000	0	0	0%	
Bank Charges/Fees	2,000	293	302	15%	
Consulting/Engineering	40,000	360	360	1%	
Dues/Subscription	12,000	0	150	1%	
Elections	1,000	0	0	0%	
Insurance	22,525	0	25,768	114%	Paid Annually
LAFCO	8,000	0	7,015	88%	Paid Annually
Legal/Attorney	17,000	984	984	6%	
Licenses/Permits	26,000	0	90	0%	
Plan Check & Inspection	10,000	0	0	0%	
Postage/Billing	20,000	1,507	2,106	11%	
Professional Service	16,000	1,553	3,910	24%	
Tax Collection	5,300	0	0	0%	
Staff Training & Travel	5,000	167	167	3%	
Board Training & Travel	1,500	25	25	2%	
TOTAL G & A	$197,100	$5,171	$41,950	21%	
CAPITAL PROJECTS & EQUIPMENT					
Structures/Improvements	65,000	2,714	2,714	4%	
Equipment	8,000	322	322	0%	
TOTAL CAPITAL EXPENSE	$73,000	3,036	3,036	4%	
DEBT					
State Loan Payment	103,629	0	0	0%	
State Loan Payment Phase II	58,740	0	0	0%	
TOTAL DEBT	$162,369	$0	$0		
FUNDED DEPRECIATION	$288,000	$24,000	$48,000	17%	
UNFUNDED DEPRECIATION	$0	$0	$0	0%	
TOTAL EXPENSE	$2,258,944	$164,047	$351,833	16%	
CONNECTION FEES TRANSFER	$70,250	$22,363	$22,363	32%	
SOLID WASTE FEES TRANSFER	$29,222	$2,537	$3,737	13%	
FUND TOTAL	**($4,295)**	**($11,243)**	**($40,519)**		

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

Manager Report
For August 2018

Sanitary Survey Report

On May 29, 2018, the Santa Barbara District, Division of Drinking Water (DDW) of the State Water Resources Control Board (SWRCB) inspected the Heritage Ranch Community Services District water system (HRCSD). Jason Molinari was in attendance.

The last annual inspection was conducted by DDW on January 29, 2015. The purpose of the sanitary survey report is to document the inspection of the HRCSD, to describe the facilities and operational practices as they exist today, and to describe any deficiencies needing follow-up.

The DDW system appraisal is that HRCSD water supply facilities are in good sanitary condition and are operating satisfactorily under competent supervision. The HRCSD can regularly meet system demand and has adequate source and storage capacity to meet the max day demand and the peak hour demand based on historical production values.

There were a few administrative items noted during the 2018 inspection that we must address. Those items and status are listed below:

1. By September 30, 2018, the HRCSD needs to submit an updated Emergency Notification Plan to the Division for review and approval since the emergency contacts have changed.

   Status – Completed

2. By September 30, 2018, the HRCSD needs to submit an updated Operations Plan to the DDW for review and approval that includes the changes to the treatment facility since the last Operations Plan.

   Status – Requested additional time to submit this item. The current permit dated February 4, 2015 and accompanying Permit Engineering Report acknowledges the current operations that include the powder activated carbon system and plate settler. The Operations Plan will be updated with these changes; however, we would like to discuss internally to determine the most appropriate means to address this item. In the future, a comprehensive update of the Operations Plan is anticipated.

3. The HRCSD needs to ensure that all necessary backflow prevention devices are tested each year.

   Status – Completed. HRCSD ensures that all necessary backflow prevention devices are tested and maintained each year under contract and coordination with the County of San Luis Obispo Health Department, Environmental Health Services Division.

4. By September 30, 2018, the HRCSD needs to submit a copy of the most recent Emergency Response Plan to the DDW for review and the system file.

   Status – Completed

5. By August 31, 2018, the HRCSD needs to monitor Well 01 for GA and submit the results to the Division via EDT.

   Status – HRCSD previously sampled for GA on 12/17/2013 and the next sample for GA is not due until 2022. The Permit Engineering Report recognizes this as indicated under section 2.9.6 on page 12. HRCSD has a hard copy of the GA sample results from 2013 and forwarded a copy to DDW. The results have now been uploaded to the DDW electronic database system (they were not previously).

6. By September 30, 2018, the HRCSD needs to collect the third quarterly sample for 1,2,3-TCP at Well 01. The monitoring needs to be completed using the SRL 524M analytical method.

   Status – Completed. We had this sample on the schedule and do not know why DDW listed this item; it was essentially just a reminder.

* * *

Operations Report
August 2018

Water Treatment:
17.4 Million gallons of water was treated.

Staff will provide a presentation on how reservoir level affects water quality.

Wastewater Treatment:
3.49 Million gallons of wastewater was treated.

The District submitted the first Time Schedule Order (TSO) report to the State Water Resources Control Board on August 1st. The TSO allows for increased limitations for copper, ammonia and nitrate over a five-year term. The TSO allows the District time to complete process adjustments with the goal of consistently complying with copper, ammonia and nitrate within the five-year term.

The TSO requires collecting over forty wastewater and water quality samples on a bi-monthly basis. The results of these samples are then analyzed by staff. The TSO report consists of a narrative of these samples including; actual sample results, effectiveness of the treatment process, discernable trends and future actions towards compliance. Staff has collected the second set of samples which will be used for the next TSO report due by November 1, 2018.

Staff replaced a failed dissolved oxygen sensor in wastewater Pond 1. The sensor measures dissolved oxygen levels which are sent to the aeration controls. Based on the dissolved oxygen level, aeration is turned on or off. This system provides a consistent dissolved oxygen level regardless of dissolved oxygen demand or time of day. The aeration system is an important part of successfully completing the TSO. Aeration plays a large role in conversion from ammonia to nitrate within the wastewater ponds. By being able to precisely set the amount of dissolved oxygen in the ponds, the conversion from ammonia to nitrate can be controlled. Controlling the conversion from ammonia to nitrate will play a key role in complying with mandated limitations.

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
JULY – AUGUST 2018 OFFICE REPORT

Water & Sewer

On July 1st, we processed 1,883 bills for a total dollar amount of $136,774 for water and sewer user fees for the month of June. The number of Automatic Drafts processed was 480 for a total dollar amount of $34,195. On July 26th we processed 280 Late Notices. On August 6th we processed 105 48-hour notices, locking 7 meters on August 8th.

On August 1st, we processed 1,886 bills for a total dollar amount of $140,498 for water and sewer user fees for the month of July. The number of Automatic Drafts processed was 482 for a total dollar amount of $35,567. On August 27th we processed 215 Late Notices.

San Miguel Garbage Franchise Fees

Each month, the District receives franchise fees from the previous month.
The breakdown is as follows:

Month of June

Garbage Collection (10%) - $ 5,444.12

Roll-Off Collection (10%) - $ 21.00

Total Franchise Fees Collected - $ 5,465.12

Month of July

Garbage Collection (10%) - $ 6,510.23

Roll-Off Collection (10%) - $ 108.25

Total Franchise Fees Collected - $ 6,618.48

Service Orders Completed

Staff completed a total of 108 service orders for the months of July and August. Below is a breakdown by job code.

Sewer Inspection	3	Misc.	3
Occupant Change	21	Hydrant Meter	1
USA	16	Dirty Water Complaint	10
Swap/Pull Meter	11	Data Log	1
Re-Read	1	Courtesy Turn-Off	1
Lock Meter	16	Call Out	1
Unlock	17		
Leak	6		