CALAVERAS COUNTY WATER DISTRICT

120 Toma Court • P.O. Box 846 • San Andreas, CA 95249 • Main line (209) 754-3543

REQUEST FOR PROPOSALS

ENGINEERING AND DESIGN SERVICES FOR THE
WEST POINT AND WILSEYVILLE WASTEWATER TREATMENT FACILITIES
CONSOLIDATION PROJECT / PROJECT NO. C-06-7850-210

August 4, 2020

As of December 11, 2019, the Calaveras County Water District obtained a Clean Water State Revolving Fund Construction Grant through the California State Water Resources Control Board for a $4.75 million project to consolidate the West Point and Wilseyville Wastewater Treatment Facilities. The District has attached an updated the Engineering Report that describes the existing facilities, service areas and proposed project. The District is issuing this Request for Proposals (RFP) for engineering services to complete the design effort and develop drawings, specifications and bid documents for construction of the project. The current timeline requires the District to complete construction by January 1, 2024, and the District would like to finish the design within 12-months or less and then publicly bid the project for construction.

The District anticipates the following timeline for submittal and review of proposals, consultant selection, and contract award:

Aug. 4, 2020	Issue RFP
Aug. 21, 2020	Pre-Proposal Meeting Job Walk at 9:30 AM
Sept. 24, 2020	Proposals Due Date by 4:00 PM
Sept. 24 – Oct. 14, 2020	Review Proposals / Consultant Selection
Oct. 14, 2020	Board Meeting / Contract Award

For consideration, the District requests three (3) copies of a written proposal from the consultant including a statement of qualifications, representative list of project references, project team org. chart showing key personnel and subconsultants, scope of work identified by tasks, list of deliverables, project schedule, detailed fee estimate worksheet including hours by task, and hourly rate schedule. Also, the District would like proposals to include a summary of your project understanding and approach to work and any technical issues and/or recommendations. All contract work is time and materials "not to exceed" fee based on the agreed scope of work, task hours and hourly rates. The Consultant will be required to enter into the District's attached standard professional services agreement (PSA). No adjustment in hourly rates, per diem or incidental costs will be allowed for the term of the contract. The consultant selection will be weighted according to the proposal content, recommended approach, and scope of work (30%), project references, qualifications and experience (30%), schedule (20%), and total fee (20%).

Please submit proposals to the Calaveras County Water District, P.O. Box 846 *(U.S. Mail),* 120 Toma Ct. *(FedEx)*, San Andreas, CA 95249. Attn: Charles Palmer, P.E., District Engineer, Phone: (209) 642-3209 or charlesp@ccwd.org.

PROJECT/ENGINEERING REPORT
WEST POINT & WILSEYVILLE
WASTEWATER TREATMENT FACILITIES
CONSOLIDATION PROJECT

Clean Water State Revolving Fund (CWSRF)
Small Community Grant (SCG)
Project No.C-06-7850-110
Agreement No.12-128-550

Issued: December 19, 2014
Revised: July 31, 2020

PREPARED BY:
Calaveras County Water District
P.O. Box 846 / 120 Toma Court
San Andreas, CA 95249
Charles Palmer, P.E.
District Engineer
Phone: (209) 754-3174

Funding for this plan has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. (Gov. Code, § 7550; 40 CFR § 31.20)

SUMMARY

Calaveras County Water District owns and operates two wastewater treatment facilities serving the communities of West Point and Wilseyville. The close proximity of the two facilities makes consolidation of these plants a feasible project to streamline operations and maintenance and simplify permitting efforts. The proposed consolidation project has an estimated construction cost of $4.00 million and a total implementation cost of $4.75 million. The project includes construction of a lift station and force main to convey sewage from Wilseyville to the West Point treatment plant. The existing West Point recirculating sand filter treatment process has capacity to treat additional sewer flows from Wilseyville. However, an equalization/clarification tank is needed to pre-treat the raw sewage from Wilseyville before it enters the recirculating sand filters as they're intended to treat septic tank effluent and not designed for solids loading. Furthermore, in 2010, the West Point facility was issued a notice of violation by the Central Valley Regional Water Quality Control Board (CVRWQCB) for exceeding the 100-year freeboard level in its storage ponds; this storage deficiency will be corrected to provide sufficient effluent storage for the consolidated facilities. Synthetic liners may have to be installed in the Wilseyville storate pond to mitigate seepage. Other improvements include installation of a supervisory control and data acquisition (SCADA) system and construction of septage/sludge handling and containment facilities. Lastly, the Wilseyville pond and spray field will be incorporated into the West Point Wastewater Treatment Plant and permit as auxiliary effluent storage and disposal facilities.

DESCRIPTION OF EXISTING FACILITIES

West Point Wastewater Treatment Facility

The West Point sewer system and treatment plant were constructed in 1993. The sewer system is a septic tank effluent system that serves 165 connections, mostly residential with a few small commercial services. According to the original as-built project design drawings, the wastewater treatment plant was designed for an average flow of 58,000 gal/day and a peak wet weather flow of 210,000-gal/day. The treatment plant consists of recirculating sand filters, disinfection, storage, and land disposal. A treatment process schematic is shown in Figure 1 and an aerial photo of the facility in Figure 2. The sewer entering the plant flows into two recirculation tanks where it mixes with recirculating/return water from the sand filters. The two 5-ft deep sand filters provide biological treatment; the recirculation rate is controlled at a ratio of 3:1 recirculation/return water to influent. The treated effluent is diverted from the sand filters for disinfection, storage and disposal.

The storage ponds, Pond 1 and Pond 2, capacities are 21 ac-ft @ 4-ft freeboard and 32.7 ac-ft @ 2-ft freeboard, respectively, or a total of 53.7 ac-ft. The piping between the existing ponds has manual isolation valves, which can be used to operate the ponds independently but normally they're operated together in parallel. The facility has two storage ponds to store effluent during the wet season (November 1 through April 15), and 40+ acres of irrigation spray fields for effluent disposal during the dry season (April 16 through October 31).

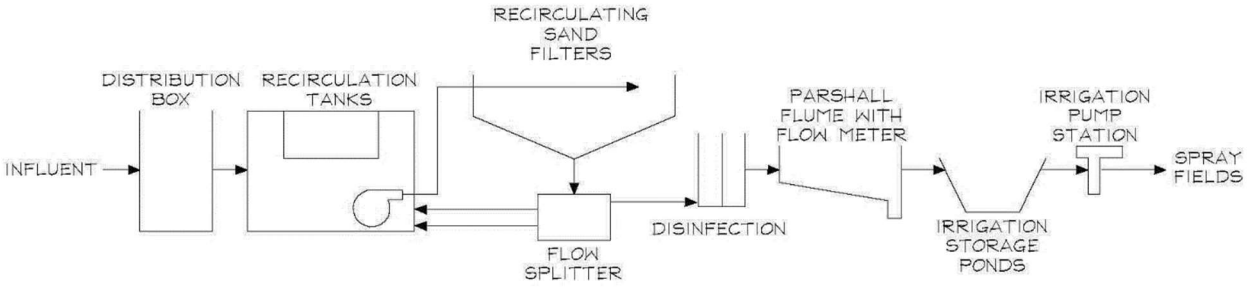

Figure 1: West Point Wastewater Treatment Process Schematic

Figure 2: West Point Wastewater Treatment Facility

The West Point facility is manually monitored and operated, and has no automatic call-out alarms in place. A radio tower and empty panel boxes were previously installed at the facility in anticipation of future SCADA monitoring. Pump timers are set manually by the operator based on influent flows and efficient pump operation. There are two timers, one for each wet well; and there are eight pumps, four for each wet well. Typically two (2) pumps operate per wet well, but high water level floats will turn on extra pumps as necessary.

The filter beds contain PVC laterals that are cleaned by flushing. The facility currently receives liquid wastewater only so there is currently no operational cleaning of biomass or sludge removal. While the facility was upgraded with an ultraviolet (UV) disinfection system in 1995, operational costs of the UV system were too high so it was abandoned and chlorine disinfection is used. The former UV disinfection basin serves as the chlorine mixing and contact basin. The filter effluent is dosed with sodium hypochlorite and then piped to the storage ponds prior irrigating the disposal field.

Wilseyville Wastewater Treatment Facility

The Wilseyville treatment facility (Figure 3) is located on Rail Road Flat Road roughly 3,500' east of the West Point facility. The Wilseyville community consists of 28 residences and a small market and originally was company owned housing for American Forest Products Corporation's nearby lumber mill and logging operations. The existing treatment facilities were constructed in 1985 (replacing older facilities) and consist of a single aerated 15 ac-ft stabilization pond and 10-acre disposal field. The pond receives raw sewage from the Wilseyville sewer system and occasionally septage from septic tanks in the West Point service area. A diversion ditch around the perimeter of the pond directs storm water to a downstream drainage. The sewer flows are small enough that percolation and evaporation from the pond balance incoming flows and the spray field is rarely used for irrigation. Facility operations include manual addition of chlorine to the pond via a portable pump and maintenance of a solar powered influent flow meter.

Figure 3: Wilseyville Wastewater Treatment Facility

Site Conditions

The West Point and Wilseyville wastewater treatment facilities are located off State Route 26 near Sandy Gulch and approximately 1.5 miles south of downtown West Point in Calaveras County, California. Figure 4 shows the relative locations of the two treatment facilities south of Associated Office Road and Railroad Flat Road.

Figure 4: Overall Project Area West Point & Wilseyville Wastewater Treatment Facilities

The close proximity of the two facilities makes abandonment of the Wilseyville facility and consolidation with the West Point plant a feasible and desirable project. The Wilsyeville sewer would be conveyed via a lift station and force main to the West Point plant. The West Point and Wilseyville sites are large, adjacent parcels that comprised a former log mill site. Areas of the site have remains of the old facility including remnant foundation walls and footings, access road, abandoned Mill Pond and diversion channel. The Mill Pond retains seasonal drainage, is overgrown with dense vegetation and a jurisdictional wetlands. Selecting a force main alignment to avoid impacts to wetlands and cultural resources (remnant walls and footings) is a feasible strategy for the project. An area paralleling the existing dirt access road west of the Wilseyville facility can be utilized for a portion of the proposed force main alignment and provide access for future maintenance while avoiding wetlands and historical resources.

Existing and Future Wastewater Flows

In 2013, the West Point service area included 165 active services and 55 infill connections; Wilseyville had 28 active connections. Most connections are single family residences with a small number of commercial or multi-family connections. For residential areas, a standard sewer connection is typically defined as one equivalent single family unit (ESFU). To simplify this analysis, all connections are assumed to contribute one (1) ESFU. The flows vary with dry weather flows in the summer and wet weather flows in the winter. Peak wet weather flows are influenced by precipitation that causes infiltration and inflow. The average dry weather flow is representative of the sewer flows generated by the residential domestic uses (toilets, showers, sinks, etc.) and normally determined for summer months (July, August, September) when infiltration and inflow have the least influence on sewer flows. As the CVRWQCB will issues a notice of violation if the permitted average dry weather flow is exceeded in any given year, a conservative design value must be used to ensure the facility operates below the permitted ADWF even in atypical/extreme conditions.

Historical Wastewater Flows for West Point WWTP

The Average Dry Weather Flow, Annual Average Flow and Maximum Monthly Flow for the West Point Wastewater Treatment facility are plotted in Figure 5. The West Point and Wilseyville treatment plants are currently permitted for 17,000-gpd ADWF and 9,000-gpd ADWF, respectively. The District does not have historical flow data for the Wilseyville facility.

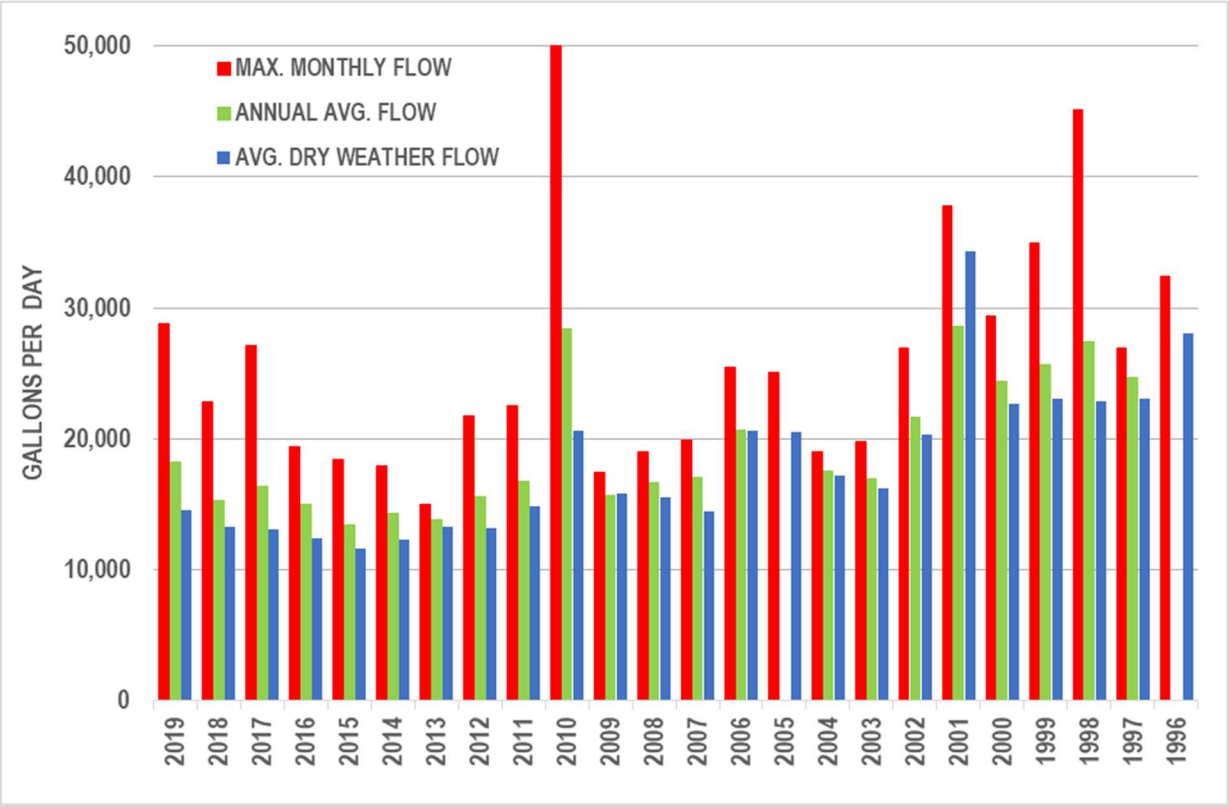

Figure 5: Historical Wastewater Flows - West Point Wastewater Treatment Facility

Future Wastewater Flow Projections

Flow projections for the West Point and Wilseyville systems before and after consolidation are shown in Table 1. The growth rate is minimal and infill in the West Point service areas over the next 20-years is estimated to be one (1) ESFU per year, and Wilseyville may add two (2) connections in the next 20-years.

Table 1: Projected Wastewater Flows for West Point and Wilseyville Consolidation

Parameter	West Point (Existing)	Wilseyville (Existing)	Infill/Future Connections	Buildout & Consolidation
Connections (esfu)	167	30	20	217
ADWF (gpd)	20,000	3,600	2,400	26,000
Average Annual (gpd)	25,000	4,500	3,000	32,500
Max. Month (gpd)	35,000	6,300	4,200	45,500
Max. Day PWWF (gpd)	100,000	18,000	12,000	130,000

DESCRIPTION OF PROPOSED PROJECT

The District proposes to consolidate Wilseyville and West Point treatment facilities. While the West Point treatment processes (headworks, recirculating sand filters and disinfection system) are adequate to accommodate added flows from Wilseyville, several improvements are needed to achieve the proposed consolidation:

1. A new lift station and force main will be constructed to transmit flows from Wilseyville to the West Point facility.
2. Domestic sewage from Wilseyville must be pre-treated by a community septic tank, clarifier to remove solids upstream of the West Point plant.
3. As regular maintenance of the septic tank effluent system, staff performs periodic pumpouts of the 167 septic tanks. Residuals handling, dewatering and storage facilities are needed for septage receving, sludge dewatering and biosolids containment.
4. New construction will include electrical, instrumentation and SCADA improvements for both the West Point and Wilseyville facilities, which currently have no SCADA.
5. The existing Wiseyville pond and sprayfield will be reused for effluent storage and disposal and incorporated into the West Point permit. The existing pond must be dredged to remove accumulated sludge and a pond liner added.
6. An effluent pipeline will be added to return treated effluent to the Wilseyville pond. The existing Wilseyville irrigation pumps and disposal field rehabilitated to an operating condition.
7. The project will add 5 ac-ft storage capacity to Pond 1 by raising its levees by 2’ to the same elevation and height as those existing for Pond 2, allowing both storage ponds to be operated in parallel to 2-ft freeboard.

Objectives & Expected Benefits

Both the Wilseyville and West Point treatment facilities require permit updates by the Regional Board and improvements are anticipated to correct all deficiencies and comply with updated permit conditions. As the Wilseyville facility only serves 30 connections and is near the West Point plant, consolidation is a feasible option that benefits both systems, reduces operations and maintenance costs, and eliminates a second permit. Furthermore, the project eliminates raw sewage flowing in the Wilseyville stabilization pond (earthen basin), which is a potential source of groundwater degradation and objectionable odors to nearby residences. The existing Wilseyville pond and sprayfield will be re-purposed for effluent storage and disposal by incorporating them into the West Point permit. The practice of hauling and dumping septage into the Wilseyville pond will be stopped and mitigated by an engineered solution for septage receiving, sludge dewatering and biosolids containment at the West Point facility.

In 2010, the West Point facility was issued a notice of violation by the CVRWQCB for exceeding its permitted 100-year freeboard level in its storage ponds. The original permit WDR Order #93-078 allowed for a 40-year storm return period in the water balance to validate the adequacy and capacity of storage and disposal facilities to accommodate adverse plant flows in very wet years. A 40-year storm return period in no longer used by the Regional Board, and the new permit will require a 100-year storm event in evaluating its water balance. Any storage deficiencies will limit the capacity of the West Point plant and be a constraint to consolidation. The proposed project includes effluent storage improvements to accommodate current flows from the existing West Point service area (including infill connections) and additional sewer flows from the proposed consolidation with the Wilseyville facility.

Relevant Design Criteria

Waste Discharge Requirements

The West Point facility is currently permitted for 17,000-gpd ADWF under the State Water Resources Control Board's Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems. It is proposed that the new facilities be re-permitted under this same permit. The design of improvements will be significantly influenced by the provisions of this permit as follows:

- Declares general prohibitions and general requirements for wastewater systems.
- Requires an antidegradation analysis.
- Subjects new or expanding facilities to CEQA review.
- Establish effluent limitations for BOD, TSS and Total N.
- Requires pumping of septic tanks and disposal of septage at a legal disposal site.
- Requires ponds be operated with at least 2-ft freeboard accounting for 100-year precipitation events and infiltration and inflow.
- Establishes requirements for disposal of wastewater on the land application area (LAA); prohibits storm water runoff from LAA, if applying undisinfected wastewater to LAA.
- Specifies requirements for temporary storage, handling and disposal of sludge/biosolids.
- Provides reporting and monitoring requirements

Proposed Improvements

Force Main

The proposed project includes construction of 3,800-ft of 3-inch diameter force main from Wilseyville to the West Point plant. A new lift station will be located on the Wilseyville plant site and intercept the gravity sewer from an existing manhole on Lot 30 of the Wilseyville subdivision. The force main will parallel the existing dirt road and turn north of the abandoned Mill Pond. This route avoids the mill pond, wetlands, drainages, historical resources, potential wildlife habitat and provides accessibility for future maintenance. The force main alignment continues across the West Point effluent disposal field eventually reaching the treatment plant and connecting to an existing manhole upstream of the headworks.

Lift Station

The lift station will be designed for 18,000-gpd PWWF. The lift station may be one of two different designs, a conventional design for solids and liquids or septic tank effluent design for screened liquids; both designs require similar electrical improvements (PG&E service, control panel, instrumentation, SCADA and small standby generator). A conventional lift station requires a separate fiberglass wet well and non-clog or grinder pumps that are typically lower efficiency higher horsepower solids handling pumps. A septic tank effluent pump system (by Orenco or equal) is installed directly into the equalization/clarification tank and is typically a higher efficiency, lower horsepower design intended for pumping screened liquids only.

Community Septic Tank/Clarifier

Because the West Point plant treats only septic tank effluent, a community septic tank/clarifier must be installed to intercept sewer flows downstream of the Wilseyville community. This tank can be located either on the Wilseyville site before the lift station or West Point plant site at the discharge of the force main. If used prior to the lift station, it will eliminate solids loading on the force main and potential clogging problems.

Sludge/Septage Facilities

New facilities will be constructed at the West Point plant for receiving and processing septage, sludge drying and temporary storage of biosolids. These facilities may include a septage receiving/screen, aerated stabilization tank, mechanical and/or thermal dewatering equipment and/or solar or gravity drying beds. If possible, the District would like to achieve Class A biosolids. The drying bed(s) are to consist of concrete basins with a translucent greenhouse covers that will shelter the sludge from inclement weather and taking advantage of passive solar heating. The District's first option is to consider solar drying systems, such as Huber Solar Active Dryer SRT, Thermo-System Electric Mole, or Suez Heliantis systems, but it may not be cost effective to scale down these systems. A slightly more economical solution may consist of greenhouse with gravity drying beds with floors composed of stainless steel wedgewire filter panels (by Gravity Flow Systems Southwest, Inc. or equal) with non-clog design that enables solids to dewater and freely drain by gravity. In this case, filtrate is discharged to the treatment plant and dry solids mechanically removed using a bobcat and hauled to a landfill for disposal.

Effluent Storage and Disposal

The West Point plant has 53.7 ac-ft storage and 40+ acre spray field. The permit updated for requires a water balance to verify 2-ft freeboard in the storage ponds for the permitted sewer flows, 100-year annual precipitation, and ancillary infiltration and inflow. A preliminary water balance (Table 2) appears to show that the combined West Point and Wilseyville facility only have adequate storage capacity if the storage reservoirs are completely drained seasonally. The project is to include the following improvements: 1) Adding capacity to exiting West Point ponds by increasing/raising Pond 1 levees by 2' from elevation of 6909' to 6911', and 2) Reusing existing 15 ac-ft Wilseyville pond and 10-acre spray field for auxiliary storage and disposal. The construction of a 3,000-ft, 3-inch pipeline parallel to the new force main will allow effluent to be transferred to the Wilseyville pond.

Table 2: Preliminary Water Balance for West Point/Wilseyville Storage and Disposal Facilities

Month	100-yr Rainfall (inches)	ETo Zone 11 (inches)	Sewer Flows (ac-ft)	Infiltration & Inflow (ac-ft)	Pond Precip. (ac-ft)	Pond Evap. (ac-ft)	Irrig. Demand (ac-ft)	Net Flows (ac-ft)	Required Storage (ac-ft)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Oct	3.83	3.72	2.47	0.423	2.78	-1.61	-	4.063	4.06
Nov	8.40	2.10	2.39	0.928	6.09	-0.91	-	8.498	12.6
Dec	9.21	1.55	2.47	1.017	6.68	-0.67	-	9.497	22.1
Jan	12.76	1.55	2.47	1.410	9.25	-0.67	-	12.46	34.5
Feb	11.42	2.24	2.23	1.262	8.28	-0.97	-	10.802	45.3
Mar	10.77	3.10	2.47	1.190	7.81	-1.34	-	10.13	55.5
Apr	5.03	4.50	2.39	0.556	3.65	-1.94	-	4.656	60.1
May	2.95	5.89	2.47	0.326	2.14	-2.54	-7.35	-4.954	55.2
Jun	0.81	7.20	2.39	-	0.59	-3.11	-15.98	-16.11	39.1
Jul	0.31	8.06	2.47	-	0.22	-3.48	-19.38	-20.17	18.9
Aug	0.29	7.44	2.47	-	0.21	-3.21	-17.88	-18.41	0.46
Sep	1.47	5.70	2.39	-	1.07	-2.46	-10.58	-0.462	0
Year	67.3	53.0	29.1	7.11	48.8	-22.9	-71.2	0	

Notes:

a) Based on normal water year October through September
b) 100-year annual precipitation = 67.3 inches/year for West Point Station I.D. 049582
c) Standard monthly reference evapotranspiration (ETo) by CIMIS for Zone 11
d) Based on Average Dry Weather Flow of 26,000 gpd
e) I&I based on 36,000 gallons/month per inch of rainfall.
f) Pond precipitation = 6.9 acre + 1.8 acre catchment areas x 100-year rain fall
g) Pond evaporation = 5.2 acre pool area x ETo x 1.0 (crop coefficient for water surface)
h) Irrigation demand = 40 acres Spray Field Area x ETo x 0.75 (crop coefficient for vegetation)
i) Net flows = Sewer Flows + Pond Precipitation – Pond Evaporation – Irrigation Demands
j) Storage Capacity = 53.7 ac-ft (West Point) + 10 ac-ft (Wilseyville)

Pond Liner

The existing West Point ponds do have a clay liners but complete drawdown of the water level is limited as it exposes the clay liner, but no groundwater degredation is observed in monitoring wells. The Wilseyville pond is believed to be an unlined earthen basin that has received raw sewage. The District may considering installing clay and/or synthetic liners to mitigate seepage and groundwater degredation. Lining systems include synthetic liners placed directly on the ground surface or buried liners with secondary geotextile fabric layers. Leak detection trenches and wells can be installed to help operators identify if a leak is present in the lining system. An example of a pond lining system is shown in Figure 6.

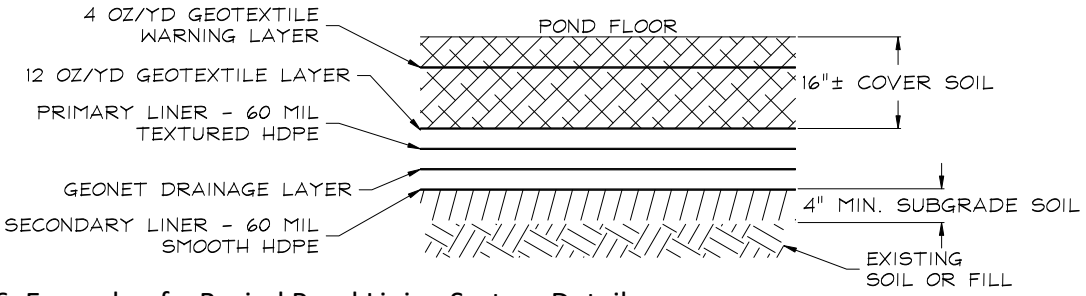

Figure 6: Example of a Buried Pond Lining System Detail

Supervisory Control and Data Acquisition (SCADA)

Additional improvements include installation of SCADA ratio systems at the West Point plant and Wilseyville lift station. The SCADA system is intended to allow the operator to monitor and provide limited control and alarming for remote sewer facilities via a radio network. From the West Point plant, the SCADA system will allow remote monitoring of the Wilseyville lift station wet well level, flow rate, alarms and monitoring and control of pump operation. If the Wilseyville pond and spray field are used for effluent storage and disposal, the SCADA system could likewise be used to monitor and control these facilities.

Reuse of Wilseyville Facilities

Given the substantial cost of abandoning the Wilseyville facility, it is proposed to reuse the Wilseyville pond and spray field for effluent storage and disposal by incorporating these facilities into the updated West Point permit. This would require installation of a 3-inch effluent transmission line installed parallel to the new force main to allow effluent to be transferred to the Wilseyville pond via the existing West Point irrigation system. Also, the Wilseyville pond would be drained and dredged to remove sludge and potentially a pond liner installed to prevent seepage. If the Wilseyville facility is to be entirely abandoned, the District will drain the stabilization pond, dredge and dispose of accumulated solids, remove the dam, and grade the site for drainage and to prevent storm water accumulation or other nuisance conditions; any exposed soil will be hydroseeded to establish vegetation. The existing pump station and irrigation system will be removed including demolition of the masonry building, mechanical and electrical equipment, and associated irrigation lines, valves and spray nozzles. The existing electrical power service potentially can be re-routed to serve the new lift station.

PROJECT COST ESTIMATE

As shown in Table 3, estimated project construction costs are $4 million. As shown in Table 4, the full implementation cost is estimated to be $4.75 million including soft costs such as engineering/design, construction management, and other professional services.

Table 3. Construction Cost Estimate

Description	**Cost**
Wilseyville Sewer System Improvements	
~ Equalization/Clarification Structure	$500,000
~ Lift Station (wet well, pumps, valves, other mechanical)	$150,000
~ Electrical/Instrumentation/SCADA	$150,000
~ 3,800 feet/3-inch force main	$300,000
West Point Plant Improvements	
~ Septage, solids, sludge handling, drying, containment facilities	$1,000,000
~ Electrical/Instrumentation/SCADA	$400,000
Effluent Storage Improvements	
~ Wilseyville Pond: Dewater, dredge & install liner	$700,000
~ West Point Ponds: Raise Pond 1 Levees	$500,000
~ 3,000 feet/3-inch effluent pipeline	$300,000
Total Construction Cost	**$4,000,000**

Table 4. Project Implementation Cost Estimate

Description	**Cost**
Estimated Construction Cost (Table 3.)	$4,000,000
Other Implementation Costs:	
~ Regional Board Permit Update	$50,000
~ Design/Engineering	$400,000
~ Land Surveying / Construction Staking	$30,000
~ SCADA Programming	$50,000
~ Construction Management & Daily Field Inspection	$150,000
~ Special Inspections (Soils, Concrete, Electrical)	$30,000
~ Environmental Monitoring	$20,000
~ Labor Compliance Program	$20,000
Total Implementation Cost	**$4,750,000**

PROJECT SCHEDULE

The preliminary implementation schedule is shown in Table 5. This schedule requires construction to be fully completed by December 31, 2023 without exception. Unless a time extension is requested and approved by the CWSRF, the project funding expires on the final disbursement date of March 31, 2024.

Table 5. Preliminary Project Schedule

TASK / YEAR	2020				2021				2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CWSRF Agreement	■																			
Request for Proposals / Select Consultant			■	■																
Report of Waste Discharge & Other Permits					■	■	■	■												
Engineering / Design Plans & Specifications					■	■	■	■												
Public Bid, Bid Opening & Contract Award								■	■											
Construction										■	■	■	■	■	■	■				
Construction Management & Inspection										■	■	■	■	■	■	■				
Project Closeout & Final Disbursement																■	■			

PERMITS REQUIRED FOR PROJECT IMPLEMENTATION

Waste Discharge Requirements

For consolidation of the West Point and Wilseyville facilities, the Consultant will prepare a Report of Waste Discharge for submittal to the Central Valley Regional Water Quality Control Board in order to obtain updated Waste Discharge Requirements (WDRs) and obtain a new permit under the State Water Resources Control Board's Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems (monthly average flow 100,000-gpd or less). The permit process is expected to coincide with the engineering and design phase and development of the project drawings and specifications over a 9 to 12 month period. The Consultant is expected to engage and correspond with the Regional Water Quality Control Board staff to facilitate the permit update.

Other Permits

The force main and parallel effluent pipeline cross a narrow seasonal drainage. This crossing is at the same location as a prior crossing constructed of old logs pushed into the drainage and covered over with dirt. This old crossing has failed/collapsed and is eroding the channel. A new crossing can be accomplished by two methods: 1) an above ground crossing that bridges over this area and does not impact the stream leaving the existing crossing in place in its current condition, or 2) repair/replace the drainage crossing by installing a new culvert and route the force main and effluent pipeline over the top of this culvert. In the latter case, it will be necessary to secure California Dept. Fish and Wildlife Section 1600, Streambed Alteration Agreement, USACE/Section 404 permit, and Section 401/Regional Board Water Quality Certification.