



California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Linda S. Adams
Secretary for
Environmental
Protection

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Arnold
Schwarzenegger
Governor

14 October 2010

Mr. Steven Looper
Elk Grove Unified School District
9510 Elk Grove-Florin Road
Elk Grove, CA 95624

CERTIFIED MAIL
7009 1410 0002 1422 0119

NOTICE OF APPLICABILITY: WATER QUALITY ORDER NO. 97-10-DWQ-R5065, ELK GROVE UNIFIED SCHOOL DISTRICT; COSUMNES RIVER ELEMENTARY SCHOOL, SACRAMENTO COUNTY

Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff has reviewed the 3 February 2009 Report of Waste Discharge (RWD) and the 29 September 2009 supplemental information describing the domestic wastewater discharge at a campus of the Elk Grove Unified School District (Discharger). The school is the Cosumnes River Elementary School (Assessor Parcel No. 126.0090-029 and a portion of 126-0090-033) and is located at 13580 Jackson Rd, Sloughhouse in Sacramento County. The Discharger submitted the RWD for regulatory coverage under the State Water Resources Control Board (State Board) Water Quality Order No. 97-10-DWQ *General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment System (General Order)*.

The Discharger plans to expand the existing school, install a new wastewater treatment and disposal system, and abandon the existing wastewater treatment system. The school location and associated treatment facility is shown on Attachment A, which is attached hereto and is made part of the General Order by reference. The proposed new treatment and disposal system as described in the RWD satisfies the general and specific conditions of the General Order. Therefore, this letter serves as formal notice that Water Quality Order No. 97-10-DWQ is applicable to the site and the discharge described below. You are hereby assigned General Order No. 97-10-DWQ-R5065 for this facility.

A copy of the General Order is enclosed and can be viewed on the State Board's website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/wqo97.shtml

Please familiarize yourself with the contents of the entire General Order. The facility must be operated in accordance with the requirements contained in the General Order, Attachment B Standard Provisions and Reporting Requirements for WDRs, and with the information submitted in the RWD.

FACILITY AND DISCHARGE DESCRIPTION

Cosumnes River Elementary School is located on an approximately 20-acre site. The school is being expanded to serve a population of 1,100 people that includes students, faculty,

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administrators, and staff. The school provides facilities for students in kindergarten through sixth grade; consisting of classrooms, administration buildings, bathroom facilities, a library, and a multipurpose room with a kitchenette. The school does not have shower or kitchen facilities. School lunches are delivered from offsite. The source water for the school is provided by two onsite domestic wells.

Wastewater is generated from onsite school buildings and support facilities. The new treatment system is designed for a peak dry weather flow of 8,000 gallons per day (gpd) and a peak wet weather flow of 12,000 gpd. Wastewater strength at the school is expected to be consistent with strong strength domestic wastewater having the following general characteristics:

<u>Constituent</u>	<u>Concentration (mg/L)</u>
Total Dissolved Solids	860
Total Suspended Solids	400
Settleable Solids	20
BOD ₅	350
TOC	260
COD	800
Nitrogen (total as N)	70
Phosphorus (Total as P)	12
Chlorides	90
Sulfate	50
Oil & Grease	100
Total Coliform	10 ⁷ -10 ¹⁰ MPN/100 mL ¹
Fecal Coliform	10 ⁵ -10 ⁸ MPN/100 mL ¹

¹ MPN/100 mL denotes most probable number per 100 mL

The Discharger will contract a certified wastewater treatment plant operator to operate and maintain the treatment system until the Discharger's staff can obtain certification.

Wastewater is collected through a wastewater collection system and conveyed to the treatment system as shown on Attachment C, which is attached hereto and is made part of the General Order by reference. The treatment system consists of the following:

- Primary Septic Tanks. There are three primary septic tanks in series, which have a combined storage capacity of approximately 39,500 gallons, equivalent to a 3-4 day hydraulic retention time at peak flows.
- Multiple-pass, Recirculating, Packed Bed Filter System. The partially clarified liquid from the primary septic tanks flows through an outlet to the recirculating packed bed filter system. The filtration system consists of a 14,000 gallon recirculation/blend tank, two duplex pump systems, and four 100-square foot (sf) filter pods packed with textile media. The system can recirculate 100 percent of flow during times of little or no waste generation, advantageous for times such as weekends and holidays.
- Equalization Storage. The filtered effluent flows to a 14,000 gallon equalization and dosing tank. From this tank, treated effluent is pumped through a UV disinfection unit.

- Ultraviolet light (UV) Disinfection. The UV disinfection unit consists of two parallel in-line pressurized 70 watt UV lamp systems with independent controls. A flow meter installed on the UV treated effluent manifold will record the effluent flow.
- Effluent Dispersal. The disinfected wastewater is sent to the subsurface drip dispersal unit for land application. There are three dispersal fields (Zone A, B, and C) that consist of three, four, or five zones per field for a total of 12 dispersal zones and approximately 116,000 sf (or 2.7 acres) of total land available for application of disinfected treated wastewater. The drip lines will be placed six inches below grade. Application rate will be no more than 0.1 gallons per square foot per day (peak flow). The dispersal fields are separate from all play fields, quads or other outdoor gathering zones for students. The dispersal fields are enclosed in fenced areas and are on the perimeter of the site away for students and school personnel, as shown on Attachment D, which is attached hereto and is made part of the General Order by reference.

In accordance with the requirements of the California Environmental Quality Act (CEQA), a Final Environmental Impact Report (FEIR) was prepared and approved on 20 January 2009 by the Elk Grove Unified School District Board of Education for the expansion of the Cosumnes River Elementary School and installation of a new wastewater treatment and disposal system.

Four groundwater monitoring wells, MW-1 through MW-4 were installed in early 2008 to determine background groundwater quality at the site. Based on the information obtained from the sampling of these wells, shallow groundwater is approximately 50 feet below ground level at the site. Groundwater flow direction was consistently north-northwest with a flow gradient of approximately 0.0098 feet/feet. Shallow groundwater appears to be of good quality with constituents found to be below the water quality objectives. The four monitoring wells have since been abandoned prior to the construction of the school expansion.

Six shallow groundwater monitoring wells (MW-4002 and MW-4004 through MW-4008) were installed to support long-term groundwater quality monitoring at the site and assess any potential impacts to shallow groundwater from wastewater treatment and disposal activities. The location of the groundwater monitoring wells is shown in Attachment D.

Based on the level of wastewater treatment and the low wastewater discharge rate, the discharge poses little threat to groundwater quality if the facility is operated and maintained as described herein.

MONITORING AND REPORTING PROGRAM

The Discharger shall comply with the monitoring and reporting requirements prescribed in Monitoring and Reporting Program No. R5-2010-R5065, which replaces MRP No. 97-10-DWQ for this facility. MRP No. R5-2010-R5065 is shown in Attachment E, which is attached hereto and is made part of this General Order by reference.

GENERAL INFORMATION AND REQUIREMENTS

The Discharger shall comply with the Prohibitions, Requirements, Groundwater and Surface Water Limitations, and Provisions of Water Quality Order No. 97-10-DWQ. However, Requirements B.4 and B.6 do not apply to the regulation of the wastewater and subsurface disposal system.

Please review this Notice of Applicability (NOA) carefully to ensure that it completely and accurately reflects the proposed project. If the Discharger violates the terms or conditions above, the Central Valley Water Board may take enforcement action, including assessment of administrative civil liability.

Cosumnes River Elementary School will generate the waste and is subject to the terms and conditions of the General Order and will maintain exclusive control over the discharge. As such, Elk Grove Unified School District is primarily responsible for compliance with the General Order.

Failure to comply with the requirements in the General Order could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in the RWD is prohibited.

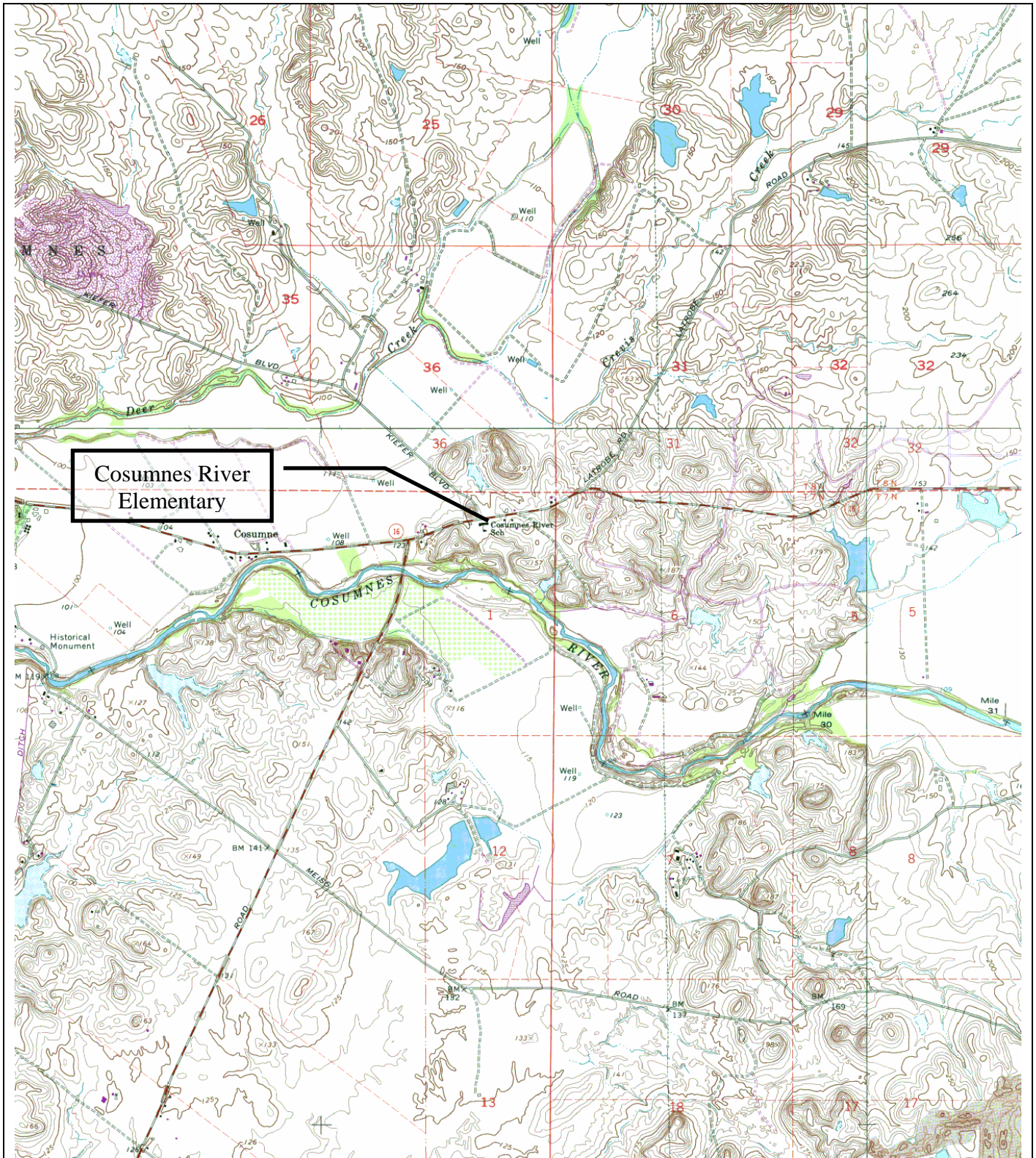
The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by this Order ceases so that coverage under the General Order can be terminated and to avoid unnecessary billing.

All monitoring reports, submittals, discharge notifications, and questions regarding compliance and enforcement should be directed to Mr. Guy Childs at (916) 464-4648 or gchilds@waterboards.ca.gov. Questions regarding the General Order should be directed to Ms. Lani Andam at (916) 464 4723 or landam@waterboards.ca.gov.

Original signed by Ken Landau for
Pamela C. Creedon
Executive Officer

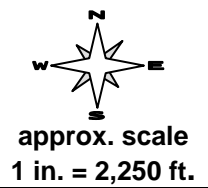
Enclosure(s): Water Quality Order No. 97-10-DWQ
 Attachment A Site Location Map
 Attachment B Standard Provisions and Reporting for Waste Discharge
 Requirements
 Attachment C Process Flow Schematic
 Attachment D Monitoring Well Location Map
 Attachment E Monitoring and Reporting Program No. R5-2010-R5065

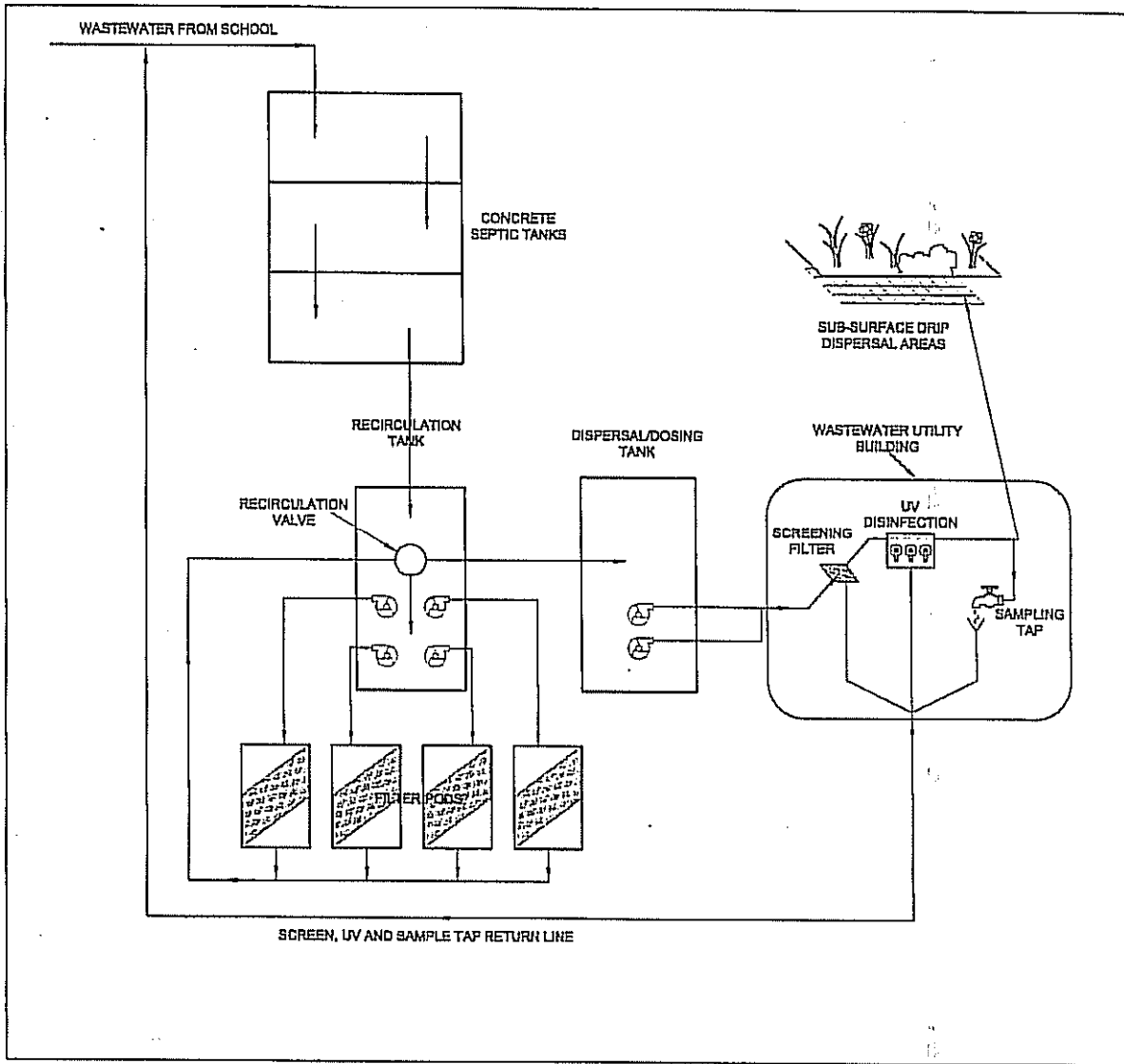
cc w/out enc: Mr. Gordon Innes, Division of Water Quality, State Water Board,
 Sacramento
 Sacramento County Environmental Health Departments, Sacramento
 Mr. Keith Knibb, Sauers Engineering, Inc, Nevada City
 Ms. Karen Nelson, Sauers Engineering, Inc., Nevada City



Drawing Reference:
U.S.G.S
Allendale
TOPOGRAPHIC MAP
7.5 MINUTE QUAD

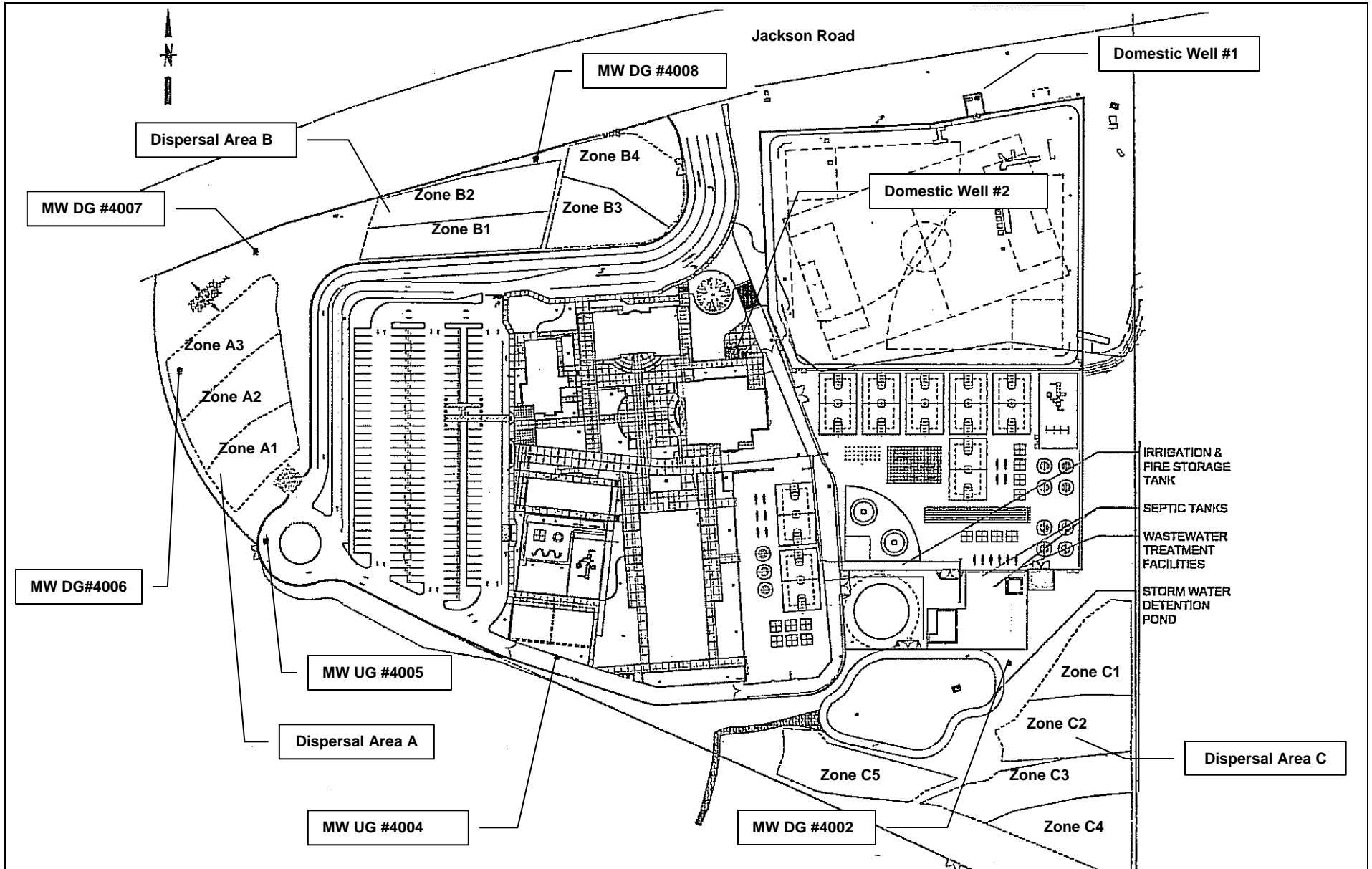
SITE LOCATION MAP
COSUMNES RIVER ELEMENTARY
SCHOOL
13580 JACKSON ROAD
SLOUGHOUSE, CA 95683





Drawing Reference:
Adapted from a CAD drawing
prepared by Warren Consulting
Engineers, Inc.

PROCESS FLOW SCHEMATIC
COSUMNES RIVER ELEMENTARY
SCHOOL
13580 JACKSON ROAD
SLOUGHOUSE, CA 95683



Approximate Scale:
1 inch = 160 feet



Drawing Reference:
Adapted from a CAD drawing
prepared by Warren Consulting
Engineers, Inc.

MONITORING WELL LOCATION MAP
COSUMNES RIVER ELEMENTARY SCHOOL
13580 JACKSON ROAD
SLOUGHOUSE, CA 95683