The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. The City of Folsom (hereafter Discharger) is located in Sacramento County approximately 20 miles east of Sacramento (Attachment A), near the American River, Folsom Dam, Willow Creek, Hinkle Creek, Humbug Creek and other unnamed surface waters within the Folsom area. As of 1 January 2001, the Discharger’s sanitary sewer collection system served a population of 49,844 plus an unspecified number of Folsom Prison residents. The collection system consists of approximately 160 miles of sanitary sewer pipe, ranging in size from 6 to 33 inches in diameter, and 13 pump stations. Pursuant to an Interagency Agreement with the Sacramento Regional County Sanitation District (hereafter District), the Discharger’s wastewater is conveyed through the District’s regional interceptors for treatment at the District’s Sacramento Regional Wastewater Treatment Plant. The collection system and wastewater treatment plant operated by the District are not covered by this Order.

2. The Discharger’s sanitary sewer collection system is divided into sewerage basins (Attachment B). Sewage is conveyed from the individual basins to one of two major force mains. Flows from Basins 1, 2, 3, 4, 5, 6, 7 and 14 are conveyed to the 27-inch sewer on Folsom Blvd (27-inch sewer shed). Flows from Basins 8, 9, 10, 11, 12, 13, 15, 16, and 17 are conveyed to the 33-inch sewer on Blue Ravine Road (33-inch sewer shed). The 27-inch and 33-inch sewers connect with the District’s 54-inch Folsom East 2 (FE2) interceptor that conveys the Discharger’s wastewater to the Sacramento Regional Wastewater Treatment Plant for treatment.

3. FE2 flows are currently conveyed through the District’s existing pipeline that runs adjacent to Folsom South Canal, a drinking water source for the Arden Cordova Water Service. In February 2000, a flow restriction in the District’s pipeline caused a sanitary sewer overflow (SSO) at a manhole in the pipeline. The full pipe capacity of the pipeline
4. Significant portions of the District’s FE2 and FE3 interceptor are within the Discharger’s city limits. Sanitary sewer services for undeveloped property within Folsom’s jurisdiction south of Highway 50 is provided by the County Sanitation District No. 1 (CSD-1). The Discharger, District and CSD-1 are responsible for their portions of the sanitary sewer collection system as described in the 1996 Master Interagency Agreement between the District, the Discharger, the County of Sacramento, the City of Sacramento and CSD-1, and as may be amended from time to time. Neither the District nor CSD-1 are owners or operators of the Discharger’s sanitary sewer collection system and, therefore, are not named as dischargers in this permit.

5. A sanitary sewer collection system must provide adequate capacity to convey base and peak wet weather flows in all parts of the collection system without overflowing. The sewer can be considered to have adequate capacity provided that the system is not at risk of overflowing, the design pressure of the pipe is not exceeded, and the predicted surcharging is on deep (greater than 10 feet) sewers and is not causing any backing up to shallow sewer laterals. The term “surcharging” generally refers to the condition in the sewer when flows exceed full pipe capacity. Many sewers are able to accommodate some amount of surcharging.

6. A “sanitary sewer overflow” (SSO) means any discharge to land or to surface water from a sanitary sewer collection system at any point upstream of a wastewater treatment plant. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, etc.) can be considered part of a sanitary sewer system. Discharges to these temporary storage and conveyance facilities are not considered sanitary sewer overflows, provided the wastewater is fully contained within these facilities.

7. SSOs consist of varying mixtures of domestic sewage, stormwater, industrial wastewater, and commercial wastewater, depending on the pattern of land use in the sewage collection system tributary area. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. SSOs may cause a nuisance, can cause temporary exceedances of applicable water quality standards when the sewage is discharged to surface waters of the State, pose a threat to public health, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area. Section 13050(m) of the California Water Code defines a nuisance as anything that meets all of the following requirements: (1) is injurious to health, or is indecent to the
senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and (3) occurs during, or as the result of, the treatment or disposal of waste.

8. The chief causes of SSOs include grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, debris blockages, collection system age and construction material failures, lack of proper operation an maintenance, lack of capacity, and contractor caused damages. Most of these SSOs are preventable with adequate and appropriate source control measures and proper operation and maintenance of the sewage collection system. The Discharger has recorded numerous SSOs caused by blockages in the sanitary sewer collection system.

9. The Discharger experienced four large SSOs from Pump Station No. 1 from 1995 until it was taken out of service in February 2000. The overflow volumes ranged from 84,000 to 700,000 gallons. All of the overflows occurred during wet weather periods. The Discharger and the District are currently under Cleanup and Abatement Order 5-00-706 (CAO) to assess their system capacities and implement any necessary corrective actions to prevent future spills, taking into account the Discharger’s infiltration/inflow problems and continued population growth.

10. The Discharger submitted to the Regional Board a report dated July 2001(Reference 1, Attachment C) that stated there was significant infiltration/inflow (I/I) in portions of the Discharger’s sanitary sewer collection system, causing a reduction in sanitary sewer capacity that could lead to SSOs or other capacity related issues. The report recommended that Sanitary Sewer Evaluation Surveys (SSES) be conducted and sewer collection system defects be located and repaired in seven of the Discharger’s seventeen sewer basins. The Discharger submitted to the Regional Board a report dated September 2001 (Reference 2, Attachment C) that identified and prioritized rehabilitation projects within two of the seventeen sewer basins. In a 15 October 2001 Quarterly Progress Report pursuant to the CAO, the Discharger indicated the rehabilitation work had begun.

11. The Discharger submitted to the Regional Board a report dated 13 March 2001 (Reference 3, Attachment C), that identified wet weather capacity concerns at Broadstone and the Willow Creek Corridor, which are within the 33-inch sewer shed. The report recommended specific projects with specific completion dates to prevent wet weather SSOs. In September 2001, the Discharger constructed an interim pipeline project in the Broadstone area to provide capacity until the District constructs the FE-3 pipeline. In addition, the Discharger plans to build a force main connecting the Oak Avenue pump
station with the Broadstone area by the end of 2002 to prevent overflows in the Willow Creek Corridor.

12. The Discharger submitted to the Regional Board a report dated August 2001 (Reference 4, Attachment C) that identified five areas within the 27-inch sewer shed that were predicted to experience SSOs if a 10-year, 6-hour storm event occurred. The areas were: Folsom Boulevard near Bidwell Street, School Street, Duchow Way, Blue Ravine Road near Oak Avenue Parkway, and Blue Ravine Road near Flower Street.

The Discharger submitted to the Regional Board a report dated October 2001 (Reference 5, Attachment C) that proposed interim mitigation actions to prevent overflows during the 2001-2001 wet weather season, including bolting down the Folsom Boulevard manhole cover, constructing intertie pipelines within the 27-inch sewer shed, and diverting flows from the 27-inch sewer shed to the 33-inch sewer shed. In a 15 October 2001 Quarterly Progress Report, the Discharger reported that construction of the improvements had begun. The diversion of flows from the 27-inch sewer shed to the 33-inch sewer shed will adversely affect the 33-inch sewer shed, and the Discharger is developing alternatives to accommodate the proposed diversion.

13. The Discharger reported (Reference 4, Attachment C) that the sanitary sewer flow predicted to be delivered to the District’s regional interceptor during a 10-year, 6-hour storm is 29 mgd. The District reported (Reference 7, Attachment C) that the Discharger’s current sanitary sewer flow during a 10-year, 6-hour storm is 23 mgd, and will be 29 mgd in 2005. The District’s existing downstream pipeline has a capacity of 29 mgd (Reference 8, Attachment C). Subsequent to these predictions, improvements were made to the Discharger’s sanitary sewer collection system that should have reduced wet weather flows. The amount of reduction is not currently known, but monitoring programs were recently implemented that may indicate the amount of infiltration/inflow reduction.

14. The Discharger’s “Storm Emergency Response Plan”, dated 5 January 2001, identified fifteen locations within its jurisdiction that are prone to street flooding during heavy rainstorms. Street flooding can lead to sanitary sewer inflow from open or leaking sanitary sewer manhole covers.

15. Federal regulations at 40 CFR 122.41(e) state:

“The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.”
16. In accordance with 40 CFR 122.41(e), this Order requires the Discharger to develop and implement a Sanitary Sewer Management Plan (SSMP) as described in Attachment D, which is an integral and enforceable component of this Order.

17. Section 13193 of the California Water Code requires sanitary sewer agencies in California to report all SSOs to the Regional Boards. It also requires the State Water Resources Control Board (State Board) to develop and implement an electronic database for all reported SSOs within the State.

18. The U.S. Environmental Protection Agency (EPA) and the Regional Board have classified this discharge as a minor discharge.


20. The beneficial uses of Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom are not individually identified in the Basin Plan, however application of the tributary rule requires the beneficial uses of any specifically identified water body apply to its tributary streams. Upon review of the flow conditions, habitat values, and beneficial uses of Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom, the Regional Board finds that the beneficial uses identified in the Basin Plan for the American River are applicable to those surface waters within the City of Folsom. The Basin Plan at page II-2.00 states that: "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning. Existing and potential beneficial uses which currently apply to surface waters of the basins are presented in Figure II-1 and Table II-1. The beneficial uses of any specifically identified water body apply to its tributary streams. The Basin Plan does not identify any beneficial uses specifically for Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom, but the Basin Plan does identify present and potential uses for the American River, to which those surface waters within the City of Folsom, are tributary. The Basin Plan identifies the following beneficial uses for the American River: municipal and domestic supply, agricultural irrigation, industrial service supply, hydro power generation, body contact water recreation, canoeing and rafting, other non-body contact water recreation, warm freshwater aquatic habitat, cold freshwater aquatic habitat, warm fish migration habitat, cold fish migration habitat, warm spawning habitat, cold spawning habitat and wildlife habitat. The Basin Plan defines the beneficial uses and with respect to disposal of wastewaters states that “... disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses.”
The Regional Board finds that the Beneficial Uses identified in the Basin Plan for the American River are applicable to Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom based upon the following facts:

a. *Domestic Supply and Agricultural Irrigation*

   The Regional Board is required to apply the beneficial use of MUN based on State Board Resolution 88-63, which was incorporated into the Basin Plan pursuant to Regional Board Resolution 89-056. In addition, the State Board has issued water rights to existing water users on the American River downstream of the discharge for domestic and irrigation uses. Since Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom are ephemeral streams, they likely provide groundwater recharge during periods of low flow. The groundwater is a source of drinking water. In addition to the existing water uses, growth in the area downstream of the discharge is expected to continue, which presents a potential for increased domestic and agricultural uses of water in the American River.

b. *Body Contact and Non-Body Contact Water Recreation*

   The Regional Board finds that prior to discharge into the American River, Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom flow through areas of general public access, such as wetlands, meadows, residential areas and parks. The American River also offers recreational opportunities. Contact recreational activities currently exist along Willow Creek, Hinkle Creek, Humbug Creek, other surface waters within the City of Folsom, and downstream waters. Exclusion of the public from these areas is unrealistic and these uses are likely to increase as the population in the area grows.

c. *Warm Fresh Water and Cold Fresh Water Aquatic Habitats*

   Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom flow to the American River. The California Department of Fish and Game (DFG) has verified that the fish species present in Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom and downstream waters are consistent with both cold and warm water fisheries. The Basin Plan (Table II-1) designates the American River as being both a cold and warm freshwater habitat. Therefore, pursuant to the Basin Plan (Table II-1, Footnote (2)), the cold designation applies to Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom. The cold-water habitat designation necessitates that the in-stream dissolved oxygen
concentration be maintained at, or above, 7.0 mg/l. This approach recognizes that, if the naturally occurring in-stream dissolved oxygen concentration is below 7.0 mg/l, the Discharger is not required to improve the naturally occurring level.

The beneficial uses of any specifically identified water body generally apply to its tributary streams. The Regional Board finds that, based on aquatic life migration, existing and potential water rights, and the reasonable potential for contact recreational activities, that the beneficial uses of the American River apply to Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom. The Regional Board also finds that based on the available information, that Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom, are ephemeral streams. The ephemeral nature of Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom means that the designated beneficial uses must be protected, but that no credit for receiving water dilution is available. At times, natural flows within Willow Creek, Hinkle Creek, Humbug Creek and other surface waters within the City of Folsom help support the cold-water aquatic life. At other times, both conditions may exist within a short time span, i.e., there are periods when some or all of the surface waters within the City of Folsom may be dry, and periods when sufficient background flows provide hydraulic continuity with the American River. Dry conditions occur primarily in the summer months, but dry conditions may also occur throughout the year, particularly in low rainfall years.

21. The Basin Plan prohibits direct discharges of municipal and industrial wastes into the American River, Lake Natoma, and Folsom Lake.

22. The beneficial uses of the underlying groundwaters are municipal and domestic, industrial service, industrial process and agricultural supply.

23. The prohibition of discharge is consistent with 40 CFR 131.12 and State Board Resolution 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

24. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq), requiring preparation of an environmental impact report or negative declaration in accordance with Section 13389 of the California Water Code.

25. This permit requires that actions be taken to correct identified deficiencies and operation and maintenance activities within the existing sanitary sewer collection system. These projects may be exempt from the provisions of the California Environmental Quality Act, in accordance with Title 14, California Code of Regulations, Sections 15301, 15302, 15303, and 15308. Should the Discharger propose to construct additional facilities, the
Discharger shall comply with Title 14, California Code of Regulations, unless exempt pursuant to Section 15300 et.seq.

26. The Regional Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.

27. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

28. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

29. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that the City of Folsom, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. **Prohibitions**:

1. The discharge of untreated or partially treated sewage to any surface water stream, natural or man-made, or to any drainage system intended to convey storm water runoff to surface waters, is prohibited.

2. The flows in the Discharger’s sanitary sewer collection system shall not exceed the capacity of the District’s conveyance system.

3. Odors originating from the sanitary sewer collection system, including pump stations and emergency retention basins, shall not cause nuisance or adversely affect beneficial uses.

B. **Provisions**:

1. The Discharger shall provide adequate capacity, as defined in Finding 5, and consistent with Provision B.3, to convey base flows and peak flows, including wet
weather related events, for all parts of the sanitary sewer collection system owned or operated by the Discharger.

2. Upon reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow, to minimize adverse impacts to receiving waters, and to provide proper notification to potentially affected individuals and entities, the Discharger shall implement an Overflow Emergency Response Program in accordance with Part E of the Sanitary Sewer Management Plan (SSMP) contained in Attachment D.

3. The discharge of untreated or partially treated sewage to any surface water stream, natural or man-made, or to any drainage system intended to convey storm water runoff to surface waters, is prohibited pursuant to Prohibition A.1, and shall constitute a violation of these discharge requirements unless the Discharger demonstrates through properly signed, contemporaneous operating logs, or other relevant evidence that all criteria of either (a) or (b) below are met:

   (a) Discharges Caused by Severe Natural Conditions

      (i) The discharge was caused by one or more severe natural conditions, including hurricanes, tornadoes, widespread flooding, earthquakes, tsunamis, and other similar natural conditions; and

      (ii) There were no feasible alternatives to the discharge, such as the use of auxiliary treatment facilities, retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, or an increase in the capacity of the system. This provision is not satisfied if, in the exercise of reasonable engineering judgment, the Discharger should have installed auxiliary or additional collection system components, wastewater retention or treatment facilities, adequate back-up equipment or should have reduced inflow and infiltration; and

      (iii) The Discharger submitted a claim to the Regional Board within 10 days of the date of the discharge that the discharge meets the conditions of this Provision.

   (b) Discharges Caused by Other Factors

      (i) The Discharger can identify the cause of the discharge event; and
The discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Discharger; and

The discharge could not have been prevented by the exercise of reasonable control, such as proper management, operation and maintenance; adequate treatment facilities or collection system facilities or components (e.g., adequately enlarging treatment or collection facilities to accommodate growth or adequately controlling and preventing infiltration and inflow); preventive maintenance; or installation of adequate backup equipment; and

The Discharger took all reasonable steps to stop, and mitigate the impact of, the discharge as soon as possible; and

The Discharger submitted a claim to the Regional Board within 10 days of the date of the discharge that the discharge meets the conditions of this Provision.

In any enforcement proceeding, the Discharger has the burden of proof to establish that the above criteria have been met.

4. By 1 May 2002, the Discharger shall submit, for Executive Officer approval, a monitoring plan that specifies (a) the flow data the Discharger will collect from locations specified in the monitoring plan that will be used to determine the effectiveness of sewer repairs and the locations of flow constraints within the sanitary sewer collection system; (b) the locations the Discharger will visually monitor for SSOs or street flooding when precipitation exceeds 0.5 inches in any 24-hour period, and to document this monitoring in a written log. The Discharger shall report the collected information in accordance with the reporting schedule in Monitoring and Reporting Program No. R5-2002-0042. This monitoring plan shall be updated when appropriate, or at least annually, to be consistent with improvements made to the sanitary sewer collection system.

5. All parts of the sewage collection system owned and/or operated by the Discharger shall be properly managed, operated and maintained by trained personnel who possess adequate knowledge, skills and abilities to implement the Provisions of this Order.

6. The Discharger shall develop and implement a SSMP in accordance with Attachment D and the following compliance schedule:
The Discharger shall submit to the Regional Board on or before each compliance report due date, the specified document for Executive Officer approval, or if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Board by letter when it returns to compliance with the time schedule. The approved SSMP shall be made available to the public upon request.

7. It is anticipated that the SSMP may need to be modified, revised, or amended periodically when: (a) monitoring data indicates the objectives of this Order are not met, or will not be achieved, in the prevention of sanitary sewer overflows;
(b) there is a change in operation, maintenance, or activities that comprise the SSMP; or (c) requests for changes are initiated by the Executive Officer or by the Discharger. Revisions shall take effect upon approval by the Executive Officer.

8. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein, and in any related compliance Order, that contain workplans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each engineering and geologic technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and/or stamp of the seal.

9. The Discharger shall comply with all the items of the “Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)”, dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as “Standard Provisions”.

10. The Discharger shall comply with Monitoring and Reporting Program No. R5-2002-0042, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program.

11. Where the Discharger becomes aware that it failed to submit any relevant facts in any report required under this Order to the Regional Board, it shall promptly submit such facts or information.

12. This Order expires on 1 March 2007 and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than 180 days in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.

13. The US EPA is developing a Sanitary Sewer Overflow/Capacity, Management, Operation, Maintenance (SSO/CMOM) rule that contains proposed revisions to the NPDES permit regulations that will apply to sanitary sewer collection systems, including satellite collection systems that discharge to regional
collection and treatment systems (as is the case with the Discharger and the District). The public comment period on the draft rule is estimated to begin in Fall 2002. Within a period of no less than 90 days after the final SSO/CMOM rule is adopted, this NPDES Order shall be reopened so that the Board can consider whether to modify this Order, if appropriate.

14. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity’s full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, GARY M. CARLTON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 1 March 2002.

Original signed by
GARY M. CARLTON, Executive Officer

KYN/PHL
03/01/02