ATTACHMENT 1

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

RESOLUTION NO. R3-2002-0077

DENIAL OF CLEAN WATER ACT SECTION 401 CERTIFICATION AND DENIAL OF CONCURRENCE IN REISSUANCE OF GOLETA SANITARY DISTRICT'S FEDERAL NPDES PERMIT NO. CA0048160 AND 301(h) WAIVER

WHEREAS, the California Regional Water Quality Control Board, Central Coast Region (hereafter "Regional Board"), finds that:

I. Requirements for State Permitting Concurrence and Certification

Waste Discharge Requirements

1. Clean Water Act section 402 provides that the Administrator of the U.S. Environmental Protection Agency (EPA) issues NPDES permits unless a state has established a state program for issuing NPDES permits. Once the Administrator approves a state NPDES program, EPA may not issue permits in that state. In 1984 EPA re-certified California's NPDES program. The certification authorized California to issue NPDES permits but specifically reserved to EPA the power to issue NPDES permits containing 301(h) variances.

2. Clean Water Act section 301(b) requires all publicly owned treatment works to treat effluent to secondary treatment levels before discharge. Clean Water Act section 301(h) authorizes EPA to grant a variance from the secondary treatment standards for ocean discharges subject to concurrence by the State and state certification under Clean Water Act section 401. Goleta Sanitary District (Goleta) has applied for a renewal of its federal NPDES permit authorizing discharge in accordance with a 301(h) variance.

3. Although EPA retained the right to issue NPDES permits containing 301(h) variances, that did not affect the State's authority to regulate such discharges under State law. Thus, the Goleta discharge is not authorized until the Regional Board or State Water Resources Control Board (SWRCB) issue waste discharge requirements under the Porter-Cologne Act.

4. Because EPA issues an NPDES permit and the Regional Board issues waste discharge requirements before the Goleta discharge is authorized, EPA and the SWRCB have established a process to coordinate permit/waste discharge requirements issuance, including State concurrence and section 401 certification.

5. When EPA certifies a State NPDES program it must enter into a Memorandum of Agreement (MOA) with the State regarding the EPA/State relationship for administering the NPDES program (40 C.F.R. § 123.24.) EPA and the SWRCB signed such an MOA in 1973 and updated it in 1989. (NPDES MOA). Among other things, the NPDES MOA provides that if EPA decides to prepare a draft permit for a variance, "the State will issue or deny waste discharge requirements under its own authority as part of the concurrence process." The NPDES MOA also states, "EPA will not issue a final permit until the State issues waste discharge requirements." (NPDES MOA p. 28.)

6. In May 1984, EPA and the SWRCB entered into a Memorandum of Understanding setting forth procedures for State section 401 certification and concurrence with a 301(h) variance. The 1984 MOU provides that a Regional Board will document certification and concurrence by adopting waste discharge requirements under state law jointly with EPA issuance of the federal NPDES permit. This 1984 MOU is cited in the NPDES MOA. (p.28.)

7. The 1984 MOU establishes a procedure for EPA and the Regional Board that includes:

    - Discharger application;
    - State determination based on preliminary evaluation by the Regional Board that the Discharger will comply with State law;
    - EPA preparation of a tentative decision;
    - State tentative concurrence by issuing draft waste discharge requirements;
    - State final concurrence by issuing final waste discharge requirements.

8. The 1984 MOU specifies, " Issuance of final waste discharge requirements will constitute the State's certification and concurrence under 40 C.F.R. section 124.54." (1984 MOU p. 6.). The 1984 MOU also states, "The State may provide a denial under 40 C.F.R. section 124.54 to EPA Region 9 **at any time**." (1984 MOU p. 4.) Section 124.54 is the federal regulation adopted in 1983 that sets forth federal procedures for State section 401 certification and section 301(h) concurrence regarding a federal NPDES permit containing a 301(h) variance.

9. In 1994, EPA adopted regulations regulating its process for authorizing 301(h) variances but, these did not modify the 1983 certification/concurrent regulations and so did not affect the State Board and EPA procedures provided in the 1984

MOU. The 1994 EPA regulations are in 40 Code of Federal Regulations Part 125, Sub-Part G, commencing with section 125.56.

10. In this instance, the Regional Board has made a final determination not to issue waste discharge requirements and to deny section 401 certification and concurrence with the section 301(h) variance.

Section 401 Certification

11. Section 401 of the Clean Water Act provides that the applicant for a federal permit that authorizes a project that may result in a discharge to navigable waters must obtain certification from the state. The state must certify the project will comply with Clean Water Act sections 301, 301, 303, 306 and 307 before the federal permit can be issued.

12. In June, 2000, new State Board regulations governing the 401 certification process became effective. (23 C.C.R. §§ 3855 through 3861.) Previous State Board regulations required certification by the State Board and also provided that if a Regional Board issued waste discharge requirements for a project, no action would be taken on a certification application. Under the new regulations the Regional Board in most cases does certification. (23 C.C.R. §§ 3855(b)(1)(A), 3859(c).) While the new regulations state they do not limit authority to issue waste discharge requirements, a regional board must affirmatively act to deny or grant certification. (23 C.C.R. §§ 3857, 3859(c).) The new regulations do not authorize the Regional Board to waive certification. The new regulations include detailed requirements for the certification application including, among other things, a copy of any draft or final CEQA documents. (23 C.C.R. § 3856(f).) The Regional Board must provide 21 days public notice of the application before granting certification. (23 C.C.R. § 3858.)

13. Goleta has not submitted an application for 401 certification pursuant to 23 C.C.R. section 3856. Goleta has not submitted draft CEQA documents and the Board has not had an opportunity to review final CEQA documents as required by the SWRCB regulations. EPA has not requested the Regional Board to certify the draft federal NPDES permit and did not transmit a tentative decision requesting certification to the Regional Board. The 1984 MOU provides certification may be denied at any time. Absent a complete application for 401 certification as required by state law and compliance with CEQA, the Regional Board must deny certification and the federal NPDES permit may not be issued.

II. Findings Regarding Goleta

Increased Ratio of Primary Treated Effluent to Secondary Treated Effluent

14. The Discharger based its estimate of the quantity of solids discharged to the Ocean in 2007 on population growth projections. The County of Santa Barbara's General Plan, studies by economists at UC Santa Barbara, and water and reclaimed water use projections prepared by the Discharger provide a reasonable and quantitative basis for the projections. Hence, the projected wastewater flowrates, based on the projected populations, are reasonable. Similarly, the projected reclaimed water demand, based on contracts for actual use of reclaimed water, is reasonable. The Discharger developed population, flow, and other projections, and not any alternate projections, in the application for renewal of the Permit/Order.

15. The fraction of primary-treated wastewater projected for 2007 for the final effluent substantially exceeds the current fraction. See the following tables, which describe (1) wastewater characteristics during average flows to the plant during average reclaimed water demand and (2) during flows to the plant seen during the reclamation season and during maximum demand for reclaimed water. The tables reflect the projected substantial increase in the proportion of the primary treated wastewater in the discharge to the Ocean from 2001 to 2007.

Table 1

Average flow and
average reclaimed water demand
Actual 2001 and projected 2007
(flows in mgd[2])

Year	2001 actual	2007 projected
Influent flow	5.7	8.2
Reclamation demand	0.9	1.1
Primary treated	1.3	3.8
Secondary treated[1]	3.5	3.3
Discharge flow	4.8	7.1
Percent primary	27 %	54 %

1. The plant provides secondary treatment to a maximum of 4.4 mgd of primary treated wastewater.
2. Million gallons per day

Table 2

Average flow and maximum reclaimed water demand Actual 2001 and projected 2007, (flows in mgd)

Year	2001 actual[2]	2007 projected
Influent flow	5.4	7.7
Reclamation demand	1.6	2.5
Primary treated	1.0	3.3
Secondary treated[1]	2.8	1.9
Discharge flow	3.8	5.2
Percent primary	26 %	63 %

1. The plant provides secondary treatment to a maximum of 4.4 mgd of primary treated wastewater.
2. May through October reclamation season

16. The tables indicate the discharge may contain a substantially greater fraction of primary treated wastewater in 2007. At average projected flowrates and average reclaimed water demand, in 2007, the projections indicate that the primary treated wastewater may comprise twice as much of the discharge (54 percent) as in 2001 (27 percent). Similarly, at maximum reclaimed water demand, the projected fraction of the discharge receiving only primary treatment increases from 26 percent to 63 percent in 2007, which is almost two and one half times more than in 2001. The projected increase in the primary-treated fraction of the discharge substantially exceeds the projected population growth and projected increase in wastewater flow rates to the plant.

17. The effect on the marine environment of a wastewater discharge containing substantially higher concentrations of primary-treated wastewater is unclear, but would be adverse and could be substantial. Higher concentrations of primary-treated wastewater may have adverse effects, perhaps not detected by the current annual monitoring program, on the surrounding marine habitat. Increased discharge of primary-treated effluent, which is more difficult to adequately disinfect than secondary-treated wastewater, may result in increased bacteria and virus concentrations discharged to Ocean waters and may contribute to detection of elevated bacteria at the nearby beaches. It is the Discharger's responsibility to present convincing evidence that future discharges will not impair, alone or in combination with other sources, the Pacific Ocean's beneficial uses.

Plant capacity in 2007

18. With a design flow of 9.0 mgd (average dry weather flow), at the projected average flowrate of 8.24 mgd in 2007, the flow will be at 92 percent of the plant's design capacity. This projected flow would be an increase from the current influent flow of 5.7 mgd in five years, more than a 44 percent increase in flow. It is doubtful the plant can continue to achieve the current level of treatment over the next five years, considering the projected increase in both flowrates and the ratio of primary- to secondary-treated discharge, as outlined in the previous finding. The Discharger should be planning to upgrade the treatment plant to accommodate the projected increase in flows and the reduced level of treatment achievable at the higher flowrates. Denial of the waiver will encourage the Discharger to initiate the plant's upgrade.

Onshore current

19. The results of a 1987 Brown and Caldwell Report on the discharge's effects on commercial shellfishing areas demonstrated that the current sometimes flows shoreward from the point of discharge, sometimes for some hours. The study indicated the current transported a drogue towards the shore from the point of discharge. Therefore, the discharge has the potential to impair the recreational beneficial use at the beach. The monitoring program does not adequately monitor change because stations may be located too deep to always detect the lower-density wastewater plume.

Inadequate information to demonstrate discharge's insignificant effects

20. The information provided by the current study also adds uncertainty that the monitoring program may not provide a complete assessment of the fate and transport of the discharge's waste constituents after the wastewater enters the Ocean. Information on videos presented at the April 19, 2002 public hearing indicated wastewater containing a high concentration of solids entering the Ocean at a substantial flowrate from one diffuser port. From a total number of 36 ports on the diffuser, substantial quantities of solids are entering the marine environment. The locations of the monitoring program's sampling stations are based on the predominant direction of current flow, and cannot account for the effects of the wastewater transported in other directions. This concern is increased considering that, in the future, the discharge will contain a higher percentage of primary-treated effluent, higher loading of solids, and higher concentration of bisulfite from the chlorination process that may increase sloughing of sulphur bacteria at the diffuser ports. The monitoring program may not adequately demonstrate that the discharge poses no threat to the public's health or contributes to closures at nearby beaches.

Sloughing Phenomenon with Sulfur Bacteria

21. As a result of treating only a portion of the waste stream to secondary levels, the Discharger must use a higher chlorine concentration to disinfect the effluent. Correspondingly, more bisulfite is necessary to dechlorinate the primary/secondary effluent blend than would otherwise be necessary for an entirely secondarily-treated waste stream. The additional sulfur introduced in the dechlorination process sponsors sulfur bacteria colonies in the discharge outfall line. These colonies periodically slough off the outfall's inside walls pipe and are emitted as solids from the outfall diffuser ports. Sloughing increases the solids discharged near the diffuser above solids concentrations measured in the effluent as it leaves the plant. The additional solids loading impairs water quality in the vicinity of the outfall. While some sloughing may occur as a result of dechlorination with a full secondary-treated discharge, water quality impairment is exacerbated near the Goleta outfall because it is a blended primary/secondary discharge, requiring the elevated bisulfite concentrations for dechlorination. The increase in primary-treated wastewater in the discharge and the consequent increase in chlorine disinfection, bisulfite dechlorination, and bacterial sloughing will cause a greater adverse effect on the Ocean's water quality near the point of discharge

Recreational Beneficial Use imapirment

22. High levels of pathogens impair the beneficial use of contact recreation at Goleta Beach. In the past five years, Santa Barbara County posted beaches along Santa Barbara County's south coast with health advisories on several occasions due to high levels of coliform bacteria. The major source of these pathogens is Goleta Slough. However, evidence indicates the Goleta outfall may be another source of pathogens contributing to the impairment of the contact recreational use.

CWA Section 301(h)

23. The Regional Board can consider the requirements of Clean Water Action 301(h) and applicable federal regulations when deciding whether to concur in the 301(h) variance. (In the Matter of the Petition of Rimmon Fay (19 86) SWRCB Order WQ 86017, In the Matter of the Petition of Goleta Sanitary District (1996) SWRCB Order WQ 96-3.)

24. Section 301(h) places the burden on the Discharger to demonstrate compliance with the prerequisites for a variance.

25. Section 301(h)(2) provides that the Discharger must demonstrate,

> "The discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and

propagation of a balanced indigenous population of shellfish, fish and wildlife, and allow recreation activities, in and on the water." (emphasis added.)

26. Current monitoring shows the discharge occasionally migrating toward the beach, sometimes for hours. Therefore, the monitoring station locations and the monitoring program may not adequately assess the discharge's adverse effects on the beach and contact recreation. Evidence provided by Heal the Ocean indicates enteroviruses found in the discharge but not in Goleta Slough were found at Goleta Beach. Additionally, over the life of the permit, the quality of Goleta's effluent is expected to decline as a higher percentage of the effluent receives only advanced primary treatment. Also, the quality of effluent is likely to be adversely affected as the plant nears its design capacity. Increased solids in the effluent will make pathogen removal more difficult; full secondary treatment is more likely to provide complete and adequate disinfection than advanced primary treatment. These factors indicate that the Goleta discharge may contribute to or threatens to contribute to the impairment of the contact recreation beneficial use at Goleta Beach. Additionally, the discharge's adverse effects will likely increase in the future as effluent quality worsens.

27. Goleta has not demonstrated that its discharge, in combination with pollutants from other sources, will not interfere with the contact recreation beneficial use at Goleta Beach and diving near the diffusers.

Anti-Degradation Policy

28. Both the SWRCB anti-degradation policy (SWRCB Resolution 68-16) and the federal anti-degradation policy (40 C.F.R. § 131.12) apply to Regional Board concurrence in a 301(h) variance. (SWRCB Order WQ 86-17.)

29. At a minimum, both the state and federal anti-degradation policies mandate that all existing beneficial uses be maintained. As noted in findings above, the contact recreation beneficial use at Goleta Beach is not being maintained and if Goleta is allowed to discharge in accordance with the proposed federal NPDES permit and 301(h) variance, the discharge may contribute to the impairment of the contact recreation beneficial use.

30. If the Goleta discharge will not contribute to the impairment of the contact recreation beneficial use, it will be subject to other provisions of the anti-degradation policies. Both state and federal policies provide, if water quality is protecting beneficial uses, that quality shall be maintained and protected. However, a discharge that will degrade that water quality may be allowed if the Board makes certain findings. Under the federal policy, the Board must find, "that allowing lower water quality is necessary to accommodate important economic or social development in the areas in which the waters are located." Also, at a minimum degradation shall not be authorized unless water quality will

be adequate to protect beneficial uses and "there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources..."

31. The state anti-degradation policy also requires existing high water quality to be maintained but states, "[a]ny activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained." (emphasis added)

32. The state anti-degradation policy requires the discharger to demonstrate that any change in water quality "will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the [state water quality control] policies."

33. Goleta plans to increase the volume of its discharge to accommodate population increases and the concentration of waste in the discharge will increase as a higher percentage of the effluent receives primary treatment rather than secondary treatment. The increased discharge of solids and pathogens may adversely affect the contact recreation beneficial use at Goleta Beach and the area around the outfall. Also, with increased volume there will be increased chlorination leading to increased sloughing off of sulfur bacteria at the outfall. Sloughing off adversely affects the diving recreational use and may adversely affect benthic biota near the outfall. The Board cannot permit this increased volume and waste concentration unless the discharger makes the demonstration and the Board makes the findings required by the federal and state anti-degradation policies.

34. Under the federal policy, the Board must find that degradation is necessary to support important economic or social development. The Board is not aware of any evidence supporting the finding that requiring Goleta to provide secondary treatment for its projected increased sewage flows would undermine important economic or social development. All other communities on the Central Coast with publicly owned treatment works (POTWs), except for the City of Morro Bay, provide secondary treatment for their wastewater, at a minimum, and there is no evidence that such treatment is preventing economic or social development of those areas. Cost savings to the discharger, standing alone, absent a demonstration of how these savings are necessary to accommodate important social and economic development are not adequate justification. (SWRCB Order WQ 86-17 at 22 n. 10.)

35. Under the State policy, the discharger must demonstrate that despite the increased flow and concentration of waste "the highest water quality consistent with the maximum benefit to the people of the state will be maintained" and that any

change in water quality will be "consistent with the maximum benefit to the people of the state." The Board is not aware of any evidence or argument that allowing Goleta to discharge more effluent with a higher percentage of primary treatment is consistent with the maximum benefit of the people of the state. The conclusion not to make such finding is supported by the fact that except for the City of Morro Bay, all other communities with POTWs in the Central Coast Region provide secondary treatment.

Water Code Sections 13142.5(a) and 13146

36. State departments and boards, including this Regional Board, must comply with state water quality control policy unless otherwise authorized by statute (Wat. C. § 13146.) Water Code section 13142.5 establishes water quality policy for the coastal marine environment. Section 13142.5(a) provides, among other things, "Highest priority shall be given to improving or eliminating discharges that adversely affect any of the following:

    "... (2) Areas important for water contact sports.
    (3) Areas that produce shellfish for human consumption
    (4) Ocean area subject to massive waste discharge."

37. In this case there is evidence that Goleta's discharge may contribute to impairment of contact recreation at Goleta Beach. The sloughing off of sulfur bacteria may adversely affects the diving beneficial use near the outfall and may have an adverse affect on benthic biota. Goleta Beach is in an area of massive non-point source waste discharge to the ocean via Goleta Slough. It is unknown what adverse effect the discharge may have on shellfish growing after the volume increases and the quality of the effluent declines.

38. In accordance with Water Code section 13142.5 the Regional Board should require improvement or elimination of the Goleta discharge and not concur in the 301(h) variance.

Reclamation

39. Water Code section 13510 provides, "the people of the state have a primary interest in the development of facilities to recycle water containing waste to supplement existing surface and underground supplies and to assist in meeting future water needs."

40. Water Code section 13142.5(e) provides, "Adequately treated recycled water should, where feasible, be made available to supplement existing surface and underground supplies and to assist in meeting future water requirements of the coastal zone."

41. The State Board has ruled that "in this case and in all cases where an applicant in a water-short area proposes a discharge of once-used wastewater to the ocean, the report of waste discharge should include an explanation as to why the effluent is not being reclaimed for further beneficial use." (SWRCB Order WQ 86-17.)

42. There is no dispute that Goleta is in a water-short area.

43. As populations increase in the Central Coast Region, reclaimed water usage, which has undergone tertiary-treatment, becomes more necessary. To provide more recycled water, dischargers should seek to provide tertiary treatment to their wastewater. The first step toward achieving tertiary treatment is to provide secondary treatment to all the Discharger's wastewater. Denial of the waiver will encourage the Discharger to upgrade its plant to full secondary treatment capabilities. Approval of the waiver will conflict with the policies in Water Code section 13142.5(e) and 13510. To comply with effluent limitations as the proportion of primary-treated wastewater in the discharge increases in the future, the Discharger may need to divert more secondary-treated wastewater to the discharge from reclamation. Hence, continued discharge in accordance with the waiver may discourage the Discharger from increasing reclamation

California Environmental Quality Act

44. Because this resolution denies concurrence with the 301(h) variance and denies 401 certification, this Board is not approving the project and findings under the California Environmental Quality Act are not necessary.

Coastal Zone Management Act

45. EPA may not issue an NPDES permit that affects land use or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management Program. (40 C.F.R. § 122.49.) In California such certification is provided by the California Coastal Commission after the Regional Board has considered concurrence with the 301(h) variance in the federal NPDES permit. Coastal Commission certification is required in addition to Regional Board 401 certification and concurrence in the 301(h) variance.

Hearing

46. On April 19, 2002 this Regional Board convened a hearing jointly with EPA. The purpose of the Board's hearing was to consider concurrence in a 301(h) variance to be granted by EPA in a federally issued NPDES permit. After presentation of testimony, arguments and public comment at the hearing, the Board closed the testimony and comment portion of the hearing and began deliberations. The Regional Board voted on a motion to adopt waste discharge requirements concurring with the 301(h) variance. The majority of the Board voted against the motion and so the Board failed to take action. The Board then voted to direct staff

to prepare findings to support rejecting concurrence in the 301(h) waiver, and to submit them to the Board for consideration at its May 2002 meeting. The Board continued the hearing for the purpose of considering staff's draft findings. At the request of Discharger, the Board continued deliberations until its July 12, 2002 meeting.

47. Additional written and oral public comment was provided before and during the Board's meeting on July 12, 2002. No additional evidence was admitted into the record. After consideration of relevant evidence and argument presented at the hearing, relevant evidence and public comment in the Regional Board's files, public comment at the hearing and on July 12, 2002, and applicable laws, regulations and policies and based on the findings above, the Board resolves as follows:

NOW THEREFORE THE REGIONAL BOARD RESOLVES:

Based on the above findings;

1. Clean Water Act section 401 Certification of the federal NPDES permit is denied because discharger failed to comply with the State certification application process, the Regional Board has not been provided a CEQA document and so has not been able to comply with CEQA, and because the proposed discharge does not comply with Clean Water Act section 301, 303, and 303.

2. Concurrence with the federal NPDES permit 301(h) variance is denied based on the above findings and because the tentative federal draft permit was not certified in accordance with state law specified by 23 C.C.R. sections 3855 et seq.

3. By December 12, 2002, the Discharger shall submit a modified NPDES permit application to the Regional Board.

Bradley E. Hagaman
Executive Officer

7/22/02
Date

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