

## QUESTIONS AND ANSWERS

### STATE WATER RESOURCES CONTROL BOARD

#### RESOLUTION NO. 68-16

##### I. PURPOSE

The purpose of this Memorandum is to provide information to Regional Water Quality Control Board (RWQCB) and State Water Resources Control Board (SWRCB) staff concerning the implementation of SWRCB Resolution No. 68-16 ("Statement of Policy With Respect to Maintaining High Quality of Waters in California"). This Memorandum provides answers to frequently asked questions that have been addressed by RWQCBs and the SWRCB in implementing Resolution No. 68-16 or have been defined in the California Water Code (CWC). The RWQCBs and the SWRCB implement the policy through Water Quality Control Plans, waste discharge requirements, National Pollutant Discharge Elimination System (NPDES) permits, and cleanup and abatement actions. Each RWQCB has incorporated Resolution No. 68-16 into its Water Quality Control Plans. The SWRCB has issued water quality orders and guidance interpreting the Resolution. The questions and answers are based on SWRCB orders and guidance. This Memorandum also provides answers to questions concerning the application of Resolution No. 68-16 at cleanup sites subject to the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

##### II. DESCRIPTION OF SWRCB RESOLUTION NO. 68-16

The SWRCB adopted the policy in 1988 in response to a directive from the U. S. Department of the Interior calling for the adoption of state "antidegradation" policies. See copy of Resolution No. 68-16 (Attachment 1). The U. S. Environmental Protection Agency (EPA) also adopted an antidegradation policy (40 CFR Section 131.12). SWRCB Resolution No. 68-16 is similar to the federal antidegradation policy except that the state policy applies to both ground water and surface water, and the federal policy applies only to surface water.

SWRCB Resolution No. 68-16 is a state policy that establishes the requirement that discharges to waters of the state shall be regulated to achieve the "highest water quality consistent with maximum benefit to the people of the State". Resolution No. 68-

16 is consistent with CWC Section 13000 which states that the

"... Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible. . . ." and " . . . that the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation originating inside or outside the boundaries of the state . . ."

Resolution No. 68-16 also establishes the intent that where waters of the State are of higher quality than required by state policies, including Water Quality Control Plans, such higher quality "shall be maintained to the maximum extent possible" consistent with the maximum benefit to the people of the State.

Resolution No. 68-16 establishes essentially a two-step process to comply with the policy. The first step is if a discharge will degrade high quality water, the discharge may be allowed if any change in water quality (1) will be consistent with maximum benefit to the people of the State, (2) will not unreasonably affect present and anticipated beneficial use of such water, and (3) will not result in water quality less than that prescribed in state policies (e.g. water quality objectives in Water Quality Control Plans). The second step is that any activities that result in discharges to such high quality waters are required to use the best practicable treatment or control of the discharge necessary to avoid a pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State.

### III. SWRCB RESOLUTION NO. 68-16 QUESTIONS AND ANSWERS

I. Q. Does Resolution No. 68-16 require treatment or cleanup to zero or background?

A. No. Resolution No. 68-16 does not mandate that existing high quality water be maintained; rather any change must be consistent with maximum benefit to the people of the State, must not unreasonably affect beneficial uses, and must comply with applicable water quality control policies. Discharges in compliance with Resolution No. 68-16 range between background and the water quality objectives in SWRCB and RWQCB water quality control plans that are reasonably related to protecting the beneficial uses, based on consideration of these factors. Additionally, the discharger must use best practicable treatment or control. See Question and Answer No. 7. If such treatment or control results in a

discharge that maintains the existing water quality, then a less stringent level of treatment or control would not be in compliance with the Resolution. If the discharge, even after treatment, unreasonably affects beneficial uses or does not comply with applicable provisions of Water Quality Control Plans, the discharge would be prohibited. The discharge need not be treated or controlled to levels that are better than background water quality. See Resolution No. 68-16 Decision Chart (Attachment 2).

2. Q. Does Resolution No. 68-16 apply to ground water?
  - A. Yes. Resolution No. 68-16 applies to discharges to all high quality waters of the state, including ground water and surface water. (CWC Section 13050(e).) The federal antidegradation policy (40 CFR Section 131.12) applies only to surface water discharges. See SWRCB Order Nos. WQ 86-8 and WQ 86-13, applying Resolution No. 68-16 to ground water.
  
3. Q. What do the terms "pollution", "contamination", and "degradation" mean?
  - A. The term pollution is defined in the CWC to mean an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either the waters for beneficial uses or the facilities which serve these beneficial uses, i.e., violation of water quality objectives. (CWC Section 13050(l).) Water quality objectives are established in Water Quality Control Plans to provide reasonable protection of waters of the state for beneficial uses. (CWC Section 13241.) Thus, if a waste constituent exceeds the relevant water quality objectives or background if background levels are higher, then the beneficial uses may be affected. To comply with Resolution No. 68-16, a discharge may not cause pollution. Contamination is a subset of pollution, i.e., that level of pollution that results in a threat to public health. (CWC Section 13050(k).) The term "degradation" refers to impacts on water quality even if beneficial uses are not unreasonably affected. The CWC recognizes that the quality of water may be changed to some degree without unreasonably affecting beneficial uses. (CWC Section 13241.) Naturally-occurring background levels that exceed water quality objectives are not considered pollution. (CWC Sections 13050(l) and 13050(d).)
  
4. Q. What does the term "nuisance" mean?
  - A. To comply with Resolution No. 68-16, the activity that results in the discharge may not cause a nuisance. The term nuisance is defined in the CWC to mean anything that is (1) injurious to health, indecent or offensive

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 an entire community or considerable number of persons; and (3) occurs during, or as a result of, the treatment or disposal of wastes. (CWC Section 13050(m).) To constitute a nuisance, all three factors must be met. Nuisance may include, for example, dust, odors, or noise associated with the discharge of wastes, such as during a cleanup or from sewage discharges. Nuisance considerations under the CWC are not limited to water quality impacts.

5. Q. What does the term "high quality" of waters mean?

A. The quality of the water refers to the chemical, physical, biological, bacteriological, radiological, and other properties and characteristics which affect the use of water. (CWC Section 13050(g).) Existing high quality waters are waters with existing background quality unaffected by the discharge of waste and of better quality than that necessary to protect beneficial uses. The CWC directs the SWRCB and the RWQCBs to establish beneficial uses of waters of the State and to establish water quality objectives, which are the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of the beneficial uses. (CWC Section 13050(h).) Where the waters contain levels of water quality constituents or characteristics that are better than the established water quality objectives, such waters are considered high quality waters. High quality waters are determined based on specific properties or characteristics. Therefore, waters can be of high quality for some constituents or beneficial uses, but not for others. See SWRCB Order No. WQ 91-10.

With respect to polluted ground water, a portion of the aquifer may be polluted with waste while another portion of the same aquifer may not be polluted with waste. The unpolluted portion is high quality water within the meaning of Resolution No. 68-16. See SWRCB Order No. WQ 91-10.

6. Q. What does the term "maximum benefit to the people of the State" mean?

A. Before a discharge to high quality water may be allowed, it must be demonstrated that any change in water quality "will be consistent with the maximum benefit to the people of the state." This determination is made on a case-by-case basis and is based on considerations of reasonableness under the circumstances at the site. Factors to be considered include (1) past, present, and probable beneficial uses of the

water (specified in Water Quality Control Plans); (2) economic and social costs, tangible and intangible, of the proposed discharge compared to the benefits, (3) environmental aspects of the proposed discharge; and (4) the implementation of feasible alternative treatment or control methods. With reference to economic costs, both costs to the discharger and the affected public must be considered. "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" for allowing degradation. See SWRCB Order No. WQ 86-17, at 22, n. 10. With respect to social costs, consideration must be given to whether a lower water quality can be abated through reasonable means. In other words, the lower water quality should not result from inappropriate treatment facilities or less-than-optimal operation of treatment facilities. Local ordinances concerning water quality or nuisance and the use of the water as a water supply may also be factors in determining maximum benefit to the people.

In a situation that involves reinjection of treated ground water resulting from remediation activities, the need for the remedial action would be a factor favoring the discharge, but other factors would include alternatives to the reinjection, such as reclamation, and the need to maintain ground water (to protect it from, for example, salt water intrusion, to prevent surface subsidence, and to provide public water supply). Water Quality Control Plans for some RWQCBs require consideration of discharge alternatives.

7. Q. What does the term "best practicable treatment or control" mean?
- A. Neither the CWC or the Resolution define the term "best practicable treatment or control". The SWRCB has interpreted the term in several SWRCB water quality orders. The SWRCB has evaluated what level of treatment or control is technically achievable using "best efforts." See SWRCB Order Nos. WQ 81-5, WQ 82-5, and WQ 90-6. To evaluate the best practicable treatment or control method, the discharger should compare the proposed method to existing proven technology; evaluate performance data, e.g., through treatability studies; compare alternative methods of treatment or control; and/or consider the method currently used by the discharger or similarly situated dischargers. This information would usually be included in the report of waste discharge required by CWC Section 13260. Promulgated requirements such as federal best available technology economically achievable (BAT) or other promulgated technologies may be appropriate for ground water discharges and would apply to surface water discharges. In certain situations, BAT would be

considered "best practicable treatment or control" under Resolution No. 68-16. The costs of the treatment or control should also be considered, and would be considered in determining the "maximum benefit to the people of the State." See Question and Answer No. 6.

8. Q. What do the words "not unreasonably affect present and anticipated beneficial use of such water" mean as used in Resolution No. 68-16?

A. The CWC requires the SWRCB and RWQCBs to specify the beneficial uses of each water body in Water Quality Control Plans. (CWC Section 13241.) Such beneficial uses include past, present, and probable future uses and include domestic, municipal, agricultural and industrial supply, power generation, recreation, aesthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. (CWC Section 13050(f).) Waters are designated for particular beneficial uses if they are suitable for that use even if they are not currently being used. Such probable uses must also be protected to ensure future usability of the water. See e.g., CWC Sections 13000 and 13241.

The CWC requires the SWRCB and RWQCBs to establish water quality objectives in water quality control plans to ensure the reasonable protection of beneficial uses. (CWC Section 13241.) Compliance with Resolution No. 68-16 would at a minimum require compliance with the water quality objectives in order to ensure the reasonable protection of beneficial uses. In other words, even if degradation is justified, it cannot be allowed to unreasonably affect beneficial uses. The discharge must also be to the maximum benefit to the people of the State and the discharger must apply best practicable treatment or control as described in Question and Answer Nos. 6 and 7. Such considerations may result in a requirement that discharges to high quality waters meet limits that are more stringent than water quality objectives. See SWRCB Order No. WQ 91-10.

9. Q. What are the "water quality control policies" referred to in Resolution No. 68-16?

A. The SWRCB and the RWQCBs have the authority under the CWC to adopt policies, including water quality control plans, for the protection of waters of the State. Such policies establish beneficial uses (e.g., SWRCB Resolution No. 88-63, "Sources of Drinking Water Policy"), water quality objectives (e.g., California Ocean Plan, RWQCB Water Quality Control Plans), cleanup procedures (SWRCB Resolution No. 92-49), and other

requirements for protection of waters of the State. These policies and plans are legally binding on dischargers and on other state agencies. (CWC Section 13146 and Government Code Section 11353.)

10. Q. How does Resolution No. 68-16 compare to the federal antidegradation policy (40 CFR Section 131.12)?
- A. Resolution No. 68-16 applies to discharges to all waters of the State, including ground water and surface water, and includes discharges to land that may impact waters of the State. The federal antidegradation policy applies to surface waters that are considered waters of the United States. The SWRCB has interpreted Resolution No. 68-16 to incorporate the federal antidegradation policy in situations where the federal antidegradation policy is applicable. See SWRCB Order No. WQ 86-17 at 16-19. Like Resolution No. 68-16, the federal antidegradation policy is not an absolute bar to reductions in water quality. Rather, the policy requires that reductions in water quality be justified as necessary to accommodate important social and economic development. The outcome will often depend upon a balancing of competing interests. At a minimum, the federal antidegradation policy would require compliance with the federal Clean Water Act. The federal antidegradation policy also contains additional requirements to waters that have been designated as an "outstanding natural resource".
11. Q. How does the SWRCB define "discharges" and "dischargers" in the context of Resolution No. 68-16?
- A. The CWC does not specifically define "discharges" or "dischargers" but the terms "discharge" and "discharging" are used in the CWC. The terms have been interpreted by the SWRCB in water quality orders regarding CWC Section 13260 and 13304. CWC Section 13260 requires "any person discharging or proposing to discharge waste" to file a report of waste discharge. The SWRCB may issue waste discharge requirements to that person. Within the context of the Section 13260, the "discharger" is the person responsible for the discharge, including the owner and operator who discharges waste and may include the owner who leases property to an operator.
12. Q. To what discharges does Resolution No. 68-16 apply?
- A. Resolution No. 68-16 applies to regulated new discharges of waste to waters of the State, such as discharges to surface waters that are subject to NPDES permits, reinjection of treated water to ground water, and

discharges of waste to land that may impact waters of the State. (CWC Section 13260). Resolution No. 68-16 also applies to ongoing discharges of waste from soil to high quality water and from polluted water to high quality water.<sup>1</sup> The SWRCB has determined that Resolution No. 68-16 may apply to the determination of ground water cleanup levels since the presence of waste in soil or ground water may constitute a "discharge" of waste if the waste is migrating to areas of high quality water. See SWRCB Order Nos. WQ 86-8 and 92-09. SWRCB Resolution No. 92-49 also specifies that cleanup and abatement actions must conform to Resolution No. 68-16.

13. Q. How is Resolution No. 68-16 considered in determining requirements for new discharges to waters of the State, i.e., permitted discharges?

A. Prior to any new discharge, the discharger must provide sufficient information to evaluate the potential impacts of the discharge on beneficial uses of the waters of the State, including a description of the quality of the proposed discharge (e.g., type of contaminants; general pollutant analysis, such as minerals and metals, BOD, pH, and temperature; quantity and duration of discharge); the nature and quality of the receiving water (e.g., beneficial uses; general pollutant analysis, such as minerals and metals, BOD, pH, and temperature; quantity and duration of discharge); the proposed treatment and disposal systems (e.g., alternative systems, current use, and cost); and the type and location of the discharge (e.g., POTW, industrial reuse, surface water, irrigation, ground water). Any discharge must comply with the water quality objectives in the applicable State or Regional Water Quality Control Plan for each constituent and parameter of the discharge that are necessary to protect the most sensitive beneficial use<sup>2</sup> for that water body and other applicable

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<sup>1</sup> The SWRCB has interpreted the term "discharge" to include the migration of waste in the environment, e.g., the movement of waste from soil to ground water or from polluted or degraded ground water to clean ground water. See SWRCB Order No. 86-2. See also Lake Madrone Water District v. State Water Resources Control Board, 256 Cal.Rptr. 894, 900 (Cal.App.3 Dist. 1989).

<sup>2</sup> The most sensitive beneficial use may vary depending on the constituent and parameter of the discharge. While municipal and domestic supply is often the most sensitive beneficial use for ground water, the existence of certain constituents affect other uses even more. For example, the water quality objective for chloride that would protect municipal and domestic supply (i.e., drinking water) is 250 milligrams per liter (mg/l); the water quality objective for chloride that would protect agricultural use is



requirements in Water Quality Control Plans, such as prohibitions. In addition, if the receiving water is considered high quality water, the discharge must comply with Resolution No. 68-16. In such cases Resolution No. 68-16 may require the discharge to attain levels that are more stringent, i.e., of higher quality, than if the discharge only attained water quality objectives. If the discharge is to surface waters that are considered waters of the United States, the discharge must also comply with the federal antidegradation policy.

14. Q. Does Resolution No. 68-16 allow reinjection of treated water containing pollutant levels at drinking water standards into existing high quality water?

A. Resolution No. 68-16 may allow such discharges in certain circumstances. To comply with Resolution No. 68-16, the discharge must meet requirements that result in the best practicable treatment or control that must attain a level that is at least equal to or more stringent than the water quality objectives that will protect beneficial uses. Thus, such treatment or control would result in discharges that range between background levels (i.e., analytic detection limits) and the water quality objective (or background if higher than the objective). If the method of treatment or control cannot attain at least the water quality objective, or higher if background is higher than the objective, then the discharge to existing high quality water would be prohibited. See SWRCB Order No. WQ 82-5 at 19. Assuming a discharge is allowed, the permissible level of water quality after treatment or control will vary depending on site specific factors (e.g., beneficial uses, type of pollutants, assimilative capacity, and nuisance considerations) available technologies, and costs.

If the only designated beneficial use of water is domestic or municipal supply (i.e., drinking water) treatment to the water quality objective that protects drinking water (e.g., taste and odor objective, toxicity objective, state or federal drinking water standards) would be the least stringent level allowed under Resolution No. 68-16. The discharge must also be considered to be to the maximum benefit to the people of the State. If reasonable treatment or control methods are available or are already being used at the facility that treat to a more stringent level than the water

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106 mg/l.

quality objectives, that more stringent level of treatment may be required to comply with Resolution No. 68-16. See SWRCB Order No. WQ 91-10.<sup>3</sup>

14. Q. How does Resolution No. 68-16 apply to ground water cleanups which involve the reinjection of treated water into the polluted area of ground water?

A. The cleanup of polluted ground water frequently involves the extraction, treatment, and discharge back into the ground water (reinjection) of the treated water. Resolution No. 68-16 may not apply if the reinjection is back into the polluted area since the polluted area of ground water is not high quality water for the specific constituents. However, Resolution No. 68-16 and other SWRCB and RWQCB requirements, such as CWC Section 13304 and SWRCB Resolution No. 92-49 require that such reinjection not cause migration of the polluted ground water. In addition, since the CWC requires that the cleanup protect the beneficial uses of the waters of the State, the concentrations of waste in the reinjected ground water should not in most circumstances exceed the level necessary to protect the beneficial uses (e.g., the cleanup level). In other words, the reinjection should not exacerbate the existing pollution. See SWRCB Order No. WQ 91-10.

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<sup>3</sup> This issue was addressed in a dispute between the State of California, the United States Air Force, and EPA with regard to the reinjection of treated ground water to high quality ground water at Mather Air Force Base. The Air Force intended to extract, treat, and discharge ground water containing volatile organic constituents (VOCs) into high quality ground water that contained no VOCs. The Air Force asserted that the applicable standard required treatment only to levels that met the federal drinking water standard prior to the discharge to high quality water. The State asserted that Resolution No. 68-16 required the use of best practicable treatment since the discharge was to high quality water. The best practicable treatment was necessary to carry out the purpose of the Resolution to maintain high quality waters of the State. With respect to the pollutants in the ground water, available treatment technology that would be used by the Air Force routinely treated VOCs to below detectable levels. Such technology was, therefore, the best practicable treatment for purposes of Resolution No. 68-16. In applying the federal Comprehensive Environmental Response, Compensation, and Liability Act to the dispute, the EPA Administrator deferred to the State's interpretation and required treatment to the analytic detection limit prior to discharge to high quality ground water. See In the Matter of: Mather Air Force Base, California, and In the Matter of: George Air Force Base, California, Decision of the EPA Administrator, April 22, 1993.

Application of Resolution No. 68-16 at sites subject to CERCLA.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is the federal law that establishes requirements for the cleanup of sites containing hazardous substances. It establishes cleanup standards that are in part based on state cleanup requirements. Specifically, CERCLA Section 121(d)(2) requires remedial actions at CERCLA sites listed on the National Priorities List (NPL) to at least attain federal and more stringent state "applicable or relevant and appropriate" requirements (ARARs) upon completion of the remedial action. The 1990 National Contingency Plan (NCP), which are the federal regulations that implement CERCLA, requires compliance with ARARs during remedial actions as well as at completion, and mandates attainment of ARARs during removal actions to the extent practicable. See NCP, 40 CFR Section 300.435(b)(2) and 300.415(l). CERCLA establishes criteria necessary for a state requirement to be considered an ARAR and therefore be applicable to a cleanup at a site listed on the NPL. The following questions and answers discuss Resolution No. 68-16 as an ARAR.

15. Q. Is Resolution No. 68-16 a potential ARAR at CERCLA sites involving discharges of waste to waters of the State?
- A. Yes. CERCLA Section 121 requires remedial actions to attain state requirements that qualify as applicable or relevant and appropriate requirements (ARARs). State ARARs must be promulgated (legally enforceable and of general applicability) and more stringent than federal ARARs. Resolution No. 68-16 meets CERCLA's requirements since it is both legally enforceable and of general applicability. It is legally enforceable since it was adopted in conformance with the procedural requirements of state law. The SWRCB adopted Resolution No. 68-16 under the Dickey Water Pollution Control Act and intended it to be part of the State's water quality standards submitted under the federal Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903. Section 13022.1 of the Dickey Act, which is similar to CWC Section 13140, required the SWRCB to adopt water quality policies following notice and public hearings. Resolution No. 68-16 was adopted properly following notice and several public hearings. Resolution No. 68-16 has not been superseded by any other policies of the SWRCB. In addition, each RWQCB has adopted Resolution No. 68-16 as part of RWQCB Water Quality Control Plans according to CWC procedures that include, notice, comment, and a public hearing and formal approval by the SWRCB. Upon adoption, the Resolution became legally enforceable under the CWC. See CWC Sections 13263, 13301, and 13350.

Resolution No. 68-16 is of general applicability since it is applicable to all

discharges of waste, including hazardous substances as defined in CERCLA, to existing high quality waters of the state.

16. Q. How is Resolution No. 68-16 incorporated into cleanups and discharges at CERCLA sites where the activity is not subject to a permit under CERCLA Section 121(e)?
- A. CERCLA Section 121(e) states that no Federal, State, or local permit is required for any portion of response actions that are conducted entirely onsite. U.S. EPA has interpreted this provision to include all procedural requirements, such as the requirement to submit a report of waste discharge, not just requirements to obtain a permit. Response actions at CERCLA sites, however, are subject to substantive requirements that would have been included in such permits, even if the activity is exempt by CERCLA from procedural requirements. Resolution No. 68-16 is usually implemented by incorporation into waste discharge requirements or NPDES permits issued by the RWQCBs. Where the permit exemption applies, substantive requirements of the permit including Resolution No. 68-16 must still be complied with at a CERCLA site. Instead of a permit, such substantive requirements are incorporated into the decision document (either a Record of Decision or Removal Action Memorandum) for the site. CERCLA and the federal National Contingency Plan (40 CFR Part 300) establishes an iterative process for identifying substantive requirements as early as possible in the remedial investigation/feasibility study and remedy selection process.

Application of Resolution No. 68-16 to remediation of ground water

17. Q. Does Resolution No. 68-16 apply to the determination of in situ cleanup levels for contaminated ground water?
- A. Yes. Resolution No. 68-16 applies to the determination of in-situ ground water cleanup levels because it applies to "discharges" of waste, including unauthorized discharges. The SWRCB has determined that Resolution No. 68-16 applies to the determination of ground water cleanup levels where the presence of pollution in soil or ground water constitutes a "discharge" of waste. A discharge occurs where polluted ground water migrates to areas of high quality ground water. See SWRCB Order No. WQ 86-2. Because the policy requires that high quality waters be maintained and requires that activities which may result in a discharge of waste be controlled, the policy applies to the cleanup of in-situ ground water. The first sentence of Resolution No. 68-16 states the policy of the legislature that the "...disposal of wastes into waters of the State shall be

so regulated as to achieve highest water quality consistent with maximum benefit to the people..." Where ground water has been polluted because of the disposal of waste, Resolution No. 68-16 requires that the disposal of waste be regulated. Further, Paragraph 1 of the Resolution requires that high quality water that existed on the date that state water quality policies became effective shall be maintained. Paragraph 2 applies to activities that result in a discharge. Such discharges must be subject to "best practicable treatment or control." The SWRCB has applied Resolution No. 68-16 to cleanups of ground water and bay sediment. See SWRCB Order Nos. WQ 86-8 and WQ 92-09. Further, the SWRCB has recently adopted Resolution No. 92-49, which establishes policies and procedures for cleanups of soil and ground water under CWC Section 13304. That policy specifies that Resolution No. 68-16 applies to cleanups.

18. Q. How are ground water cleanup levels determined based on Resolution No. 68-16?
- A. The factors described in Question and Answer No. 5 in determining the maximum benefit to the people of the State also apply to determine cleanup levels. To comply with Resolution No. 68-16 the cleanup level in ground water should at least achieve the water quality objectives, but should be more stringent if achievable using best practicable treatment or control. In no case, however, would the cleanup level be required to be more stringent than naturally occurring background water quality. When applying Resolution No. 68-16 to determine in situ ground water cleanup levels, one must determine the quality of the ground water unaffected by the discharge of the waste under investigation and the beneficial uses of that unaffected ground water. If the unaffected ground water is better quality than that necessary to protect the beneficial uses of that ground water, then such ground water is "existing high quality water" and it must be maintained in accordance with the Resolution.

Application of Resolution No. 68-16 to contaminated soil.

19. Q. Does Resolution No. 68-16 apply to contaminated soil?
- A. If the contaminated soil overlies high quality ground water and discharges or threatens to discharge to such high quality water or discharges or threatens to discharge to high quality surface water, Resolution No. 68-16 applies. The discharge must be subject to best practicable treatment or control. If the contaminated soil discharges or threatens to discharge to water that is not high quality water, e.g., is already polluted with the same

constituents that are in the discharge, then the discharge would not be subject to Resolution No. 68-16. In either case, however, the RWQCB has authority under CWC Section 13304 to require the discharge to cleanup and abate the discharge or threatened discharge. Thus, the discharger must cleanup or abate the contaminated soil so as to protect the beneficial uses of waters of the State. SWRCB Resolution No. 92-49 establishes policies and procedures that apply to cleanup of waste in soils that impact or threaten water quality.

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