



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

29 April 2013

CERTIFIED MAIL NUMBER

7012 2210 0002 1420 1500

Atlantic Richfield Company
ATTN: Legal/Environmental Affairs
c/o CSC – Lawyers Incorporating Service
2710 Gateway Oaks Dr, Suite 150N
Sacramento, CA 95833

DRAFT CLEANUP AND ABATEMENT ORDER, WALKER MINE, PLUMAS COUNTY CALIFORNIA

The Walker Mine is an inactive copper mine in Plumas County, California. Acid mine drainage and other pollutants (notably copper) from the mine openings and onsite mining waste discharge to waters of the state and of the United States within the Little Grizzly Creek watershed, where they impair beneficial uses and create a condition of pollution or nuisance. The mine has been a continuous source of pollutants since the mine was operated by the Walker Mining Company (Walker) beginning around 1916. Beginning in 1918, the International Smelting and Refining Company (International), a subsidiary of the Anaconda Copper Mining Company (Anaconda), owned a majority of Walker stock. Anaconda itself became the majority owner upon a 1928 merger with International, and remained so until after the mine closed.

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) has obtained records documenting that Anaconda, International and Walker concurrently operated the mine from 1918 through at least 1943. Anaconda operated the mine as it would have any of its directly-owned assets; Anaconda staff acting on Anaconda's behalf regularly directed specific operation and exploration activities at the mine, particularly during critical periods. Anaconda's involvement went well beyond what is normally expected of a responsible corporate parent. Anaconda was a direct operator of the mine; ARCO is liable as Anaconda's successor.

The Central Valley Water Board has prepared the enclosed draft Cleanup and Abatement Order (Order) directing ARCO to take control of the mine for remedial purposes and to investigate, characterize, and close and maintain the facility in such a way as to prevent further discharges of waste to surface and groundwater. The draft Order also requires ARCO to reimburse the Regional Board for prior cleanup and abatement expenses and to submit a report of waste discharge. The draft Order sets forth a specific scope of work and enforceable time schedule for compliance.

The Regional Board intends to adopt the Order, but we offer you the opportunity to provide comments on the draft prior to doing so. Please provide any comments to this office by **20 May 2013**. If you have any questions or would like to discuss legal aspects of the draft Order before then, please contact Andrew Tauriainen, Senior Staff Counsel, State Water Resources Control

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley

Board, Office of Enforcement, at (916) 341-5445. Please direct technical questions to Victor Izzo, Senior Engineering Geologist, Title 27 & Mining Unit, at (916) 464-4626.



ROBERT BUSBY, M.S., P.G., C.E.G.
Supervising Engineering Geologist

Enclosure: Draft Cleanup and Abatement Order and attachments

cc with encl.:

Victor Izzo, Regional Board, Sacramento
Andrew Tauriainen, SWRCB Office of Enforcement, Sacramento
Jeffrey Moulton, USDA, San Francisco
Dennis Geiser, USFS, Vallejo
Dan Kennedy, Cedar Point Properties, Paradise

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2013-XXXX

FOR

ATLANTIC RICHFIELD COMPANY

**WALKER MINE
PLUMAS COUNTY**

This Order is issued to Atlantic Richfield Company (ARCO or Discharger) pursuant to Water Code section 13304 which authorizes the Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) to issue Cleanup and Abatement Orders and Water Code section 13267, which authorizes the Executive Officer to issue Orders requiring the submittal of technical reports.

The Executive Officer of the Central Valley Water Board finds:

1. The Walker Mine (mine) is an abandoned underground copper mine located about 15 miles northeast of Quincy in Plumas County, on nearly 800 acres of private property within the Plumas National Forest. The site includes APNs 009-080-001, 009-090-001, 009-090-002 and 009-100-009, Sections 5, 6, 7 and 8, T24N, R12E, and Sections 29, 30, 31 and 32, T25N, R12E Mount Diablo Base and Meridian as shown in Attachments A, B, and C, incorporated by reference.
2. Acid mine drainage and other pollutants (notably copper) from the mine discharge or threaten to discharge to Dolly Creek and other waters of the state within the Little Grizzly Creek watershed, impairing beneficial uses and creating a condition of pollution or nuisance.
3. The Walker Mining Company (Walker) acquired the mine in 1915 and began mining around 1916. International Smelting and Refining Company (International) acquired the controlling interest in Walker in 1918. International was a wholly-owned subsidiary of, and in 1928 merged into, the Anaconda Copper Mining Company (Anaconda).
4. Anaconda, International and Walker concurrently operated the mine beginning in 1918. They ceased production in 1941 and ceased all operations in 1943. Walker filed for bankruptcy in 1944, and its assets were sold in 1945. The mine has been a continuous source of pollutants to the watershed from at least the time production ceased.
5. ARCO is the successor by merger to Anaconda and is therefore properly named as Discharger and is legally responsible for complying with this Order.

BACKGROUND

6. Most active exploration and mining took place during the 1920s and 1930s. In the late 1930s, the mine was the largest copper mine in California, with at times more than 600 employees. Between 1916 and 1941, the mine produced approximately 6 million tons of ore. (Steffen Robertson & Kirsten, or "SRK," November 1985).
7. The mine had an on-site mill and about 13 miles of underground workings containing twelve working levels and 3,300 feet of vertical shafts. The 700 Level Adit (700 level adit) was the main haulage level to access ore, and the 700 level adit portal (portal) is the lowest point at which the underground workings reach the surface. Other openings and land disturbances related to the Central and Paiute workings of the mine are located elsewhere on the site. The total void volume of the underground workings is estimated to be 543 million gallons (SRK, November 1985).
8. The mine's mill and concentrator were located a short distance from the 700 level portal. The mill and concentrator initially discharged tailings into a small pond below the mill. By 1920, tailings discharged as slurry were conveyed by wooden chute or trough about 0.75 miles to a tailings impoundment that eventually grew to approximately 100 acres in size.
9. The tailings impoundment is on public land within the Plumas National Forest administered by the United States Forest Service (Forest Service), and is subject to a separate Cleanup and Abatement Order issued to ARCO and the Forest Service.

WATER QUALITY ISSUES

10. The 700 level portal, mill and concentrator are located along Dolly Creek, which is a tributary to Little Grizzly Creek. The tailings impoundment is located at the confluence of Dolly Creek and Little Grizzly Creek. Other openings and mining waste from the Central and Paiute workings are located in the Nye Creek and Ward Creek drainages. Little Grizzly Creek, Nye Creek and Ward Creek are all tributary to Indian Creek, which is a tributary to the North Fork of the Feather River. All are waters of the state and of the United States.
11. "Mining Waste" is defined under Water Code section 13050, subdivision (q)(1), as *"all solid, semisolid, and liquid waste materials from the extraction, beneficiation, and processing of ores and minerals. Mining waste includes, but is not limited to, soil, waste rock, and overburden, as defined in Public Resources Code section 2732, and tailings, slag, and other processed waste materials...."*
12. The mining waste at the mine contains metals including copper, which oxidizes and become soluble when exposed to water. As such, mining waste at the mine is classified as Group B mining waste in accordance with Title 27 of the California Code of Regulations, section 22480(b)(2)(B), *"mining wastes that consist of or contain nonhazardous soluble pollutants of concentrations which exceed water quality objectives for, or could cause, degradation of waters of the state,"*

13. The mine includes waste management units for the treatment, storage, or disposal of mining waste (*Mining Unit*) as defined in Title 27, section 22470.
14. The mine and tailings together have discharged metals and acid mine drainage (AMD) into Dolly Creek from at least the time production ceased in 1941, if not earlier. The mine and tailings discharged enough metals and AMD to eliminate aquatic life in Little Grizzly Creek to the confluence with Indian Creek 10 miles downstream.
15. Until 1987, the 700 level adit was the primary source of pollution in Dolly Creek and Little Grizzly Creek. The adit acted as a conduit for AMD and metals leached when groundwater or surface inflows from upper openings contacts mineralized areas of the worked out ore body and mining waste within the underground workings.¹
16. In November 1987, pursuant to Resolution No. 86-057, the Central Valley Water Board installed an engineered concrete plug, or seal, 2,700 feet inside the 700 level adit in order to stop AMD discharges from the underground ore zone to surface waters of Dolly Creek.
17. The seal impounds groundwater and surface inflows within the mine, flooding much of the underground workings. The impounded water is acidic and contains metals leached through contact with the mined out ore body and mining waste behind the seal. The Central Valley Water Board maintains access and regularly monitors the seal for effectiveness, leakage and hydrostatic pressure.
18. The seal has successfully eliminated most or all of the direct discharge of AMD and metals through the 700 level adit. Immediately after installation, there was no flow passing the mine seal. In subsequent years, a small seepage has been observed dripping from existing rock joints near the upper left hand corner of the seal. This seepage rate has been estimated at approximately 0.15 gpm at a hydraulic head of 140 feet. The seepage accumulates in a pool at the downstream toe of the seal which drains into a small ditch on the floor of the 700 level adit and then seeps into the floor within 200 feet of the seal.
19. Hydrostatic pressure data indicates that the water level behind the seal varies seasonally, peaking after the spring snowmelt, and then gradually declining during the remainder of the year. Impounded water apparently seeps through joints, fractures, and faults into the deep groundwater system using the underground workings as a conduit. The fate of this subsurface release of AMD from the mine is not known but could pose a long term threat to groundwater or surface water.
20. There is a discharge of approximately 2 to 5 gallons per minute at the portal which appears to be from shallow groundwater infiltration from the hillside directly above the timber

¹ In 1985, SRK estimated that AMD was discharging from the 700 level adit at 275 gallons per minute (gpm) (SRK, November 1985.) This flow rate compares well with a reported 300 gpm mine pumping rate referenced in Milling Methods at the Concentrator of the Walker Mining Company (U.S. Bureau of Mines, Information Circular 6555, March 1932).

supported section (first 900 feet) of the 700 level adit. This discharge is not acidic, but it does contain copper and other metals.

- 21. Since 1957, the Central Valley Water Board and others have regularly collected and analyzed surface water samples from the mine. Copper concentrations exceeding water quality objectives have been detected in the portal drainage, the settling pond, Dolly Creek, the tailings impoundment and Little Grizzly Creek. However, as illustrated in Figure 1, samples taken from Dolly Creek below the Walker Mine access road (between the portal area and the tailings impoundment) show a significant drop in copper concentrations after the mine seal was installed in 1987.

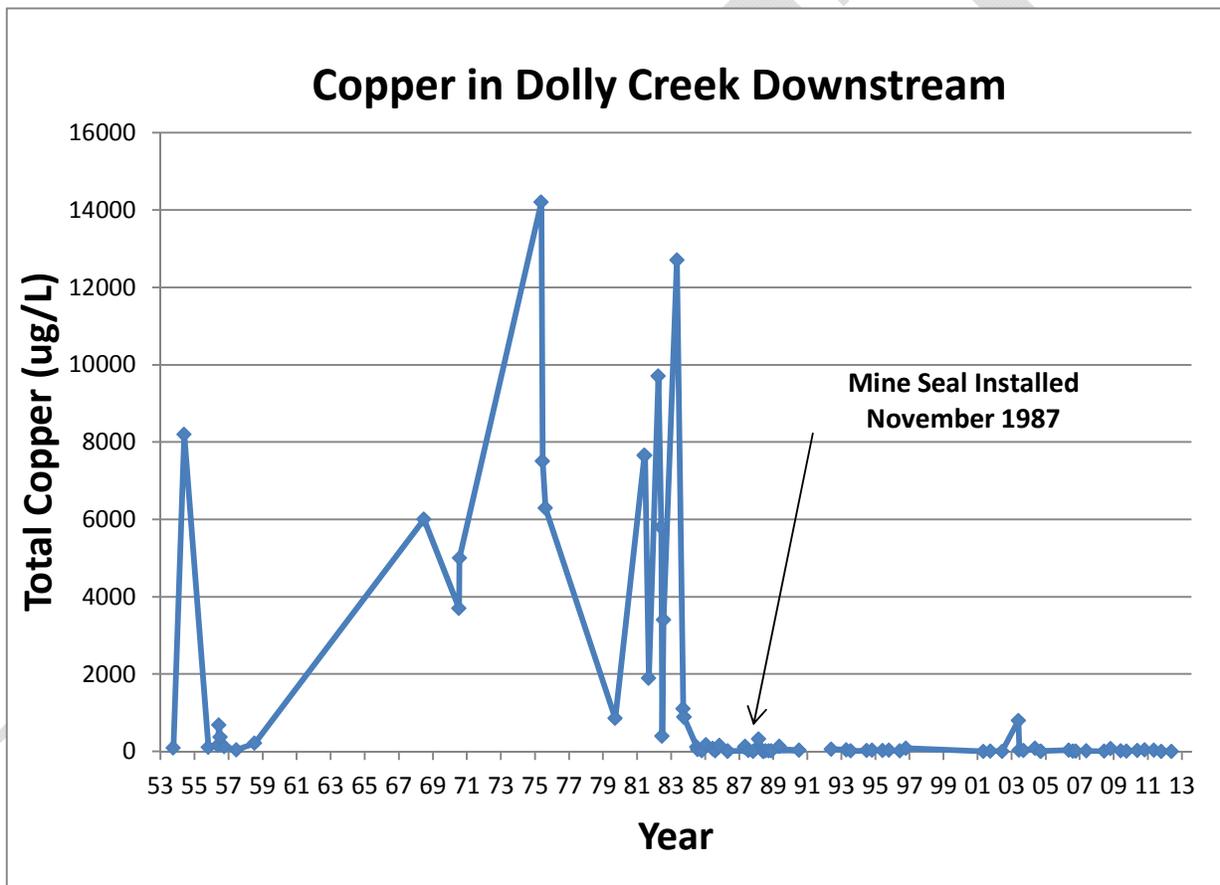


Figure 1: Copper concentrations in Dolly Creek downstream of the mine access road at sample location WM-3. Unfiltered (total) copper concentrations used because they represent the entire range of data (1953 to present).

- 22. However, copper related to exposed mining wastes continues to exceed water quality objectives. Figure 2 shows exceedances in copper after installation of the seal. The apparent source of the continuing elevated levels of copper is leachate being generated by

surface water run-off from rainfall and/or snowmelt that comes in contact with the 700 level adit, the ruins of the mill and concentrator, exposed mining waste piles in and around the portal area, mining waste in the Dolly Creek drainage and mining waste in the tailings impoundment.

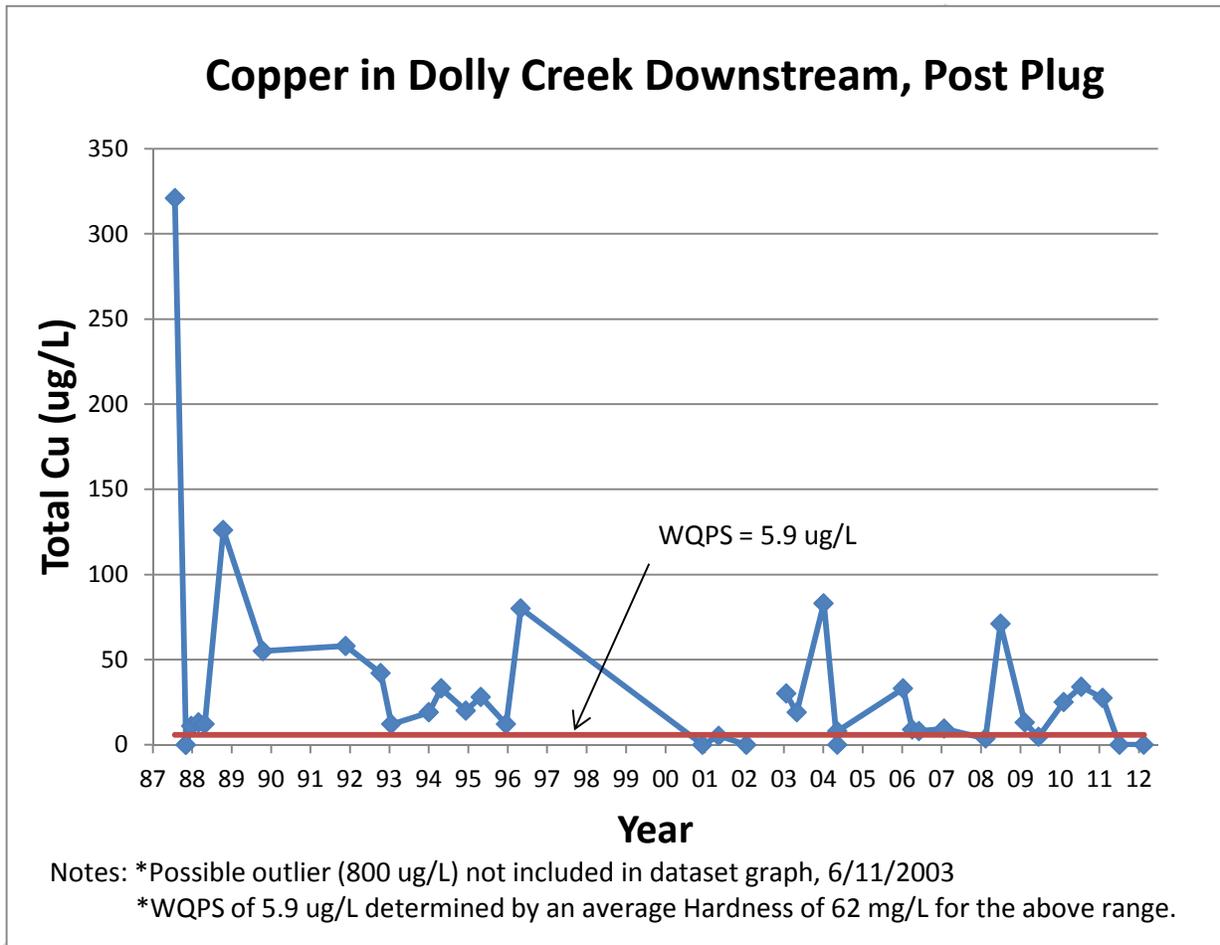


Figure 2: Copper concentrations in Dolly Creek downstream of the mine access road at sample location WM-3 after the mine seal was installed.

23. Mining waste associated with the Central and Piute ore bodies in the Nye Creek and Ward Creek drainages poses a potential threat to water quality. The Central and Piute workings also contain subsidence areas, waste piles and open shafts which pose safety hazards.
24. Moreover, although the seal appears to be sound for the moment, the passage of time coupled with the exposure of the seal and surround rock to the highly acidic impounded water poses a threat to the integrity of the seal. Failure of the seal could result in significant discharges of AMD into Dolly Creek, with likely catastrophic harm to beneficial uses for many miles downstream.

25. Since 1984, the Central Valley Water Board has spent more than \$2.6 million on the Walker Mine acid mine drainage abatement project.

OWNERSHIP AND REGIONAL BOARD ACTION AFTER 1945

26. Safeway Signal Corporation purchased the mine property out of Walker's bankruptcy proceedings in April, 1945. Subsequent ownership of the property is listed in the Chain of Title Guarantee shown in Attachment E, which is incorporated herein by reference. Central Valley Water Board staff has been unable to locate successors to the owners prior to Robert Barry, who took ownership in 1965 but who also appears to have been involved in the earlier ownership groups.
27. In 1991, the Central Valley Water Board obtained a \$1.5 million stipulated judgment against then-owners Robert Barry and Calicopia Corporation, and others, wherein the Board agreed to hold Calicopia and the other defendants harmless for pollution at the site. Money from the judgment was paid into the State Water Pollution Cleanup and Abatement Account. Money from this account has been used to maintain the mine seal and perform other work in accordance with the Walker Mine Acid Mine Drainage Abatement Project Operations and Maintenance Procedures (Central Valley Water Board, May 1997).
28. In 1997, Cedar Point Properties (CPP) acquired most of the mine property at tax auction, and remains the title owner of most of the site.² Shortly after CPP purchased the site, the Central Valley Water Board issued Cleanup and Abatement Order No. 97-715 directing CPP to apply for an NPDES permit and to continue remedial efforts. CPP did not comply. In 1999, the State Water Resources Control Board (State Board) and the Central Valley Water Board reached a settlement with CPP over legal responsibility for cleanup, remediation, and abatement activities at the Walker Mine, wherein the Board agreed to hold the other defendants harmless for pollution at the site. That settlement agreement was later incorporated into a 2004 stipulated judgment. CPP remains potentially liable, but its corporate status has been suspended and it appears to be inactive and insolvent.
29. The Central Valley Water Board retains legal access to the site through the 1991 and 2004 stipulated judgments.
30. ARCO was not a party to the 1991 or 2004 stipulated judgments.
31. The Central Valley Water Board sought to begin negotiations with ARCO for past and future environmental remediation activities at the mine as early as 1997, but ARCO resisted and nothing of substance came from those attempts.
32. In December 1999, the Board proposed to name ARCO as a discharger for the tailings impoundment (tentative order revising WDRs No. 91-017), but the new WDRs were never

² CPP acquired all of the private parcels except APN 009-090-002, a small parcel which was acquired by Clifford and Bunny Brown. In 1997, the Board determined that there was no evidence of pollution being discharged from the Brown parcel sufficient to trigger permitting requirements or enforcement action (see 24 September 1997 letter).

finalized against ARCO based on ARCO's resistance and the Board's then-understanding of Anaconda's involvement at the mine. The WDRs were finalized against Forest Service in Order No. 5-00-028.

33. During a 2005 lawsuit, the Forest Service and ARCO obtained a consent decree whereby ARCO provided \$2.5 million for future response costs involved with federal remedial activities at the tailings impoundment. That decree did not address the mine property, and the Central Valley Water Board was not a party to that action.

ARCO OPERATOR LIABILITY

34. In 1987, ARCO conveyed the Anaconda Geological Documents Collection to the University of Wyoming. The Anaconda Geological Documents Collection is a publicly accessible database containing hundreds of documents related to the Walker Mine. The database became available online sometime after 1999. Central Valley Regional Board staff recently obtained and reviewed relevant documents from the database and other sources.
35. The record shows that Anaconda, International and Walker concurrently operated the mine and tailings from 1918 through at least 1943. Anaconda operated the site as it would have any of its directly-owned assets; Anaconda staff acting on Anaconda's behalf regularly directed specific operation and exploration activities at the mine, particularly during critical periods. Anaconda's involvement at the mine went well beyond what is normally expected of a responsible corporate parent. Documents showing Anaconda's direct operation of the mine are contained in Attachment E, which is incorporated herein.
36. Anaconda was a direct operator of the mine and ARCO is liable as Anaconda's successor.
37. In the alternative, ARCO is liable as Anaconda's successor because Anaconda operated Walker as a corporate alter ego. The record reveals that Anaconda, through International, financed the indebtedness of Walker from at least 1922 through 1944. Moreover, Anaconda, through International, carried the costs of Walker Mine exploration and development during periods when Walker was not profitable, in part because Anaconda believed that Walker would eventually become profitable, and because Walker supplied copper concentrate to International's Tooele smelter.

LEGAL PROVISIONS

38. Section 303(d) of the Federal Clean Water Act (CWA) requires states to identify waters not attaining water quality standards (referred to as the 303(d) list). Dolly Creek and Little Grizzly Creek below the Walker Mine have been identified by the Central Valley Water Board as an impaired water bodies because of high aqueous concentrations of copper and zinc.
39. Once a water body is identified as impaired and added to the 303d list, the CWA requires the states to develop a Total Daily Maximum Load (TMDL) for the water body. The Central

Valley Water Board will develop a TMDL for Dolly Creek and Little Grizzly Creek by 2020, unless the cleanup action proposed herein results in the attainment of the water quality objectives.

40. The Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition* (Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The designated beneficial uses of the North Fork of the Feather River and its tributaries are municipal and domestic supply; hydropower generation; water contact recreation; non-contact water recreation; cold freshwater habitat; spawning, reproduction, and/or early development; and wildlife habitat.
41. The beneficial uses of underlying groundwater, as stated in the Basin Plan, are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
42. Because the site contains mining waste as described in Water Code sections 13050, closure of the Mining Unit(s) must comply with the requirements of Title 27 California Code of Regulations, sections 22470 through 22510 and with such provisions of the other portions of Title 27 that are specifically referenced in that article.
43. Affecting the beneficial uses of waters of the state by exceeding applicable WQOs constitutes a condition of pollution as defined in Water Code section 13050, subdivision (l)(1).
44. Water Code section 13304, subdivision (a) states in part that:

"Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the Regional Water Board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."
45. Water Code section 13304, subdivision (b), authorizes the Central Valley Water Board to perform cleanup, abatement, or remedial work where necessary to prevent substantial

pollution, nuisance, or injury to waters of the state. Water Code section 13304, subdivision (c), authorizes the Central Valley Water Board to seek reimbursement from the Discharger for the costs associated with such cleanup, abatement or remedial work.

46. The State Water Resources Control Board (State Board) has adopted Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under CWC Section 13304*. Resolution No. 92-49 sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Board Resolution No. 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution No. 92-49 and the Basin Plan establish cleanup levels to be achieved. Resolution No. 92-49 requires waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, section 2550.4. Any alternative cleanup level to background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Board.
47. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Central Valley Water Board's policy for managing contaminated sites. This policy is based on Water Code sections 13000 and 13304, California Code of Regulations, title 23, division 3, chapter 15; California Code of Regulations, title 23, division 2, subdivision 1; and State Board Resolution Nos. 68-16 and 92-49. The policy addresses site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the basis for establishment of soil and groundwater cleanup levels.
48. The State Board's Water Quality Enforcement Policy states in part: "*At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the Central Valley Water Board allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the Order should require the discharger(s) to abate the effects of the discharge.*" (Water Quality Enforcement Policy, p. 35).
49. Water Code section 13267 states, in part:

"(b)(1) In conducting an investigation, the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

50. The Discharger is named in this Order because through its actions and/or by virtue of its ownership of the site, it has caused or permitted waste to be discharged or deposited where it has discharged and threatens to discharge to waters of the state and has created and threatens to create a condition of pollution or nuisance.
51. In accordance with Water Code section 13304, the Discharger must take all actions necessary to clean up and abate the discharge and threatened discharge of all mining waste (including the ongoing monitoring and maintenance of the seal), restore the affected waters to background conditions (i.e., the water quality that existed before mining activities began), and reimburse the Central Valley Water Board for the Board's expenditures associated with the mine.
52. In accordance with Water Code section 13267, the reports required herein are necessary to formulate a plan to remediate the wastes at the mine, to assure protection of waters of the state, and to protect public health and the environment.
53. Failure to comply with the remedial provisions of this Order may result in enforcement action(s), which may include the imposition of administrative civil liability pursuant to Water Code section 13350 (up to \$5,000 per day of violation) or 13385 (up to \$10,000 per day of violation). Failure to comply with the reporting provisions of this Order may result in enforcement action(s), which may include the imposition of administrative civil liability pursuant to Water Code section 13268 (up to \$5,000 per day of violation).
54. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, §§ 21000 et seq.), pursuant to California Code of Regulations, title 14, section 15321, subdivision (a)(2). The implementation of the Order is also an action to assure the restoration of natural resources and/or the environment and is exempt from the provisions of CEQA in accordance with California Code of Regulations, title 14 sections 15307 and 15308. This Order may also be classified as a minor action to prevent, minimize, stabilize, mitigate or eliminate the release or threat of release of hazardous waste or substances, and is exempt from the provisions of CEQA in accordance with California Code of Regulations, title 14, section 15330.

IT IS HEREBY ORDERED pursuant to Water Code Sections 13304 and 13267, that ARCO, its agents, successors, and assigns, shall investigate the discharges of waste, clean up the waste, and abate the effects of the waste, forthwith, from the Walker Mine. The work shall be completed in conformance with Title 27 California Code of Regulations ("Title 27"), sections 22470 through 22510, State Board Resolution No. 92-49 and with the Central Valley Water Board's Basin Plan (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV), other applicable state and local laws, and consistent with California Health and Safety Code, Division 20, chapter 6.8. "Forthwith" means as soon as is reasonably possible. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

Any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

1. **By XX July 2013**, the Discharger shall take control of the mine for remedial purposes necessary to clean-up and abate the discharge of all mining waste and restore the affected water to background conditions (i.e., the water quality that existed before the discharge began). This would include at a minimum the operation and maintenance of the 700 level adit and the concrete plug or seal, and managing all mine waste and preventing discharges of mine waste to waters of the state. The Central Valley Water Board hereby assigns to ARCO the Board's legal access to the site under the 1991 and 2004 stipulated judgments, to the extent necessary to comply with this Order. The Discharger shall submit a report on **XX July 2013** describing measures taken to obtain control of the mine for remedial purposes.
2. The Discharger shall reimburse the Central Valley Water Board for reasonable costs associated with oversight of the investigation and remediation of the mine, including the Central Valley Water Board's previous expenditures for remedial actions, pursuant to Water Code section 13305, subdivision (c)(1). Within **30 days** of the effective date of this Order, the Discharger shall provide the name and address where the invoices shall be sent. Failure to provide a name and address for invoices and/or failure to reimburse the Central Valley Water Board's oversight costs in a timely manner shall be considered a violation of this Order. If the Central Valley Water Board adopts Waste Discharge Requirements (WDRs), review of reports related to writing of the WDRs and all compliance measures thereafter would be subject to the fees required by issuance of the Order and the reimbursement for associated costs under this requirement would no longer apply.
3. The Discharger shall investigate, identify, and classify all sources of mining waste in compliance with Title 27 section 22480. This would include at a minimum all mining waste associated with surface impoundments, waste piles, tailings and leachate associated with mining at the site. The Discharger shall submit the following reports related to characterization of the mining waste:
 - a. **By XX September 2013**, submit a work plan to identify all mining waste as defined in Water Code section 13050, subdivision (q)(1) at the mine. This work plan shall include a strategy/plan to characterize and classified the mining waste in compliance with Title 27 section 22480 and the extent to which the site is degrading water quality above background concentrations. This work plan shall

also include a method to establish a Water Quality Protection Standard (Water Standard) per Title 27 section 20390.

- b. **By XX December 2013**, submit a characterization report that identifies all mine waste locations and basis for classification of mine waste at each location per the work plan submitted above. All the laboratory data shall be submitted with the characterization report. This report shall also include the establishment of the Water Standard.
4. **By XX April 2014**, submit a work plan and Time Schedule to close and maintain the mine in compliance with Title 27 sections 22470 through 22510 and to remediate the site in such a way to prevent future releases of mining waste (copper and other pollutants) to surface and ground waters.
5. **By XX June 2014**, submit a Report of Waste Discharge with a complete characterization of the waste discharged in accordance with Water Code section 13260, subdivision (k). The Report of Waste Discharge shall also be in compliance with Title 27 section 21710 et seq., and include a short and long term monitoring plan per Title 27 section 22500. The mine waste units shall meet the construction standards in Title 27 section 22490, and the closure and post closure maintenance requirements in Title 27 section 22510.
6. **Beginning 90 Days after Central Valley Water Board approval of the Work Plan and Time Schedule defined in item 5. above**, submit regular quarterly reports documenting progress in completing remedial actions.
7. **By 31 December 2016**, complete all remedial actions and submit a final construction report.
8. Responsibilities for the water quality problems associated with the mine and the Walker Mine acid mine drainage abatement project shall end when the mine no longer poses a threat to water quality.

REPORTING

9. When reporting data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with this Order.
10. Fourteen days prior to conducting any fieldwork, the Discharger shall submit a Health and Safety Plan that is adequate to ensure worker and public safety during the field activities in accordance with Title 8, section 5192.
11. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.

12. All reports must be submitted to the Central Valley Water Board as both paper and electronic copies. Electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic copies are due to GeoTracker concurrent with the corresponding hard copy. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site.
13. The Discharger shall notify Central Valley Water Board staff at least five working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

This Order is effective upon the date of signature.

Ordered by:

PAMELA C. CREEDON Executive Officer

(Date)