CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
CLEANUP AND ABATEMENT ORDER NO. R5-2005-0141
FOR

DIXON COMMERCIAL PROPERTIES, MONFORT, INC. (f/k/a MONFORT OF COLORADO, INC.), CONAGRA FOODS, INC., GREYNOM, INC. (f/k/a ARMOUR FOOD COMPANY)
DIXON BUSINESS PARK
SOLANO COUNTY

This Order is issued to Dixon Commercial Properties, Monfort, Inc. (f/k/a Monfort of Colorado, Inc.), ConAgra Foods, Inc., and Greynom, Inc. (f/k/a Armour Food Company), (hereafter collectively referred to as Discharger) based on provisions of California Water Code Section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region (hereafter Regional Board) to issue a Cleanup and Abatement Order (Order).

The Regional Board finds, with respect to the Dischargers'acts or failure to act, the following:

PROPERTY OWNERSHIP AND OPERATIONS

1. Dixon Commercial Properties currently owns the Dixon Business Park (Site) as shown in Attachment 1, which is made part of this Order. The Dixon Business Park is located at North 1st Street in Dixon, California and occupies approximately 50 acres. The Dixon Business Park consists of 10 lots of which three have been developed and have tilt-up concrete buildings. Dixon Commercial Properties is a California general partnership.

2. The Site was used for meat processing from the mid 1930's to the late 1980's. Meat processing operations at the Site were primarily for cattle and sheep. The meat processing operation closed in 1988 and all facilities were demolished between 1989 and 1990. Ownership of this property changed significantly between 1958 and 1989 and is outlined in the following findings and Attachment 2.

3. Mace Meat Company was the original owner of the facility and operated the Site from the 1930's until 1958 when Armour and Company (IL) acquired the Site. In 1960, Armour and Company (IL) merged with Armour and Company Delaware. The company name was changed during this merger and became Armour and Company. Armour and Company continued to use the Site during this time for meat processing operations. In 1982, the Site was acquired by The Greyhound Corporation in a stock merger between Armour and Company and The Greyhound Corporation. However, all assets and liabilities from Armour and Company were transferred to G. ArmourArizona Company by assignment. The Mace Meat Company deed was never transferred to The Greyhound Corporation during this transaction.

4. In 1983, all assets and liabilities of G. Armour Arizona Company (which meanwhile had in 1982 changed its name to Armour and Company and then transferred all assets and liabilities to the Armour Food Company) were purchased by CAG Subsidiary, Inc. and ConAgra, Inc. CAG Subsidiary, Inc. was operated as a subsidiary of ConAgra Inc. The transfer of assets from the Armour Food Company to CAG Subsidiary, Inc. and ConAgra, Inc. included the Site**.** Armour Food Company changed names in 1983 and became known as Greynom, Inc. Greynom Inc. was dissolved in 1985. Later, in 1990, the Greyhound Corporation changed its name to Greyhound Dial

Corporation. After another name change in 1991, from the Greyhound Dial Corporation to the Dial Corporation, the Dial Corporation merged with Armour and Company in 1992. In 1996, the Dial Corporation changed its name to the Viad Corporation.

5. From 1983 to 1989, CAG Subsidiary, Inc. and ConAgra Foods, Inc. (f/n/a ConAgra, Inc.) continued to operate the business of Armour Foods and use the Armour brand name. As part of this business, the Site continued to operate as a meat packing and slaughtering house. Monfort, Inc. (f/k/a/ Monfort of Colorado, Inc.) acquired the site during a reorganization and merger with ConAgra, Inc. and CAG Subsidiary, Inc. in 1987. During its ownership of the property (from 1987 to 1989), Monfort, Inc. continued meat packing and slaughtering operations at the Site.

6. The Site was purchased from Monfort, Inc. (f/k/a Monfort of Colorado, Inc., a Delaware Corporation) by William H. MacLaughlin on May 1, 1989. Monfort, Inc. and William H. MacLaughlin entered into a sales agreement for the purchase of the site. Dixon Commercial Properties took title directly from Monfort, Inc. in 1989 under an assignment from William H. MacLaughlin.

7. Dixon Commercial Properties, as current owner of the site, has knowledge of the discharge, which is continuing, and the ability to control it and, therefore, caused or permitted, causes or permits, or threatens to cause or permit, a discharge of waste at the Site 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.

8. ConAgra Foods, Inc. (ConAgra Foods) is the successor to Armour Food Company. "Armour" is currently a brand name of ConAgra. Operations conducted at the Site by Armour Food Company, ConAgra Foods, and Monfort, Inc. allowed discharge of animal slaughterhouse waste, which is high in nitrates. Analytical testing of the sediment from the wastewater ponds, used for the disposal of processing water from the slaughterhouse, detected elevated concentrations of nitrate. Groundwater analytical testing has detected nitrate (as NO_3) concentrations in groundwater beneath the site, which exceed the maximum contaminant level (MCL) of 45 mg/L (milligrams per liter) and are greater than background nitrate concentrations (i.e. nitrate concentrations upgradient of the site). Armour Food Company and Monfort, Inc. have caused or permitted waste to be discharged to waters of the state where it has created and threatens to create a condition of pollution or nuisance. ConAgra Foods, as successor to Armour Food Company, acquired the liability of Armour Food Company for causing or permitting this discharge. Con Agra Foods and Monfort Inc. are also the former owners of this property and are therefore subject to this Order because, as former owners of the property, they caused or permitted waste to create a condition of pollution or nuisance and they had knowledge of the discharge and the ability to control it.

9. Armour Food Company was formed on December 20, 1982 and received the assets and liabilities of Armour and Company (formerly G. Armour Arizona Company) in 1983. Later in that same year, Armour Food Company subsequently changed its name to Greynom, Inc. and the corporation was dissolved in 1985. Armour Food Company was subject to waste discharge requirements at the Site (WDRs No. 85-017). Consequently, because Greynom, Inc. (f/k/a Armour Food Company) had knowledge of the discharge and the ability to control it, Greynom, Inc. is subject to this Order. Furthermore, Greynom, Inc. (f/k/a Armour Food Company) is subject to this Order because a dissolved corporation may be named in a cleanup and abatement order.

10. Mace Meat Company owned the Site in 1958 and used the Site as a meat packing and slaughtering house. Industrial waste from the Site consisted of wash waters, paunch materials and other liquid wastes, from the processing of approximately 125 cattle and 1200 sheep daily and the rendering of scrap materials. Waste discharge requirements were adopted and issued to Mace Meat Company in 1958. Consequently, as a former owner and operator of the property, Mace Meat Company caused or permitted waste to be discharged to waters of the state where it has created and threatens to create a condition of pollution or nuisance because they had knowledge of the discharge and the ability to control it. Mace Meat Company will not be named in this Order, but are a responsible party, and if located, will be added to this Order.

BACKGROUND

11. Meat processing operations at the Site occurred from the mid 1930s until the late 1980s. The meat packing and rendering plant was constructed and began operating about 1935. Facility operations included the generation of wastewater, which was disposed in seven ponds (aerobic and anaerobic) for treatment, storage, and disposal. These ponds were constructed between 1953 and 1956. Overflow water was diverted to a leachfield or was used for on-site irrigation at the Site. Historical activities indicate the existence of a rail access livestock receiving facility, truck access livestock receiving facilities, feed storage building, hide salting facilities and a drainage collection basin located south of the wastewater ponds.

12. The ponds were operated under permits issued by the Regional Board from 1958 until 1993. Resolutions and WDRs for the Site were issued to Mace Meat Company (Resolution No. 58-304), Armour and Company (Resolution No. 69-280) and Armour Food Company/Con Agra Corporation (Waste Discharge Requirements-WDRs No. 85-017. A brief summary of the WDRs for the site from 1958 to 1993 follows.

    Generally, the purpose of these WDRs was to "govern the nature of the waste discharge", which was discharged to the ponds for biological destruction prior to disposal by evaporation, percolation, and irrigation of adjacent land. WDRs underwent several modifications during this time period but are consistent with their intent and broad application of the Water Code. Resolution 58-304 prescribed that the waste discharge: a) shall not cause a public nuisance as defined in Section 13005 of the State Water Code; b) shall not cause pollution of groundwaters underlying the disposal area; c) which may overflow onto lands other than those owned or controlled by the discharger 1) shall have received adequate disinfection and, 2) shall have been oxidized sufficiently to prevent nuisance or pollution conditions in the overflow area. Similarly, Resolution 69-280 prescribed that the waste discharge shall: a) not cause pollution of ground or surface waters; b) not cause a nuisance by reason of odors or unsightliness; c) not cause objectionable taste or odor in any domestic waste supply, and; d) not contain any materials in concentrations deleterious to human, plant, animal or aquatic life. Order No. 85-017 was developed with discharge prohibitions and specifications, which required consistency with the Regional Board's Basin Plan and water quality objectives. Of note is that this Order also required that the present owners (or those in control of the waste discharge facilities) notify any succeeding owner or operator of the existence of this Order by letter and the Regional Board be notified of any ownership changes.

    In 1993, Waste Discharge Requirements issued to Armour Food Company/Con Agra Corporation (Order No. 93-052) for the waste ponds were rescinded. Sediments from the ponds were spread in a thin layer across portions of the property and mixed into surface soils with concurrence by Regional Board Staff.

13. Beginning in the late 1980s, the Regional Board began requesting a groundwater investigation of the site. The Regional Board began requesting a groundwater investigation in 1987, which included installation of upgradient and downgradient monitoring wells and a well inventory within a half-mile radius from the facility. The Regional Board made a second request for a groundwater investigation in September 1988. A site inspection by the Regional Board was conducted in April 1989 to determine the status of the waste disposal ponds. The letter discussing the findings of this inspection made several important points. The Regional Board noted that if the site was sold, the discharger would be required to notify the Regional Board of the new owners. Second, the Regional Board requested that the Discharger provide information on the status of the waste disposal ponds and, if the waste disposal ponds were to be closed that the discharger provide to the Regional Board a closure plan for this action. The letter also stated that the need for groundwater investigations at the site would be reevaluated following receipt of analytical data of sludge from the waste disposal ponds.

    The Discharger provided a proposal for the closure of the waste disposal ponds and after review of this proposal the Regional Board made another request for groundwater investigations in September 1989. The Regional Board requested that the Discharger submit a workplan and time schedule for groundwater sampling.

    The Discharger finally provided one groundwater sample downgradient of the waste water ponds later in 1989. The groundwater grab sample indicated the presence of nitrate above the Primary Maximum Contaminant Level (MCL) and total dissolved solids (TDS) above the Secondary MCL. Nitrate (as NO_3) was detected at 170 mg/l and TDS was detected at 1300 mg/l in the groundwater sample. In 1990 the Regional Board requested additional investigations after several site inspections that revealed other potential source areas for groundwater pollution existed at the site.

    In 1990, the Discharger provided a Site Investigation Report, which included additional groundwater data. Four hydropunch samples located cross-gradient of the site detected nitrate concentrations ranging from 100 to 200 mg/l. Correspondence by the Regional Board, dated 10 September 1990, noted that the concentrations of nitrate exceeding the Primary MCL in groundwater may have been caused by the animal waste from the sheep and cattle barn. It was concluded by the Regional Board that the possible source of the nitrates was gone and that the Regional Board would "not pursue the high nitrate problem at this time".

14. The Discharger began demolishing the site in 1990. Regional Board involvement between 1990 and 1993 included several site inspections and focused on other environmental problems, which included petroleum hydrocarbon contamination from several on-site USTs. The Discharger also during this time period removed sludge from the wastewater ponds and spread the sludge over a 20 acre adjacent off-site area with the Regional Board's concurrence. The Regional Boards involvement with the site ended after the WDRs for the waste ponds were rescinded in 1993. However, several environmental assessments were conducted as the property was developed and Dixon Commercial Properties sold portions of the property. In 1999, the sale of one portion of the site required additional soil and groundwater testing as part of the transaction requirements. Groundwater sampling activities revealed elevated concentrations of nickel. A nickel detection of 230 μg/L, which is above the primary MCL of 100 μg/L, lead to further investigation to determine the extent of nickel in groundwater. The Regional Board was informed of the findings of this investigation. At the

Regional Board's request, additional characterization of nickel contamination also included additional testing for nitrate because of past operations. It was concluded by the Regional Board, based on further investigation of the site, that the high detection of nickel is limited in extent and no additional characterization of nickel was performed. However, this investigation revealed the presence of nitrates and TDS that exceeded water quality objectives. At the request of the Regional Board, Dixon Commercial Properties installed four monitoring wells at the site in 2001.

15. Dixon Commercial Properties performed groundwater sampling of the four on-site monitoring wells over a one and half-year period from April 2001 to August 2002. Groundwater sampling activities indicated nitrates (as N) ranging from 1.4 to 49 mg/L, nitrates (as NO_3) ranging from 6.2 to 220 mg/L, and TDS, ranging from 660 to 6000 mg/L. Groundwater elevation data were also collected from these monitoring wells showing that the groundwater flow direction beneath the site was at that time to the southeast. Groundwater elevation measurements indicated monitoring well MW-1 is upgradient and monitoring wells MW-2, MW-3 and MW-4 are downgradient of the former plant operations. Analytical testing of monitoring well MW-1 detected the lowest concentrations of nitrates (as NO_3), ranging from 6.2 to <23 mg/L. Analytical testing of monitoring wells MW2, MW-3 and MW-4 detected nitrates (as NO_3)ranging from 62 mg/L to 220 mg/L. The upgradient monitoring well MW-1, indicates that background nitrate concentrations are below primary MCLs.

16. In April 2001, foundation investigations performed at Lot 6 at the Dixon Business Park discovered loose fill material at a depth of 11 feet below ground surface. Dixon Commercial Properties reports that Lot 6 is located near a former pond that was separate from the main ponds used for storage of the meat processing wastewater. Filling of this pond apparently occurred sometime before closure of the seven wastewater ponds. Excavation of the fill material was necessary because this material could not support a proposed building on Lot 6. Approximately 6000 yards of fill material were removed and were placed in a waste pile on Lots 4 and 9 in June 2002. The fill material included concrete, tires, metal objects, burn debris, wood, and miscellaneous metallic objects. Some of the larger objects, including the aforementioned objects, were segregated from the excavated materials and were removed from the property. Analytical testing of the fill material indicated that this material poses no threat to groundwater. This fill material was spread in Lot 1 and will be used as a foundation layer for planned parking areas and structures in this area.

17. An additional characterization was performed jointly by Dixon Commercial Properties and Monfort, Inc. in 2004. The purpose of this investigation, as stated in the characterization report, was to collect additional data to further characterize the lateral and vertical extent of elevated concentrations of nitrates and TDS in groundwater beneath the site and downgradient of the property Additional data collected included soil and groundwater grab samples. The scope of the work also included the collection of soil samples from the vicinity of the former processing structures to determine if any residual nitrates are present in soils. This investigation occurred without prior concurrence or oversight by the Board. The groundwater samples detected nitrates (as NO_3) ranging from 99 mg/L to 251 mg/L and TDS ranging from 890 mg/L to 11,000 mg/L. The vertical profile of groundwater samples collected indicates higher nitrate concentrations in the shallow groundwater (18 to 20 feet below ground surface (bgs)) and decreasing concentrations with depth (40 to 70 feet bgs). The vertical profile samples indicate high TDS at depth (66 to 70 feet bgs) and generally lower TDS in the shallow groundwater samples (18 to 20 feet bgs). Samples exceeded the secondary MCL for TDS in the shallow sample (2500 mg/L) and the deepest sample (11,000 mg/L). The vertical profile data were collected immediately downgradient of the suspected

location of the former water supply wells. Soil samples collected from 5.5 feet to 20 feet bgs detected nitrate concentrations ranging from 18.1 to 183 mg/kg.

18. The groundwater analytical data from 2004 correlates with the groundwater data collected between April 2001 to August 2002from the on-site monitoring wells and groundwater grab samples collected during previous sampling activities. The groundwater data suggest that other operations at the plant, in addition to the former wastewater ponds, have contributed to the nitrate and TDS problem at this site. The Dischargers believe that the groundwater data collected from one sample location, at the western edge of the facility detected nitrate concentrations of 251 mg/L, suggests that other off-site sources have contributed to nitrate groundwater pollution. The Dischargers also point out that nitrate groundwater contamination is pervasive in the Dixon area. However, data collected by Dixon Commercial Properties, discussed in Finding 15, appear to conflict with this assessment and indicate that the background concentrations for nitrate are below MCLs. Further investigation and evaluation of the background nitrate concentrations would clarify this issue. Groundwater remediation activities have not been conducted at this Site.

AUTHORITY – LEGAL REQUIREMENTS

19. The Regional Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition* (hereafter 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 attain WQOs. The beneficial uses of the groundwater beneath the site are domestic, municipal, industrial, and agricultural supply.

20. The constituents listed in Finding No. 8 are wastes, as defined in Water Code, section 13050(d).

21. Pollution of groundwater with nitrate and TDS impairs the beneficial uses of the groundwater. The wastes detected at this Site are above at concentrations that exceed the Site's background concentrations.

22. WQOs listed in the Basin Plan include numeric WQOs, e.g., state drinking water maximum contaminant levels (MCL) that are incorporated by reference, and narrative WQOs, including the narrative toxicity objective and the narrative tastes and odors objective for surface and groundwater. The numeric limits for the constituents of concern listed in the following table implement the Basin Plan WQOs.

Constituent	Limits	WQO	Reference
Nitrate (as NO_3)	45 mg/L [1]	California Primary Maximum Contaminant Level	California Public Health Goal in Drinking Water – California Department of Health Services.
TDS	500 mg/L	California Secondary Maximum Contaminant Level	California Public Health Goal in Drinking Water – California Department of Health Services.
TDS	450 mg/L	Agricultural Water Quality Limits	Food and Agriculture Organization of the United Nations (1985)

mg/L Milligrams per liter
[1] California MCL for total nitrate plus nitrite = 10mg/L (as N)

23. The groundwater exceeds the WQOs for the constituents listed in Finding No. 8. The exceedance of applicable WQOs in the Basin Plan constitutes pollution as defined in California Water Code Section 13050. The Discharger has caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance.

24. The State Water Resources Control Board (hereafter State Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy 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 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 the cleanup levels to be achieved. Resolution No. 92-49 requires the 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, California Code of Regulations (CCR) 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.

25. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Regional Board's strategy for managing contaminated sites. This strategy is based on Water Code Sections 13000 and 13304, the Title 27, Division 2, Subdivision 1 regulations, and State Water Board Resolution Nos. 68-16 and 92-49. The strategy includes site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the bases for establishment of soil and groundwater cleanup levels.

26. The State Board adopted the *Water Quality Enforcement Policy*, which states in part: "At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the RWQCB allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the CAO should require the discharger(s) to abate the effects of the discharge. Abatement activities may include the provision of alternate water supplies." (Enforcement Policy, p. 19.)

27. Section 13304(a) of the California Water Code provides that:

> Any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirement or other order or prohibition issued by a regional 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 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.

28. Section 13267(b)(1) of the California Water Code provides that:

> In conducting an investigation specified in subdivision (a), 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, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters 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.

The technical reports required by this Order are necessary to assure compliance with this Order issued under California Water Code section 13304 and to determine the areal and vertical extent of waste and cleanup strategies necessary to restore and protect the beneficial uses of waters of the state. Existing data and information about the site indicates that waste has been discharged and is discharging at the property, which is owned or operated, or formerly owned and operated by, the Dischargers named in this Order.

29. Section 13304(c)(1) of the California Water Code provides that:

> . . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action. . . .

30. If the Dischargers, or any one of them, fail to comply with this Cleanup and Abatement Order, the Executive Officer may request the Attorney General to petition the superior court for the issuance of an injunction

31. If the Dischargers, or any one of them, intentionally or negligently violate this Cleanup and Abatement Order, the Dischargers may be liable civilly in a monetary amount provided by the California Water Code.

32. 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 (Public Resources Code, Section 21000, et seq.), pursuant to Title 14 CCR Section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Title 14 CCR, Sections 15308 and 15330.

33. Any person affected by this action of the Regional Board may petition the State Board to review the action in accordance with Title 23 CCR Sections 2050-2068. The State Board must receive the petition within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request and are available at www.swrcb.ca.gov

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to California Water Code Section 13304 and Section 13267, Dixon Commercial Properties, , Monfort, Inc. (f/k/a Monfort of Colorado, Inc.), ConAgra Foods, Inc.and Greynom. Inc. (f/k/a Armour Food Company) shall:

1. Investigate the discharges of waste, clean up the waste, and abate the effects of the waste, forthwith, resulting from activities at the Dixon Business Park, in conformance with State Board Resolution No. 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and with the Regional Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

WATER SUPPLY WELL SURVEY

2. By 1 December 2005, submit the results of a water supply well survey within one-half mile of the site and a sampling plan to sample any water supply well(s) threatened to be polluted by waste originating from the site. The sampling plan shall include specific actions and a commitment by the Discharger to implement the sampling plan, including obtaining any necessary agreements.

3. Within **30 days** of Regional Board staff concurrence with the water supply well sampling plan, but no later than 1 February 2006, implement the sampling plan and submit the sampling results in accordance with the approved time schedule, which shall become part of this Order.

4. Within **30 days** of Regional Board staff notifying the Discharger that an alternate water supply is necessary, submit a work plan and schedule to provide an in-kind replacement for the specified water supply. The Discharger shall implement the work plan in accordance with an approved time schedule, which shall become part of this Order.

SITE ASSESSMENT

5. By **1 December 2005**, submit a *Site Assessment Work Plan* to collect a sufficient number of soil and groundwater samples to determine the lateral and vertical extent of pollutants for a complete site characterization. Also, the *Site Assessment Work Plan* should include the investigation of two former on-site water supply wells to determine if they were properly abandoned. The work plan shall contain the information in Attachment 3, which is made part of this Order.

6. Within **30 days** of staff concurrence with the *Site Assessment Work Plan*, implement the work plan in accordance with the approved time schedule, which shall become part of this Order.

7. Submit a *Site Assessment Report* for soil and groundwater in accordance with the approved time schedule, but no later than **1 April 2006**. The *Site Assessment Report* shall contain the information in Attachment 4, which is made part of this Order, and include recommendations and a work plan for additional investigation, if needed. The work plan for additional investigation shall contain information in Attachment 3, including a sufficient number of sampling points and wells to determine the vertical and lateral extent of pollutants and information to evaluate if the former on-site supply wells were properly abandoned. If Board Staff concur that no additional investigation is necessary after the first phase of investigation, the *Site Assessment Report* can be considered the *Final Site Assessment Report*.

8. If additional investigation is required, within **60 days** of staff concurrence with the work plan for additional site assessment, implement the work plan and submit a *Final Site Assessment Report*, which contains the information in Attachment 4, in accordance with the approved time schedule, which shall become part of this Order.

PUBLIC PARTICIPATION

9. By 1 December 2005, submit a *Public Participation Plan*. The *Public Participation Plan* shall include, but not be limited to, a community profile, the formation of a public interest group, public meetings at appropriate milestones in the cleanup (as required by Regional Board staff), public notification of field activities, regular mailing of fact sheets to interested parties, and maintaining a public library repository of all documents associated with the site.

HEALTH RISK ASSESSMENT

10. By 1 June 2006, submit a work plan and time schedule to prepare a *Health Risk Assessment* (HRA). The work plan for the HRA and the HRA shall be prepared in accordance with the Department of Toxic Substances Control and U.S. EPA guidance and contain the detail and clarity necessary for a lay person from the general public to follow the process and duplicate calculations.

11. Within **30 days** of Regional Board concurrence with the work plan for the HRA, but no later than 1 February 2007 implement the work plan and submit a draft HRA in accordance with the approved time schedule, which shall become part of this Order.

12. Within **45 days** of receiving comments from Regional Board staff on the draft HRA, append Agency comments and the Discharger's responses to these comments to a revised draft HRA, submit to the Regional Board and distribute to interested persons the *Draft for Public Comment HRA*. The public comment period shall extend for 45 days.

13. Within **30 days** of the end of the public comment period, submit and distribute to interested parties a final HRA with an appendix that contains responses to all public comments.

FEASIBILITY STUDY AND CLEANUP

14. Within **120 days** of staff concurrence with the *Final Site Assessment Report*, and no later than 1 October 2006 submit a *Feasibility Study/Remedial Options Evaluation Report* for soil and groundwater remediation. The report shall contain the information in Attachment 5, which is

made part of this Order. The proposed preferred alternative for cleanup of groundwater must meet the range of cleanup levels as described in the Basin Plan and Resolution No. 92-49. The Discharger shall attempt to clean up each constituent to background concentrations, or to the level that is technically and economically feasible and at least achieves the WQOs of the Basin Plan.

15. Within **60 days** of staff concurrence with the *Feasibility Study/Remedial Options Evaluation Report* for soil and groundwater cleanup, submit a *Cleanup Plan*, which describes the preferred alternative(s) for cleanup and includes a time schedule to conduct the cleanup activities. The approved time schedule to implement the cleanup shall become a part of this Order.

16. Within **60 days** of Executive Officer approval of the *Cleanup Plan* for soil and groundwater**,** and no later than April 2007 commence cleanup or installation of the cleanup system.

17. Within **120 days** of Executive Officer approval of the *Cleanup Plan*, submit a report describing the status and results of the cleanup work (*Cleanup Implementation Report*). The report shall clearly show whether the installation of any cleanup system is complete, and if not, give a schedule and proposed work plan for installation of the remaining cleanup activities, including a proposed monitoring plan.

GROUNDWATER MONITORING

18. The Executive Officer may issue a Monitoring and Reporting Program (MRP) for the Site after review of the Site Assessment Report .

GENERAL REQUIREMENTS

19. Reimburse the Regional Board for reasonable costs associated with oversight of the cleanup of this site. Failure to do so shall be considered a violation of this Order.

20. Conduct work only after work plans are concurred with by Regional Board staff.

21. Submit all reports with a cover letter from the Discharger.

22. Fourteen days prior to conducting any field work, submit a Health and Safety Plan that is adequate to ensure worker and public safety during the field activities in accordance with CCR Title 8, Section 5192.

23. As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, have all reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate.

24. Upon startup of any remediation system(s), operate the remediation system(s) continuously, except for periodic and required maintenance or unpreventable equipment failure. The Discharger shall

notify the Regional Board within 24 hours of any unscheduled shutdown of the remediation system(s) that lasts longer than 48 hours. This notification shall include the cause of the shutdown and the corrective action taken (or proposed to be taken) to restart the system. Any interruptions in the operation of the remediation system(s), other than for maintenance, emergencies, or equipment failure, without prior approval from Regional Board staff or without notifying the Regional Board within the specified time is a violation of this Order.

25. Periodically optimize remedial systems and report on the effectiveness of the optimization in the Annual Report.

26. Notify Regional Board staff at least three working days prior to any fieldwork, testing, or sampling that pertains to environmental remediation and investigation.

27. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.

28. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and this Order has been rescinded.

29. If, for any reason, the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Discharger may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. An extension may be granted only by revision of this Order.

30. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

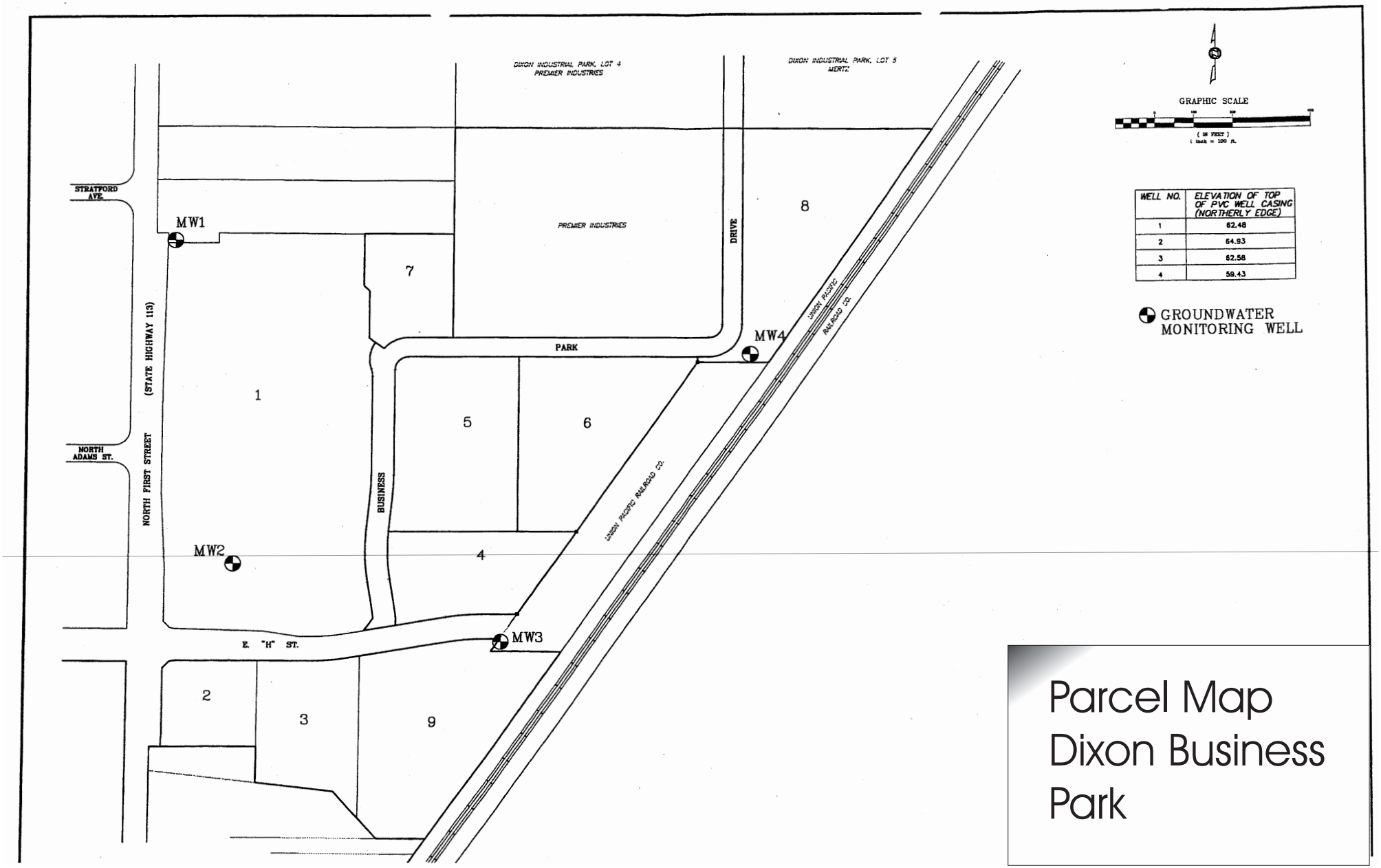
This Order is effective upon the date of signature.

_____
THOMAS R. PINKOS, Executive Officer

_____
(Date)

Dixon Business Park, Dixon California
Solano County

(Attachment 1)

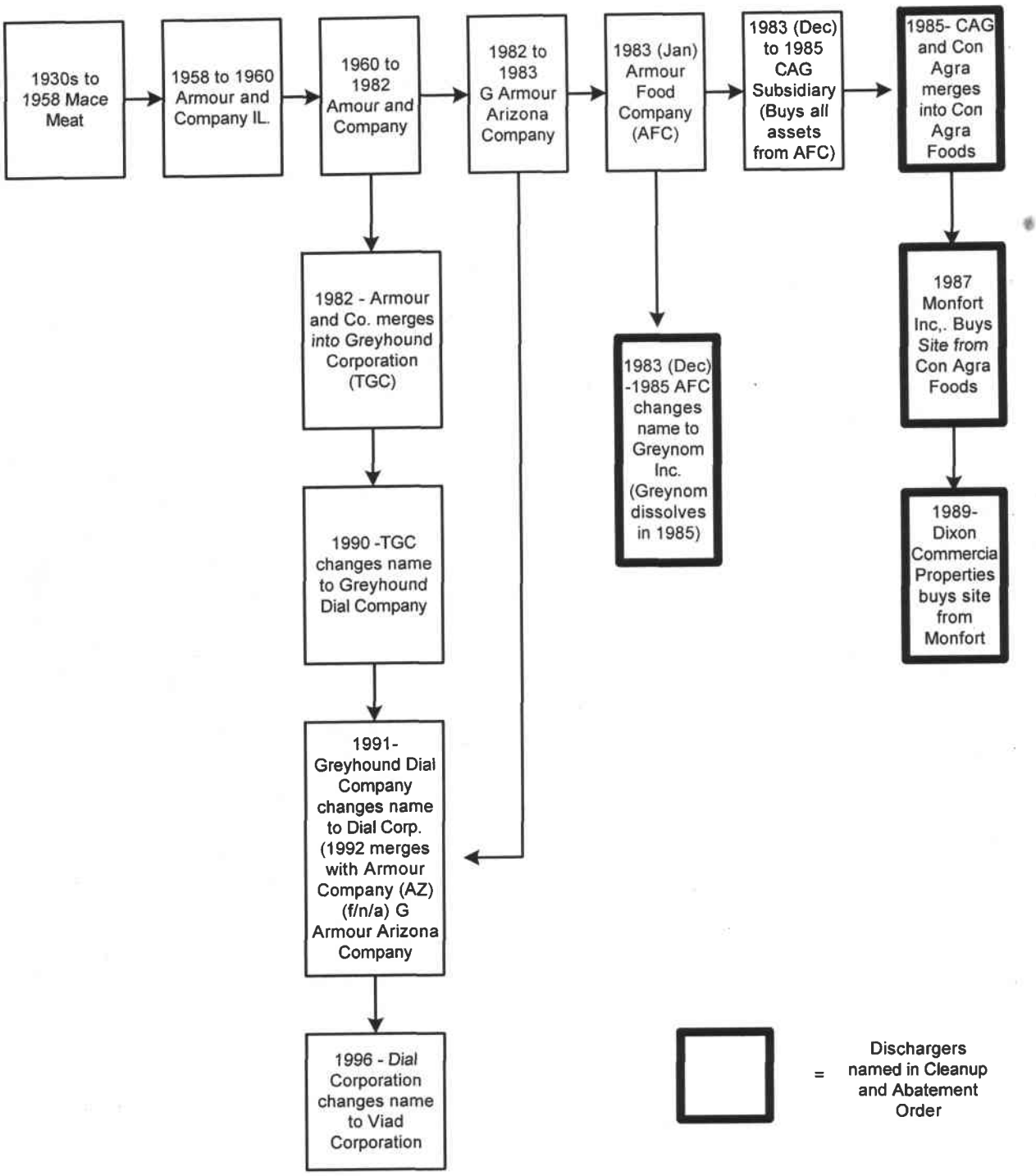


WELL NO.	ELEVATION OF TOP OF PVC WELL CASING (NORTHERLY EDGE)
1	62.48
2	64.93
3	62.58
4	59.43

Parcel Map
Dixon Business Park

Attachment 2

Cleanup and Abatement Order
History for Dixon Business Park from 1930s to Present



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27 September 2005

ITEMS TO BE INCLUDED IN A SITE ASSESSMENT WORK PLAN

The outline below is a minimum requirement for items to be included and discussed in the text of all site assessment work plans submitted to the Board. All work plans must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

I. **BACKGROUND**

A. *Site History*

State all operations conducted at the site.
Identify present and historic chemical usage and handling procedures.
List all chemical spills and their disposition.
Identify all past and present above ground and under ground tank locations.
Identify tank capacities and other specifications as necessary.
Identify tank contents, past and present.
Submit all records of tests or repairs on fuel lines and tanks.
Identify locations of maintenance shops, chemicals used in the shops, method of chemical storage and disposal.
Identify past and present land uses and future as applicable.

B. *Topographic map of site vicinity showing:*

All natural and man-made drainage features including ditches and surface impoundments, and the drainages destination;
Utilities, especially storm drain system;
Location of existing monitoring wells, including those installed by other parties;
Location of above ground and underground storage tanks, other waste-handling facilities, and/or spill site;
Location of a major body of water relative to the site;
Location of any nearby private, municipal, or irrigation wells; and
Other major physical and man-made features.

C. *Geology/Hydrogeology*

Include proposal for logging of boreholes and characterizing site geology, and identifying unconfined or confined aquifers and contaminant flowpaths.

II. **PREVIOUS SITE ASSESSMENTS**

Provide a detailed description of any previous site assessment conducted to determine if there is any soil or ground water contamination. Include analytical results of all soil and water samples analyzed, and water level and floating product measurements.

III. FIELD INVESTIGATION

A. *General*
Monitoring well locations and rationale
Survey details
Equipment decontamination procedures
Health and safety plan

B. *Drilling Details*
Describe drilling and logging methods

C. *Monitoring Well Design*
Casing diameter
Borehole diameter
Depth of surface seal
Well construction materials
Diagram of well construction
Type of well cap
Size of perforations and rationale
Grain size of sand pack and rationale
Thickness and position of bentonite seal and sand pack
Depth of well, length and position of perforated interval

D. *Well Development*
Method of development to be used
Method of determining when development is complete
Method of development water disposal

E. *Soil Sampling*
Cuttings disposal method
Analyses to be run and methods
Sample collection and preservation method
Intervals at which soil samples are to be collected
Number of soil samples to be analyzed and rationale
Location of soil samples and rationale
QA/QC procedures

F. *Well Sampling*
Minimum time after development before sampling (48 hours)
Well purging method and amount of purge water
Sample collection and preservation method
QA/QC procedures

G. *Water Level Measurement*

Elevation reference point at each monitoring well shall be within 0.01 foot. Ground surface elevation at each monitoring well shall be within 0.1 foot. Method and time of water level measurement shall be specified.

IV. **QA/QC PROCEDURES**

Specify number of field blanks and duplicates.

V. **TIME SCHEDULE FOR PROPOSED WORK**

The work plan shall include a time schedule for implementation of work.

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ITEMS TO BE INCLUDED IN A SITE ASSESSMENT REPORT

The outline below is a minimum requirement for items to be included and discussed in the text of all site assessment reports submitted to the Board. Other supporting data to be included in the report, either within the text of the report or in appendices, are italicized at the end of each section. All reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

I. INTRODUCTION

Summary of past investigations
Purpose of the recent investigation
Scope of the recent investigation
Time period in which the recent investigation was carried out

II. SUMMARY

Number of wells drilled
Results of soil and water analyses
Ground water flow direction and gradient
Possible source determination

III. FIELD INVESTIGATION

Well Construction

Number and depth of wells drilled
Date(s) wells drilled
Description of drilling and construction
Approximate locations relative to facility site(s)

Supporting Data:
A well construction diagram for each well should be included in the report which shows the following details:

Total depth drilled
Depth of open hole (same as total depth drilled if no caving occurs)
Footage of hole collapsed
Length of slotted casing installed
Depth of bottom of casing
Depth to top of sand pack
Thickness of sand pack
Depth to top of bentonite seal
Thickness of bentonite seal
Thickness of concrete grout

Boring diameter
Casing diameter
Casing material
Size of perforations
Number of bags of sand
Well elevation at top of casing
Depth to ground water
Date of water level measurement
Monitoring well number
Date drilled
Location

Well Development
Date(s) of development of each well
Method of development
Volume of water purged from well
How well development completion was determined
Method of effluent disposal

Supporting Data:
Field notes from well development should be included in report.

Water Sampling
Date(s) of sampling
How well was purged
How many well volumes purged
Levels of temperature, EC, and pH at stabilization
Sample collection, handling, and preservation methods
Sample identification
Analytical methods used

Soil Sampling
Date(s) of sampling
Sample collection, handling, and preservation method
Sample identification
Analytical methods used

IV. FINDINGS OF THE INVESTIGATION

Lithology
Types of sediments encountered
Presence, location, and lateral continuity of any significant sand, silt, or clay layers
Any visual signs of contamination

Supporting Data:
Well logs geologic cross-sections should be included in the report.

Analytical Results of Soil and Ground Water Sampling

Analytical results of each monitoring well should be summarized

Supporting Data:

Laboratory analytical sheets
Chain-of-custody forms

Water Levels

Static water levels measured when well drilled
Date(s) of water level measurements
Water levels determined prior to sampling

Supporting Data:

Dates of water level measurement, depths to ground water, and ground water elevations should be tabulated and included in the report.

Ground Water Gradient and Flow Direction

Ground water gradient and flow direction determined by the investigation should be discussed and compared to the regional gradient and flow direction.

Supporting Data:

A ground water contour map, drawn to scale, should be provided which shows each well, its ground water elevation, and lines of equal ground water elevation. Ground water gradient and flow direction should be shown on the map. The calculation of the gradient should be included.

V. RESULTS OF QA/QC

QA/QC procedures
QC sample identification
Field blank analyses
Comparison of duplicate sample results

VI. CONCLUSIONS AND RECOMMENDATIONS

Evaluate any contamination found;
Compare to background levels and appropriate screening levels;
Identify any suspected source of contamination;
Recommend any further investigative needs based on data gaps; interim remedial measures; public participation;

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ITEMS TO BE INCLUDED IN A
FEASIBILITY STUDY/REMEDIAL OPTIONS EVALUATION REPORT

The outline below is a minimum requirement for items to be included and discussed in the text of all feasibility studies/remedial option evaluation reports submitted to the Board. Reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the state of California.

I. Purpose of Feasibility Study/Remedial Options Evaluation

II. Background
- A. Description of Facility
- B. Site History
  1. Years of Operation
  2. Chemical Use
  3. Chemical Releases (Potential and Documented)
- C. Geology
  1. Regional
  2. Local, soil type, lithology, lateral extent of lithologic units
- D. Hydrogeology
  1. Aquifers, Aquitards, Perched Aquifers
  2. Groundwater flow rates, directions, recharge, discharge
  3. Groundwater Use
  4. Extraction and injection wells affect on groundwater flow
- E. Surface Water
  1. Losing or gaining streams, ponds etc.
  2. Hydraulic connection with aquifers
- F. Local Land Use
- G. Previous Investigation and Remedial Actions

II. Nature and Extent of Contamination
- A. Contaminants in Soils
  1. Types and Concentrations
  2. Lateral and Vertical Extent

B. Pollutants in Groundwater
   1. Types and Concentrations
   2. Lateral and Vertical Extent (including Perched Zones)

III. Contaminant Fate and Transport
A. Contaminant Properties
   1. Mobility
   2. Toxicity
   3. Half-life
   4. Chemical and biological degradation
B. Contaminant Transport based on Soil and Aquifer Properties

IV. Remedial Action Objectives

V. Description of Remedial Action Alternatives – at a minimum, 3 alternatives must be considered

A. Alternative that meets background levels
B. Alternative that meets water quality objectives
C. Alternative that meets levels between background and water quality objectives

VI. Evaluation of Remedial Action Alternatives
A. Overall Protectiveness of Human Health and the Environment
B. Compliance with Laws and Regulations
C. Long Term Effectiveness and Permanence
D. Reduction of Toxicity, Mobility, and Volume
E. Short Term Effectiveness
F. Implementability
G. Cost
F. State and Community Acceptance

VII. Potential Impacts of Remedial Actions

VIII. Estimated Project Schedule for Each Alternative

IX. Preferred Alternative