Former Remco Hydraulics Facility
Response to Public Comments
Agenda Item 3
January 14, 2009

In the matter of proposed In-situ VOC Interim Remedial Action (project), the North Coast Regional Water Quality Control Board (Regional Water Board) circulated draft Waste Discharge Requirements (WDRs), mitigated negative declaration, and Initial Study/checklist for public review and comment in January and May of 2008, and December 3, 2008. The project applicant, Willits Environmental Remediation Trust (Trust), withdrew and resubmitted the Report of Waste Discharge (ROWD) on August 25, 2008 to include additional reducing agents not identified in the previous ROWD for the project. The Regional Water Board re-noticed the project and invited any additional public comments in the time period identified.

In response to earlier public review, staff received six letters from the public commenting on the proposed project. One letter was from the City of Willits requesting postponement of the March meeting, and other comments were submitted by Mr. Ken Berry. The Trust submitted letters commenting on Mr. Ken Berry's letters to the Regional Water Board.

After the item was recirculated on December 3, 2008, the Regional Water Board received three additional public comment letters dated December 22, 2008 (Willits Citizens for Environmental Justice), January 4, 2009 (Ken Berry), and December 31, 2008 (City of Willits). In addition, two letters were received on January 12, 2009 from the Trust, after the close of the public comment period. These two letters respond to Mr. Ken Berry's comments of January 4, 2009, and the Willits Citizens for Environmental Justice's letter of December 12, 2008. These letters do not require Regional Water Board response, but are included in the agenda package. In the response that follows, staff first addresses general CEQA and other issues raised by all of the comment letters, followed by responses to specific comments and questions.

First, the gravamen of commenter Ken Berry's letters are that there is a potential for a significant adverse impact from this project and therefore a mitigated negative declaration is not an appropriate CEQA document, but rather an Environmental Impact Report (EIR) should be prepared. Similarly, Willits Citizens for Environmental Justice asked why the Regional Water Board did not order an EIR, what is a significant impact, and what standards are used for the significant impact.

A mitigated negative declaration is appropriate CEQA documentation when revisions in the project would avoid or mitigate the effects of a project to a point where clearly no significant effect on the environment would occur, and there is no substantial evidence in light of the whole record that the project, as mitigated, will have a significant effect on the environment. (Cal. Code Regs., tit. 14, §15074.) Staff has conducted an independent analysis of the project as required by CEQA and determined that the project, as mitigated, will have a less than significant impact to the environment. The

project is designed to significantly improve groundwater quality over a shortened period of time. The project has been designed to reduce any potential significant impacts to a "less than significant impact" by including mitigation measures that are identified in the Mitigated Negative Declaration and Environmental Checklist.

"Significant Effect on the Environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. (Cal. Code Regs., tit. 14, §15382.) The project means the whole of the action which has the potential for resulting in a physical change to the environment. It is important to understand that the project here is the effort to clean up contamination by injecting molasses and vegetable oil, a B12 vitamin supplement, and pH buffer into the subsurface to enhance the dechlorination of volatile organic compounds (VOCs). This cleanup method is used routinely by other regions and is a proven methodology for cleanup of VOCs in groundwater. (Region 4 General WDRs for Groundwater Remediation at Petroleum Hydrocarbon Fuel, Volatile Organic Compound and/or Hexavalent Chromium Impacted Sites, Order No. R4-2007-0019; Region 5 General Order for In-Situ Groundwater Remediation at Sites with Volatile Organic Compounds, Nitrogen Compounds, Perchlorate, Pesticides, Semi-Volatile Organic Compounds, Hexavalent Chromium, and/or Petroleum Hydrocarbons, Order No. R5-2008-0149).

To identify any significant impacts from the project, CEQA requires a comparison of the existing environment, which here is a contaminated property, with the environment after the project has been implemented. Staff has conducted this analysis and defined the thresholds of significance conservatively. As a result, we considered any migration of the increased interim toxicity to be potentially significant and required mitigation to ensure that this migration would not occur. Ken Berry submits that the migration of contaminated groundwater could occur because of the direction of the groundwater flow and the spacing of wells. Staff has reviewed this comment, and in response, required additional wells located east of Injection Area 4 (W54A), and to the north of Injection Area 2 and 5 (IMW-10, IMW-11, and IMW-12), to ensure the timely detection of any migration of increased interim toxicity in order to trigger a contingency plan that prevents migration off the property. Staff also modified the contingency plan submitted by the Trust to add these additional groundwater monitoring points between the injection areas and the property boundary. If sampling data detects and confirms an increase in VOCs and metals in these wells, then the contingency plan is triggered. The contingency plan provides a method for additional sampling downgradient and/or groundwater extraction in advance of any constituents migrating off-site. More details are provided in response to specific issues raised below. There is no possibility that increased interim toxicity will migrate off the property because of the extraction system located along the perimeter of the property.

Similarly, staff defined air and noise impacts conservatively, and required mitigation to prevent any impact. Potential air impacts evaluated for this project include increased emissions from drilling and other equipment brought to the site to inject the reducing

agents, the sweet smell of molasses as a potential nuisance, and potential vapor intrusion. The potential air impacts from increased emissions and nuisance odors will be minimal because the duration of the project will be completed in less than two months, and the molasses process is in sealed containers and closed piping. For potential vapor intrusion, the mitigation measure is to contain the treatment process within the property boundaries. Previous air monitoring studies using hand held meters and fixed air monitoring stations did not detect VOCs or hydrogen sulfide from two pilot studies, and two interim remedial actions using the same reducing agents (molasses and vegetable oils). Noise from the drill rigs has been mitigated by requiring the Project Proponent to comply with the City of Willits noise ordinance. Regional Water Board staff carefully reviewed possible impacts and required stringent mitigation where any possibility of an impact exists. These decisions are explained thoroughly and are supported by substantial evidence.

Ken Berry and the Willits Citizens for Environmental Justice have not provided substantial evidence to make a fair argument that the project, as mitigated, will cause a significant effect to the environment. Substantial evidence means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion. Substantial evidence does not include argument, speculation, unsubstantiated opinion or narrative. (Cal. Code Regs., tit. 14, §15384.) Accordingly, the decision to adopt a mitigated negative declaration is appropriate and supported by CEQA and the evidence in the record.

Second, commenter Ken Berry appears to confuse the baseline environmental condition of the property with the proposed project, as evidenced by his comment that the Regional Water Board has taken the position that the Remedial Investigation (RI) is equivalent to an EIR. This is incorrect. Mr. Berry suggests that the RI was prepared by a consultant for PepsiAmericas for purposes of preparing a Securities and Exchange Commission (SEC) Form to determine their financial risks, and therefore the RI cannot be used to represent an independent analysis under CEQA by the Regional Water Board. This is irrelevant.

The Regional Water Board has required a thorough investigation at the site to define the extent of contamination, and this is partly addressed in the RI. The RI was prepared to meet the requirements of Cleanup and Abatement Order No. 99-55 and the Consent Decree (Amended Consent Decree, Final Order, and Final Judgment, and Order Establishing the Willits Environmental Remediation Trust, as amended and entered by the Court on December 22, 2000). This information is necessary for decisions to be made on overall cleanup necessary for the site. The extent of the contamination can be used in a subsequent CEQA analysis to compare proposed cleanup actions with the environmental baseline. The site characterization does not alter the CEQA analysis for this project unless the commenter provides evidence that the proposed action will alter the existing condition (which is the contaminated property) in such a way that increases the environmental degradation. For the independent analysis under CEQA, the entire file record was considered, and not just the RI. A substantial amount of work was conducted after the RI was drafted in 2000

and finalized in 2002. Using this information, staff has identified the potential impacts that the proposed project could create, and required mitigation measure to ensure that those impacts will not occur.

Regional Water Board staff has no knowledge of PepsiAmericas use of the RI for the SEC filing, and this point appears irrelevant to this project. We do not rely on the RI solely for the information needed to evaluate the Remco site. Rather, staff utilizes numerous documents in the file record for the Remco site, which encompasses 23 feet of file material including groundwater monitoring reports, workplans and reports of investigations, reporting on interim remedial actions. For this project, staff relied on the list of references attached to the IS/Checklist, plus the entire file record.

Ken Berry also confuses the public process conducted by the Trust with the project before the Regional Water Board in his comment that the project proceeded while the public comment period was still open, in violation of CEQA. To be clear, the Trust has not begun implementing the proposed project. The project proponent submitted a Report of Waste Discharge to the Regional Water Board in November of 2007 for consideration of Waste Discharge Requirements, and concurrently mailed a fact sheet to its interested parties list, also in November of 2007. The Fact Sheet described the proposed project and solicited comments along with a deadline for comments to be received. The Fact Sheet and the solicitation of public comments by the Trust is a requirement of the Consent Decree and is separate from the Regional Water Board permitting process.

In response to the receipt of the ROWD, Regional Water Board staff prepared a mitigated negative declaration, Environmental Checklist and draft WDRs for consideration by the Regional Water Board in March 2008 and again in June 2008. The item was pulled from the March meeting as requested by the City of Willits, and again in June due to changes in the proposed project and late comments received. The Trust submitted an addendum to the ROWD on August 25, 2008. The Regional Water Board circulated the proposed WDRs, mitigated negative declaration, and Initial Study/Checklist to the State Clearinghouse and for public comment on December 3, 2008. The Trust is waiting for the adoption of the Waste Discharge Requirements before it proceeds with the project implementation.

Finally, Ken Berry accuses Regional Water Board staff of accepting the work prepared by the Trust and their consultants and not performing an independent analysis of the environmental effects of the Remco project. The suggestion that the Regional Water Board should be conducting the cleanup work is not consistent with our role as the regulatory agency overseeing cleanup efforts. All regulatory agencies, including the Department of Toxic Substances Control and U.S. Environmental Protection Agency, mandate that sites are investigated and cleaned up, but do not routinely conduct the work themselves. Instead, these agencies review work performed by professional companies and licensed individuals that are hired by the dischargers and responsible parties. Regional Water Board staff independently reviews the work conducted by the

Trust and its consultants and provide comments on the work performed. As for this project, staff reviewed the project and drafted waste discharge requirements, a groundwater monitoring program including a comprehensive contingency plan that the discharger must follow in order to proceed with the interim remedial action.

Staff responds to all specific comments below. Comments received from Ken Berry (KB) and the Willits Citizens for Environmental Justice (WCEJ) are grouped together where appropriate with the commenter identified in parentheses.

The December 31, 2008 letter received from the City of Willits indicated that the City had no objections to the proposed project.

Groundwater

(1) Comment(s):
The commenter, (KB) cites a difference in the direction of groundwater flow between the prior molasses injection site and well GMX-7A, the direction indicated by the Remedial Investigation (RI), and differences in the August 25, 2008 report and the information contained in the RI. The commenter (KB) asserts that the groundwater flow direction is not sufficiently characterized to allow the preparation of a negative declaration, but rather an environmental impact report (EIR) should be prepared. In addition, the commenter (KB), states there are insufficient monitoring wells to the east of Injection Area 4, the site is not characterized well enough to the east of Area 4, and the extent of contamination for the site has not been determined because groundwater monitoring wells are spaced too widely apart. The commenter (WCEJ) asks if the RWB will require the discharger to install wells closer for better monitoring.

Response:
The direction of groundwater flow has been evaluated at the site since the early 1980s. There is an eight year time difference between the time that the draft RI was published in 2000, and the August 2008 report on the groundwater flow direction. Staff reviews on a routine basis groundwater monitoring reports submitted by the WERT which include the calculation of the groundwater flow direction. Currently, the direction of groundwater flow is calculated semiannually as part of the routine monitoring. Groundwater flow direction was evaluated during the former chromium interim remedial actions and pilot studies. Groundwater flow direction varies seasonally due to precipitation and other influences at the site, such as operation of extraction wells. The draft RI report was completed in 2000 (and finalized in 2002), and since that time, two additional areas have been added to the extraction system. One extraction area is located on the northeast side of the property (GMX-7A area), and one extraction area to the north of the former paint shop area. Before the draft RI report was published in 2000, groundwater extraction began near the former chrome plating tanks located in the north-central portion of the site, and along the storm drain located to the north of the building.

Because of seasonal influences and the groundwater extraction systems, differences in the direction of groundwater flow are expected.

The groundwater flow direction calculated in 2000 and 2008 accurately represents the site conditions for each time period and is not a contradiction or an unexpected difference that warrants the preparation of an EIR. The mitigated negative declaration provides mitigation measures that address the potential for migration of contaminated groundwater off-site regardless of variations in flow direction. Modeling of groundwater from all of the proposed injection areas has also been conducted to show that the existing groundwater monitoring well network is sufficient to evaluate this project and adequately capture the plume before migrating off-site.

An additional groundwater monitoring well, W54A, has been installed to the east of injection Area 4 to monitor the east side of the site. Soil and groundwater contamination has been defined to the east of Injection Area 4 by the installation of numerous soil borings where soil and grab groundwater samples were collected and analyzed. No groundwater contamination was detected in the borings, with the exception of the area near Monitoring Well W54A. Well W54A was installed because of the finding of contamination at this location. Other monitoring wells also exist on the east side of the site to evaluate groundwater conditions, including W13A and W15A. The site is adequately characterized on-site and off-site, and the monitoring well network is sufficient to evaluate this project and control off-site migration.

Approximately 136 groundwater monitoring wells have been installed in the shallow groundwater bearing zone, and additional wells have been installed at deeper depths. Figure A1 shows the locations where soil, groundwater, and sediment samples have been collected at the site and to the east of Area 4. Figure A1 is difficult to read in detail. However, the primary purpose of presenting the map is to depict the comprehensive soil and groundwater investigation conducted at the site. Several perimeter groundwater monitoring wells, located off the Remco facility, have been installed to determine the horizontal extent of contamination. These wells show no detectable levels of any chemicals of concern identified for the Remco site. In addition, there are groundwater monitoring wells at two existing nearby gasoline service stations, the Unocal Station and Redwood Oil Chevron Station, where releases of petroleum hydrocarbons are being investigated. Groundwater monitoring wells also existed at the former Chevron Station, but were removed after closing the site and redevelopment into the Safeway Fuel Center. These sites are also shown on Figure A1. Groundwater conditions from the release of petroleum hydrocarbons from each of these stations are currently evaluated, as well as the potential for Remco constituents in groundwater at these locations.

In December of 2008, three additional groundwater monitoring wells were installed on the property to monitor groundwater conditions downgradient of the injection

areas. These wells are identified as IMW-10, IMW-11, and IMW-12, and are shown on the Figure 2.

(2) Comment(s):
Groundwater contamination will flow off-site. The maps presented show the effects of extraction wells, but those maps show that the effect is smaller than the distance between some monitoring wells. A plume of contaminated water can escape the site, as has happened when a similar project was implemented without proper environmental analysis (KB). What will the RWB do if the contingency plan does not work? (WCEJ)

Response:
The project proponent has installed groundwater extraction wells and a treatment system to provide control of contaminated groundwater. There are two areas where groundwater extraction is in place to control the off-site migration. Extraction from these wells will continue to prevent the off-site migration of contaminants. The contingency plan that will be implemented as part of the WDRs is to connect existing and/or (if needed) new groundwater monitoring wells to the groundwater treatment system, should there be a threat of off-site migration from the project. The existing treatment system has adequate capacity to handle more connections to the system.

The maps of the inferred capture zones for the extraction wells, in the event the contingency plan is implemented, show adequate capture of groundwater between the groundwater monitoring wells. The previous project referred to by the commenter is the Interim Remedial Action to Reduce Hexavalent Chromium. The contingency well, GMX-7A, located near the eastern property boundary, had dissolved arsenic from the IRA and implementation of the contingency plan was necessary to prevent off-site migration. The effectiveness of the contingency plan to control groundwater has been proven by the existing system. The contingency plan, as contained in the Monitoring and Reporting Program provides for additional wells that will be plumbed to the system and/or new extraction well(s) to be drilled for further containment.

(3) Comment(s):
Groundwater flow is determined by the slope of the groundwater surface, and not with the distribution of cis-1,2-Dichloroethene (1,2-DCE). The commenter (KB) states that the RI contains false information concerning the direction of groundwater flow and fails to determine the extent of contamination.

Response:
The project proponent submitted a map in their August 25, 2008 letter report showing the distribution of 1,2-DCE as further evidence of the groundwater flow direction and chemical transport. The distribution and concentrations of 1,2-DCE in

groundwater provides supporting documentation to verify the groundwater flow direction.

The consultant who prepared the RI is a licensed geologist who has affixed his signature and stamp to all reports, and thereby verifies that the data being submitted is accurate to best of his professional qualifications. There is no justification for the assertions that the RI contains false information. It appears that there may be a lack of understanding of the site hydrogeologic data on behalf of the commenter (KB). As stated above, groundwater flow directions can change over time in relation to seasonal fluctuations and site conditions such as pumping groundwater. Noting these differences is not falsifying data; rather, it accurately reflects the variability of site conditions through time.

The extent of contamination has been determined at the site and is addressed in response to comment No. 3 above. The requirement for placement of groundwater monitoring wells at closer intervals is not necessary. The attached map shows the spacing of groundwater monitoring wells off of the property, and the existing wells adequately represent conditions in the area.

(4) Comment(s):
No analysis of the chemistry in groundwater has been conducted. The commenter (KB) also raises the issue that the site has not been adequately characterized because dioxins and furans have not been tested, and the highly mobile chemical MTBE. The commenter (KB) states that heating elements can produce dioxins, and that 50 barrels of liquid waste were disposed to the atmosphere each week.

Response:
The statement that no analysis of the groundwater chemistry has been conducted is without any supporting information or details. The site soil and/or groundwater has been analyzed for the following constituents: TPH as gas, diesel, motor oil, oil and grease, semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), fuel oxygenates including MTBE, Polychlorinated Biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), 1,4-Dioxane, NDMA, cyanide, pesticides, metals including hexavalent chromium, and geochemical parameters such as pH, dissolved oxygen, total and dissolved organic carbon, oxidation reduction potential, suspended solids, turbidity, chemical oxidation demand, bromide, total alkalinity, chloride, dissolved sulfide, methane, nitrate nitrogen, sulfate, and other parameters. MTBE is not a constituent of concern at the Remco site, but is detected in groundwater monitoring wells at two gasoline service stations downgradient of the Remco facility. The MTBE detected at those gasoline service stations is from releases from those facilities.

The issue of sampling for dioxins and furans in soil is not related to this project (VOC IRA) but to the overall characterization of the site. RWB staff is evaluating whether dioxin and furan testing is necessary at the site. It is not apparent that any processes conducted at the Remco facility would have resulted in the generation of

dioxins and furans. The commenter (KB) provides an unsigned declaration from a former Remco employee stating that he built an evaporation pit where Remco wastes were allegedly evaporated with a heating coil (liquids containing Remco wastes such as VOCs and chromic acid). Staff had already begun investigating the allegations that Remco generated dioxins and furans. Staff has contacted several dioxin experts at the U.S. Environmental Protection Agency (U.S. EPA) and the Department of Toxic Substances Control (DTSC) to solicit comment on whether this evaporation pit could potentially generate dioxins and furans. To date, the answer from these agencies is that an evaporation pit with heating coils would not be hot enough to generate dioxins and furans. However, we are still reviewing all the site information and will provide it to U.S. EPA for review and request a formal response/recommendation from their dioxin experts. The outcome of the investigation will be provided to the WERT and all interested parties through written correspondence.

(5) Comment:
RWB Staff's failure to provide oversight resulted in the mobilization of arsenic off site in the previous project. (KB)

Response:
Arsenic was mobilized in one groundwater monitoring well, GMX-7A, during the previous Interim Remedial Action to Reduce Hexavalent Chromium. The contingency plan to inject hydrogen peroxide to reverse any metal mobilization was not effective, and the well was plumbed into the extraction system. A groundwater investigation was conducted off-site to determine if arsenic had migrated onto the Safeway property parking lot. The results of the investigation are included in the report *Results of Additional Data Collection East of Site*, dated September 2004. The data did not indicate that a plume of arsenic was present on the Safeway property. Dissolved arsenic in groundwater in GMX-7A returned to background concentrations within one year.

(6) Comment(s):
RWB staff has accepted the contradictory evidence concerning the rate of groundwater flow of up to 600 feet per year. That rate is sufficient for the migration of chemicals over a mile. (KB)

Response:
Staff has not accepted a groundwater flow rate of 600 feet per year as suggested by the commenter. The rate of groundwater flow varies at the site. However, the overall site groundwater velocity is estimated to range from 15 to 149 feet/year. As additional evidence of the rate of groundwater flow, the extent of existing contamination does not extend much beyond the property boundaries, approximately 300 feet from the site boundaries.

(7) Comment(s):

The commenter (WCEJ) asks what are the different names of the more toxic intermediary VOCs?

Response:
Vinyl chloride is the most toxic intermediate VOC. All of the VOC breakdown products are shown on Figure 3 of the agenda package.

(8) Comment(s):
The commenter (WCEJ) asks how will the in-situ agents stay in the A-zone, and if there are artesian conditions/wells at Remco.

Response:
There is some interconnectivity between the A zone and B zones. However, previous injections of molasses into the A-zone had little impact in the B-zone. The B-zone contamination is localized at the west side of the building (paint shop) and near the former chrome plating area (central area of the building). Groundwater monitoring of B zone wells is ongoing to evaluate groundwater conditions.
There are artesian conditions that have been observed in winter months when the groundwater table is high. Groundwater comes out of the ground through cracks in the concrete floor. However, the groundwater extraction system is in place to lower the water table to prevent the upwelling of contaminated groundwater onto the floor of the Remco facility.

(9) Comment(s):

The commenter (WCEJ) asks if the lenses that interconnect and exhibit varying degrees of hydraulic communication act as a pathway for chemicals of concern to migrate off-site, now or in the future from this in-situ process.

Response:
There is some hydraulic communication between permeable lenses at the site, but they do not generally form continuous layers laterally over the entire site. The groundwater monitoring wells, just downgradient of the injection areas, and closer to the property boundary will be sampled frequently to monitor the dechlorination process and potential transport of VOCs.

Air and Vapor Intrusion

(10) Comment(s):
An analysis of vapors in nearby homes has not been conducted as required by State Department of Public Health's (formerly the State Health Department, Environmental Health Investigations Branch) recommendations (KB).

Response:
The State Department of Public Health (DPH) recommended that the RWB staff require air sampling in the homes immediately to the north of the Remco property

during the various seasons of the year. The air monitoring recommendation was to evaluate the vapor intrusion pathway in the homes for protection of the residents. Ambient air monitoring inside the homes and in the crawl spaces of one home was conducted by the Project Proponent (*Air Data Collected on Franklin Avenue Properties*, May 20, 2005) under the direction of the State DPH and RWB staff. After the air monitoring sampling event, the homes were purchased and torn down. Therefore, the air sampling is no longer necessary.

The air sampling program, conducted under the direction of the State DPH and RWB staff, consisted of sampling outside ambient air, air in the crawl spaces, and air within the homes. The results of the air sampling detected only one VOC compound, benzene, above the Cal-EPA recommended risk-based screening criteria. These criteria are conservative screening levels that correspond to an acceptable target risk of one-in-one million (1×10^{-6}) for carcinogenic compounds. The source of benzene detected in all of the air sampling locations is not attributable to the former Remco facility. Benzene is not a constituent of concern at the site; it is only detected in two A-zone groundwater monitoring wells out of 136 wells, and at low concentrations (Well IMW-7 at 2.5 ppb and Well MLW-10U at 1.1 ppb; Data from *Semi-Annual Monitoring and Sampling Report, (January 1 through June 30, 2008)*). These two A-zone wells are not located near the homes and air sampling locations. Benzene can be associated with gasoline stored for home use, gas stations (nearby), auto exhaust and household products such as paints, carpets, and tobacco smoke.

(11) Comment(s):

The commenter (WCEJ) asks whether the volatization of VOCs has been causing impacts to the ozone layer, or an increase in greenhouse gases, or whether the ethenes and ethanes will cause more greenhouse effects. What is stopping the vapor intrusion now, does the project proponent have a way to measure vapor intrusion/pressure, and how is the project proponent going to capture all the vapors?

Response:

There are no vapors detected in ambient air from the Remco site, both within the building and outside the building. Previous air monitoring studies using hand held meters and fixed air monitoring stations did not detect VOCs or hydrogen sulfide from two pilot studies, and two interim remedial actions using the same reducing agents (molasses and vegetable oils). Sampling for VOCs in homes and crawl spaces of the homes also confirmed no vapor intrusion issues from VOCs attributable to the Remco site. Please see Response to Comment 10 above, regarding vapor intrusion. Because the treatment of VOCs has been and will continue to be below ground, we do not expect impacts from the Project to the ozone layer nor an increase in greenhouse gas emissions resulting from the breakdown of VOCs.

Other Issues

(12) Comment:
The RWB received an NPDES permit application on August 18, 2008 (KB).

Response:
No application for an NPDES Permit was received in August of 2008 (nor any other date), but rather a revised report of waste discharge for the RWB to consider Waste Discharge Requirements for the In-situ VOC IRA.

(13) Comment(s): The commenter (WCEJ) asks what pH buffer and molasses will be used, why yeast isn't being used, and how will the oil stay emulsified.

Response: The molasses is a food grade organic molasses from the vendor Grain Millers Specialties products in Lincoln, Nebraska. The emulsified vegetable oil is from the vendor EOS Remediation. The product is called EOS450, and is emulsified with a proprietary food grade emulsifier. Rather than using yeast, the project proponent is selecting a vitamin B-12 solution. The pH buffer solution is calcium carbonate suspended in an aqueous solution with food grade additives. The pH buffer solution is produced by the company RNAS, Inc.

(14) Comment(s): The commenter (WCEJ) asks whether the public will be informed when injections are proposed for other areas.

Response: Yes. Waste Discharge Requirements Order No. R1-2009-0001, Page 6, Discharge Specification B.2 outlines the process for providing notification for any reinjections. The notification requires a public notice and comment period.

(15) Comment: Has the RWB hired its own independent geochemist to explain the chemical composition of and changes in the crust of Remco and the surrounding area? (WCEJ)

Response: No. The RWB staff has its own staff with experience in the type of project proposed for the Remco site.

(16) Comment: Can these more toxic intermediary VOCs harm anyone if they get off site? (WCEJ)

Response: There needs to be a route of exposure to cause harm to individuals. The project proponent (discharger) is required to keep the treatment process on-site, thus preventing any exposure to individuals.

(17) Comment(s): The commenter (WCEJ) asks whether the project can cause metasomatism in plants, animals and rocks, especially if it goes off-site.

Response: Metasomatism is the series of processes whereby minerals or rocks are replaced by others of different chemical composition as a result of the introduction of material, usually in very hot aqueous solutions, from sources external to the formation undergoing change.

The answer is no, the project will not result in metasomatism of minerals, rocks, plants or animals at any location. However, the migration of VOCs and intermediary VOCs off of the property boundaries is prohibited and a contingency plan is in place to prevent off-site migration.

(18) Comment(s): The commenter (WCEJ) asks whether any other microscopic forms of life might change or cause harm to the environment by this process including fungus and bacteria. The commenter (WCEJ) asks what are the names of the microorganisms that donate electrons, and how has the groundwater treatment been achieved.

Response: The treatment process to dechlorinate VOCs is discussed on Page 6 of the Mitigated Negative Declaration. The in-situ treatment process enhances the natural microorganisms present at the site. The specific microorganisms have not been speciated, but most likely are a microorganism called " Dehalococcoides". This microorganism typically is present at solvent sites where the dechlorination process is occurring. Since the pilot studies and IRAs have shown effective dechlorination, there is no need to conduct further testing to determine the type(s) of microorganisms present at the former Remco facility. No fungus or bacteria, with the exception of the microorganisms that dechlorinate the VOCs, are expected to be generated by this process.

(19) Comment:
The commenter (WCEJ) asks whether this process will reduce any metals and what were the levels of vinyl chloride in 2000, 2001, and 2003.

Response: The injection of molasses has reduced hexavalent chromium at the site as part of the Interim Remedial Action to Reduce Hexavalent Chromium, conducted in 2004. The results of this study are in the report titled: "Fourth Quarter 2006 Report for Interim Remedial Action for Hexavalent Chromium-Affected Groundwater, February 7, 2007".

The sampling results of vinyl chloride are reported on a routine basis in groundwater monitoring reports, and reports of the pilot studies and IRAs. These groundwater monitoring reports can be reviewed at the Regional Water Board's offices, at the document repository in Willits, and on-line at www.willitstrust.org.

(20) Comment(s):
The commenters (KB & WCEJ) ask what is the time frame to dechlorinate VOCs at the site.

Response: The time frame to complete the dechlorination process will vary across the site. In some areas of the site the dechlorination process was completed during the pilot project and the Hexavalent Chromium IRA in less than five years, and in some areas it is taking longer.