

Comments

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Draft Preliminary Assessment
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Comments from Mark Vest, DTSC, January 26, 2004

General Comments and Recommendations

The Report contains PA summary sheets that include "Possible Chemicals of Interest" (COIs) sections identifying Army and post-Army COIs and media or sample matrix. The PA summary sheets also include "Recommendations" sections that propose generalized follow-up actions for FAR sites. GSU does not agree with all of the COIs, media, or recommended follow-up actions that are identified by the COE for each site. GSU has provided some comments and recommendations below regarding these matters; however, agreement regarding COIs, media of interest and specific investigation activities will become more important when a site investigation work plan is developed. Accordingly, detailed comments regarding needed site characterization work will be provided to you when GSU completes our review of the draft site investigation work plan that is scheduled to be provided by the COE in the first week of January 2004.

Comments noted. USACE appreciates the effort DTSC put into reviewing and commenting on the draft Preliminary Assessment. These comments, and especially the recommendations, help USACE better understand DTSC's point of view. USACE will implement these recommendations to the extent possible within the scope of the FUDS Program and the funding available for subsequent environmental work at the former Arsenal.

USACE interprets DTSC's comment as suggesting that final decisions on COIs and media of interest should be deferred to the Site Investigation Work Plan. We agree. As a result, the "Possible Chemicals of Interest" under the Environmental Summary section of the PA Summary Forms will be removed.

During the 3 March 2004 comment resolution meeting attended by USACE, regulatory agencies and Brown and Caldwell, USACE agreed to tie the recommendations back to suspected release points (e.g. UST, burn cage, disposal area).

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DTSC's Specific Comments and Recommendations			
1.	Appendix A	<p>Site 194, Building 194 is a former 4,000 gallon septic tank that is located near former NIKE missile repair and support facilities. According to the Report, the missile repair and support facilities used hazardous materials and generated hazardous wastes. It is not clear if there were post-Army uses of the tank.</p> <p>DTSC Recommendations:</p> <ol style="list-style-type: none"> a. Because septic tanks commonly leak, the site should be reclassified as FAR and investigated for releases (VOCs, SVOCs, metals). b. Any leach fields or dry wells associated with the tank should also be investigated for releases of hazardous waste constituents. 	<p>Further research of this septic tank indicates that it was abandoned by October 1954 (prior to closure and decommissioning of the former Arsenal in 1964). Therefore the septic tank was not beneficially used and is considered an eligible property for investigation under the FUDS Program pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i>, dated 30 September 1999.</p> <p>The categorization of Building 194 will be changed to FAR with the following recommendation:</p> <p>“Additional investigation is recommended at this site to determine potential groundwater impacts from the possible discharge into the tank from the former NIKE missile repair and support facilities (CL1).”</p>

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2.	Appendix A	<p>Site 195 is a former 26,000 gallon septic tank that is located near former NIKE missile repair and support facilities. It is not clear if there were post-Army uses of the tank.</p> <p>DTSC Recommendations:</p> <ol style="list-style-type: none"> a. Because septic tanks commonly leak, the site should be reclassified as FAR and investigated for releases (VOCs, SVOCs, metals). b. Any leach fields or dry wells associated with the tank should also be investigated for releases of hazardous waste constituents. 	<p>Storm drains, sewage lines and tanks that have been in use since the closure of the former Arsenal are considered to provide beneficial use to the current owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i>, dated 30 September 1999, beneficially used structures are ineligible for investigation under the FUDS Program. However, our area-wide investigations are intended to determine whether a significant release of solvents has occurred from the buried lines or from other potential release points. Our area-wide investigation includes CL1, the former NIKE missile repair and support facilities. Sampling locations are planned on the south side of CL1 and adjacent to Building 194.</p>
3.	Appendix A	<p>The PA summary sheet for Site CL1 lists degreasers, paints, oils, and thinners as materials used by the Army in building CL1 but the "possible chemicals of interest" table only includes post-Army chemicals of interest for soil and surface water.</p> <p>DTSC Recommendation:</p> <p>The table should be amended to include Army contaminants of interest for soil and ground water.</p>	<p>As stated above in the response to the General Comments and Recommendations above, the "Possible Chemicals of Interest" section of the PA Summary Forms will be removed. COIs and media of interest will be addressed in the Work Plan.</p>

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4.	Appendix A	<p>The PA summary sheet for building D529 indicates that the building has not been removed but Figure 2-2 illustrates a larger building's footprint covering D529.</p> <p>DTSC Recommendation:</p> <p>The summary sheet and figure should be made consistent.</p>	<p>The building was removed. The PA Summary Form for D529 has been changed to show the "Year Bldg. Removed" to be "Post 1973".</p>
5.	Appendix A	<p>The PA summary sheet for Site M11 includes fuel, metals, oil, and solvents as post-Army possible COIs of interest in soil but the sheet provides no operational history or references to explain why these chemicals of interest are listed.</p> <p>DTSC Recommendation:</p> <p>The summary sheet should be amended to explain why COIs are listed.</p>	<p>See response to the General Comments and Recommendations. The listing of COIs will be removed from the PA Summary Forms.</p>
6.	Appendix A	<p>The PA summary sheet for the rail yard identifies spraying of waste oil along the tracks.</p> <p>DTSC Recommendation:</p> <p>The site should be reclassified as FAR. Surface soil at the former rail line locations should be checked for elevated concentrations of metals, PCBs, and other common contaminants found in waste oil.</p>	<p>Further research indicates that all 25.4 miles of track had the possibility of use as of 1961 (RRR, ref 196). A review of aerial photographs also confirms the existence of these railroad tracks before and after the Army left the site in 1964. Therefore, the railroad tracks are considered to provide beneficial use to the current owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i>, dated 30 September 1999, beneficially used structures are ineligible for investigation under the FUDS Program.</p>

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7.	Appendix A	<p>The PA summary sheet for Site W10 includes fuel, metals, and oil as post-Army possible COIs in soil but the sheet provides no operational history or references to explain why chemicals of interest are listed.</p> <p>DTSC Recommendation:</p> <p>The summary sheet should be amended to explain why COIs are listed.</p>	<p>See response to the General Comments and Recommendations. The listing of COIs will be removed from the PA Summary Forms.</p>
8.	Appendix A	<p>The PA summary sheet for Waste Areas/Open Ditch describes Army use of the sanitary sewer and open bottom field drains for discharge of industrial wastes generated at Building CL1. The summary sheet also identifies post-Army COIs but no Army COIs.</p> <p>DTSC Recommendations:</p> <ol style="list-style-type: none"> a. The Army COIs should be included on the summary sheet. b. The sanitary sewer should be investigated for releases in the vicinity of Building CL1. c. The field drains should be investigated for releases. 	<ol style="list-style-type: none"> a. See response to the General Comments and Recommendations. The listing of COIs will be removed from the PA Summary Forms.. b. See response to Comment No.2. c. Further clarification was requested from DTSC on the meaning of "field drains". DTSC is referring to the two (2) open bottom field drains mentioned for Building CL1. These field drains received discharges from the flushing and component rooms in CL1. USACE agrees that further investigation should be conducted for these open bottom field drains. <p>The recommendation on the PA Summary Forms for Waste Areas/Open Ditch and Building CL1 stated "additional research is recommended to determine the location and results of analyses from post-Army clean-ups. Data from these investigations may determine the presence or absence of suspected impacts from wastes</p>

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			<p>discharged from Building CL1.” Since submittal of the Draft PA, interviews were conducted with the General Manager of Amports, Inc. (formerly Benicia Industries, Inc.) and a former employee of Benicia Industries, Inc. Benicia Industries, Inc. and now Amports, Inc. has owned the parcels in this area since the Army left the site in 1964. The purpose of these interviews was to determine if there were any records remaining from the 1970s disposal of scrap leather by Weldon Leather and the subsequent clean-up in this area. We also wished to identify any available data that would confirm the presence or absence of suspected impacts from wastes discharged from CL1. Unfortunately, there were no records remaining. The former employee did locate the area of the former disposal area, but apparently no samples were taken. The PA Summary Forms for the Waste Area/Open Ditch and Building CL1 have been updated with this information. Also the recommendation has been revised to include sampling at these sites, including the open bottom field drains at CL1.</p>

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9.	Appendix A	<p>The PA summary sheet for Site 4 identifies sandblasting and painting operations and includes references to the building and drains being in poor condition.</p> <p>DTSC Recommendation:</p> <p>Soil and ground water at the building location and nearby storm drain/sewer system should be investigated for releases of contaminants associated with sandblasting and painting.</p>	<p>Army records indicate that the former Building 4 had settled beyond "economic repair" by 1957. The floors had sunk and the floor drains were not operating. Therefore, it may be assumed no post-Army use was possible.</p> <p>The categorization of former Building 4 will be changed to FAR with the following recommendation: "Additional investigation is recommended at this site to determine potential groundwater impacts from the possible disposal of solvent-based paints downgradient of the building."</p> <p>We plan on an area-wide investigation that will include former Building 4. This investigation is intended to determine whether a significant release of solvents occurred from the buried lines or from other potential release points. Therefore, any solvent-based paints will be covered in this investigation. Since these solvent-based paints may also contain lead, selected groundwater samples downgradient of the former building will also be sampled for lead.</p>

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10.	Appendix A	<p>The PA summary for Site 22 identifies the building as a transformer house with no post-Army uses. Transformers may be present based on the information provided.</p> <p>DTSC Recommendation:</p> <p>The presence or absence of transformers should be determined and the potential for PCB contamination should be investigated.</p>	<p>On 12 February 2004, a site visit was conducted to determine if the transformer(s) remain in the building at Site 22. The transformers have been removed. There was no evidence of staining on the concrete floor or outside of the building from possible leakage of the former transformer(s). USACE therefore recommends that the categorization of this site remains NDAI, but the PA Summary Form will be revised to reflect this new information.</p>

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11.	Appendix A	<p>Site 58(B) is identified in the PA summary sheet as a transformer house and cleaning and repair shed. The site is in a historical residential area. The type of cleaning and repair is not specified. Cleaning and repair operations are likely to generate wastes.</p> <p>DTSC Recommendation:</p> <p>Soil samples should be collected and analyzed for solvents, PCBs and metals. If the foundation cannot be located, maps and photographs should be used to identify the location.</p>	<p>Based on a review of the Records Research Report (RRR), we were unable to verify any previous activities at Site 58(B) associated with a "cleaning and repair shed". The building was actually built between 1932 and 1945, not 1915 as stated on the PA Summary Form. The building first appears on a 1945 map as a "transformer house" but does not appear on a 1932 map. A subsequent building inventory confirms the same use. This building is located in a residential area approximately ¼ mile northeast of the industrial area, where "cleaning and repair" commonly occurred. It is very unlikely that "cleaning and repair" was performed in this shed. Therefore, the PA Summary Form has been revised to remove reference to a "cleaning and repair shed".</p> <p>On 12 February 2004, a site visit was conducted to determine if there is an evidence of staining due to possible transformer leakage or stressed vegetation in the area of the former building. There are no remnants of the building, and there was no evidence of staining or stressed vegetation in the area. USACE therefore recommends that this site remain categorized as NDAI, but that the PA Summary Form be revised to reflect this new information.</p>
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12.	Appendix A	<p>Site 74 is identified as a former photographic laboratory in the PA summary sheet. The summary sheet indicates that disposal to the sewer system of photographic wastes may have occurred, but that the COE believes the sewer system is no longer the responsibility of the DoD and therefore the site is proposed as NDAI. There is no indication of post-Army use of the sewer for disposal of photo wastes.</p> <p>DTSC Recommendation: Soil in the vicinity of the sewer should be investigated for releases of photo wastes.</p>	<p>The PA Summary Form shows that post-Army use occurred until at least 1973. These uses, which included candy manufacturing and instrument repair, presumably benefited from the existing sewer system at Site 74. As noted in our response to Comment No. 2, sewage lines that have been in use since closure of the former Arsenal are considered to provide beneficial use to the current owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i>, dated 30 September 1999, beneficially used facilities are ineligible for investigation under the FUDS Program. Therefore, the categorization of Site 74 remains NDAI.</p>
13.	Appendix A	<p>The PA summary sheet for Site 92 indicates that photo wastes were disposed to the sewer system. As with Site 74, the COE believe that because the sewer was used after they left, the site should be NDAI. There is no indication of post-Army use of the sewer for disposal of photo wastes.</p> <p>DTSC Recommendation: Soil in the vicinity of the sewer should be investigated for releases of photo wastes.</p>	<p>See response to Comment No. 12 above.</p>

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14.	Appendix A	<p>Site 74 is identified as a former photographic laboratory in the PA summary sheet. The summary sheet indicates that disposal to the sewer system of photographic wastes may have occurred, but that the COE believes the sewer system is no longer the responsibility of the DoD and therefore the site is proposed as NDAI.</p> <p>DTSC Recommendation:</p> <p>Soil in the vicinity of the sewer should be investigated for releases of photo wastes because there is no indication of post-Army use of the sewer for disposal of photo wastes.</p>	<p>Duplicates Comment No. 12. See response to Comment No. 12.</p>
15.	Appendix A	<p>The PA summary sheet for Site 92 indicates that photo wastes were disposed to the sewer system. As with Site 74, the COE believe that because the sewer was used after they left, the site should be NDAI.</p> <p>DTSC Recommendation:</p> <p>There is no indication of post-Army use of the sewer for disposal of photo wastes; therefore soil in the vicinity of the sewer should be investigated for releases of photo wastes.</p>	<p>Duplicates Comment No. 13. See response to Comment No. 13.</p>

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16.	Appendix A	<p>Site 98 is a large (41,394 sq ft) machine shop built in 1942. The PA summary states <i>"There are no records indicating any potential environmental concerns related to DoD activities at this building."</i></p> <p>DTSC Recommendation:</p> <p>Soil and ground water should be investigated for solvents, waste oil, and metals which should be expected to have been generated and likely released by machine shop activities.</p>	<p>Cleaning and rebuild processes were performed in other buildings in the area (e.g. Buildings 31, 91A, 91, 57, 56) where solvents and waste oil were present. While Building 98 was also used as a machine shop by the Army, there are no records indicating any inventory of these substances (solvents and waste oil) in this building. Therefore, the site is categorized as NDAI. However, the Expanded SI Work Plan includes groundwater samples north of the former electroplating building (Building 120), which is also south of Building 98. These groundwater samples will determine if solvents are present in groundwater south of Building 98.</p>
17.	Appendix A	<p>Site 99 is identified as a storehouse/shop building that was used as a ball bearing processing plant. Army use of the site included solvent dip tanks. Subsurface soil contamination by TPH/naphtha was identified at the site. The site was used by Weldon Leather beginning in 1969 for leather processing and was demolished in the 1970's.</p> <p>DTSC Recommendation:</p> <p>The site should be reclassified as FAR. The completed investigation results should be evaluated and presented in the SI work plan along with recommendations for additional work if warranted.</p>	<p>Building 99 was in use after closure of the former Arsenal. The landowner investigated the building, with results indicating that no additional investigation was required. Furthermore, because of the post-Army beneficial use, this site is ineligible for additional investigation under the FUDS Program pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i>, dated 30 September 1999. The categorization of this site remains NDAI.</p>

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18.	Appendix A	<p>Sites 118(B) and 119 are identified as incinerator/saw dust disposal systems.</p> <p>DTSC Recommendation:</p> <p>Both sites should be reclassified as FAR. Metals, PAHs, and dioxins and furans should be suspected to have been generated and released from incinerators.</p>	<p>Previous investigation at another incinerator (next to the 50 Series Complex) did not provide any evidence of impacts to soil and no waste material was found. The waste material from the incinerators would cause a potential impact to environment, but the location of this waste is unknown. Similar practices are assumed for the former incinerators at Building 118(B) and Building 119. Therefore, these buildings remain categorized as NDAI.</p>
19.	Appendix A	<p>Sites 167 and 168 are classified as FAR. Army uses included vehicle shops for the motor pool.</p> <p>DTSC Recommendation:</p> <p>The COIs and recommendations for subsurface investigation should be amended to include solvents.</p>	<p>See response to the General Comments and Recommendations. The listing of COIs will be removed from the PA Summary Forms.</p> <p>We are planning to conduct an area-wide investigation that will determine whether a significant release of solvents has occurred from the buried lines or from other potential release point sat Building 167 and Building 168..</p>
20.	Appendix A	<p>The sewer/storm drain system is proposed by the COE to be classified as NDAI. The PA summary states <i>"In accordance with the FUDs program, the sewer/storm drain system is no longer the responsibility of DoD since the system was used after the Army left. Therefore, no DoD action is indicated (NDAI) for this site."</i></p> <p>Releases of contamination that occurred while the arsenal was active, and releases and migration of contamination that began before and continued after transfer are unquestionably the responsibility of DoD under state law</p>	<p>Storm drains and sewage lines that have been in use since closure of the former Arsenal are considered to provide beneficial use to the current owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program manual</i>, dated 30 September 1999, beneficially used structures and systems are ineligible for investigation under the FUDS Program. However, our area-wide investigations are intended to determine whether a significant release of contaminants has occurred from</p>

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		<p>including the Health and Safety Code and the Water Code.</p> <p>DTSC Recommendations:</p> <ul style="list-style-type: none"> a. Segments of the sewer/storm drain system including laterals, septic tanks, leach fields, dry wells and outfalls that only served buildings that were demolished prior to reuse, should be investigated if releases of contamination are suspected. There should generally be no question about Army responsibility for any confirmed releases. b. Segments of the sewer/storm drain system near sites where potential releases from Army activities would differ chemically from post-Army wastes should be investigated. There should generally be no question about Army responsibility for confirmed releases of Army-related constituents. c. Segments of the sewer/storm drain system near sites where potential releases from Army activities would be similar to post-Army releases should be investigated. Sharing responsibility for investigation and clean up costs is common at non DoD hazardous waste release sites. 	<p>the buried lines or from other potential release points.</p> <p>In response to DTSC's specific recommendations:</p> <ul style="list-style-type: none"> a. The area-wide investigation is designed to determine the impact to groundwater downgradient of the former structures. If results point to the types of release mechanisms (e.g. laterals, septic tanks, leach fields, dry wells and outfalls) where only Army-related impacts are possible, then additional detailed investigation will be recommended if necessary. b. As stated in our response to Comment No. 12, this situation is still considered ineligible for funding under the FUDS Program and therefore no investigation will be conducted. c. As noted in previous comments, the FUDS Program deems this situation as ineligible for funding and therefore no investigation will be conducted.
21.	Appendix A	Site 2 is the location of a magazine that partially burned in a 1922 fire. A 1988 removal action was completed for lead contaminated soil. Pre-excavation lead concentrations greater than 1,000 mg/kg and up to	Categorization of Magazine 3 as NDAI was based on the lack of evidence of any impacts to surrounding soil as a result of the burning of smokeless cartridges during the 1922 fire. This building was completely

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		<p>14,000 mg/kg are noted in the PA summary. Site 3 was a nearby magazine that was completely destroyed in the 1922 fire. Both magazines were constructed in the 1850's.</p> <p>DTSC Recommendation:</p> <p>Site 3 should be reclassified as FAR. The potential for elevated lead concentrations at the location of Site 3 should be evaluated.</p>	<p>destroyed in the fire. However, because of this DTSC comment, we conducted an additional review of all applicable references in the RRR for this site, nearby Magazine 2 (which lost its roof in the fire), and historical depictions of the 1922 fire itself.</p> <p>An August 12, 1922 document (RRR, ref 166) lists the buildings damaged during the 1922 fire and the salvage value of items remaining in each damaged building. This reference was not originally included on the PA Summary Form or in the RRR for Magazine 3. In this document, Magazine 3 is referred to as Magazine 1. The remaining items included cartridges, grenades, shells and bombs.</p> <p>Further analysis was conducted to determine the location of the former magazine in relation to current structures. Landmarks (e.g. former magazine footprint, roads and nearby Magazine 2) were used to locate of the site of former Magazine 3 on 1924, 1952 and 1988 aerial photographs. In 1924, two years after the fire, the former location of the magazine is clearly depicted. In 1952, the former magazine and the area north of the former magazine have been graded. In 1988, the graded area is a parking lot. The graded area and parking lot coincides with PA site OS25A. OS25A was a former open storage area that reportedly received fill materials from another a nearby open storage areas – OS 25.</p>
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			<p>In summary, the area of former Magazine 3 has been graded, covered by fill material and now is an asphalt-covered parking lot. Historical information indicates that lead-containing ammunition was stored in the magazine during the 1922 fire. There was a possibility of lead contamination in surface soil associated with destruction of the magazine in the 1922 fire. However, with the changes in the landscape due to subsequent grading and filling of the area, it would be very difficult to find such contamination (if it exists). Therefore, USACE recommends that the category for this site remains NDAI, but the PA Summary Form will be revised to reflect this new information.</p>
22.	Appendix A	<p>The PA summary sheet indicates that a pistol range was operated at Site 7.</p> <p>DTSC Recommendation:</p> <p>The potential for lead contamination should be investigated.</p>	<p>This site was an indoor pistol range. According to the Camel Barn Museum, current tenant of building, the City of Benicia Police Department also used the pistol range after the Army left the Arsenal. There are no remnants of the range remaining.</p> <p>Therefore, USACE recommends that Site 7 remain categorized as NDAI, but the PA Summary Form be revised to reflect this new information.</p>

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23.	Appendix A	<p>The PA summary sheet for Site 20 (Tire Rebuild Facility/Boiler House) identifies post-Army COIs but no Army COIs. The post-Army use was tire and rubber product manufacturing.</p> <p>DTSC Recommendation:</p> <p>The summary sheet should add Army COIs or clarify why apparently similar operations are not expected to result in similar COIs.</p>	<p>As stated above in the response to the General Comments and Recommendations above, the "Possible Chemicals of Interest" section of the PA Summary Forms will be removed. COIs and media of interest will be addressed in the Work Plan.</p> <p>The recommendation on the PA Summary Form for Building 20 stated "additional research is recommended to determine the status of the tank and possible beneficial use of the site." Additional research was conducted during a site visit on 8 October 2003. The boiler house has been renovated to an office. The UST was removed and investigated by the landowner. The site is closed to further environmental action. Therefore, status of the tank has been determined and the categorization of the site on the PA Summary form has been changed from FAR to NDAI. .</p>
24.	Appendix A	<p>Site 84 is indicated on the summary sheet to be a magazine that is still standing. Figure 2-5 illustrates Site 84 as being within the footprint of an existing large above ground storage tank.</p> <p>DTSC Recommendation:</p> <p>The map and the summary sheet should be amended to be consistent.</p>	<p>The building was removed. The PA Summary Form for Site 84 has been changed to show the "Year Bldg. Removed" to be "1962 to 1970".</p>

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25.	Appendix A	<p>The Dunnage Burn Area is proposed as NDAI. The summary sheet identifies burning of scrap wood and small arms range as DoD uses.</p> <p>DTSC Recommendation:</p> <p>The area should be reclassified as FAR and investigated as a burn dump and small arms range.</p>	<p>The PA Summary Form for the Dunnage Burn Area is not accurate regarding the small arms range. The reference of a small arms range has been removed from the PA Summary Form.</p> <p>This area was reportedly used to burn dunnage (loose materials such as wooden crates, wooden pallets and paper packaging used to support and protect cargo during shipment). USACE does not expect any impacts to human health or the environment to result from the burning of these materials. Therefore, USACE recommends that this site remain categorized as NDAI.</p>

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26.	Appendix A (Changed pages dated 11/18/03)	<p>Small Arms Ammunition Disposal Burn Cage (Page 1 of 10) is proposed as NDAI because the area is hilly and the nearest railroad spur was located more than 1,000 feet away.</p> <p>DTSC Recommendations:</p> <ul style="list-style-type: none"> a. More information should be provided about how the suspect area was originally identified. Ammunition to be burned may have been transported by truck to this location. b. If other ammunition burn areas are found to have caused contamination, this area should be revisited. 	<ul style="list-style-type: none"> a. This site was first identified in the Archive Search Report Supplement (USACE, 1997) during interviews conducted with Mr. Milburn and Mr. Banks, former Arsenal employees. Mr. Milburn stated there was a "small arms ammunition burn area" in the open storage area (rail area). He located the area on a map. This is the location shown in the PA. Mr. Banks was contacted and indicated that he could not remember the exact location but it was "in a draw past the open storage area (rail car storage)." Based on this information, there still is no conclusive evidence regarding the exact location or existence of this suspected burn cage. b. The lack of conclusive evidence regarding the exact location or existence of this suspected burn cage would make sampling impossible. Therefore, USACE recommends that that this site remain categorized as NDAI.
27.	Appendix A (Changed pages dated 11/18/03)	<p>Spur A, Burn Cage Area/Hydrazine Burn Area (Page 3 of 10) is proposed as FAR. The summary sheet recommendations section proposes to only investigate if impacts are found at Spur E. The Recommendations section also proposes only to look for kerosene in ground water.</p>	<ul style="list-style-type: none"> a. As stated above in the response to the General Comments and Recommendations above, the "Possible Chemicals of Interest" section of the PA Summary Forms will be removed. COIs and media of interest will be addressed in the Work Plan.

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		<p>DTSC Recommendations:</p> <ul style="list-style-type: none"> a. The summary sheets section on COIs should be amended to also include residue expected from burning ammunition rather than focusing on TPH. b. Soil and ground water should be proposed for investigation when a work plan is prepared. 	<p>With regard to the “residue expected from burning ammunition”, records indicate and interviews substantiate that such burning was performed in a concrete structure that was covered with a metal cage. After the burning was completed, metal and ash remained inside the structure. The recovered metal was removed for salvage. The ash was likely composed of these “residues” of concern to DTSC as well as wood. (The ammunition was boxed in wood crates and dowsed in kerosene before being lit on fire). The ash disposal location is unknown. It is possible that the ash may contain heavy metals and explosive residue. Based on recent field visits and over 40 years of post-Army activity in the area, the likelihood of finding this ash is remote. However, USACE proposes to conduct additional analyses (as determined in the Work Plan) of groundwater samples from this area to determine if “residues” of ammunition burning have leached over time into the underlying saturated zone.</p> <ul style="list-style-type: none"> b. USACE plans to analyze groundwater because it is shallow in this area (less than 10 feet below ground surface) and represents the highest environmental risk posed by Spur A. Soil was not considered for evaluation at this time because of the unlikelihood of finding any of residues of past DoD activities such as ammunition burning.

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28.	Appendix A (Changed pages dated 11/18/03)	<p>Spur E, Burn Cage Area (Page 5 of 10) is proposed as FAR. The summary sheet identifies fuel in soil and ground water to be the only Army related COIs for the site.</p> <p>DTSC Recommendation:</p> <p>COIs should include residue expected from burning ammunition including metals and explosives compounds.</p>	<p>As stated above in the response to the General Comments and Recommendations above, the "Possible Chemicals of Interest" section of the PA Summary Forms will be removed. COIs and media of interest will be addressed in the Work Plan.</p> <p>As stated above in our response to Comment No. 27, USACE proposes to conduct additional analyses (as determined in the Work Plan) of groundwater samples from this area to determine if "residues" of ammunition burning have leached over time into the underlying saturated zone.</p>
29.	Appendix A (Changed pages dated 11/18/03)	<p>Spur G, Burn Cage Area (Page 7 of 10) is proposed as NDAI due to the possibility of post-Army impact due to the storage of numerous vehicles in the area.</p> <p>DTSC Recommendation:</p> <p>If other ammunition burn areas are found to have caused contamination, this area should be revisited.</p>	<p>The location of former Spur G is covered by several feet (up to 15 feet in some places) of fill material. The exact location of any residues of ammunition burning is impossible to find due to this fill material.</p> <p>During the 3 March 2004 comment resolution meeting, USACE agreed to collect groundwater samples downgradient of Spur G if impacts are found at Spur E, a known burn cage location. Therefore, the categorization of this site has been changed from NDAI to FAR.</p>
30.	Appendix A (Changed pages dated 11/18/03)	<p>Landfill - formerly Landfill 3 (Page 9 of 10) is proposed as NDAI although interviews and documentation suggest that the site is the location of disposal of large volumes of hazardous wastes.</p>	<p>As a result of this DTSC comment, further review of was conducted of the text in the RRR and the corresponding information presented in the PA Summary Form. After submittal of the Draft PA report and subsequent site visits, we determined that</p>

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		<p>DTSC Recommendation:</p> <p>The site should be investigated as a presumed hazardous waste landfill.</p>	<p>some of the information provided in the RRR may not be accurate.</p> <p>A revision of the PA Summary Form was submitted to DTSC for comment on 18 November 2003. This revision included new information obtained from interviews with the current landowner and a former employee who worked at the area for over 20 years. These individuals were not contacted during the original compilation of the RRR. The two recent interviews indicated that the current landowner found no buried wastes at the Post Dumpsite (formerly Landfill 3). However, DTSC was still not satisfied, as evidenced by the comment at left.</p> <p>Further analysis was performed of the available information for this area, including documents and interviews. This information is listed below in chronological order:</p> <ul style="list-style-type: none"> ▪ 1928 aerial photograph (RRR, Appendix A-2): The area is undisturbed marshlands. ▪ 1945 aerial photograph (RRR, Appendix A-2): The area is partially filled in (closest to the railroad trestle crossing the Carquinez Strait). Dumping is not apparent. ▪ September 7, 1945 Arsenal Map (RRR, ref 650): There are no structures or activity noted

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			<p>in this area.</p> <ul style="list-style-type: none"> ▪ 1947 aerial photograph (RRR, Appendix A-2): Entire area is disturbed and filled. No other activity present. The activity seen on the 1945 aerial photo is not present. ▪ 1950s (exact date unknown): Benicia Bomber article describing money-saving operations by the Arsenal Carpenter Shop states “small unusable lumber scraps are hauled to the sanitary fill on the bay shore road for open burning.” (RRR, ref 155,pg 5). ▪ 1952, 1957, 1959, and 1962 aerial photographs (RRR, Appendix A-2): The first occurrence of OS27 (paved area with unknown materials neatly stored) is noted in these photographs. Two black circular areas are present at the north end of the site. These maybe the burn pits mentioned in the Mr. Leroy Bailey interview (see below) and referenced as the areas of open burning in the Benicia Bomber article. Dumping is not apparent. The area surrounding OS 27 is filled in for access. The filled area reaches near the Carquinez Strait in some places. ▪ September 7, 1954: General Map. “Post Dump” marked on map as “27-A” south of

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			<p>“27” and adjacent to temporary building “T-227” (RRR, ref 646). The numbers refer to “Open Surfaced Areas”. Some of them are also known as Open Storage (OS) Areas. For example, OS27.</p> <ul style="list-style-type: none"> ▪ May 10, 1961: Facility Data states “Metal cleaning corrosives removed from tanks and disposed of in filled land area” (RRR, ref 196, pg 9). ▪ 1973 aerial photograph (RRR, Appendix A-2): After the Army had left the former Arsenal, the area is defined by dirt roads and circular areas are not present. ▪ 1978 aerial photograph (RRR, Appendix A-2): Area completely paved. ▪ 1997 interview with Mr. James Milburn: Mr. Milburn, an Arsenal employee from 1941 to 1963, stated: “After the clocktower dumpsite was closed (Fillsite 2), a larger dumpsite was opened near the bay. It was used from the late 1940s until 1962.” (Archive Search Report Supplemental, USACE, 1997). ▪ 1997 interview with Mr. Leroy Bailey: Interview not found, but text below is from (RRR, pg 2M-17): Mr. Bailey, a former Arsenal employee, indicated that this area received

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			<p>industrial waste including acids, metal-cleaning corrosives, DDT, high-octane gasoline, and every type of waste generated at the Arsenal. He also indicated that thousands of gallons of gasoline was burned in pits.</p> <ul style="list-style-type: none"> ▪ 2003 interview with Mr. Don Heinitz: Mr. Heinitz, chief engineer for Benicia Industries, Inc. for 20 years, stated that he never encountered any refuse during any excavation to repair or install utilities in this area. Wood timbers were found. <p>In summary, the Post Dumpsite (formerly Landfill 3) was a disposal area from approximately 1954 to 1961 for metal cleaning corrosives that also contained residual quantities of heavy metals. At the north end of the area, burning of waste wood was also performed in two circular pits during the same time frame.</p> <p>Prior information included in the RRR, the draft PA report, and the supplemental submittal of the PA Summary Form for this site did not include the finding of the 1954 map that located the "post dump".</p> <p>The PA Summary Form will be updated with this information to more accurately depict our current knowledge of this site. USACE will also change the designation of this site from "Landfill 3" to "Post Dumpsite".</p>

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			Because there is evidence that the area received discharges of liquid metal cleaning corrosives, USACE will change the categorization of this site from NDAI to FAR. USACE proposes to add groundwater samples and the appropriate analyses, with details to be provided in the Work Plan.
Comments from Gary Riley, RWQCB, February 9, 2004			
1.	Appendix A	DOD Site 177: A gasoline-powered compressor existed at this NIKE missile repair and support facility. No source of fuel for the compressor has been identified. It has been our experience that such fuel was most often stored in an underground storage tank (UST). Therefore, this site should be carried forward for evaluation of the fuel source and the potential for a release to soil and/or groundwater. This site should also be evaluated for emergent chemicals associated with explosives and rocket fuel. (See Comment #21.)	USACE requires documentation of features, such as USTs, prior to performing an investigation into possible contamination. There is no documentation indicating a UST was present at Site 177. Therefore, categorization of this site remains NDAI.
2.	Appendix A	DOD Site 194: This former 4,000 gallon septic tank served an industrial area associated with NIKE missile repair. The summary sheet states industrial wastes often traveled through drains to these systems. This site should be reclassified as FAR and evaluated for industrial chemical releases and for emergent chemicals associated with explosives and rocket fuel. (See Comment #21.)	USACE concurs with this recommendation. The categorization of Building 194 will be changed to FAR. See responses to DTSC Comment No. 1 and RWQCB Comment No. 21..

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3.	Appendix A	DOD Site 195: The summary sheet indicates effluent from the paint spray booth in CL1 was discharged into the 26,000 gallon septic tank at this location. This location should be reclassified as FAR and investigated for a release of paint-related wastes from the septic system to the environment.	See response to DTSC Comment No. 2. USACE believes that Site 195 is ineligible for further investigation under the FUDS Program and should remain categorized as NDAI. However, an area-wide investigation that will include this location is intended to determine whether a significant release of paint-related waste (including solvents) has occurred.
4.	Appendix A	DOD Site 26, Page 101: The removed UST at this site is proposed for no further action. However, formal closure of this site is only possible with a Water Board closure letter. Water Board staff comments in 2002 on the removal of this UST stated, "[t]he report recommends closure of the underground storage tank cases at Building 26 and Building 28. Formal closure of leaking underground storage tank (UST) cases is not possible based on the information in the report. Sub-meter GPS information is required for all such cases for inclusion in the Board's regional leaking UST database and the statewide Geotracker database." Therefore, this leaking UST case is not closed and we cannot concur with the NFA recommendation. This site requires further action and, as such, should be reclassified as FAR.	Agreed. The categorization of Building 26 will be changed from NDAI to FAR, with the recommendation to collect sub-meter GPS data points during the upcoming Expanded Site Investigation Field Site Investigation. These data will be provided to the RWQCB to support formal regulatory closure of this site..
5.	Appendix A	DOD Site 28: The comment for the UST at Site 26 (Comment #4) also applies to this site.	Agreed. The categorization of Building 28 will be changed from NDAI to FAR. See response to RWQCB Comment No. 4.

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Item No.	Section		
6.	Appendix A	DOD Site 48: This site was a machine shop and painting room that included deep pits, cisterns, and aboveground storage tanks. The current landowner has reportedly investigated the property for solvent releases, but it is unknown whether regulatory agencies have concurred with the completeness and conclusions of that investigation. Since the Army activities at this site clearly had the potential for releases of fuels, solvents, and metal plating chemicals, this site should be reclassified as FAR and further investigated under DTSC and Water Board oversight.	Site 48 has been in use since closure and decommissioning of the former Arsenal. It is considered to have provided beneficial use to subsequent owners. Beneficially used structures are ineligible for investigation under the FUDS Program pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i> , dated 30 September 1999. Therefore, the categorization of the building at Site 48 remains NDAI.
7.	Appendix A	DOD Site 49: According to the summary sheet, the former building at this location had paint a spray booth and solvent usage by the Army. A subsequent property owner's investigations into possible solvent releases was conducted in the mid-1990s, but it is unknown if regulatory agency concurrence was received. This site should be reclassified as FAR and carried forward in investigation and to concurrence by DTSC and the Water Board for potential Army releases.	Site 49 has been used since closure and decommissioning of the former Arsenal. It is considered to have provided beneficial use to subsequent owners. Beneficially used structures are ineligible for investigation under the FUDS Program pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i> , dated 30 September 1999. Therefore, the categorization of Site 49 remains NDAI.

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8.	Appendix A	<p>DOD Site 57A: This former small arms shop has identified TCE contamination in soil and groundwater and is a portion of the Building 50 Series complex that is planned for further investigation. Water Board staff have submitted comments on the site inspection report for this entire area. Since this building lies in the middle of the complex, the no further action recommendation is inappropriate at this time and should be made only as part of a decision document and/or final remedy for the Building 50 Series complex.</p>	<p>Building 57A in the 50 Series Complex has been in use since closure and decommissioning of the former Arsenal. It is considered to have provided beneficial use to subsequent owners. Beneficially used structures are ineligible for investigation under the FUDS Program pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i>, dated 30 September 1999. Therefore, the categorization of Building 57A remains NDAI. However, our area-wide investigations are intended to determine if a significant release of solvents has occurred (including around the 50 Series Complex) and the likely source locations.</p>
9.	Appendix A	<p>DOD Site 70: No source of fuel is identified in the summary sheet for this building that formerly powered the entire arsenal. Such a building would be expected to have a number of large USTs associated with it. This site should be reclassified as FAR and an investigation conducted to determine if USTs are present and whether fuels were released at this site.</p>	<p>USACE requires documentation of features, such as USTs, prior to performing an investigation into possible contamination. There is no documentation indicating that USTs were present at this building. Therefore, categorization of this site remains NDAI.</p>

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Comment No.	Reference	Comment	Response
10.	Appendix A	DOD Site 73(A): Petroleum hydrocarbons, chlorinated VOCs, and PAHs were detected in groundwater at this site during investigation of a suspected UST. The summary sheet states that Site 73(A) is not the source of this contamination, but that the source should be determined. This determination constitutes a further action recommendation for this site until the source is identified. The status shown on the summary sheet should be adjusted to FAR and make the need for further action clear.	The subsurface investigation conducted at Site 73(A) reported that no hydrocarbons were found in the soil samples collected. Because there were no contaminants detected in the soil, it was concluded that a different source was responsible for the chemicals detected in groundwater. Therefore, the site will remain NDAI. However, the Expanded SI Work Plan includes collection of groundwater samples north of Building 161, which is also south of Building 91A and Building 31. These groundwater samples will help determine the source of the solvents identified in groundwater around Site 73(A).
11.	Appendix A	DOD Site 92: Historical drawings of this former photographic lab referenced in the PA indicate historical disposal of chemicals to the sewer system. The summary sheet recommendation for this site indicates no further action because the sewer system is ineligible for FUDS investigation. The post-DOD uses of Site 92 appear to be office-type; therefore, any release of photographic chemicals from the sewer system in this area would be indicative of DOD release for which the Army retains responsibility. This site should be classified as FAR to address this issue.	The post-Army uses presumably benefited from the existing sewer system at Site 92. As noted in our response to DTSC Comment No. 2 and elsewhere, sewage lines that have been in use since closure of the former Arsenal are considered to provide beneficial use to the current owners. Beneficially used facilities are ineligible for investigation under the FUDS Program pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program Manual</i> , dated 30 September 1999. Therefore, the categorization of Site 92 remains NDAI.

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12.	Appendix A	DOD Site 98: This building is identified as 41,000 square foot machine shop. Since the industrial activities associated with machine shops have a significant potential for releases of pollutants to the environment, this site should be reclassified as FAR and investigated further.	See response to DTSC Comment No. 16.
13.	Appendix A	DOD Site 99: Army activities at this site included degreasing, metal fabrication, and other processes. A number of solvent tanks were shown on historical drawings. The potential for a release was investigated along a "solvent and oil process line" in the mid-1990s; the summary sheet states no evidence of solvent releases was discovered. Investigation at the site did indicate a release of petroleum. This site should be classified as FAR and the results presented to DTSC and the Water Board for concurrence that the prior investigation for solvents was adequate. In addition, investigation and possible remediation of petroleum releases is required under the Water Code.	See response to DTSC Comment No. 17.
14.	Appendix A	DOD Site 118(B): This building operated as an incinerator from 1945 to 1952. Records indicate the incinerator was replaced in 1952 with a new structure fueled by natural gas. The fuel source prior to 1952 should be investigated (and presumed on-site petroleum), with particular concern regarding the potential for underground storage tanks. This site should be reclassified as FAR.	See response to DTSC Comment No. 18 and RWQCB Comment No. 9. Additionally, the incinerator was used to burn sawdust and there is no evidence that petroleum was used as a fuel source at this location.

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15.	Appendix A	DOD Site 179 operated as a compressor building from 1945 onward. The Records Research Report indicated it is unknown what fueled this compressor. A fuel source was most certainly required for this structure; the site should be reclassified as FAR to determine whether fuel distribution, storage, or use at this site resulted in a release.	USACE requires documentation of features, such as fuel storage and distribution facilities, prior to performing an investigation into possible contamination. There is no documentation indicating that such facilities were present at Building 179. Therefore, categorization of this site remains NDAI.
16.	Appendix A	DOD Site Spur A: According to the summary sheet, this site was used for burning hydrazine in an existing 6-foot by 6-foot concrete structure. The PA recommends further action at this site for fuels in groundwater. Soil and groundwater at this site should be investigated for explosive residues as well. In particular, groundwater at this site needs to be sampled for N-nitrosodimethylamine. This compound is also known as NDMA, a product from the decomposition of unsymmetrical dimethyl hydrazine. NDMA is identified as a carcinogen under California Health and Safety Code Section 25249.5, <i>et seq.</i> , and the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). In addition, the USEPA identifies NDMA as a "probable human carcinogen" (USEPA, 1997). The California Department of Health Services action level for NDMA is 10 ng/L. (See Comment #21.)	See response to RWQCB Comment No. 21 regarding sampling for emergent chemicals such as NDMA. See response to DTSC Comment No. 27 regarding further investigation of explosive residues in soil and groundwater at Spur A. During the Expanded Site Investigation, USACE plans to analyze groundwater because it is shallow in this area (less than 10 feet below ground surface) and represents the highest environmental risk. Soil was not considered for evaluation at this time because of the unlikelihood of finding any of residues of past DoD activities such as ammunition burning.

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17.	Appendix A	<p>DOD Site Spur E: The location was a burn cage for ammunition. The chemicals of interest list should be expanded to include explosives and emergent chemicals in soils and groundwater. (See Comment #21.)</p>	<p>See response to DTSC Comment No. 27 regarding proposed sampling activities at this burn cage. USACE plans to conduct additional analyses (as determined in the Work Plan) of groundwater samples from this area to determine if “residues” of ammunition burning have leached over time into the underlying saturated zone.</p> <p>As stated above in the response to the DTSC General Comments and Recommendations, the “Possible Chemicals of Interest” section of the PA Summary Forms will be removed. COIs and media of interest will be addressed in the Work Plan. Additionally, any reference to COIs in the recommendations will also be removed.</p> <p>See response to RWQCB Comment No. 21 regarding sampling for emergent chemicals such as NDMA.</p>

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18.	Appendix A	DOD Site "Concrete Lined Underground Tank" in Area M: This 30-foot diameter tank was shown as an underground tank on two 1958 drawings. The summary sheet concludes the tank does not exist, but does not provide information on how this determination was made. Please provide additional information on the investigative process used to reach this conclusion.	<p>Brown and Caldwell concluded that the 30-foot diameter concrete tank does not currently exist and it may not have ever been built. There is no evidence in the Arsenal's records of its use, nor was there evidence of this tank during a field inspection of the area west of former Magazine 14. It is presumed that the tank, if it was ever built, was filled or destroyed during various construction phases for the Interstate 680/780 bridge abutments. However, we were unable to find conclusive evidence that confirms the destruction of this tank.</p> <p>Various documents from the RRR were reviewed (reference numbers 267, 376, 542, 650, 653, and 718) for evidence of the construction or destruction of a 30-foot diameter concrete-lined tank near Magazine 14. These documents are inconclusive. Document 176 from the RRR lists of buildings and structures at the former Arsenal as of 1 January 1957. The concrete lined tank is not listed in this document, and it was not identified as any type of fuel storage tank. No evidence of the existence of a 30-foot diameter tank was found on any of the available aerial photographs from the RRR.</p> <p>The PA Summary Form for this site will be updated to include this information.</p>

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19.	Appendix A	<p>DOD Site "Landfill (formerly Landfill 3)": Historical information suggests this 20-acre area received drums of industrial waste including "every type of waste generated at the Arsenal" from 1940 through 1964. Possible burn pits were noted on 1952 aerial photographs. This site should be recommended for FAR based on the potential for disposal of large quantities of petroleum and hazardous waste. The site should also be investigated for emergent chemicals since it likely received wastes from throughout the facility.</p>	<p>See response to DTSC Comment No. 30. The PA Summary Form will be updated with new information that more accurately depicts our current knowledge of this site. USACE will also change the designation of this site from "Landfill 3" to "Post Dumpsite".</p> <p>Because there is evidence that this area received discharges of liquid metal cleaning corrosives, USACE concurs with the recommendation to change the categorization of this site from NDAI to FAR. USACE proposes to add groundwater samples and the appropriate analyses, with details to be provided in the Work Plan.</p> <p>See response to RWQCB Comment No. 21 regarding sampling for emergent chemicals such as NDMA.</p>
20.	Appendix A	<p>DOD Sites Nike Missile Sites 1 and 2: These sites should be investigated for emergent chemicals in accordance with the Water Board request for a source evaluation report. (See Comment #21.)</p>	<p>See response to RWQCB Comment No. 21 regarding sampling for emergent chemicals such as NDMA.</p>
21.	Appendix A	<p>The Regional Water Quality Control Board requested the Army prepare an emergent chemicals Source Evaluation Report for the former Benicia Arsenal in a June 16, 2003 letter from the Executive Officer to Mr. Jerry Vincent. The letter requested a response date of September 15, 2003. No response to this letter has been received. A number of sites identified in the Preliminary Assessment have the potential for contamination with the emergent</p>	<p>USACE responded to RWQCB request in a letter to Ms. Loretta Barsamian dated 26 September 2003. In that letter, USACE stated that we are awaiting DOD policy guidance for dealing with emergent chemicals at FUDS sites. Once we have received this guidance, USACE will provide specific responses to the RWQCB request.</p>

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		<p>chemicals detailed in the Water Board request. These chemicals include: perchlorate; NDMA; 1,4-dioxane; 1,2,3-trichloropropane; hexavalent chromium; and polybrominated dipheyl ether. The Preliminary Assessment does not constitute a Source Evaluation Report as requested in the letter. At a minimum, such a report should include:</p> <ul style="list-style-type: none"> ▪ Property ownership and land use history from original land grant, ▪ Locations where emergent chemicals were used and stored on-site, ▪ Location and time specific quantities of emergent chemicals used, if available, ▪ Handling and storage procedures for the use of emergent chemicals and emergent chemical wastes used and/or generated on site, ▪ Emergent chemical data from soil, surface water, and groundwater already collected, and ▪ Schedule for when environmental samples will be collected at sites with no existing soil, surface water and groundwater data on emergent chemicals. <p>The summary sheets for sites where emergent chemicals may have been stored, handled, or used should be expanded to provide the above information (where</p>	

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		available). For those sites where no data exist for emergent chemicals, further action should be recommended to ensure samples are collected in the field sampling effort planned for the Site Investigation this year.	
22.	Appendix A	<p>DOD Site Sewer/Storm Drain System: The summary sheets that "in accordance with the FUDs program, the sewer/storm drain system is no longer the responsibility of DoD since the system was used after the Army left. Therefore, no DoD action is indicated (NDAI) for this site." Water Board staff disagree with this conclusion. Releases of pollution to Waters of the State that occurred during the operating period of the Arsenal, and releases or migration of contamination to or within Waters of the State that began prior to and continued after closure of the facility, are the responsibility of the Army under the Porter-Cologne Water Quality Control Act (California Water Code Section 13000, <i>et seq.</i>).</p> <ul style="list-style-type: none"> ▪ Those portions of the sanitary sewer/storm drain system that served buildings demolished prior to transfer of the facility should be investigated for a release if the activities in these buildings indicate a potential for chemical releases to the system. Any releases from these segments would clearly be the responsibility of the Army. ▪ Portions of the system where chemical wastes were not disposed by post-Army tenants, or in 	<p>See response to DTSC Comment No. 20. Storm drains and sewage lines that have been in use since closure of the former Arsenal are considered to provide beneficial use to the current owners. Pursuant to Chapter 3, Section 7.2.3.5 of USACE Engineering Circular EC-200-3-7, <i>DERP-FUDS Program manual</i>, dated 30 September 1999, beneficially used structures and systems are ineligible for investigation under the FUDS Program. However, our area-wide investigations are intended to determine whether a significant release of contaminants has occurred from the buried sewer lines or from other potential release points.</p> <p>In response to the RWQCB's specific comments:</p> <ul style="list-style-type: none"> • The area-wide investigation is designed to determine the impact to groundwater downgradient of the former structures. If results point to the types of release mechanisms (e.g. sanitary sewer/storm drain) where only Army-related impacts are possible, then additional detailed investigation will be recommended if necessary.

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		<p>cases where post-Army releases would be chemically distinct from Army releases, should also be investigated by the Army if its historic activities have the potential for a release. A confirmed release of such wastes would indicate Army responsibility.</p> <p>Those segments where Army and post-Army releases would be chemically similar still require investigation by the Army under the Water Code as a potential discharger of such waste. Responsibility for investigation and cleanup could be apportioned among the responsible parties for these sites.</p>	<ul style="list-style-type: none"> As noted in our response to DTSC Comment No. 2 and elsewhere, sewage lines that have been in use since closure of the former Arsenal are considered to provide beneficial use to the current owners. This situation is still considered ineligible for funding under the FUDS Program and therefore no investigation will be conducted. <p>As noted in previous comments, the FUDS Program also deems the final situation identified by the RWQCB as ineligible for funding and therefore no investigation will be conducted.</p>
23.	Appendix A	The draft PA was not submitted in electronic format. The Water Board requested electronic document submittal in a March 2003 letter from the Chief of the Groundwater Protection and Waste Containment Division. Please submit future documents in electronic (.pdf) format as one complete file, including signed cover letter and signature pages. Guidelines for submittal can be found in prior correspondence or obtained from staff upon request.	Future reports will be submitted electronically in .pdf format per your request. However, it is not USACE's nor Brown and Caldwell's policy to sign draft documents. A signed cover letter will be supplied with the draft document.