CITY OF RIVERBANK

REGULAR CITY COUNCIL AND THE LOCAL REDEVELOPMENT AUTHORITY MEETINGS

(The City Council also serves as the LRA Board)
City Hall North • Council Chambers
6707 Third Street • Suite B• Riverbank • CA • 95367

choose civility

AGENDA

TUESDAY, MARCH 14, 2017 – 6:00 P.M.

(THE AGENDA PACKET IS POSTED AT THE CITY CLERK'S OFFICE AND AT WWW.RIVERBANK.ORG)

CALL TO ORDER: Mayor/Chair Richard D. O'Brien

FLAG SALUTE: Mayor/Chair Richard D. O'Brien

INVOCATION: Riverbank Ministerial Association

ROLL CALL: Mayor/Chair Richard D. O'Brien
Vice Mayor/Chair Leanne Jones Cruz
Council/Authority Member District 2 Cindy Fosi
Council/Authority Member District 4 Darlene Barber-Martinez
Council/Authority Member Cal Campbell

CHANGES TO THE AGENDA: Mayor/Chair Richard D. O'Brien

CONFLICT OF INTEREST
Any Council/Authority Member or Staff who has a direct Conflict of Interest on any scheduled agenda item to be considered is to declare their conflict at this time.

1. PRESENTATIONS

Item 1.1: Presentation Stephen Qualls of the League of California Cities.

2. PUBLIC COMMENTS (No Action Can Be Taken)

At this time, members of the public may comment on any item not appearing on the agenda, and within the subject matter jurisdiction of the City Council/LRA Board. Individual comments will be limited to a **maximum of 5 minutes** per person and each person may speak once during this time; time cannot be yielded to another person. Under State Law, matters presented during the public comment period cannot be discussed or acted upon. For record purposes, state your name and City of residence. Please make your comments directly to the City Council/LRA Board.

3. CONSENT CALENDAR

All items listed on the Consent Calendar are to be acted upon by a single action of the City Council/LRA Board unless requested by an individual Council/Authority Member or member of the public for special consideration. Otherwise, the recommendation of staff will be accepted and acted upon by motion of the City Council/LRA Board.

Item 3.A: Waive Readings. All Readings of ordinances and resolutions, except by title, are waived.

Item 3.B: Approval of the February 28, 2017, City Council and Local Redevelopment Authority Minutes.

Recommendation: It is recommended that City Council/LRA Board approve the Consent Calendar items by roll call vote.

4. UNFINISHED BUSINESS

There are no items to consider.

5. PUBLIC HEARINGS

There are no items to consider.

6. NEW BUSINESS

LRA Item 6.1: **Adoption of a Resolution to Authorize the City Manager to Execute an Interim Lease No. DACA05-1-16-516 between the Secretary of the Army and the City of Riverbank** – It is recommended that the Local Redevelopment Authority ("LRA") Board of Directors ("Board") authorize the City Manager to finalize and execute an Interim Lease of the former Riverbank Army Ammunition Plant between the Secretary of the Army and the City of Riverbank once an executable document is received.

7. COMMENTS/REPORTS

A brief report on notable attendance of a meeting or conference or other notable topics of business shall be made. The Brown Act does not allow for discussion or action by the City Council.

Item 7.1: Staff

Item 7.2: Council/Authority Member

Item 7.3: Mayor/Chair

ADJOURNMENT (The next regular City Council meeting –Tuesday, March 28 @ 6:pm)

AFFIDAVIT OF POSTING

I hereby certify under penalty of perjury, under the laws of the State of California that the foregoing agenda was posted 72 hours prior to the meeting in accordance to the Brown Act.

Posted this 9th day of March, 2017
/s/Annabelle H. Aguilar, CMC, City Clerk /LRA Recorder

Notice Regarding Americans with Disabilities Act: In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at (209) 863-7122 or cityclerk@riverbank.org. Notification (72) hours before the meeting will enable the City to make reasonable arrangements to ensure any special needs are met. [28 CFR 35.102-35.104 ADA Title II].

Notice Regarding Non-English Speakers: Pursuant to California Constitution Article III, Section IV, establishing English as the official language for the State of California, and in accordance with California Code of Civil Procedures Section 185, which requires proceedings before any State Court to be in English, notice is hereby given that all proceedings before the City of Riverbank City Council/LRA Board shall be in English and anyone wishing to address the Council is required to have a translator present who will take an oath to make an accurate translation from any language not English into the English language.

GENERAL INFORMATION

Meeting Schedule	The City Council Members also serve as the LRA Board Members. The Riverbank City Council/LRA Board meets in the City Hall North Council Chambers. Regular City Council meetings are held on the 2nd and 4th Tuesdays of each month at 6:00 p.m. The Local Redevelopment Authority Board meets on an "as needed" basis. Meetings are held as indicated, unless otherwise noticed.
City Council / LRA Agenda & Reports	The City Council/LRA Board agenda is posted pursuant to the California Brown Act, which only requires these agenda title pages to be posted near the entrance of the location where the meeting is to be held and, when available, on the City's website. Additional documents may be provided by the City in its efforts of transparency to keep the public well informed. **The agenda packet (agenda plus supporting documents) are posted for public review at the City Clerk's Office**, **6707 Third Street, Riverbank, CA and at www.riverbank.org upon distribution to a majority of the City Council/LRA Board.** A subscription to receive the agenda can be purchased for a nominal fee through the City Clerk's Office.
Public Hearings	In general, a public hearing is an open consideration within a regular meeting of the City Council or a meeting of the LRA, for which special notice has been given and may be required. During a specified portion of the hearing, any resident or concerned individual is invited to present protests or offer support for the subject under consideration.
Televised / Video of Meetings	City Council/LRA meetings are televised on Charter Channel 2 and AT&T Uverse Channel 99. Video of the meeting and the schedule of replays may be seen on the City's website, under the "Action 2" Icon. (Note: Technical difficulty occurs on occasion preventing the televising or recording of the meeting.)
Questions	Contact the City Clerk at (209) 863-7122 or aaguilar@riverbank.org

UPCOMING EVENTS:

City Hall Friday Office Hours	• **City Offices are Closed Alternating Fridays** o **Friday: March 10 – CLOSED** o **Friday: March 17 – OPEN from 8:am – 5:pm** o **Friday: March 24 – CLOSED**
March 20 (Monday)	• **Special City Council Meeting – Strategic Planning Workshop** o Riverbank Industrial Park at 8:30 a.m.
2017 Canceled Regular City Council Meetings	• **City Council voted to cancel the following regular meetings:** o Tuesday, May 23, 2017 o Tuesday, July 11, 2017 o Tuesday, December 26, 2017

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 1.1

SECTION 1: PRESENTATIONS

Meeting Date:	March 14, 2017
Subject:	Presentation by Stephen Qualls of the League of California Cities
From:	Sean Scully, City Manager
Submitted by:	Annabelle Aguilar, CMC, City Clerk/Sr. Management Analyst

RECOMMENDATION

It is recommended that the City Council receive the presentation.

SUMMARY

Mr. Stephen Qualls is the Central Valley Regional Public Affairs Manager of the League of California Cities who periodically visits the surrounding cities in the region to make a presentation. The objective is to educate and engage local representatives on the activities, issues, and policy decisions that are being considered or acted upon at the State level, which may ultimately impact municipalities. This presentation will bring awareness of the current and upcoming legislative matters of importance to city leaders. It is the League's mission to work together with local leaders to preserve and protect the quality of life for all Californians.

STRATEGIC PLAN

The development of the strategic plan is impacted by the activities, issues, and policy decisions made at the State level. The impact of these decisions may require the City to reprioritize its goals and objectives as well as the review and commitment of resources. The City's current Strategic Plan can be found at www.riverbank.org.

FINANCIAL IMPACT

There is no financial impact to this report.

ATTACHMENT

There are no attachments to this report.

RIVERBANK CITY COUNCIL / LRA AGENDA ITEM NO. 3.A

SECTION 3: CONSENT CALENDAR

Meeting Date:	March 14, 2017
Subject:	Waiver of Readings
From:	Sean Scully, City Manager
Submitted by:	Annabelle Aguilar, CMC, City Clerk / LRA Recorder

RECOMMENDATION

It is recommended that the City Council / LRA Board approve the waiver of readings of Ordinances and Resolutions, except by title.

SUMMARY

The approval of the waiver of readings will allow Ordinances and Resolutions to be introduced by title only and acted upon without the need to read the entire text of the item into the public record. The documents related to proposed Ordinances and Resolutions are available for review by the public on the City's website and in the City Clerk's office at City Hall (North).

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENTS

There are no attachments to this report.

RIVERBANK CITY COUNCIL / LOCAL REDEVELOPMENT AUTHORITY
AGENDA ITEM NO. 3.B

SECTION 3: CONSENT CALENDAR

Meeting Date:	March 14, 2017
Subject:	Approval of the February 28, 2017 City Council and Local Redevelopment Authority Minutes
From:	Sean Scully, City Manager
Submitted by:	Annabelle Aguilar, CMC, City Clerk / LRA Recorder

RECOMMENDATION

It is recommended that the City Council / Local Redevelopment Authority Board approve the City Council /LRA Meeting Minutes as presented.

SUMMARY

The Draft Minutes of the February 28, 2017, regular City Council and the Local Redevelopment Authority Board meetings have been prepared for review and approval.

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENT

1. February 28, 2017, City Council and LRA Minutes

City of Riverbank
REGULAR CITY COUNCIL AND
LOCAL REDEVELOPMENT AUTHORITY MEETING
(The City Council also serves as the LRA Board)

MINUTES OF
TUESDAY, FEBRUARY 28, 2017

Verbatim proceedings of the meetings may be viewed on-line or a copy may be provided for a fee.

CALL TO ORDER:

The City Council and Local Redevelopment Authority Board of the City of Riverbank met at 6:00 p.m. on this date at the Riverbank City Council Chambers, 6707 Third Street, Suite B, Riverbank, California, with Mayor/Chair Richard D. O'Brien presiding.

FLAG SALUTE: Mayor/Chair Richard D. O'Brien

INVOCATION: Reverend Charles Neal, Riverbank Ministerial Association

ROLL CALL:
Present
Mayor/Chair Richard D. O'Brien
Vice Mayor/Chair Leanne Jones Cruz
Council/Authority Member District 2 Cindy Fosi
Council/Authority Member District 4 Darlene Barber-Martinez
Council/Authority Member Cal Campbell

AGENDA CHANGES: Mayor/Chair Richard D. O'Brien – ***There were no changes made.***

CONFLICT OF INTEREST
Any Council/Authority Member or Staff who has a direct Conflict of Interest on any scheduled agenda item to be considered is to declare their conflict at this time.

No one declared a conflict.

1. PRESENTATIONS

Item 1.1: Strategic Plan Update – ***Assistant City Manager/Finance Director Marisela Garcia presented the Plan.***

2. PUBLIC COMMENTS (No Action Can Be Taken)

At this time, members of the public may comment on any item not appearing on the agenda, and within the subject matter jurisdiction of the City Council/LRA Board. Individual comments will be limited to a **maximum of 5 minutes** per person and each person may speak once during this time; time cannot be yielded to another person. Under State Law, matters presented during the public comment period cannot be discussed or acted upon. For record purposes, state your name and City of residence. Please make your comments directly to the City Council/LRA Board.

There were no public comments.

3. CONSENT CALENDAR

All items listed on the Consent Calendar are to be acted upon by a single action of the City Council/LRA Board unless otherwise requested by an individual Council/Authority Member for special consideration. Otherwise, the recommendation of staff will be accepted and acted upon by roll call vote.

Item 3.A: Waive Readings. All Readings of ordinances and resolutions, except by title, are waived.

Item 3.B: Approval of the February 14, 2017, City Council and Local Redevelopment Authority Minutes.

Item 3.C: A **Resolution [2017-013]** Approving the Transportation Development Act Local Transportation Fund (LTF) Non-Transit Claim for Fiscal Year 2016/2017 Other Purposes and Amending the Budget for the City of Riverbank to Conform to Said Claim

Item 3.D: Recommend Council Approve a 3-Year Extension of Street Sweeping Contract with Gilton Solid Waste Management.

Recommendation: It is recommended that City Council/LRA Board approve the Consent Calendar items by roll call vote.

Reference Item 3.D: Councilmember Fosi requested to have the date of when the City last conducted the bidding process for a service contract mentioned in future staff reports; no one objected.

ACTION: ***By motion moved and seconded (Jones Cruz /Barber-Martinez / passed 5-0) to approve Consent Calendar Items 3.A, through 3.D as presented. Motion carried by unanimous City Council and LRA Board roll call vote.***
AYES: Fosi, Barber-Martinez, Campbell, Jones Cruz, and Mayor/Chair O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

4. UNFINISHED BUSINESS

Item 4.1: **Second Reading by Title Only and Adoption of Proposed Ordinance No. 2017-003 Approving Development Agreement No. 02-2015 for the Hayes 4, Phase Two Residential Project** – It is recommended that the City Council conduct the second reading by title only of proposed Ordinance No. 2017-003 and consider its adoption by roll call vote to approve the proposed project and adoption of the Initial Study, based on the analysis presented and based on the findings in the published Initial Study for the Countryside Development.

City Manager Sean Scully presented the item.

ACTION: ***By motion moved and seconded (Jones Cruz / Campbell / passed 5-0) to adopt Ordinance No. 2017-003 as presented.***
Motion carried by unanimous City Council roll call vote.
AYES: Fosi, Barber-Martinez, Campbell, Jones Cruz, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

Item 4.2: **Second Reading by Title Only and Adoption of Proposed Ordinance No. 2017-004 Amending Title IX: General Regulations, Chapter 92.30: Smoking Restrictions; Chapter 94.07: Acts Prohibited; and Chapter 94.11: Skate Park Facility, by Repealing these Chapters in their Entirety and Substituting them with New Chapter 92.30: Smoking Restrictions; Chapter 94.07: Acts Prohibited; and Chapter 94.11: Skate Park Facility, to the Riverbank Municipal Code of Ordinances** – It is recommended that the City Council conduct the second reading by title only of proposed Ordinance No. 2017-004 and consider its adoption by roll call vote.

City Manager Sean Scully presented the item.
Public Comment: Mr. Edward Jones spoke in opposition of recreational marijuana use.

ACTION: ***By motion moved and seconded (Campbell / Fosi / passed 5-0) to adopt Ordinance No. 2017-004 as presented.***
Motion carried by unanimous City Council roll call vote.
AYES: Fosi, Barber-Martinez, Campbell, Jones Cruz, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

5. PUBLIC HEARINGS

The public notice for Item 5.1 and 5.2 was published in the Riverbank News on 02/15/2017.

Item 5.1: **A Resolution [2017-014] Approving the Fiscal Year 2016-17 Mid-Year Budget Amendments** – It is recommended that the City Council approve the Fiscal Year 2016-17 Mid-Year Budget Amendments.

Assistant City Manager/Finance Director Marisela Garcia presented the staff report.
Mayor O'Brien opened the public hearing at 6:31 p.m.; no one spoke, the hearing was closed.

ACTION: ***By motion moved and seconded (Barber-Martinez / Jones Cruz / passed 5-0) to adopt Resolution No. 2017-014 as presented.***
Motion carried by unanimous City Council roll call vote.
AYES: Fosi, Barber-Martinez, Campbell, Jones Cruz, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

LRA Item 5.2: **A Resolution [2017-001] Approving a Fiscal Year 2016/17 Mid-Year Adjustment and Accepting the Second Quarter Revenue and Expenditure Report** – It is recommended that the Local Redevelopment Authority ("LRA") Board of Directors ("Board") accept the second quarter revenue and expenditure report (September 1,

2016 through December 31, 2016) and adopt the attached resolution approving mid-year budget adjustments to the Fiscal Year ("FY") 2016/17 Local Redevelopment Authority Budget.

LRA Administrative Analyst Melissa Holdaway presented the report.
Chair O'Brien opened the public hearing at 6:38 p.m.; no one spoke, the hearing was closed.

ACTION: ***By motion moved and seconded (Campbell / Jones Cruz / passed 5-0) to adopt LRA Resolution No. 2017-001 as presented.***
Motion carried by unanimous LRA Board roll call vote.
AYES: Fosi, Barber-Martinez, Campbell, Jones Cruz, and Chair O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

6. NEW BUSINESS

Item 6.1: **A Resolution [2017-015] to Nominate a Councilmember from a "Small" City within Stanislaus County that has Applied to serve on the San Joaquin Valley Air Pollution District Governing Board, or Reject all Candidates** – It is recommended that the City Council by roll call vote:

1) Consider adoption of the resolution to nominate candidate Councilmember Chris Vierra, City of Ceres, or candidate Councilmember Dominic Farinha, City of Patterson, to fill the vacant seat on the District Governing Board; or
2) Reject both candidates.

City Manager Scully presented the report.

ACTION: ***By motion moved and seconded (Jones Cruz / Barber-Martinez / passed 5-0) to adopt Resolution No. 2017-015 to nominate Councilmember Chris Vierra to fill the vacant seat on the SJVDistrict Governing Board, as presented.***
Motion carried by unanimous City Council roll call vote.
AYES: Fosi, Barber-Martinez, Campbell, Jones Cruz, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

7 COMMENTS/REPORTS

A brief report on attendance of a meeting or conference or other notable topics of business shall be made. The Brown Act does not allow for discussion or action by the City Council.

Item 7.1: Staff

· ***City Manager Scully reported on the North County Corridor Project.***

Item 7.2: Council/Authority Member – ***There were no comments.***

Item 7.3: Mayor/Chair – ***There were no comments***

8. CLOSED SESSION

The public will have a limit of 5 minutes to comment on Closed Session item(s) as set forth on the agenda prior to the City Council/LRA Board recessing into Closed Session.

Mayor/Chair O'Brien announced the Closed Session items and opened the Items for public comment; no one spoke. City Council and LRA Board recessed into Closed Session at 6:46 p.m.

LRA Item 8.1: **CONFERENCE WITH REAL PROPERTY NEGOTIATORS**
Government Code Section 54956.8
Property: APN #062-031-007; 062-031-006; 062-008-009
Agency Negotiator: Sean Scully, City Manager
Property Negotiator: U.S. Army

Item 8.2: **CONFERENCE WITH LABOR NEGOTIATORS**
Pursuant to Government Code § 54957.6
Agency representative: Sean Scully, City Manager
Employee organizations: Riverbank Miscellaneous Employees
Riverbank Mid-Management Bargaining Unit

9. REPORT FROM CLOSED SESSION

Mayor/Chair O'Brien reconvened the meetings at 7:07 p.m.

LRA Item 9.1: Report on Closed Session LRA Item 8.1: **CONFERENCE WITH REAL PROPERTY NEGOTIATORS**

Chair O'Brien reported that direction was given to Staff.

Item 9.2: Report on Closed Session on Item 8.2: **CONFERENCE WITH LABOR NEGOTIATORS**

Mayor O'Brien reported that direction was given to Staff.

ADJOURNMENT

There being no further business, Mayor/Chair O'Brien adjourned the meetings at 7:08 p.m.

ATTEST: (Adopted *03/14/2017*) **APPROVED:**

_____ _____

Annabelle H. Aguilar, CMC **Richard D. O'Brien**
City Clerk / LRA Recorder **Mayor / Chair**

RIVERBANK LOCAL REDEVELOPMENT AUTHORITY
AGENDA ITEM NO. 6.1

SECTION 6: NEW BUSINESS

Meeting Date:	March 14, 2017
Subject:	Adoption of a **Resolution** to Authorize the City Manager to Execute an Interim Lease No. DACA05-1-16-516 between the Secretary of the Army and the City of Riverbank
From:	Sean Scully, City Manager
Submitted by:	Debbie Olson, LRA Executive Director

RECOMMENDATION

It is recommended that the Local Redevelopment Authority ("LRA") Board of Directors ("Board") authorize the City Manager to finalize and execute an Interim Lease of the former Riverbank Army Ammunition Plant between the Secretary of the Army and the City of Riverbank once an executable document is received.

SUMMARY

April 1, 2010, a 5-year Master Lease No. DACA05-10-525 was executed between the U.S. Army and the City of Riverbank LRA for the property known formerly as the Riverbank Army Ammunition Plant ("RAAP"), (commonly referred to as the Riverbank Industrial Complex). The Master Lease was extended an additional year beyond the initial lease and so expired on March 31, 2016. Upon expiration, and in lieu of amending the 2010 lease once again, the US Army drafted a new Interim Lease No. DACA05-16-516 ("Interim Lease"). A copy of the Draft Final Interim Lease is provided as an attachment to this staff report (Exhibit 1)

Prior to executing any lease, the Army is required to develop and post for public comment a Finding of Suitability for Lease ("FOSL"). The FOSL analyzes existing environmental documentation and makes a finding as to the appropriateness of leasing the property. Extensive sampling efforts are required and a thorough discussion of response actions, land use controls and other restrictions that should be incorporated into the lease for the protection of health and the environment on the property to be leased are included in the FOSL.

The Army executed a FOSL in March 2010 in conjunction with the first Master Lease. Subsequent to the expiration of the 2010 Master Lease, the Army discovered contamination around buildings due to the Galbestos siding. For the sake of accuracy, the FOSL must be updated with the new information and analysis as well as including a discussion on portions of the property formerly held back by the Army but being released to the LRA with the Interim Lease. See Exhibit 2 for a map of Army holdback areas and holdback areas released to the LRA via the Interim Lease.

A FOSL was developed and put out for the required seven-day, public review and comment period on March 2, 2017. The Army informed the LRA on March 7, 2017, that California regulators requested an extension to the seven-day period in order perform a more thorough review of the FOSL and provide comments. While we do not anticipate substantive changes to the Lease, it is the recommendation of legal counsel that we do not execute the Lease until the regulatory community has commented and the FOSL is finalized. The Regulatory community has asked for an additional two to three weeks for review and comment. The Army is considering their request, but is not required to comply.

The key provisions of the Lease are as follows:

- **Term**. The term of the Lease is for two years, beginning April 1, 2016 and ending March 31, 2018.
- **Extensions**. The Lease includes three, one-year options to extend the Lease beyond the date of the original term.
- **Subleasing**. Requires written consent from the Army to sublease any portion of the property to new a new tenant.
- **Premises**. Areas of the site previously held for exclusive Army use have been added to property under LRA control.
- **Accounting**. Requires an Annual Accounting Report be submitted to the Army within 90 days after each subsequent anniversary date of the Lease.
- **Land Use Controls**. Provides some new restrictions or prohibitions on portions of the site in order to ensure future protection of human health and the environment.

The primary difference between the Interim Lease and the previous Master Leases is that for the past six years the Army included a provision for the payment of funds to the LRA for providing services that the Army requires in associated with protection, operations and/or maintenance. Payments varied from year to year and were based on a bundle of negotiated services such as security, maintenance and other common area costs.

In December 2016, the Army agreed to pay the LRA a total of $100,800 during the term of the 2016/17 Interim Lease but the presented document **does not** allow for payment of the negotiated operations and maintenance payments to the LRA. Instead, the Army suggested that payments would be through a cooperative agreement still under development; the Army could not provide any additional details on that vehicle at the

time the Interim Lease was provided. As a consequence, the Army is currently past due on approximately $83,000 in payments from operations, maintenance and utility billings and has no method to provide for the payments at this time.

It is legal counsel's opinion that there is substantial agreement and no material disagreement on the Interim Lease agreement as presented. However, the LRA has requested a few incidental edits for clarification and to improve the quality and veracity of the Lease Exhibits. The final executable version was not available in time for inclusion in this staff report.

STRATEGIC PLAN

This action reinforces the City's core value of fiscal responsibility and is in line with City and LRA goals of improving and maintaining infrastructure and facilities and achieving and maintaining financial stability and sustainability.

FINANCIAL IMPACT

No financial impact to the City's General Fund.

ATTACHMENT

Exhibit 1	**Draft Interim Lease No. DACA05-16-516**
Exhibit 2	**Army Holdback Areas** A map showing current Army hold back areas and areas previously part of Army holdback areas but released to the LRA as part of the 2016 Lease
Exhibit 3	**Resolution** A resolution allowing the City Manager to execute the Interim Lease No. DACA05-16-516 between the US Army and the City of Riverbank

CAExecution Version

INDEX OF CONDITIONS
BASE REALIGNMENT AND CLOSURE (BRAC) INTERIM LEASE OF THE FORMER RIVERBANK ARMY AMMUNITION PLANT STANISLAUS COUNTY, CALIFORNIA

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09. Applicable Laws and Regulations
10. Condition of the Leased Premises
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27. Lead-Based Paint Warning and Covenant
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31. Land Use Controls
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33. Soil and Water Conservation
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35. Covenant Against Contingent Fees
36. Officials Not To Benefit
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PROPOSED

38. No Commitments for Future Use
39. Disclaimer
40. Availability of Funds

EXHIBITS TO BRAC INTERIM LEASE OF
THE FORMER RIVERBANK ARMY AMMUNITION PLANT
STANISLAUS COUNTY, CALIFORNIA

A Leased Premises (Map)

B Reuse Plan of the City of Riverbank

C Army Hold Back Area

D Industrial Waste Treatment Plant

E Condition Survey

F Hazardous Substances Notice

G PCBs

H Land Use Control Plan

I Out-of-Service Equipment Locations

J Environmental Protection Provisions

PROPOSED

DEPARTMENT OF THE ARMY INTERIM LEASE
UNDER
BASE REALIGNMENT AND CLOSURE (BRAC)
FOR THE
FORMER RIVERBANK ARMY AMMUNITION PLANT
STANISLAUS COUNTY, CALIFORNIA

Lease No. DACA05-1-16-516

THIS INTERIM LEASE of the former Riverbank Army Ammunition Plant (hereafter the "RBAAP") is made on behalf of the United States of America, between the **SECRETARY OF THE ARMY** (hereafter the "Lessor") and the **CITY OF RIVERBANK** (hereafter the "Lessee").

WITNESSETH:

That the Lessor, by the authority of Title 10, United States Code, Section 2667 (10 U.S.C. § 2667), and for the consideration hereinafter set forth, hereby leases to the Lessee the property identified in **Exhibit A**, attached hereto and made a part hereof, hereafter referred to as the "Leased Premises."

THIS INTERIM LEASE is granted subject to the following conditions:

1. AUTHORIZED REPRESENTATIVES

The Lessor may act by and through the District Engineer, U.S. Army Engineer District, Sacramento (hereafter the "District Engineer"), or through other duly authorized representatives, in the administration of this interim lease (hereafter the "Interim Lease"). The District Engineer may also act by and through his duly authorized representatives. Except as otherwise specifically provided, any reference herein to "Lessor," "Installation Commander," "District Engineer," or "said officer" shall include their duly authorized representatives. The Lessee also may act by and through duly authorized representatives. Any reference to "Lessee" shall include any assignees, or successors and their duly authorized representatives.

2. USE OF THE LEASED PREMISES

a. The sole purposes for which the Leased Premises and any improvements thereon may be used, in the absence of prior written approval of the Lessor for any other use, are the purposes designated in or consistent with the approved local reuse plan of the Lessee covering the Leased Premises, attached hereto as **Exhibit B**, which have been properly evaluated by the Lessor under the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq., and conforming with all use restrictions set forth in Conditions 21 and 31 of this Interim Lease and **Exhibit J**, attached hereto and made a part hereof.

PROPOSED

b. If the Lessee requests any changes in allowable uses for the Leased Premises, the Lessee shall furnish, at its expense, any additional environmental analysis and documentation deemed necessary by the Lessor to comply with the National Environmental Policy Act of 1969, as amended, and implementing regulations and other applicable environmental laws and regulations. The Lessor retains the right to approve or deny, in its sole discretion, any request by the Lessee for a new or changed use of the Leased Premises. In granting approval for a change in use, the Lessor may impose additional environmental protection provisions and restrictions as the Lessor deems appropriate.

c. For the duration of the Interim Lease and any extension hereof the Lessor requires exclusive use of the buildings, structures, storage facilities and parking areas within the former Riverbank Army Ammunition Plant shown on **Exhibit C**, attached hereto and made a part hereof, and known as the "Army Hold Back Area." Accordingly, the Lessor expressly excludes from this Interim Lease the Army Hold Back Area shown in red on Exhibit C and described as follows: Building 182 (Ground Water Treatment Plant), Building 185 (Compressor Shed), Building 192 (Office Trailer), and adjacent parking area and grounds.

d. The Lessee may enter Army Hold Back Area at reasonable times for emergency response actions, and shall provide immediate notice thereof to the Lessor. In addition to the Army Hold Back Area, the Lessor operates approximately 100 groundwater monitoring wells within the Leased Premises. Although well locations are not individually identified as Army Hold Back Areas, the wells shall remain under the Lessor's exclusive control for the duration of the Interim Lease so that the Lessor may periodically take water samples and undertake other operations and well maintenance activities.

e. The Lessee may utilize the portion of the Leased Premises identified as the Former Industrial Waste Treatment Plant (hereafter "IWTP") site, which has been removed and repaved, and is more particularly described in **Exhibit D**, attached hereto and made a part hereof, subject to the use restrictions set forth in paragraph 11.A.4) of Exhibit J.

3. TERM

a. The term of this Interim Lease shall be for two (2) years, beginning on April 1, 2016 (hereafter the "Effective Date") and ending on March 31, 2018, or until terminated, revoked, or relinquished under the condition on TERMINATION, REVOCATION, DEFAULT AND RELINQUISHMENT (Condition 4, below), whichever is sooner.

b. The Lessee shall have three (3) one-year options to extend the Interim Lease for up to three (3) consecutive and continuous one-year periods beyond the expiration date of the original term, on the same terms and conditions contained herein. The grant of these options is personal to the Lessee and cannot be assigned or exercised by any other party.

c. The Lessee may exercise each option, provided the Lessee is in full compliance with the terms of the Interim Lease, under the following conditions:

(1) The Lessee must give written notice to the Lessor of the Lessee's election to exercise each option at least ninety (90) days prior to the expiration date of the current term

of the Interim Lease, and

(2) At the time Lessee gives such notice of intent to exercise an option there shall be no uncured event of default on the part of the Lessee, and the Lessor shall not have terminated or revoked the Interim Lease under Condition 4 hereof.

d. Upon timely notice by the Lessee, in good standing hereunder, of its election to exercise an option and extend the term of the Interim Lease, the Lessor shall promptly prepare a lease modification reflecting the revised expiration date of the Interim Lease. All other terms and conditions of the Interim Lease shall remain unchanged unless the parties mutually agree to other modifications.

4. TERMINATION, REVOCATION, DEFAULT, AND RELINQUISHMENT

a. Termination.

(1) In the event the Lessor conveys fee title in the Leased Premises, or a portion thereof, to the Lessee or any other party, the Interim Lease shall terminate on the date of conveyance with respect to that portion so conveyed. All references to the Leased Premises shall be deemed thereafter to exclude such conveyed portions of the RBAAP and the Interim Lease shall continue in full force and effect with respect to that portion of the RBAAP retained in fee by the Lessor.

(2) In the event the Lessor decides to convey the Leased Premises or a portion thereof to a third party and the Lessor executes a Finding of Suitability to Transfer (FOST) or Finding of Suitability for Early Transfer (FOSET), the Lessor may terminate the Interim Lease with respect to any portion of the Leased Premises to be so conveyed by giving the Lessee ninety (90) days written notice of termination.

(3) The Lessor may terminate the Interim Lease and remove the Lessee and any sublessees if the Lessee is in default of any of the terms hereof and fails to cure the default in a timely manner, after notice from the Lessor, as set forth in subparagraph b, below.

(4) The Lessor may terminate the Interim Lease and remove the Lessee, and any sublessees, in the event of a national emergency as declared by the President or the Congress of the United States.

b. Default. The following events shall be deemed to be events of default by the Lessee under the Interim Lease:

(1) Lessee shall fail to comply with any condition, provision, covenant, or warranty it has made or agreed to under the Interim Lease, and shall not cure such failure within ninety (90) days after written notice thereof to Lessee, unless said non-compliance is the subject of a shorter notice given by a federal, state, or local governmental agency, in which case the shorter notice shall apply.

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(2) Early termination of any Memorandum of Agreement (MOA) executed between the Lessor and the Lessee for conveyance of the fee interest in the Leased Premises before conveyance of said fee interest, or a default by the Lessee in performance of its obligations under any MOA prior to conveyance of the fee.

(3) Actions or expressions of the Lessee or the City unequivocally indicating an intention not to accept conveyance of the fee interest in the Leased Premises, as determined in the sole discretion of the Lessor.

(4) Insolvency of the Lessee, a transfer by the Lessee in fraud of creditors, or an assignment made by the Lessee for the benefit of creditors.

(5) The filing of a petition by the Lessee under any Section or Chapter of the United States Bankruptcy Code, as amended, or under any similar law or statute of the United States or any State thereof, or any filing against the Lessee of a petition for reorganization for an insolvency or a similar proceeding.

(6) Appointment of a receiver or trustee for the Leased Premises or for all or substantially all of the assets of the Lessee.

(7) Any action taken or permitted by the Lessee which creates a lien upon the Leased Premises.

c. Revocation. The Lessee is charged at all times with full knowledge of all of the conditions and requirements of the Interim Lease, and the necessity to correct any default or non-compliance. Upon the occurrence of any of the aforesaid events of default, and in the absence of timely cure by the Lessee, Lessor shall have the option to revoke the Interim Lease, in which event Lessee shall immediately surrender the Leased Premises to Lessor, and if Lessee fails to do so, Lessor may, without prejudice to any other remedy which it may have for possession, enter upon and take possession of the Leased Premises and expel or remove Lessee and any other person who may be occupying said Leased Premises or any part thereof, without being liable for any claim of damages therefor; Lessee hereby agrees to pay to Lessor on demand the amount of all loss and damage which Lessor may suffer by reason of such termination. Pursuit of any of the foregoing remedies shall not preclude pursuit of any other remedy herein provided, including closure of the Leased Premises or temporary suspension of activities under the Interim Lease, or any other remedy provided by law or at equity, nor shall pursuit of any remedy herein provided constitute an election of remedies, thereby excluding the later election of an alternate remedy. Forbearance by Lessor to enforce one or more of the remedies herein provided upon an event of default shall not be deemed or construed to constitute a waiver of such default. Lessee agrees to pay to Lessor all costs and expenses incurred by Lessor in the enforcement of the Interim Lease, including, without limitation, the reasonable fees of Lessor's attorneys when such attorneys are employed by Lessor to effect collection of any sums due hereunder or to enforce any right or remedy of Lessor.

d. Default or non-compliance by a sublessee or licensee. In accordance with the Condition

on TRANSFERS, ASSIGNMENTS, AND SUBLEASING (Condition No. 11, below), any sublease is subject to the conditions and terms of the Interim Lease. Nevertheless, should a default or non-compliance described in sub-paragraph b, above, arise from the activities of a sublessee or licensee, the Lessee is responsible for ensuring compliance, either by corrective action itself or through the sublessee or licensee. If the Lessee is making diligent, good faith efforts to obtain corrective action and compliance by the sublessee or licensee to the satisfaction of the Lessor, then the Lessor may forebear in enforcing its remedies under subparagraph c, above, until either the Lessee is successful in realizing the corrections needed to cure its default or until the Lessor, in its sole judgment, concludes that satisfactory corrections will not be forthcoming in a timely manner. In the event the Lessor concludes that a timely cure of the default is unlikely, the Lessor may exercise its rights under subparagraph c, above, only as to the portion of the Premises under the control of the non-complying sublessee or licensee.

e. Relinquishment. The Interim Lease may be terminated or relinquished by the Lessee by giving thirty (30) days prior written notice to the District Engineer in the manner prescribed in the Condition on NOTICES (Condition No. 7, below).

5. CONSIDERATION

a. Partial consideration for the Interim Lease is the operation and maintenance of the Leased Premises in good condition by the Lessee for the benefit of the United States and the general public, including provision to the Lessor of any unmetered utility services described in Condition 12, below, in accordance with the requirements and conditions set forth in the Interim Lease.

b. As additional partial consideration due the Lessor for the granting of the Interim Lease, the Lessee shall remit to the Lessor all Net Installation Income, as defined in Condition No. 6, below, within ninety (90) days after the expiration, termination in connection with a conveyance of the Leased Premises to a third party, relinquishment, or revocation of the Interim Lease for default, such remittance to be made to the appropriate BRAC account or to the general treasury, as directed by the District Engineer.

c. If the Interim Lease is terminated because the Leased Premises are conveyed to the Lessee as an Economic Development Conveyance (EDC) in accordance with 32 C.F.R. § 174.9, the Lessee may retain all Net Installation Income to pay for, or offset the costs of, public investment on or related to the former Riverbank Army Ammunition Plant during the reinvestment period described in 32 C.F.R. § 174.9(d)(8) for the purposes described in 32 C.F.R. § 174.9(d)(8)(i) through (xii) and in accordance with the terms of a memorandum of agreement to be entered into between the Lessor and Lessee in connection therewith.

6. BOOKKEEPING AND ACCOUNTING

a. As used herein the term “Installation Income” shall mean all rental income and miscellaneous income received by the Lessee from the rental or use of real or personal property within the Leased Premises to sublessees, licensees or other parties. Reimbursable security

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deposits or other reimbursable deposits tendered to the Lessee by sublessees, licensees or other parties shall not be included in calculating Installation Income.

b. As used herein the term "Installation Costs" shall mean all reasonable and customary expenditures paid by the Lessee for the operation, maintenance, repair, protection, improvement, management and marketing of the Leased Premises, including but not limited to expenses for maintenance materials, supplies and labor, capital improvements to the installation, private security services, maintenance or improvement of on-site fire protection equipment, property management and marketing expenses, real estate brokerage commissions, fees for project development advisory services, building, planning and inspection fees, property taxes, tax assessments, and use or occupancy taxes applicable to the Lessee's leasehold interest.

c. As used herein the term "Net Installation Income" shall mean the portion of Installation Income, if any, that exceeds Installation Costs during the twelve (12) month period following the Effective Date and during each succeeding twelve (12) month period the Interim Lease is in effect or, if the Interim Lease is terminated, revoked, or relinquished before the passage of twelve (12) months, such shorter period. Net Installation Income shall include also the balance of Installation Income less Installation Costs received by the Lessee during prior interim leases of the Leased Premises and held by the Lessee for future public investment on or related to the former Riverbank Army Ammunition Plant.

d. Any monies received, held or disbursed by the Lessee in connection with the performance of any Environmental Services Cooperation Agreement (hereafter "ESCA") to which the Lessee may be a party are excluded from the definition of the terms "Installation Income" and "Installation Costs" and shall be excluded from the Lessee's records and books of account to be maintained hereunder.

e. The Lessee shall keep a separate and complete record and book of account for the Leased Premises, consistent with standard accounting practices, showing all Installation Income received and all Installation Costs paid during each calendar month the Lessee is in possession of any portion of the Leased Premises.

f. (i) Within ninety (90) days after the first anniversary of the Effective Date of the Interim Lease and each subsequent anniversary of the Effective Date for so long as the Interim Lease remains in effect, the Lessee shall provide to the District Engineer a complete and detailed accounting statement showing all Installation Income and Installation Costs for the period of the Interim Lease concluded on the respective anniversary of the Effective Date, hereafter called the "Annual Accounting." (ii) The Lessee shall also provide to the District Engineer a complete and detailed accounting statement showing all Installation Income and Installation Costs for the period of the Interim Lease concluded on the termination, revocation, expiration, or relinquishment of the Interim Lease, hereafter called the "Final Accounting," within ninety (90) days thereof. Each Annual Accounting and the Final Accounting shall be prepared in accordance with generally accepted accounting standards and certified by an independent public accountant, as required by the Base Redevelopment and Realignment Manual of the Department of Defense, DoD 4165.66-M.

g. Any financial irregularity exceeding $7,000 contained in the Annual Accounting that is not resolved to the reasonable satisfaction of the Lessor within ninety (90) days after notice to Lessee may be found a material breach of the Interim Lease, in the sole discretion of the Lessor.

h. The Lessee shall maintain its records and books of account available for inspection by the Lessor at all times during regular business hours of the Lessee and shall promptly provide to the District Engineer any additional documentation or information reasonably sought to clarify the Lessee's Installation Income and Installation Costs. The Lessor retains the right to audit Lessee's financial records, or to require the Lessee to perform and complete such an audit at Lessee's expense and to furnish Lessor a copy thereof, whenever the Lessor judges an audit necessary, in Lessor's sole discretion. Any audit shall be conducted in accordance with generally accepted accounting standards.

7. NOTICES

Except as provided in paragtraph 11.C. of Exhibit J, all correspondence and notices to be given pursuant to the Interim Lease shall be addressed, if to the Lessee, to Executive Director, Riverbank Local Redevelopment Authority, 5300 Claus Road, Modesto, California 95357, and if to the Lessor, to the District Engineer, Attention: Chief, Real Estate Division, Sacramento District, U.S. Army Corps of Engineers, 1325 J Street, Sacramento, California 95814, or as may from time to time otherwise be directed by the parties. Notices must be given in a properly sealed envelope, addressed as aforesaid, and deposited postage prepaid by either registered mail, return receipt requested, or by certified mail, return receipt requested, in a post office regularly maintained by the United States Postal Service. Service of the notice shall be deemed complete upon the receipt of said notice, or the refusal thereof, by the party to whom it is addressed.

8. SUPERVISION OF THE LEASED PREMISES

The use and occupancy of the Leased Premises shall be subject to the general supervision and approval of the Presidio of Monterey Garrison Commander, hereinafter referred to as "Said Officer," and to such rules and regulations as may be prescribed from time to time by Said Officer. The Said Officer has delegated the responsibility for oversight and management of the Interim Lease to the District Commander, Sacramento District, U.S. Army Corps of Engineers.

9. APPLICABLE LAWS AND REGULATIONS

a. The Lessee shall comply with all applicable federal, state, and local laws, regulations, ordinances, and standards that are or may become applicable to its activities on the Leased Premises, including, but not limited to, laws, regulations, ordinances and standards governing the environment, construction, health, safety, water supply, sanitation, and use of pesticides. The Lessee and any sublessees shall obtain and keep current all required licenses and permits applicable to their respective activities.

b. Additional compliance conditions are included in the condition on ENVIRONMENTAL PROTECTION, Condition No. 25 hereof.

10. CONDITION OF THE LEASED PREMISES

a. The Lessee has been in possession of the RBAAP's industrial facilities since April 1, 2010. Accordingly, the Lessee acknowledges that it possesses a detailed knowledge of the condition of the Leased Premises and accepts the Leased Premises on an "as is" and "where is" basis, without any representation or warranty made by the Lessor as to condition, and without any obligation on the part of the Lessor to make any alterations, repairs, or additions thereto.

b. The Lessor has conducted an inventory and condition survey of the Leased Premises, including an assessment of environmental conditions, documented in an updated Environmental Condition of Property Phase I Report, dated March 2017, attached hereto as **Exhibit E**, the "Condition Survey." Preceding expiration, revocation, or termination of the Interim Lease for any reason other than the conveyance of the Lease Premises to the Lessee, the Lessor and the Lessee will jointly conduct a close-out survey. The Lessor will prepare a close-out report. The Lessee shall fully fund the Lessor's preparation of an updated Condition Survey that will document the environmental condition of the Leased Premises at that time as part of the close-out survey. The close-out survey and report will refer to, and incorporate by reference, the updated Condition Survey. All significant variances from the initial Condition Survey shall be clearly documented in the close-out report. This close-out report will constitute the basis for settlement by the parties for any leased property shown to be lost, damaged, contaminated, or destroyed during the lease term, in determining any environmental restoration requirements to be completed by the Lessee, and restoration of the property as required in Condition No. 17 on RESTORATION.

11. TRANSFERS, ASSIGNMENTS, AND SUBLEASING

a. Successors. Lessor reserves an unconditional right to deny any assignment of the Interim Lease or any transfer of the Lessee's responsibilities hereunder, at Lessor's sole discretion. Assignment of the Interim Lease requires prior written approval by the Lessor's BRAC Division, Office of the Assistant Chief of Staff for Installation Management. The Interim Lease and the covenants and conditions herein contained shall inure to the benefit of only such successors or assignees of the Lessee to whom a transfer or assignment by Lessee has been previously approved and consented to by the Lessor in writing. No transfers or assignments shall be valid unless the successor or assignee shall, by an instrument in a form sufficient for recording and acceptable to the Lessor, enter into an assumption agreement and assume all of the Lessee's obligations under the Interim Lease. A duplicate original of that assumption agreement shall be delivered to the Lessor, and the assignment shall not take effect until delivery is made.

b. Subleases. The Lessee may sublease portions of the Leased Premises with Lessor's written consent, but in all events the Lessee remains primarily liable for performance of all obligations of the Interim Lease. The Lessee shall neither sublease, license, nor grant any interest in the Leased Premises or any part thereof or any property thereon, nor grant any other interest,

privilege, or license whatsoever in connection with the Interim Lease, without receiving the prior written consent of the Lessor. In the event the Lessor has given its written consent to a proposed sublease the Lessee shall provide the Lessor a signed copy of said sublease promptly upon its execution. No sublease shall be valid unless and until the Lessee has delivered to the Lessor a copy of the executed sublease**.** Every sublease shall contain the Environmental Protection Provisions set out in Exhibit J to this Interim Lease and shall include an express affirmation that the terms and conditions of the sublease are subject to the terms and conditions of the Interim Lease and that, in the event of any conflict between the instruments, the Interim Lease will control. The Lessee shall provide each approved sublessee or licensee with a copy of the Interim Lease. Any subleases reviewed and approved by the Lessor under a previous Interim Lease need not be resubmitted to the Lessor for a new approval.

12. COST OF UTILITIES

a. Procurement of utilities. The Lessee is responsible for procuring or supplying utility services for the Leased Premises at its cost, including electricity, water, gas, sewer, telephone and trash removal. The Lessor has no obligation to furnish utilities or services.

b. Lessee shall insure that existing utilities continue to be available to the Leased Premises. Any significant modification to the current utility infrastructure beyond normal maintenance and repair shall be made only with the prior written approval of the Lessor.

c. All utility services except water and sewerage required by the Lessor and its contractor(s) within the Army Hold Back Area are provided either by independent utilities paid directly by the Lessor or its contractors, or metered by the Lessee. Any reimbursement to be made by the Lessor to the Lessee for the reasonable cost of utility services shall be provided for in a separate agreement between the Lessor and the Lessee, to be executed simultaneously hereof. To the extent that such separate agreement is not forthcoming, the Lessee may file a claim for reimbursement for the reasonable cost of the metered and unmetered utility services provided to the Lessor, however any such claim shall not be a "claim" under this Interim Lease as defined in subparagraph 24.b., below.

13. MAINTENANCE AND PROTECTION OF THE LEASED PREMISES

a. The Lessee shall keep the Leased Premises in good order and in a clean, safe condition by and at its own expense, including proper maintenance of all on-site fire safety equipment and the provision of on-site security services, as needed in the discretion of the Lessee, with the exception of the Army Hold Back Area, as identified in Exhibit C. The Lessor shall be solely responsible for protection, maintenance, preservation and repair of the Army Hold Back Area identified in Exhibit C for the duration of any period of such exclusive use.

b. Existing fences and gates shall not be substantially altered and shall remain functional, with pedestrian and vehicular access from public roadways into the Leased Premises controlled by the Lessee.

c. The Lessee shall be responsible for any damage that may be caused to property of the Lessor by the activities of the Lessee and/or its sublessees or licensees under this Interim Lease, and shall exercise due diligence in the protection of all property within the Leased Premises against fire or damage from any and all other causes. Any property of the Lessor damaged or destroyed incident to the exercise of the privileges herein granted by the Lessee, any sublessee, licensee, invitee or third party shall be promptly repaired or replaced by the Lessee and restored to a condition satisfactory to the Said Officer, or at the election of Said Officer, reimbursement made therefor by the Lessee in an amount necessary to restore or replace the property, including personal property, to a condition satisfactory to Said Officer.

14. INSURANCE

a. As of the commencement of the Interim Lease the Lessee shall obtain from a sound and reputable insurance company, or companies, comprehensive liability insurance covering the Leased Premises. The insurance shall provide an amount of coverage that is prudent, reasonable, and commensurate with the level of risk, but not less than a combined single limit of two million dollars ($2,000,000), whichever is greater, for claims for property damage, bodily injury or death, or both, arising from any one incident occurring within the Leased Premises, or arising from activities conducted under this Lease, and providing excess liability coverage of at least five million dollars ($5,000,000). The Lessee shall maintain said liability insurance in force during the term of the Interim Lease and any extension hereof.

b. Lessee's liability insurance policy or policies shall insure the Lessee, its employees, agents, independent contractors and invitees against risks and hazards of property damage and bodily injury within the Leased Premises and shall insure the Lessee against contractual liability under this Lease, and shall name the United States as an insured party. The liability policy or policies shall insure against covered losses notwithstanding any act or failure to act or the negligence of the Lessee or the United States or any other person, and shall provide that the insurer possesses no right of subrogation against the United States. Under no circumstances will the Lessee be entitled to assign to any third party rights of action that it may have against the United States arising out of this Lease.

c. The Lessee shall require its insurer to furnish to Said Officer and to the District Engineer a copy of the policy or policies insuring the Leased Premises. The Lessee shall require its insurer to give Said Officer and the District Engineer at least sixty (60) days written notice of any cancellation or change in such insurance. Said Officer or the District Engineer may require closure of any or all of the Leased Premises during any period for which the Lessee does not have required insurance coverage. The Lessee shall require its insurance company to furnish Said Officer and to the District Engineer a copy of the policy or policies, or if acceptable to the District Engineer, certificates of insurance evidencing the purchase of such insurance. The minimum amount of liability insurance coverage is subject to revision by the District Engineer upon renewal or modification of the Interim Lease.

d. Prior to commencement of this Lease the Lessee shall procure and maintain at Lessee's

cost a standard fire and extended coverage insurance policy or policies covering the full insurable value of the Leased Premises, including the structures and improvements thereon. The Lessee shall procure such insurance from a reputable company or companies. The insurance policy shall provide that in the event of loss thereunder, the proceeds of the policy or policies, at the election of the Lessor, shall be payable to the Lessee to be used for the repair, restoration, or replacement of any property damaged or destroyed within the Leased Premises, and any balance of the proceeds not required for such repair, restoration or replacement shall be paid to the Lessor. If the District Engineer does not provide written notice to the insurer within sixty (60) days after the damage or destruction occurs of the Lessor's election to have the proceeds paid to the Lessee for the purposes hereinabove set forth, then such proceeds shall be paid to the Lessor; provided, however, that the insurer, after payment of any proceeds to the Lessee in accordance with the provision of the policy or policies, shall have no obligation or liability with respect to the use or disposition of the proceeds by the Lessee. Nothing herein contained shall be construed as an obligation upon the Lessor to repair, restore, or replace the Leased Premises or any part thereof should it be diminished in value, damaged, or destroyed.

e. The Lessee may require any sublessees, assignees, transferees, or successors, as joint and several responsible parties with the Lessee for those portions of the Leased Premises under their control, to maintain and carry at their expense portions of the insurance requirement.

f. Notwithstanding anything herein to the contrary, each party hereto hereby releases the other party, its agents, sublessees and employees, to the full extent recoverable under the insurance policies of the releasing party, from any and all liability for any loss or damage which may be inflicted upon the property of such party, notwithstanding that such loss or damage shall have arisen out of the negligent or the tortious act or omission of the other party, its agents, sublessees or employees; provided, however, that this release shall be effective only with respect to loss or damage occurring during such time as the appropriate policy of insurance of the party so releasing shall contain a clause to the effect that such release shall not affect the said policy or the right of the insured to recover thereunder, and each party at the request of the other shall use reasonable efforts to have such a clause included in its said policies. Each party hereto shall notify the other in the event such a clause is not included in its said policies, or is withdrawn therefrom, in which event the release herein of the other party shall be null and void.

15. LESSOR'S RIGHT TO ENTER LEASED PREMISES

a. The right is hereby reserved to the Lessor, its officers, agents, employees and contractors, to enter upon the Leased Premises at any reasonable time for any purpose necessary or convenient in connection with government purposes; to make inspections, to oversee environmental remediation work on-going within the Leased Premises, to ensure compliance with Condition 2, Use of the Leased Premises, Condition 25, Environmental Protection, Condition 21, Prohibited Uses, Condition 31, Land Use Controls, and Exhibit J, contained herein, to operate, repair, or close groundwater monitoring wells located throughout the Leased Premises, or for any other purpose necessary or convenient to carry out Government objectives and requirements related to the Lessor's disposition of the RBAAP, and the Lessee shall have no claim for damages on account thereof against the Lessor or any officer, agent, or employee

thereof.

b. Lessee hereby acknowledges that representative(s) of the Lessor operate a full-time office in Building 192 of the Army Hold Back Area for the purpose of overseeing the Lessor's on-going environmental clean-up and remediation work within the Leased Premises. The Lessor's use of and regular access to this office and the Army Hold Back Area defined in Condition No. 2, above, is hereby reserved by Lessor.

16. INDEMNITY AND HOLD HARMLESS

a. Except as pertains to environmental conditions present within the Leased Premises on or before April 1, 2010 when the Lessee first took occupancy of the Leased Premises and for which the Lessee is not responsible, the Lessee agrees to assume all risks of loss or damage to property and injury or death to persons by reason of, attributable to, or incident to the condition or state of repair of the Leased Premises or to the Lessee's possession of the Leased Premises or the activities conducted under the Interim Lease. The Lessee expressly waives the right to make a claim against the Lessor for any such loss, damage, personal injury, or death caused by or occurring as a consequence of such condition, possession and/or use of the Leased Premises by the Lessee, or caused by or occurring as a consequence of any of Lessee's activities under the Interim Lease. The Lessee further agrees to indemnify and hold harmless the Lessor, its officers, agents, and employees from and against all suits, claims, demands or actions, liabilities, judgments, costs, and attorneys' fees arising out of, or in any manner predicated upon, personal injury, death, or property damage resulting from, related to, caused by, or arising out of the possession and/or use of the Leased Premises by the Lessee. Lessor shall provide notice to Lessee of any claim against Lessor covered by this indemnity as soon as practicable after learning of such claim.

b. The Lessee shall indemnify and hold harmless the Lessor from any costs, expenses, liabilities, fines, or penalties resulting from any discharges, releases, emissions, spills, storage or disposal, or any other action or inaction by the Lessee or its subtenants, licensees or invitees giving rise to civil or criminal liability on the part of the Lessor, or responsibility under federal, state, or local environmental laws.

c. Subparagraphs a and b of this condition and the obligations of the Lessee hereunder shall survive the expiration or termination of the Interim Lease and the conveyance of the Leased Premises. The Lessee's obligation hereunder shall apply whenever the Lessor incurs costs or liabilities for the Lessee's actions.

d. Any sublessees, assignees, transferees, or successors shall be jointly and severally responsible with the Lessee for those portions of the Leased Premises under their control.

17. RESTORATION OF LEASED PREMISES

a. On or before the expiration, revocation or termination of the Interim Lease, the Lessor

may require the Lessee to promptly vacate the Leased Premises, remove the personal property of the Lessee and any sublessees, and restore the Leased Premises to a condition satisfactory to Lessor. Lessor shall not require demolition or removal of any alterations or improvements constructed by the Lessee or a sublessee previously approved by Lessor.

b. If the Lessee shall fail or neglect to remove its personal property and restore the Leased Premises within a reasonable time, then, at the option of the Lessor, the property shall either become the property of the United States without compensation therefor, or the Lessor may cause the property to be removed and no claim for damages against the Lessor or its officers or agents shall be created by or made on account of such removal and restoration work. The Lessee shall pay the Lessor on demand any reasonable sum which may be expended by the Lessor in restoring the Leased Premises after the expiration, revocation or termination of the Interim Lease.

c. The restoration obligations of the Lessee contained in this Condition shall not apply to any portion of the Leased Premises conveyed in fee to the Lessee upon termination of the Interim Lease.

18. NON-DISCRIMINATION

a. The Lessee shall not discriminate against any person or persons or exclude them from participation in the Lessee's operations, programs, or activities conducted on the Leased Premises because of race, creed, color, religion, sex, disability, age, or national origin.

b. The Lessee, by acceptance of this Lease, is receiving a type of Federal assistance and, therefore, hereby gives assurance that it will comply with the provisions of Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000d); the Age Discrimination Act of 1975 (42 U.S.C. § 6102); the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794); and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 CFR Part 300) issued as Department of Defense Directives 5500.11 and 1020.1, and Army Regulation 600-7. This assurance shall be binding on the Lessee, its agents, successors, transferees, sublessees and assignees.

19. SUBJECT TO EASEMENTS

This Lease is subject to all existing easements, or any subsequently granted, as well as established access routes for roadways and utilities located, or to be located, on the Leased Premises, provided that the proposed grant of any new easement or route will be coordinated with the Lessee, and easements will not be granted which will, in the opinion of the District Engineer, interfere with the use of the Leased Premises by the Lessee, or conflict with the Reuse Plan as approved by the US Department of Housing and Urban Development.

20. SUBJECT TO MINERAL INTERESTS

This Lease is subject to all outstanding mineral interests. As to federally-owned mineral interests, it is understood that they may be included in present or future mineral leases issued by the Bureau of Land Management (BLM), which has responsibility for mineral development on federal lands. The Lessor will provide lease stipulations to BLM for inclusion in said mineral leases that are designed to protect the Leased Premises from activities that would interfere with the Lessee's operations or would be contrary to local law.

21. PROHIBITED USES

a. Neither the Lessee nor any sublessee hereunder may extract or use any groundwater from the subsurface of the Leased Premises during the term of the Interim Lease or any extension hereto.

b. The Lessee shall not allow gambling on the Leased Premises or any activity or conduct which would constitute a public nuisance, nor shall the Lessee sell, store or dispense, or permit the sale, storage, or dispensing of beer or other intoxicating liquors on the Leased Premises.

22. LEASEHOLD IMPROVEMENTS

a. The Lessee shall make no substantial alterations to existing structures, or construct any new structures, without first obtaining the written consent of the District Engineer. The Lessor consents to the Lessee replacing, at the Lessee's sole cost and expense, any siding and roofing on buildings where such siding or roofing is being removed under an ESCA.

b. Any improvement or alteration constructed within the Leased Premises shall comply with applicable state and local regulations, ordinances and building codes and shall be built in a sound and workmanlike manner. The Lessee shall obtain all required municipal approvals, building permits and certificates of occupancy.

23. WASTE OF NATURAL RESOURCES

The Lessee shall cut no timber, conduct no mining operations, remove no sand, gravel, or kindred substances from the ground, commit no waste of any kind, nor in any manner substantially change the contour or condition of the Leased Premises except as authorized in writing by the District Engineer.

24. DISPUTES CLAUSE

a. Except as provided in the Contracts Disputes Act of 1978 (41 U.S.C. §§ 7101 – 7109), hereafter the "Act," disputes arising under or relating to this Interim Lease shall be resolved as set forth in this clause and in accordance with the provisions of the Act.

PROPOSED

b. "Claim," as used in this clause, means a written demand or written assertion by the Lessee seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of a term of the Interim Lease not agreed to by the Lessor, or other relief arising under or relating to this Interim Lease. However, a written request or demand or written assertion by the Lessee seeking the payment of money exceeding $100,000 is not a claim under the Act until certified, as required by subparagraph c(2), below, and the Act.

c. (1) A claim by the Lessee shall be made in writing and submitted to the District Engineer for a written decision. A claim by the Lessor against the Lessee shall be subject to a written decision by the Executive Director of the Riverbank Local Reuse Authority or the City of Riverbank City Manager.

(2) For claims by the Lessee exceeding $100,000, the Lessee shall submit with the claim a certification that —

(i) the claim is made in good faith; and

(ii) supporting data are accurate and complete to the best of the Lessee's knowledge and belief and;

(iii) the amount requested accurately reflects the Lease adjustment for which the Lessee believes the Lessor is liable.

(3) The certificate shall be executed by an officer or representative of the Lessee having overall responsibility for the conduct of the Lessee's affairs.

d. For Lessee claims of $100,000 or less, the District Engineer must, if requested in writing by the Lessee, render a decision within 60 days of the request. For Lessee-certified claims over $100,000, the District Engineer must, within 60 days, decide the claim or notify the Lessee of the date by which the decision will be made.

e. The District Engineer's decision shall be final unless the Lessee appeals the decision or files a suit as provided in the Act.

f. At the time a claim by the Lessee is submitted to the District Engineer or a claim by the Lessor is presented to the Lessee, the parties, by mutual consent, may agree to use alternate means of dispute resolution. When using alternate dispute resolution procedures, any claim of the Lessee, regardless of amount, shall be accompanied by the certificate described in subparagraph c(2) of this condition, and be executed in accordance with subparagraph c(3) of this condition.

g. The Lessor shall pay interest on the amount found due and unpaid by the Lessor from (1) the date that the District Engineer received the claim (properly certified, if required), or (2) the date payment would otherwise be due, if that date is later, until the date of payment. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury, as provided in the Act, which is applicable to the period during which the District Engineer receives the claim

PROPOSED

and then at the rate applicable for each six-month period as fixed by the Treasury Secretary during the pendency of the claim.

h. The Lessee shall proceed diligently with the performance of the Interim Lease, pending final resolution of any request for relief, claim, or action arising hereunder, and comply with any decision of the District Engineer.

25. ENVIRONMENTAL PROTECTION

a. The Lessee will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs from activities of the Lessee, the Lessee shall be liable to restore the damaged resources. Neither the Lessee nor any sublessees shall discharge waste or effluent from the Leased Premises in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance. The Lessee must obtain approval in writing from the District Engineer before any pesticides or herbicides may be applied to the Leased Premises.

b. The Lessee shall be responsible for obtaining and paying for any environmental or other permit required for the Lessee's operations and activities, and shall ensure that its sublessees obtain any environmental or other permit required for their operations and activities.

c. The Lessor's rights hereunder specifically include a right of entry to allow the Lessor's representatives, agents, and contractors to inspect the Leased Premises for compliance with environmental, safety, and occupational health laws and regulations whether or not the Lessor is responsible for enforcing them, to oversee or inspect on-going environmental remediation and restoration work, or to undertake such work. Such inspections are without prejudice to the right of duly constituted enforcement officials to make such inspections. The lessor normally will give the Lessee twenty-four hours prior notice of its intention to enter the Leased Premises unless it determines the entry is required for safety, environmental, operations, or security purposes; provided, however, that the Lessor shall have access to common areas of the Leased Premises at any time during normal working hours and without prior notice to the Lessee. The Lessee shall have no claim against the Lessor, its officers, representatives, agents, employees, or contractors on account of any entries within the Leased Premises made hereunder.

d. The Lessor acknowledges that the RBAAP has been identified as a National Priorities List Site under the Comprehensive Environmental Response, Conservation and Liability Act of 1980 (CERCLA). The Lessee acknowledges that the Lessor has provided it with a copy of the RBAAP Federal Facility Agreement (FFA) entered into by the United States Environmental Protection Agency Region 9 (the EPA), the Lessor, the California Department of Toxic Substances Control, and the Central Valley Regional Water Quality Control Board, effective June 1990, and will provide the Lessee with a copy of any amendments thereto. The Lessee agrees that should any conflict arise between the terms of the FFA, as it presently exists or may be amended, and the provisions of the Interim Lease, the terms of the FFA shall take precedence. The Lessee further agrees that notwithstanding any other provision of the Interim Lease, the Lessor assumes no liability to the Lessee should implementation of the FFA interfere with the Lessee's

PROPOSED

use of the Leased Premises. The Lessee shall have no claim against the Lessor or its officers, agents, employees, or contractors on account of any such interference.

e. The Lessor, the EPA, the California Department of Toxic Substances Control, and the Central Valley Regional Water Quality Control Board, their officers, agents, employees, contractors, and subcontractors are granted a right hereunder to enter upon the Leased Premises, upon reasonable notice to the Lessee, for purposes consistent with the applicable provisions of the FFA and for the following purposes:

(1) to conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, test pitting, soil boring tests, and other activities related to the RBAAP Installation Restoration Program (IRP), FFA, and related environmental requirements;

(2) to inspect field activities of the Lessor and its employees, agents, contractors, and subcontractors in implementing the IRP, FFA, or related environmental requirements;

(3) to conduct any test or survey required by the EPA, the California Department of Toxic Substances Control, or the Central Valley Regional Water Quality Control Board relating to the implementation of the FFA or environmental conditions at the Leased Premises, or to verify any data submitted to the EPA, the California Department of Toxic Substances Control, or the Central Valley Regional Water Quality Control Board by the Lessor relating to such conditions; and

(4) to construct, operate, or maintain any other response or remedial action as required or necessary under the IRP or FFA including, but not limited to, monitoring wells, soil removal, pumping wells, and treatment facilities.

f. The Lessee agrees to comply with the provisions of any health or safety plan in effect under the FFA during the course of any above-described response or remedial action. Any inspection, survey, investigation, or other response or remedial action will, to the extent practicable, be coordinated with the Lessee. The Lessee shall have no claim against the Lessor or any of its officers, agents, employees, contractors, or subcontractors on account of such entries. In addition, the Lessee shall comply with all applicable Federal, state, and local occupational safety and health regulations.

g. The Lessee shall comply with the requirements of 10 U.S.C. § 2692(b)(9) and (10) to obtain the Lessor's approval for the storage, treatment, or disposal of any toxic or hazardous materials not owned by the Department of Defense on the Leased Premises.

h. The Lessee and its sublessees shall comply with the hazardous waste permit requirements under the Resource Conservation and Recovery Act (RCRA), or the State of California equivalent, and all other applicable environmental laws, rules, and regulations. Except as specifically authorized by the Lessor in writing, the Lessee and its sublessees must provide, at their own expense, such hazardous waste management facilities, including storage, treatment, or disposal facilities, complying with all applicable laws and regulations, as may be required.

Hazardous waste management facilities of the Lessor will not be available to the Lessee. Any violation of the requirements of this provision shall be deemed a material breach of this Interim Lease.

i. Any of Lessor's accumulation points for hazardous and other wastes shall not be used by the Lessee. The Lessee shall not permit its hazardous waste, or that of any sublessee or licensee, to be commingled with hazardous waste of the Lessor.

j. Should the Lessor provide any personnel or equipment, whether for initial fire response and/or spill containment, or otherwise at the request of the Lessee, or because the Lessee was not, in the opinion of the Lessor, conducting a timely cleanup action, the Lessee hereby agrees to reimburse the Lessor for its reasonable costs. The Lessee's hazardous waste, fuel and chemical spill response plan may be augmented to reflect changes in the Lessee's use, or its sublessees' use, of toxic, hazardous, or dangerous materials. Each sublessee shall provide the Lessee with individual emergency response and clean-up plans for its activities within its subleased portion of the Leased Premises prior to commencement of the sublessee's operations. Sublessees' individual plans will be incorporated by the Lessee into its overall plan.

k. The Lessee shall not construct or make, or permit its sublessees, licensees or assigns, to construct or make any substantial alterations, additions, or improvements to or installations upon or otherwise modify or alter the Leased Premises in any way which may adversely affect property clean-up, human health, or the environment.

l. The Lessee shall not conduct or permit its sublessees to conduct any subsurface excavation, digging, drilling, or other disturbance of the surface without the prior written approval of the Lessor.

26. HAZARDOUS SUBSTANCES NOTICE

To the extent such information is available on the basis of a complete search of Lessor's files, notice regarding hazardous substances stored for one year or more, or known to have been released or disposed of on the Leased Premises, is provided in **Exhibit F**, attached hereto and made a part hereof. The Lessee should consult the Condition Survey for more detailed Information.

27. LEAD-BASED PAINT WARNING AND COVENANT

a. The Leased Premises do not contain residential housing and are not being leased for residential purposes. The Lessee is notified that the Leased Premises contain buildings built prior to 1978 that contain lead-based paint. Exposure to lead from lead-based paint may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. A risk assessment or inspection by Lessee for possible lead-based paint hazards is recommended prior to its execution of this Interim Lease.

PROPOSED

b. Information concerning known lead-based paint and/or lead-based paint hazards, a list of the location of lead-based paint and/or lead-based paint hazards, and a chart showing the condition of painted surfaces are contained in the Condition Survey (Phase 1, Section 4.7), attached hereto as Exhibit E and previously provided to the Lessee. Additionally, the Lessee has been provided a copy of the federally-approved pamphlet on lead poisoning prevention. The Lessee hereby acknowledges receipt of all the information described in this paragraph.

c. The Lessee acknowledges that it has had the opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards prior to execution of this Lease.

d. The Lessee shall not permit use of any existing buildings or structures on the Leased Premises for residential habitation.

28. NOTICE OF THE PRESENCE OF ASBESTOS AND COVENANT

a. The Lessee is hereby informed and does acknowledge that friable and non-friable asbestos or asbestos-containing materials (ACM) have been found on the Leased Premises, as described in the Condition Survey, attached as Exhibit E. To the best of the Lessor's knowledge, the ACM on the Leased Premises does not currently pose a threat to human health or the environment.

b. In addition to the Lessee's general indemnity contained in Condition No. 16, titled "Indemnity and Hold Harmless," above, the Lessee covenants and agrees that its use and occupancy of the Leased Premises will comply with all applicable laws relating to asbestos and ACM. The Lessee similarly covenants and agrees that the Lessor assumes no liability for future remediation of asbestos, or for damages for personal injury, illness, disability, or death of the Lessee, its sublessees, successors or assigns or any other person, including members of the general public, arising from, or incident to, the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos on the Leased Premises, whether the Lessee, its successors or assigns have properly warned or failed to properly to warn the individual(s) injured. The Lessee agrees to properly manage the ACM on the Leased Premises during the duration of the Interim Lease and to be responsible for any future remediation or abatement of any asbestos hazard found to be necessary on the Leased Premises.

29. POLYCHLORINATED BIPHENYLS (PCBs)

a. The following PCB-containing equipment is located on the property: electrical transformers. This equipment is operational, properly labeled in accordance with federal and state regulations, and has been determined not to be leaking. A list of electrical transformers containing PCBs in excess of 50 parts per million (ppm) is presented in **Exhibit G**. In addition PCBs are present in the paint and coating on the exterior siding of several buildings.

b. Sampling results have detected PCBs above Toxic Substances Control Act (TSCA) criteria in several locations within and adjacent to buildings in the main plant area of the RBAAP. The Lessor and Lessee intend to remove PCBs from these areas by use of an environmental remediation contractor working under an ESCA.

c. Two sites have been investigated and removal actions completed to address PCB contamination in soils. These sites include a location containing transformer oil storage tanks and a distribution system designated as Site AOC-8-B and an electrical substation transformer pad designated as Site AOC-16; see **Exhibit G**. Remedial activities are complete and no further action is required at these sites. Five additional locations were investigated for PCBs in a 2007 site investigation that found each site below the TSCA remediation requirements for PCBs and no further action was required.

d. If the Lessee causes, creates or exacerbates a release of PCBs from any equipment located within the Leased Premises the Lessee agrees to undertake any and all necessary abatement or remediation costs at its sole expense.

e. The Lessee assumes no obligation under this Interim Lease for the maintenance or disposal of out-of-service electrical equipment consisting of transformers and circuit breakers currently stored on the Leased Premises at the locations shown on **Exhibit I**, Out-of-Service Equipment Locations, attached hereto and made a part hereof.

30. CLEAN AIR CONFORMITY

The Lessee hereby affirms that neither it nor any sublessee shall discharge or emit any air pollutant from the Leased Premises in greater than a de minimis quantity, or not in conformance with applicable criteria and standards for emissions in the Riverbank area under California's State Implementation Plan. The Lessor intends to convey the Leased Premises in fee to the Lessee as soon as practicable and therefore is not obligated to make a "Conformity Determination" otherwise required by Section 176(b) of the Clean Air Act (42 U.S.C. §7506), as provided in the Clean Air Act regulations on "applicability," in particular the exception set forth at 40 CFR § 93.153(c)(2)(xix).

31. LAND USE CONTROLS

The "Property Management Plan for Land Use Control Actions – Riverbank Army Ammunition Plant," dated November 2006 (hereafter the "Land Use Control Plan") is attached hereto as **Exhibit H** and made a part of the Interim Lease. The Lessee is responsible for compliance with and adherence to the Land Use Control Plan and shall provide a copy to its sublessees and licensees.

PROPOSED

32. HISTORIC PRESERVATION

The Lessee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archeological, architectural, or other cultural artifact, relic, remains, or object of antiquity. In the event any such item is discovered on the Leased Premises, the Lessee shall immediately notify the District Engineer and protect the site and the material from further disturbance until the District Engineer notifies the Lessee about particular actions to be taken, if any.

33. SOIL AND WATER CONSERVATION

The Lessee shall maintain, in a manner satisfactory to the District Engineer, all soil and water conservation structures that may exist within the Leased Premises as of the commencement of the Interim Lease and that may be constructed during the term of the Interim Lease. The Lessee shall take appropriate measures to prevent or control soil erosion within the Leased Premises. Any soil erosion occurring outside the Leased Premises resulting from the activities of the Lessee shall be corrected by the Lessee as directed by the District Engineer.

34. TAXES

Any and all taxes and assessments legally imposed by the State of California, its political subdivisions, or other entity upon the interest of the Lessee in the Leased Premises shall be paid promptly by the Lessee. If a dispute arises between the Lessee and an entity that has imposed a tax or assessment on the interest of the Lessee in the Leased Premises regarding such tax or assessment, the Lessee shall make diligent, good faith efforts to resolve the dispute in a timely manner. If and to the extent that the interest of the United States of America in the Leased Premises is later made taxable by a state or local government under an Act of Congress, the Interim Lease shall be renegotiated.

35. COVENANT AGAINST CONTINGENT FEES

The Lessee warrants that no person or selling agency has been employed or retained to solicit or secure this Lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or established commercial or selling agencies maintained by the Lessee for the purpose of securing business. For breach or violation of this warranty, the Lessor shall have the right to annul this Interim Lease without liability or, in its discretion, to require the Lessee to pay, in addition to the Interim Lease consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

36. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress or resident commissioner shall be admitted to any

PROPOSED

share or part of this Interim Lease or to any benefits to arise therefrom. However, nothing herein contained shall be construed to extend to any incorporated company if this Interim Lease is for the general benefit of such corporation or company.

37. MODIFICATIONS

This Interim Lease contains the entire agreement between the parties hereto, and no modification of this agreement, or waiver, or consent hereunder shall be valid unless the same is in writing and signed by the parties to be bound, or by a duly authorized representative.

38. NO COMMITMENTS FOR FUTURE USE

The Interim Lease does not commit the Lessor to any renewals of the use authorized herein after expiration or termination hereof, or to any future reuse or disposal and does not create any right or expectation for the Lessee or its sublessees to acquire the Leased Premises.

39. DISCLAIMER

This Interim Lease is effective only insofar as the rights of the Lessor in the Leased Premises are concerned; and the Lessee shall obtain any permit or license which may be required by federal, state, or local statutes, regulations, or ordinances in connection with its use of the Leased Premises. The granting of the Interim Lease does not preclude the need to apply for a permit from the Lessor for activities which involve the discharge of dredge or fill material or the placement of fixed structures in waters of the United States of America, pursuant to the provisions of Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C § 403), and Section 404 of the Clean Water Act (33 U.S.C. § 1344).

40. AVAILABILITY OF FUNDS

The Lessor's obligation to pay or reimburse any money under this Interim Lease is subject to the availability of appropriated funds, and nothing in this Interim Lease shall be interpreted to require obligations or payments by the Lessor in violation of the Anti-Deficiency Act; provided that the Lessor shall otherwise comply with applicable statutory requirements and its obligations under the terms of this Interim Lease.

41. COMPLIANCE WITH EXECUTIVE ORDER 13658

a. It has been determined this contract is not subject to Executive Order 13658 or the regulations issued by the Secretary of Labor in 29 C.F.R. Part 10 pursuant to the Executive Order, and the following provisions.

b. If a duly authorized representative of the United States discovers or determines,

PROPOSED

whether before or subsequent to executing this lease, that an erroneous determination regarding the applicability of Executive Order 13658 was made, Lessee, to the extent permitted by law, agrees to indemnify and hold harmless the United States, its officers, agents, and employees, for and from any and all liabilities, losses, claims, expenses, suits, fines, penalties, judgments, demands or actions, costs, fees, and damages directly or indirectly arising out of, caused by, related to, resulting from or in any way predicated upon, in whole or in part, the erroneous Executive Order 13658 determination. This includes Lessee releasing any claim or entitlement it would otherwise have to an equitable adjustment to the lease and indemnifying and holding harmless the United States from the claims of subcontractors and contractor employees.

IN WITNESS WHEREOF, I have hereunto set my hand by authority of the Secretary of the Army this _____ day of _____, 2017.

_____

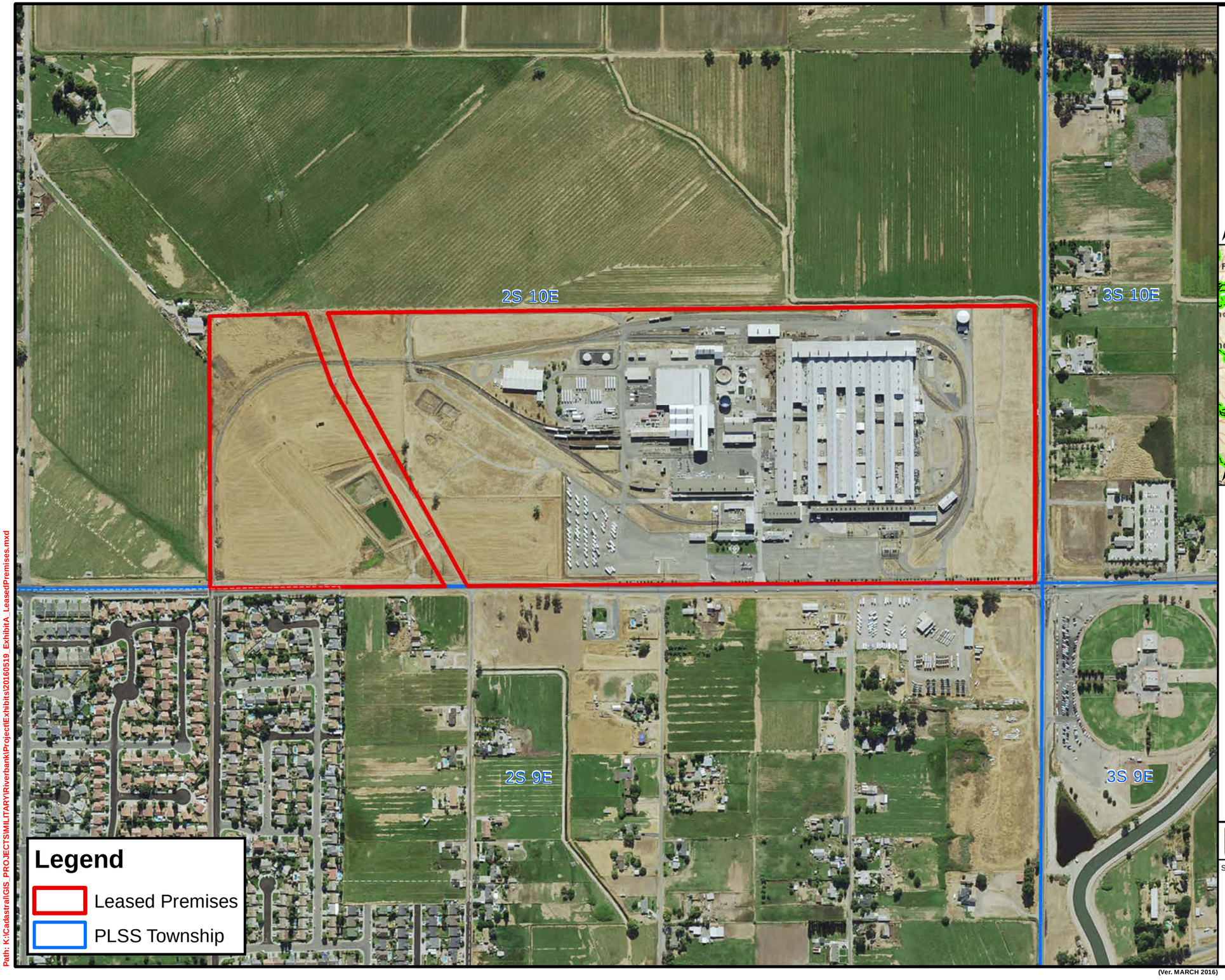
Brenda M. Johnson-Turner
Director of Real Estate
Headquarters, U.S. Army Corps of Engineers

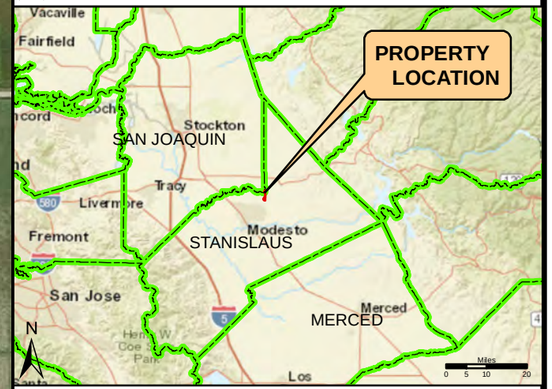
THIS INTERIM LEASE is executed by the Lessee this _____ day of _____, 2017.

_____

City Manager
City of Riverbank, California

PROPOSED





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Feet

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1 inch = 500 feet

Coordinate System:
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Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Units: Foot US

EXHIBIT A

STANISLAUS COUNTY — CALIFORNIA

SACRAMENTO DISTRICT (SPK)
REAL ESTATE DIVISION

RIVERBANK army AMMUNITION PLANT (RBAAP)

CREATED MAY 19, 2016

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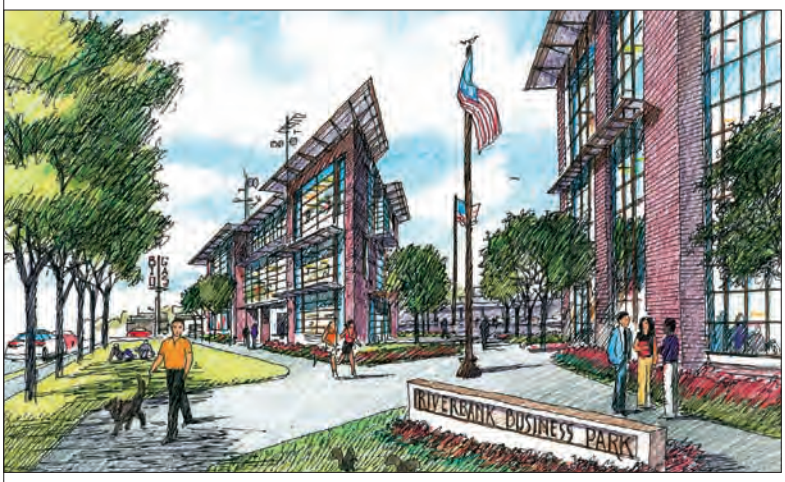
EXHIBIT B

Final

RIVERBANK ARMY AMMUNITION PLANT BASE REUSE PLAN



Riverbank Local Redevelopment Authority | October 30, 2008

D & C E

DESIGN, COMMUNITY & ENVIRONMENT

Final

Riverbank Army Ammunition Plant Base Reuse Plan

Approved by the Riverbank Local Redevelopment Authority on October 30, 2008.

Local Redevelopment Authority Members:
Chris Crifasi, *Chair*
Sandra Benitez, *Vice-Chair*
Virginia Madueno, *Authority Member*
Dave White, *Authority Member*
David I. White, *Authority Member*

Local Redevelopment Authority Staff:
Richard Holmer, *City Manager*
Tim Ogden, *Economic Development & Housing Director*
Debbie Olson, *Economic Development Manager*
J.D. Hightower, *Community Development Director*
David Melilli, *Public Works Director*

Riverbank Local Redevelopment Authority | October 30, 2008

DESIGN, COMMUNITY & ENVIRONMENT

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VENTURA, CALIFORNIA 93001
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in association with
Earth Tech
Bay Area Economics

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1 INTRODUCTION

When the Riverbank Army Ammunition Plant (RBAAP) was selected for closure as part of the Base Realignment and Closure (BRAC) 2005 round, the community of Riverbank lost not only a source of high-quality jobs, but to some extent, a sense of security and identity. The RBAAP had, after all, been a preeminent fixture in the City of Riverbank for more than six decades. The Riverbank Local Redevelopment Authority (LRA) was formed to help guide the City through the BRAC reuse process. The Department of Defense recognizes this local redevelopment authority as the entity responsible for taking into account the goals and needs of the community and creating a redevelopment plan for the closed facility before the property is transferred for redevelopment. This chapter provides background about RBAAP's site and location, describes the BRAC process and briefly summarizes the Base Reuse Concept contained in this Plan.

A. RBAAP History

RBAAP is a federal, government-owned, contractor-operated industrial installation under the jurisdiction of the U.S. Army. The Plant, located at the southeastern edge of the city, began operation in 1943 as an aluminum reduction plant supplying military requirements. It closed in 1944 and was used for storage during the eight years that followed. In 1952, the Norris Thermador Corporation, now known as NI Industries, Inc. (NI), was contracted by the U.S. Army to manage the property and produce ammunition supplies for use by the military. As production waned, NI was permitted to lease excess space on the site to private tenants through the U.S. Army's Armament Retooling and Manufacturing Support (ARMS) program. Tenants are mostly involved in light and heavy industry, including plastics recycling, steel rebar coating, filtration systems manufacturing and oil recycling (see Appendix A for more detailed information on current RBAAP tenants).

RBAAP is in a state of transition and the change of ownership from federal to local and/or private ownership will affect the City of Riverbank in several ways. The reuse of the property is expected to create a diverse industrial and manufacturing center where entrepreneurship, opportunity, environmental

consciousness and local economic growth will thrive. The RBAAP Reuse Plan addresses the opportunities and challenges by creating a thorough and responsive redevelopment plan. The Plan proposes a strategy to transform the site into a vibrant facility that retains and grows existing businesses, attracts new businesses and establishes a new "green" economic cluster for long-term regional job growth.

B. RBAAP Site Location

RBAAP is located in Riverbank, a growing city of 21,757 people in Stanislaus County, 5 miles northeast of the City of Modesto, the county seat. It is located approximately 90 miles east of Oakland and 70 miles southeast of Sacramento, and connected to these and other California cities by highways and rail. Figure 1-1 shows Riverbank's location within the region.

RBAAP is composed of two non-contiguous sites, totaling 173 acres, as shown within the city context in Figure 1-2. It is one of the few fully developed industrial areas in the city. The Main Site, located at the southeast portion of the Riverbank City limits, comprises 146 acres and contains 191 structures, including the original aluminum smelting plant and military installation, as well as several structures that have been added since the early 1950s. The 27-acre Evaporation/Percolation Ponds Site is located just north of the City limits. It functions as an evaporation and percolation pond for the treatment of industrial wastewater.

C. Riverbank & Regional Economic Conditions

This section briefly analyzes demographic and economic trends for Riverbank, as well as trends for the Modesto Metropolitan Statistical Area (MSA) or Stanislaus County, as defined by the U.S. Census Bureau and a larger two-county region including Stanislaus and San Joaquin Counties.

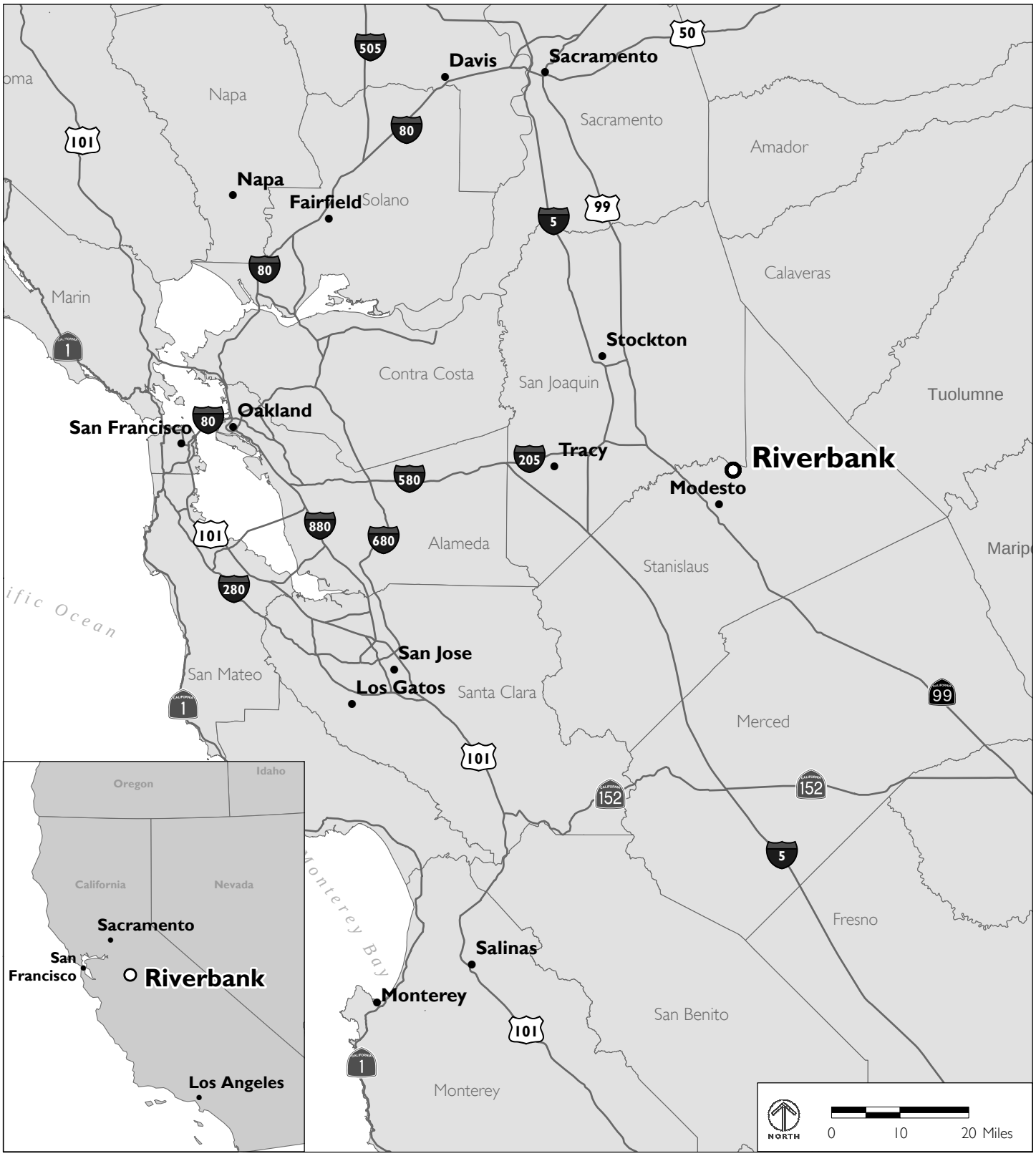


FIGURE I-1

REGIONAL LOCATION

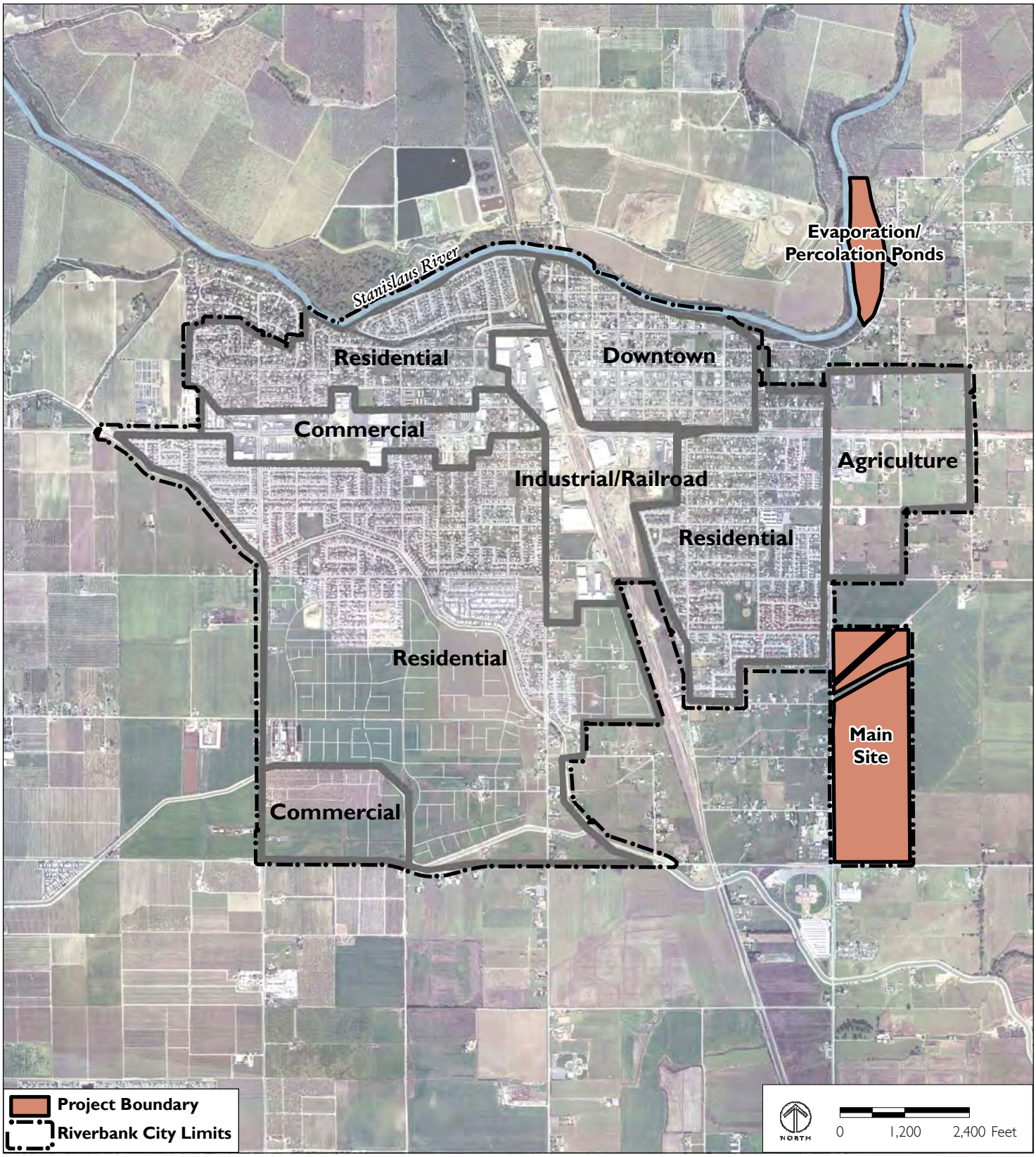


FIGURE 1-2

PROJECT SITES AND TYPICAL EXISTING LAND USES

1. Population

Riverbank's population of 21,757 grew by just under 6,000 persons (37 percent) between 2000 and 2008.[1] Riverbank's population growth rate was relatively rapid compared with the Modesto MSA and the two-county region, which grew approximately 14 percent and 17 percent, respectively, during the period.

2. Income

Riverbank's annual median household income at $52,964 is significantly higher than either the MSA ($45,928) or the region ($46,651).[2] Lower income households tend to be less concentrated in Riverbank than in the MSA or the region. In 2006, approximately 25 percent of all Riverbank households had incomes below $35,000, compared to 38 percent of the regional households.

Overall, the household income data suggest that Riverbank has attracted a largely "middle-income" population, and the proportion of affluent households is similar to that in the surrounding region, with large numbers of workers commuting outside the area to work.

3. Employment

One of the most striking aspects of the current employment data is the relatively high unemployment rate for Riverbank, at 11.7 percent in 2000 and increasing to 15.5 percent in September 2008.[3] This rate is substantially higher than the Modesto MSA (10.5 percent) or the two-county region, and dramatically higher than the unemployment rate for the State of California in 2008 (7.5 percent) or the U.S. (6.1 percent).

Workforce education and skill competency are issues affecting employment viability. Stanislaus County's economy has long been agricultural. This carries with it factors such as: high national and international levels of crop production and market share, seasonal employment and labor force shifts, low

[1] State of California Department of Finance, January 2008.

[2] Claritas, 2007.

[3] California Employment Development Department, September 2008.

wages, dependence on weather and natural conditions, and intervention of national and international markets and trade agreements.

4. Regional Industry

Overall, while both the Modesto MSA and the two-county region geographies increased total jobs, the Modesto MSA lagged behind the two-county region in total rate of job growth: 7.9 percent increase in Modesto MSA compared to 9.4 percent for the two-county region.

In the Modesto MSA, the largest job sectors include Trade/Transportation, Government, and Manufacturing. While Trade/Transportation and Government have both grown during the past six years, Manufacturing declined by 3.5 percent, reflecting statewide and national trends. However, it is important to note that the two-county region experienced a more substantial decline in the Manufacturing sector (8.2 percent) than did the Modesto MSA. Education/Health and Leisure/Hospitality appear to be the most rapidly growing employment sectors in the Modesto MSA.

5. Riverbank Industry

The most recent data available on employment by industry for Riverbank is from the 2000 census data. Manufacturing and Education/Health/Social Services were the two largest industry sectors in Riverbank. Manufacturing was the largest single industry sector in Riverbank in 2000, constituting 27 percent of total jobs, a substantially higher concentration than the Modesto MSA for the same time period. The Education/Health/Social Services sector employed the next largest number of workers, followed by Retail Trade. These data underscore the importance of manufacturing to the strength of the Riverbank economy, and the need to mitigate any negative impacts of the RBAAP closure on local employment.

6. Commute Patterns

Data from the U.S. Census' 2000 Transportation Planning Package details Riverbank commuter flows by resident place of work. In 2000, only 17 percent of all employed residents of Riverbank also worked within the City,

with the remaining 83 percent commuting to places of work outside of the city. Of these commuters, most worked within Stanislaus County, including 30 percent commuting to Modesto. As Modesto's economy expands and developers construct more housing in Riverbank, the proportion of residents commuting to Modesto and elsewhere outside of Riverbank is likely to remain high unless Riverbank's job base expands.

D. Base Closure Process and Requirements

The Base Realignment and Closure Commission (BRAC), convened by the U.S. Congress in 2005, made recommendations for closing a number of United States military bases. This round of closure, the fifth since the base closure process was initiated in the early 1990s, is referred to as "BRAC V" or "BRAC 2005." In this current BRAC round, it was determined that RBAAP's manufacturing operations overseen by NI should be relocated to the Rock Island Arsenal in Illinois. The decision to close RBAAP became law in December 2005.

Most of the federal laws and regulations that impact military base closure transition and reuse are summarized or referenced in the Base Redevelopment and Realignment Manual (BRRM), published by the Department of Defense in 2006. The federal government and the Department of Defense recognize a local redevelopment authority as the entity responsible for creating a redevelopment plan for closed facilities before property is transferred for reuse and development.

The Office of Economic Adjustment (OEA) initially recognized the City of Riverbank and the Stanislaus County District 1 Supervisor as the LRA responsible for creating the redevelopment plan. The City of Riverbank alone was subsequently recognized as the LRA in January 2008, when the developable parcels of the federal base closure property were incorporated into the city limits.

Key steps for the Department of Defense during the reuse process include:

- Identify surplus equipment available to the LRA.
- Analyze environmental conditions on the site.
- Provide technical assistance with the Reuse Plan.
- Complete federal environmental review of the Reuse Plan.
- Determine the appropriate method of property disposal.

Key steps for the Department of Housing and Urban Development during the reuse process include:

- Review the Reuse Plan for compliance with federal requirements.
- Approve the Homeless Submission.

The LRA may complete the following steps during the reuse process:

- Prepare the Reuse Plan.
- Identify and recommend appropriate disposal mechanisms to implement the reuse plan.
- Initiate interim reuse.
- Receive conveyances of property.
- Solicit and oversee private sector lease and/or purchase of property.
- Transfer surplus assets to private long-term lessees and/or buyers.

In past BRAC rounds, the Department of Defense has conveyed property to communities for public purposes or to better enable local communities to set the stage for "economic recovery" during the closure transition. A conveyance of real property or real estate from the military enables the LRA to manage the process of disposition for maximum community benefit. The U.S. Department of Defense is responsible for the remediation of contamination that occurred prior to conveyance, pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA[4], and does not make the LRA or the City government liable for environmental contamination on the site.

[4] 42 USC §9601 et seq.

The LRA may also pursue a process of "early transfer" of land and buildings before all environmental remediation has occurred on the site. The early transfer process involves a contract between the U.S. government and the LRA, and concurrence from the state's governor. For property listed on the National Priorities List (NPL), the agreement must be approved by the Environmental Protection Agency (EPA). This process transfers the oversight of the cleanup efforts from the EPA to the California Department of Toxic Substances Control (DTSC).

Completion of the Reuse Plan is key to the disposal process. Once the community has finalized the Reuse Plan and submitted it, the federal government will prepare an environmental assessment as required by the National Environmental Policy Act (NEPA). The environmental assessment may consist of an Environmental Impact Statement (EIS) if it is determined that the base reuse process would significantly affect the environment, or an Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) if the base reuse process is expected to have minimal environmental effects. The City will also review the project and prepare an environmental review document as required by the California Environmental Quality Act (CEQA).

Along with determining the future reuse and mitigating any constraints on the property, the BRAC process also allows the LRA to set forth its recommended plan for transfer from federal authority to a state or local jurisdiction. This is done through various conveyance mechanisms. The conveyance mechanism is often key to the successful implementation of the community Reuse Plan. There are several mechanisms available, and each conveyance method has its benefits and drawbacks depending on the circumstances of the transfer and the goals of the LRA and the community. The most common conveyance mechanisms are:

- **Public Benefit Conveyance (PBC).** This mechanism is available for real property that serves a public benefit, as defined by federal law. Typical PBCs include airports, hospitals, schools and parks, and must be applied for by the LRA and approved by the relevant federal agency (for example, the Federal Aviation Administration for airports). Under federal law, the

Reuse Plan must also request a specific type of PBC for conveyance of any facilities that will be used by homeless service providers, or explain why the Reuse Plan does not propose to accommodate homeless service providers.

- **Economic Development Conveyance (EDC).** This method of transfer allows the LRA to obtain all or large portions of real property with favorable terms and conditions, and may, under certain circumstances, be for less than fair market value. An EDC is designed to allow for economic development (for example, the creation or retention of jobs). The LRA must apply for this type of conveyance and demonstrate in its application how the value adjustment (low-cost or no-cost) will support job creation or retention.
- **Public Sale.** There are several options for public sale allowed under BRAC law. The military may choose to sell the property in the marketplace via negotiated purchase, sealed public bid, or by public auction. The site may be sold in the private marketplace, or the military may negotiate a fair market value sale to the LRA.
- **Military Construction (MILCON) Exchange.** The Army can also utilize an alternative to action known as MILCON, which involves exchanging the real property for construction services at another military base. In these cases, land use entitlements become the community's primary method of controlling the ultimate use of the site.

For RBAAP, the Riverbank LRA has chosen to pursue a combination of conveyance methods. An EDC and public sale are recommended for most of the property. The LRA is also requesting a PBC to accommodate the future widening of Claus and Claribel Roads. More details about property conveyance are contained in Chapter 4 of this Plan.

E. Overview of the Planning Process

After constituting the LRA, a planning team was assembled to prepare a redevelopment plan. The team consisted of four consulting firms and the City's Economic Development Department. The consulting firms involved are:

- **Design, Community & Environment:** Provided land planning services and facilitated public involvement.
- **Earth Tech:** Provided engineering and environmental services.
- **Bay Area Economics:** Provided market, financial and economic analysis.
- **Kutak Rock:** Provided legal support.

As shown in Figure 1-3, the planning process began in May 2006 with the solicitation of Notices of Interest from homeless service providers, followed by a Homeless Outreach Workshop in December 2006. Work on the Base Reuse Plan began in March 2007, with initial kick-off meetings between LRA staff, its consultants and representatives of the Army. These meetings were followed by tours of the facility and initial planning for community and stakeholder events.

The first stakeholder meeting was held on May 9, 2007. Representatives from each of the current RBAAP tenant businesses were invited to attend the stakeholder meeting, along with representatives from the Army, the City of Riverbank and the City's consulting team. The purpose of the first stakeholder meeting was to explain the BRAC process, identify the opportunities and constraints faced at the site, address any tenant concerns and solicit feedback on tenants' desires for the future of the RBAAP site. A second stakeholder meeting was held on July 11, 2007. The same parties were invited. This meeting focused more on detailed issues such as the groundwater contamination on the site, the timeline for remediation of the site, future land uses and infrastructure.

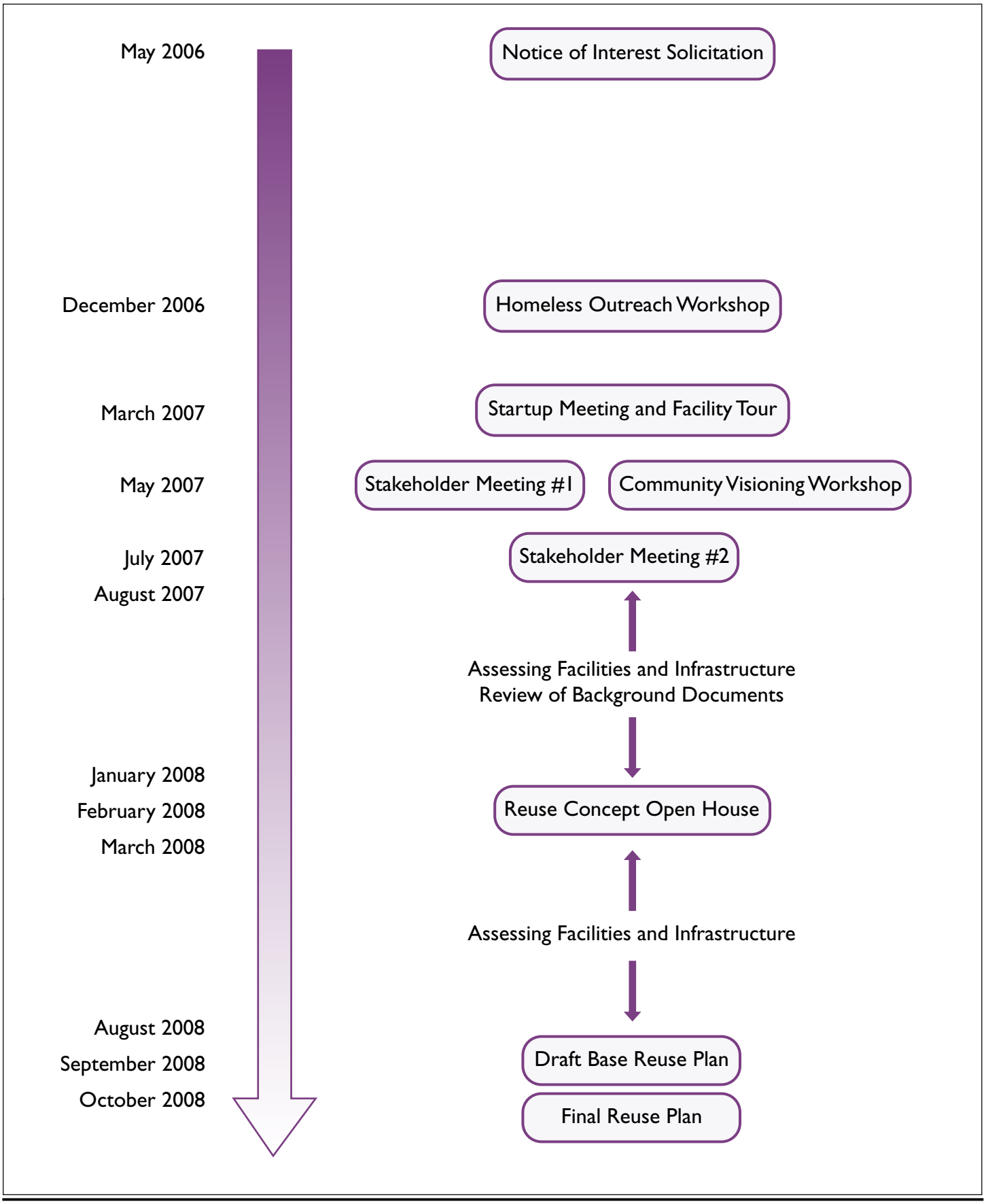


FIGURE 1-3

REUSE PLAN TIMELINE

A community workshop was held on June 7, 2007, between the first and second stakeholder meetings. The public was asked to provide their vision for the future of the site. The workshop was useful in solidifying the community's vision and generated goals that were appropriate for the site.

On February 25, 2008, an open house was held to review the preliminary alternative plans proposed for the reuse of the RBAAP site. The open house was informal and allowed members of the public to view the alternatives and ask questions before the LRA chose a preliminary preferred alternative. Existing business tenants at RBAAP were also invited to view and discuss the alternatives. Later that evening, the LRA held a formal public hearing to receive direction from the LRA on the preliminary preferred alternatives presented and select the community's preference.

The Base Reuse Plan had been posted on the City's website since September 15, 2008, but was formally unveiled on September 18, 2008 at a public meeting that included a bus tour of the installation. A presentation on the Draft Base Reuse Plan was given and enthusiastically received by the approximately 100 individuals in attendance, including residents, LRA officials, County officials, Congress representatives, current business tenants, prospective businesses and employees, real estate officials, and consultants. Subsequent public meetings and hearings provided substantial opportunity to receive feedback regarding the Reuse Plan. Public meetings were held on September 22, 2008, and October 27, 2008, with a final public hearing on October 30, 2008. Public comments, both oral and written, were responded to and integrated into the Reuse Plan as appropriate.

F. Outreach to Homeless Service Providers

The LRA undertook an exhaustive outreach process to accommodate homeless service providers. The *Guidebook on Military Base Reuse and Homeless Assistance* states:

> "The redevelopment plan must explain the proposed reuses of the military installation and how this reuse will achieve a balance in responding to the community's needs. No specific format is required; it may include statistics, graphics, maps, narrative descriptions, or other materials."[5]

While no strict outline is required, the LRA must submit the following three items as part of a comprehensive Reuse Plan:

- The redevelopment plan.
- The homeless assistance submission.
- A summary of public comments on both documents.

With respect to the homeless assistance submission, the LRA made a significant effort to conduct outreach to representatives of the state and local agencies interested in potential public conveyances, as well as representatives of potential homeless service providers. This outreach occurred in tandem with the ongoing development of the Base Reuse Plan, and other redevelopment activities associated with the closure of the installation.

Great care was taken to ensure that the broadest, most comprehensive list of potentially interested parties was developed and used. Formal notices were mailed, emailed and contacted with the assistance of several agencies, both state and local. The LRA also actively utilized HUD field staff for technical assistance on outreach to representatives and for guidance in identifying homeless service providers operating in the vicinity of the installation.

In accordance with base closure law, the LRA solicited Notices of Interest (NOI) from State and local governments, representatives of the homeless and other interested parties regionally. The LRA conducted both formal and informal solicitation of notices of interest. The LRA also provided a 30-day opportunity for verbal and written comments to be provided by homeless

[5] U.S. Department of Housing and Urban Development, May 2006.

service providers regarding the draft application requirements and to review criteria prepared for the effort.

An outreach workshop was held in December 2006 for interested representatives of state and local agencies and homeless service providers. Federal laws and rules related to the screening and application process were presented and discussed and an opportunity to tour the facility was extended. During the outreach process the LRA received one NOI application.

The LRA worked with the applicant on several occasions and met with the applicant to review and clarify requirements prior to NOI submission. Subsequent to submission, the LRA requested additional documentation to support and strengthen the NOI request. HUD staff was consulted numerous times during the process to provide guidance and ensure proper protocols were followed.

An LRA-appointed panel reviewed the NOI based on HUD-recommended criteria which included completeness, financial stability of the organization, feasibility of the plan and readiness, among other criteria. After evaluation, the panel prepared a recommendation for the LRA's consideration on the NOI. A public hearing was scheduled to solicit public input on the submitted NOI. The applicant did not attend and no comments were received, either for or against. At the regularly scheduled January 28, 2008 LRA meeting, the applicant was denied consideration.

Due to the denial of the sole NOI received, no legally binding agreements were necessary.

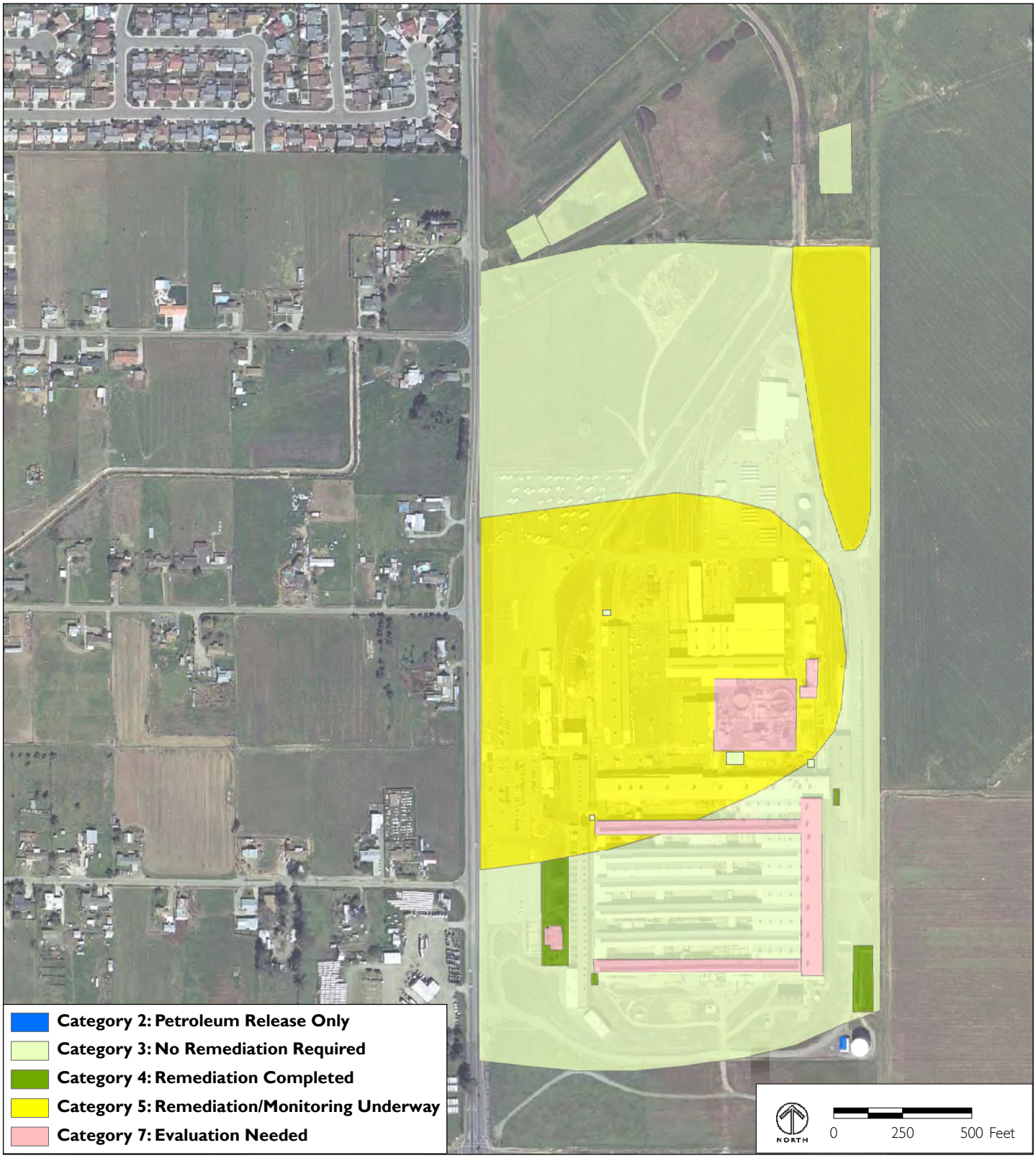
G. Remediation of Contamination

RBAAP is currently listed as a federal Superfund site due to groundwater contamination and other pollutants at the site. A primary goal of this Base Reuse Plan is to create a framework for addressing pollution on the site and that leads to removal of RBAAP from the Superfund site list. Some remedia-

tion has already occurred and further remediation is planned for the future. Additionally, there are areas and buildings on the RBAAP site that still require investigation and study to determine the extent of contamination. Unknown or unidentified environmental conditions uncovered at a later date could prove too costly and/or detrimental to the implementation of the Reuse Plan. Therefore, it is essential that an environmental strategy be devised by the Implementing LRA prior to conveyance to address future environmental liabilities.

As shown on Figure 1-4, there are several different levels of contamination on the site. The most significant contamination issue is a plume of subsurface groundwater contamination that contains chromium and cyanide; the plume resulted from past spills at RBAAP's Industrial Wastewater Treatment Plant (IWTP). While the defects that caused the spills have been corrected, further treatment is required to remediate the contamination to State and federal standards. There are also other areas with less significant contamination issues, some of which limit where future development can occur. Areas within the RBAAP site were divided into the following seven categories:

- **Category 1.** No contamination.
- **Category 2.** Areas where only the release of petroleum has occurred.
- **Category 3.** Areas where contamination has occurred at a level that requires no further remediation.
- **Category 4.** Areas where sufficient remediation has already taken place and no further action is necessary.
- **Category 5.** Areas where contamination has occurred and remediation is underway, but further action or ongoing monitoring is required.
- **Category 6.** Areas where contamination has occurred, but for which no remediation effort has been implemented (no Category 6 sites were identified at RBAAP).
- **Category 7.** Areas requiring further assessment.



Map highlights the status of contamination assessments within RBAAP's boundaries.
Source: CH2M Hill, 2006; CH2M Hill, 2008.

FIGURE 1-4

The *Environmental Condition of Property Phase I Report,* published in November 2006, describes the degree of remediation needed on the site and identifies areas and buildings that require further assessment.[6] Some of these areas and buildings were assessed in 2007, resulting in the publication of a *Site Investigation Report* in March 2008. The document reports the findings of additional assessment and identifies those areas and buildings for which no further assessment is necessary.[7]

The contamination at RBAAP greatly limits the land uses that are appropriate on the site. Remediation is expected to be conducted with the goal of ensuring continued safe use of the site for industrial or other non-residential purposes. Subsequent chapters of this document provide more detail on contamination, schedules for remediation and remediation responsibilities.

H. Summary of Base Reuse Concept

The Reuse Plan presents a conceptual vision and policy framework for the site's development. The reuse of RBAAP provides an excellent opportunity for the City of Riverbank to enhance its economic base and create a unique industrial park. The foundation of the base reuse concept is the retention of current tenants, which are providing much-needed jobs in the City of Riverbank. The LRA is adamant about supporting and accommodating current tenants in their plans for expanding their operations during the transition process. These steps include providing economic assistance and ensuring that any equipment or fixtures these businesses are currently using are retained with the installation and available for reuse. Despite changes in ownership or facility use management, it is imperative that the operations of current tenants experience only minimal interruption in day-to-day activity during and after conveyance. The existing business tenants on site are in the process of

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[6] CH2M HILL, 2006, *Environmental Condition of Property Phase I Report*, U.S. Army Corps of Engineers, page ES-15.

[7] CH2M HILL, 2008, *Site Investigation Report*, U.S. Army Corps of Engineers, pages 4-1 to 4-8.

forming a tenants association in an effort to ensure their collective voice and respective business interests are heard throughout the reuse and redevelopment process. The resulting Reuse Plan has taken these issues into consideration. Figure 1-5 shows the current locations of existing tenants at the RBAAP site.

New tenants at the RBAAP site are expected to locate in existing buildings and on the vacant, developable areas of the site. Considering the emerging importance of sustainability and increased market support for green energy technologies and environmentally-friendly products, the LRA has prioritized the attraction of "green businesses" that contribute to an overall goal of reducing waste and pollution. The Reuse Plan envisions a diverse industrial and manufacturing center that supports entrepreneurship, opportunity, environmental consciousness and local economic growth. RBAAP's future owner can integrate the rising tide of "green" investment and innovation with improvements in efficiency and sustainability for traditional businesses. The Reuse Plan focuses on attracting new and emerging businesses, but still accommodates traditional industrial businesses that wish to locate at the site.

I. Overview of the Base Reuse Plan

This document provides the LRA's proposed strategy for the civilian reuse of RBAAP. It consists of the following chapters:

- **Chapter 2, Vision, Goals and Objectives:** This chapter describes the vision for the reuse of the RBAAP facility and provides clear goals and objectives to achieve this vision.
- **Chapter 3, Base Reuse Concept:** This chapter details the overall Base Reuse Concept, focusing on land use, circulation, community character, utilities and infrastructure, and security.
- **Chapter 4, Property Disposition and Conveyance:** This chapter describes the LRA's preferred method of transferring the property from the federal government.

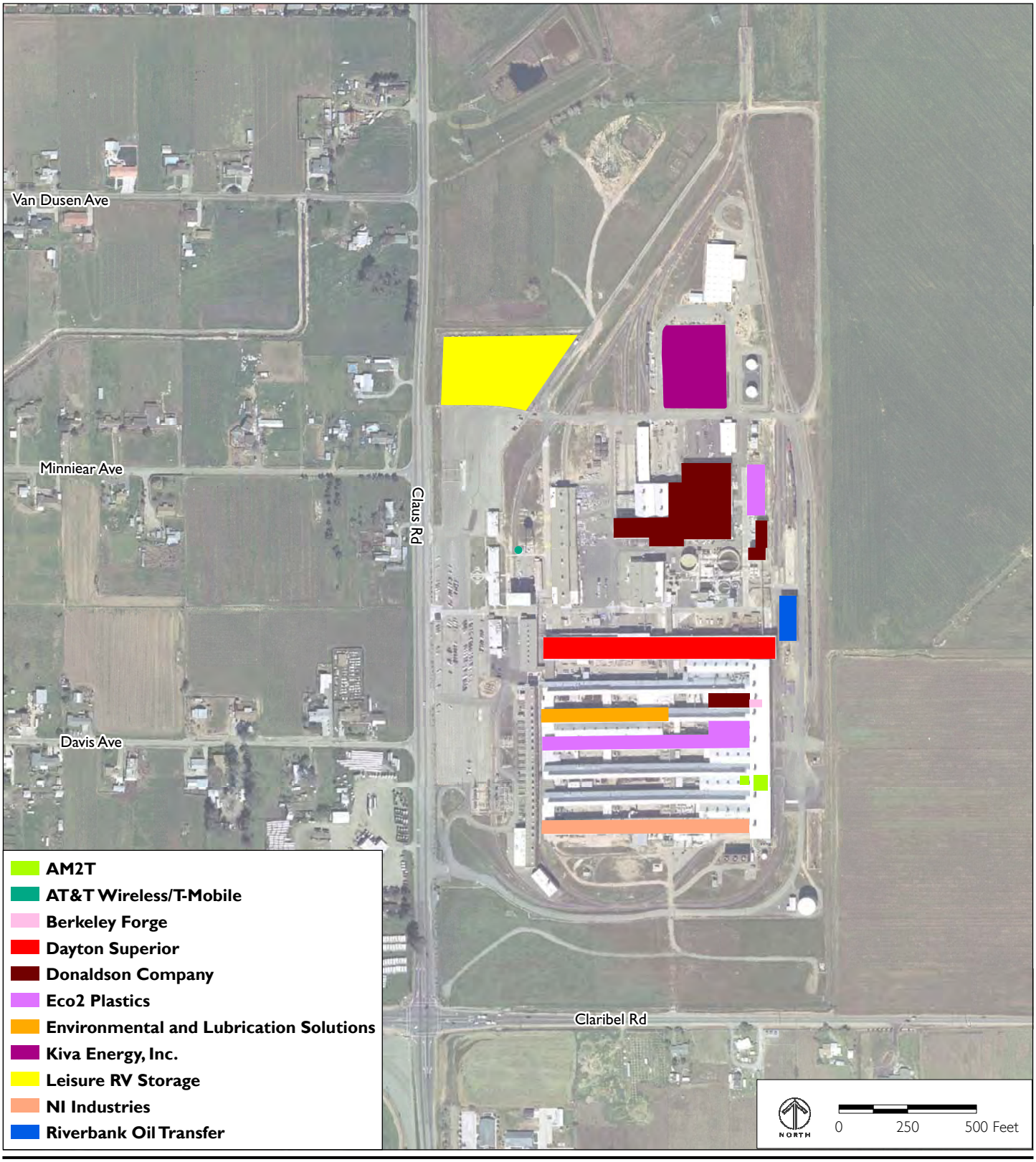

FIGURE 1-5

CURRENT TENANTS

- **Chapter 5, Implementation and Next Steps:** This chapter provides guidance for successful implementation of the Base Reuse Plan.
- **Appendix A, Tenant Profiles:** This appendix provides a brief description of the current RBAAP tenants and their activities.
- **Appendix B, Equipment to Remain After Conveyance**: This appendix provides a table listing all Army-owned equipment the LRA intends to purchase on behalf of the tenants.
- **Appendix C, Existing Buildings at RBAAP.** This appendix provides information about the current use and condition of RBAAP's existing buildings.

2 VISION, GOALS AND OBJECTIVES

This chapter provides the vision, goals and objectives for the Base Reuse Plan. They were developed with input received from members of the Riverbank community, current and prospective RBAAP tenants, and the LRA after extensive stakeholder meetings, community workshops, open houses, public hearings, and facility site tours and presentations. As outlined in Chapter 1, the Base Reuse Concept described in this Plan is designed to fulfill the community's vision, goals and objectives.

A. Vision

The City of Riverbank's adopted Vision Statement envisions that:

> Riverbank in 2025 has a small-town character where residents can live, work and play locally. The City has a thriving downtown that offers a variety of retail opportunities and services, and functions as the social and cultural heart of the community. **Riverbank has a healthy and diversified industrial base served by its railroad, safe and walkable/bikeable neighborhoods, and a wide range of employment and housing opportunities for its diverse population**. Although we welcome automobiles, Riverbank is a place for PEOPLE. Those who choose not to drive can easily and safely walk, bicycle, or use public transit to get to work, school, shopping, or a local park. Riverbankers' strong sense of community identity is reflected in its public gathering places and activities, architectural variety, and the ways in which the City's riverfront location, railroad-oriented history, agricultural heritage, and other unique qualities are celebrated in the built environment. **Riverbank in 2025 has succeeded in creating a BALANCE between housing and jobs for its residents, commerce and industries that support the local economy, and the protection of agriculture and natural resources**.

Riverbank is currently out of balance between jobs and housing, with more homes than jobs. The jobs-housing balance represents the degree to which a

community's housing development is sufficient to offset the demand that the job base creates. Communities with job to housing ratios higher than 1.5 are generally considered "jobs rich," while those with a ratio lower than 1.5 are considered "housing rich."

Riverbank has historically served as a destination for housing. The community's ratio of jobs to housing increased from 0.45 in 1994 to 0.60 in 2002. Though Riverbank is still housing rich, job growth has largely kept pace with a rapidly expanding population. However, the much faster pace of housing development that has occurred since 2002 has decreased the ratio to 0.57 as of 2006. Thus job creation is of utmost importance in achieving Riverbank's community vision.

RBAAP already operates as a traditional industrial park, occupied by a variety of manufacturing businesses that support the City's vision to achieve a jobs/housing balance. This Base Reuse Plan will ensure that the RBAAP site is able to grow and strengthen Riverbank's economic well-being into the future, even after the base has closed. It will support the retention and expansion of existing businesses, as well as the attraction of new businesses that provide high-quality employment opportunities. A new green business park will attract environmentally sustainable industrial businesses, alternative energy manufacturers and research facilities. The former base will also provide a location where Riverbank's home-grown businesses can expand and thrive.

B. Goals and Objectives

This Base Reuse Plan is intended to support the Choice and Diversity guiding principle of the City's adopted Vision Statement, which states:

> In 2025, Riverbank will enjoy a variety of entertainment opportunities, retail and commercial services, housing types, job opportunities, and activity destinations that are easily accessible by car, transit, on foot, or bicycle. Choices and opportunities will be available to the greatest extent

possible regardless of the physical or developmental abilities, needs, preferences, backgrounds, and incomes of our residents.

The following goals and objectives are designed to reflect the adopted Vision Statement for Riverbank which has great influence on the overall vision of the Base Reuse Plan. Each goal describes a desired outcome that will be supported by this Base Reuse Plan. The objectives create a more detailed framework for achieving each goal.

Goal 1: A strong economic base for Riverbank.

- Objective 1.1: Attract new businesses that would benefit from the site's unique facilities and infrastructure.
- Objective 1.2: Ensure that private companies located on the base can remain on the site into the future, after the base has closed.
- Objective 1.3: Accommodate the expansion of existing tenants on the site.
- Objective 1.4: Create opportunities for Riverbank's existing industrial businesses to relocate to the site.
- Objective 1.5: Work to recruit businesses and attract funding for a new green business park on the site.
- Objective 1.6: Provide for a variety of land uses, including a mix of high-intensity uses, such as metal fabrication, and low-intensity uses, such as materials storage and office uses.

Goal 2: High-quality industrial facilities.

- Objective 2.1: Ensure that the site's infrastructure is adequate to support manufacturing businesses and other industrial uses.
- Objective 2.2: Preserve heavy rail access to the site and its buildings.
- Objective 2.3: Accommodate deliveries and shipments by truck.

- Objective 2.4: Develop a cadre of elements and incentives that provide a competitive advantage in attracting and retaining business enterprises.
- Objective 2.5: Maintain a utility cost advantage for the site's existing and future tenants.
- Objective 2.6: Transfer military-owned equipment currently in use by businesses on the site to private ownership.
- Objective 2.7: Improve the appearance of the site's existing buildings and landscaping.

Goal 3: Security for workers and businesses.

- Objective 3.1: Provide a high level of security for tenants.
- Objective 3.2: Improve the security of individual tenant spaces within the site.
- Objective 3.3: Ensure that any land uses that may attract large numbers of visitors are located outside of secured areas.

Goal 4: Safety for Riverbank's residents.

- Objective 4.1: Minimize the effects of industrial businesses on the surrounding residential neighborhoods.
- Objective 4.2: Ensure that all required cleanup of groundwater pollution is fully funded and completed in a timely manner.
- Objective 4.3: Limit new land uses that would be negatively affected by industrial and manufacturing businesses.
- Objective 4.4: Inform neighbors about development plans and environmental cleanup on the site.
- Objective 4.5: Require new development to meet the City of Riverbank's regulations, including the Community Character and Noise Elements of the Riverbank General Plan.

- Objective 4.6: Provide smooth transitions and/or open space buffers from existing neighborhoods and adjacent land uses to the site's developed space.
- Objective 4.7: Provide transition plans for adherence to the Americans with Disabilities Act.
- Objective 4.8: Ensure the completion of remaining hazardous material abatement for existing facilities in their reuse.

Goal 5: Appropriate development of vacant land.

- Objective 5.1: Allow new land uses, such as offices and a green business park, on vacant parts of the site.
- Objective 5.2: Accommodate the division of vacant areas into separate parcels.
- Objective 5.3: Assist in locating local businesses that need to expand operations and create jobs.
- Objective 5.4: Develop sustainable development guidelines that set performance standards for new buildings in terms of solar orientation and meeting LEED standards.
- Objective 5.5: Develop a fully integrated transportation system that accommodates all modes of transportation into and throughout the installation while maintaining appropriate security levels for tenants.

3 BASE REUSE CONCEPT

This chapter describes the Base Reuse Concept for the RBAAP site. It contains sections providing the intent for the base's future land uses, circulation, community character and utility infrastructure. The chapter also discusses possibilities for building reuse, future security needs and procurement of Army-owned equipment.

A. Land Use

It is proposed that the 146-acre RBAAP site will continue to function primarily as an industrial park, along with some limited convenience retail uses, while the 27-acre evaporation/percolation pond site remain unchanged. This approach is consistent with the vision, goals and objectives of this Reuse Plan, which were developed through consultation with community members, stakeholders and current tenants. It is also generally consistent with the land use designations proposed in Riverbank's Draft 2025 General Plan. With job creation and current tenant expansion being the top priorities for the community, no other significant land uses were considered viable in reaching the community goals. Figure 3-1 shows the current land use designations for RBAAP.

It is expected that new tenants will include a wide variety of manufacturing, storage and repair businesses, similar to the businesses currently on the site. Some of these new tenants may require a limited amount of office space, as well as space for research and development (R&D) activities to support their manufacturing operations. Limited retail uses are also proposed for two portions of the site.

Figure 3-2 shows the new types of businesses that are proposed for various parts of the RBAAP site. In addition, Figure 3-3 illustrates the potential character of new buildings on the south part of the RBAAP site, standing near Claribel Road and looking west.

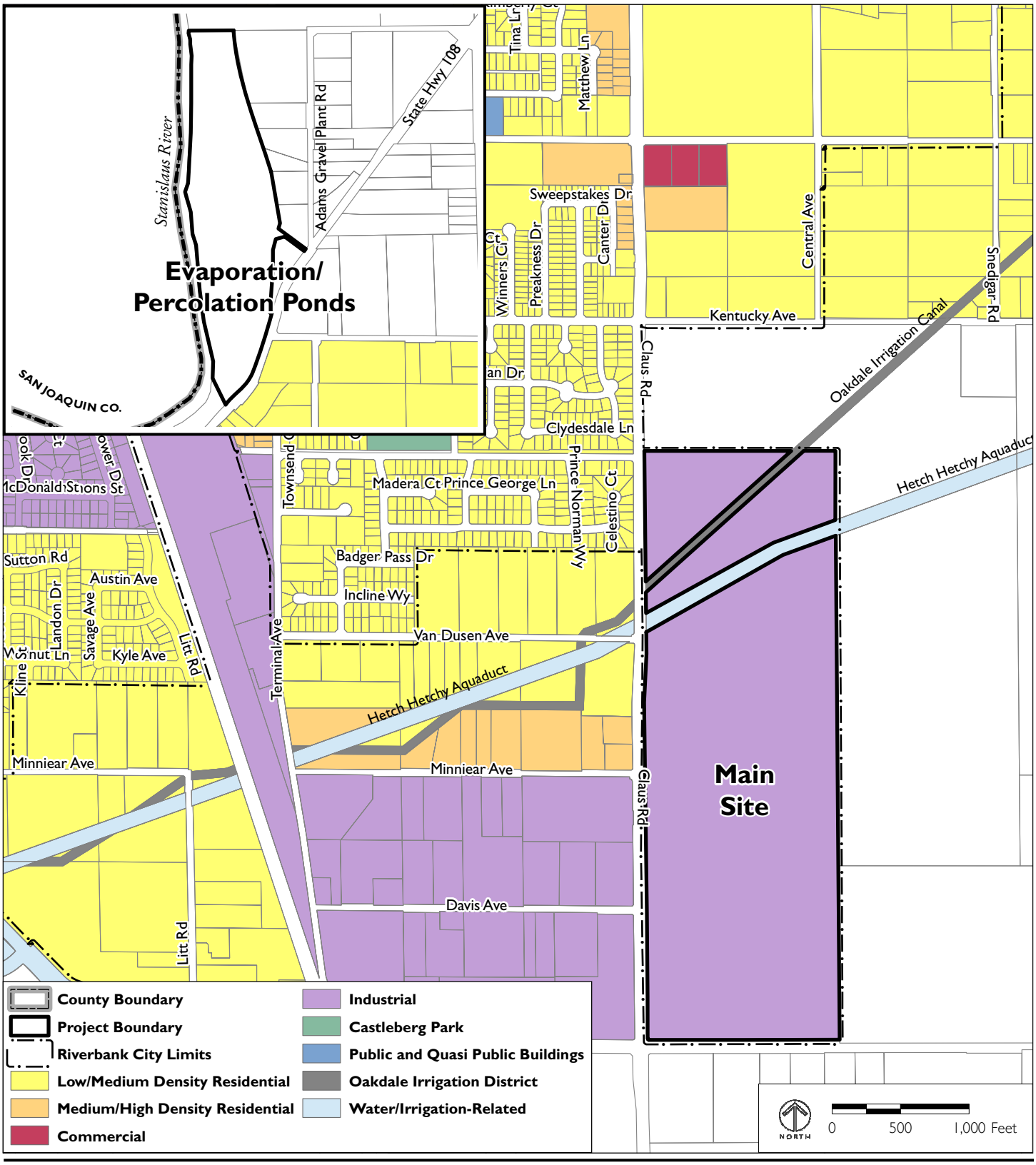

FIGURE 3-1

RIVERBANK GENERAL PLAN LAND USE DESIGNATIONS

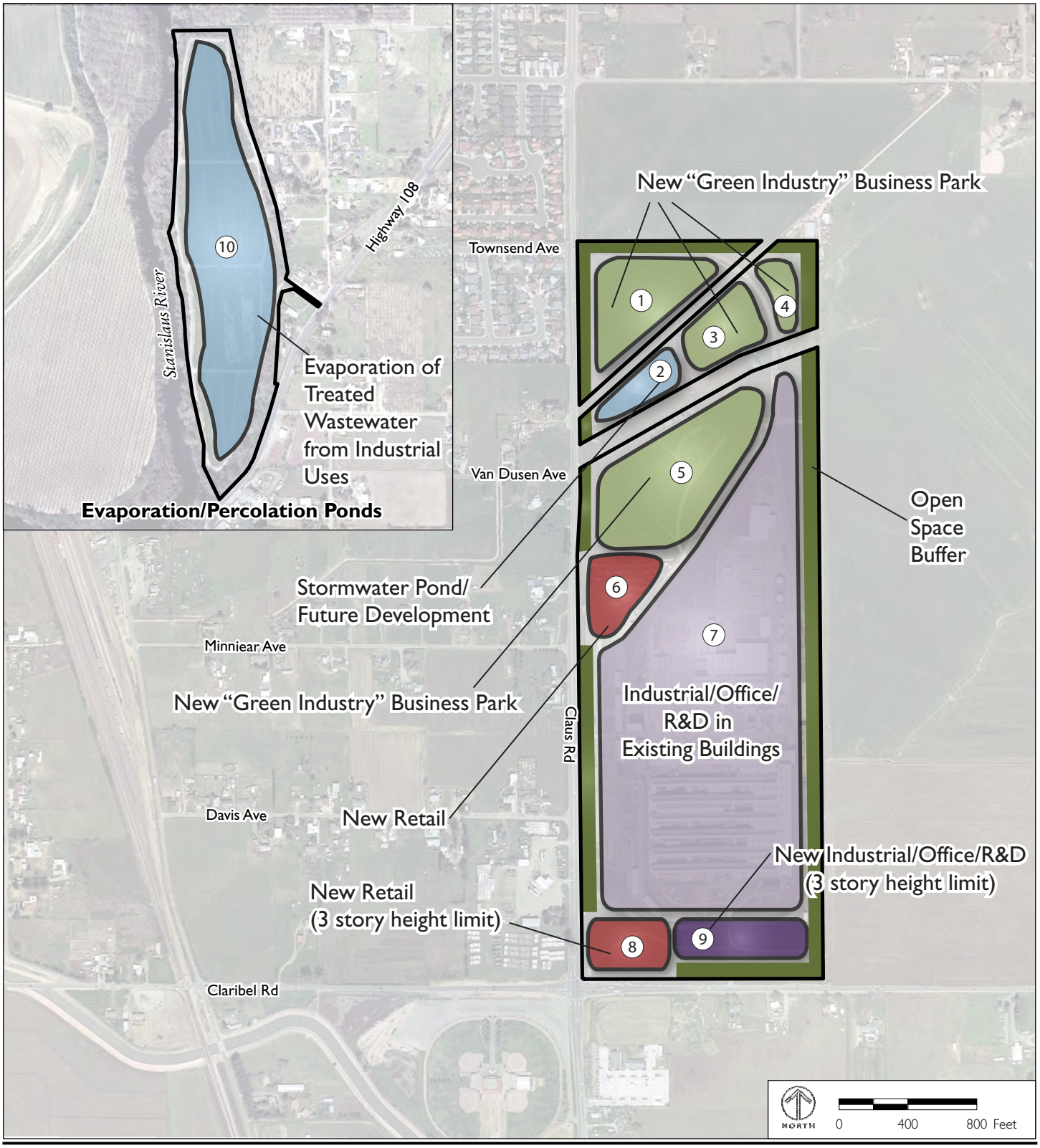

FIGURE 3-2

CONCEPTUAL LAND USE PLAN

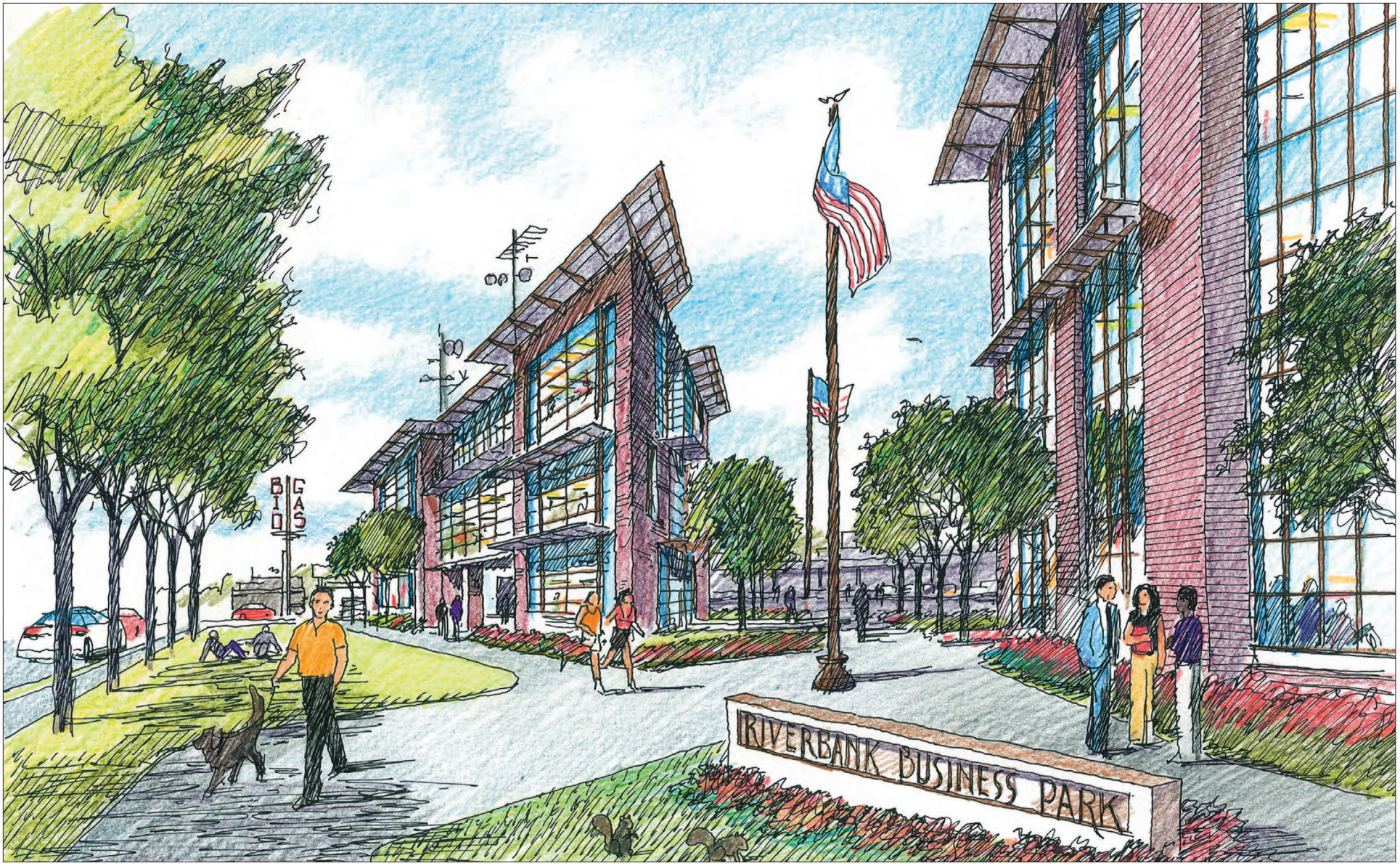

FIGURE 3-3

RENDERING OF RBAAP CONCEPT: LOOKING WEST ALONG CLARIBEL ROAD

1. Green Industries

On the northern portion of the main RBAAP site, the Reuse Concept focuses on attracting "green industries." Green industries generally focus on servicing or manufacturing products that reduce global warming, or using "green" practices to make products that fulfill traditional consumer demands. Green industry is expected to become an increasingly important part of the manufacturing sector in the future, in California and on a national level. In a 2004 study, it was projected that venture capital investment in start-up green industries could be expected to generate 52,000 to 114,000 new jobs in California by 2010.[1] Considering the current trend toward sustainable practices, RBAAP has the opportunity to become a highly successful facility for green industries in California.

Current tenants Advanced Materials and Manufacturing Technologies (AM2T), Environmental and Lubrication Solutions (ELS), Riverbank Oil Transfer and Eco2 Plastics are operating "green" industries at RBAAP. AM2T has engineered a replacement for highly toxic elements used in large quantities in the fabrication of planes, tools and by the Department of Defense. Additionally, ELS manufactures and distributes a unique lubricant that reduces emissions and toxic waste, Riverbank Oil Transfer focuses on oil recycling, and Eco2 Plastics focuses on cleaning polyethylene terephthalate (PET) beverage containers for recycling. Other examples of businesses compatible with RBAAP's Reuse Plan would include other similar recycling companies, alternative fuel manufacturers, manufacturing of parts for natural gas or electric cars, ultra-high-performance engineered materials, powder metallurgy, low impact stormwater management devices, solar panel manufacturing, and/or the installation of alternative power production processes, such as a solar panel field or anaerobic digesters used to convert manure from local dairies to methane. As shown in Figure 3-2, Sites 1, 3, 4 and 5 are limited to green industries, and will accommodate limited office and R&D components

[1] Burtis, Patrick R., Bob Epstein, and Roland J. Hwang, 2004, *Creating the California Cleantech Cluster*, page 6.

associated with green industries, potentially including lab facilities. LEED-certified, energy-efficient buildings are encouraged to house these activities.

2. Other Industrial Uses

RBAAP's existing buildings are located within Site 7. While a new owner may choose to replace or consolidate some of the existing buildings, minimal additional development is anticipated in this area. It is proposed that the existing buildings on this site be leased for industrial purposes, with limited office and R&D components. The existing buildings on Site 7 also have the potential to serve as incubator start-up spaces for new businesses. RBAAP may provide an excellent site for an incubator, provided that low rents and utilities, as well as other business inducements, remain at the installation through its transition. Start-up businesses could potentially operate side-by-side in these buildings, leasing a small portion of a larger building. These growing businesses, given the opportunity to expand, would be likely to lease larger spaces at RBAAP in time. In addition, the ability to own their own building may be an attractive option for some current and future tenants. Therefore, there may be potential to convert some of the existing buildings on Site 7 to individually-owned industrial condominiums.

New industrial development with limited office and R&D components is proposed on Site 9. Businesses on this site could be similar to the existing RBAAP tenants, or they could include other industrial uses such as food manufacturing and distribution. A three-story, 40-foot height limit is proposed for Site 9 to ensure that uses on this site transition appropriately to the lower-intensity residential uses to the south.

3. Team Track Facility

There may be interest in creating a team track facility on the southern portion of RBAAP, likely between Sites 7 and 9. A "team track" is a spur track area intended for the use of facility tenants or other businesses. The team track serves rail carriers by providing a space for temporary storage, loading and unloading of railcars. It is anticipated that a team track could accommodate up to 3,000 rail cars annually, and could potentially serve existing build-

ings at RBAAP, as well as new development expected on Site 9. Additional analysis is needed to better understand the feasibility of the team track and how it would fit into a community master plan for rail service.

4. Retail Uses

It is proposed that Site 6, currently occupied by RV storage, be designated for new convenience retail development. Future retail uses should follow the existing land use, parking and design requirements for retail uses in the City's zoning ordinance.

New retail development is also proposed on Site 8, which is currently vacant. A 3-story, 40-foot height limit is proposed for Site 8 to ensure that uses on this site transition appropriately to the lower-intensity residential uses to the south.

5. Stormwater and Wastewater

Site 2 will continue to function as a stormwater retention pond for the existing developed RBAAP site. It may be necessary to incrementally expand the pond to accommodate the increased stormwater runoff that would result from new development. Further studies will be required to determine the appropriate size for the retention pond. If additional land is available in Site 2 after the pond is expanded, or if it is determined that a stormwater retention pond is not needed on this site, then Site 2 would be available in the future for new development.

The RBAAP's evaporation/percolation ponds, which are located north of the main RBAAP site along the Stanislaus River, would continue to collect treated wastewater from the industrial uses on Site 7.

6. Open Space Buffer

As shown in Figure 3-2, a 100-foot open space buffer is proposed for much of the perimeter of the RBAAP site. The buffer will consist of a linear strip of open space surrounding the site. The buffer will help screen industrial uses on the RBAAP site from the nearby residential uses and provide aesthetic

relief. Additionally, a publicly-accessible trail system is proposed within the buffer area around the RBAAP site. A community park may also be created within the buffer to provide the community and their pets with opportunities to gather.

B. Circulation

Figure 3-4 shows the existing circulation system for RBAAP's main site. Claus Road currently provides access to RBAAP, which is secured by a perimeter fence. Workers and visitors can park near Claus Road and enter the site on foot through Gate 2. Vehicles such as delivery trucks can enter through Gate 10. An internal network of streets provides access to the various buildings on the property. In addition, a heavy rail line enters the property at its northeast corner, and rail spurs provide access to numerous parts of the site.

The current circulation configuration does not comply with the following adopted City Vision Statements:

- We will design our community so that people can walk, bicycle, or use public transit if they choose not to drive.
- A healthy community requires that its citizens feel a sense of connection. Physical, economic, or social barriers that prevent us from living as one community should be removed whenever possible.
- New development should increase, not impede, our sense of being connected as one community.

Movement to and from the site is currently too restricted to comply with these Vision Statements. Specific circulation improvements that will be required include the extension of Van Dusen Avenue through the site, with an at-grade rail crossing at the joint line. Van Dusen Avenue will be connected to the circulation system of the base and is expected to continue east to Eleanor Avenue in the future. To accomplish this, coordination with the San

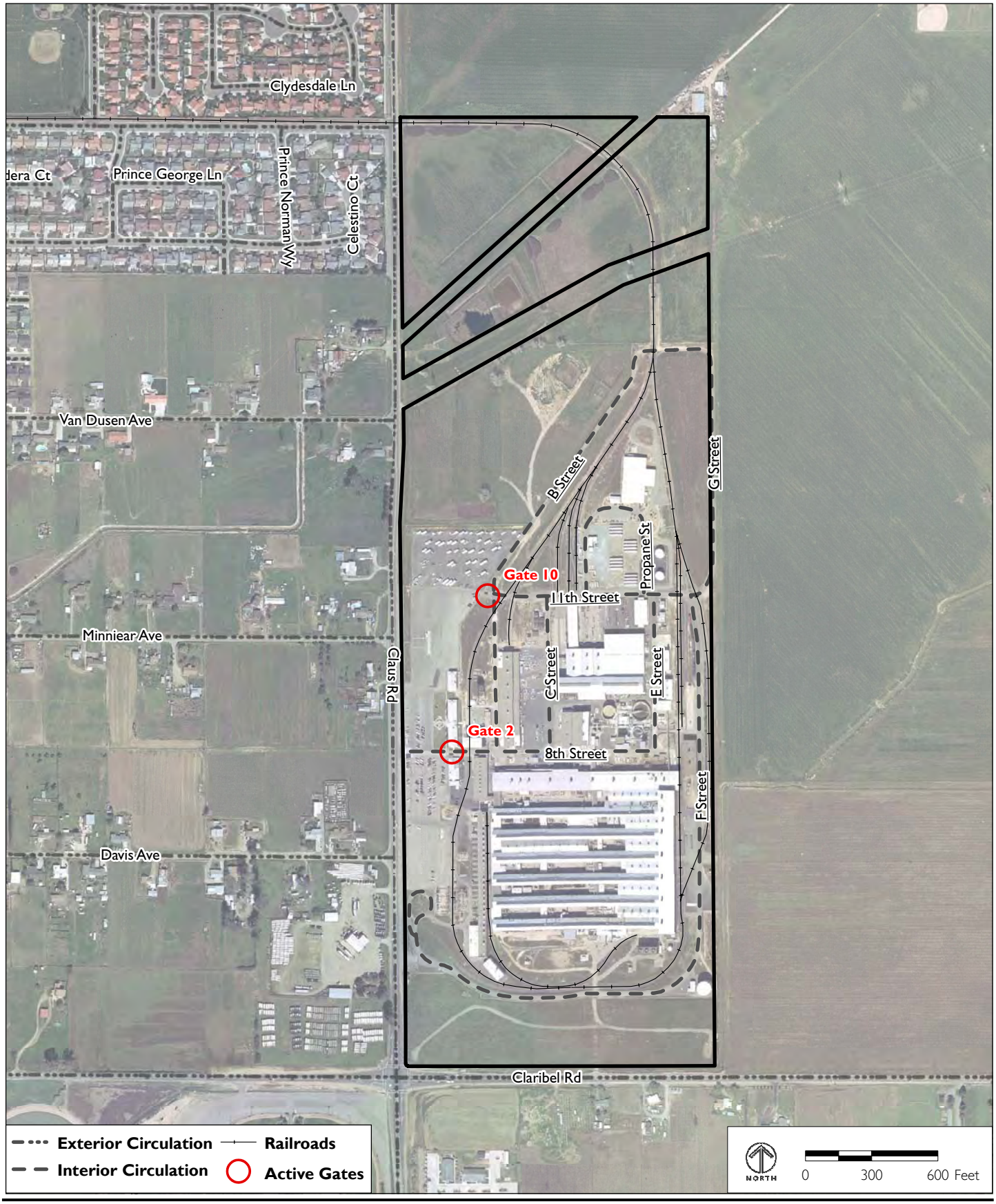

FIGURE 3-4

MAIN SITE CIRCULATION

Francisco Public Utility Commission will be necessary where the circulation system crosses the Hetch Hetchy utility corridor.

The Reuse Plan calls for the existing interior circulation system, as well as the access roads to the Evaporation/Percolation Ponds, to remain largely unchanged. However, potential new development on Sites 1, 3, 4, 5, 8 and 9 may require additional curb cuts to provide new entries and parking areas. Entries and parking areas should be provided in accordance with the requirements of the City of Riverbank Municipal Code. Additionally, an at-grade rail crossing will be needed to support development of Site 4, and new rail spurs would be needed to accommodate a team track.

Currently, the North County Corridor Joint Powers Agency (NCCJPA) is pursuing the North County Corridor Project, a new expressway that would connect Highways 99 and 120 east of Oakdale, and would be located near the RBAAP site. Its intent is to help accommodate new growth throughout the County, provide a safer and more efficient east-west route, and separate regional and local traffic. As this project moves forward, the LRA will coordinate with NCCJPA to ensure the expressway is seen as an asset that would help to retain and attract RBAAP's tenants. It is also expected that nearby roadways will need to be widened and intersections improved to accommodate the increased development expected at RBAAP. Details pertaining to expanded transportation infrastructure will be determined during the environmental review process associated with new development on the site.

C. Utility Infrastructure

This section describes the infrastructure improvements necessary to accommodate the increased development proposed for the RBAAP site. Topics covered include storm drainage, natural gas, potable water, sewer service, fire suppression and electrical utilities.

1. Storm Drainage

Development of Sites 1, 3, 4, 5, 8 and 9 will create new impervious surfaces that increase stormwater runoff. This new development will require new stormwater management systems, either conventional or low impact development systems. Conventional systems include the concentration of stormwater flows to catch basins via inlets and underground stormwater distribution lines. Low impact development systems include methods that take every opportunity to allow for natural absorption and plant uptake in managing the stormwater.

For planning purposes, it is assumed that existing developed areas will continue to use conventional stormwater management systems that utilize distribution lines that connect to the Northwest Storm Reservoir, which is located in Site 2. New buildings will be encouraged to use low impact development techniques such as green roofs, pervious asphalt and rain gardens to manage new storm flows. The intent of this approach is to showcase the area with low impact development to entice companies with patented and proprietary technologies to invest in the base. Upgrades to accommodate an increased capacity, as well as compatibility and integration into citywide stormwater management systems, are anticipated over time, and may require additional extensive additional study.

2. Natural Gas

It will be necessary to extend natural gas service to vacant sites as they develop. For Sites 1, 3, 4, 5 and 6, it is anticipated that a 6-inch gas feed line will be connected to the existing natural gas line on Claus Road. This 6-inch line will connect to 2-inch and 4-inch lines that serve each individual site. For Sites 8 and 9, it is assumed that a new 4-inch distribution line will be connected to the existing 10-inch feed line at the southeast corner of the site.

3. Potable Water

It is assumed that the three active wells on the RBAAP site will provide enough potable water to support new development. However, it will be necessary to extend the existing 8-inch main distribution line to Sites 1, 3, 4, 5

and 6. Further analysis will be needed to determine whether future development can be served by 4-inch or 6-inch branch lines.

4. Recycled Water

New development will be required to install systems to reuse gray water for non-potable uses, such as irrigation and fire suppression, by pumping the gray water to the existing water tower on the site. The tower is assumed to be capable of maintaining static pressure for these uses, and will require further analysis to confirm.

5. Sewer Service

To connect Sites 1, 3, 4, 5 and 6 to the City of Riverbank's sanitary sewer system, a new 12-inch sewer main would be constructed. Sites 8 and 9 would require a new 8-inch branch line, which would connect to an existing 12-inch main.

An existing lift station currently conveys sewage from the RBAAP site to Riverbank's sewer system. While it is assumed that the existing lift station is adequate to support increased sewage volumes, further study is required to verify this assumption.

6. Fire Suppression

In order to provide adequate recycled water for fire suppression, a closed-loop system will be required on each vacant portion of the site. Sites 1, 3, 4, 5, 6, 8 and 9 will be ringed with 8-inch PVC pipe and hydrants. Individual fire suppression systems in each new building would connect to this backbone service.

On Site 7, surge water storage for fire abatement is currently provided by two on-site water storage tanks: a 1,000,000 gallon tank, known as Building 139, located near the southeast corner of the RBAAP site, and an elevated 100,000 gallon tank, known as Building 114, situated more closely to the current administration building. In 1998, structural evaluations of both tanks determined that they do not comply with current seismic requirements, meaning

that the tanks could fail during an earthquake.[2] Both tanks will require upgrades to ensure that they meet current code requirements. In addition, they may require additional storage capacity to respond to anticipated fire suppression needs, and this will require further analysis.

7. Electrical

Sites 1, 3, 4, 5, 6, 8 and 9 would all be served by 12-kilovolt overhead electrical lines, which would connect to an overhead 12-kilovolt line that currently runs through the RBAAP site. Transformers would step down power to 600 volts or less for service into each of the sites.

D. Building Reuse

Reuse of existing facilities for industrial and office/R&D purposes would be subject to the requirements of the City's Building Code and Fire Code, as interpreted by the Building Department and the Stanislaus Consolidated Fire Protection District. The type and intensity of use, as well as the type and amount of combustible building contents involved in that use, could trigger requirements to upgrade existing buildings. Any upgrades mandated by the City to achieve compliance would be consistent with the newly adopted 2007 California Building Code, Mechanical Code, Plumbing Code and Fire Code. The 2008 National Electrical Code would also apply.

In general, basic initial costs associated with continued reuse of existing buildings would fall into one of the following categories:

- Inspections, evaluations and code and safety-related improvements, as required by the City of Riverbank.
- Maintenance and repairs to building systems.
- Upgrades related to applicable provisions of the State Energy Code.

[2] Brown and Caldwell, 1998, *Seismic Evaluation and Corrective Action Evaluation of Tank No. 139*; Brown and Caldwell, 1998, *Seismic Evaluation and Corrective Action Evaluation of Elevated Water Tank.*

- Roofing maintenance and replacement to extend the service life of the existing facilities.

Based on a preliminary assessment and walkthrough of many of RBAAP's existing buildings, it is anticipated that these buildings will require structural improvements in order to conform to seismic requirements, as well as maintenance and replacement of existing roofs. The City of Riverbank has indicated that it is likely to require additional improvements to RBAAP's existing buildings for code conformance purposes, based on a walkthrough of the facility by the Building Official and the Stanislaus Consolidated Fire Protection District. Where code compliance improvements or changes result in additional costs, the responsibility for covering the additional costs will be determined in accordance with lease arrangements and funding availability.

The following sections provide additional detail about the code compliance and maintenance issues that are most likely to affect reuse of existing buildings at RBAAP.

1. Building Code and Fire Code Compliance

Many of the RBAAP site's original buildings were built in the 1940s and 1950s, and other smaller buildings of various construction types were built in the late 1960s and early 1970s. Buildings constructed between 1982 and 2006 are typically pre-engineered metal buildings.

Spot inspections by RBAAP's operating contractor between 2002 and 2006 have documented a variety of specific structural issues that will require attention in the future, including steel columns with broken concrete pedestals, dry rot in wooden building members and cracks in the brick veneer on building façades.[3] The operating contractor's staff have indicated that many of these structural issues have not been corrected. A comprehensive inspection

[3] Complere Engineering Group, 2002, *Building Inspection – Complere File No. 22058*; R&S Tavares Associates, 2006, *Riverbank Army Ammunition Plant Structural Walk-Through Inspection – RST File No. 6085*.

and engineering assessment will likely identify additional issues that require correction.

Prior to transfer of the property, the City's Building Department will evaluate the existing facilities by building construction type, building systems, physical condition and intended use. Due to the age of most of the facilities, it is likely that a more detailed inspection and evaluation of the structural systems of the buildings will be required, to determine whether they comply with the structural and seismic provisions of the current Building Code.

Buildings that are most likely to require structural upgrades fall into one of the following categories:

- **Original Buildings.** These buildings were originally constructed in 1941 as an aluminum reduction facility. They were modified for ammunition production in 1951. There are 10 buildings in this category.
- **Unreinforced Masonry Buildings.** These buildings were constructed after 1951 with unreinforced masonry and are likely to require significant structural improvements. There are three buildings in this category.
- **Other Production Buildings.** These buildings were constructed after 1951 and are likely to require limited structural upgrades. There are 21 buildings in this category.

2. Roof Maintenance

Roofs on RBAAP's existing buildings vary in design and materials, based on the character of the building's original use. It is not possible to qualify the type and age of roofing for individual buildings, and it does not appear that a comprehensive Roof Inspection and Maintenance Program has been maintained. Roof maintenance has occurred on an "as-needed" basis when leaks are identified. In addition, Buildings 9 and 10 are known to have splits in

their roof trusses; continued monitoring of their condition, and potentially repair or replacement of the trusses, will be necessary in the future.[4]

Pending the outcome of a detailed inspection and analysis of the condition of all roofs, which would involve a walk-over survey and test cuts where necessary, it should be assumed that roofing repairs and upgrades will be needed to extend the service life of the facilities.

3. Accessibility Upgrades

The Americans with Disabilities Act (ADA) and State code requirements require buildings to incorporate handicapped-accessible facilities such as the following:

- Handicapped-accessible parking stalls.
- A code-compliant accessible route to the main entrance of each building and to accessible features within each building.
- An accessible entrance.
- At least one alternate exit at each building that complies with size, configuration and hardware provisions of accessibility codes.
- Accessible restrooms.

Few buildings at RBAAP comply with the State's accessibility requirements, or with similar provisions in the federal *Americans with Disabilities Accessibility Guidelines (ADAAG)*. However, most of the existing buildings have features that will facilitate handicapped accessibility. The majority of structures are grade-level and have internal circulation at the ground floor level, without sufficient grade changes or barriers to create an ADA compliance issue. Required handicapped accessibility upgrades would typically be implemented as part of tenant improvements to existing buildings, or as a comprehensive whole if desired by the building owner or dictated by statute.

[4] Ralph Morgan & Associates, 1998, *Report of Inspection, Roof Structure, Building #10*; R&S Tavares Associates, 2008, *Riverbank Ammunition Plan Structural Walk-Through Re-Inspection, Building #9 – Trusses*.

4. Energy Code Compliance

The State Energy Code requires any additions or alterations to the existing structures to comply with the building envelope, lighting, and space heating/cooling requirements of the Code. All new heating and air-conditioning systems, as well as interior and exterior lighting, would need to be code compliant, energy-efficient systems.

As buildings and equipment are repaired, any increase in the pre-existing energy consumption of the repaired component, system or equipment would require upgrades to meet Energy Code requirements. In addition, any alterations that cause an increase in the energy use of the facility would require code-related upgrades; this includes the addition of heating or cooling to buildings that are not currently heated or cooled. Furthermore, a change of use can also result in required upgrades to comply with the Energy Code.

5. Building Serviceability

The interior finish of the existing buildings is utilitarian, consistent with their current use as a light manufacturing and industrial facility. It is likely that reuse of many buildings would involve cosmetic upgrades to the interior, determined on a case-by-case basis as part of tenant upgrades.

In general, the exterior construction is of low-maintenance materials such as concrete, prefinished metal siding and brick masonry. The concrete and masonry is in good condition. However, much of the siding on large buildings has deteriorated in appearance. If appearance is an issue for future marketability, exterior improvements may be necessary.

E. Security

The RBAAP site perimeter is currently fenced for the security needs of the government contractor. Workers and visitors to the site must also pass through a checkpoint. The current level of security is important to existing tenants and should be maintained and enhanced in the future. One potential

enhancement is a high-tech security system complete with computerized surveillance cameras.

Individual tenant spaces should also maintain a high level of security. It is anticipated that partition walls will be constructed between many of the interconnected buildings at RBAAP, to prevent people from moving freely between tenant spaces, so long as these walls comply with Building and Fire Protection necessary exiting requirements. With the exception of potential retail, security measures may also be necessary on the newly-developing sites, depending on the specific nature of new uses.

F. Community Character

The character of the buildings on the RBAAP site reflects a focus on utility rather than aesthetics. The brick and corrugated metal buildings at RBAAP are in contrast with the residential neighborhoods adjacent to the site. As discussed in Section A of this chapter, an open space buffer proposed for the site will help provide landscaping that will screen the industrial uses from the residential neighborhoods nearby.

New development on the RBAAP site will comply with the existing design standards and zoning requirements already in place for industrial and retail development in the City of Riverbank. These requirements will help to ensure that new development respects the pre-existing residential uses adjacent to the site. If a Specific Plan is prepared for the RBAAP site, it could include more detailed, site-specific requirements as well.

G. Equipment Transfer

Several pieces of Army-owned equipment, furnishings and other miscellaneous materials are currently being used on the site by existing business tenants. The LRA is adamantly requesting the conveyance and retention of property or equipment that current tenants are using for their operations, in particular

the 4,500-ton hydraulic press currently being used by AM2T in the production of products and equipment for the Department of Defense and other contractors. Appendix B includes a complete list of items the LRA wishes to remain with the property upon conveyance.

The LRA and the Army have agreed to allow the Trackmobile railcar mover to be designated as surplus property and remain with the facility for community reuse. The LRA has likewise requested the overhead cranes noted as excess property be available for community reuse, and the Army has agreed to leave this equipment in place at the Riverbank facility.

4 RECOMMENDED CONVEYANCE STRATEGY

Based upon the Vision, Goals and Objectives of the LRA, the economic constraints of the marketplace, and the physical characteristics of the RBAAP facilities, the LRA recommends a conveyance strategy that balances the economic development and job generating needs of the local community with the Army's stated policy goals of disposing of the RBAAP in a timely manner.

The Recommended Conveyance Strategy is an integral part of the comprehensive reuse planning process; the Recommended Conveyance Strategy is linked directly to the community vision for the RBAAP property and the community's ability to replace lost jobs and generate economic activity using the RBAAP facilities. Each conveyance recommendation is directly linked to the Reuse Plan and the other recommendations. It is not contemplated that one portion of the Recommended Conveyance Strategy would be implemented independently of the balance of the Recommended Conveyance Strategy.

In accordance with the RBAAP Site Map shown in Figure 4-1, the LRA recommends that the Army dispose of the RBAAP land, facilities, infrastructure and personal property as follows:

Recommendation 1. The United States Army ("Army") will dispose at fair market value those portions of the RBAAP property identified as Parcel 1 and Parcel 2.

Recommendation 2. The LRA will apply for, and acquire by means of appropriate public benefit conveyances, sufficient property to fashion utility corridors and locate necessary public facilities and roads, including a perimeter road in accordance with California highway standards, for the western and southern boundaries of the RBAAP property within Parcel 5.

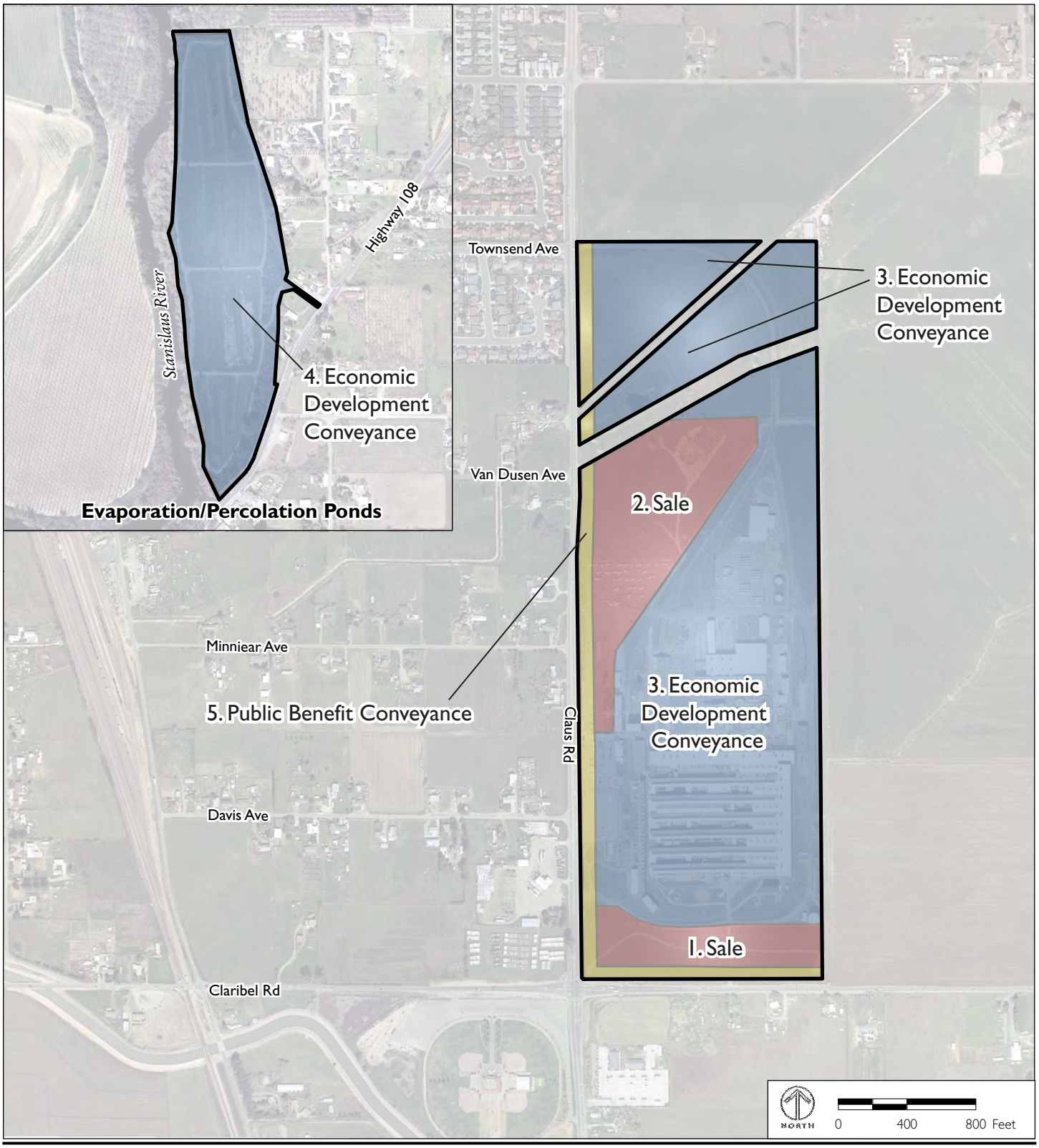

FIGURE 4-1

PROPOSED CONVEYANCE METHODS

Recommendation 3. The LRA will apply for, and the Army will convey to the LRA, the remaining balance of the RBAAP property (Parcel 3 and Parcel 4, evaporation pond out-parcel), through an economic development conveyance ("EDC"). The LRA has determined, based upon the totality of the circumstances surrounding the RBAAP property, including the rural location of the RBAAP property, the severe economic dislocation present in the region and the need to preclude "land-banking" and provide an incentive for employers to relocate to the RBAAP property, that the proper consideration for the RBAAP property by means of an EDC should not require a cash payment to the United States.

Recommendation 4. Immediately following the approval of the LRA's EDC Application, the Army will convey the EDC and PBC properties to the LRA by deed as soon as practicable, and if an immediate conveyance is not feasible by reason of required environmental remediation, or other conveyance impediments, the Army will transfer those unoccupied portions of the EDC property to the LRA by means of a Lease in Furtherance of Conveyance ("LIFOC"), or other suitable interim means.

Recommendation 5. The Army will prosecute, and the LRA will support, an early transfer to the LRA for all EDC and PBC property not eligible for an immediate Finding of Suitability to Transfer ("FOST") and will fast-track the completion of any applicable FOST or Finding of Suitability for Early Transfer ("FOSET").

Recommendation 6. The LRA EDC Application will include a request for, and the Army will assign to the LRA, all existing utility contracts for the RBAAP property, to the maximum extent allowed by law.

Recommendation 7. As part of the comprehensive nature of the Recommended Conveyance Strategy, the LRA will zone those portions of the RBAAP Property identified as Parcel 1 and Parcel 2 on the attached RBAAP site maps, cooperatively with the Army, pursuant to this Reuse Plan, as part of the overall zoning and entitlement process.

Recommendation 8. The LRA EDC Application will include a request for, and the Army will convey to the LRA as part of the EDC, the personal property, fixtures, appurtenances and installed equipment located on RBAAP, including any air emission reduction credits generated from RBAAP.

Recommendation 9. The Army will provide the LRA by interim lease with immediate access to and suitable office space on the RBAAP property for the purposes of accessing the RBAAP property and implementing the reuse of RBAAP.

5 IMPLEMENTATION AND NEXT STEPS

This chapter provides direction for implementing the Base Reuse Concept and the vision, goals and objectives set forth in this Base Reuse Plan. The following items could potentially be acted upon prior to, during or after conveyance. To be effective, many of these implementation items must be acted upon before significant new development takes place on the site.

A. Environmental Review

RBAAP has been used for industrial, warehousing and maintenance activities for over 60 years. During this period, soil and groundwater impacts have occurred due to chemical releases from storage tanks, spills of maintenance chemicals, burial of waste and degradation of hazardous building materials in the aging structures. The effects of each of these occurrences have produced environmental impacts that require study, disclosure, and remedy. The Army has provided initial environmental disclosure. Remediation measures are ongoing throughout the site. It is advisable that regulatory agency controls and oversight be mandated throughout the redevelopment process until all impacted areas have reached acceptable levels.

The U.S. Army Corps of Engineers is responsible for performing environmental review of this Base Reuse Plan once submitted, as required by the National Environmental Policy Act (NEPA). Upon completion of the NEPA review, the Base Reuse Plan will go through California Environmental Quality Act (CEQA) review. The CEQA analysis is expected to tier off of the NEPA review.

Local action on the Base Reuse Plan will also trigger environmental review pursuant to the California Environmental Quality Act (CEQA). The following CEQA documentation is anticipated. Based on the information currently available, it is expected that an Initial Study will be performed to assess whether the Base Reuse Plan will create any significant impacts on the environment. There are three possible outcomes of the Initial Study. A Negative Declaration will be prepared if it is found that the Reuse Plan results in no significant impacts on the environment. A second possible outcome is a

Mitigated Negative Declaration. A Mitigated Negative Declaration will be prepared if the Initial Study determines that no significant environmental impacts will occur as a result of the Base Reuse Plan, either due to revisions to the Plan or because mitigation measures are implemented to reduce all potentially significant environmental impacts to less than significant levels. A final possible outcome is a Focused Environmental Impact Report (FEIR). An FEIR will be prepared if the Base Reuse Plan is found to have impacts that would not become less than significant upon implementation of a Mitigated Negative Declaration. It is not anticipated that this Base Reuse Plan will trigger an FEIR.

Any environmental review of the Base Reuse Plan will take place at the program level, meaning the Plan will be analyzed for its comprehensive environmental effect. It is possible that individual development proposals may require additional environmental review at the project level.

B. Remediation of Groundwater Contamination

Groundwater contamination on the RBAAP site falls into several categories, including areas that require no remediation or for which remediation has been completed, areas that require further remediation and areas that require further assessment. There is also a small portion of the site that has experienced a petroleum release. The Army is currently remediating groundwater contamination on the RBAAP site to levels that are consistent with non-residential use. The Army is responsible for ensuring that appropriate response or corrective actions have been, or will be, completed to protect human health and the environment.

It is possible that portions of the site that have undergone full remediation could be transferred before remediation is complete on the entire site. The exact timeframe for completing the remediation is unknown; however, it is expected to be complete before 2011. The LRA may choose to pursue a Lease in Furtherance of Conveyance (LIFOC) while remediation is still underway.

C. Further Technical Studies

This section discusses issues on the RBAAP site that require additional study.

1. Stormwater Pond Expansion

The current stormwater retention pond, located on Site 2, may need to be incrementally expanded to accommodate minor increases of stormwater run-off. The degree to which this facility must be expanded is dependent on the amount of run-off created by development that cannot be managed though Low Impact Development (LID) techniques. Developers will need to work closely with the City to establish standards and acceptable LID techniques that minimize the need to utilize the current basin.

2. City Building and Fire Inspections

Additional, in-depth building inspections will be required for all existing structures on the RBAAP site to ensure they are in compliance with the City of Riverbank's minimum building standards. In addition, the Stanislaus Consolidated Fire Protection District will need to ensure that buildings at RBAAP meet fire safety requirements. If buildings are not in compliance, the future site owner will need to renovate them as needed to bring them into compliance. If renovation is necessary, every possible care will be taken to ensure that tenants will not be displaced during renovation.

3. Utilities and Roofing Inspection

The existing utility systems for RBAAP's buildings are generally adequate to support the needs of current tenants. However, observations indicate that there are significant deferred maintenance needs that will need to be addressed by the future owner of RBAAP's existing buildings. The same is true of the roofs on RBAAP's existing buildings, which have been inspected and repaired only on an as-needed basis. RBAAP's utility infrastructure and roofs should be inspected in greater detail before any existing buildings are conveyed to a new owner.

4. Further Contamination Assessment

The Army prepared an *ECP Phase I* Report in November 2006, which analyzed and documented the environmental conditions at RBAAP. The report categorized groundwater contamination on the site and identified areas on the site where more investigation was necessary to assess the conditions.[1] In 2008, the Army conducted a *Site Investigation Report*, which characterized several of the sites that had been identified as requiring further assessment. The report identifies several of these sites as needing no further remediation due to limited contamination and their separation from employees and visitors at RBAAP.[2]

The report also identified the following areas as still requiring further assessment:

- **Building 109, Substation Number 1 and 2.** Oil stains are present. Soil sampling/testing should be conducted.
- **Buildings 1, 6 and 8.** Sumps and pits required for line equipment. These buildings need to be tested for cracks and potential soil contamination.
- **Industrial Wastewater Treatment Plant (IWTP).** Soils at the IWTP have been partially tested for groundwater contamination. Additional testing should be conducted to complete the earlier testing at the IWTP.

The U.S. Army should fully characterize the contamination on the site, including contamination under existing buildings and utility infrastructure. The U.S. Army must also assume responsibility for any contamination found in the future that resulted from the Army's or contractor operator's (GOCO's) activities.

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[1] CH2M HILL, 2006, *Environmental Condition of Property Phase I Report*, U.S. Army Corps of Engineers, page ES-15.

[2] CH2M HILL, 2008, *Site Investigation Report*, U.S. Army Corps of Engineers, pages 4-1 to 4-8.

The Army Corps of Engineers is already scheduled to conduct an Asbestos Containing Materials (ACM) survey in 2009. The LRA reserves the right to amend this Base Reuse Plan after the completion of this survey. It is also recommended that the Army sample suspected asbestos-containing materials to verify the presence of asbestos. As a part of this effort, the Army should conduct air testing to determine whether or not friable asbestos currently poses a health hazard at RBAAP. The Army must conduct these tests and should ensure that any ACMs are managed or abated before RBAAP is transferred. The LRA will not accept offers of payment in lieu of actual removal or stabilization of asbestos on the site.

In addition, the Army must test the stormwater reservoirs for potentially hazardous contaminants that may have run off from the site, including asbestos fibers. The Army must also verify that there is no seepage from the storm reservoirs that could potentially cause contamination of water in the Hetch Hetchy Aqueduct.

5. Sewage Lift Capacity Analysis

A sewage lift station is currently used to pump sewage waste from the RBAAP facility to Riverbank's sanitary sewer system. The capacity of this pump station will need to be analyzed for its ability to accommodate future development on the RBAAP site. Depending on the program of new development, this system may need to be expanded.

D. General Plan and Zoning Amendments

Riverbank's current General Plan designates the RBAAP site as Industrial. This General Plan is currently being updated. If the General Plan Update results in a designation of the RBAAP site for uses that are not consistent with the Base Reuse Concept, a General Plan Amendment may be required.

The RBAAP site is currently zoned Light Industrial (M-1). A zoning amendment will be required to ensure that the current uses at the RBAAP are conforming. Additionally, a zoning amendment will also be required to allow

the uses proposed for the RBAAP site in this Plan. The zoning amendment could occur in conjunction with the preparation of a Specific Plan, which would enable the City to create more detailed land use and development standards for the RBAAP site.

E. Permitting

This section describes how permits that the Army currently holds for the RBAAP site will affect reuse of the property in the future, and the steps that must be taken prior to conveyance.

1. Part B Permit

The U.S. Army currently holds a Resource Conservation and Recovery Act (RCRA) Part B Permit that allows tenants to handle hazardous materials and treat wastewater generated on the site. The GOCO on site is the only tenant using the Part B Permit. Another tenant, Riverbank Oil Transfer, holds a separate and independent Part B Permit for their activities. New RBAAP owners should investigate the potential to consolidate the Part B Permits held by Riverbank Oil Transfer and the Army. Upon relocation of the Army's production activities, the existing Part B Permit for the site may become unusable. If this occurs, the Army must assume full responsibility for any costs associated with closure of the Part B Permit. Further coordination with California's Department of Toxic Substances Control will be required to determine if the Part B Permit for the site is transferable from the U.S. Army to a future civilian tenant.

It is assumed that, if allowed, the Army would be willing to transfer the Part B Permit to a new owner. As such, the Army should ensure that the Part B Permit does not lapse or expire, so that it will be eligible for transfer. It is expected that additional requirements for the Part B Permit will be put in place if it is transferred to a civilian owner.

2. Waste Discharge Requirements (WDR)

The U.S. Army and the GOCO jointly hold a Waste Discharge Requirements (WDR) Permit for their activity on the site. The permit allows the GOCO and tenants to discharge treated wastewater to the Evaporation/Percolation Ponds. Coordination with the State Water Resources Control Board will be required to determine if the WDR Permit is transferable and what, if any, financial implications may be associated with the transfer.

Upon relocation of the Army's production activities, the WDR Permit for the site may become unusable. If this occurs, the Army must assume full responsibility for any costs associated with closure of the Permit. It is assumed that, if allowed, the Army would be willing to transfer the WDR Permit to a new owner. As such, the Army should ensure that the WDR Permit does not lapse or expire, so that it will be eligible for transfer.

F. Power Supply Arrangements

Electrical utility costs were identified as a concern in interviews held with current tenants of the RBAAP site. The Army currently has an agreement with the San Francisco Public Utilities Commission (SFPUC) to obtain discounted Hetch Hetchy electrical power, which results in reduced electricity costs for tenants. The LRA has been engaged in discussions with the SFPUC regarding the continuance of these arrangements after conveyance. The LRA will continue to work with the SFPUC to transfer the power agreement or to identify another source of low-cost electrical power.

G. Grant Funding

The LRA will continue to pursue grant funding to assist with base reuse planning, fund required studies and attract new tenants, as well as for other purposes related to base reuse and conveyance. The LRA has already secured a $750,000 loan from Stanislaus County intended to assist current tenants with business expansion. The LRA has also secured two additional $35,000 grants

through the Community Development Block Grant program (CDBG). One CDBG grant will assist in funding studies for RBAAP pursuant to Reuse Plan submission, determining necessary infrastructure upgrades and to bring the property into compliance with State and local regulations. The other CDBG grant is intended to facilitate studies specific to financing the relocation of existing local businesses to the undeveloped portions of RBAAP. The LRA is in pursuit of additional grants to assist in base reuse and expansion.

H. Next Steps

When the Riverbank Army Ammunition Plant (RBAAP) was selected for closure as part of the Base Realignment and Closure (BRAC) 2005 round, the community of Riverbank lost not only a source of high-quality jobs, but to some extent, a sense of security and identity. Riverbank, especially in today's uncertain financial and economic market, is in dire need of reversing these trends locally; creating new jobs with the existing tenants and prospective ones; encouraging the attraction and expansion of green industrial businesses; and increasing revenue to fund basic city services.

While there remains the need for additional detailed planning and analysis, with greater access to facilities records and buildings, the Base Reuse Plan as submitted, contains appropriate visions, goals, objectives, and conveyance recommendations that are anticipated to lead to successful redevelopment implementation for Riverbank's economic vitality and job creation needs.

The Riverbank community and LRA look forward to continuing the positive and collaborative relationship with the Department of Defense as they both move through the BRAC process of transition to meet the community's needs. It is anticipated that the Department of Defense and the Department of Housing and Urban Development will act expeditiously to facilitate the property and equipment transfer to help accelerate community reuse. Effective, timely collaboration will lead to solid economic redevelopment in a community with serious economic challenges and optimism about future opportunities.

APPENDIX A

TENANT PROFILES

This appendix provides a brief profile of the current tenants at RBAAP.

A. Advanced Materials and Manufacturing Technologies, LLC (AM2T)

AM2T is a company that develops engineered materials and custom designed products that solve immediate performance problems as well as those that will develop as technology demands evolve. The company holds numerous patents for their metallurgy and material science discoveries, which have led them to produce engineered materials in demand by the military and the private sector. AM2T currently holds contracts with NASA and the Department of Defense; and is expanding its production of valuable, lightweight alloys for military and commercial use in the manufacturing and development of aircraft, oil refineries, medical implants, automotive parts, and recreational vehicles.

B. AT&T Wireless/T-Mobile

AT&T Wireless/T-Mobile provides wireless communication services, including consumer cellular phone service. They have wireless antennas located on the 100,000-gallon water storage tank, near RBAAP's administration buildings.

C. Berkeley Forge

Berkeley Forge & Tool is an international company specializing in ground engaging tools for mining businesses. Berkeley Forge leases warehouse space on the site.

D. Dayton Superior

Dayton Superior is a North American manufacturer and distributor of specialized metal products for non-residential concrete and masonry construction. The company has a network of 48 manufacturing centers around the country and several large contracts with the State of California to produce the rebar that goes into interstate roadways and airport projects. Expansion plans are in the works to grow their current presence at the Riverbank site.

E. Donaldson Company, Inc.

Donaldson Company, Inc., is a publicly held, international provider of filtration systems and replacement parts. Donaldson serves customers in the industrial and engine markets, including dust collection, power generation, specialty filtration, compressed air purification, off-road equipment, industrial compressors, heavy trucks and light vehicles.

F. Eco2 Plastics

Eco2 Plastics is a publicly traded company engaged in Polyethylene Terephthalate (PET) plastic recycling. Unlike other plastic recyclers, Eco2's process eliminates the creation of waste. This process respects and preserves the environment, while delivering high-quality recycled plastic flake. The Company's patented process was developed through a research partnership with Honeywell FM&T and the U.S. Department of Energy. Eco2 is in the process of more than doubling the size of its existing operation in response to a recent infusion of venture capital interest.

G. Environmental and Lubrication Solutions (ELS)

ELS is a manufacturer and distributor of unique lubricant and fuel improver solutions to all significant market segments. Their business methods and product technologies reduce emissions and toxic waste and conserve valuable natural resources.

H. Kiva Energy/Kamps Propane

Kamps is an energy business offering a full range of propane services and technical expertise on propane. Kamps assists commercial, industrial, residential and agricultural customers with installation, service and supply of propane energy needs.

I. Leisure RV Storage

Leisure RV Storage is a business providing secure storage for recreational vehicles. The storage area currently covers over 100,000 square feet of space at RBAAP.

J. NI Industries, Inc.

NI Industries, Inc. (formerly known as Norris Industries), a TriMas Company, headquartered in Bloomfield Hills, Michigan, manufactures high-quality metal components used in the commercial, industrial, consumer, and defense markets worldwide. Their process acquires raw metal materials, designs and fabricates them to meet various requirements of the munitions and commercial industries. NI Industries has also been the government contractor at RBAAP since 1952. When their contract to produce munitions

for the military is completed, they will be relocating to Rock Island, IL, and may consider retaining a manufacturing presence at RBAAP.

K. Riverbank Oil Transfer

Riverbank Oil Transfer (ROT) is a recycler of oil, oily water and antifreeze waste. The company holds permits from CalEPA and the Department of Toxic Substances Control and Air Resources Board to receive and recycle oil. Used oil substances are trucked in and transferred to rail cars for transport to authorized off-site treatment, recycling or storage. ROT is expanding their recycling business to include diversion and recycling of plastic oil containers, such as those used to package consumer automobile motor oil.

L. Sierra Northern Railway

Sierra Northern Railway was formed in August 2003 by the merger of two Northern California shortline railroads: the Sierra Railroad Company and the Yolo Shortline Railroad. Sierra Northern currently operates approximately 75 miles of track in northern California, serving a wide variety of customers and interchanging with both the Burlington Northern Santa Fe Railway and the Union Pacific Railroad. They operate the rail service within the RBAAP site.

APPENDIX B

EQUIPMENT TO REMAIN AFTER CONVEYANCE

This appendix provides a table listing all Army-owned equipment at RBAAP that the LRA requests to retain on the property upon conveyance. These items are all currently used by existing tenants at RBAAP. Most notably, a 4,500 ton hydraulic press currently used by AM2T is requested by the LRA despite the recommendation of technicians from the Army and NI to relocate it to Rock Island, IL upon conveyance.

Additionally, the LRA requests first rights of refusal for all other Army-owned equipment located at the RBAAP listed as excess property, whether expressly designated in the appendix or not.

Asset Number	Description	Location	Stated Value
USA001396	Forming & Bending Machine	120/A West	$79.00
USA001997	Cabinet Storage Steel Green 36	7/29d	$61.00
USA002027	Cabinet Test Wood Green Top 30	12/	$80.00
USA002047	Stand, Tray, Tubular, Alum.	172/	$6.00
USA002048	Stand, Tray, Tubular, Alum.	172/	$6.00
USA002060	Table, Inspection, Wood, 24- X	7/16c	$241.00
USA002065	Table, Inspection, Wood, 95-1/2	7/17d	$358.00
USA002170	Bench Work Steel Const. 6' L X	7/37d	$56.00
USA002382	Bench Work Steel Const. 6' L X	7/Aht	$56.00
USA002393	Lockers,6 Opening, Double Tier	32/Hall	$51.00
USA002394	Lockers,6 Opening, Double Tier	21/A Dining	$51.00
USA003160	Truck, Hand, Warehouse, Hardwood	11/Upper Level	$13.00
USA003176	Bench Work Steel 72- L X 28- D	12/	$43.00
USA003356	Desk Foreman 34-1/2-Wx30-Lx52	7/Aht	$46.00
USA004342	Locker, Clothes, Steel, Dbl Ti	7/5 & 13/19w	$117.00
USA004499	Table, Kardex File, Wood, Varn	120/	$27.00
USA004534	Bench Work Wood Green Finish S	3/17a	$158.00
USA004971	Bench Work Steel Const. 6' L X	7/36d	$56.00
USA005462	Cabinet, Bench, Storage	7/Aht	$150.00

Asset Number	Description	Location	Stated Value
USA005714	Cabinet First Aid 12 Gage Steel	3/ 9a	$37.00
USA005750	Cabinet, Wood, W/12-Drawers, 2	7/	$35.00
USA006099	Cabinet Safety Bulletin Wood	7/28d	$31.00
USA006102	Cabinet Safety Bulletin Wood	7/28d	$31.00
USA006808	Table, Inspection, Wood, 95-1/2	7/17d	$384.00
USA006864	Table, Tool, Wood, 24- X 18- X	7/A11	$18.00
USA007673	Table, Gauge, Portable Inspect	7/	$37.00
USA008541	Desk Foreman 34-1/2-Wx30-Lx52	7/A 3	$36.00
USA008542	Desk Foreman 34-1/2-Wx30-Lx52	7/Aht	$36.00
USA008543	Desk Foreman 34-1/2-Wx30-Lx52	120/	$36.00
USA008545	Desk Foreman 34-1/2-Wx30-Lx52	120/B 10.7	$36.00
USA008546	Desk Foreman 34-1/2-Wx30-Lx52	7/Aht	$36.00
USA008547	Desk Foreman 34-1/2-Wx30-Lx52	8/ 6c/1	$36.00
USA008549	Desk Foreman 34-1/2-Wx30-Lx52	50/ 5	$36.00
USA008550	Desk Foreman 34-1/2-Wx30-Lx52	8/ 4e/1	$36.00
USA008945	Table, Work, Steel, 35- X 145-	7/12d	$148.00
USA009406	Pump Propane Gear Type 100 GPM	125/	$506.00
USA009407	Pump Propane Gear Type 100 GPM	126/	$506.00
USA009899	Bench Work Welding Steel 30-1/	7/	$120.00
USA009954	STOOL, WOOD, 12- X 18- X 18-	32/Hall	$7.00

Asset Number	Description	Location	Stated Value
USA010786	Desk, Office, Double Pedistal	3/25a (13799)	$136.00
USA011025	Desk Foreman W/Key Lock & 2 Dr	7/Aht	$100.00
USA012086	Stand, Projection, Steel, 18-W	172/	$29.00
USA012089	Press, Drill, 15- Floor Type	7/36d	$338.00
USA012921	Light Fixture for Drafting W/T	7/21d	$30.00
USA013431	Rack, Distribution, Desk Organ	7/32c	$10.00
USA013535	Pump Propane Stationary Coro-V	75/Bank A	$1,000.00
USA013799	Building, Portable Office, 8'w	3/30a/1 (13799)	$2,111.00
USA013800	Building, Portable Office, 8'w	7/ 3b	$156.00
USA013802	Air Conditioner, Refrigeration	7/ 3b	$300.00
USA013811	Welding Screen, Portable, Canvas	7/30d	$51.00
USA013813	Welding Screen, Portable, Canvas	7/30d	$51.00
USA013814	Welding Screen, Portable, Canvas	7/Cy	$51.00
USA013986	Pump, Hydraulic, Hand, Enerpac	75/Bank C	$46.00
USA014348	Cart, Maintenance	7/29d	$360.00
USA014956	Eyewash & Safety Shower #8346	7/18b	$221.00
USA014957	Eyewash & Safety Shower #8346	7/30b	$221.00
USA015312	Table, Drafting, 30-3/4-Wx68-5	172/	$110.00
USA015950	Lathe, Engine, Manual, 19- Swing	7/35c	$63.00
USA015960	Meter Liquid Control 29 GPM 10	75/Bank A	$875.00

Asset Number	Description	Location	Stated Value
USA015987	Panel Enclosure Hoffman #A-903	7/20n	$386.00
USA016147	Meter Propane Vapor 2 In. In A	75/Sw Gate	$358.00
USA017355	Sofa Sienna Fabric Oak Finish	7/35d	$390.00
USA017444	Air Conditioner, Refrigeration	7/A 12	$603.00
USA017644	Grinder-Buffer 7- Dia Wheel 1/	7/29d	$215.00
USA018511	Eraser. UV-Eprom Black Light,	7/A 13 Desk	$96.00
USA019017	Water Filtration Unit, 2 Stage	172/Garage	$350.00
USA019359	Grinder/Sander, Vertical/Horiz.	7/35cd	$1,830.00
USA019377	Board, Magic Marker	7/A12	$64.00
USA019931	Milling Machine, Vertical	8/25w	Unknown
USA020014	Monitor, Portable, Fire Cntrl	75/ /1	$1,585.00
USA020015	Monitor, Portable, Fire Cntrl	75/ /1	$1,585.00
USA020016	Nozzle, Aquastream, 500 GPM	75/Propane	$249.00
USA020017	Nozzle, Aquastream, 500 GPM	75/Propane	$249.00
USA020497	Milling Machine	7/34d	Unknown
USA021009	File, Lateral, Wood, 2dr, 36"	172/Ne	$380.00
USA021010	File, Lateral, Wood, 2dr, 36"	172/Ne	$380.00
USA021011	Table, Wood, W/Hinged Cover	172/Ne	$300.00
USA021012	Desk, Executive, Wood, Oak	172/Ne Rm	$795.00
USA021013	Desk, Executive, Wood, Oak	172/Ne Rm	$795.00

Asset Number	Description	Location	Stated Value
USA021014	Table, Executive, Wood, Oak	172/Ne	$500.00
USA021015	Table, Executive, Wood, Oak	172/Ne	$500.00
USA021016	Chair, Side, Padded W/Arms	172/Ne	$395.00
USA021017	Chair, Side, Padded W/Arms	172/Ne	$395.00
USA021018	Chair, Side, Padded W/Arms	172/Ne	$395.00
USA021019	Chair, Typist	172/Ne	$109.00
USA021020	Chair, Executive, Swivel W/Arm	172/Ne	$250.00
USA021021	Chair, Executive, Swivel W/Arm	172/Ne	$250.00
USA021022	Chair, Executive, Swivel W/Arm	172/Ne	$250.00
USA021023	Chair, Executive, Swivel W/Arm	172/Ne	$250.00
USA021024	File, Map, Mobile Stand	172/Ne	$750.00
USA021025	Refrigerator, Side X Side	172/Ne	$1,800.00
USA021026	Dishwasher, Built In	172/Ne	$409.00
USA021027	Table, Wood, Dining	172/Ne	$900.00
USA021028	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021029	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021030	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021031	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021032	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021033	Chair, Dining, Oak, Padded	172/Ne	$160.00

Asset Number	Description	Location	Stated Value
USA021034	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021035	Chair, Dining, Oak, Padded	172/Ne	$160.00
USA021036	Work Center Consisting Of	172/Ne	$3,108.00
USA021037	Work Center Consisting Of	172/Ne	$2,721.00
USA021038	Work Center Consisting Of	172/Ne	$2,695.00
USA021039	Work Center Consisting Of	172/Ne	$1,683.00
USA021040	File, Lateral, Steel	172/Ne	$937.00
USA021041	File, Lateral, Steel	172/Ne	$831.00
USA021188	Door, Rollup, Electric	7/21b/1	$3,610.00
USA021452	Fan, 30" Wall Mount	3/Col. 9a	$354.00
USA021453	Fan, 30" Wall Mount	3/Col. 10a	$354.00
USA021454	Fan, 30" Wall Mount	3/Col. 11a	$354.00
USA021455	Fan, 30" Wall Mount	3/Col. 12a	$354.00
USA021456	Fan, 30" Wall Mount	3/Col. 13a	$354.00
USA021457	Fan, 30" Wall Mount	3/Col. 14a	$354.00
USA021458	Fan, 30" Wall Mount	3/Col. 15a	$354.00
USA021459	Fan, 30" Wall Mount	3/Col. 18a	$354.00
USA021460	Fan, 30" Wall Mount	3/Col. 19a	$354.00
USA021461	Fan, 30" Wall Mount	3/Col. 20a	$354.00
USA021462	Fan, 30" Wall Mount	3/Col. 21a	$354.00

Asset Number	Description	Location	Stated Value
USA021463	Fan, 30" Wall Mount	3/Col. 22a	$354.00
USA021464	Fan, 30" Wall Mount	3/Col. 23a	$354.00
USA021465	Fan, 30" Wall Mount	3/Col. 24a	$354.00
USA021466	Fan, 30" Wall Mount	3/Col. 25a	$354.00
USA021467	Fan, 30" Wall Mount	3/Col. 26a	$354.00
USA021468	Fan, 30" Wall Mount	3/Col. 27a	$354.00
USA021604	Compressor, Air, Sullair	2/13a/1	$22,178.00
USA021605	Fan, 18"	2/11a/1	$742.00
USA021606	Fan, 18"	2/11a/1	$250.00
USA021771	Barrier Gate	7/ 2 Os Door	$5,975.00
USA021772	Barrier Gate	7/ 2b	$5,975.00
USA000597	Microscope Model Tbv-8l	43/Lab	$529.00

Source: United States Army, Joint Munitions Command.

APPENDIX C

EXISTING BUILDINGS AT RBAAP

Table C-1 provides an assessment of buildings on the RBAAP site that existed at the time this Reuse Plan was prepared. The list of buildings is derived from the 2005 *Environmental Condition of Property Phase I Report*. "Buildings" are defined as spaces fully enclosed by walls and roof, or covered, open-walled docks. Other "structures" in the list include, but are not limited to, electrical substation, craneways, tanks, well houses, and miscellaneous structures.

The buildings and structures are generally characterized by Type of Occupancy and Type of Construction. In Table C-1, the references to these categories made for the structures are based on terms and definitions included in the *International Building Code*, 2006 Edition.

Where direct visual observations could be made through site visits, which were conducted between March 2007 and July 2008, conditions of the buildings and structures have been characterized as Good, Fair or Poor. "Good" refers to a facility or building element that appears functionally usable and does not have apparent deficiencies that would preclude continued use. This would include, as a minimum, those buildings that are now in use by tenants or have been renovated for potential leasing. "Fair" refers to a facility or building element that may require some upgrades for continued use. "Poor" refers to a facility or building elements that appears to need general physical repairs or upgrades for continued use.

Where direct visual observations could not be made, conditions of the buildings and structures are characterized as Assumed Good and Assumed Fair. "Assumed Good" refers to a facility or building element that was not directly observed but that is part of a functioning tenant-occupied area. "Assumed Fair" refers to a facility or building element that was not directly observed but that is similar to other observed construction, which may require some upgrades for continued use.

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
1	Former Production Line Area	1951	34,201	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof, with supplementary roof coating applied. Portions of lower wall area can be lifted to promote natural ventilation flow through continuous roof vent area. Concrete floor. Newer Lighting. High-bay roof. Fully-sprinklered. Fire alarm system. Building houses unused manufacturing line that has been shut down. Structure and roof decking appears sound and in good condition, unlike similar line area in Building 50.	Type II-B Non-Combustible, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Interior Fair - some rusting on metal siding , Exterior Assumed Fair - coating of upper siding may be deteriorated similar to other production bays.	Retain
2	Former Production Line Area	1951	34,201	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof, with supplementary roof coating applied. Natural ventilation can occur through continuous roof vent area. Concrete floor. Building 2 has flanking wings of similar construction at the west half of the building that are contiguous and open to Building 2. Newer Lighting. High-bay roof. Fully sprinklered. Building is tenant-occupied for the west half of its length. Fire alarm system.	Type II-B Non-Combustible, Unprotected	Environmental & Lubrication Solutions - Lube Oil Storage & Distribution	Group S-1 Moderate-Hazard Storage	Interior Good, Exterior Assumed Fair - coating of upper siding may be deteriorated similar to other production bays.	Retain
3	Former Production Line Area	1951	34,201	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof, with supplementary roof coating applied. Portions of lower wall area can be lifted to promote natural ventilation flow through continuous roof vent area. Concrete floor. Newer Lighting. Crane rails in selected portions of building. High-bay roof. Fully sprinklered. Fire Alarm System. Portion of craneway at both sidewalls has been removed and crane can no longer travel full length of building. Building is clean, and is tenant-occupied.	Type II-B Non-Combustible, Unprotected	Eco2 Plastics - Manufacturing: Recycled plastic flake	Groups F-1 and S-1 Moderate-Hazard Factory and Storage	Interior Good, Exterior Assumed Fair - coating of upper siding may be deteriorated similar to other production bays.	Retain

Notes of Apparent Condition:
Good = Facility or building element observed without apparent deficiencies, and appear functionally usable
Fair = Facility or building element observed which may require selective upgrades for continued use.
Poor = Facility or building element observed which needs overall physical repairs or upgrades for continued use
Assumed Good = Facility or building element not directly observed but which is part of a operating tenant-occupied area or was recently used by NI Industries.
Assumed Fair = Facility or building element not directly observed but which is similar to other observed construction and which may require some upgrades for continued use.

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
4	Former Production Line Area	1951	34,201	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof, with supplementary roof coating applied. Portions of lower wall area can be lifted to promote natural ventilation flow through continuous roof vent area. Concrete floor. Newer Lighting. High-bay roof. Fully sprinklered. Fire Alarm System. Portion of craneway at both sidewalls has been removed and crane can no longer travel full length of building. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted need of repairs to top of brick wall between Cols 9A and 10. Sprinkler Testing by Frank & Chmieleski in 2003 reported violations in this building. No record of repairs having been completed.	Type II-B Non-Combustible, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Interior Good, Exterior Assumed Fair - coating of upper siding may be deteriorated similar to other production bays.	Retain
5	Former Production Line Area	1951	34,201	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof, with supplementary roof coating applied. Portions of lower wall area can be lifted to promote natural ventilation flow through continuous roof vent area. Concrete floor. Newer Lighting. Fully sprinklered. Fire alarm system. Process piping for water and compressed air installed overhead. Walls and roof are painted steel panels, peeling in some areas. Evidence of roof leak seen in center area and in Northwest portion of building. Sprinkler Testing by Frank & Chmieleski in 2003 reported violations in this building. No record of repairs having been completed.	Type II-B Non-Combustible, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Interior Good, Exterior Assumed Fair - coating of upper siding may be deteriorated similar to other production bays.	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
6	Former Production Line Area	1951	34,201	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof, with supplementary roof coating applied. Portions of lower wall area can be lifted to promote natural ventilation flow through continuous roof vent area. Concrete floor. Newer Lighting. High-bay roof. Fully-sprinklered. Fire alarm system. Some process equipment, conveyors, and small piping are suspended from roof trusses. This is production area currently in use. Process piping for cooling tower supply and return, and for steam, air, and process water installed overhead. Conduits containing high voltage wiring seen along north wall near eave line. Portion of craneway at both sidewalls has been removed and crane can no longer travel full length of building. Paint finish on building interior is peeling in areas. Finish on exterior face of metal siding is deteriorated and may be friable. Radiant heaters installed below craneway level. Many pieces of floor mounted equipment and chemical vats. Process produces chemical waste which is discharged into sumps and then pumped overhead to the process treatment plant in double walled pipes. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted need of repairs to concrete pedestals below steel column at 9B.	Type II-B Non-Combustible, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Interior Good, Exterior Fair - coating of upper metal siding deteriorated. Corrosion visible.	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
7	Former Production Line Area	1951	71,622	Exposed steel columns, steel channel roof purlins, and lateral bracing. Uninsulated metal siding walls on steel framing. Low-slope uninsulated metal deck roof, with supplementary light-colored roof coating, as implied by aerial photo . Band of windows along north exterior wall, some sash operable. Concrete floor. Newer Lighting. High-Bay roof , Continuous band of windows. Fire alarm system. Main portion of building houses tenant involved in metal manufacturing and coating activities. Small area for facility maintenance shop and maintenance offices is located in northwest corner of this Building. Window air conditioners provided here. Center row of columns helps to support 6 Ton bridge crane used in fabrication process. 1 Ton jib crane also in use. Gutters and dowspouts not provided. Building eaves are sprinklered. Steel-framed mezzanine constructed within the bay is used for Offices or similar. Several windows along north wall in need of repair. Exterior pipe rack north of building is missing insulation. Exterior doors are operable, but do not lock. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted damage to Column 33C and recommended retrofits to both flanges. Not confirmed if these repairs were made. This Report also noted need of repairs to concrete pedestals below steel column at Row 44C. Sprinkler Testing by Frank & Chmieleski in 2003 reported violations in this building. No record of repairs having been completed.	Type II-B Non-Combustible, Unprotected	Dayton Superior - Steel Reinf. Bar fabrication & coating	Groups F-1 and S-1 Moderate-Hazard Factory and Storage	Interior Good, Exterior Fair - coating of upper siding deteriorated	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
8	Former Production Line Area	1951	48,225	Reinforced concrete frame, exposed steel columns and steel roof trusses, flat roof deck. High-bay roof. Roof framing is laterally braced. Powered rooftop ventilators. Heavy top-running bridge crane (approx 50 Ton capacity) travels full length of building. Uninsulated metal siding walls on steel framing. Braced bays above level of concrete frame. Band of clerestory windows is provided at mid-height of east and north walls. Concrete floor; high load carrying capacity is likely, consistent with high capacity of crane. Clerestory windows in upper east wall. Fully-sprinklered. Metal siding provided at upper portion of walls. Sliding wood doors are provided along the west wall leading to the rail spur and to truck loading docks. Indications of leakage can be seen on the underside of roof deck panels in at least 6 areas, as evidenced by peeling of facing of roof panels. Sprinklers installed throughout. Draft/smoke curtains are provided full-depth of roof trusses in three locations. Building is occupied by several tenants and is used for metal forming, packing and shipping activities. Large electrical panels located along the east wall and bus duct along the north wall appear to be older. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted need of repairs to concrete pedestal near Col Row 7 along west side.	Type II-B Non-Combustible, Unprotected	NI Industries - Manufacturing AM2T - Powdered Metal Manufacturing Berkeley Forge - Storage	Groups F-2 and S-2 Low-Hazard Factory and Storage	Interior Good, Exterior Fair - coating of upper siding deteriorated	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
9	Machine Shop Offices	1951	37,800	High center bay with low flanking bays full length of building. Not sprinklered. Ansul fire suppression system (FM200 compliant) is installed in the Print Vault. Last checked 2008 by Jorgensen Co. Concrete frame with exposed wood columns, wood trusses and wood roof deck. Brick masonry walls, non-bearing. Clerestory windows at upper portion of both walls of center bay. Continuous window band along upper portion of low bay walls, some sash operable. Concrete floor. Newer Lighting. Light crane in center bay, full length. Space exists between roof planks. If tear-off and re-roofing done, space between roof planks should be closed or other method used to prevent debris from falling into areas below. Wood Truss Splitting: Inspection with follow-up Report (Dated 8-19-02) by R.M. Tavares of Complere Enginering Group describes inspections made of splitting observed in wood trusses, some in the north face of the bottom chord near the center of the span of the truss located between columns 21B and 21C. Quarterly inspections recommended to monitor changes in truss condition. Report by Tavares Associates Inc. (dated 4-13-06) describes structural walk-through inspection performed on 3-24-06. Subsequent Report by Tavares Associates Inc. (dated 1-30-08) listed conclusions of walk-though on this date focused on inspecting trusses in this building. No changes in truss conditions were reported. Continued quarterly inspections and measurement of splits were recommended.	Type IV Heavy-Timber, Unprotected	NI Industries - Shop / Manufacturing	Groups B Business and F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
10	Crib/Warehouse/Office National Guard	1951	20,338	High east bay with low east bay. Concrete frame with exposed wood columns, wood trusses and wood roof deck. Brick exterior masonry walls, and brick separating wall between bays, non-bearing. Clerestory windows at upper portion of both walls of center bay. Continuous window band along upper portion of low bay walls, some sash operable-projected type. Concrete floor. Fully remodeled, Fully-sprinklered. ADA-compliant entrance and restrooms. Energy-efficient Lighting. Gas fired unit heaters & radiant heaters. Air conditioning at enclosed interior office construction. Report describing inspections and analysis done by Ralph Morgan Associates (dated 1-20-98) noted splits and recommended repairs to wood trusses in twelve locations. One repair was marked urgent and requested shoring be installed at Col Line 5. It is not clear if all recommended repairs were completed. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted that extending the roof downspout down to ground level at the building corner close to Building 121 is desirable. Sprinkler Testing by Frank & Chmieleski in 2003 reported violations in this building. No record of repairs having been completed.	Type IV Heavy Timber, Unprotected	NI Industries - Intended for Lease.	Intended Groups B Business and F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
11	Paint & Oil Storage, Recycling & Transport	1951	12,451	Exposed steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof. Window bands along exterior walls; some sash are operable-projected type. Powered roof ventilators. High-bay. Glazing and operable sash at walls. Two large roll-up doors in north and south walls, aligned with drive through rail sidings. Built-up roofing, but no gutters. Building has underground story, which was not examined. Concrete floor. Fire alarm system.	Type II-B Non-Combustible, Unprotected	Riverbank Oil Transfer - Storage and Transfer of Waste Oil and antifreeze from trucks to railroad cars	Groups F-1 and S-1 Moderate - Hazard Factory and Storage	Interior (Locked by tenant - Not Observed) Exterior Fair - coating of upper siding deteriorated	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
12	Former Boiler House - Now Tenant-Occupied.	1951	6,240	Exposed painted steel columns, roof trusses, and lateral bracing. Uninsulated metal siding walls on steel framing. Sloped metal deck roof. Window bands along exterior walls; some sash are operable-projected type. Others are fixed, aluminum curtain wall style sash. Powered roof ventilators. Aerial photo implies that light-colored roof coating was applied. Concrete floor. Freestanding office area constructed of studs and gypsum board. Process water and natural gas piping provided. Jib crane also in use. High-bay. Large roll-up doors.	Type II-B Non-Combustible, Unprotected	Donaldson Company - Metal Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
13	Production Line - Rectifier House	1951	38,000	Masonry-walled multi-story building, approximately 32 ft tall, with steel frame and concrete roof. Building is sprinklered and has fire alarm system. Sprinkler Testing by Frank & Chmieleski in 2003 reported violations in this building. No record of repairs having been completed. This building formerly housed manufacturing activities, which are now inactive. Roof framing incorporates lateral bracing. Craneway is provided full length of building. Process water and air piping is routed within building. Steel framed mezzanine floors are provided over the southern 2/3 of the building. One 10 ft high mezzanine incorporates wood framed partitions and suspended ceiling for an Office Area. The other 18 ft high mezzanine contains process equipment. Center area contains 6,000 lb service elevator for access to mezzanines. In general the painted finish on the steel framing is OK, but some corrosion was observed on mezzanine steel. Stairs and railings would not be compliant with current requirements for personnel exit stairs. Some corrosion noted on pipes and steel framing in central area of main floor below low mezzanine. Ventilation in the building now consists of fans and louvers in the exterior walls.	Type V-B, Unprotected	NI Industries - Storage	Groups F-2 and S-2 Low-Hazard Factory and Storage	Fair	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
14	Security Office & Locker Rooms	1951	10,888	Brick masonry walls with masonry piers to support exposed wood trusses and wood plank roof. Low-slope gable roof with composition shingles. North portion is security office; Locker Rooms/Showers not used. Interior wall dividing east and west portions of buildings is structural glazed tile, masonry (14 courses) with gypsum board partition above. Masonry is probably unreinforced. Gable roof has approx. 1-inch slope. New windows installed at security office. Lower 7 courses of brick on east and west walls show evidence of possible moisture infiltration (efflorescence and moss growth). Eave boards are wood, however no gutters are provided. Wood framed canopy is attached to south side of building. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted need of repairs members in this roof that have been damaged by dry-rot, and called for re-roofing of this canopy. End-splitting observed in secondary members of most roof trusses in outer quarter of span closest to perimeter walls. Splitting usually coincides with location of through fasteners used to assemble the trusses. Width of splits should be measured, and subsequently monitored at regular intervals, to determine if change in the splits is occurring.	Type V-B, Unprotected	NI Industries - Offices & Misc. Storage (Lockers & Showers not used)	Groups B-Business and S-2 Low-Hazard Storage	Good	Retain
15	Transformer Servicing Facility	1951	3,200	Exposed 60 ft. high steel framing with uninsulated metal siding walls and roof deck. Not sprinklered. Lateral bracing. 22 ft high roll-up door. Concrete floor. 50 Ton crane runs full length of building. Galbestos coating on metal siding exterior is peeling. Building also used as facility for repairing locomotives used for moving materials around site.	Type II-B Non-Combustible, Unprotected	NI Industries - Shop / Manufacturing	Group F-2 Low-Hazard Factory	Fair	Retain
16	Office and Gate House	1951	3,740	Brick bearing walls; structural glazed tile interior partitions are assumed, based on comparison with Building. 17. Air-conditioned offices, windows. Composition roof singles over wood-framed gabled roof structure. Single-glazed windows in all walls.	Type V-B, Unprotected	NI Industries - Office & Administration	Group B - Business	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
17	Administrative Office	1951	7,308	Brick bearing walls, with structural glazed tile interior partitions. Composition roof singles over wood-framed gabled roof structure. Single-glazed windows in all walls. Fully-sprinklered. Air-conditioned offices. Ansul fire suppression system (FM200 compliant) is installed in Communications Room. Last checked 2008 by Jorgensen Co.	Type V-B, Unprotected	NI Industries - Office & Administration	Group B - Business	Good	Retain
18	Cafeteria and Offices	1951	2,819	Brick bearing walls; structural glazed tile interior partitions are assumed, based on comparison with Building 17. Composition roof singles over gabled roof structure (construction unknown - wood framing assumed). Single-glazed windows in all walls.	Type V-B, Unprotected	NI Industries - Office & Administration	Group B - Business	Assumed Good	Retain
19	Production Restrooms	1951	501	Attached to formed concrete aisle way 23. Wood frame partition construction.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
20	Empty Barrel Storage	1951	14,800	Large concrete pad at rail spurs north of Building 11. Area used for railroad car off-loading.	N / A	Eco2 Plastics - Manufacturing: Plastics Recycling	N / A	Good	Retain
21	Plant Cafeteria	1951	6,916	Passageway is poured concrete walls roof and floor, to be a connecting walkway between Buildings 1 & 2. Infill construction appears to be wood framed partitions within the concrete passageway.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
22	Aisleway and Office	1951	1,976	Passageway is poured concrete walls roof and floor, to be a connecting walkway between Buildings 1 & 2. Infill construction appears to be wood framed partitions within the concrete passageway.	Type V-B, Unprotected	Eco2 Plastics - Manufacturing: Plastics Recycling	Groups F-1 and S-1 Moderate-Hazard Factory and Storage	Assumed Good	Retain
23	Aisleway and Office	1951	2,652	Passageway is poured concrete walls roof and floor, to be a connecting walkway between Buildings 1 & 2. Infill construction appears to be wood framed partitions within the concrete passageway.	Type V-B, Unprotected	NI Industries &- Eco2 Plastics - Manufacturing, Plastics Recycling	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
24	Aisleway and Gage Laboratory	1952	1,976	Passageway is poured concrete walls roof and floor, to be a connecting walkway between Buildings 1 & 2. Infill construction appears to be wood framed partitions within the concrete passageway.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
25	Aisleway and Accounting Storage Area	1952	2,652	Passageway is poured concrete walls roof and floor, and is a to be a connecting walkway between Buildings 5 and 6. Infill construction is wood framed partitions within the concrete passageway. Area 25A contains QA Offices. Interior finishes within this area includes older 12-in x 12-in acoustical tile on wood furring applied to underside of roof construction, older 12-in x 12-in resilient tile (dark red) applied to the concrete floor slab, and painted walls. Ventilation ducts are exposed.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Fair	Retain
26	Aisleway and Instrument Storage Area	1951	1,976	Passageway is poured concrete construction walls roof and floor, to be a connecting walkway between Buildings 1 & 2. Infill structure appears to be wood framed partitions a within the concrete passageway.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
27	Restroom and Passage	1951	1,053	Structure not observed. Infill building located between Buildings. 1 & 2. Most likely same construction as Buildings 1-7, but with flat roof having coated, built-up roofing, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
28	Restroom and Passage	1951	1,053	Structure not observed. Infill building located between Buildings. 3 & 4.. Most likely same construction as Buildings 1-7, but with flat roof having coated, built-up roofing, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
29	Restroom	1951	1,053	Infill building between Main Buildings 5 & 6. Construction not directly observed. Most likely same construction as Buildings 1-7, but with flat roof having coated, built-up roofing, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
30	Restroom and Passage	1951	1,053	Infill building between Main Buildings 5 & 6. Construction not directly observed. Most likely same construction as Buildings 1-7, but with flat roof having coated, built-up roofing, per aerial photos information. Interior construction likely wood stud parition framing.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
31	Restroom and Passage	1951	1,053	Infill building between Main Buildings 3 & 4. Construction not directly observed. Most likely same construction as Buildings 1-7, but with flat roof having coated, built-up roofing similar to Building 7, per aerial photos information. Interior construction likely wood stud parition framing.	Type V-B, Unprotected	NI Industries &- Eco2 Plastics - Manufacturing	Groups F-1 and S-1 Moderate-Hazard Factory and Storage	Assumed Good	Retain
32	Restroom and Passage	1951	1,053	Infill building between Main Buildings 1 & 2. Construction not directly observed. Most likely same construction as Buildings 1-7, but with flat roof having coated, built-up roofing similar to Building 7, per aerial photos information. Interior construction likely wood stud parition framing.	Type V-B, Unprotected	NI Industries and Environmental & Lubrication Solutions Manufacturing & Storage	Groups F-1 and S-1 Moderate-Hazard Factory and Storage	Assumed Good	Retain
33	Passage and Distribution PNL	1951	1,520	Infill building between Main Buildings 1 & 7. Construction is braced steel frame similar to Buildings 1-7, but with flat roof having coated built-up roofing, similar to Building. 7, per aerial photos information. Interior construction is wood stud partition framing.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
34	Passage and Office	1952	1,539	Infill building between Main Buildings 1 & 2. Construction is braced steel frame similar to Buildings 1-7, but with flat roof having coated built-up roofing, similar to Building. 7, per aerial photos information. Interior construction is wood stud partition framing.	Type V-B, Unprotected	NI Industries and Environmental & Lubrication Solutions Manufacturing & Storage	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
35	Passage and Emergency Generator # 7	1952	1,539	Infill building between Main Buildings 2 & 3. Construction not directly observed. Construction is braced steel frame similar to Buildings 1-7, but with flat roof having coated built-up roofing, similar to Building. 7, per aerial photos information. Interior construction is wood stud partition framing. Peeling paint observed at underside of roof.	Type V-B, Unprotected	NI Industries &- Eco2 Plastics - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
36	Passage	1952	1,053	Infill building between Main Buildings 3 & 4. Construction similar to Buildings 1-7, but with flat roof having coated built-up roofing similar to Building. 7, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries &- Eco2 Plastics - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
37	Passage and Office	1952	1,539	Infill building between Main Buildings 1 & 7. Metal framed construction similar to Buildings 1-7, but with flat roof having coated built-up roofing similar to Building. 7, per aerial photos information. Interior construction is wood stud partition framing. Wood windows in east wall. Metal siding exterior walls. Facing of underside of roof deck panels is peeling.	Type V-B, Unprotected	NI Industries & Amer. Highway Technologies Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
38	Passage	1951	1,539	Infill building between Main Buildings 1 & 7. Construction similar to Buildings 1-7, but with flat roof having coated built-up roofing, similar to Building. 7, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
39	Central Salvage Area	1952	2,112	Infill building between Main Buildings 3 & 4 used to house lathe and drill presses. Construction similar to Buildings 1-7, but with flat roof having coated built-up roofing similar to Building 7, per aerial photos information. Interior construction is wood stud partition framing and unreinforced brick walls.	Type V-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
42	Sewage Disposal Plant	1951	42,875	Construction not directly observed. Plant is located north of the main plant area, and consists of small service building, with nearby at-grade sludge beds, effluent field, and sanitary sewage beds.	N / A	NI Industries - Manufacturing	N / A	Good	Retain
43	Acid Neutralization / Cyanide Lab	1952	1,558	Metal framed building with metal siding. Not sprinklered. Operable windows. Interior walls are stud and gypsum board partitions. Houses wet lab in air conditioned finished space with resilient tile floor and suspended ceiling. Electrical control panels provided for water treatment system. Attached metal shed roof covers air compressor and air receiver equipment.	Type V-B, Unprotected	NI Industries - Manufacturing	Group H-4	Good	Retain
44	Acid Neutralization / Cyanide Destruction	1952	12,240	Waste treatment system storage tanks. Construction varies: poured concrete and / or steel tanks. Metal roof over sludge separator equipment.	N / A	NI Industries - Manufacturing	N / A	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
45	Production Line	1952	7,293	Infill building between Main Buildings 1, 7 & 8. Same construction as 1-7, but with flat roof similar to Building. 8, per aerial photo information. Powered rooftop ventilators. Structure and roof decking appears sound and in good condition. Paint and insulation on process piping is deteriorated.	Type II-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
46	Production Line	1952	8,200	Infill building between Main Buildings 1, 2 & 8. Construction not directly observed. Most likely same construction as 1-7, Buildings but with coated roof and powered rooftop ventilators, per aerial photo information.	Type II-B, Unprotected	Donaldson Company - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
47	Production Line and Emergency Gen # 2	1952	8,360	Infill building between Main Buildings 2, 3 & 8. Construction not directly observed. Most likely same construction as Buildings 1-7, but with coated roof and powered rooftop ventilators, per aerial photo information.	Type II-B, Unprotected	Eco2 Plastics - Manufacturing: Plastic Recycling	Groups F-1 and S-1 Moderate - Hazard Factory and Storage	Assumed Good	Retain
48	Production Line and Office	1952	8,400	Infill building between Main Buildings 3, 4 & 8. Construction not directly observed. Most likely same construction as Buildings 1-7, but with coated roof and powered rooftop ventilators, per aerial photo information.	Type II-B, Unprotected	NI Indus`tries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
49	Production Line and Emergency Gen # .4/5	1952	10,548	Infill building between Main Buildings 4,5 & 8. Construction not directly observed. Most likely same construction as Buildings 1-7, but with coated roof and powered rooftop ventilators, per aerial photo information.	Type II-B, Unprotected	NI Industries - Manufa`cturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Assumed Good	Retain
50	Production Line and Emergency Gen # 6	1952	10,420	Infill building contiguous with and open to Main Buildings 5, 6 & 8. Construction is metal framing with metal roof and wall panels similar to Buildings 1-7. However, roof appears to be coated roof with powered rooftop ventilators, per aerial photo information. This area houses production equipment used for treatment of metals. Paint finish on steel structural members, suspended piping, and on underside of roofing panels is severely peeling. Large electrical bus duct is located along the north wall and extends across Building 5 into courtyard area between Buildings 4 & 5.	Type II-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Poor	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
51	Laboratory Chemical and Metallurgical	1952	3,800	Infill building between Main Buildings 5 & 6. Sprinklers provided. Houses three rooms (Dry Lab, Wet Lab and Machine Shop) constructed of wood roof framing, wood stud partitions with painted plywood facing, and wood doors having glass vision lights. Lighting consists of strip fluorescent fixtures. Ventilation ducts are exposed. Machine Shop air appears to discharge into Building 5. Dry Lab contain wall-mounted electrical panels. Floor finish consists of older 12-in x 12-in resilient tile applied to the concrete floor slab. Walls are painted. Ventilation ducts are exposed.	Type II-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage	Good	Retain
52	Transformer Area - Substation # 10	1951	700	Construction not directly observed. Reported energized and in use.	N / A	NI Industries - Manufacturing	N / A	Structure not observed	Retain
53	Transformer Area - Substation # 5	1952	1,200	Fenced substation south of Building 11, pad-mounted, with gravel paving. Not in use. Damaged 13.8 kV Feeder.	N / /A	NI Industries - Manufacturing	N / A	Poor	Remove / Consolidate
54	Transformer Area - Substation # 13	1952	1,200	Fenced substation south of Building 8, pad-mounted. Reported energized and in use.	N / A	NI Industries - Manufacturing	N / A	Good	Retain
55	Transformer Area - Substation # 9	1952	1,868	Electrical panel room attached to formed concrete aisle way 23, between Buildings 4 & 5. Wood frame partition construction. Exterior substation area is concrete pad mounted. Construction not directly observed. Reported energized and in use.	Type V-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory	Good	Retain
56	Transformer Area - Substation # 7	1952	600	Substation located between Buildings 2 & 3, pad-mounted. Construction not directly observed. One transformer reported as damaged and de-energized.	N / A	NI Industries - Manufacturing	N / A	Poor	Remove / Consolidate
57	Transformer Area - Substation # 12	1952	600	Construction not directly observed. Adjacent to Building 30, between Main Buildings 5 & 6. Aerial photo appears to indicate covered area. Reported energized and in use.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory	Assumed Good	Retain
58	Transformer Area - Substation # 8	1952	600	Construction not directly observed. Adjacent to Building 31, between Main Buildings 3 & 4. Aerial photo appears to indicate covered area. Reported energized and in use.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory	Assumed Good	Retain
59	Transformer Area - Substation # 6	1952	600	Construction not directly observed. Adjacent to Building 32, between Main Buildings 3 & 4. Reported energized and in use.	N / A	NI Industries - Manufacturing	N / A	Assumed Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
60	Transformer Area - Substation # 11	1952	564	Construction not directly observed. Appears to be within Building 47. One transformer reported as damaged and de-energized.	Type II-B, Unprotected	Eco2 Plastics - Manufacturing: Plastic recycling	Groups F-1 and S-1 Moderate - Hazard Factory and Storage	Poor	Remove / Consolidate
61	Cooling Tower Control House	1952	300	Small structure adjacent to wood framed cooling tower.	Type V-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory	Exterior Fair; Interior Assumed Fair	Remove / Consolidate
62	Facilities Engineering Store House	1952	30	Structure not observed.	----	----	----	----	Remove / Consolidate
64	Fuel Oil Unload Service Building	1951	30	Structure adjacent to Pump House 104.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory	Good	Remove / Consolidate
73	Hose Cart House No. 1	1951	117	Structure not observed.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory	Structure not observed	Remove / Consolidate
74	Compressor House, Propane Storage Area	1951	1,240	Pre-engineered metal building.	Type II-B, Unprotected	Kiva Energy Inc. - Propane Storage	Group H-2 High-Hazard (assumed)	Good	Retain
75	Propane Storage Area	1952	83,400	Above-ground welded steel tanks on concrete supports; mounted horizontally.	N / A	Kiva Energy Inc. - Propane Storage	N / A	Good	Retain
76	Fuel Oil Storage Area, Water Tanks (2)	1951	1,600	Above ground bolted steel tanks, painted, on steel ring foundations.	N / A	NI Industries - Storage	N / A	Exterior Good; Interior of Tanks Assumed Good	Retain
77	Sulfuric Acid and Caustic Soda Storage	1952	1,591	Structure not observed.	----	NI Industries - Storage	----	Structure not observed	Retain
78	Oil Room Building	1951	1,100	Structure not observed.	----	NI Industries - Storage	----	Structure not observed	Retain
79	Scale house	1952	66	Structure not observed.	----	NI Industries - Storage	----	Structure not observed	Remove / Consolidate

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
80	Varnish Stripping Building	1953	2,211	Infill building attached to Main Building 3 and to Building 39, houses small equipment and a 150 hp steam boiler in the NW corner (circa 1980). West wall is unreinforced brick. Remaining construction is metal framing and metal siding. Large roll-up door opens into Building 3, and sliding wood door in east wall leads to the exterior courtyard. South wall contains numerous awning-type windows. Roof is flat, similar to Building. 8, per aerial photos information. Some degradation of roof coating seen on underside of roof deck. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted need of repairs to concrete pedestals below steel column at Col Row 2.	Type II-B, Unprotected	NI Industries - Manufacturing	Actual Use Unknown	Good	Retain
81	Production Line	1953	11,001	Infill building attached to Main Building 7, Building 45 and to Building 8. Construction is metal framed construction similar to these buildings. Some peeling Galbestos metal siding finish seen on south wall. North wall is new galvanized metal siding. Concrete floor. In general, overall condition is serviceable.	Type II-B, Unprotected	Dayton Superior - Manufacturing	Groups F-1 and S-1 Moderate - Hazard Factory and Storage	Good	Retain
82	Tocco Generator & Emergency Gen. # 9	1953	1,638	Structure not observed, but most likely same construction as 1-7, but with flat roof similar to Building. 8, per aerial photos information. Located between Buildings 1 & 2.	Type II-B, Unprotected	NI Industries - Manufacturing	Groups F-2 & S-2 Low-Hazard Factory and Storage	Structure not observed	Retain
83	Plating Rack Repair Area	1951	714	Infill building attached to Main Buildings 4 and to Building 37. Construction is metal framed similar to buildings 1-7, with sloped roof. Portion of walls are concrete masonry, most likely unreinforced. Courtyard outside of this building is used for general storage of pallets, and has concrete paving provided with storm drains. Pole-mounted substation in courtyard has cables with exposed, friable insulation of unknown material content.	Type II-B, Unprotected	NI Industries - Manufacturing	Groups F-2 and S-2 Low-Hazard Factory and Storage (Assumed) Actual use unknown.	Good	Retain
84	Loading Dock with Canopy	1951	764	Structure not observed.	----	----	----	Structure not observed	Retain
85	Transformer Oil Pump building	1951	169	Brick masonry with flat roof.	Type V-B, Unprotected	NI Industries - Manufacturing	Group S-1 Moderate - Hazard Storage	Exterior Fair - Interior Unknown	Remove / Consolidate

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
87	Storage building	1951	270	Cinder block building (not painted), with door, louvers, and 4 windows. Wood lean-to structure erected on east side. Wood framed roof with built-up roofing. Used for storage.	----	NI Industries - Manufacturing	----	Good	Retain
95	Transformer Area - Substation # 1	1951	280	Fenced substation west of Building 1, pad-mounted. Concrete curb provided around the area. Reported energized and in use.	----	NI Industries - Manufacturing	----	Construction Good	Retain
96	Transformer Area - Substation # 2	1952	540	Fenced substation south of Building 9, pad-mounted. Reported energized and in use.	N / A	NI Industries - Manufacturing	----	Assumed Good	Retain
97	Transformer Area - Substation # 3	1952	1,050	Fenced substation north of Building 7, pad-mounted. Storage shed (Trade name "Tuff-Shed") is wood framed, with shingle roof, gravity turbine-type roof vent, wood siding. All transformers de-energized and not in use.	----	NI Industries - Manufacturing	----	Poor	Remove / Consolidate
98	Transformer Area - Substation # 4	1953	400	Fenced substation south of Building 7, pad-mounted. Reported energized and in use.	----	NI Industries - Manufacturing	----	Assumed Good	Retain
99	Transformer Area - Substation # 14	1953	600	Fenced substation west of Building 120, pad-mounted.	N / A	NI Industries - Manufacturing	----	Assumed Good	Retain
100	Transformer Area - Substation # 15	1952	600	Substation located between Buildings 1 & 2, pad-mounted. All transformers de-energized and not in use. Scheduled for removal March 2009.	N / A	NI Industries - Manufacturing	----	Assumed Good	Remove / Consolidate
101	Transformer Area - Substation Spare	1953	600	Fenced substation north of Building 9, pad-mounted.	N / A	NI Industries - Manufacturing	----	Assumed Good	Retain
102	Water Well # 1	1951	64	Small brick masonry building with wood frame roof.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
103	Water Well # 2	1951	64	Small brick masonry building with wood frame roof. No longer in use.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Fair	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
104	Water Well # 3	1951	152	Small brick masonry building with wood frame roof.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
105	Water Well # 4	1951	64	Small brick masonry building with wood frame roof.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
106	Water Well # 5	1951	199	Pre-engineered metal building over active deep well.	----	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
107	Covered Passage	1951	178	Infill building between Main Buildings 1 & 7. Construction not observed throughout - tenant occupied. Construction likely is similar to Buildings 1-7, but with low-slope roof similar to Building. 7, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries and Dayton Superior Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Assumed Good	Retain
108	Main Transformer Substation # 1	1951	8,050	Fenced substation west of Building 13, pad-mounted. To be retained as a backup main after March 2009.	N / A	NI Industries - Manufacturing	N / A	Assumed Good	Retain
109	Main Transformer Substation # 2 and 3	1951	9,650	Fenced substation west of Building 13, pad-mounted. All transformers de-energized and not in use. Scheduled for removal and replacement March 2009.	N / A	NI Industries - Manufacturing	N / A	Assumed Good	Remove / Consolidate
110	Terminal house	1951	270	Blockhouse/control room for substation. Brick walls, concrete roof.	----	----	----	Good	Retain
114	Tank Water Storage 100,000 Gallons	1951		Steel tank elevated on steel framing. Seismically deficient to current codes. Requires structural upgrade as evaluated by independent evaluation documented 1-22-98. Evaluation found that tank did not comply with API 650 Standard (dated 1996) for seismic design. Content of external coating is unknown. Two options were offered to upgrade the tank to comply with the 1996 Standards: reduce the tank's operating capacity to not more than 40,000 gallons, or upgrade the tank structurally. NI Industries staff reported that the operating capacity of the tank has been reduced to approximately half of design capacity.	N / A	AT&T Wireless/T-Mobile - Transmitter	N / A	Poor	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
117	Cooling tower , Main Plant	1952		Wood framed cooling tower.	N / A	NI Industries - Manufacturing	N / A	Unknown if system still in use	Remove / Consolidate
118	Cooling tower , Boiler house	1952	6	Structure not observed.	N / A	NI Industries - Manufacturing	N / A	Unknown if system still in use	Remove / Consolidate
119	Cooling tower , Steam Plant	1953	400	Structure not observed.	N / A	NI Industries - Manufacturing	N / A	Unknown if system still in use	Remove / Consolidate
120	Former Steam Plant & Emergency Generator # 10	1953	58,066	Exposed steel columns, roof trusses, and lateral bracing. Not sprinklered. Continuous craneway with two cranes (1 at 10 Ton capacity, 1 at 30 Ton capacity) High bay - op-running cranes 30-Ton original, 10-Ton added by tenant. Uninsulated galvanized metal siding walls (no paint) on painted steel framing. Sloped metal deck roof, with supplementary roof coating applied. 2 long gravity-type ridge vents at roof. Clerestory windows in upper walls. Concrete floor. Paint booth at west end. Portions of exterior wall panels can be lifted to provide ventilation. Large roll-up door in west wall. Galvanized exterior OK. Some peeling paint seen on window frames.	Type II-B, Unprotected	Donaldson Company - Metal Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
120H	Addition to Building 120	2006	28,000	Pre-engineered metal building. New Building; cranes in 3 bays, roll-up doors, energy-efficient lighting. Not sprinklered.	Type II-B, Unprotected	Donaldson Company - Metal Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
121	Loading Dock, Steel Plant	1953	420	Exposed painted steel columns and framing; metal deck roof. Open-sided dock continuous. Report describing inspection performed by R.S. Tavares Associates on 4-13-06 noted need of repairs to concrete pedestal at one column and providing grout under this column.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Fair, Corrosion seen on top of metal roof deck; underside OK.	Retain
122	Crane Runway and Steel Storage Area	1953	18,332	Exterior concrete slab with elevated crane runway on both sides.	N / A	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
125	Unloading station No. 1 Propane	1951	8	Painted steel stairs and elevated steel platform aligned with elevation of rail car hatch.	N / A	Kiva Energy Inc. - Propane Storage	N / A	Good	Retain
126	Unloading station No. 1 Propane	1951	48	Painted steel stairs and elevated steel platform aligned with elevation of rail car hatch.	N / A	Kiva Energy Inc. - Propane Storage	N / A	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
127	Storage Sewage Disposal Plant	1951	160	Facility's location unknown	----	----	----	----	Remove / Consolidate
129	Process Waste Water Percolation Beds	1952		Facility's location unknown	----	----	----	----	Remove / Consolidate
130	Garage	1954	2,280	Wood frame building with galvanized metal siding, metal roof, and sliding doors fabricated of metal siding. Not sprinklered.	----	NI Industries - Manufacturing	----	Good	Retain
131	Process Water Tank & System	1953	441	Facility's location unknown	----	----	----	----	Remove / Consolidate
133	Aisleway from Building 10 to Line 7	1951	183	Metal framed, metal roof, open sided access way.	Type II-B, Unprotected	Dayton Superior - Coating Manufacturing	----	Fair	Retain
134	Restroom at Line 7	1953	82	Infill building between Main Buildings 1 & 7., and adjacent to Building 107. Construction not directly observed. Construction is likely similar to Buildings 1-7, but with low-slope roof similar to Building. 7, per aerial photos information. Interior construction likely wood stud partition framing.	Type V-B, Unprotected	NI Industries and Dayton Superior Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Structure not observed	Retain
135	Storm Drain Station	1953	108	Structure not observed.	----	NI Industries - Manufacturing	----	Assumed Good	Retain
137	Pump House - Sprinkler System	1956	400	Steel framing with metal siding. (Houses 2 propane fueled fire pumps and 2 electric fire pumps)	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-1 Mod-Hazard Factory and Industrial	Good	Retain
138	Transformer Substation No. 16	1956	120	Structure not observed. Reported energized and in use.	N / A	NI Industries - Manufacturing	N / A	Assumed Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
139	Tank Water Storage 1,000,000 Gallons	1952	2,739	Painted steel tank on concrete foundation. Paint finish fair condition. Tank lacks lighting and fall protection devices. Seismically deficient to current codes. Requires structural upgrade as evaluated by independent evaluation documented 1-22-98. Evaluation found that tank foundation did not comply with AWWA D100 Standard (dated 1996), that inlets and outlets to the tank were rigidly connected and warned that these could shear off in an earthquake, and that external coating cold contain lead. Two options were offered to upgrade the tank to comply with the 1996 Standard: reduce the tank's operating capacity or upgrade the tank structurally. NI Industries staff reported that neither option has been implemented.	N / A	NI Industries - Manufacturing	N / A	Poor	Retain
145	Transformer Substation # 17	1967	1,321	Fenced substation north of Building 7, pad-mounted. Reported energized and in use.	N / A	NI Industries - Manufacturing	N / A	Assumed Good	Retain
146	Transformer Substation # 18	1967	406	Fenced substation west of Building 13, pad-mounted. Reported energized and in use.	N / A	NI Industries - Manufacturing	N / A	Assumed Good	Retain
147	Transformer Substation # 19	1967	960	Located between Buildings 4 & 5. Building used to house electrical substation equipment. Concrete building pad is elevated above courtyard paving. Pre-engineered metal building with galvanized metal siding and gable-style galvanized metal roof (no paint on siding and roof). Sliding door and man door provided. Transformer off line due to faulty 13.8 kV switch to be repaired	N / A	NI Industries - Manufacturing	N / A	Good	Retain
148	Cooling Tower Building 13	1966	368	Mechanical equipment located west of Building 13.	N / A	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
150	Compressor Air	1969	150	Steel framed shed with metal siding.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
151	Compressor Air	1969	150	Steel framing with metal siding. Houses Air Compressor #4.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
152	Motor generator housing	1967	636	Metal-framed "lean-to" structure attached to and open to Building 7. Galvanized metal siding (no paint).	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
154	Compressor Air	1969	168	Small pre-engineered metal building located adjacent to Building 7 to house process equipment.	Type II-B, Unprotected	NI Industries and Dayton Superior Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
155	Compressor Air	1969	150	Steel framed metal siding building located adjacent to Substation Area 54.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Structure not observed	Retain
156	Production Building - Heat Treat	1970	5,286	Steel framed metal siding building with some concrete and brick walls and concrete roof . Located adjacent to Building 6.	Type II-B, Unprotected	NI Industries - Manufacturing	----	Good	Retain
157	Compressor Air	1969	725	Metal building with sloped roof. Building used to house air compressor equipment. Concrete building pad. Pre-engineered metal building with galvanized metal siding and gable-style galvanized metal roof (no paint on siding and roof).Sliding door and man door provided.	----	NI Industries - Manufacturing	----	Good	Retain
158	Water Well # 6	1969	240	Pre-engineered metal building	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Fair	Retain
159	Sandblast Building	1972	144	Pre-engineered metal building	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Fair	Retain
160	Covered Storage Building	1969	21,033	This Building is a roofed area in former courtyard between Buildings 2 and 3. Building is used for general storage of dry chemicals and spare parts, and is normally locked. Construction is metal roof trusses having lower chord members bolted to shelf bracket at steel columns of flanking Buildings 2 & 3. Sprinklers provided throughout. Side walls are the metal siding walls of Buildings 2 & 3, which appear to have coating of Galbestos exposed within Building 160. Warning placard near entrance door cites existence of PCBs within. Concrete floor; no floor drains.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-1 Moderate Hazard Factory and Industrial	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
161	Sludge Desiccating Pit	1970	17,600	Facility not observed.	----	----	----	Assumed Good	Retain
162	Autodin A.B. Terminal Building.	1971	1,036	Brick masonry walls, low-slope roof with built-up roofing.	Type V-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Fair	Retain
163	Incinerator	1971	27	Mechanical equipment on concrete pad.	Type V-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Fair	Remove / Consolidate
164	Paint Pumping Building	1974	506	Pre-engineered metal building adjacent to Building 7; open one side. Treatment area and dipping facility for tenant's rebar coating process.	Type II-B, Unprotected	NI Industries - Manufacturing	Group H-2 Hazardous Storage	Good	Retain
165	Shed, Former Pesticide Storage	1975	196	Pre-engineered metal shed.	----	NI Industries - Manufacturing	----	Fair	Remove / Consolidate
166	Paint Pumping Building	1976	480	Structure not observed. Located adjacent to Building 1.	----	Dayton Superior - Coating Manufacturing	Unknown - Not under-stood if painting & coating of steel re-bar occurs here.	----	Retain
167	Air Compressor No. 8	1974	198	Structure not observed.	----	----	----	----	Retain
168	Security Lighting Emergency Generator	1978	176	Structure not observed.	----	----	----	----	Retain
169	Paint Spraying Facility	1978	800	Pre-engineered metal building with sliding doors, sloping metal roof, and wind-turbine style ventilators at ridge. Concrete floor. Ansul fire suppression system (FM200 compliant) is installed. Last checked 2008 by Jorgensen Co.	Type II-B, Unprotected	NI Industries - Manufacturing	Group H-2 Hazardous Storage	Good	Retain
170	Pesticide Facility	1978	600	Pre-engineered metal building with sliding doors, sloping metal roof, and wind-turbine ventilators at ridge. Concrete floor.	Type II-B, Unprotected	NI Industries - Manufacturing	Group H-4 Hazardous Storage	Good	Retain

TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

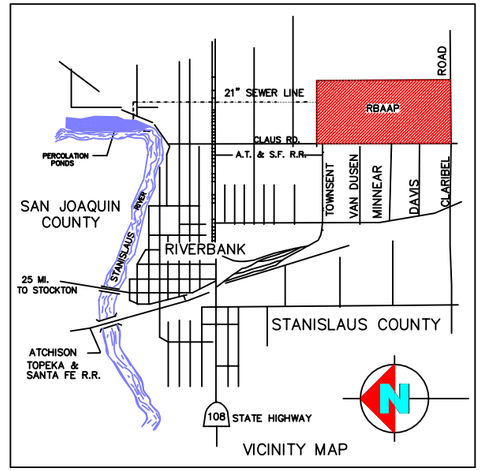
Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
171	Austemper Facility - furnace Room	1978	5,376	Pre-engineered metal building with wall louvers, roof vents and translucent roof panels. Concrete floor. Undefined pre-material on the underside of the roof structure has fallen away in places, exposing the substrate below.	Type II-B, Unprotected	NI Industries - Manufacturing	----	Fair	Retain
172	Former Fire Department	1982	3,600	Pre-engineered metal building. Concrete floor. Tenant-occupied. Subdivided with stud and gypsum board partitions into ventilated shop area and air-conditioned finished office space with suspended ceiling 8 ft height and small parts storeroom. (2) electric operated sectional doors in shop area. No sprinklers. Sliding windows. Sunshade provided above windows along west wall.	Type II-B, Unprotected	Eco2 Plasticss - Manufacturing: Recycled plastic flake	Groups F-1 and S-1 Moderate-Hazard Factory and Storage	Good	Retain
173	Environmental Test Facility	1982	992	Pre-engineered metal building at Industrial Wastewater Treatment Plant. Not sprinklered.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
174	Hazardous Waste Storage	1983	6,600	Pre-engineered metal shed with fence enclosure all around. Open at one end, and at upper portion of walls to provide ventilation. Sliding gate at both ends. Concrete floor.	Type II-B, Unprotected	NI Industries - Manufacturing	Group H - Hazardous Storage	Good	Retain
175	Generator Building	1984	187	Structure not observed.	----	----	----	Assumed Good	Retain
176	Switching Station	1985	90	Small brick masonry building.	----	----	----	Assumed Good	Retain
177	Equipment Wash Facility	1985	1,440	Open-air concrete pad with low cinder block walls. Used to screen equipment to contain overspray from drum-rinsing degreasing operation. Drains to oil-water separator.	Type II-B, Unprotected	----	----	Good	Retain
178	Lubrication System Facility	1985	389	Pre-engineered metal structure with roll-up door.	Type II-B, Unprotected	----	----	Good	Retain
180	Chrome Reduction Facility	1991	576	Pre-engineered metal structure. Galvanized metal siding and roofing, but no gutters. Used for hazardous waste storage. Concrete ramp provided to roll-up door.	Type II-B, Unprotected	NI Industries - Manufacturing	Group H - Hazardous Storage	Good	Retain
181	Phosphate Facility	1992	4,000	Pre-engineered metal building with gravity ridge vents at roof	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain
182	Groundwater Treatment Facility	1992	10,000	Pre-engineered metal building with sliding doors and 8 ridge vents. Newer building. Covered canopy structure at east rail siding. Concrete floor.	Type II-B, Unprotected	NI Industries - Manufacturing	Group F-2 Low-Hazard Factory and Industrial	Good	Retain

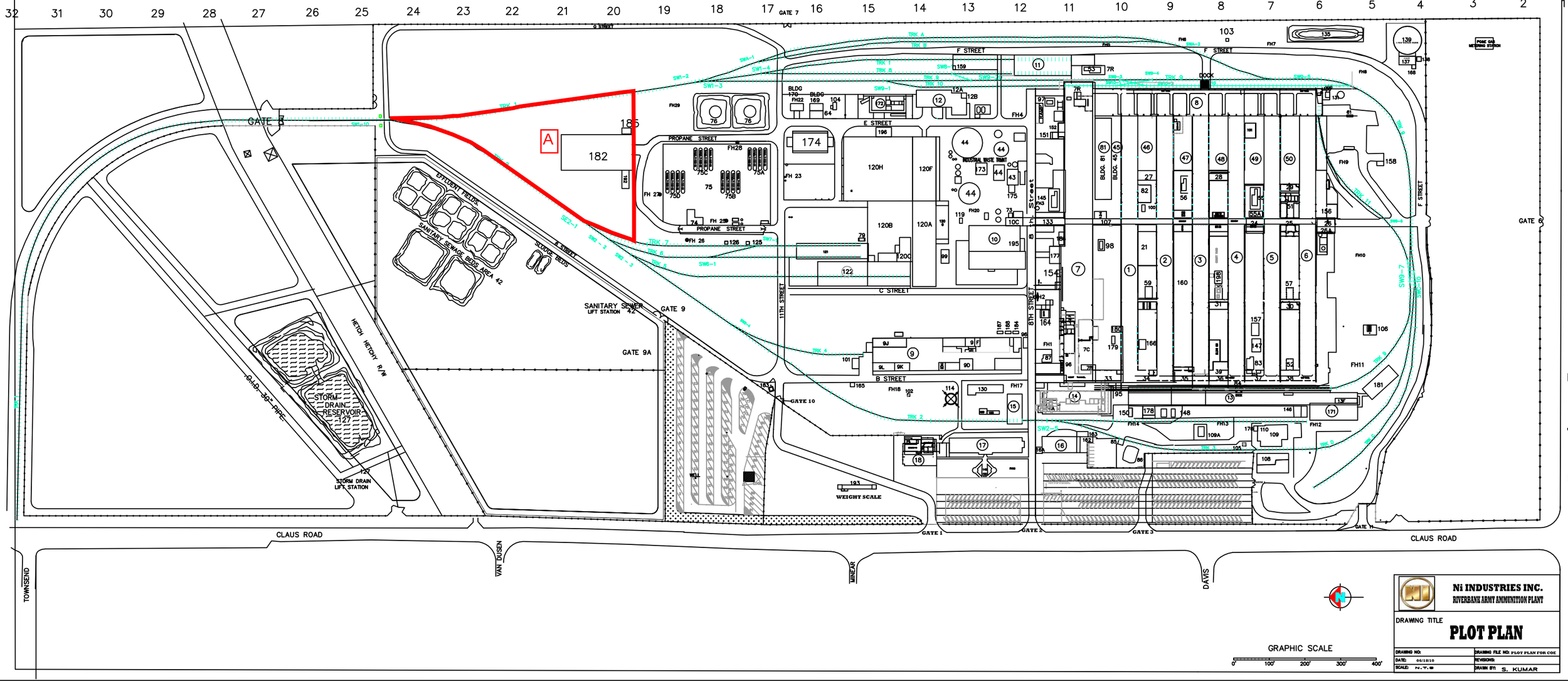
TABLE C-1 **RBAAP BUILDING SUMMARY TABLE**

Bldg. No.	Name	Year Built	Area	Character of Structure	Construction Type (IBC 2006)	Current Tenant	Current Occupancy (IBC 2006)	Apparent Condition	Retain or Remove/ Consolidate
184	Flammable Storage Warehouse	1992	144	Structure not observed.	----	----	----	Assumed Good	Retain
185	Air Compressor Building	1994	104	Structure not observed.	----	----	----	Assumed Good	Retain
186	Haz-Bin Storage Containment Structure	1995	172	Pre-fabricated metal cabinets, rated and approved for intended use. Ansul fire suppression system (FM200 compliant) is installed. Last checked 2008 by Jorgensen Co.	----	----	----	Good	Retain
187	Haz-Bin Storage Containment Structure	1995	172	Pre-fabricated metal cabinets, rated and approved for intended use. Ansul fire suppression system (FM200 compliant) is installed. Last checked 2008 by Jorgensen Co.	----	----	----	Good	Retain
188	Haz-Bin Storage Containment Structure	1995	172	Pre-engineered metal building adjacent to fire water tank.	Type II-B, Unprotected	NI Industries - Manufacturing	Group H - Hazardous Storage	Good	Retain
189	Vehicle Fueling Station Gas/Diesel	1995	104	Structure not observed.	----	----	----	Assumed Good	Retain
190	Vehicle Fueling Station Propane	1995	63	Structure not observed.	----	----	----	Assumed Good	Retain
192	Groundwater Treatment Plant Office	1996	1,027	Painted modular wood building (trailer) with ramp and front parking area, connected to Building 182.	Type II-B, Unprotected	NI Industries - Manufacturing	Group B - Business	Good	Retain
193	Vehicle Scale	1996	880	Structure not observed.	----	----	----	Assumed Good	Retain
195	Transformer Substation # 20	UNK		Fenced substation, pad-mounted. Reported energized and in use.	----	----	----	Assumed Good	Retain
196	Transformer Substation # 21	UNK		Structure not observed. Reported energized and in use.	----	----	----	Assumed Good	Retain

PLOT PLAN

EXHIBIT C





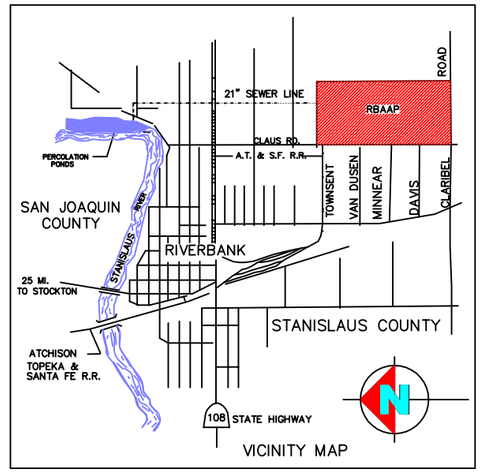
Ni INDUSTRIES INC.
RIVERBANK ARMY AMMUNITION PLANT

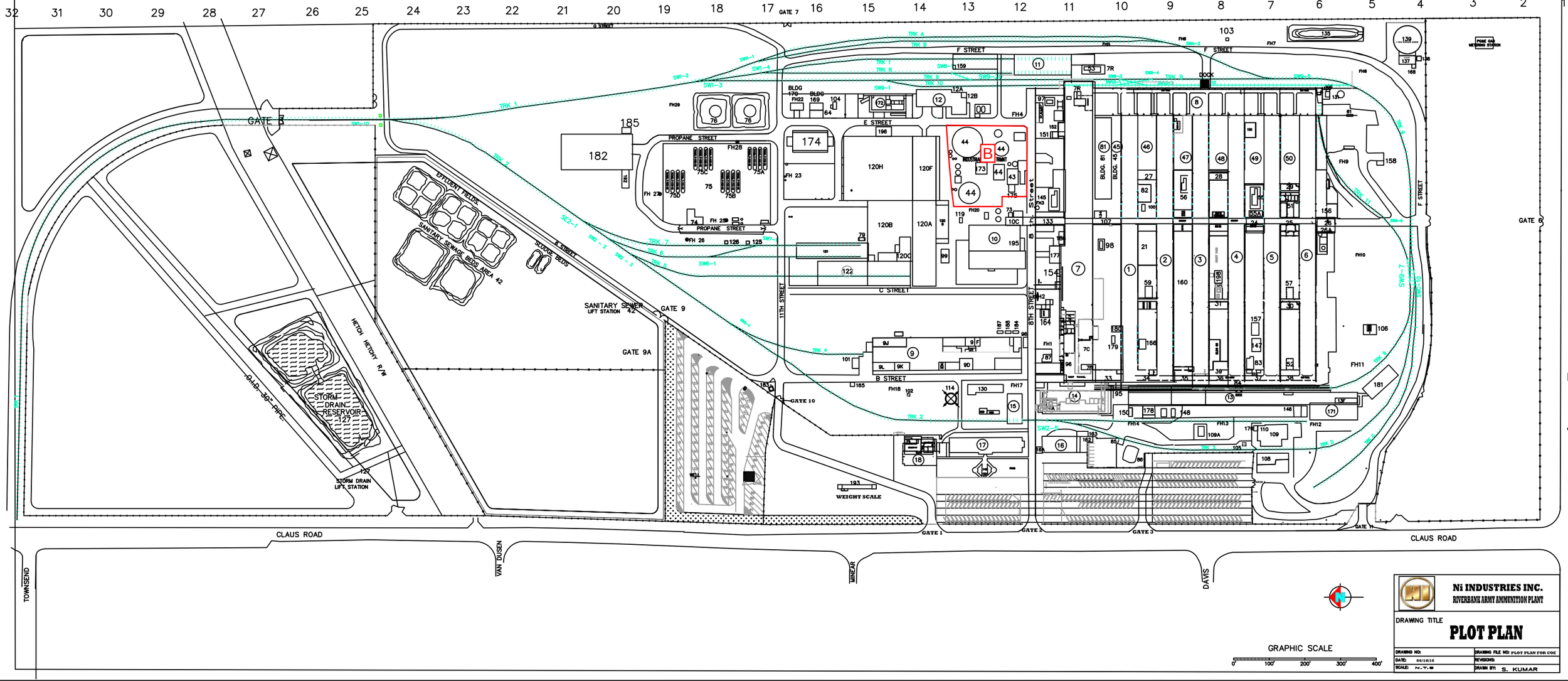
DRAWING TITLE
PLOT PLAN

DRAWING NO:	DRAWING FILE NO: PLOT PLAN FOR COC
DATE: 05/18/10	REVISIONS:
SCALE: N.T.S.	DRAWN BY: S. KUMAR

PLOT PLAN

EXHIBIT D





GRAPHIC SCALE

0' 100' 200' 300' 400'

Ni INDUSTRIES INC.
RIVERBANK ARMY AMMUNITION PLANT

DRAWING TITLE
PLOT PLAN

DRAWING NO:	DRAWING FILE NO: PLOT PLAN FOR COE
DATE: 06/18/10	REVISIONS:
SCALE: N.T.S.	DRAWN BY: S. KUMAR

Update of the

U.S. Army BRAC 2005

Environmental Condition of Property

Phase I Report

Economic Development Conveyance Parcels,

Riverbank Army Ammunition Plant

Riverbank, California

Prepared by Army BRAC
Riverbank Army Ammunition Plant
Riverbank, California

March 2017

EXHIBIT E

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Acronyms

µg/L	micrograms per liter
AGCS	Ahtna Government Services Corporation
AOC	Area of Concern
AR	Army Regulation
ASTM	American Society for Testing and Materials
bgs	below ground surface
CACA	Corrective Action Consent Agreement
CFR	Code of Federal Regulations
DoD	Department of Defense
DTSC	Department of Toxic Substance Control
ECP	Environmental Condition of the Property
EDC	Economic Development Conveyance
EDR	Environmental Data Resources
E/P	evaporation/percolation
EPA	US Environmental Protection Agency
ESCA	Environmental Services Cooperative Agreement
ESD	Explanation of Significant Difference
FOSET	Finding of Suitability for Early Transfer
FOST	Finding of Suitability for Transfer
GWTP	Groundwater Treatment Plant
GWTS	Groundwater Treatment System
HWFP	Hazardous Waste Facility Permit
HWMU	Hazardous Waste Management Unit
IWTP	Industrial Waste Water Treatment Plant
LTM	Long Term Maintenance
MCL	Maximum Contaminant Limit
NFA	No Further Action
PCB	polychlorinated biphenyl
RBAAP	Riverbank Army Ammunition Plant
RCRA	Resource Conservation and Recovery Act
RLRA	Riverbank Local Redevelopment Authority
ROD	Record of Decision
TSCA	Toxic Substance Control Act
USACE	US Army Corp of Engineers
UST	underground storage tank

1.0 INTRODUCTION

An Environmental Condition of Property (ECP) Update has been performed for the RBAAP (the "Property") in accordance with Army Regulation (AR) 200-1 and applicable American Society for Testing and Materials (ASTM) standards. Under ASTM D 6008-96 (reapproved 2014), the following components were completed: site reconnaissance, records review, and the certification by the environmental professional responsible for the assessment.

The RBAAP is located at 5300 Claus Road, Riverbank, Stanislaus County, California, one mile south of the Stanislaus-San Joaquin County border and approximately five miles northeast of the city of Modesto. The RBAAP occupies a total of 168 acres of land and consists of two noncontiguous areas represented by the main plant area (approximately 139.2 acres) and the evaporation/percolation (E/P) ponds (28.8 acres). The property is broken into 7 parcels. The parcels are: A, B, 1, 1a, 2, 2a and 4 (E/P ponds). A description of each parcel is below. Parcels A and B will be transferred to the City of Riverbank Local Redevelopment Authority (RLRA) under an Economic Development Conveyance (EDC). Parcels 1, 1a, 2, 2a and 4 (E/P ponds) will be sold, and are referred to as the sale properties. A parcel map of the site has been prepared and is presented as Figure 1.

- Parcel A occupies 77.678 acres and includes most of the industrial buildings and facilities at RBAAP. The Northwest Storm Water Reservoir Site covers 3.25 acres and temporarily stores storm water from the industrial areas after rain events. Parcel A and the Northwest Storm Water Reservoir Site are collectively the Economic Development Conveyance (EDC) transfer parcels and will be transferred to the City of Riverbank Local Redevelopment Authority (RLRA) under an EDC (Figure 1). A Finding of Suitability for Early Transfer (FOSET) is being prepared for the EDC parcels. Updates to this parcel include: closure of the Resource Conversation and Recovery Act (RCRA) permit and associated Hazardous Waste Management Units (HWMU); Site characterization per the Environmental Services Cooperative Agreement (ESCA); development of ESCA 2; groundwater monitoring reporting; groundwater monitoring well program changes. All updates are described in sections below.
- Parcel B is roughly 24.4 acres in size and is at the north end of the former RBAAP property. Parcel B is crossed by the railroad tracks that service the industrial area at RBAAP. Aside from the railroad tracks Parcel B is undeveloped and uncontaminated. The reuse of Parcel B will be unencumbered. Parcel B will be transferred to the RLRA under an EDC. A Finding of Suitability for Transfer (FOST) has been prepared for Parcel B. Parcel B is north and east of and adjacent to the Northwest Storm Water Reservoir and Parcel 2 (Figure 1). There are no changes to the environmental conditions on this parcel, however, there have been additional sampling events that confirmed the land is not contaminated.
- Parcel 1 is 8.46 acres and Parcel 1a is 4.37 acres. The parcels were used for employee parking during the history of the facility. Parcels 1 and 1a are was investigated for the presence of liquid polychlorinated biphenyls (PCBs) in surface soils in 2013. The investigation confirmed the thought that oil containing PCBs were used for dust suppression in these parking areas (US Army Corps of

Engineers [USACE] 2014c). Following this investigation, a cleanup of PCB impacted soils on Parcels 1 and 1a started in June 2015. Parcels 1 and 1a are south of and adjacent to Parcel A. A FOST document shall be prepared for Parcels 1 and 1a following soil remediation.

- Parcel 2 is 19.56 acres and Parcel 2a is 3.25 acres. These parcels are located north of the main plant. Parcel 2 is mostly open space. Parcel 2a has been used for storage of Mobile homes and Recreational Vehicles. Parcels 2 and 2a are north of and adjacent to Parcel A. Parcel 2 and 2a are between the industrial area and northwest storm water reservoir site. A FOST has been prepared for Parcels 2 and 2a. There are no changes to the environmental conditions on this parcel, however, there have been additional sampling events that confirmed the land is not contaminated.
- Parcel 4 - Evaporation/Percolation (E/P) ponds - were used for disposal of treated industrial wastewater from the plant and currently receives the discharge from the Ground Water Treatment Plant (GWTP). The ponds are located north of the plant on the Stanislaus River. Treated wastewater was piped from the facility to the E/P Ponds. The sale of the E/P Ponds parcel shall be contingent upon the Army being allowed to dispose of GWTP effluent to the E/P Ponds for as long as the groundwater treatment system is required to operate. A FOST has been prepared for the E/P Ponds parcel. There have been no changes to this parcel since the completion of the 2013 ECP Update related to this parcel.

The former RBAAP Property was leased to the RLRA for industrial/commercial reuse. That lease is being re-negotiated. Upon termination of the lease or portions thereof, Parcels 1, 1a, 2, 2a, and the E/P ponds will be sold by public sale. (Figure 1).

2.0 BACKGROUND

The U*.S. Army BRAC 2005 Environmental Condition of Property Report, Riverbank Army Ammunition Plant, Riverbank, CA* was released in November 2006. The purpose of the ECP Report was to characterize the existing environmental conditions at RBAAP. This ECP Report meets the requirements of Title 40, Code of Federal Regulations (CFR), Part 373, § 373.1; AR 200-1; and closely parallels ASTM 6008-96 (2005). The original ECP Report was reviewed and found to meet the requirements set forth in 4.6.2 of ASTM D 6008-96 and the narrative discussion and findings of that report are incorporated by reference into this report as if contained here in its entirety.

The ECP Report classified the study sections of the property into one of seven ECP categories. A total of 45.7 acres were classified as Category 1: Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas). The U.S. Environmental Protection Agency (EPA) Region IX concurred with the uncontaminated property designations on 4 May 2007.

Since that time, further review and assessment of the property has been conducted. A total of 5.568 acres were originally identified as Category 7 (areas that had not been evaluated or required additional investigation) in the ECP Report. These areas (if accessible due to ongoing operations) were investigated in the *Site Investigation Report,*

Riverbank Army Ammunition Plant, Riverbank, California, in March 2008 and through the RCRA permit closure process. Based on the results of the Site Investigation, the ECP categories were updated for several study sections. EPA Region IX concurred with the results of this investigation in a letter dated 14 December 2007. Subsequently, PCBs and asbestos were detected in the Galbestos panels on the exterior of several buildings. Also, due to other PCB investigations, Parcel 1 and 1A are now ECP Category 5. Also due to new MCLs and on-going groundwater contamination activities, many previously identified ECP Category 3 areas are now Category 5s.

The current ECP categories for the parcels are shown in Table 1 and are presented in Figure 2.

3.0 SITE RECONNAISSANCE

The USACE staff, on behalf of the Army, frequents the property. Additionally, through its lease, the LRA occupies the Property and acts as a caretaker. No known releases of hazardous substances or petroleum, with the exception of the exfoliation of the Galbestos panels and discovery that liquid PCBs were used for dust suppression on Parcels 1 and 1a, have occurred on the property since the ECP Report and Site Investigation Report were prepared.

4.0 INTERVIEWS

James McAllister, USACE

William Millar, Calibre, BRAC Headquarters

5.0 RECORDS REVIEW

A review of environmental documentation was conducted to support the preparation of transfer documents for the RBAAP. All known records and information associated with the environmental condition of the subject property have been documented in the original ECP Report and the Site Investigation Report, with the exception of subsequent investigations of groundwater contamination, changes to the groundwater remedial approach, and PCB contamination in Parcels 1 and 1a, and updated Galbestos information. Information on hydrostratigraphy and the potable water system at the facility have also been updated.

Groundwater Reports: Groundwater sampling occurs during four events per year - two quarterly, one semi-annual, and one annual. The latest sampling results are provided in the *RBAAP 2Q 2016 Groundwater Monitoring & Landfill Post-Closure Report*, by Ahtna Engineering.

Investigations: During the course of environmental investigation and remediation at the site several Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) have received No Further Action (NFA) determinations from the California Department of Toxic Substance Control (DTSC) and/or the US Environmental Protection Agency (EPA) Region 9. A summary of the documentation of the No Further Actions (NFAs) is presented in Appendix A to this update. Three early versions of the Resource RCRA Facility Investigation Work Plan were discussed as sources of NFA documentation in the original ECP but could not be located for confirmation. Citations to these documents

found are in Appendix A along with tables and lists cross referencing the sites and documents; the complete reports can be found in the Administrative Record.

NFA Designations: The sites designated for NFA have been organized into several types:

- There are NFA sites that were designated as such in the 1994 Record Of Decision (ROD) that are closed;
- There are sites that were closed under the RCRA Permit and any subsurface contamination was addressed and remediated;
- Sites that need to be closed under a new NFA ROD – these sites were investigated and remediated but need to be closed out under CERCLA;
- Sites that need to be closed out under a PA/SI – these sites have had preliminary assessments and some site investigations that resulted in a no action determination but that need proper PA/SI documentation under CERLCA; and
- Sites that do not require any additional action: these are sites that were closed out under the UST program and propane or water storage tanks.

There are sites that may fall under more than one type. A table has been prepared that is included in Appendix A that presents the sites by type.

Sites that Need Additional Work:

- Sites that require additional characterization and potentially remediation before they can be closed out under CERLCA – work on these sites will be conducted under an ESCA.

RCRA Permit: The RCRA permit (05-SAC-06) was originally issued in 1997, renewed in 2006 and then consequently closed in August 2016. The permit required RBAAP to conduct a RCRA facility investigation, and in 2002 a CACA identified 25 SWMUs and 16 AOCs. Of those identified, 6 sites required additional investigation, and all others were given no further action status. Due to this agreement, in 2003, additional investigations took place. The investigations lead to no further action status from the DTSC for all areas, with the exception of the IWTP (SWMU 1). The IWTP consists of the 13 Hazardous Waste Management Units listed below. The RCRA permit for the industrial operations at RBAAP was closed in August 2016. In 2013, Closure Certification Reports for the following HMWU were submitted to DTSC:

- HMWU #1 Industrial Waste Treatment Plant
- HMWU #2 Coolant Recovery Unit
- HMWU #3 Chromium Reduction Unit – Batch Process
- HMWU #4 Chromium Reduction Unit – Continuous Process
- HMWU #5 Equipment Wash Facility,
- HMWU #6 Spent Machine Oil Recycling Unit
- HMWU #7 Spent Solvent Recycling Unit,
- HMWU #8 Drum Storage Facility,

- HMWU #9 Used Oil Tank,
- HMWU #10 Hazardous Waste Accumulation Area,
- HMWU #11 Paint Sludge Dewatering Facility,
- HMWU #12 Reactor Clarifier, and
- HMWU #13 Groundwater Treatment Plant.

Other investigations and reports considered during this ECP Update:

- Site investigation Report, CH2M Hill, March 2008
- Draft Final Galbestos Investigation Report, December 2010
- Final EDC Property & Sale Parcels 2 & 2A Soil Investigation Report, December 2014 (USACE, 2014)
- Final Southern Parcels 1& 1A and OID Drainage Ditch, Soil Data Gap Investigation Report, May 2015

Environmental Data Resources, Inc (EDR) Report: The records search for RBAAP, conducted by EDR, in June 2006, searched for any potential environmental sites of concern located off Army property within corresponding ASTM search radius distances. The EDR report identified five sites located within 1 mile of the main post and the E/P ponds. These sites were characterized as having a low potential to impact the property. The information presented in this report on adjacent properties remains accurate.

A new record search report was conducted by EDR in January 2014 (Appendix B). The results of this report are consistent with the 2006 data base search.

6.0 UPDATED ENVIRONMENTAL CONDITIONS

6.1 Sale Parcels:

The following section updates the Sale Parcels: Parcel 1, 1A, 2, 2A and the E/P Ponds.

6.1.1 - Parcel 1 and 1A:

The USACE investigated the presence of liquid PCBs in surface soils at parcels 1 and 1a at RBAAP in 2013 (report finalized in 2015). During this effort, soil samples were collected in 3 intervals: 0-6" below ground surface (BGS), 12"-18" BGS and 24"-30" BGS. Samples were collected from the soil covering the parcel, the adjacent irrigation drainage ditch and the drainage ditch excavated sediment piles, and in the bottom of the irrigation drainage ditch. The majority of the results were above the RSLs, which confirmed the presence of PCB contamination above Regional Screening Levels (RSLs). Remediation efforts began in June 2015 and are on-going with the estimated completion date of June 2017. The soils are being remediated to less than 0.99 mg/Kg. These areas are no longer Category 1, but are now ECP Category 5. This is a CERCLA action.

6.1.2 - Parcel 2 and 2A:

The most recent ECP update related to this parcel was finalized in May 2013. Since the completion of the 2013 ECP update, the report that addressed PCB, VOC and metal samples was finalized. During this sampling effort, surface (0-6' BGS) and subsurface (12"-18" BGS) soil samples were collected in May 2012. The soil samples were analyzed for PCBs, VOCs and metals. All PCB and VOC results were below industrial RSLs. Arsenic exceeded the calculated background level in one sample on the southwestern side of parcel 2A. This arsenic exceedance can be attributed to the past intended application of arsenical pesticide. There are several groundwater monitoring wells on this parcel. In June 2016, USACE submitted a proposal to update the groundwater monitoring plan related to IRP Site RBAAP-03 in Parcel A. This plan proposes to abandon all wells on parcels 2 and 2A. The wells are: EW47C, MW45A', MW45B, MW45C, MW47B, MW47C, MW66A, MW66B and MW66C.

6.1.3 - Parcel 4 (E/P Ponds):

The E/P Ponds occupy 28.8 acres on the banks of the Stanislaus River approximately 1.5 miles north of the main installation. The E/P Ponds were constructed in 1952 for the disposal of treated effluent generated at the RBAAP. Based on the RI findings, a removal action was completed in 1993 to address zinc-contaminated soil. The ROD documented this removal action and concluded that no further action was necessary at the ponds (USAEC, 1994).

The EP Ponds were sampled for PCBs as a part of the Galbestos investigation at RBAAP. None of the sediment samples in the E/P ponds contained PCBs exceeding the Toxic Substance Control Act (TSCA) criteria. Stained soil was observed along a retaining wall on the east side of the Evaporation Ponds. Soil samples were collected and analyzed or volatile organic compounds (VOCs) and petroleum hydrocarbons. VOCs were not detected in the samples collected. Petroleum hydrocarbons were not detected above applicable screening levels. Additional characterization work was not warranted (USACE document *Evaporation/Percolation Pond Soil Sampling Report, October 2011).*

RBAAP continues to use the E/P Ponds for discharge of treated water. This discharge is regulated under Waste Discharge Requirements (WDRs) issued by the Central Valley Water Board. The WDRs require ongoing groundwater monitoring at the E/P Ponds. This area remains an ECP Category 4.

6.2 EDC Parcels: This section updates EDC parcels B and A. These parcels will be transferred to the LRA.

See table 1 for a list of all ECP study sections and ECP Category.

6.2.1 - Parcel B:

There are no updates since the completion of the ECP update dated January 27 2014. This area remains ECP Category 1.

There is one monitoring well located on this parcel (MW60A), related to the groundwater contamination on Parcel A (IRP site RBAAP-03). This well is active, but has been dry since prior to 2014. This monitoring well will remain in the Groundwater Monitoring Program (GMP). Historical groundwater data indicates that the groundwater is not contaminated in this parcel. Since the completion of the 2014 ECP update, the report that addresses PCB, VOC and metal samples was finalized (December 2014). During this effort surface (0-6' BGS) and subsurface (12"-18" BGS) soil samples were collected in May 2012. The soil samples were analyzed for PCBs, VOCs and metals. All PCB and VOC results were below industrial RSLs, and all metals were below the calculated background level (USACE, 2014).

6.2.2 - Parcel A:

See below for the updates related to the groundwater remediation effort (IRP Site RBAAP-03); IWTP and RCRA Permit Closure (SWMU 1); and newly identified PCB remediation sites.

6.2.2.1 Updates to previously identified sites:

Updates to RBAAP-001-R-01, Former Pistol Range (ECP Study Section 12):

This area was reported used for small arms target practice in the 1950s. During the 2008 site investigation, the former pistol range was investigated for the presence or absence of small arms munitions and lead contamination in the soil at and around the site. During this effort, a metal detector survey was completed, and soil samples were collected and analyzed for lead. The metal detector survey was negative for MEC, and the soil samples indicate that the levels of lead in the ground are below screening levels No further action required. (USACE, 2008).

Updates to IRP Site RBAAP-03: Groundwater Remediation (ECP Study section 3:

The IRP Site RBAAP-03 contains chromium and cyanide groundwater contamination resulting from leakage associated with the original IWTP. The original IWTP at RBAAP was constructed to treat the wastewaters generated from the electroplating, cleaning, and metal finishing processes that were operated on-site. From 1973 to 1980, the IWTP was upgraded. The upgraded IWTP, identified as SWMU 1, was operated under a RCRA Part B Permit 05-SAC-06, and has since been closed.

In 1985, groundwater samples from six wells located west of the RBAAP showed levels of chromium in excess of the MCL of 50 micrograms per liter (µg/L). As a result, the Army installed an interim groundwater treatment system (GWTS) and provided bottled drinking water to those affected residents followed by the extension of the Riverbank city water system to all potentially affected residents. The original IWTP redwood tank area was identified as the major source of chromium contamination. The EPA added the

RBAAP to the NPL on Feb. 21, 1990, primarily due to the presence of groundwater contamination (cyanide and chromium) detected on and off-post. Recent investigations results from the IWTP have created some doubt about the redwood tanks being the major source of the chromium contamination.

The groundwater contamination was addressed in the site-wide ROD (USAEC, 1994). In accordance with the ROD, the Army began operating the existing groundwater treatment system (GWTS) in 1996 to treat groundwater contaminated with chromium and cyanide. Groundwater contamination plumes are defined as areas of groundwater that exceed the Maximum Contaminant Level (MCL) identified in the ROD for either chromium (50 µg/L) or cyanide (200 µg/L). The treated groundwater is discharged to the E/P Ponds under discharge permit 5B50NC00012. Analytical data from groundwater samples collected since initiation of the remedial action show that, overall, the GWTS has been effective at capturing the groundwater contamination plumes and treating groundwater to below the MCLs. However, the results of the studies indicate the GWTS system was not effective at reducing chromium concentrations to below the MCL in certain small, localized areas. To reach the cleanup goal of 50 µg/L for chromium, a modified remedial approach using In situ treatment technologies was adopted (USACE 2011a).

A Conceptual Site Model (CSM) for groundwater at the RBAAP site has been developed from 30 years of investigative and remediation data. According to the ROD, the two primary sources of groundwater contamination on-site are the landfill at the northeast end of RBAAP and potentially the IWTP area in the east-central area of RBAAP. A secondary cyanide source area may lie between these two areas as well. Due to recent investigations and data analysis, the large, main production facility at the southern end of RBAAP was found to also be a potential chromium source area (USACE 2014b). Each of these source areas has had remedial actions or remedial actions are in progress, but may still provide a threat to continued groundwater degradation.

Clean-up Standard Update:

A new State MCL for hexavalent chromium of 10 µg/L was established on July 1, 2014. The Army will work with the regulators to assure that the groundwater remedy at RBAAP will be able to reduce hexavalent chromium concentrations to comply with this new MCL.

In-Situ Treatment information and Update:

In September 2007, the Army initiated, with regulatory approval, a one-year shutdown of the groundwater pump and treatment system to study rebound effects. It also conducted an in situ pilot test of ferrous iron and carbon to determine if this could result in an alternative treatment of residual hexavalent chromium in the groundwater. The localized contamination and plume stability indicated by the results of the Rebound Study support localized in situ treatment for the remaining areas of chromium contamination. The results of the in situ pilot test demonstrated that reductant injections rapidly reduced dissolved chromium concentrations by precipitating chromium (AGSC, 2009a, 2009b).

The IWTP was decommissioned in 2013 and remaining HWMUs were closed under the RCRA Hazardous Waste Facility Permit (HWFP). Starting in 2014 in-situ groundwater treatment cells were installed to address chromium-contaminated groundwater flowing westward from beneath the main production facility and the sanitary landfill. Zinc chromium solutions were historically used for plating of metals related to operations at the ammunition plant at RBAAP, and recent investigative results indicate leaks from product and/or waste pipelines within the facility are likely source(s) of the persistent chromium-impacted groundwater observed to the west (down gradient) of the plant at levels exceeding the MCL (USACE, April 2014b).

In 2014, a Geochemical Fixation In Situ Treatment Work Plan was approved by regulators. The Phase I of the plan was completed from September 2014 through October 2015. The Phase I effort included the use of 27 injection wells in the Building 13 area in the A', B and C-zones, and three wells downgradient of the Landfill in the A'-Zone. Once a groundwater quality baseline was established, the wells were injected with 10,000-gallons of high fructose corn syrup (HFSC) in September 2014, and then injected with 10,000-gallons of ferrous iron sulfate and HFSC mixture in October 2014. The post-injection data showed that the dissolved and hexavalent chromium concentrations were either non-detect or significantly lower than the original MCL.

In December 2016, an addendum to the In Situ Treatment Work Plan was submitted to regulators for comment for eventual approval to address the potential source of chromium contamination near the main production facilities on the southern end of the parcel. This addendum proposes an update to the original plan by the installation of 12 new injection and groundwater monitoring wells, treatment procedures and materials. The locations are to the west of the main production facility. The wells will be injected with the HFSC for the first round of injection, and a HFSC and ferrous sulfate mixture for the second round, one month after the first. Post injection sampling of the injection and on-site monitoring wells will begin at two weeks after the second injection. This plan was approved in January 2017 (Ahtna 2016 – GMP Update and DTSC 2017 Email).

Updated Groundwater monitoring results:

Groundwater monitoring consists of four sampling events per year; two quarterly, one semiannual and one annual which include specific sets of wells completed in the various A, A', B, C and D portions of the aquifer (USACE 2014a). The locations of the monitoring wells are shown in Figure 3. The results of the groundwater sampling from the First quarter of 2016 are shown on Figures 4, 5, 6, 7, and 8 (Ahtna Government Services Corporation [AGSC], 2016).

Based on the most recent quarterly groundwater report, there are eight wells (out of 36 sampled) that have hexavalent chromium above the new MCL (10 ug/L). Some of these wells are located in areas that were previously Category 3, and have now been changed to Category 5 based on the fact that the groundwater contamination is above the MCL. Overall, the groundwater contamination continues to decrease over time. (AGSC, 2016).

Groundwater Monitoring and Plans Information and Update:

In 2016, Ahtna submitted an updated groundwater monitoring work plan proposes to remove six (6) annual sampling wells from the monitoring program, and add eight (8) annual sampling wells and seven (7) semiannual sampling wells to the program. In addition, the sampling frequency of ten (10) wells is proposed to be reduced from quarterly to annual. Also, this plan proposes to abandon 48 monitoring wells. This work plan approved by the DTSC on January 17, 2014 (Ahtna 2016 – GMP Update and DTSC 2017 Email).

Updates to SMWU 1 IWTP (ECP Study Section 13):

The RCRA permit (05-SAC-06) was originally issued in 1997, renewed in 2006 and then consequently closed in August 2016. The permit required RBAAP to conduct a RCRA facility investigation (RFI). The RFI resulted in a CACA that identified 25 SWMUs and 16 AOCs. Of those identified, six (6) sites required additional investigation, and all others were given no further action status. Due to this agreement, in 2003, additional investigations took place. The investigations lead to no further action status from the DTSC for all areas, with the exception of the IWTP (SWMU 1). The IWTP consists of 13 HWMUs. In 2012, the RCRA Hazardous Waste Facility Permit Closure Work Plan was approved (Athna Work Plan, 2012). The final work plan details all specific closure actions and criteria required to close the RCRA permit and associated HMWUs. The closure actions took place during 2012 through 2016. Each HMWU had specific above ground (rinsate from decontamination) and below ground closure (soil samples) criteria. The soil samples collected for each HMWU was analyzed for metals, VOCs and pH at various depths. If decontamination was part of the closure processes, the rinsate was sampled for metals, VOCs, SVOCs and TPH-DRO. During the closure process, total chromium levels above the background criteria were typically seen below 40 ft bgs, and are not necessarily indicative of a release at the specific HWMUs because the chromium was likely associated with groundwater that had previously occupied this zone and then remained in the soil after the zone was dewatered. In 2016, Closure Certification Reports for the following HMWU were submitted to DTSC. The certification reports describe all actions, samples and results of each of the HMWU. Most of the rinsate samples from the decontaminated tanks and surfaces were above the closure criteria, and were therefore demolished in 2015/2016. The area was capped after all aboveground structures were demolished.

In August 2016, the DTSC determined that all HMWUs met the closure criteria as detailed in the approved work plan, and consequently closed the RCRA permit (DTSC 2016). Due to this change in status, some ECP study areas changed from the original ECP category 7 to ECP category 5. Category 5 is based on the groundwater contamination.

Updates to Building 11, Paint and Oil Storage (ECP Study Section 1011): There were reports that this building used to have a radioactive storage sign. There are no records of NRC-licensed materials used on RBAAP. Due to the possibility, the 2008 Site Investigation performed a radiation survey by collecting 31 direct measurements and smear samples for various radiation types. All survey results were below NRC established contamination levels. Also during this site investigation, soil samples were analyzed for PCBs around the building. One soil samples was above detection at 38

ug/kg (USACE 2008). As part of the ESCA, this area will undergo further PCB and TPH analysis the extent of, if any, contamination.

Updates to Structure 95, Substation No. 1 (ECP Study Section 1095): The 2008 Site Investigation collected a composite soil sample and analyzed it for PCBs. The results of this sample was above residential but less than industrial PRGs. As part of the ESCA, this area will undergo further PCB analysis to determine the extent of, if any, PCB contamination. This area is now considered an ECP Category 6.

Updates to Structure 97, Substation No. 3 (ECP Study Section 1097): The 2008 Site Investigation analyzed two composite soil samples at different depths. The result of this analysis was above residential but less than industrial PRGs. As part of the ESCA, this area will undergo further PCB analysis to determine the extent of PCB contamination. This area is now considered an ECP Category 6.

Updates to Structure 101, Substation spare (ECP Study Section 1101): The 2008 Site Investigation analyzed two composite soil samples at different depths (surface and 0.5 – 1 foot BGS) for PCBs. The result of the surface sample was 1,900 ug/kg, which exceeded both the industrial and residential PRGs. The deeper sample result was 33 ug/Kg, lower than both industrial and residential PRGs. As part of the ESCA, this area will undergo further PCB analysis to determine the extent of PCB contamination. This area is now considered an ECP Category 6.

Updates to Structure 145, Substation 17 (ECP Study Section 1145): The 2008 Site Investigation analyzed one composite soil sample from three locations, two surface soil samples (0.5 to 1 foot BGS), and one shallow sub-surface (0.5 to 1 foot BGS) for PCBs. The results indicated that PCBs were in the soil above residential and industrial PRG in two of the samples, but are below TSCA requirements. As part of the ESCA, this area will undergo further PCB analysis to determine the extent of PCB contamination. This area is now considered an ECP Category 6.

Updates to Building 162, Autodin A.B. Terminal Building (ECP Study Section 1162): Due to potential storage radioactive material storage in this building the 2008 site investigation conducted a radiological survey. The survey sampled for radiation in 30 random locations throughout the building. The survey results were well below screening levels. No further action required (USACE 2008).

Updates to Building 174, Hazardous Waste Storage Area (ECP Study Section 1174): The 2008 Site Investigation conducted a radiological survey to document the absence of radiation throughout the building. During this effort 31 random location were sampled for alpha, beta and gamma radiation. All results were below screening levels. No further action required (USACE, 2008).

6.2.2.2 - Newly Identified PCB and ACM Remediation Activities:

PCBs have been detected in Galbestos panels on Buildings 1-8, 11, 12, 15, 33, 43, 45-50, 80, 81, 133 and 160 and attached structures. Galbestos is a galvanized sheet metal siding with a layer of asbestos felt on one side which has been dipped in an asphaltic coating containing PCBs. Over the years, the Galbestos siding has weathered, allowing a non-

liquid form of PCBs to be released. Sampling results have detected a release of PCBs from the Galbestos panels above TSCA criteria as well as EPA Regional Screening Levels in several locations within and adjacent to buildings in the main plant area as well as the Northwest and Southeast Storm Water Reservoirs (USACE 2013b). Studies to locate the areas with Galbestos Panels (Weston 2010 and USACE 2011b), and investigate the asbestos and PCB present in air and dust at the facility (USACE 2010) have been completed. An ESCA (ESCA 1) has been completed to remove PCB and asbestos containing dust from equipment at Riverbank. The Army and the RLRA will conduct a second ESCA (ESCA 2) to remove and dispose of the Galbestos Panels from the buildings at the facility and investigate and clean up any contamination inside the buildings, and investigate and remediate any soil contamination resulting from the deterioration of the Galbestos outside the buildings (USACE 2013b).

As part of preparation for the ESCA, sampling of soil in the industrial area at the east side of the plant near the railroad tracks took place and areas of soil contamination with liquid PCBs have been discovered that may be the result of dust suppression using spent oil containing PCBs during plant operations. This soil contamination will be characterized and remediated as part of the ESCA 2.

6.2.2.3 - PCB Equipment Update:

The listing of electrical transformers with PCBs has been updated since 2005. The updated information is provided in Table 4. This equipment is operational, properly labeled in accordance with federal and state regulations, and has been determined not to be leaking.

6.2.2.4 - Other future analysis:

Also as part of the ESCA, the soil around the following buildings will be sampled and analyzed for various constituents. The building and the constituent is listed below.

- Tool Crib/Warehouse/ Offices, Building 10 (ECP study section 1010) – TPH
- Boiler House, Building 12 (ECP study section 1012) – TPH and Metals.
- Paint Spraying Facility, Building 169 (ECP study section 1169) - VOCs

6.3 Hydrostratigraphy

The hydrostratigraphy of the RBAAP site has been defined through several remedial investigation phases and subsequent remedial design phases. The presence of discontinuous fine-grained sediment layers creates a complex groundwater flow pattern in the vicinity of the RBAAP. Five zones of relatively coarse-grained sediments, separated by inter-beds of finer grained material, have been identified at RBAAP (Weston, 1991) and confirmed with recent in situ well installations (Ahtna, 2015a). These stratigraphic zones vary in continuity, thickness, and depth at RBAAP and are hydraulically interconnected

- **Zone A** – sand and silty sand; ~10 feet thick, extends from ~30 to 40 feet bgs;

- **Interzone A/A'** – clay and silt; ~25 feet thick, extends from ~40 to 65 feet bgs;
- **Zone A'** – sand and silty sand with clay lenses; ~20 feet thick, extends from ~60 to 85 feet bgs;
- **Interzone A'/B** – clayey silt and and clayey sand interbedded with the A'-Zone, ; ~10 feet thick, extends from ~80 to 90 feet bgs;
- **Zone B** – Well graded and poorly graded sand; ~20 feet thick, extends from ~90 to 110 feet bgs;
- **Interzone B/C** – Clay/silty clay with isolated areas of sandy silt;; ~10 feet thick, extends from ~110 to 110 feet bgs;
- **Zone C** – sand and silty sand with isolated areas of silt and clay; ~25 feet thick, extends from ~120 to 145 feet bgs;
- **Interzone C/D** – silt and clay; ~50 feet thick, extends from ~145 to 195 feet bgs; and
- **Zone D** – gravel and clayey gravel; >45 feet thick, top of unit ~195 feet bgs.

(Ahtna Engineering 2016).

6.4 Potable Water System

There were a total of 6 water supply wells on the EDC parcel. The remaining drinking water well information is presented in Table 2.

The Army has abandoned wells 02, 03 and 04. Wells 05 and 06 are now the primary water supply wells on the site. Well 01 is held in reserve.

The dates of the installation of the wells at RBAAP could not be determined; it is thought the wells were built in 1942. A drawing was found showing the well locations, boring logs and construction logs. The drawing was dated June 1969 and a copy of the drawing and other logs of the wells are provided in Figure 9. A better figure with well locations is presented in Figure 10. Better images of the lithologic logs and well construction logs are also presented in Figures 11-13.

The boring and well construction logs were reviewed to determine which stratigraphic zones the wells are screened in. The first perforated casing in well 5 is roughly 110 feet BGS. There are roughly 20 perforated intervals in the well from 110 feet BGS to approximately 680 feet BGS. The first perforated casing in well 6 is roughly 120 feet BGS. There are roughly 7 perforated intervals starting at 120 feet and extending to 600 feet BGS. Well 1 is 430 feet deep with a perforated casing interval from 150 to 170 feet BGS and no casing from 228 feet to 430 feet. These wells are perforated in Zone C, Interzone C/D, Zone D and deeper. Most of the perforated casing in all of the wells and the pump in each of the wells are in Zone D or deeper.

The drawing indicates that the wells are perforated in the aquifer zones where hexavalent chromium and cyanide contamination was known to be present at the site. Since the plant ceased operations wells 05 and 06 have been the production wells providing potable

water at the facility. Wells 05 and 06 are located in an area designated as Category 3 in the ECP; groundwater contamination was present but has been below the cleanup standards in this area. Contamination in Zone C or deeper has not been detected in this area previously.

Sample results from production wells 01 and 06 were reported in the 1991 RI Report. These samples were collected in 1984, 1985, 1986, and 1987. Samples were analyzed for methylene chloride, nonane, xylenes, chromium, hexavalent chromium, copper, total cyanide and free cyanide, nitrate, phosphate and selenite. Total chromium was detected in all four samples collected at concentrations ranging from 3.76 to 20.0 µg/L (below its MCL), hexavalent chromium was detected in one sample at 10 µg/L, total cyanide was detected in one sample at 7.9 µg/L and free cyanide was detected in one sample at 4.99 µg/L (below its MCL). Hexavalent chromium and free cyanide were detected in one sample each above their current RSLs. The data table from the RI is in Table 3.

A limited review of recent data from the production wells did not contain any data on hexavalent chromium or cyanide. The Army and the RLRA are cooperating on the collection of samples for hexavalent chromium and cyanide analysis from the production wells. Samples were collected for total chromium and hexavalent chromium analysis in June of 2014. The sample collected from Production Well 05 was reported to have total chromium at 7.1 µg/L below its MCL and hexavalent chromium at 5.5 µg/L below the new State MCL of 10 µg/L. The sample collected from Production Well 06 was reported to have total chromium at 6.5 µg/L, below its MCL and hexavalent chromium at 4.6 µg/L below the new State MCL. The total chromium results were flagged as "UN" tentative detection, during the validation process due to high total chromium results in the method blank (Appendix C). Samples for cyanide analysis have not been collected.

7.0 CONCLUSION

This ECP update identified two newly recognized environmental conditions at RBAAP: Galbestos panels containing PCBs and the presence of liquid PCBs in surface soils at Parcels A, 1 and 1a. The Army will work with the RLRA and the regulatory agencies regarding further investigation and remediation.

This ECP Update classifies the subject property into one of seven DoD ECP categories as defined by ASTM D 5746-98 (2002). The current ECP categories for the EDC transfer parcels are provided in Table 1 and in Figure 2.

8.0 CERTIFICATION

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR §312.10 of 40 Code of Federal Regulations 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property.

The 2006 ECP Report was reviewed and found to meet the requirements set forth in §4.6.2 of ASTM D6008-96(2005) and the narrative discussion and findings of that report are incorporated by reference into this ECP Report Update as if contained here in its entirety.

Erin Mauer 1March 2017

Erin Mauer
BRAC Environmental Coordinator
Riverbank Army Ammunition Plant

9.0 REFERENCES

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Tables

Table 1
Summary of Environmental Condition of Property Findings
Environmental Condition of Property Report Update

Section	Building or Feature No.	Building Name/ Area Name	ECP Category	Updated ECP Category	Hazardous Substances	Petroleum	PCBs	Asbestos	Lead	Radiological	Radon	MEC	Acreage	Figure Coordinates	Comments
Sale Parcels															
Parcel 2															
42	N/A	AOC 5, Former Windrowed Area	3	3									0.97	D3	NFA status concurrence received from DTSC in June 1996 (as detailed in the April 15, 1996, Revision 2 of the RFI Phase 1 Work Plan - CH2M HILL, 2002). Category 3 based on groundwater contamination present, but below the MCL as defined by the ROD. No updates.
2004	N/A	North Utilities	3	3	V								7.50	C3	Category 3 based on groundwater contamination present, but below the MCLs as defined by the ROD.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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4,24	N/A	RBAAP-04/SWMU12, IWTP Effluent Sewer Line Break	3	3	V								0.71	A2	DTSC concurred with NFA status (October 30, 1995, version of the RFI Phase 1 Work Plan) and ROD. Category 3 based on groundwater contamination currently present, but below MCLs as defined by the ROD.
10, 34	42	Sanitary Wastewater Settling Ponds/Sludge Beds (RBAAP-10/SWMU 22)	3	3	V								2.21	C2	The sitewide ROD (USAEC, 1994) documented NFA for this site. Category 3 based on groundwater contamination currently present, but below MCLs as defined by the ROD. No updates.
1042	42	Building 42, Sewage Disposal Plant	3	3	V			A					0.01		Category 3 based on groundwater contamination present, but below the MCLs as defined by the ROD. No updates.

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2010		West Open Storage	3	3									5.93		Category 3 based on groundwater contamination present, but below the MCLs as defined by the ROD.
2000-GW		Open Area	3	3									2.14	E2	Category 3 based on groundwater contamination below the MCLs as defined by the ROD. No updates.
2000		Open Area	1	1										B2	None. No updates.
2001		North Railroad area	1	1										B2	None. No updates
Parcel 2A															
Parcel 2A		Open Space	3	3											Category 3 based on groundwater contamination present, but below the MCLs as defined by the ROD. No updates.
Parcel 4 (E/P Ponds)															

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1129 2024		Percolation/Evaporation Ponds (E/P Ponds) (RBAAP-11/ SWMU 23)	4	4			A	A					28.8		The ROD documented zinc-contaminated soil. This removal action and concluded that no further action was necessary at the ponds (USAEC, 1994). This area continues to be used for discharge of treated water, and is regulated under WDRs. The WDRs require ongoing groundwater monitoring at the E/P Ponds. This site was investigated for PCBs in the Galbestos investigation. None of the sediment samples in the E/P ponds contained PCBs exceeding the TSCA criteria (USACE, 2011).
Parcel 1															
49	N/A	AOC 10, Former Solid Waste Pile (Southeast Corner)	1	5			V						0.44	A7	Investigations determined PCB contamination was present in the soil. Remediation actions are underway.

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2012	N/A	South Open Storage	1	5			V						1.38	B7	Investigations determined PCB contamination was present in the soil. Remediation actions are underway.
2003	N/A	South Parking (Remainder of Parcel 1)	1	5			V						6.64		Investigations determined PCB contamination was present in the soil. Remediation actions are underway.
Parcel 1A															
2003	N/A	South Parking	1	5			V						2.13	E7	Investigations determined PCB contamination was present in the soil. Remediation actions are underway.
2003	N/A	South Parking (remainder of Parcel 1A)	3	5			V						2.24	E7	Originally Category 3 due to the groundwater contamination. Due to the recent soil investigations, PCB contamination was confirmed. Remediation actions underway.
EDC Parcels															
Parcel B															
2000	N/A	Open Land	1	1									31.0	A1, B1, C1, D1, E1	No release or disposal of hazardous substances or petroleum products has occurred. Does not fall within the area of Groundwater contamination.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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2001	N/A	North Railroad Area	1	1									2.12	B2	No release or disposal of hazardous substances or petroleum products has occurred. Does not fall within the area of Groundwater contamination.
Parcel A															
1, 22, 23	N/A	RBAAP-01, Landfill/ SWMU 10, Landfill (Southern Portion)/ SWMU 11, Landfill (Northern Portion)	5	4	V								5.52	A3	The landfill was investigated during the RI/FS (completed in 1993). The RI concluded that it was a major source of cyanide and a minor source of chromium contamination to the groundwater. The landfill underwent formal closure in 1996, and received formal "Construction Complete" certification on October 30, 1995. There are land use controls in place to maintain the cap and conduct groundwater monitoring as required by the site-wide ROD.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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2, 30, 1161	161	RBAAP-02, Waste Salt Disposal Pit	3	3	A								0.47	B3	Category 3 based on groundwater contamination present, but below the MCLs as defined by the ROD. NFA status for the Salt Disposal pit based on investigation results.
3	N/A	RBAAP-03, Groundwater Contamination	5	5	V								1.76	B5	Category 5 based on continuing LTM and operations of the GWTS until 2023. The MCLs have been updated and the groundwater monitoring plan has been updated since the last ECP.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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5, 7, 17, 44	13	RBAAP-05, Building 13, Chromium Pretreatment; RBAAP - 07 Phosphate Spill	3	3	V								0.09	D7	RBAAP-05: NFA status documented in site wide ROD. RBAAP-07: NFA status documented in letter from DTSC dated June 5, 1996, and is detailed in the April 15 1996 Revision 2 of the RFI phase I Work Plan. Category 3 based on groundwater contamination being below the MCLs as defined by the ROD. No updates
6, 43	N/A	RBAAP-06, IWTP H_2SO_4 Spill	7	5	V								0.05	B5	This spill was given NFA Status based on investigative results. Originally Category 7 based on location within SMWU 1 boundary. Update: The required remediation actions at SWMU 1 (IWTP) were completed in 2015. This area is now a Category 5 based on the groundwater contamination exceeds MCLs.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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8, 33, 56 1135	135	RBAAP-08, Southeast Storm Reservoir/ SWMU 21, Southeast Storm Reservoir/ AOC 16, Substation 5 and Storm Drain Discharge Basin/ Storm Drain Station	4	4	R			A					0.39, 0.32, 0.24, 0.27	A6	Category 4 based on investigation results. NFA status
9, 32	127	RBAAP-09, Northwest Storm Reservoir/ SWMU 20, Northwest Storm Reservoir	3	3	V								1.55	D2	Category 3 based on investigation results. NFA status. This area is outside of the groundwater contamination plume.
12	N/A	RBAAP-001-R-01, Former Pistol Range	7	1				A				S	0.35	E2	Originally Category 7 based on potential for metals contamination in soil. Results of the 2008 SI changed to Category 1. This area is outside of the groundwater contamination.

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13, 16, 19, 20, 31, 1043, 1044, 1173	IWTP Area	SWMU 1, Industrial Wastewater Treatment Plant (IWTP) SWMU 4 SWMU 7 SWMU 8 SWMU 19	7	5	V		G	V – 1043 A-1044					1.60	B5	Originally Category 7 based on location within SMWU 1 boundary. Update: The required remediation actions at SWMU 1 (IWTP) were completed in 2015/2016. Closure granted from DTSC in August 2016. Building 43 has galbestos panels, and will undergo remediation under the ESCA. Category 5 because groundwater contamination exceeds MCLs. .
14, 1174	174	SWMU 2, Hazardous Waste Storage Area (Drum Storage Facility)	5	5	V								0.14	B4	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs. .
15	20	SWMU 3, Empty Drum Storage Area (Railroad Car Off-Loading Area)	5	5	S								0.18	A5	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs. .

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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18, 1180	1	SWMU 6, Chromium Reduction Unit (Building 1)	5	5	S		G						0.01	C5	NFA status based on investigation results. Galbestos panels were identified in building 1. These will be remediated under the ESCA. Category 5 because groundwater contamination exceeds MCLs. PCB remediation is on-going
21, 1177	177	SWMU 9, Equipment Wash Facility (Building 177 Triple Rinse Area)	5	5	V								0.03	C5	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs.
25	123	SWMU 13, Incinerator (Building 123)	5	5	S								0.01	B4	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs.
26, 1163	163	SWMU 14, Incinerator (Building 163)/ Incinerator	5	5	S			s					0.01	D5	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

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27	N/A	SWMU 15, Pesticide Storage Area (West of Building 11)	5	5	S								0.02	A5	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs. .
28, 1165	165	SWMU 16, Pesticide Storage Area (Building 165)	5	5	V								0.02	D4	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs. .
29, 1170	170	SWMU 17, Pesticide Storage Area (Building 170)	5	5	R			S					0.06	A4	NFA status based on investigation results. Category 5 because groundwater contamination exceeds MCLs.
36	N/A	SWMU 24, Industrial Waste Pipe Leak	4	5	R								0.02	D6	Category 4 based on investigation results. NFA status. Category 5 because groundwater contamination exceeds MCLs.

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37	1, 2, 3, 4, 5, 6, 7, 12, 15, 77, 137, 170	SWMU 25, Former Underground Storage Tanks 1, 6, 11A, 12, 12A, 12B, 15A, 15B, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, T77, T137	3	3	V	V	G						N/A	A6, C6	Tanks 11A, 24, 25, 26, 27, 28, 29, 30, 31, and 32 were removed or closed in-place. NFA status based on investigation results. Category 3 based on groundwater contamination below the MCLs as defined by the ROD. Galbestos panels were identified in buildings 1, 2, 3, 4, 5, 6, 7, 12 and 15. These will be remediated under the ESCA.
38	4	AOC 1, Mortar Line Accumulation Area (Building 4)	3	3	S		G						0.04	D6	NFA status based on investigation results. Category 3 based on groundwater contamination below original MCLs as defined by the ROD. Galbestos panels were identified in building 4. These will be remediated under the ESCA.

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39	9	AOC 2, Machine Shop Accumulation Area (Building 9)	5	5	S								0.06	D4	NFA status based on investigation results. No updates. Category 5 because groundwater contamination remediation is on-going.
40, 1015	15	AOC 3, Vehicle Maintenance Accumulation Area (Building 15)	5	5	V	V	G	V					0.02	D5	NFA status based on investigation results. Galbestos panels were identified in building 15. These will be remediated under the ESCA. Category 5 because groundwater contamination exceeds MCLs. PCB remediation is on-going.
41	N/A	AOC 4, Grenade Line Accumulation Area	5	5	S								0.03	D5	NFA status based on investigation results. No updates. Category 5 because groundwater contamination exceeds MCLs. .

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45	75	AOC 8A, Horizontal Aboveground Storage Tanks - Propane Storage Tanks	5	5	A								0.32	B4	NFA status based on investigation results. No updates. Category 5 because groundwater contamination exceeds MCLs. .
46	85	AOC 8B, Horizontal Aboveground Storage Tanks - Transformer Oil Storage Tanks (including the Transformer Oil Distribution System)	5	5	R								0.66	D6	NFA status based on investigation results. No updates. Category 5 because groundwater contamination exceeds MCLs. .
47, 1076	76	AOC 9A, Vertical Aboveground Storage Tanks – Fuel Oil Storage Tanks	3	3	S			A					0.07	A4	NFA status based on investigation results. Category 3 based on groundwater contamination below MCLs as defined by the ROD.
48, 1139	139	AOC 9B, Vertical Aboveground Storage Tanks - Fire Sprinkler Storage Tank	1	1	A			A					0.08	A7	No release or disposal of hazardous substances or petroleum products has occurred. Does not fall within the Area of Groundwater contamination. No updates.

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50, 1126, 1127	125, 126	AOC 11A, Loading Racks – Propane Farm Loading/Unloading	5	5	V								0.02	C4	NFA status based on investigation results. No updates. Category 5 because groundwater contamination exceeds MCLs. .
51, 1137	137	AOC 11B, Loading Racks – Fire Sprinkler Pumping Station	2	2	A			A					0.03	A7	Category 2 based on small lens of petroleum contaminated soil remaining beneath Building 137, associated with UST T137. No updates. This area is outside of the groundwater contamination plume.
52	Prod. Area and IWTP	AOC 12, Industrial Wastewater Collection System	3	3	V									B6	Category 3 based on investigation results. NFA status.
53, 1178	178	AOC 13, Draw Lube System (Building 178)	5	5	R			A					0.01	D6	NFA status based on investigation results. No updates. Category 5 because groundwater contamination exceeds MCLs. .

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54	Prod. Area and IWTP	AOC 14, Zinc-Cyanide Wastewater Collection System	3	3	S									B6	NFA status based on investigation results. Category 3 based on groundwater below MCLs as defined by the ROD.
55	13	AOC 15, Building 13 Temporary Wastewater Line	3	3	S									D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1001	1	Production Line	7	7			G	V	V		B		0.85	C6	Category 7 based on the potential for the soil beneath the remaining sumps or pits to be impacted by hazardous substances. This building was identified to have galbestos panels and is undergoing remediation under the ESCA. This area also falls with-in the groundwater contamination plume

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1002	2	Production Line	3	3			G	V	V				0.86	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building was identified to have galbestos panels and is undergoing remediation under the ESCA.
1003	3	Production Line	3	3			G	V	V				0.86	C6	Originally Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building was identified to have galbestos panels and is undergoing remediation under the ESCA.
	3	Sump 3-1	3	3										C6	
	3	Sump 3-2	3	3										C6	
	3	Sump 3-3	3	3										C6	
	3	Sump 3-6	3	3										C6	
	3	Sump 3-7	3	3										C6	
	3	Sump 3-8	3	3										C6	
	3	Sump 3-9	3	3										C6	
	3	Sump 3-10	3	3										C6	
	3	Sump 3-11	3	3										C6	
1004	4	Production Line	3	3			G	V					0.85	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
	4	Sump 4-1	3	3										C6	
	4	Sump 4-2	3	3										C6	
	4	Sump 4-4	3	3										C6	
	4	Sump 4-5	3	3										C6	

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	4	Sump 4-6	3	3										C6	This building was identified to have galbestos panels and is undergoing remediation under the ESCA. .
	4	Sump 4-7	3	3										C6	
	4	Sump 4-8	3	3										C6	
	4	Sump 4-9	3	3										C6	
	4	Sump 4-10	3	3										C6	
	4	Sump 4-11	3	3										D6	
1005	5	Production Line	3	3			G	V	V				0.86	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building was identified to have galbestos panels and is undergoing remediation under the ESCA.
	5	Sump 5-1	3	3										C6	
	5	Sump 5-2	3	3										C6	
	5	Sump 5-3	3	3										C6	
	5	Sump 5-5	3	3										C6	
	5	Sump 5-6	3	3										C6	
	5	Sump 5-8	3	3										C6	
	5	Sump 5-10	3	3										C6	
	5	Sump 5-11	3	3										C6	

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1006	6	Production Line	7	7	V		G	V	V				0.90	C6	Category 7 based on potential for the soil beneath the remaining sumps or pits to be impacted by hazardous substances. This building was identified to have galbestos panels and is undergoing remediation under the ESCA. This area also falls with-in the groundwater contamination plume
1006	6	Zinc Plater Cyanide Sump	7	7	V										Building 6 is Category 7 based on the potential for the soil beneath the remaining sumps or pits to be impacted by hazardous substances. No updates.
1007	7	Production Line	5	5			G	V	V				1.31	C5	No Updates. Category 5 because groundwater contamination exceeds MCLs. .
1008	8	Production Line – Press Room	7	7		V	G	V					1.13	A6	Building 8 is Category 7 based on the potential for the soil beneath the remaining sumps or
	8	Production Line Sump	7	7		V								A6	

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	8	4500 Ton Press Pit	7	7										A6	pits to be impacted by hazardous substances. This building was identified to have galbestos panels and is undergoing remediation under the ESCA. This area also falls with-in the groundwater contamination plume.
1009	9	Machine Shop/Offices	5	5	V	V		V			B		0.92	D5	No Updates. Category 5 because groundwater contamination remediation is on-going.
1010	10	Crib/Warehouse/Offices, Former National Guard	5	5				V					0.48	C5	Category 5 because groundwater contamination exceeds MCLs. . Pending further TPH analysis.

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1011	11	Paint and Oil Storage, Oil Recycling and Transport See EBS 1998	7	7	V	V	V G	V					0.22	A5	Category 7 based on soil samples that identified Aroclor-1260 at concentrations ranging from 0.4 mg/kg to 1 mg/kg (above the Industrial PRG of 0.74 mg/kg). This building has galbestos panels, and will undergo remediation under the ESCA. This also falls within groundwater contamination plume. Pending further TPH and PCB analysis.

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1012	12	Boiler House	7	7	V	V	G	V	V				0.16	A5	Category 7 based on soil samples that identified chromium in one sample at a concentration of 144 mg/kg (above the industrial PRG of 64 mg/kg). This building has galbestos panels, and will undergo remediation under the ESCA. This also falls within groundwater contamination plume. Pending further TPH and Metals analysis.
1013	13	Production Line	5	5				V			B		0.08	D6	No Updates. Category 5 because groundwater contamination exceeds MCLs. .
1014	14	Dispensary/Locker Rooms, Security Office	5	5		V		V			B		0.28	D5	No Updates. Category 5 because groundwater contamination exceeds MCLs. .

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1016	16	Offices and Gate House	5	5				S			B		0.11	E5	No Updates. Category 5 because groundwater contamination exceeds MCLs. .
1017	17	Administrative Offices	5	5				S	V				0.20	E5	No Updates. Category 5 because groundwater contamination exceeds MCLs. .
1018	18	Cafeteria and Offices	5	5				A					0.07	E5	No Updates. Category 5 because groundwater contamination exceeds MCLs. .
1019	19	Production Restrooms	3	3				V					0.01	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1021	21	Plant Cafeteria	3	3				V					0.16	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1022	22	Aisleway and Office	3	3				V					0.05	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1022	22A	Training Room	3	3				V						C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1023	23	Aisleway and Office	3	3				V					0.06	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1024	24	Aisleway and Gage Laboratory	3	3				V					0.05	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1025	25	Aisleway and Acctg Storage Area	3	3				V	V				0.06	C6	Category 3 based on groundwater contamination below MCLs at the time of the ROD.

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1026	26	Aisleway and Instrument Storage Area	3	3				V					0.05	C6	Category 3 based on groundwater contamination below MCLs at the time of the ROD.
1027	27	Restroom and Passage	3	3				S					0.04	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1028	28	Restroom and Passage	3	3				S					0.03	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1029	29	Restroom	3	3				S	V				0.03	B6	Category 3 based on groundwater contamination present but below MCLs as defined by the ROD.
1030	30	Restroom and Passage	3	3				S	V				0.03	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1031	31	Restroom and Passage	3	3				S					0.03	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1032	32	Restroom and Passage	3	3				S	V				0.03	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1033	33	Passage and Distribution PNL – S.S. No. 1	5	5			G	S	V				0.06	D6	This building has galbestos panels, and will undergo remediation under the ESCA. Category 5 because groundwater contamination exceeds MCLs.
1034	34	Passage and Office	5	5				S					0.05	D6	No updates. Category 5 because groundwater contamination remediation is on-going.
1035	35	Passage and Emerg. Gen No. 7	3	3				S	V				0.06	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1036	36	Passage	3	3				S					0.03	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1037	37	Passage and Office	3	3				S	V				0.05	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1038	38	Passage	3	3				S					0.05	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1039	39	Central Salvage Area	3	3			G	S					0.04	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.

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1045	45	Production Line	3	3			G	A					0.17	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1046	46	Production Line	3	3			G	V					0.17	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1047	47	Production Line and Emerg. Gen No. 2 (Generator Removed)	3	3			G	V					0.16	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.

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1048	48	Production Line and Office	3	3			G	V					0.18	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1048	48A	Former Office	3	3			G	A						B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1049	49	Production Line and Emerg. Gen No. 4 and 5	3	3			G	V					0.23	B6	Category 3 based on groundwater contamination present but below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.

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1050	50	Production Line and Emerg. Gen No. 6	3	3			G	S					0.22	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1051	51	Laboratory, Chemical and Metallurgical	3	3				V					0.07	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1052	52	Transformer Area – Substation No. 10	3	3				S					0.01	A6	Category 3 based on groundwater contamination below MCLs as defined by the ROD..
56, 1053	53	AOC-16; Transformer Area – Substation No. 5	4	4									0.03	A5	Category 4 based on investigation results. NFA status. No updates. .

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1054	54	Transformer Area – Substation No. 13	3	3			V	S					0.03	A6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1055	55	Transformer Area – Substation No. 9	3	3				S					0.05	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1056	56	Transformer Area – Substation No. 7	3	3				S					0.02	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1057	57	Transformer Area – Substation No. 12	3	3				S	V				0.01	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1058	58	Transformer Area – Substation No. 8	3	3				S					0.01	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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Section	Building or Feature No.	Building Name/ Area Name	ECP Category	Updated ECP Category	Hazardous Substances	Petroleum	PCBs	Asbestos	Lead	Radiological	Radon	MEC	Acreage	Figure Coordinates	Comments
1059	59	Transformer Area – Substation No. 6	3	3				S					0.02	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1060	60	Transformer Area – Substation No. 11	3	3				S					0.02	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1061	61	Cooling Tower Control House	3	3				S					0.01	A7	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1062	62	Facilities Eng. Store House	3	3				S					0.01		Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1064	64	Fuel Oil Unloading Serv. Bldg.	5	5				A					0.01	A4	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1073	73	Hose Cart House No. 1, Storage	7	5				A					0.01	B5	Originally Category 7 based on location within SMWU 1 boundary. Update: The required remediation actions at SWMU 1 (IWTP) were completed in 2015/2016. Category 5 because groundwater contamination exceeds MCLs. .
1074	74	Compressor House, Propane Stor. Area	3	3		V							0.03	B4	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1075	75	Propane Storage Area	5	5	V			A						B4	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1077	77	Sulfuric Acid and Caustic Soda Storage	7	5				A					0.02	A5	Originally Category 7 based on location within SMWU 1 boundary. Update: The required remediation actions at SWMU 1 (IWTP) were completed in 2015/2016. Category 5 because groundwater contamination exceeds MCLs. .
1078	78	Oil Room Building	3	3				V					0.03	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1080	80	Varnish Stripping Building	3	3			G	V					0.05	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.

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1081	81	Production Line	3	3			G	S					0.25	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1082	82	Tocco Generator and Emergency. Generator No. 9	3	3				A					0.04	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1083	83	Plating Rack Repair Area	3	3				V					0.01	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1084	84	Loading Dock with Canopy	3	3				A							Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1085	85	Transformer Oil Pump Building	5	5				A					0.01	E6	No updates. Category 5 because groundwater contamination remediation exceeds MCLs. .
1087	87	Storage Building	5	5				A					0.01	D5	No updates. Category 5 because groundwater contamination remediation exceeds MCLs. .
1095	95	Transformer Area – Substation No. 1	7	6			V	A					0.01	D5	Category 7 based on potential for PCBs to have impacted the soil adjacent from the transformer (PCB concentration of 106 ppm). Pending further PCB Analysis and remediation
1096	96	Transformer Area – Substation No. 2	3	3			V	A					0.01	D5	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1097	97	Transformer Area – Substation No. 3	7	6			V	A					0.02	A5	Category 7 based on potential for PCBs to have impacted the soil adjacent from two transformers (PCB concentrations of 64 ppm and 33 ppm). Pending further PCB Analysis and remediation.
1098	98	Transformer Area – Substation No. 4	5	5				A					0.02	C6	No updates. Category 5 because groundwater contamination remediation exceeds MCLs. .
1099	99	Transformer Area – Substation No. 14	5	5				A					0.02	C5	No updates. Category 5 because groundwater contamination remediation exceeds MCLs. .
1100	100	Transformer Area – Substation No. 15	3	3				A					0.02	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1101	101	Transformer Area – Substation Spare	7	6				A					0.01	D4	Category 7 based on potential for PCBs to have impacted the soil adjacent from two transformers. Pending further PCB Analysis and remediation.
1102	102	Water Well No. 1	5	5	V			A					0.01	D5	No updates. Category 5 because groundwater contamination remediation exceeds MCLs. .
1103	103	Water Well No. 2	3	3				A					0.01	N/A	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1104	104	Water Well No. 3	5	5				A					0.01	A4	No updates. Category 5 because groundwater contamination exceeds MCLs.
1105	105	Water Well No. 4	4	4				A					0.01	E6	Originally Category 4 based on location with AOC 8B. No updates.

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1106	106	Water Well No. 5	3	3	V			A					0.01	C7	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1107	107	Covered Passage	5	5				S					0.04	C6	No updates. Category 5 based on groundwater contamination exceeding MCLs
1108	108	Main Transformer Subst. No. 1	3	3			S	A					0.12	E6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1109	109	Main Transformer Subst. No. 2 and 3	7	7			S	A					0.11	E6	Category 7 based on potential for PCBs to have impacted the soil adjacent from two transformers. No updates.
1110	110	Terminal House	4	4				A					0.01	D6	Originally Category 4 based on location with AOC 8B. No updates.

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1114	114	Tank, Water, Storage, 100,000 Gallons	5	5	N	N	N	A		N		N	0.02	D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1117	117	Cooling Tower, Main Plant	3	3	S			A					0.06	B7	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1118	118	Cooling Tower, Boiler House	5	5				A					0.01	A5	Category 5 because groundwater contamination remediation exceeds MCLs. .
1119	119	Cooling Tower, Steel Plant	7	5				A					0.01	B5	Originally Category 7 based on location within SMWU 1 boundary. Update: The required remediation actions at SWMU 1 (IWTP) were completed in 2015. Category 5 because groundwater contamination exceeds MCLs. .
1120	120	Steel Plant and Emerg. Gen. No. 10	5	5	V	V		V			B		1.31	C5	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1121	121	Loading Dock, Steel Plant	5	5				A					0.20	C4	No updates. Category 5 because groundwater contamination remediation is on-going.
1122	122	Crane Runway and Steel Storage Area	5	5				S					0.45	C4	No updates. Category 5 because groundwater contamination remediation is on-going.
1127	127	Storage Sewage Disposal Plant	3	3	V			A					1.55	E2	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1130	130	Garage	5	5		V		A					0.06	D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1131	131	Process Water Tank and System	3	3				A						A7	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1133	133	Aisleway from Bldg. 10 to Line 7	5	5			G	S					0.06	B5	Category 5 because groundwater contamination exceeds MCLs. This building has galbestos panels, and will undergo remediation under the ESCA.
1134	134	Restroom at Line 7	5	5				S					0.02	C6	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1145	145	Transformer Substation No. 17	7	6			V	S					0.03	B5	Category 7 based on potential for PCBs to have impacted the soil adjacent from two transformers (PCB concentrations of 28 ppm and 134 ppm). Pending further PCB Analysis and remediation
1146	146	Transformer Substation No. 18	3	3			V	S					0.02	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1147	147	Transformer Substation No. 19	3	3				S					0.02	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1148	148	Cooling Tower, Building 13	3	3				A					0.01	D6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1150	150	Compressor, Air	5	5		V		A					0.01	D6	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1151	151	Compressor, Air	5	5		V		A					0.01	B5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1152	152	Motor Generator Housing	5	5		V		S					0.02	B5	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1154	154	Compressor, Air	5	5		V		A					0.01	C5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1155	155	Compressor, Air	3	3		V		A					0.01	A6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1156	156	Production Building – Heat Treat	3	3				A					0.12	B6	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1157	157	Compressor, Air	3	3				A					0.02	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1158	158	Water Well No. 6	3	3	V			A					0.01	B7	Category 3 based on groundwater contamination present but below MCLs as defined by the ROD.

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1159	159	Sandblast Building	5	5				A					0.01	A5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1160	160	Covered Storage Warehouse	3	3			G	V					0.44	C6	Category 3 based on groundwater contamination below MCLs as defined by the ROD. This building has galbestos panels, and will undergo remediation under the ESCA.
1162	162	Autodin A.B. Terminal Bldg - Training Rm	5	5				S			X		0.03	E5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1164	164	Paint Pumping Building	5	5				V					0.02	D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1166	166	Paint Pumping Building	5	5				A					0.01	D6	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1167	167	Air Compressor No. 8	5	5				A					0.01	B4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1169	169	Paint Spraying Facility	5	5	V			S					0.02	A4	Pending further VOC Analysis. Category 5 because groundwater contamination exceeds MCLs. .
1172	172	Former Fire Department	5	5				S			B		0.09	A4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1175	175	Generator Building	3	3				A							Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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1176	176	Switching Station (Electrical)	3	3				S							Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1177	177	Equipment Wash Facility, Sump, Oil water separator.	5	5	V			A					0.03	C5	No updates. Category 5 because groundwater contamination remediation is exceeds MCLs. .
1181	181	Phosphate Facility	3	3				A					0.09	D7	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1182	182	Ground Water Treatment Facility	3	3	V			A					0.24	B3	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
1184	184	Flammable Storage Warehouse	5	5	V			A						D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1185	185	Air Compressor Building	3	3				A							Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1186	186	Haz-Bin Storage Containment Structure	5	5	V			A						B5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1187	187	Haz-Bin Storage Containment Structure	5	5	V			A						D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1188	188	Haz-Bin Storage Containment Structure	1	1	V			A					0.01	A7	No release or disposal of hazardous substances or petroleum products has occurred. Does not fall within the area of Groundwater contamination. No updates.
1189	189	Land Vehicle Fuel Disp Sta Gas/Diesel	5	5		V								D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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1190	190	Land Vehicle Fuel Disp Sta Propane	5	5	V			A						D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1192	192	Ground Water Treatment Plant Office	3	3	N	N	N	A		N			0.02	B3	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
1195	195	Transformer Substation No. 20	5	5			A							C5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
1196	196	Transformer Substation No. 21	5	5			A							B5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2002		West Parking	5	5									6.38	E3	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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2003		South Parking	3	3									2.24	E7	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
2005		West Utilities	5	5									1.59	D4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2006		East Utilities	5	5									1.28	A4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2007		Southeast Utilities	1	1									3.92	A7	No updates. No release or disposal of hazardous substances or petroleum products has occurred. Does not fall within the Area of Groundwater contamination
2007		Southeast Utilities	3	3									3.08	A7	Category 3 based on groundwater contamination below MCLs as defined by the ROD.

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2008		South Utilities	5	5									1.38	E6	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2009		North Open Storage	5	5									2.40	C3	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2011		Central Storage	5	5									3.49	C5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2013		North Warehouse Storage	5	5									1.40	B4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2014		West Warehouse Storage	5	5									0.22	D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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2015		Water Storage	5	5									0.16	A4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2016		South Warehouse Storage	3	3									3.39	C7	Category 3 based on groundwater contamination below MCLs as defined by the ROD. .
2017		West Railroad Storage	3	3									0.99	E7	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
2018		East Railroad Storage	3	3									3.34	A4	Category 3 based on groundwater contamination below MCLs as defined by the ROD.
2019		Fuel Storage	5	5									1.31	B4	No updates. Category 5 because groundwater contamination exceeds MCLs. .

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2020		Hazardous Waste Storage	5	5									1.17	B4	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2021		Administration Open Area	5	5									1.43	E5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2022		Medical Open Area	5	5									0.78	D5	No updates. Category 5 because groundwater contamination exceeds MCLs. .
2023		Production Open Area	5	7									8.52	C5	No updates. This buildings around this area have been identified to have galbestos panels. Changed to Category 7 due to pending PCB soil investigation.

Environmental Condition of the Property Categories:

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Category 1: Areas in which no release or disposal of hazardous substances or petroleum products has occurred, and to which there has been no migration of such substances from adjacent areas.

Category 2: Areas in which only release or disposal of petroleum products has occurred.

Category 3: Areas in which release, disposal, or migration of hazardous substances has occurred, but in concentrations that do not require a removal or other remedial response.

Category 4: Areas in which release, disposal, or migration of hazardous substances has occurred, but all removal or other remedial actions necessary to protect human health and the environment have been taken.

Category 5: Areas in which release, disposal, or migration of hazardous substances has occurred, and removal or other remedial actions are under way, but all required actions have not yet been taken.

Category 6: Areas in which release, disposal, or migration of hazardous substances has occurred, but required remedial actions have not yet been completed.

Category 7: Areas that have not been evaluated or require additional evaluation.

Notes: V – Verified; S – Suspected; N – Not Suspected; A – Absent; R – Removed/Remediated; X – Radon measured > 4.0 pCi/L; B – Radon measured < 4.0 pCi/L; G – PCBs galbestos siding.

TABLE 2 – Riverbank Army Ammunition Plant Drinking Water Wells

Name	Status	Station Code	Well Depth (feet)
Well 01	Standby Raw	5000211-001	372
Well 05	Active Raw	5000211-004	90
Well 06	Active Raw	5000211-003	185
Well 01 – Treated	Standby Treated	5000211-00701TC	430
Well 05 – Treated	Active Treated	5000211-00505TC	710
Well 06 – Treated	Active Treated	5000211-00606TC	605

TABLE 3 – Production Wells 1 & 6 Analytical Data 1984 thru 1987

From the 1991 RBAAP Remedial Investigation Table 6-6

Table 6-6

Summary of Chemicals Detected in Production Wells 1 & 6
at the RBAAP Facility
(Units: ug/L) (a)

Chemical	Frequency of Detection (b)	Range of Detection Limits	Range of Detected Concentrations	Range of Background Concentrations (d)
Organics:				
* Methylene chloride	1/2	6.9	45.0	NA
* Nonane	1/1	NR	100.0	NA
* Xylenes	1/1	NR	40.0	NA
Inorganics:				
* Chromium (total)	4/4	NR	3.76-20.0	<2.5
* Hexavalent chromium	1/3	5.00-10.00	10.0	<2.5
* Copper	2/2	NR	1.0-2.0	<25.0
* Cyanide (total)	1/4	11	7.9	<2.5
* Cyanide (free)	1/1	NR	4.99	<2.5
Nitrate	2/2	NR	3,960-4,000 (c)	3,200
* Phosphate	1/2	40	40.0	<200
* Selenium	2/2	NR	4.0	<5.0

(a) Data from samples collected on July 25, 1984, March 8, 1985, January 13, 1986, and October 23, 1987. Only certain parameters were analyzed on certain dates from the two wells.
(b) The number of samples in which the contaminant was detected divided by the total number of samples analyzed.
(c) Nitrate/nitrite - non-specific.
(d) Background concentrations from wells MW-67D, MW-61C, and MW-68C. (Data from aquifer C were used to fill data gaps).

NA = Not analyzed.
NR = Not reported.

TABLE 4 – PCB AND PCB-CONTAMINATED TRANSFORMERS

Location	Transformer	PCB (ppm)
Substation 1	1	106
Substation 3	1	64
Substation 6	1	50
Substation 13	1	248
	3	53
Substation 16	1	60
Substation 17	1	134
Substation 18	1	35,000

Figures

Appendix A

Documentation of No Further Action (NFA) Determinations

Appendix B

EDR Report for RBAAP
24 January 2014

Appendix C

Ahtna Report August 11, 2014
Chromium and Hexavalent Chromium Results
For Production Wells 5 and 6

EXHIBIT F

NOTIFICATION OF HAZARDOUS SUBSTANCE STORAGE, RELEASE, OR DISPOSAL

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
Three, 11,500-gallon steel ASTs located at Bldgs. 4, 5, and 6.	Cyanide	Unknown	These tanks were decontaminated, dismantled, and disposed of. This is documented in the Closure of Three Cyanide Tanks at Building 4, 5, and 6 Report (Norris-Riverbank, 1998h).
Tank No. G71, a 1,200-gallon steel tank, is located at Bldg. 44 (IWTP)	Hazardous waste	1996 - present	Industrial Wastewater Treatment Plant (IWTP) Process Tank. Received RCRA permit closure in August 2016.
G2 (Bldg. 44)	Equalization Tank	1970s - present	Industrial Wastewater Treatment Plant (IWTP) Process Tank. Received RCRA permit closure in August 2016.
G7 (Bldg. 44)	Reactor Clarifier	1970s - present	IWTP Process Tank. Received RCRA permit closure in August 2016.
G8 (Bldg. 44)	Thickener	1970s - present	IWTP Process Tank. Received RCRA permit closure in August 2016.
Tank No. G70, a 6,000-gallon steel AST, is located at Bldg. 44 (IWTP)	Waste Oil	1994 - present	IWTP Process Tank. Received RCRA permit closure in August 2016.
Tank No. 6, a 900-gallon concrete tank (Bldg. 170)	Pesticides	Unknown – 1994	Tank removed.
Tank No. 12, a 1,300-gallon steel tank (Bldg. 7)	Slurry water, Asbestos cuttings	Unknown – 1994	Tank removed.

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
Tank No. 22, an 800-gallon tank, located at Bldg. 1	Paint	Unknown – 1973	Tank closed in place.
Tank No. 23, an 800-gallon tank, located at Bldg. 1	Paint	Unknown – 1973	Tank closed in place.
Tank No. 24, a 990-gallon steel tank, located at Bldg. 2	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 25, an 880-gallon steel tank, located at Bldg. 2	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 26, a 1,585-gallon steel tank, located at Bldg. 160	Varnish	Unknown – 1994	Tank removed.
Tank No. 27, a 1,585-gallon steel tank, located at Bldg. 3	Varnish	Unknown – 1994	Tank closed in place.
Tank No. 28, a 2,115-gallon steel tank, located at Bldg. 4	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 29, a 1,585-gallon steel tank, located at Bldg. 4	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 30, a 3,300-gallon steel tank, located at Bldg. 5	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 31, a 3,000-gallon steel tank, located at Bldg. 5	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 32, a 3,300-gallon steel tank, located at Bldg. 6	Varnish	Unknown – 1995	Tank closed in place.

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
Tank No. 33, a 3,000-gallon steel tank, located at Bldg. 6	Varnish	Unknown – 1995	Tank closed in place.
Tank No. 36, a 3,000-gallon steel tank, located at Bldg. 7	Varnish	Unknown – 1974	Tank closed in place.
Tank No. 37, a 2,000-gallon steel tank, located at Bldg. 7	Varnish	Unknown – 1995	Tank closed in place.
Tank No. T77, a 1,000-gallon steel tank, located at Area 77	Sulfuric Acid	1956 – 1995	Tank removed.
Landfill (RBAAP-01/SWMUs 10 and 11)	Spent pot-liner (cyanide), chromium contaminated bricks, incineration and disposal of industrial sludges and solid waste, including paper, dunnage, oils, grease, solvents, hospital wastes, and construction debris	1942-1966	The landfill was addressed under the 1994 ROD. Remedial activities at the landfill were completed in October 1995. The final landfill cover consisted of a two-foot-thick vegetative cover layer, a one-quarter-inch-thick geosynthetic liner, and a two-foot-thick foundation layer. Long-term maintenance is on-going. Land use controls need to be in place to ensure the cap is not damaged. The groundwater contamination is addressed in RBAAP-03 below.
Groundwater Contamination (RBAAP-03)	Chromium, cyanide	1940s – 1970s	The Army installed an interim groundwater treatment system and provided alternative drinking water sources to

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			all affected offsite residences. In 1992, the Army completed the extension of the Riverbank City water system, which connected services to all potentially affected residents. The groundwater contamination was addressed in the site-wide ROD (USAEC, 1994). The ROD required expansion of the interim GWTS to fully capture groundwater contamination. The expanded system began operation in 1997 and removes contamination from the extracted water by means of ion exchange. The cleanup goals for hexavalent chromium and cyanide were established in the ROD and are 50 µg/L and 200 µg/L, respectively. The treated groundwater is discharged to the E/P Ponds. The Second Five-Year Review determined that the groundwater remedial action is currently protective of human health and the environment (AGSC, 2006). The plume is monitored through quarterly groundwater sampling. In December 2016, an addendum to the In Situ Treatment Work Plan was submitted to regulators for comment for eventual approval to address the potential source of chromium contamination near the main production facilities on the southern end of the parcel. This addendum proposes an update to the original plan by the installation of 12 new injection and groundwater monitoring wells, treatment procedures and materials. The locations are to the west of the main production facility. The wells will be injected with the HFSC for the first round of injection, and a HFSC and ferrous sulfate

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			mixture for the second round, one month after the first. Post injection sampling of the injection and on-site monitoring wells will begin at two weeks after the second injection. This plan was approved in January 2017 (Ahtna 2016 – GMP Update and DTSC 2017 Email). A new State MCL for hexavalent chromium of 10 µg/L was established on July 1, 2014. The Army will work with the regulators to assure that the groundwater remedy at RBAAP will be able to reduce hexavalent chromium concentrations to comply with this new MCL.
Building 13 Chromium Pretreatment System (RBAAP-05/ SWMU 5)	Chromium	1978 - present	No direct sampling was conducted around this system because it is an operating facility. However, the groundwater investigation concluded that the major source of chromium contamination was the leaking tanks of the IWTP prior to the system upgrade. The site-wide ROD documented that no further action is required at this site (USAEC, 1994).
IWTP Sulfuric Acid Spill (RBAAP-06/AOC 6)	Sulfuric Acid	1956	A 500-gallon sulfuric acid spill occurred at the Sulfuric Acid Feed System. Groundwater monitoring for sulfate was conducted. Historically, sulfate concentrations in groundwater in the IWTP area were present at levels slightly above the secondary MCL of 250 milligrams per liter (mg/L). Slightly elevated sulfate concentration were found during the Exploratory Phase 1B, but it is unknown if they were the result of the 1956 sulfuric acid spill. The groundwater extraction system will capture any sulfate contamination in groundwater. The effluent from the

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			GWTP is monitored for sulfate under the NPDES permit. In a letter dated July 27, 1998, the DTSC concurred with the position of the Army (as detailed in the February 1998 Revision 4 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Building 13 Phosphoric Acid Spill (RBAAP-07/AOC 7)	Phosphoric Acid	1978	In 1978, a phosphoric acid spill occurred in the Phosphate Coating Area. Because the spill was contained inside the building, and then in the sewer system, there is no further action required in this area. In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Southeast Storm Reservoir (RBAAP-08/SWMU 21/AOC 16)	PCBs	1954 - present	Investigations during the RI did not indicate contaminants of concern in this area. Based on the RI's findings, the ROD (USAEC, 1994) concluded that remedial action was not warranted in this area. However, a sample was subsequently collected in the reservoir for PCB analysis (associated with the investigation of AOC 16 (Substation 5)). PCBs were detected at 4.5 mg/kg and additional sampling was conducted as part of the RFI at AOC 16. Soil removal was conducted as part of the removal action at AOC 16. The Final RFI Report recommended no further action for this SWMU (CH2M HIL, 2005a). The DTSC concurred by approving the Final RFI Report.

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			This site was investigated for PCBs in the Galbestos investigation. PCBs were detected at concentrations exceeding TSCA criteria in sediment samples. Additional investigations and/or remediation are planned as part of the ESCA after removal of the Galbestos panels. Soil and sediment investigation and remediation will take place under CERCLA.
Percolation/Evaporation Ponds (E/P Ponds) (RBAAP-11/ SWMU 23)	Zinc, TPH	1952 - present	Based on the RI findings, a removal action was completed in 1993 to address zinc-contaminated soil. The ROD documented this removal action and concluded that no further action was necessary at the ponds (USAEC, 1994). RBAAP continues to use the E/P Ponds for discharge of treated water. This discharge is regulated under Waste Discharge Requirements (WDRs) issued by the Central Valley Water Board. The WDRs require ongoing groundwater monitoring at the E/P Ponds. This site was investigated for PCBs in the Galbestos investigation. None of the sediment samples in the E/P ponds contained PCBs exceeding the TSCA criteria (USACE, 2011).
Industrial Wastewater Treatment Plant (SWMU 1)	Hexavalent Chromium, cyanide	1951 – present	Since 1972, numerous upgrades and improvements have been implemented at the IWTP. The redwood equalization tanks were replaced with a concrete equalization basin from 1973 to 1980. The redwood tanks were the source of the chromium and cyanide contamination in the IWTP area.

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			The Phase I RI, conducted between January 1987 and November 1998, included two soil borings at the IWTP. Samples were analyzed for total and hexavalent chromium, total and free cyanide, and 1,1-DCE. Soil borings SB-14 and SB-15 were advanced to a depth of 50 feet bgs in the area where the former redwood tanks were located. At SB-14, total chromium was detected at a concentration of 23.5 mg/kg at 40 feet bgs, and 18.0 mg/kg at 50 feet bgs. At SB-15, total chromium was detected at a concentration of 22.15 mg/kg t 40 feet bgs, and 55.83 mg/kg at 50 feet bgs (Weston, 1991). In 2012, the RCRA Hazardous Waste Facility Permit Closure Work Plan was approved (Athna Work Plan, 2012). The final work plan details all specific closure actions and criteria required to close the RCRA permit and associated HMWUs. The closure actions took place during 2012 through 2016. Each HMWU had specific above ground (rinsate from decontamination) and below ground closure (soil samples) criteria. The soil samples collected for each HMWU was analyzed for metals, VOCs and pH at various depths. If decontamination was part of the closure processes, the rinsate was sampled for metals, VOCs, SVOCs and TPH-DRO. During the closure process, total chromium levels above the background criteria were typically seen below 40 ft bgs, and are not necessarily indicative of a release at the specific HWMUs because the chromium was likely associated with groundwater that had previously occupied

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			this zone and then remained in the soil after the zone was dewatered. In 2016, Closure Certification Reports for the HMWUs were submitted to DTSC. The certification reports describe all actions, samples and results of each of the HMWU. Most of the rinsate samples from the decontaminated tanks and surfaces were above the closure criteria, and were therefore demolished in 2015/2016. The area was capped after all aboveground structures were demolished. In August 2016, the DTSC determined that all HMWUs met the closure criteria as detailed in the approved work plan, and consequently closed the RCRA permit (DTSC 2016). Due to this change in status, some ECP study areas changed from the original ECP category 7 to ECP category 5. Category 5 is based on the groundwater contamination. The groundwater under the IWTP is being addressed under the site RBAAP-03.
Hazardous Waste Storage Area (Drum Storage Facility) (SWMU 2)	Hazardous waste drums (flammable, caustics, and acids)	Unknown	No known spills have been recorded in this facility. The Hazardous Waste Storage Area was regulated under the RCRA Part B permit. The DTSC concurred with the position of the Army (as detailed in the original October 30, 1995, version of the RFI Phase 1 Work Plan) that no further action was required for this unit (CH2M HILL, 2002a). All HWMUs related to the IWPT were closed in accordance with the permit requirements in 2016. See Industrial Wastewater Treatment Plant (SWMU 1) for

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			details.
Drum Staging Area (IWTP) (SWMU 4)	Hazardous waste drums	1990 - present	There is no indication that has been a release to the environment through the paved surface. Soil samples indicated no detections above background. The Army, in Revision 4 of the RFI Phase 1 Work Plan dated February 1998, presented justification supporting a finding that no further action is recommended for this unit at this time (SOTA, 1998). The DTSC (in a letter dated July 27, 1998) concurred with this recommendation (CH2M HILL, 2002a). All HWMUs related to the IWPT were closed in accordance with the permit requirements in 2016. See Industrial Wastewater Treatment Plant (SWMU 1) for details.
Chromium Reduction Units (Building 13) (SWMU 5)	Chromic acid, sodium metabisulfide	1978 – present	No evidence was found that any releases occurred from this unit. DTSC concurred with the position of the Army, as detailed in the original version of the RFI Phase 1 Work Plan, that no further action was required at the Chromium Reduction Units in Buildings 13 and 1 (CH2M HILL, 2002a).
Chromium Reduction Units (Building 1) (SWMU 6)	Chromic acid, sodium metabisulfide	1978 – present	No evidence was found that any releases occurred from these units. DTSC concurred with the position of the Army, as detailed in the original version of the RFI Phase 1 Work Plan, that no further action was required at the Chromium Reduction Units in Buildings 13 and 1 (CH2M HILL, 2002a). All HWMUs related to the IWPT were closed in accordance with the permit requirements in

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			2016. See Industrial Wastewater Treatment Plant (SWMU 1) for details.
Coolant Recovery Unit (IWTP) (Hyde Ultrafiltration Unit) (SWMU 7)	Coolant	1989 – early 1990s	No releases from the coolant recovery unit have been documented. In RFI Phase 1, the small collection sump was steam cleaned and visually inspected for cracks or holes in the concrete. No cracks or holes were discovered and the unit was recommended for closure with no further action. In a letter from the DTSC, dated August 10, 2006, the DTSC confirmed that no further action was required for SWMU 7 (DTSC, 2006). All HWMUs related to the IWPT were closed in accordance with the permit requirements in 2016. See Industrial Wastewater Treatment Plant (SWMU 1) for details.
Equipment Wash Facility (Building 177 Triple Rinse Area) (SWMU 9)	Hazardous waste drums	Unknown	The rinse waters are collected in a sump and pumped to an oil/water separator, then pumped to the IWTP for further treatment. DTSC concurred with the position of the Army (as detailed in the original October 30, 1995, version of the RFI Phase 1 Work Plan) that no further action was required for the Equipment Wash Facility (CH2M HILL, 2002a). All HWMUs related to the IWPT were closed in accordance with the permit requirements in 2016. See Industrial Wastewater Treatment Plant (SWMU 1) for details.

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
Pesticide Storage Area (Building 165) (SWMU 16)	Pesticides	1975 -1979	No releases have been reported for this unit. During previous investigations of the unit, no evidence of spills or releases were noted, and the concrete floor was in good condition. This unit was periodically washed down with a hose. Soil sampling was conducted in 2001 to assess the potential for historic releases from the building. Based on these results, additional characterization was included in the RFI Phase 1 Work Plan submitted to the DTSC in September 2002. The 2002 sampling activities in and immediately around Building 165 reported only trace detections of pesticides on the north side of the building. None of the reported detections exceeded IPRGs. Subsequent step out and step down samples collected for pesticide and herbicide analyses contained only trace detections (all below IPRGs) of pesticides in one sample. Herbicides were not detected above reporting limits in any of the samples collected (CH2M HILL, 2002a). Additional soil sampling adjacent to Building 165 confirmed the presence of chlordane in a composite sample from one side of the building. Based on the sampling results, the Final RFI Report recommended no further action be taken for this SWMU (CH2M HILL, 2005a). The DTSC concurred by approving the Final RFI Report.
Pesticide Storage Area (Building 170) (SWMU 17)	Pesticides	1979 - present	The concrete sump was removed in December 1994 under the oversight of the Stanislaus County Environmental Resources Department. During the removal process, the

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			concrete material of the sump and the surrounding soil was sampled. The soil sample contained chlordane, so approximately 20 yards of soil were excavated for disposal. Visual inspection of the concrete sump did not reveal any holes, cracks, or deterioration of the walls or floor of the sump. Because the concrete floor of the building was in good condition (without cracks or stains) and the sump had been removed, no sampling was performed during the RI (NI, 2006b). In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required at the Pesticide Storage Area in Building 170 (CH2M HILL, 2002a).
Waste Zinc-Cyanide Solution Neutralizing Tanks (SWMU 19)	Zinc, cyanide	1955 - 1958	No evidence exists that a release ever occurred from this unit in the short period of operation (1955 through 1958). Both tanks were removed on September 27, 1994. The Army, in Revision 4 of the RFI Phase 1 Work Plan, presented justification supporting a finding that no further action is recommended at the Waste Zinc-Cyanide Solution Neutralizing Tanks. The DTSC (in a letter dated July 27, 1998) concurred with this recommendation (CH2M HILL, 2002a). All HWMUs related to the IWPT were closed in accordance with the permit requirements in 2016. See Industrial Wastewater Treatment Plant (SWMU 1) for details.
Industrial Waste Pipe Leak (SWMU 24)	Industrial wastewater	1990	An industrial waste pipe leak occurred in 1990 at the southern end of Building 13. This pipe carries wastewater

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			from the chromium reduction unit in Building 13 to the IWTP. The soil was excavated in conjunction with the repairs. The excavation area was then sampled during the RI to determine if residual contamination existed. Sample results indicated that elevated levels of inorganics did not exist in this area. The ROD concluded that remedial action was not warranted (USAEC, 1994). The DTSC concurred with the position of the Army (as detailed in the original October 30, 1995 version of the RFI Phase 1 Work Plan) that no further action was required at the Industrial Waste Pipe Leak (CH2M HILL, 2002a).
Mortar Line Accumulation Area (Building 4) (AOC 1)	Spent machine oils, spent chlorinated oils, spent acids, spent soaps, pickling sludge, spent solvents, zinc phosphate chips, floor dry mixed with oils, spent chromic acid, waste salts, waste paints and waste thinners	1989 - 1991	A site inspection showed the concrete area to be in good condition with no cracks or staining and there were no known spills or releases in this area. Therefore, no further action is necessary in this area. In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Machine Shop Accumulation Area (Building 9) (AOC 2)	Spent machine oils, spent oils, and waste solvents	1989 - 1992	A site inspection showed the concrete area to be in good condition with no cracks or staining. There were no known spills or releases. Therefore, no further action is

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			necessary in the Machine Shop Accumulation Area. In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Vehicle Maintenance Accumulation Area (Building 15) (AOC 3)	Waste oil, spent antifreeze, and waste solvent	1989 – present	A site inspection showed that the concrete area was in good condition with no cracks or staining. No known spills or releases have occurred in this area. Based on the small quantity of drums stored at this site and the lack of evidence of past spills or releases, no further action is deemed necessary. In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Grenade Casing Line Accumulation Area (AOC 4)	Waste chlorinated oil, spent caustic cleaner	1989 - 1990	A site inspection showed the concrete area to be in good condition with no cracks or staining. No known spills or releases occurred at this unit. Based on these findings, no further action is necessary in this area. In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Horizontal ASTs – Transformer Oil Storage Tanks (including Transformer Oil Distribution System) (AOC 8B)	Coolant oil, transformer oil	1940s - 1970	AOC 8B currently consists of a pump house (Building 85) and an abandoned underground pipeline distribution system historically used to transport transformer coolant oil to transformers. The pipelines have been cleaned (as requested by the DTSC) and encapsulated with cement slurry. Originally, three Transformer Oil Storage Tanks

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			were used for oil storage; the three 8,000-gallon ASTs sat in reinforced concrete cradles, and all sides and the bottom of the tanks were visible. The three tanks were cleaned out, tested for PCBs, and removed from the facility. No known releases or spills occurred from this system. A visual inspection in 1997 of the tank area and other system components did not show any indication of tank release. However, during the 1997 inspection, stains of unknown origin were observed on the floor in Building 85. Soil samples were collected in 2001 and 2003 in the bermed area that formerly held the transformer oil storage tanks, adjacent to the pipeline heading to Building 15, and adjacent to the former transformer pads and the main distribution line. Based on these results, 120 cy of soil contaminated with PCBs (as Aroclor-1260) at concentrations greater than IPRGs were removed within the bermed area. Confirmation samples from the excavation floor were nondetect. Based on these findings, no further action is recommended at the Oil Storage Tanks location of AOC 8B. During the 2004 Storage Tank Area Soil Removal, additional samples were collected adjacent to former transformer pads along the distribution lines. These sample results were less than IPRGs and, combined with the prior two sets of sampling results along the distribution system, confirm that significant releases did

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			not occur along the distribution system. The Final RFI Report recommended no further action for the transformer oil storage tanks including the distribution system (CH2M HILL, 2005a). The DTSC concurred with this recommendation by approving the Final RFI Report.
Industrial Wastewater Collection System (AOC 12)	Industrial wastewater	1951 – 1990s	The IWCS has been disconnected from the production plant. The collection sumps were filled with concrete in the late 1990s, when a new, above-grade collection system was installed. Soil investigations involving collection of soil samples from within and adjacent to the sumps and trenches associated with production lines 2, 3, 4, and 5 were completed in accordance with the DTSC-approved work plans. Soil samples were collected from both the production line trenches and sumps. The investigations did not identify contaminants at elevated concentrations in the soil samples. During the RFI Phase 1, a video survey was conducted on the collection system pipelines and then soil samples were collected near major cracks or breaks observed in the video survey (CH2M HILL, 2002a). The video survey and subsurface sampling adjacent to the IWCS did not indicate that significant leaks occurred and oil analytical results did not contain contaminants that exceeded IPRGs. The Final RFI recommended that no further action be taken along the IWCS while the IWTP is still active (CH2M HILL, 2005a). The DTSC concurred with this recommendation

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			when they approved the Final RFI Report. In a letter from the DTSC, dated August 10, 2006, the DTSC confirmed that no further action was required for SWMU 12 (DTSC, 2006).
Zinc-Cyanide Wastewater Collection System (AOC 14)	Cyanide wastewater	1954 - 1958	The use of the cyanide wastewater collection system was discontinued due to production capability changes. The system has been disconnected from the production plant. The collection sumps were filled with concrete in the late 1990s. Soil samples collected below and near sump 6-11 at depths of 11 to 13 feet did not identify elevated cyanide contaminant concentrations. The soil investigations completed for the portions of the cyanide wastewater collection system near production lines 2 through 5 did not identify any significantly elevated concentrations (CH2M Hill, 2002). During the RFI Phase 1, a soil boring was advanced at one point along the line and no visual or analytical indication of contamination was found. Coupled with the fact that this waste line only saw limited operation from 1954 to 1958, the probability of significant releases of contamination is low. Therefore, the Final RFI recommended no further action for AOC 14 (CH2M HILL, 2005a). The DTSC concurred with this recommendation by approving the Final RFI Report. In a letter from the DTSC, dated August 10, 2006, the DTSC confirmed that no further action was required for AOC 14 (DTSC, 2006).

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
Draw Lube System (Building 178) (AOC 13)	Chlorinated oil, grease	1987 - 1990	In March 1993, contamination was discovered on the south side of Building 178. Thirteen soil samples were collected and elevated oil and grease concentrations were detected at two locations (three total samples). Two additional hand-auger borings were installed adjacent to Building 178 to confirm the limited extent of contamination. All samples from these borings were non-detect for TPH. A soil removal action was taken to address the petroleum-contaminated soil. The upper 3 feet of soil was excavated in an area approximately 6-feet wide by 16-feet long immediately adjacent to Building 178. Extraction well 54B is located about 100 yards downgradient from Building 178. This well was sampled several times for oil and grease in the three years following the release with all sample results being nondetect. In a letter dated June 5, 1996, the DTSC concurred with the position of the Army (as detailed in the April 15, 1996 Revision 2 of the RFI Phase 1 Work Plan) that no further action was required for this AOC (CH2M HILL, 2002a).
Paint and Oil Storage, Oil Recycling and Transport (Building 11)	Paint, Oils, PCBs	1951 - present	Building 11 is adjacent to Substation No. 5, which includes three PCB transformers installed in 1951. As a part of the EBS (Norris-Riverbank Environmental, 1998a), five near-surface soil samples were collected from the graveled areas just outside Building 11 along the southern and western sides. Aroclor 1260 was identified in all five sample results, in concentrations ranging from 400 µg/kg to 1,000 µg/kg.

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			This area was further investigated in the 2007 SI (CH2M HILL, 2008). The SI samples show a single detection of Aroclor 1260 at a concentration of 38 µg/kg, which is well below the industrial and residential PRGs and TSCA cleanup requirements. These sampling results indicate that the area of soil contaminated with PCBs above regulatory screening criteria is localized in nature. Although the source of the PCBs in soil is not known, two electric substations in close proximity to the areas sampled have been reported. Since the area is covered with asphalt, the current contact exposure pathway to soils is minimized and no further action is recommended. EPA Region 9 concurred with these findings in a letter dated 14 December 2007.
Building 169	Paint		In 1998, surface soil sampling was conducted on the north, south, and east building walls. These samples were analyzed for oil and grease, hexavalent chromium, zinc and total chromium, lead, VOCs, semi-volatile organic compounds (SVOCs), and pH. Analytical results indicated elevated levels of benzene, toluene, ethyl benzene, xylenes (up to 905 mg/kg) (below the regulatory limits of 1,000 mg/kg). The EBS recommended a Phase II assessment to determine the extent of benzene, toluene, ethyl benzene, and total xylenes (BTEX) contamination (Norris-Riverbank, 1998e). No follow-up investigation has been completed (NI, 2006b).
Building 11 (Paint and Oil Storage)	PCBs	Unknown	In 1998, Aroclor 1260 was identified in five near-surface sample results, in concentrations ranging from 400 µg/kg to 1,000 µg/kg (Norris-Riverbank Environmental, 1998a).

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
			This area was further investigated in the 2007 SI (CH2M HILL, 2008). All results were below TSCA requirements and no further action is required. EPA Region 9 concurred with these findings in a letter dated 14 December 2007. Pending additional PCB and TPH sampling. Sampling event will take place in 2017.
Structure 95 (Transformer)	PCBs	Unknown	Sampling was conducted in the SI (CH2M HILL, 2007). All results were below TSCA requirements and no further action is required. Pending additional PCB sampling. Sampling event will take place in 2017.
Structure 97 (2 Transformers)	PCBs	Unknown	During the ECP visual site inspection, oil staining was observed on concrete at the base of the two transformers. Sampling was conducted in the SI (CH2M HILL, 2007). All results were below TSCA requirements and no further action is required. Pending additional PCB sampling. Sampling event will take place in 2017.
Structure 101 (Substation Spare)	PCBs	Unknown	During the ECP's visual site inspection, oil staining was observed on concrete at the base of one inactive transformer. Sampling was conducted in the SI (CH2M HILL, 2007). All results were below TSCA requirements and no further action is required. Pending additional PCB sampling. Sampling event will take place in 2017.

NOTIFICATION OF HAZARDOUS SUBSTANCE STORAGE, RELEASE, OR DISPOSAL (CONTINUED)

Description	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions
Structure 145 (Substation No. 17)	PCBs	Unknown	During the ECP's visual site inspection, oil staining was observed on the concrete at the base of two transformers with PCB concentrations of 28 ppm and 134 ppm. Sampling was conducted in the SI (CH2M HILL, 2007). All results were below TSCA requirements and no further action is required. Pending additional PCB sampling. Sampling event will take place in 2017.

*The information contained in this notice is required under the authority of regulations promulgated under section 120(h) of the Comprehensive Environmental Response, Liability, and Compensation Act (CERCLA or 'Superfund') 42 U.S.C. §9620(h). This table provides information on the storage of hazardous substances for one year or more in quantities greater than or equal to 1,000 kilograms or the hazardous substance's CERCLA reportable quantity (whichever is greater). In addition, it provides information on the known release of hazardous substances in quantities greater than or equal to the substance's CERCLA reportable quantity. See 40 CFR Part 373.

EXHIBIT G

PCB AND PCB-CONTAMINATED TRANSFORMERS

Location	Transformer	PCB (ppm)
Substation 1	1	106
Substation 3	1	64
Substation 6	1	50
Substation 13	1	248
	3	53
Substation 16	1	60
Substation 17	1	134
Substation 18	1	35,000

U.S. ARMY ENVIRONMENTAL CENTER

PROPERTY MANAGEMENT PLAN
FOR LAND USE CONTROL ACTIONS
RIVERBANK ARMY AMMUNITION PLANT

Prepared by

Engineering Strategies Corporation

Draft Final
November 2006

EXHIBIT H

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
BRAC	Base Realignment and Closure
CACA	Corrective action Consent Agreement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DoD	Department of Defense
DTSC	Department of Toxic Substances Control
EP	Evaporation/Percolation
FFA	Federal Facility Agreement
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
GOCO	government-owned/contractor-operated
IPRGs	Industrial Preliminary Remediation Goals
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
LTM	Long Term Monitoring
LUC	Land Use Controls
LUCC	Land Use Controls Coordinator
MCLs	Maximum Contaminant Levels
µg/L	Microgram per Liter
NCP	National Contingency Plan
NPL	National Priority List
O&M	Operations and Maintenance
PMP	Property Management Plan
RA	Remedial Action
RBAAP	Riverbank Army Ammunition Plant
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFI	RCRA Facilities Investigation
RI	Remedial Investigation
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SWMU	Solid Waste Management Unit
TSDF	Treatment, Storage and Disposal Facility
USAEC	U.S. Army Environmental Center

1.0 INTRODUCTION

Riverbank Army Ammunition Plant (RBAAP) is a government-owned/contractor-operated (GOCO) industrial installation under the jurisdiction of the U.S. Army Joint Munitions Command. The facility is located at 5300 Claus Road, Riverbank, Stanislaus County, California (See **Figure 1**). RBAAP is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priority List (NPL) site listed on February 21, 1990 and is currently responsible for environmental Remedial Actions as specified in the 1994 Record of Decision (ROD). In addition, RBAAP holds a Resource Conservation and Recovery Act (RCRA) Part B Hazardous Waste Facility Permit (Permit No. CA7210020759).

Based on the regulatory review of the 2nd CERCLA Five-Year Review, it was determined that the RBAAP 1994 ROD and subsequent design documents did not address sufficient details concerning land use controls and their implementation [**U.S. Environmental Protection Agency** (**USEPA), 2005 and DTSC, 2005]**). As a result, this Property Management Plan (PMP) has been developed to address and clearly define land use controls currently associated with those sites identified in the 1994 ROD and areas which have not been cleaned up or evaluated to allow for unrestricted use.

In November 2005, RBAAP was slated for closure by Congress as part of the 2005 Base Realignment and Closure (BRAC). Future transfer of the property from the Army will include a CERCLA 120(h)(3) covenant which will have a description of the residual contamination on the property and the environmental use restrictions, expressly prohibiting activities inconsistent with restrictions placed on the property. All necessary land use controls including those outlined in this document along with any additional use restrictions required to ensure future protection of human health and the environment will be included in the environmental protection provisions of future BRAC transfer documents and subsequent deed at the time of transfer.

The specific implementation actions for the sites appended to this document contain detailed requirements tailored specifically for each individual site. The specific implementation actions outline such items such as use restrictions placed on the site, maintenance requirements, inspection requirements and other details necessary to protect human health and the environment.

Primary documents related to the sites addressed in this PMP are maintained at the RBAAP Administrative Record Repository located in Administration Building 16 at the RBAAP. The PMP will also be maintained at the RBAAP Administrative Record Repository. The reader is referred to the following primary source documents for additional details concerning the sites and remedial actions taken.

TABLE 1 RBAAP PRIMARY SOURCE DOCUMENTS		
Document Title	**Author**	**Date**
CERCLA Documents		
Riverbank Army Ammunition Plant Landfill Closure-Revised Closure/Post Closure Maintenance Plan	CH2MHill	May 1996
Riverbank Army Ammunition Plant Landfill Closure – Final Closure Report	U.S. Army Corps of Engineers, Sacramento District	January 30, 1996
Record of Decision	U.S. Army Environmental Center	1994
Riverbank Army Ammunition Plant Remedial Investigation Report.	Roy F. Weston, Inc.	1991
Riverbank Army Ammunition Plant Remedial Investigation Report Addendum	Roy F. Weston, Inc.	1991
Remedial Investigation (RI) Report – Riverbank Army Ammunition Plant	Roy F. Weston, Inc.	February 1992
Feasibility Study (FS) Report	Roy F. Weston, Inc.	June 1993
First Five-Year Review Report for Riverbank Army Ammunition Plant	U.S. Army	February 20, 2001
Preliminary Close Out Report	USEPA	January 1997
RCRA Documents		
Corrective Action Consent Agreement, Riverbank Army Ammunition Plant	Department of Toxic Substances Control	2002
RCRA Part B permit CA7210020759 (05-SAC-06)	CA Dept of Toxic Substances Control	May 6 2006, expires May 6, 2016
RCRA Facility Investigation Report	CH2MHill	February 4, 2005
RCRA Facility Investigation Current Conditions Report	CH2MHill	2002

2.0 PURPOSE/OVERVIEW

The PMP outlines the administrative procedures and processes, which RBAAP personnel, the Army or future property owners will use to administer the land use controls program for the installation. Land use controls are necessary since contaminants remain at the RBAAP above levels that allow for unrestricted use. In addition, RBAAP contains a RCRA unit identified as Solid Waste Management Unit (SWMU) 1 Industrial Wastewater Treatment Plant (IWTP) subject to future closure requirements.

The objective of this PMP is the preservation of controls put in place to protect human health and the environment at those sites identified in the 1994 ROD requiring remedial action. The two response actions addressed in the ROD included:

- A groundwater response action [Installation Restoration Program (IRP) Site RBAAP-003];
- A landfill response action (IRP Site RBAAP-001).

The groundwater response action requires containment of the chromium contamination in excess of 50µg/L and cyanide contamination in excess of 200 µg/L and long term monitoring (LTM). The landfill response action required installation of an appropriate final cover for the landfill and LTM. Both of these response actions have been implemented. In addition, the ROD included the following contingency actions: future investigation of the IWTP at the time of permit closure and additional remediation of groundwater if the shallow aquifer A-zone recharges in the future.

Remedial actions and investigations at RBAAP assumed continued industrial use of the property and in most cases utilized EPA Region 9 industrial preliminary remediation goals (IPRGs) for soils in industrial areas. As a result, the main production areas with the exception of the currently leased grazing area will be restricted for industrial use and will require use restrictions as environmental protection provisions in future BRAC transfer documents and deed at the time of property transfer.

3.0 RBAAP BACKGROUND/ CURRENT LAND USE

RBAAP is a GOCO industrial installation under the jurisdiction of the U.S. Army Joint Munitions Command. The facility has been slated for closure under the BRAC 2005 Law which was enacted by Congress in November 2005. The current operating contractor is NI Industries, Inc., which has operated the facility since early 1952. The facility is located at 5300 Claus Road, Riverbank, Stanislaus County, California, one mile south of the Stanislaus-San Joaquin County border and approximately ten miles northeast of the City of Modesto.

Environmental remediation at the RBAAP is currently being undertaken pursuant to CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), and National Contingency Plan (NCP) requirements, under the regulatory supervision of the USEPA, State of California Department of Toxic Substances Control (DTSC) and the State of California Regional Water Quality Control Board (RWQCB). Remedial activities at RBAAP are undertaken in accordance with the Federal Facility Agreement (FFA) (**U.S. Army, 1990**). The FFA was signed after RBAAP was added to the NPL on February 21, 1990. In addition, on July 30, 1995, DTSC issued a RCRA Part B Hazardous Waste Facility Permit for RBAAP. In addition to monitoring and reporting requirements for the facility, the permit required the Army to conduct a RCRA Facilities Investigation (RFI) for the SWMUs and areas of concern (AOCs). The RFI was completed by the Army in 2005 (**CH2MHill, 2005**).

3.1 Land Use

The facility occupies a total of 173 acres of land and consists of two non-contiguous areas represented by the main plant area (approx 146 acres) and the Evaporation/Percolation (EP) Ponds (27 acres) which are located approximately 1.5 miles north of the RBAAP Plant boundary

along the Stanislaus River. The RBAAP property is zoned as M for commercial/industrial use. RBAAP is bordered on the north, west and south by sparse residential areas, with a housing community lying west of the plant. RBAAP is bordered on the east by pastureland. Riverbank has a population of 16,400 and the nearest large community is Modesto located 10 miles southwest of the installation and having a population of 210,000. RBAAP activities are currently limited to the operation of the mortar production line, layaway of idle facilities, limited manufacturing and technology updates, and maintenance and protection of the overall facility. In addition, various buildings at the facility have been leased out to private businesses that conduct a variety of light to heavy industrial activities. The general classification of the RBAAP property is as follows and displayed on **Figure 2**:

- 99 acres used for the RBAAP Production and various industrial tenants;
- 37 acres leased as pasture land grazing;
- 10 acres covered by roads, right of way, open air storage, open space including landfill site and easements;
- 27 acres occupied by the EP ponds located 1.5 miles north of the plant.

RBAAP will continue to function as a Department of Defense (DoD) industrial installation and industrial park until BRAC transfer occurs. With the exception of the 37 areas leased for grazing, the property will be maintained solely for DoD industrial and leased industrial use until the time of transfer. As stated above at the time of transfer the RBAAP property will require additional use restrictions as environmental protection provisions in future transfer documents and deed due to the presence of contamination in groundwater and soils above applicable standards for unrestricted use.

4.0 RBAAP ENVIRONMENTAL CLEANUP PROGRAM OVERVIEW

4.1 Past Actions and Current Status Under CERCLA

The Installation Restoration Program activities at RBAAP began in 1979 with an Installation Assessment. The Assessment concluded that areas of the RBAAP and the waste disposal ponds located off-site were potentially contaminated with heavy metals and other chemicals as a result of procedures used in past manufacturing operations and waste disposal practices. The assessment also indicated the potential for migration of the contaminants into the subsurface soils and waters.

The USEPA initially proposed RBAAP for inclusion on the NPL on June 24, 1988 and added it to the final list on February 21,1990. A FFA was signed on April 5, 1990. Under this agreement, the Army agreed to complete the RI/FS and, eventually, perform the Remedial Design (RD) and implement the Remedial Action (RA) to address the environmental contamination at RBAAP.

In addition to the on-site RBAAP RI activities, an off-site residential well sampling program was established in September 1985. The residential well sampling program consisted of the quarterly sampling of approximately 70 wells located west of the RBAAP boundary. Water samples from six wells located west of the RBAAP showed levels of chromium in excess of 50 mg/L (drinking water standard). The initial response included the provision of bottled drinking water to those

affected residents followed by the installation of deep replacement wells. This action was followed in 1992 with the extension of the Riverbank City water system which connected services to all potentially affected residents. Extensive characterization of the E/P ponds was also completed during the RI phase and based on the RI findings, a removal action was completed in 1993 to address zinc-contaminated soil. The 1994 site wide ROD which addressed groundwater contamination and the landfill also documented the E/P Pond removal action in detail and concluded that no further action was necessary at the ponds (**USAEC, 1994**).

Historically eleven sites were identified and addressed under the IRP Program as follows:

RBAAP-001: Landfill;
RBAAP-002: Waste Salt Disposal Pit;
RBAAP-003: Groundwater Contamination Resulting from historical practices at the IWTP Currently titled (Groundwater Treatment Plant);
RBAAP-004: IWTP Effluent Sewer Line Break;
RBAAP-005: Bldg 13 Chromium Pretreatment;
RBAAP-006: H2SO4 Spill;
RBAAP-007: Phosphoric Acid Spill;
RBAAP-008: SE Storm Reservoir;
RBAAP-009: NW Storm Reservoir;
RBAAP-010: Sewage Treatment Plant/Sludge Beds;
RBAAP-011: E/P Ponds.

1994 Record of Decision: The RI/FS which addressed the investigation of the sites was completed in 1993 (**Weston, 1991, 1992, 1993b**). In March 1994, the USEPA, DTSC, RWQCB, and the Army signed the ROD for the RBAAP (**USAEC, 1994**). The site wide ROD contained two response actions that address the media of concern at RBAAP and documents that no further action is required at the remaining sites. The two response actions were as follows:

- A groundwater response action (IRP Site RBAAP-003): The groundwater response action requires containment of the chromium plumes contamination in excess of 50 ppb and cyanide contamination in excess of 200 ppb and LTM.
- A landfill response action (IRP Site RBAAP-001). The landfill response action required installation of an appropriate final cover for the landfill and LTM.

In addition, the ROD mentioned additional actions that may need to be addressed in the future which include:

- Investigation of the IWTP
- Recharge of the A-zone.

The IWTP remains an active unit treating waste under a RCRA Part B Permit identified as SWMU 1 (See Discussion Below under RCRA). The DTSC has indicated that additional sampling of soil will be required under each unit at the IWTP when this system goes through permit closure. The second post-ROD action consists of continued monitoring of the A-zone to assess whether it

recharges, and if it does recharge, investigation of the extent of contamination. If groundwater cleanup levels are exceeded, the A zone groundwater would then need to be remediated.

In September 1997, the USEPA, DTSC, RWQCB, and the Army signed the Preliminary Closeout Report for construction of the RAs required in the 1994 ROD (**USEPA, 1997**) (**CH2M HILL, 1997, 1997b, 1997c**). The agencies and Army concurred that the site wide response actions had achieved "construction complete" status and that the remedy was entering the operations and maintenance (O&M) phase.

The Army prepared the first Five-Year Review Report in 2001 to determine whether the remedial actions remain protective of human health and the environment and to assess whether the actions are functioning as designed and are operated and maintained in an appropriate manner. The report concluded that the remedy remained protective of human health and the environment and would remain so through completion (**U.S. Army, 2001**). A few minor deficiencies that do not immediately impact the protectiveness of the remedy were noted in the report. USEPA concurred with the Five-Year Review Report in September 2001. The second Five-Year Review Report is expected to be finalized in 2006.

The extraction system which has operated since 1997 currently includes eight groundwater extraction wells with two of the extraction wells located on site and the others located off site, primarily west of the facility. Four groundwater monitoring events occur throughout the year. Samples are analyzed for dissolved chromium and/or cyanide and groundwater elevation data is collected and reported. Long term groundwater monitoring and cap maintenance is performed at the Landfill Site including annual surveys to assure stability and annual management of a pesticide program to prevent rodent burrow damage.

4.2 Past Actions and Current Status Under RCRA

On July 30, 1995, DTSC issued the RCRA Part B Hazardous Waste Facility Permit for RBAAP. RBAAP currently holds a RCRA Part B Permit 05-SAC-06, I.D. Number (CA7210020759) for a Treatment, Storage and Disposal Facility (TSDF).

In addition to monitoring and reporting requirements for the facility, the RCRA Permit required the Army to conduct a RFI. In June 2002, the Army and DTSC signed a Corrective Action Consent Agreement (CACA) that identified 25 SWMUs and 16 AOCs which are listed below: (**DTSC, 2002**):

Solid Waste Management Units

SWMU 1 – IWTP
SWMU 2 – Hazardous Waste Storage Area (Drum Storage Facility);
SWMU 3 – Empty Drum Storage Area (Railroad Car Off-Loading Area);
SWMU 4 – Drum Staging Area (at the IWTP);
SWMU 5 – Chromium Reduction Unit (Building 13);
SWMU 6 – Chromium Reduction Unit (Building 1);
SWMU 7 – Coolant Recovery Unit (at the IWTP) (Hyde Ultra Filtration Unit);

SWMU 8 – Waste Oil Accumulation Unit (Waste Oil Storage Tank);
SWMU 9 – Equipment Wash Facility (Triple Rinse Area);
SWMU 10 – Landfill (Southern Portion);
SWMU 11 – Landfill (Northern Portion);
SWMU 12 – IWTP Sewer Line Break Area (Effluent Force Main);
SWMU 13 – Incinerator (Building 123);
SWMU 14 – Incinerator (Building 163);
SWMU 15 – Pesticide Storage Area (Building 11);
SWMU 16 – Pesticide Storage Area (Building 165);
SWMU 17 – Pesticide Storage Area (Building 170);
SWMU 18 – Former Sludge Desiccating Pit (Waste Salt Disposal Pit);
SWMU 19 – Waste Zinc-Cyanide Solution Neutralizing Tanks;
SWMU 20 – Northwest Storm Reservoir;
SWMU 21 – Southeast Storm Reservoir;
SWMU 22 – Sanitary Wastewater Settling Ponds;
SWMU 23 – E/P Ponds;
SWMU 24 – Industrial Waste Pipe Leak;
SWMU 25 – Underground Storage Tanks;

Areas of Concern

AOC 1 – Mortar Line Accumulation Area (Building 4)
AOC 2 – Machine Shop Accumulation Area (Building 9)
AOC 3 – Vehicle Maintenance Accumulation Area (Building 15)
AOC 4 – Grenade Line Accumulation Area
AOC 5 – Former Windrowed Area
AOC 6 – Sulfuric Acid Spill Area (1956)
AOC 7 – Phosphoric Acid Spill Area (1978)
AOC 8 – Horizontal Aboveground Storage Tanks
AOC 9 – Vertical Aboveground Storage Tanks
AOC 10 – Former Solid Waste Pile (Southeast Corner)
AOC 11 – Loading Racks
AOC 12 – Industrial Wastewater Collection System
AOC 13 – Draw Lube System (Building 178)
AOC 14 – Zinc-Cyanide Wastewater Collection System
AOC 15 – Building 13 Temporary Wastewater Line
AOC 16 – Substation 5

The CACA specifically described the need for additional investigation to determine the nature and extent of contamination at five RBAAP sites listed below:

- AOC 8B – Transformer Oil Storage Tanks and Distribution System;
- AOC 8B – Transformer Oil Storage Tanks and Distribution System;
- AOC 12 – Industrial Wastewater Collection System;

- AOC 14 – Zinc-Cyanide Wastewater Collection System;
- AOC 16 – Substation 5 and Storm Drain Discharge Basin;
- SWMU 16 – Pesticide Storage Building.

Based on the RFI findings and documented in the 2005 Final RCRA Facility Investigation Report, DTSC approved the findings with a letter of no further action required (**DTSC, 2005**). However, as stipulated by DTSC and specifically addressed in the 1994 ROD, further soil sampling will be required at SWMU 1 (IWTP) in the future as part of the permit closure process.

5.0 PMP PERFORMANCE OBJECTIVES

The objective of this PMP is the preservation of controls put in place to protect human health and the environment at those sites where contamination remains above levels allowable for unrestricted use. These sites include areas encompassing groundwater contamination resulting from the former IWTP operations, the landfill site, SWMU 1 (IWTP) addressed under the existing RCRA Permit and industrial operation areas where contaminants in soil remain above levels allowing for unrestricted use. The sites will remain subject to regulation under RCRA and CERCLA as long as the contaminants present a threat to human health and the environment. The controls described in this document shall be implemented to achieve the following objectives:

- The continued compliance with all terms and conditions of the 1994 ROD under CERCLA and with the requirements of the existing RCRA Permit;
- Insure that activities at a site or future uses remain in compliance with the restrictions outlined in the implementation plan for that site or environmental media;
- Prevent excavation and construction that would compromise the integrity of any protective structures such as the landfill cap or pavement in the vicinity of the IWTP with the exception of Army and agency authorized activities;
- Prohibit the human consumption of groundwater on-site that exceeds Federal Maximum Contaminant Levels (MCLs);
- Provide landowners in the vicinity of the off-post groundwater contamination via Stanislaus County Department of Environmental Resources with annual notifications regarding the status of the cleanup efforts and advised use restrictions;
- Ensure that routine maintenance activities required to ensure the integrity of the landfill cap and groundwater treatment/monitoring are performed, including inspections and maintenance to prevent damage or unauthorized modifications.

6.0 IMPLEMENTATION ACTIONS

The following land use control implementation actions will be undertaken by the Army to ensure that the land use control performance objectives are met and maintained.

6.1 Riverbank Land Use Controls Coordinator

The RBAAP Commander's Representative will identify a Land Use Controls Coordinator (LUCC) for RBAAP. The LUCC shall be responsible for the care and maintenance of all RCRA and CERCLA land use restricted sites on RBAAP. All activities at sites covered by this PMP will be coordinated through and be approved by the LUCC.

6.2 Distribution of Information

The PMP and the Site-Specific implementation plans provided in Appendices A, B, and C shall be provided to the following entities:

- USEPA – Federal Regulatory Agency responsible for enforcement of CERCLA;
- USEPA – Federal Regulatory Agency responsible for enforcement of CERCLA;
- DTSC – State of California DTSC responsible for enforcement of RCRA;
- State of California RWQCB;
- NI Industries: Responsible for maintenance and operation of the plant;
- Local Redevelopment Authority: Body charged with developing a reuse plan supporting the interests of the community prior to BRAC transfer;
- Restoration Advisory Board (if exists in future);
- Local City of Riverbank and Stanislaus County, Department of Environmental Resources.

6.3 Notification

The LUCC shall notify and work with EPA, DTSC, the Regional Water Control Board and the Stanislaus County Department of Environmental Resources if a proposed activity is expected to have an adverse impact on the remedy. Any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the controls will be addressed by the Army as soon as practicable, but in no case will the process be initiated later than 10 days after the Army becomes aware of the breach. Unanticipated or emergency actions that result in a violation of the restrictions placed on a site shall be reported to the agencies listed above no longer than 10 days after discovery. The LUCC will immediately start working to remedy the problems created by the action.

6.4 Reporting

Beginning upon approval of the PMP and continuing until the effective date of property conveyance, the Army will provide to USEPA, DTSC and the RWQCB an annual LUC Compliance Report. Following property conveyance, either the Army or new property owner will continue to provide annual LUC Compliance Reports as will be determined in the terms of the transfer and documented in the deed.

As the basis for the LUC Compliance Report, the LUCC or designee shall inspect the sites to evaluate compliance with required restrictions. The compliance report will be submitted annually as a letter report containing the following information:

- Identification of the site and associated restrictions;
- A summary of the physical site inspections at each site;
- Information on any violations. Should any violation or deficiency be found during a site inspection, the Army will provide a written explanation describing the deficiency and what efforts or measures have or will be undertaken to correct the deficiency;
- Identification any corrective actions found to be necessary as a result of changes in site conditions;
- Any proposed changes to inspection and reporting frequency.

6.5 Future Property Conveyance

Future transfer of the property from the Army will include a CERCLA 120(h)(3) covenant which will contain a description of the residual contamination on the property and the environmental use restrictions, expressly prohibiting activities inconsistent with restrictions placed on the property. As RBAAP will be transferred under BRAC05, a Finding of Suitability to Transfer (FOST) will be prepared and will contain all land use restrictions in the environmental protection provisions section of the FOST. Until the property at this site is transferred, the Army will be responsible for implementation, inspection, periodic reporting, and enforcement of the land use controls (LUCs) for the RBAAP. As a condition of property transfer, the transferee in cooperation with USEPA, DTSC and RWQCB may assume responsibility for various implementation actions. Third party LUC responsibility will be incorporated into pertinent contractual and property documentation. Although the Army may transfer responsibility for various implementation actions to a third party, the Army shall remain ultimately responsible for remedy integrity. This means that the Army remains responsible for addressing violations of LUCs that would impair the CERCLA remedy. Should any LUC deficiency result in failure to maintain remedy integrity, the Army will ensure that appropriate actions are taken as soon as practicable to reestablish the remedy's protectiveness and may initiate legal action to either compel action by a third party(ies) and/or to recover the Army's costs for remedying any discovered LUC violation(s).

7.0 DOCUMENTATION OF RESTRICTIONS

7.1 Signage

Information signs will be upgraded and placed at the landfill site informing people accessing these areas that there are use restrictions. The signs will indicate that the area is subject to land use controls, and will identify the organization to contact regarding questions or concerns.

7.2 Map of LUC Locations

Maps showing the locations of sites with land use controls are provided in each of the implementation plans presented in the appendices. The purpose of the maps are to provide a quick

reference to people involved in planning operations, construction activities and maintenance activities. The maps are expected to be a significant tool in the efforts to control activities on these sites.

8.0 ENFORCEMENT

A site will continue to be subject to regulations under CERCLA or RCRA until such time that it is shown that the remedy is complete or the site conditions no longer represents a threat to human health or the environment.

Should a site be transferred, the Army shall include all existing regulatory restrictions on the transfer deed in the form of restrictive covenants or deed restrictions. The deed provisions will include requirements for the Army or future owner to enforce, maintain, and annually inspect the sites and associated controls.

9.0 TERMINATION OF LAND USE CONTROLS

Land Use Controls will be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use. The following options are available with regulatory concurrence should the Army or future property owner decide that the land use controls at a site need to be modified:

- A new evaluation of the site. The evaluation may include an evaluation of historical data against current standards. The evaluation could find that contamination levels are below the protective standard values.
- Performance of additional remediation such that use restrictions would no longer be required.

10.0 REFERENCES

Department of Toxic Substances Control. 2002. Corrective Action Consent Agreement, Riverbank Army Ammunition Plant, Stanislaus County.

CH2MHill. 2002. "RCRA Facility Investigation Current Conditions Report, Riverbank Army Ammunition Plant, Riverbank, California." October.

CH2MHILL. 2005 a. RCRA Facility Investigation Report. Riverbank Army Ammunition Plant, Riverbank, California. February.

Roy F. Weston, Inc. 1993b. "Feasibility Study (FS) Report – Riverbank Army Ammunition Plant." June.

Roy F. Weston, Inc. [Weston], 1991. Riverbank Army Ammunition Plant Remedial Investigation Report. West Chester, Pennsylvania. Prepared for Commander, U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland 21010-5401.

Roy F. Weston, Inc. [Weston], 1991b. Riverbank Army Ammunition Plant Remedial Investigation.

Report. Addendum . Prepared for Commander, U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland 21010-5401.

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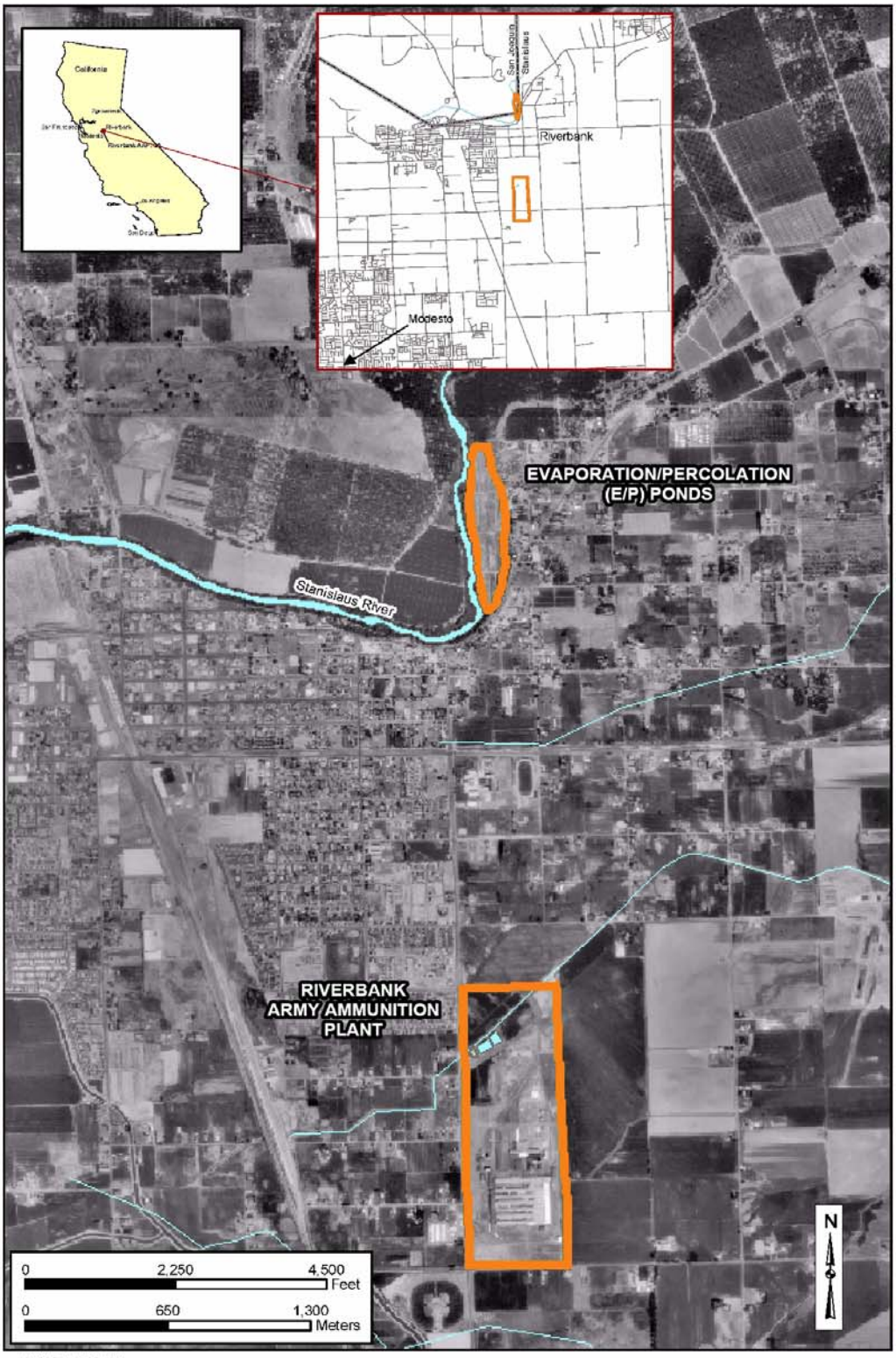
U.S. Army Environmental Center, 1994 Record of Decision, Riverbank Army Ammunition Plant.

U.S. Army Corps of Engineers, Sacramento District. 1996. Riverbank Army Ammunition Plant Landfill Closure – Final Closure Report. January 30.

USEPA, DTSC, RWQCB, Comments and Army Response to Comments on 2nd Five Year Review, Riverbank Army Ammunition Plant, January 2005.

FIGURES



SOURCE: USACE, 2006

FIGURE-1

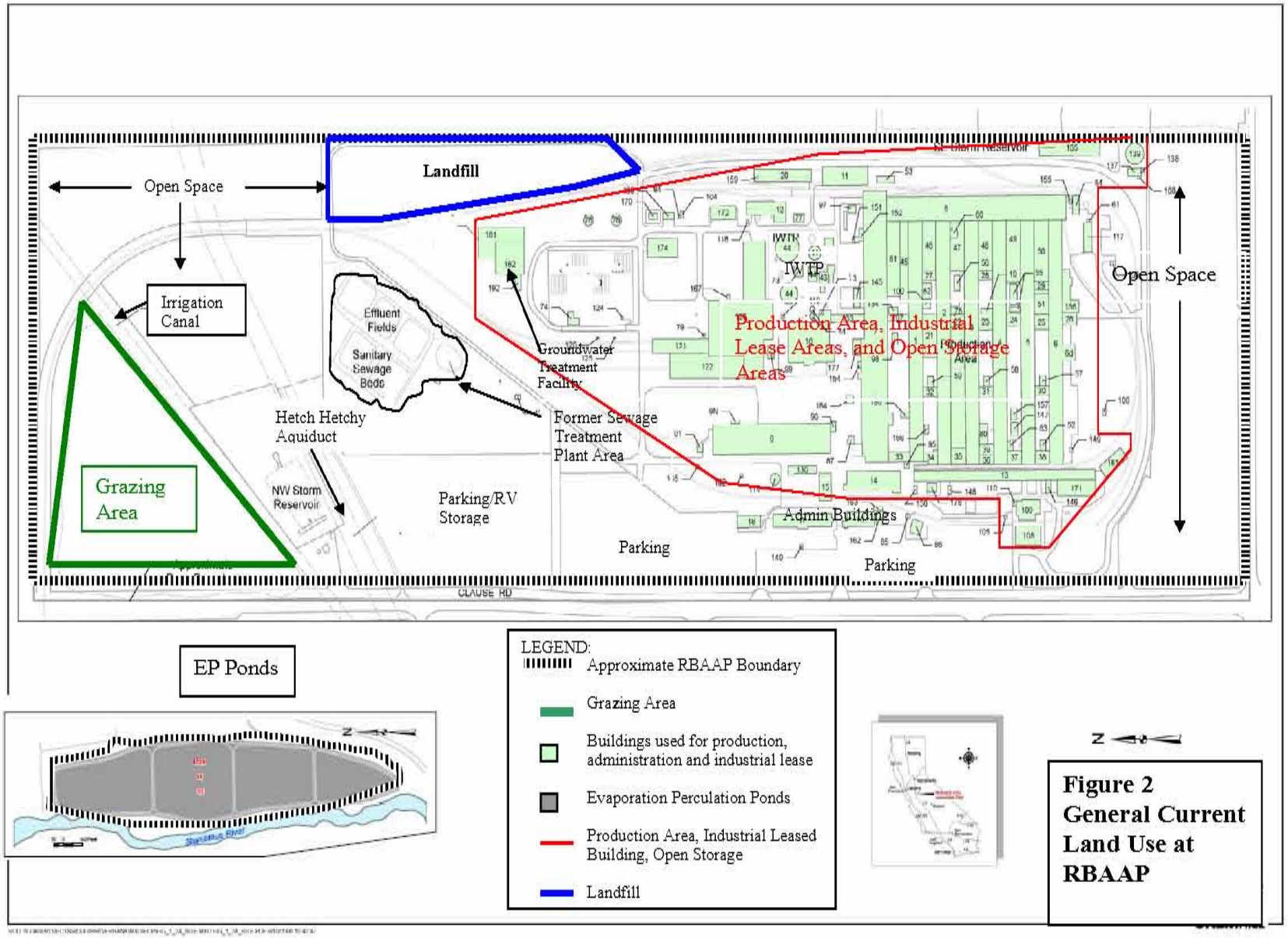


Figure 2
General Current Land Use at RBAAP

U.S. ARMY ENVIRONMENTAL CENTER

APPENDIX A

IMPLEMENTATION PLAN
GROUNDWATER

PROPERTY MANAGEMENT PLAN
FOR LAND USE CONTROL ACTIONS
RIVERBANK ARMY AMMUNITION PLANT

Draft Final
November 2006

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ACRONYMS AND ABBREVIATIONS

BRAC	Base Realignment and Closure
CDHS	California Department of Health Services
DTSC	Department of Toxic Substances Control
DWS	Drinking Water Standard
FOST	Finding of Suitability to Transfer
GWTP	groundwater treatment plant
IWTP	Industrial Wastewater Treatment Plant
MCL	maximum contaminant level
NPL	National Priorities List
NTNC	nontransient, noncommunity
RBAAP	Riverbank Army Ammunition Plant
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SWMU	Solid Waste Management Unit
USEPA	U.S. Environmental Protection Agency

APPENDIX A

IMPLEMENTATION PLAN
GROUNDWATER
RIVERBANK ARMY AMMUNITION PLANT

1.0 REASON FOR LAND USE CONTROLS

Groundwater contamination consisting of chromium and cyanide is present in the aquifer at Riverbank Army Ammunition Plant (RBAAP) at levels exceeding the remediation level State Drinking Water Standard (DWS) maximum contaminant level (MCL) of 50 ppb for chromium and 200 ppb for cyanide. Potential exposures to groundwater through direct ingestion or showering were associated with significant human health risks. Controls are needed to prevent consumption of contaminated groundwater from the shallow (A', A, B, and C) aquifer zones. The protectiveness of the remedy will continue to be evaluated as part of the CERCLA 5-year review process.

2.0 SITE HISTORY

The U.S. Environmental Protection Agency (USEPA) added RBAAP onto the National Priorities List (NPL) on February 21, 1990 primarily due to the presence of groundwater contamination (chromium and cyanide) detected on and off-post. The source of the chromium contamination detected in groundwater was traced to releases associated with the original Industrial Wastewater Treatment Plant (IWTP).

The IWTP at RBAAP was constructed to treat the wastewaters generated from the electroplating, cleaning and metal finishing processes that are operated on-site and includes facilities for flocculation, clarification, sludge thickening, sludge/liquid separation, and nitrate salt removal. The original storage and equalization tanks used for the IWTP were made of redwood which would leak. During periods of low flow to the IWTP the redwood would desiccate, causing gaps between the timbers. Upon filling, fluid would leak through the gaps to the ground until the timbers swelled once again and closed the gaps. From 1973 to 1980 the IWTP was upgraded and the redwood tanks were replaced with concrete tanks. Based on groundwater contamination both on-site and off-site, the IWTP area was identified as a major source of chromium contamination in the groundwater.

Prior to the 1994 ROD, the Army installed an interim groundwater treatment system and provided alternative drinking water sources to all affected off-site residences. In 1992 the Army completed the extension of the Riverbank City water system which connected services to all potentially affected residents located downgradient to the west of RBAAP.

The final site-wide Record of Decision (ROD) signed in March 1994 required expansion of the interim groundwater treatment system to fully capture groundwater contamination. The expanded system began operation in 1997 and is now removing the contaminated

groundwater by means of Ion Exchange. The major requirements of the groundwater remedy described in the 1994 ROD included:

- Groundwater extraction from wells located on-site and off-site, with an estimated minimum extraction rate of 120 gpm (actual extraction and treatment rates were to be determined during remedial design).
- The extraction system needs to capture chromium plumes above 50 ppb [California Department of Health Services (CDHS) MCL] and cyanide plumes above 200 ppb (USEPA MCL). Full plume capture will be demonstrated by an adequate monitoring well network.
- Treatment for chromium and cyanide using chemical reduction/precipitation and ion exchange.

The ROD also described two "post-ROD" potential actions that, although not part of the remedy, might need to be addressed based on future site conditions or findings. These potential actions include:

- Investigation of the IWTP;
- Recharge of the A-zone.

The IWTP remains an active unit treating waste under a Resource Conservation and Recovery Act (RCRA) Part B Permit identified as (Solid Waste Management Unit (SWMU) 1], and the Department of Toxic Substances Control (DTSC) has indicated that additional sampling of soil will be required under each unit at the IWTP when this system goes through permit closure. The second post-ROD action consists of continued monitoring of the A-zone to assess whether it recharges, and if it does recharge, investigation of the extent of contamination. If groundwater cleanup levels are exceeded, the A zone groundwater would then need to be remediated. Groundwater is currently monitored on a quarterly basis as per specifications in the Final Extraction System Design and Monitoring Plan with System Operating Procedures (**CH2MHill, 1997**).

The extraction system which has operated since 1997 includes eight groundwater extraction wells with two of the extraction wells located on-site and the others located off site, primarily west of the facility. It is projected that the system will be operated until the year 2008 but it may require more years of operation beyond 2008 depending on the effectiveness of the extraction system. RBAAP currently has a monitoring well network of 129 wells screened in the various aquifer zones (A', A, B, C and D) defined below:

A - an unsaturated upper sand zone; average depth from 29 to 60 feet bgs (below ground surface);

A'- a partially to fully saturated, well-graded silty sand; average depth from 60 to 90 feet bgs; approximately 30 feet thick;

B - saturated, semi-continuous sand units interbedded with thin silt and clay layers; average depth from 90 to 120 feet bgs; approximately 30 feet thick;

C - saturated sand zone; average depth from 120 to 150 feet bgs; approximately 30 feet thick; and

D - saturated coarse sand and gravel with volcanic material; between 150 and 220 feet bgs; approximately 70 feet thick.

Four groundwater monitoring events occur throughout the year-two quarterly, one semi-annual and one annual which include specific sets of wells completed in the various A', A, B , C and D portions of the aquifer. Samples are analyzed for dissolved chromium and cyanide and groundwater elevation data is collected and reported as specified in the Quality Assurance Project Plan Addendum (**CH2MHill, 1999).** The Army prepared the first Five-Year Review Report in 2001 to determine whether the remedial actions remain protective of human health and the environment and to assess whether the actions are functioning as designed and are operated and maintained in an appropriate manner. The report concluded that the remedy remained protective of human health and the environment and would remain so through completion (**U.S. Army, 2001**).

In general, the contaminated areas are much smaller as of 2006 1st Quarter Sampling Results then they were in 1997 when the system began operation, and significantly smaller than in 2001 when the first five-year review was performed. Historically, the highest concentrations of chromium and cyanide have been observed in the A-zone, at 1,300 and 22,600 µg/L, respectively. Groundwater results are provided on a quarterly basis in Quarterly Monitoring Reports. Based on the most recent 2006 1st Quarter results, cyanide concentrations exceeded the 200 ppb MCL in only one well (MW71A') which is located on RBAAP property. Cyanide concentrations detected off-post in 2006 1st Quarter ranged from 18 to 83 ppb below the 200 ppb MCL. Chromium concentrations exceeded the 50 ppb CDHS MCL in seven wells ranging from 58 to 275 ppb. Only one off-post well (Well 115 A') contained chromium (70.6 ppb) above the CDHS MCL of 50 ppb.

3.0 GROUNDWATER RESTRICTIONS

3.1 On-Site Groundwater Restrictions

The following section addresses restriction of groundwater use or unauthroized alteration/disturbance of the active remediation system and the existing monitoring well network located within the boundaries of the RBAAP property.

3.1.1 Restrictions Under the California Department of Health Drinking Water Program

The consumptive use of contaminated groundwater present in the aquifer zones A, A', B, C or D at RBAAP is prohibited based on the terms of the existing State of California Domestic Water Supply Permit. The area of on-site groundwater use restriction outside

of the terms of the permit includes the entire main plant property as displayed in **Figure A-1**.

The RBAAP currently operates a water system that serves the facility. The system is classified as a nontransient, noncommunity (NTNC) water system that serves the plant property. The system has 26 service connections and obtains its water supply from three active wells located on the plant property listed below:

Potable Supply Wells at RBAAP as per Permit 03-10-03P-005		
Name	**Depth**	**Status**
Well 01	430	Standby
Well 05	710	Active
Well 06	605	Active

The system operates under the State of California Domestic Water Supply Permit 03-10-03P-005 **(State of CA, 2003).** Under the terms of the State of California Water Supply Permit the only sources approved for potable water supply for the facility are wells 01, 05, and 06 which are inspected annually and require quarterly monitoring. Any use of non approved sources of water to include wells not listed on the permit is in violation of permit conditions.

3.1.2 Restrictions on Alteration of Active Remediation System and Monitoring Well Network

The RBAAP maintains an active groundwater treatment plant (GWTP) and associated extraction well and monitoring well network. The GWTP is maintained and operated by the Army in accordance with the requirements documented in the 1994 ROD and updated accordingly with regulatory approval as part of the five year review process.

All monitoring and extraction wells are secured with locks and access to the installation is controlled by fencing and plant security personnel. Significant alterations of this system or application of alternative remediation technology to optimize or accelerate cleanup will require prior approval by USEPA, DTSC and Regional Water Quality Control Board (RWQCB).

No activities or actions that will damage the well heads, vaults, casing, or compromise the overall integrity of monitoring wells shall be allowed on the property. Abandonment of monitoring wells shall be conducted only as approved by USEPA, DTSC and the RWQCB and will be conducted according to State of California well abandonment procedures.

3.2 Off-Site Groundwater

As documented in the 1994 ROD and subsequent Quarterly Monitoring Reports, contamination consisting of chromium and cyanide originating from RBAAP has been documented in groundwater underlying the area immediately to the west of RBAAP. In 1992 the Army completed the extension of the Riverbank City water system which connected services to all potentially affected residents located downgradient to the west of RBAAP. This action involved disconnection of the well to house plumbing and the installaion of backflow preventors. The residents were informed that well water use should be restricted to use for irrigation and other non-potable uses outside the home. As this area falls outside of the Army controlled RBAAP property boundaries, the Army and future property owners must rely on existing Stanislaus County Well Construction Requirements (**See Attachement A-1 and A-2**) and Stanislaus County notification procedures to inform the public and to ensure that existing wells are not used for potable use or new wells are not installed in this area for drinking water purposes prior to completion of groundwater remediation.

3.2.1 Stanislaus County Well Construction Requirements

Based on the existing Stanislaus County Code Title 9, Health and Safety, Chapter 9.36 Water Wells, the installation of wells on the property immediately west of RBAAP is precluded by Stanislaus Well Permit procedures which require the identification of possible sources of contamination in the vicinity of the property. As per Chapter 9.36.030 the owner of property upon which a well is located or proposed to be located, or his authorized representative, shall obtain a permit from the health officer to construct, repair or destroy any well or well seal. No person shall construct, install, repair or destroy any well or well seal without first having been furnished a copy of a valid permit for such work. In addition, A well site and surrounding property may be inspected by the health officer at any time prior to the destruction or construction of any well.

3.2.2 Stanislaus County Annual Notification

Based on Army discussion with the Stanislaus County Department of Environmental Resources, it has been acknowledged that residents located in the area west of RBAAP which have been connected to the City of Riverbank water but have maintained groundwater wells for non-potable use should be provided an annual notification regarding the groundwater cleanup activities at RBAAP and the advised use restrictions on groundwater. A list of the residents and associated wells is provided in **Attachment A-3** and a map showing the location of domestic, monitoring and extraction wells is provided as **Figure A-2**. In order to assist the Department of Environmental Resources, the Army will provide copies of the Quarterly Groundwater Monitoring Reports to the Department and make these reports available to the public in the RBAAP Administrative Record and at the City of Riverbank Public Library. The notification will provide a brief historical description of the cleanup efforts and will inform residents of potential risk associated with ingestion and home use of groundwater.

3.2.3 Reporting

An Annual LUC Compliance Report will be provided as described under the Reporting Section of the PMP . All other required reporting including Quarterly Groundwater Monitoring and system O&M as described in the Final Extraction System Design and Monitoring Plan with System Operating Procedures will continue until remedial goals are met or as approved by the regulatory agencies.

4.0 FUTURE ACTIVITIES ON THE SITE

4.1 On-Site Groundwater

As RBAAP will be transferred under Base Realignment and Closure (BRAC) 05, a Finding of Suitability to Transfer (FOST) will be prepared and will contain all land use restrictions in the environmental protection provisions section of the FOST. The Army will then incorporate these restrictions on the deed in the form of restrictive covenants or deed restrictions. Requirements to maintain the integrity of the existing or future groundwater treatment system and well network and prohibition on the potable use of groundwater outside of the terms of the existing State of California Domestic Water Supply Permit will be specifically addressed in future transfer documents and subsequent deed restrictions. The length of time that the deed prohibition against the extraction and use of groundwater from the (A', A, B and C Aquifer Zones) shall remain in effect depends on the length of time needed to remediate those groundwaters and to obtain the required regulatory approval for such use.

4.2 Off-Site Groundwater

The requirement to provide status of cleanup efforts and Quarterly Groundwater Reports to Stanislaus County Department of Environmental Resources will be listed as a requirement in the environmental provisions section of BRAC transfer documents. As a condition of property transfer, the Army may require the transferee to assume responsibility for providing these Quarterly Reports to Stanislaus County Department of Environmental Resources. In this event the responsibility will be incorporated into pertinent contractual and property documentation at the time of transfer.

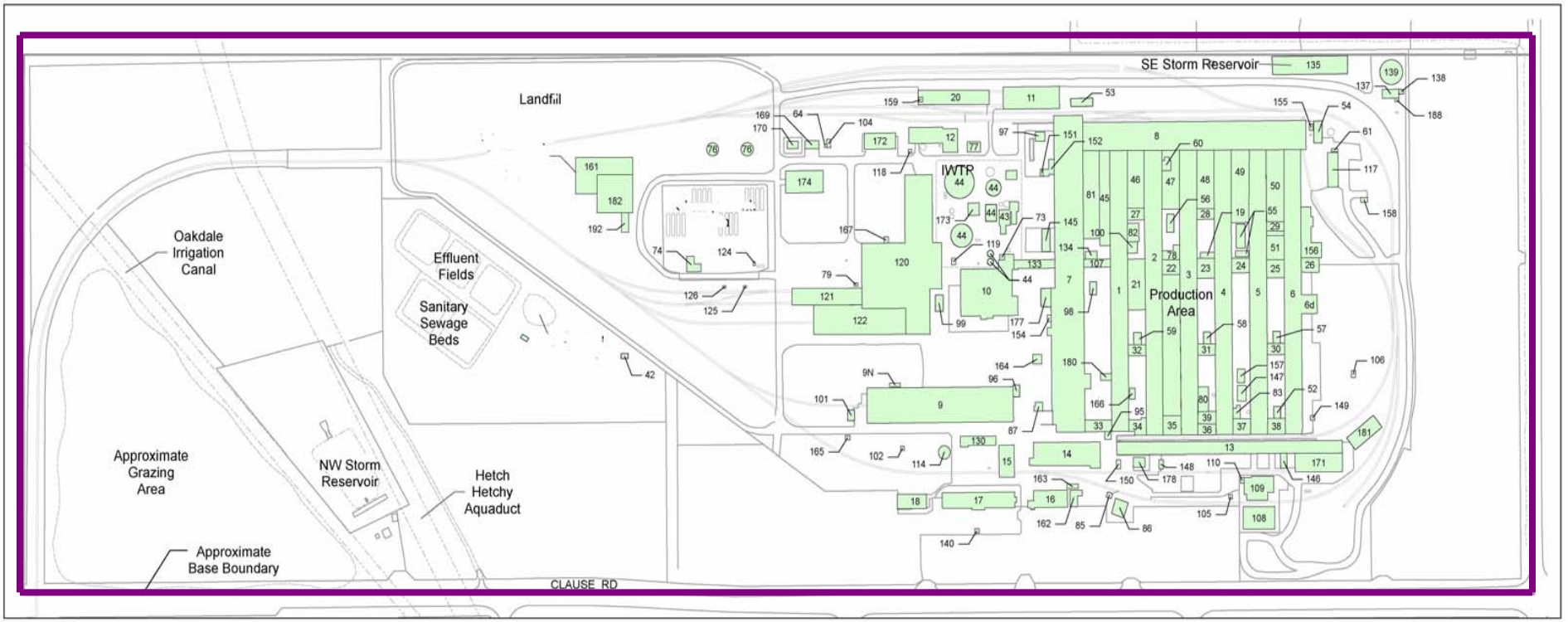
5.0 REFERENCES

CH2MHill, 1999, Quality Assurance Project Plan Addendum, May 1999.

CH2MHill, 1997, Final Extraction System Design and Monitoring Plan with System Operating Procedures , 1997.

State of California. 2003. Domestic Water Supply Permit Issued to Riverbank Army Ammunition Plant. May 14.

U.S. Army. 2001. "First Five-Year Review Report for Riverbank Army Ammunition Plant, City of Riverbank, Stanislaus County, California." February 20.



Legend:

Approximate Facility Boundary defining Area of On-Site Groundwater Use Restriction.

Building

N

FIGURE A-1
Area of On-Site Groundwater Use Restrictions RBAAP

RDD \\LOKI\PROJECTS\RDDGIS\RIVERBANK\MXD\ECP\FIG_1_2A_SITE.MXD FIG_1_2A_SITE.PDF 8/10/2006 10:47:47

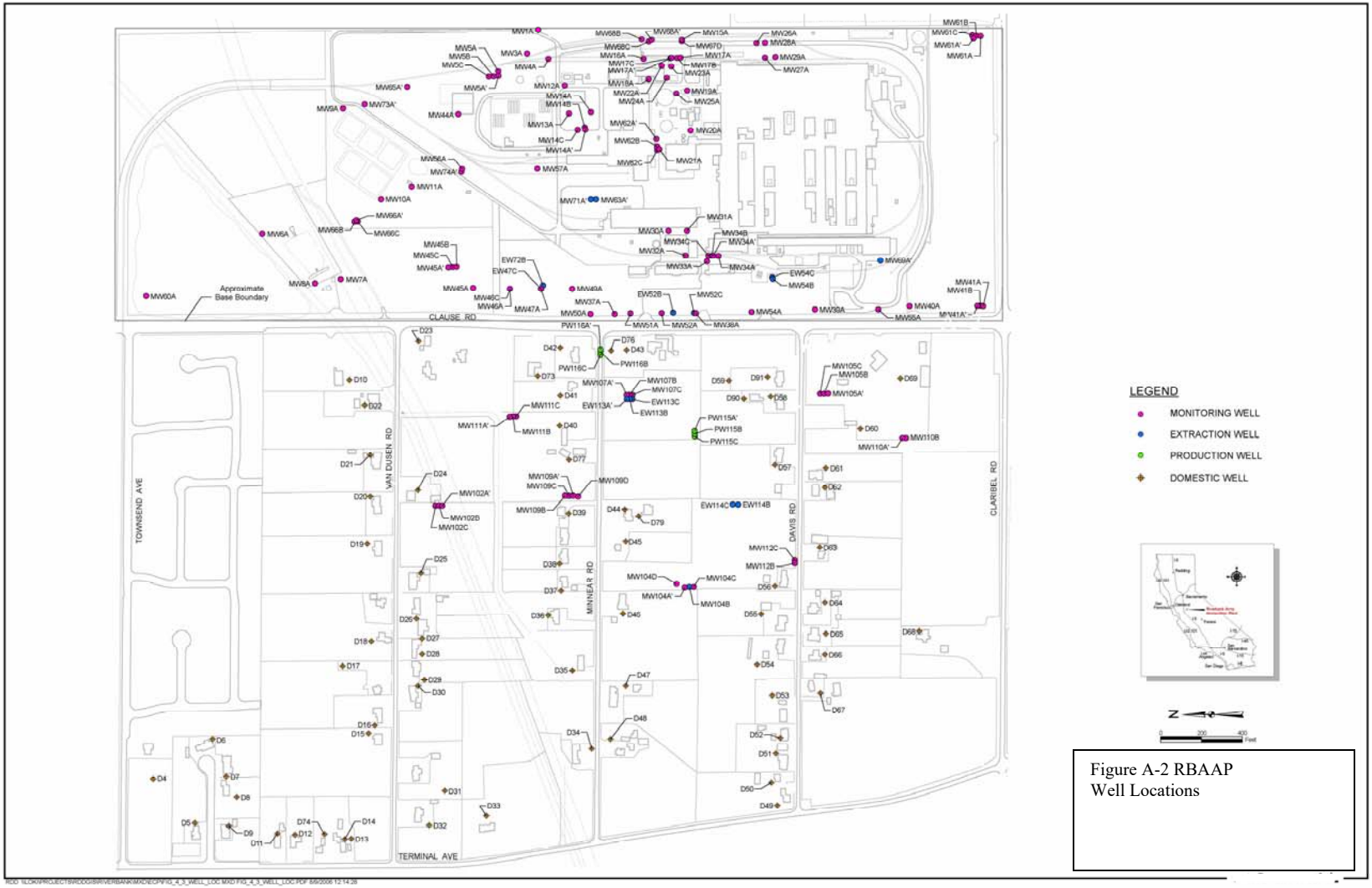


Figure A-2 RBAAP
Well Locations

ATTACHMENTS

Attachment A-1 Applicable Stanislaus County Code

Stanislaus County Code Title 9 Health and Safety
9.36.030 Permit--Required.
The owner of property upon which a well is located or proposed to be located, or his authorized representative, shall obtain a permit from the health officer to construct, repair or destroy any well or well seal. No person shall construct, install, repair or destroy any well or well seal without first having been furnished a copy of a valid permit for such work. A permit shall be required when any well seal is broken. The application for a permit shall be in the form prescribed by the health officer and contain such information as the health officer may require. It shall be a condition of every permit for the repair of a well or well seal that there shall be compliance with the provisions of this chapter. For the purpose of this section, the term "well" includes cathodic protection wells. (Prior code § 3-302).

9.36.020 Definitions.
For the purpose of this chapter, certain words and phrases shall be defined as follows:

A. "Cathodic protection well" means any artificial excavation in excess of fifty feet constructed by any method for the purpose of installing equipment or facilities for the protection electrically of metallic equipment in contact with the ground, commonly referred to as cathodic protection.

B. "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public

Attachment A-2
Stanislaus County Application for Well Construction or Destruction

Lat:_____ Long:_____ **Permit No._____** **T._____R._____Sec._____** **Date Issued:_____** **1/4 Sec._____ Quad._____** **A.P.N._____**	**STANISLAUS COUNTY** **DEPARTMENT OF ENVIRONMENTAL RESOURCES** **3800 CORNUCOPIA WAY, SUITE C,** **MODESTO, CA 95358-9492** **(209) 525-6700**

APPLICATION FOR WELL CONSTRUCTION OR DESTRUCTION

THIS PERMIT EXPIRES 1 YEAR FROM DATE ISSUED

Application is hereby made to the Stanislaus County Department of Environmental Resources (D.E.R.) for a permit to construct and/or destroy the work herein described. PLEASE NOTIFY THIS DEPARTMENT (USING PERMIT # AND D.W.R. WELL DRILLERS REPORT) WHEN WELL WORK IS COMPLETED.

JOB
ADDRESS/LOCATION_____
_____ City_____

Distance & Direction from Nearest Cross Streets
_____
_

Owner's
Name_____
____ Phone_____

Address
_____
City/State_____

Contractor's Name_____
License #_____ Phone_____

TYPE OF WORK:(Check one)

NEW WELL ☐ DEEPEN ☐ RECONDITION ☐ DESTRUCTION ☐

OTHER

☐ _____
_____

DISTANCE TO NEAREST:

SEPTIC TANK _____ SEWER LINES _____ PIT PRIVY_____

OTHER WELL _____ SEWAGE DISPOSAL FIELD _____ SEEPAGE PIT _____

DRY WELL _____ OTHER _____

ANIMAL ENCLOSURE _____

INTENDED USE	**TYPE OF WELL**
☐ Industrial	☐ Cable Tool
☐ Domestic / Private	☐ Drilled
☐ Domestic / Public	☐ Gravel Pack
☐ Irrigation	☐ Rotary
☐ Cathodic protection	☐ Other_____
☐ Other_____	

CONSTRUCTION / DESTRUCTION SPECIFICATIONS

Dia. of Well Excavation _____

Dia. of Well Casing _____

Gauge of Casing _____

Depth Conductor Casing _____

Depth of Grout Seal _____

Type of Grout _____ # Bags_____

Grout Manufacturer_____

Grout Name_____

Well Destruction: Describe method if different than minimum state standards:_____

_____
_____

Existing well present? YES NO **Status:** Active ☐ To Be Destroyed ☐ Inactive ☐

D.E.R. USE ONLY

Permit Issued by:_____Date:_____

Permit Denied by:_____Date:_____(See Attached)

Grout Seal Inspected by:_____Date:_____

Final Inspection by:_____Date:_____

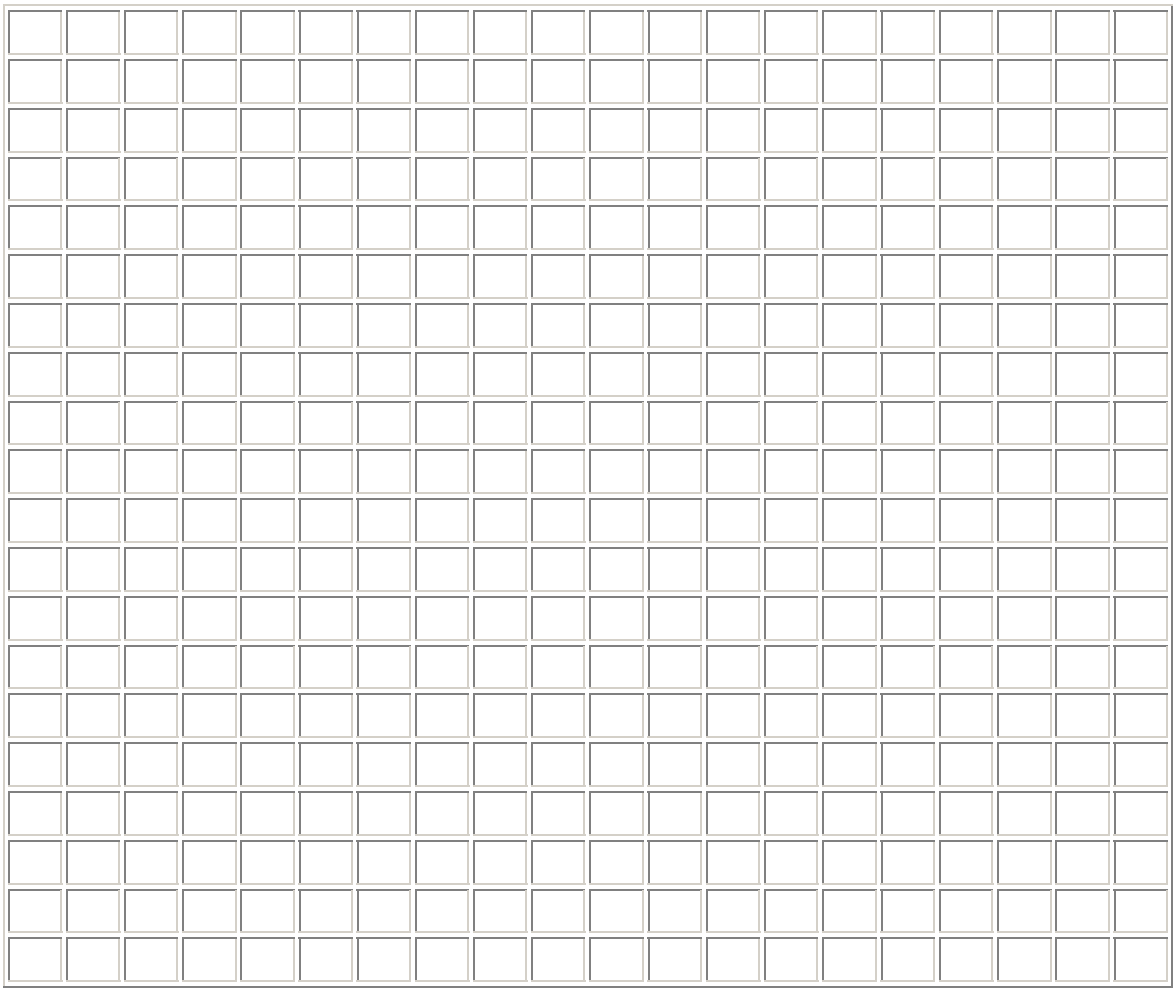
PLOT PLAN

(Indicate Distances in Feet)

1. Name of street and distance from nearest cross roads to well site.

2. Outline of the property, easements.
3. Outlines and locations of all existing and proposed structures, including covered areas such as patios, driveways, and walks.
4. Location of house sewer outlet, public sewer, sewage disposal system, or proposed sewage disposal system, proposed expansion of sewage disposal system, industrial waste pond, or any other possible source of contamination.
5. Location of other wells within radius of 300 feet on the property or adjoining property.
6. Location of sewage disposal system on adjoining property or within a radius of 100 ft. (private well) 150 ft. (public well).

NORTH ^



Written description of well location (if not visible from road):_____

I HEREBY CERTIFY THAT I HAVE PREPARED THIS APPLICATION AND THAT THE WORK WILL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LAWS OF THE STATE OF CALIFORNIA, THE ORDINANCES OF THE COUNTY OF STANISLAUS AND THE RULES AND REGULATIONS OF THE STANISLAUS COUNTY DEPARTMENT OF ENVIRONMENTAL RESOURCES (DER). DER WILL BE CONTACTED FOR INSPECTION OF ANNULAR SEAL INSTALLATION, AND AFTER WELL WORK HAS BEEN COMPLETED.

1. All existing wells within a 300 foot radius of the proposed new well(s) on the property or adjoining property have been located and so indicated.
2. Proposed well(s) will be located at least 50-100 feet from any sewage disposal system on property or adjoining property. Public well requires a distance of 100-150 feet from disposal system (100 ft. septic tank and leach lines, 150 ft. pits).
3. Submit well logs on all public wells drilled, as notice of well work completion.

SIGNED:_____
_____
(OWNER OR AUTHORIZED REPRESENTATIVE)

DATE:_____

Attachment A-3
List of Residential Properties West of RBAAP Connected to Riverbank Public Water Supply

(Note: Domestic Well No. Represents well maintained on property for non-potable use)

Address	Owner (Source: City of Riverbank, May 8, 2006)	Domestic Well No. Ref: Army Well Map
3648 Minniear	Raul Villegas, 1894 Story Rd, San Jose, CA. 95122	D-48
3649 Minniear	Jose & Lucille Lhaslego, 3649 Minniear, Modesto, CA. 95357	D-34
3718 Minniear	John A. Wilson 3718 Minniear, Modesto, CA 95357	D-67
3737 Minniear	Don McAdams C/O Liberty Prop. Mgmt., 1120 Scenic Dr., Modesto, CA	D-35
3767 Minniear	Michael W. Kummer P.O. Box 502, Riverbank, CA 95367	D-36
3772 Minniear	E. Smith 3772 Minniear, Modesto, CA 95357	D-46
3807 Minniear	Francie Chiara 3807 Minniear, Modesto, CA 95357	D-37
3819 Minniear	Lillian Hale 3819 Minniear, Modesto, CA 95357	D-38
3825 Minniear	Muriel Dillon 3825 Minniear, Modesto, CA 95357	D-39
3830 Minniear	TBD	D-45
3848 Minniear	Jack & Glenda Davis 3848 Minniear, Modesto, CA 95357	D-44
3901 Minniear	Lloyd Fannon 3901 Minniear, Modesto, CA 95357	D-77, D-40

Attachment A-3
List of Residential Properties West of RBAAP Connected to Riverbank Public Water Supply

(Note: Domestic Well No. Represents well maintained on property for non-potable use)

Address	Owner (Source: City of Riverbank, May 8, 2006)	Domestic Well No. Ref: Army Well Map
3939 Minniear	Joh Cao 3939 Minniear, Modesto, CA 95357	D-41
3967 Minniear	Charles La Combe 3967 Minniear, Modesto, CA 95357	D-42
5101 Claus Rd	Brite Transport Kirk Lindsey P.O. Box 726, Riverbank, CA 95367	D-69
5337 Claus Rd	Charles V. Clemmens 40 Field Circle, Chambersburg, PA 17201	D-43
5437 Claus Rd	Well Destroyed	D-73 (Well Destroyed)
5537 Claus Rd	TBD	D-23
5643 Claus Rd	Jesse Rogers 5643 Claus Rd, Riverbank, CA 95367	D-10
3607 Davis	Lottie Smink 3607 Davis, Modesto, CA 95357	D-49
3613 Davis	Ken Mattson 3613 Davis, Modesto, CA 95357	D-50
3625 Davis	Elza Youngman 3625 Davis, Modesto, CA 95357	D-51
3643 Davis	Randy Youngman 3643 Davis, Modesto, CA 95357	D-52
3701 Davis	William & Christine McLimans 3701 Davis, Modesto, CA 95357	D-53
3718 Davis	Debbie Parker 3718 Davis, Modesto, CA 95357	D-67

Attachment A-3
List of Residential Properties West of RBAAP Connected to Riverbank Public Water Supply

(Note: Domestic Well No. Represents well maintained on property for non-potable use)

Address	Owner (Source: City of Riverbank, May 8, 2006)	Domestic Well No. Ref: Army Well Map
3731 Davis	Maria Carmen Romo 3731 Davis, Modesto, CA 95357	D-54
3742 Davis	Shawn Phelps 3742 Davis, Modesto, CA 95357	D-66
3754 Davis	Clyde Pritsch 3754 Davis, Modesto, CA 95357	D-65
3766 Davis	Well Destroyed	D-64
3773 Davis	Michael Cabral 3773 Davis, Modesto, CA 95357	D-55
3801 Davis	Tom Tackett 3801 Davis, Modesto, CA 95357	D-56
3812 Davis	Joe Garcia 9595 Lorenzo St, La Grange, CA 95329	D-63
3854 Davis	Joe Garcia 3854 Davis, Modesto, CA 95357	D-62
3866 Davis	Jan Brown 3866 Davis, Modesto, CA 95357	D-61
3912 Davis	Not Using City Water	D-60
3941 Davis	Keith Baker 3941 Davis, Modesto, CA 95357	D-90
3951 Davis	David Ribeiro 3951 Davis, Modesto, CA 95357	D-57
3971 Davis	TBD	D-59
5512 Terminal	Jim Sessums P.O. Box 705, Riverbank, CA 95367	D-33

Attachment A-3
List of Residential Properties West of RBAAP Connected to Riverbank Public Water Supply

(Note: Domestic Well No. Represents well maintained on property for non-potable use)

Address	Owner (Source: City of Riverbank, May 8, 2006)	Domestic Well No. Ref: Army Well Map
5648 Terminal	Robert Wade 5648 Terminal, Riverbank, CA 95367	D-12
5654 Terminal	TBD	D-11
5612 Terminal	TBD	D-13 and D-14
3608 Van Dusen	Kim Reisz 3608 Van Dusen, Riverbnk, CA 95367	D-32
3660 Van Dusen	Michael & Danise Evans 3660 Van Dusen, Riverbank, CA 95367	D-31
3718 Van Dusen	Don Conner 3718 Van Dusen, Riverbank, CA 95367	D-30
3730 Van Dusen	Mike Winget 3730 Van Dusen, Riverbank, CA 95367	D-29
3748 Van Dusen	Juan Venegas 3748 Van Dusen, Riverbank, CA 95367	D-28
3772 Van Dusen	Wayne Walker 3772 Van Dusen, Riverbak, CA 95367	D-26
3773 Van Dusen	Aliel Diez 3773 Van Dusen, Riverbank, CA 95367	D-18
3774 Van Dusen	Ken & Goldie Ferguson 3774 Van Dusen, Riverbank, CA 95367	D-27
3806 Van Dusen	Francisco Vargas 3806 Van Dusen, Riverbank, CA 95367	D-25
3831 Van Dusen	Playa Del Rio LLC P.O. Box 3381, Danville, CA 94526	D-19
3857 Van Dusen	Elias Lopez 3857 Van Dusen, Riverbank, CA 95367	D-20

Attachment A-3
List of Residential Properties West of RBAAP Connected to Riverbank Public Water Supply

(Note: Domestic Well No. Represents well maintained on property for non-potable use)

Address	Owner (Source: City of Riverbank, May 8, 2006)	Domestic Well No. Ref: Army Well Map
3867 Van Dusen	Plaza Del Rio LLC P.O. Box 3381, Danville, CA 94526	D-21
3965 Van Dusen	Plaza Del Rio LLC P.O. Box 3381, Danville, CA 94526	D-22

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APPENDIX B

IMPLEMENTATION PLAN
RBAAP-01 LANDFILL

Draft Final
November 2006

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Figure B-1 RBAAP Landfill Site Subject to Land Use Restrictions

ACRONYMS AND ABBREVIATIONS

BRAC	Base Realignment and Closure
CCR	California Code of Regulations
DTSC	Department of Toxic Substances Control
FOST	Finding of Suitability to Transfer
IP	Implementation Plan
IRP	Installation Restoration Program
LTM	Long Term Monitoring
LUC	Land Use Control
RBAAP	Riverbank Army Ammunition Plant
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facilities Investigation
ROD	Record of Decision
SWCB	State Water Control board
SWMU	Solid Waste Management Unit
USEPA	U.S. Environmental Protection Agency
USAEC	U.S. Army Environmental Center

APPENDIX B

IMPLEMENTATION PLAN
RBAAP-01 LANDFILL
RIVERBANK ARMY AMMUNITION PLANT

1.0 REASON FOR LAND USE CONTROLS

An unspecified volume of landfill waste material may remain at the RBAAP-01 Landfill. The selected landfill remedy as documented in the 1994 Record of Decision (ROD) included the following components: installation of a final cover, cover maintenance for 20 years, access restriction and eventual deed restriction upon transfer. The final cover was constructed in 1995 in accordance with the substantive provisions of California Code of Regulations (CCRs). Maintenance and monitoring activities are programmed to continue until the year 2015 and the protectiveness of the remedy will be evaluated as part of the five-year review process.

2.0 SITE HISTORY

The Riverbank Army Ammunition Plant (RBAAP)-01 Landfill is a closed landfill site located in the northern section of the main plant near the eastern boundary (**See Figure B-1)**. The 4.4 acre landfill site is a narrow triangular-shaped feature adjacent to the east central property boundary. It is bordered on the north and east by a perimeter road and pasture land and by a railroad siding to the west. A perimeter drainage ditch routes stormwater from north to south. The landfill site response action was identified in the 1994 ROD and called for installation of a final cover and cover maintenance for 20 years. Following the 1994 ROD the landfill site was identified in the 2002 Resource Conservation and Recovery Act (RCRA) Corrective Action Consent Agreement as Solid Waste Management Units (SWMUs) 10 and 11. Although the landfill site was identified as SWMUs, the site had already been addressed under the Army's Installation Restoration Program (IRP) as documented in the 1994 ROD. Based on the actions taken in accordance with the ROD, the Department of Toxic Substances Control (DTSC) concurred with the Army's position that no further action was required for this site under the RCRA Facilities Investigation (RFI) efforts.

Although the term "landfill" has been used to describe RBAAP-01, the entire area was not used for disposal activities and the disposal operations did not involve typical landfill operations, but rather consisted to two discrete disposal trenches and a surface disturbance area. Thus, the entire 4.4-acre area does not represent former debris burial areas but as documented in the 1994 ROD and for the purpose of this Implementation Plan (IP) the entire 4.4-acre area is referred to as the landfill site.

Apparently, during the 15 months of operation by ALCOA (1943-1944) general refuse, including pot liner material (a by-product of aluminum production) were placed in the southern end of the landfill. Although ALCOA was only in operation for a short time,

the aluminum reduction process employed at that time typically generated large volumes of cyanide waste. The pot-liner material is a listed RCRA hazardous waste, with a corresponding listing number of K088. This material is thought to be the source of cyanide contamination from the landfill. After the plant was converted to a cartridge and projectile manufacturing operation by the Army in 1952, the landfill area was reportedly used for incineration and disposal of a variety of industrial sludges and solid waste, including paper, dunnage, oils, greases, solvents, hospital wastes, and construction debris. Burning of the combustible wastes was performed routinely. In 1966, on-site disposal operations were discontinued and the burning pits and disposal trenches were filled with construction rubble and soil. There was no documented disposal in this area after that time. However, review of a 1967 aerial photograph noted a new trench in the central portion of the landfill.

Wells placed down-gradient of the landfill have indicated that the landfill was a possible source of cyanide and chromium contamination in groundwater. Cyanide contamination has been linked to pot liner from aluminum reduction processes, a RCRA listed waste, and has been found in the southern portion of the landfill. Most of the pot liner was removed during previous rubble removal efforts. Chromium contamination has been traced to construction rubble which contained chromium contaminated bricks. These were also removed from the site during a 1987 rubble cleanup effort.

The landfill response action described in the 1994 ROD called for installation of a final cover and cover maintenance for 20 years. The final cover was constructed in accordance with the substantive provisions of CCR, Title 23, Chapter 15, Articles 5 and 8, Corrective Action and Closure Requirements. The landfill cover requirements outlined in the ROD included:

- A foundation soil layer of sufficient stability to be provided by grading and compacting existing landfill soils.
- A 1-foot-thick clay layer with a design permeability of 1×10^{-6} centimeters per second.
- A minimum of 1 foot of clean topsoil to be placed over the clay layer to provide an adequate rooting depth for vegetative cover and to protect the clay layer.
- Grading to provide a minimum of 2% slope to minimize ponding of precipitation and allow for adequate drainage.
- The final cover should be designed with the objective of minimizing maintenance.

Two additional monitoring wells were also required downgradient of the landfill which are sampled quarterly as part of the monitoring requirement for site RBAAP-003.

Implementation of the landfill remedial action began in June 1995 and initial work was completed in October 1995. Additional seeding was performed in 1996 and the final construction was complete on October 3, 1996. The final landfill cover included, from

top to bottom, a 2-foot-thick vegetative cover layer, a 0.25-inch-thick geosynthetic liner, and a 2-foot-thick foundation layer. The landfill cap was designed and constructed to drain rainfall off of and away from the landfill. After installation of the cap and associated drainage and final grading, the cover was hydro-seeded with native grass. As part of the first five-year review some damage was caused in 1997 by construction activity on the adjoining railroad tracks. This was noted in the first five-year review and repairs were made. The second five-year review will be completed in 2006.

3.0 LAND USE/INSTITUTIONAL CONTROLS FOR THE SITE

The institutional controls required to ensure the integrity of the 1994 ROD selected remedy and to prevent unauthorized exposure to materials potentially remaining in the landfill include the following:

3.1 Signage

Signs will be placed and maintained at each corner of the landfill to inform people that this site is the location of a former landfill. The signs provide the following information:

- Name of the Site (RBAAP-01)
- Type of site (Closed Landfill)
- Warning (No digging or excavation without approval)
- Point of Contact [Land Use Control (LUC) Coordinator and Phone Number]

3.2 Access Control

Access to the RBAAP including the Landfill Site is currently controlled by fencing and security personnel.

3.3 Land Use

Land Use: The site is currently maintained as non irrigated open space and will remain as non irrigated open space while under the ownership of the Army. Based on the 1994 ROD, deed restrictions will be placed on the landfill at the time of transfer as a means of maintaining the integrity of the cover through continued LTM and to restrict future use of the landfill site throughout the duration of the 20 year period of LTM .

3.4 Soil Management/Excavation Restrictions

- Excavation restrictions: No activities that will disturb the landfill cap shall be allowed on the property without prior approval of U.S. Environmental Protection

Agency (USEPA), DTSC and the State Water Control Board (SWCB). The LUC Coordinator will work with all utilities and maintenance activities to help insure that utility work does not damage the cover. By working with these activities it is expected that all future utility work will be outside the landfill boundaries.

- The USEPA, DTSC and the SWCB will be notified and coordination activities started in the event that the landfill cover might be breached. This coordination will start in the planning stage when it is known that the utility must be placed in the area. The EPA will also be notified if any excavation around the area encounters areas containing landfill wastes.
- Soil Management: In the event that excavation must take place in the landfill for the purpose of utility placement or other maintenance activities, a Soil Management Plan and Health and Safety plan will be developed and submitted to USEPA, DTSC and the SWCB for approval. Any soil removed from the property shall be sampled and managed in accordance with all applicable provisions of state and federal law.

4.0 CONTINUED MAINTENANCE IN ACCORDANCE WITH 1994 ROD

The objective of final cover monitoring is to ensure that the final cover continues to perform as a barrier to the percolation of water to the waste below. Maintenance requirements for the landfill site are conducted as specified in the "Riverbank Army Ammunition Plant Landfill-Revised Closure/Post Closure Maintenance Plan (**CH2MHill, 1996**) and Final Record of Decision (**USAEC, 1994**). As outlined in the Closure and Post Closure Maintenance Plan, the cover soil and vegetative cover are visually inspected reported on a quarterly basis. In addition to the Quarterly Reports an Annual Landfill Inspection Report is also generated. The quarterly visual inspections cover vegetative growth monitoring, erosion monitoring, and settlement and grading monitoring. In addition annual management of a pesticide program is conducted to prevent rodent burrow damage to the completed landfill cap.

Maintenance and monitoring activities are programmed to continue until the year 2014 and the protectiveness of the remedy will be evaluated as part of the annual LUC Compliance Inspection and Reporting and in subsequent five-year reviews.

5.0 REPORTING

The findings of the Annual Landfill Inspection Report which summarizes the quarterly inspections of this site will serve as the basis for the annual LUC Compliance Report. The Annual Inspection Report will be referenced in the LUC Compliance Report and will serve as the inspection of the site. Any additional information not covered in the Annual Landfill Inspection Report will be included in the Annual LUC Compliance Report.

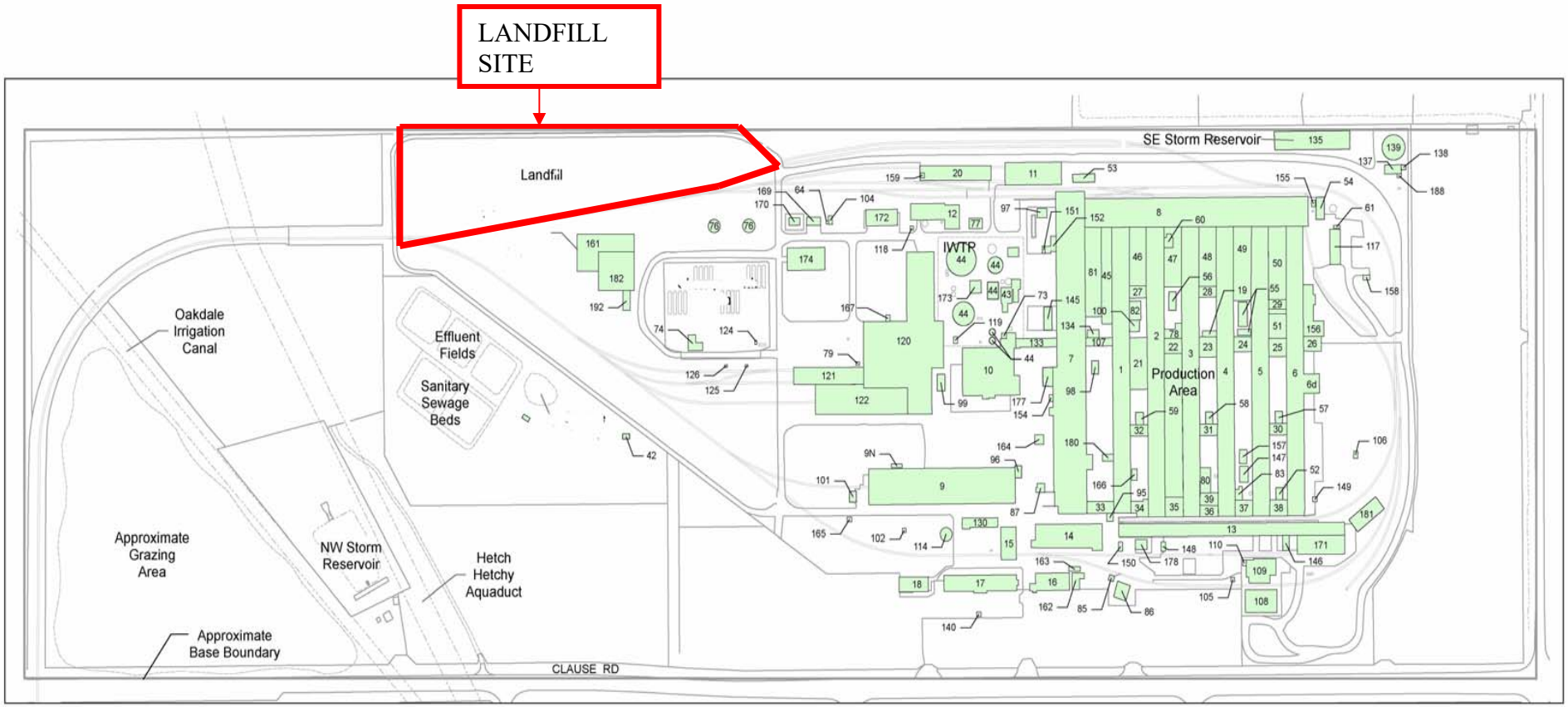
6.0 FUTURE ACTIVITIES ON THE SITE

The site has been maintained as non-irrigated open space. Based on the 1994 ROD, deed restrictions will be placed on the landfill at the time of transfer as a means of maintaining the integrity of the cover through continued LTM and to restrict future use of the landfill site throughout the duration of the 20 year period of LTM. As RBAAP will be transferred under Base Realignment and Closure (BRAC)05, a Finding of Suitability to Transfer (FOST) will be prepared and will contain all land use restrictions in the environmental protection provisions section of the FOST. The Army will then incorporate these restrictions on the deed in the form of restrictive covenants or deed restrictions.

7.0 REFERENCES

CH2MHill, 1996, Riverbank Army Ammunition Plant Landfill Closure-Revised Closure/Post Closure Maintenance Plan, May 1996

U.S. Army Environmental Center (USAEC), 1994 Record of Decision, Riverbank Army Ammunition Plant.



Legend:

Approximate Boundary of the Landfill Site (IRP: RBAAP-001) Defining Area Subject to Land Use Controls

Buildings

N

0 180 360 Feet

FIGURE B-1
RBAAP Landfill Site Subject to Land Use Restrictions

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APPENDIX C

IMPLEMENTATION PLAN
SUBSURFACE SOILS AT SWMU-1
INDUSTRIAL WASTEWATER TREATMENT PLANT

Draft Final
November 2006

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
BRAC	Base Realignment and Closure
DTSC	Department of Toxic Substances Control
FOST	Finding of Suitability to Transfer
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
LUC	Land Use Control
mg/kg	milligram per kilogram
RBAAP	Riverbank Army Ammunition Plant
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SWCB	State Water Control Board
SWMU	Solid Waste Management Unit
USAEC	U.S. Army Environmental Center
USEPA	U.S. Environmental Protection Agency

APPENDIX C

IMPLEMENTATION PLAN
SUBSURFACE SOILS AT SWMU-1
INDUSTRIAL WASTEWATER TREATMENT PLANT
RIVERBANK ARMY AMMUNITION PLANT

1.0 REASON FOR LAND USE CONTROLS

Although not confirmed during the remedial investigation (RI) sampling, there is the potential for soil contamination to be present beneath the Industrial Wastewater Treatment Plant (IWTP) [Solid Waste Management Unit (SWMU) 1]. The IWTP remains an active unit under Part B Permit 05-SAC-06, I.D. Number (CA7210020759) treating waste generated by Army operations at Riverbank Army Ammunition Plant (RBAAP). Department of Toxic Substances Control (DTSC) (in a letter dated July 27, 1998) states that additional characterization of soil at the IWTP is precluded by existing equipment and that additional soil samples should be collected under each IWTP unit when the IWTP is closed as a hazardous waste management unit under RCRA (DTSC, 1997). Further action is deferred until IWTP closure under the terms of the Permit and Modification No. 1 Part VIII-Corrective Action.

2.0 SITE HISTORY

The IWTP is a treatment facility for industrial wastewater generated at the facility from electroplating, cleaning, and metal finishing processes. The primary treatment technologies are coagulation, flocculation and clarification. The IWTP is located to the immediate north of the Production Plant at the facility (**See Figure C-1**).

The IWTP is a system of tanks, sumps, filters, pipes, and other related equipment set up for treating facility wastewater. The IWTP is designed to treat facility wastewater, and includes facilities for coagulation, flocculation, clarification, sludge thickening, and sludge/liquid separation. Treated effluent water is discharged to the facility evaporation/percolation ponds.

The IWTP was originally built after the Army acquired the facility in 1951 and a decision was made to convert the plant to a steel cartridge case manufacturing facility. The configuration of the IWTP had remained nearly unchanged from the start-up in 1952 until about 1972. It consisted of equalization tanks, constructed of redwood, and a pH adjustment system.

During 1952 to 1954, Production Lines 5 and 6 produced zinc-plated shells for the Navy. Because the zinc was electroplated from a cyanide solution, a separate system was required to treat waste from this area. The system consisted of various underground pipes that once conveyed cyanide wastewater to a separate treatment unit at the IWTP. The Cyanide Wastewater Collection System designated as are of concern (AOC)-14 is located primarily along the west side of the Production Plant and consists of

approximately 1,400 to 1,500 feet of 4-inch to 6-inch diameter iron or vitrified clay pipe. This system apparently operated from 1954 to 1958. Use was discontinued due to production capability change. The Cyanide Wastewater Collection System has been disconnected from the Production Plant and the collection sumps filled with concrete in the late 1990s.

In addition to the Cyanide Wastewater Collection System there were additional underground conveyance lines to the IWTP referred to as the Industrial Wastewater Collection System identified as AOC-12. This system of underground piping and waste sumps historically collected industrial wastewater from the Production Plant and transferred it to the IWTP. The Industrial Wastewater Collection System is routed throughout the production area and gravity fed the collected wastewater to the IWTP. The system consists of an estimated 3,500 to 4,000 linear feet of vitrified clay and cast iron pipe ranging from 4 inches to 21 inches in diameter. The sumps that were historically connected to the system (all have now been filled with concrete) were constructed of brick or concrete.

Since 1972, numerous upgrades and improvements have been implemented at the IWTP. The redwood equalization tanks were replaced with a concrete equalization basin in 1980. Reportedly, when the water level in the redwood tanks was reduced for a period, the upper portion of the redwood tanks would dry out and the seams would open slightly. When the liquid level was later raised, the upper portion of the redwood tanks would leak and spill onto the adjacent ground, which was not paved at the time. This is believed to be the source of the chromium and cyanide contamination in the IWTP area.

The entire IWTP area is now covered with impermeable concrete or asphalt layer. A series of concrete drainage trenches captures spills and overflows and drains to the former influent sump which is currently used as a secondary containment sump for the IWTP.

Wastes associated with IWTP include industrial wastewater from the production plant. Wastewater associated with the production plant has historically come from the production lines used to make ammunition casings, such as electroplating, cleaning, and metal finishing processes. Typical wastewater constituents included cyanide, chromium, trace metals, and caustic solutions. Prior to 1978, hexavalent chromium wastes from the zinc chromate solution on the production lines did not receive special treatment. However, in 1978 a chromium reduction pretreatment system was installed. The primary treatment process has been upgraded to lime coagulation.

As part of the RI effort at RBAAP, the IWTP area was characterized to determine the extent of groundwater contamination and to characterize any potential soil contamination in the area. Because the IWTP was operational, investigations were limited to the perimeter of the tanks and did not evaluate soils directly below the tanks. The results of the investigation indicated elevated chromium contamination in groundwater but the results of soil sampling (5 borings, max depth 50 feet below ground surface) showed only low levels of chromium (.34 – 34.3 mg/kg) in 3 of 29 samples and cyanide was detected

in only four soil samples at concentrations of 1.3 to 4.20 mg/kg (**Weston, 1991**). In March 1994, the U.S. Environmental Protection Agency (USEPA), DTSC, Regional Water Quality Control Board (RWQCB), and the Army signed the Record of Decision (ROD) for the RBAAP (**USAEC, 1994**). The site wide ROD contained two response actions; a groundwater response action [Installation Restoration Program (IRP) Site RBAAP-003], and; a landfill response action (IRP Site RBAAP-001) and Post-ROD investigation action at the IWTP upon closure in accordance with RCRA closure requirements.

3.0 LAND USE/INSTITUTIONAL CONTROLS FOR THE SITE

3.1 Access Control

Access to the RBAAP including the IWTP is currently controlled by fencing and security personnel. All visitors are escorted at RBAAP.

3.2 Part B Permit 05-SAC-06, I.D. Number (CA7210020759)

The permit and terms of the permit are the primary controls placed on this site. The IWTP is an active unit and is operated and will continue to be operated in accordance with the terms of the RCRA Permit.

3.3 Soil Management/Excavation Restrictions

- Excavation Restrictions: No excavation activities within the area of the footprint of the IWTP shall be allowed on the property without prior approval of USEPA, DTSC and the State Water Control Board (SWCB). The Land Use Control (LUC) Coordinator will work with all utilities and maintenance activities to help insure that potential utility work will be outside the IWTP boundary.
- The USEPA, DTSC and the SWCB will be notified and coordination activities started in the event that excavation is planned in the area of the IWTP. This coordination will start in the planning stage when it is known that the subsurface utility or maintenance activity must be placed or conducted at the site.
- Soil Management: In the event that excavation must take place at the site for the purpose of investigation, utility placement or other maintenance activities, a Soil Management Plan and Health and Safety plan will be developed and submitted to USEPA, DTSC and the SWCB for approval. Any soil removed from the property shall be sampled and managed in accordance with all applicable provisions of state and federal law.

4.0 REPORTING

Under the terms of the RCRA Permit, Annual Reports are submitted to DTSC. The Annual RCRA Report will be referenced in the LUC Compliance Report and will serve

as the inspection of the site. Any additional information not covered in the Annual Report will be included in the Annual LUC Compliance Report.

5.0 FUTURE ACTIVITIES ON THE SITE

The site has been used for industrial operations related to wastewater treatment since its inception in 1952. As long as the RCRA permit remains active, the site will be maintained for industrial use. Upon closure the IWTP will undergo corrective actions as specified in Part VIII of the permit modification No. 1 dated June 2003. As stated in the permit the future use of the IWTP area will be restricted under California Code of Regulations., Title 22, Chapter 14, Article 7. As RBAAP will be transferred under Base Realignment and Closure (BRAC)05, a Finding of Suitability to Transfer (FOST) will be prepared and will contain all land use restrictions in the environmental protection provisions section of the FOST. The Army will then incorporate these restrictions on the deed in the form of restrictive covenants or deed restrictions.

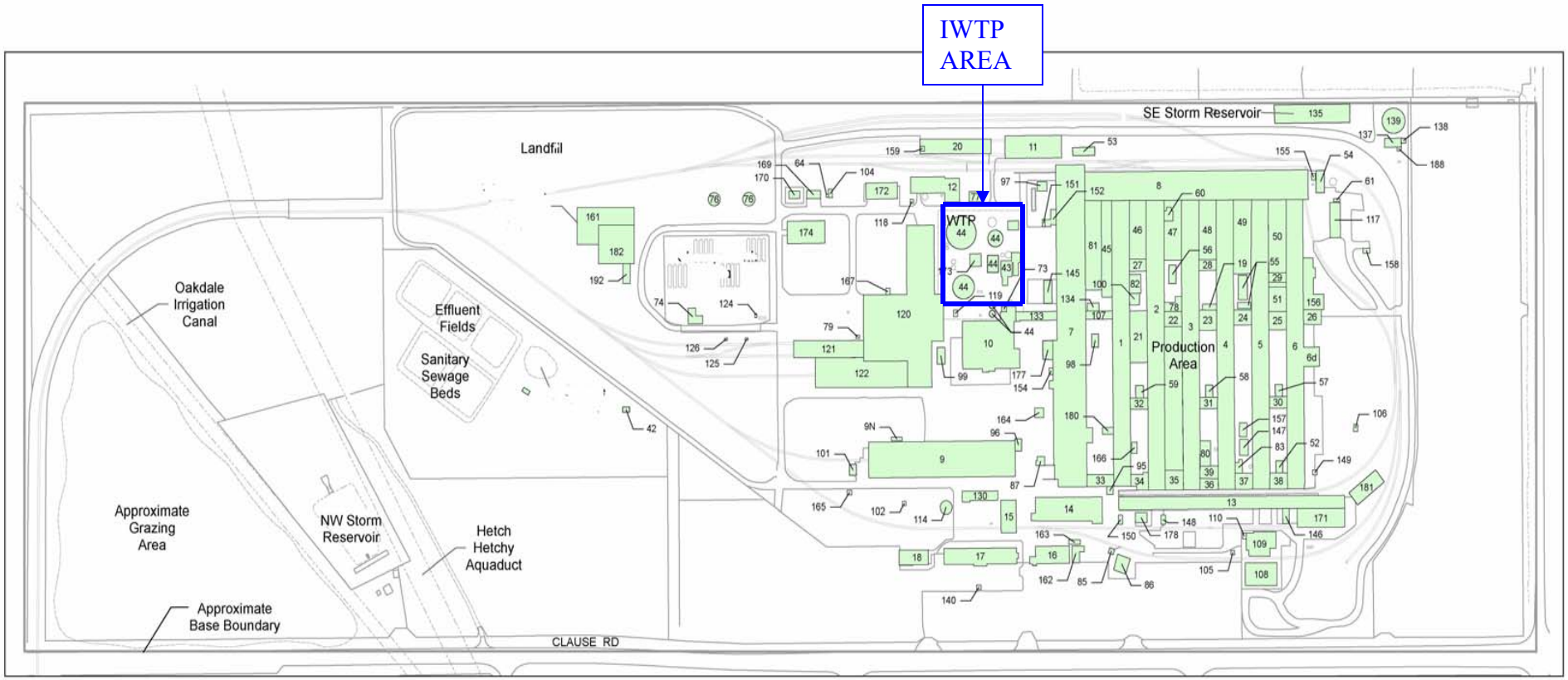
6.0 REFERENCES

Department of Toxic Substances Control, 2006, Hazardous Waste Facility Permit, May 6, 2006.

Department of Toxic Substances Control, 1998, Correspondence from DTSC to RBAAP, RCRA RFI Workplan, July 27,1998.

Roy F. Weston, Inc. [Weston], 1991. Riverbank Army Ammunition Plant Remedial Investigation Report. West Chester, Pennsylvania. Prepared for Commander, U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland 21010-5401.

U.S. Army Environmental Center (USAEC), 1994 Record of Decision, Riverbank Army Ammunition Plant.



Legend:

Approximate Boundary of the IWTP Site (SWMU-1) Defining Area Subject to ROD contingency and RCRA Part B Permit

Buildings

N

0 180 360 Feet

FIGURE C-1
RBAAP IWTP Site Subject to RCRA Part B Permit

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APPENDIX D

IMPLEMENTATION PLAN
GENERAL PRODUCTION / OPERATION AREAS and EP PONDS
AT RBAAP

Draft Final
November 2006

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Figure D-1 General Production and Operation Areas at RBAAP Subject to Land Use Restrictions

ACRONYMS AND ABBREVIATIONS

BRAC	Base Realignment and Closure
DTSC	Department of Toxic Substances Control
DWS	Drinking Water Standard
FOST	Finding of Suitability to Transfer
GWTP	groundwater treatment plant
IWTP	Industrial Wastewater Treatment Plant
NPL	National Priorities List
RBAAP	Riverbank Army Ammunition Plant
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SWMU	Solid Waste Management Unit
USEPA	U.S. Environmental Protection Agency

APPENDIX D

IMPLEMENTATION PLAN
GENERAL PRODUCTION AND OPERATION AREAS AND EP PONDS
RIVERBANK ARMY AMMUNITION PLANT

1.0 REASON FOR LAND USE CONTROLS

Based on environmental investigations conducted at RBAAP, and the historical industrial use of the site there remain contaminants in the soils and groundwater at levels above those allowable for unrestricted use. Due to the historical use of the property and the general assumption of continued DoD industrial operations, most of the previous studies and cleanup efforts related to soils at the site utilized industrial based cleanup goals or EPA Region 9 industrial preliminary remediation goals (IPRGs) for soils in industrial areas for data comparisons (EPA, 2004). As a result the cleanup efforts related to soils were not conducted to allow for unrestricted use. Institutional controls related to groundwater, the Landfill site and the IWTP Site which fall within the area identified as the Production/Operation area are presented in Appendicies A through C of this PMP.

Since the EP Ponds continue to be used for discharge of treated water from the GWTS and IWTP this function requires that the EP Pond area remain restricted for industrial use until the use of the ponds for discharge ceases.

2.0 SITE HISTORY

The area addressed under this implementation plan consists of those areas at RBAAP not specifically addressed in the other implementation plans included in this PMP and which fall into the category of areas of the facility which were historically used for DoD industrial production and operations. The area defined as the General Production and Operation Areas and the EP Pond is displayed on **Figure D-1.** It should be noted that the area defined on **Figure D-1** as subject to institutional controls does not include the area to the north which has historically been maintained as open space and is currently used for grazing.

In general the production and industrial history of the site which went through several changes can be described by the following time sequence of operations:

1942-1944: RBAAP was constructed in 1942 by the Aluminum Company of America (ALCOA) as an aluminum reduction plant supplying military requirements. The plant was built under the authority of the Defense Plant Corporation. RBAAP started production on May 18, 1943. The plant was designed to produce 40,000 tons of aluminum per year. The plant was closed by order of the War Production Board on August 7, 1944 due to the reduced need for aluminum by the military in World War II.

1944- 1951: After closure of the plant in 1944, the facilities were used for the storage of a variety of government surplus materials, including corn and grain.

1951 – 1958: In 1951 the Army gained control of the plant to manufacture steel cartridge cases for joint use by the Army and Navy. The Norris Thermador Corporation (now NI Industries) was awarded the contract for conversion and operation of the plant. Manufacturing Lines 1, 2, 3 and 4 produced 105 millimeter (mm) cartridge cases; Lines 5 and 6 produced the 3-inch/59, 5-inch/38 and 5-inch/54 naval cartridge cases; and Line 7 supplied additional quantities of 105 mm cases.

1958-1966: Plant was placed on a layaway status.

1966- 1976: Reactivated during Vietnam Conflict. Plant produced 105 mm cartridge cases, and 60 mm and 81 mm mortar projectiles. Plant activities during the remainder of 1975 and through 1976 were limited to modernization and expansion of Line 1, layaway of idle facilities, limited manufacturing methods and technology, and maintenance and protection of the overall plant.

1977 through 1990: Only grenade and mortar production lines were operational and the grenade production was ceased in June 1990.

1990 to 2006 : RBAAP activities are limited to the operation of the mortar production line, layaway of idle facilities, limited manufacturing and technology updates, and maintenance and protection of the overall facility. In addition, various buildings at the facility have been leased out to private businesses that conduct a variety of light to heavy industrial activities. RBAAP was placed on the Base Closure List in 2005 and has been slated for closure.

EP Ponds Background: The EP Ponds are identified as SWMU-23 in the June 2002 Corrective Action Consent Order (DTSC, 2002). The unlined ponds were constructed in 1952 for the disposal of treated industrial wastewater generated at RBAAP and continue to be used for that purpose. The four ponds are on land owned by the U.S. Army adjacent to the Stanislaus River. The ponds are operated independently based upon the volume of effluent flow. A sediment removal action was completed in 1993 to address elevated zinc in sediments. The EP Ponds were determined to require no further remedial action in the 1994 ROD but undergo quarterly groundwater monitoring as specified in the Waste Discharge Requirements Order No. 5-01-200.

3.0 LAND USE/INSTITUTIONAL CONTROLS FOR THE SITE

The institutional controls required to prevent unauthorized exposure to materials potentially remaining in soils at the Production and Operation Areas of the facility are listed in the following sections.

3.1 Access Control

Access to the RBAAP facility is currently controlled by locked fencing and security personnel as required by the current DoD mission. The EP Ponds access road is controlled by a locked gate but this area is not completely surrounded by fencing.

3.2 Land Use Restrictions

The area defined as the General Production and Operation Areas at RBAAP is currently used and maintained for DoD production and for leased industrial use. This area will continue to be maintained for industrial use while under the ownership of the Army. Deed restrictions will be placed on the General Production and Operation Area at the time of transfer to restrict future land use to similar use or industrial to ensure protection of public health and the environment. The deed restrictions would prohibit uses of the area for purposes inconsistent with the industrial cleanup standards used.

The area defined as the EP Ponds is currently used as a discharge basin for treated water from the GWTP and IWTP at RBAAP. The ponds receive water from RBAAP via a 3.4 mile underground pipe. Discharge to the ponds is conducted in accordance with the Regional Water Quality Control Board Waste Discharge Requirements Order No. 5-01-200 and RCRA Part B Permit SWMU-23 **(RWQCB, 2001, DTSC, 2006)**. The EP ponds will continue to be maintained for this purpose until the Permit is closed. At the time of Permit closure the EP Ponds will be subject to RCRA Permit closure requirements determined to be necessary by DTSC.

3.3 Restriction on Alteration of Monitoring Well Network at the EP Ponds

The RBAAP maintains a monitoring well network at the EP Ponds site in accordance with the requirements of the Waste Discharge Requirements Order No. 5-01-200. Currently the network consists of 5 monitoring wells which are locked and maintained by RBAAP. No activities or actions that will damage the well heads, vaults, casing or compromise the overall integrity of monitoring wells shall be allowed. Abandonment of monitoring wells shall be conducted only as approved by USEPA, DTSC and the RWQCB and will be conducted according to State of California well abandonment procedures.

4.0 REPORTING

The LUC Compliance Report will include a description of land use activities on the site. Notification procedures outlined in Section 6.3 of this PMP will be followed to report any activities inconsistent with LUC objectives or use restrictions.

5.0 FUTURE ACTIVITIES ON THE SITE

The site has been maintained for DoD industrial and leased industrial space. As RBAAP will be transferred under Base Realignment and Closure (BRAC) 05, a Finding of Suitability to Transfer (FOST) will be prepared and will contain all land use restrictions in the environmental protection provisions section of the FOST. The Army will then incorporate these restrictions on the deed in the form of restrictive covenants or deed restrictions.

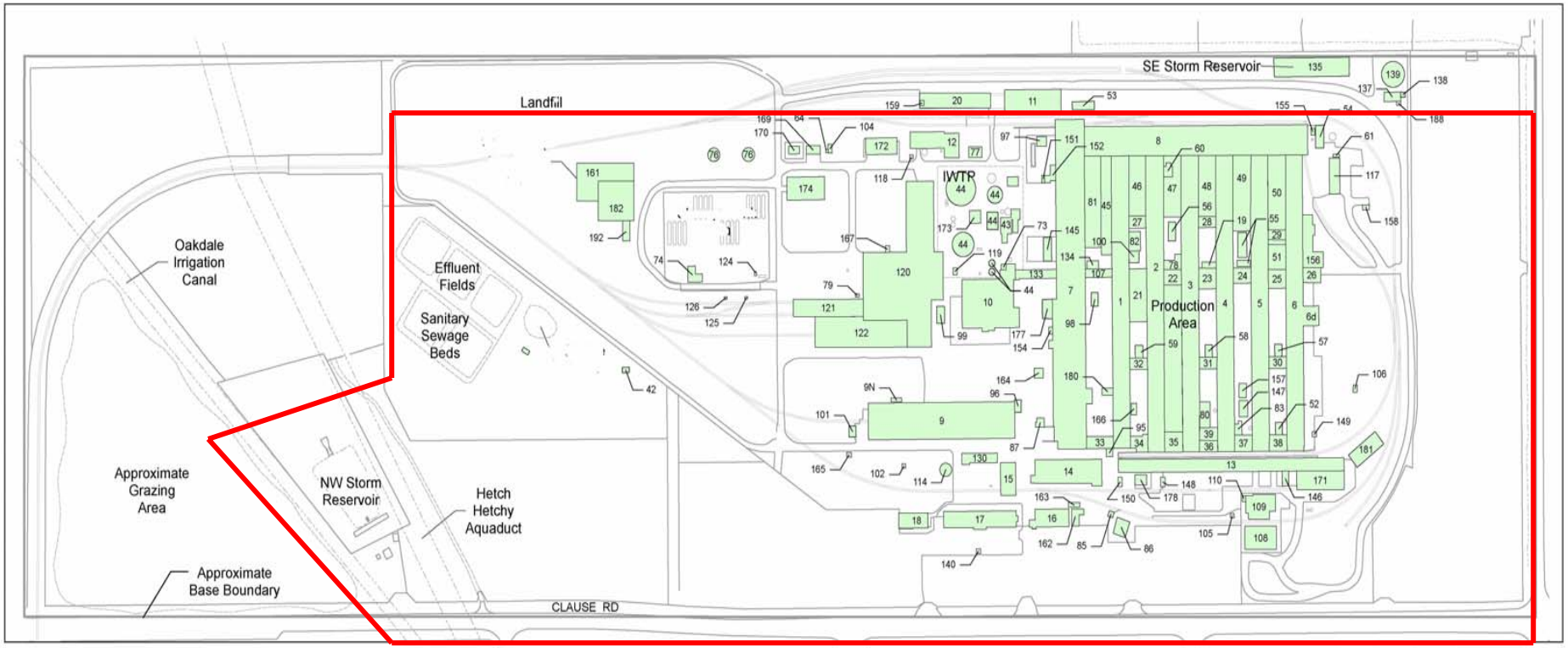
6.0 REFERENCES

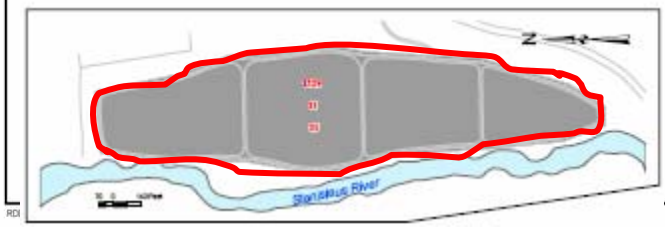
U.S. Army Environmental Center (USAEC), 1994 Record of Decision, Riverbank Army Ammunition Plant.

DTSC, 2006, RCRA Part B Permit, (05-SAC-06), May 6, 2006.

EPA, 2004, Preliminary Remediation Goals,
www. epa. gov/region09/waste/sfund/prg/index.htm

RWQCB, 2001, Notice of Adoption of Updated Waste Discharge Requirements for U.S. Department of the Army and NI Industries, Riverbank Army Ammunition Plant, WDR Order No. 5-01-200.





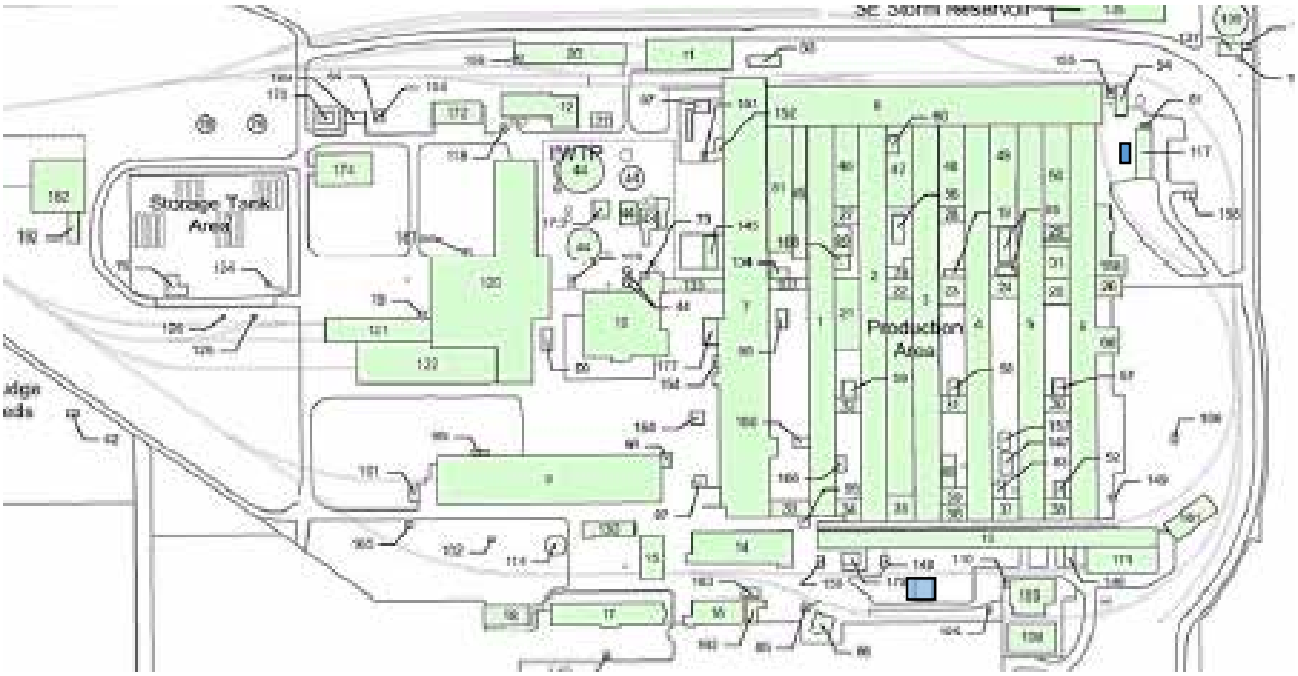
Legend:

Approximate Boundary of the RBAAP General Production and Operation Areas Subject to Land Use Restrictions

Buildings

FIGURE D-1
RBAAP General Production and Operation Areas Subject to Land Use Restrictions

Former Riverbank Army Ammunition Plant



Locations of out-of-service electrical equipment

EXHIBIT I

EXHIBIT J

ENVIRONMENTAL PROTECTION PROVISIONS

1. USE OF THE PROPERTY

The sole purpose for which premises and improvements thereon may be used, absent written approval from the Lessor for any other use, is for commercial/industrial use.

2. SUBSEQUENT TRANSFERS

The Lessee shall neither transfer nor assign this lease or any interest therein or any property on the lased premises, nor sublet the leased premises or any part thereof or any property thereon, nor grant any interest, privilege, or license whatsoever in connection with this lease without the prior written consent of the Lessor. Such consent shall not be unreasonably withheld or delayed. Every lease or sublease shall contain the environmental protection provisions contained herein.

3. REGULATORY OR ENVIRONMENTAL PERMITS

The Lessee shall be solely responsible for obtaining at its own cost and expense any regulatory or environmental permits required for its operation under the lease, independent of any existing Riverbank Army Ammunition Plant (hereinafter "RBAAP") permits. The Lessee shall also be required to obtain its own EPA Identification Number if applicable.

4. LESSEE COMPLIANCE

The Lessee shall comply with all lawful statutes, regulations, permits, or orders affecting the activity hereby authorized when such are issued by the Environmental Protection Agency; the California Department of Toxic Substances Control (DTSC); the Regional Water Quality Control Board (RWQCB); or any other Federal, State, interstate, or local government agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within the leased premises by the Lessee or any sublessee is prohibited.

5. INTERERENCE WITH ON-GOING RESTORATION

The Lessee shall not disrupt, inflict damage, obstruct, or impede on-going environmental restoration work on the leased premises or anywhere else on RBAAP. The Lessee shall indemnify the Government for any costs incurred as a result of Lessee’s breach of this provision.

6. LESSOR ACCESS CLAUSE

The Lessor's rights under this Interim Lease specifically include the right of the Lessor to inspect, upon reasonable notice, the Leased Premises for compliance with environmental, safety, and occupational health laws and regulations, whether or not the Lessor is responsible for enforcing them. Such inspections are without prejudice to the right of duly constituted enforcement officials to make such inspections. The Lessor normally will give the Lessee twenty-four (24) hours prior notice of its intention to enter the leased premises unless it determines the entry is required for safety, environmental, operations, or security purposes. The Lessee shall have no claim against the United States or any officer, agent, employee, or contractor thereof on account of any entries.

7. FEDERAL FACILITIES AGREEMENT AND HAZARDOUS WASTE FACILITY PERMIT

The Lessor acknowledges that the RBAAP has been identified as a National Priorities List (NPL) site under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended. The Lessor also acknowledges that RBAAP has been issued a Hazardous Waste Facility Permit (Permit) by DTSC. The Lessee acknowledges that the Lessor has provided it with a copy of the RBAAP Federal Facility Agreement (FFA) dated April 5, 1990, the Hazardous Waste Facility Permit, dated May 6, 2006, and any subsequent modifications to both documents. For so long as the Property remains subject to the FFA and the Permit, the Lessee, its successors and assigns, agree that they will not interfere with United States Department of the Army activities required by the FFA and the Permit. In addition, should any conflict arise between the FFA or the Permit, as they presently exist or may be amended, and the lease provisions, the FFA or Permit provisions shall take precedence. The Lessee further agrees that notwithstanding any other provision of the Interim Lease, the Lessor assumes no liability to the Lessee should implementation of the FFA or Permit interfere with the Lessee's use of the Leased Premises. The Lessee shall have no claim on account of any such interference against the United States or an officer, agent, employee or contractor thereof, other than for abatement of rent.

8. CERCLA ACCESS CLAUSE

The Lessor and its officers, agents, employees, contractors, subcontractors, and state and federal regulatory officials shall have the right, upon reasonable notice to the Lessee, to enter upon the Leased Premises in any case in which a response or corrective action is found to be necessary, or is in progress on the Leased Premises, or such access is necessary to carry out a response or corrective action on adjoining property. Right of access includes, without limitation, the right to perform any environmental investigation, survey, monitoring, sampling, testing, drilling, boring, coring, testpitting, installing monitoring or pumping wells or other treatment facilities, response action, corrective action, or any other action necessary for the Lessor to meet its responsibilities under applicable laws and as provided for in this Interim Lease.

9. LESSEE COMPLIANCE DURING RESPONSE OR CORRECTIVE ACTION

The Lessee agrees to comply with the provisions of the appropriate health or safety plan in effect during the course of any of the above-described actions. Any inspection, survey,

investigation, or other corrective or response action will, to the extent practicable, be coordinated with representatives designated by the Lessee or any sublessees. The Lessee and sublessees shall have no claim, on account of such entries, against the United States or any officer, agent, employee, contractor, or subcontractor thereof. In addition, the Lessee and any sublessees shall comply with all the applicable Federal, State and local occupational safety and health regulations.

10. ENVIRONMENTAL COMPLIANCE PLANS

The Lessee shall submit to the Lessor, and maintain thereafter, an Environmental Compliance Plan which describes, in detail, the program for environmental management and method of compliance, by the user of any portion of the Leased Premises, whether Lessee, with all Lessor, Federal, State, and local laws and regulations for the use, management, generation, storage, treatment, and disposal of all hazardous waste, hazardous materials, and hazardous substances. Each Environmental Compliance Plan for a portion of the Leased Premises, or request for waiver of the requirement for a plan due to the non-hazardous nature of the proposed use, must be submitted and approved in writing by the Lessor prior to occupancy of the intended portion of the Leased Premises. Thereafter, each such Environmental Compliance Plan shall be incorporated in the Interim Lease, and shall be included as an exhibit in the relevant sublease(s). The Lessee shall be responsible for the overall compliance of its operations. The Lessee shall be responsible for ensuring the preparation of all documents, records, and reports associated with the environmental compliance of its operation. No liability or responsibility shall attach to the Leased Premises or the Lessor as a result of the Lessor's review and approval of the Environmental Compliance Plan under this paragraph.
The Lessee further agrees that in the event of any assignment or sublease of the leased Premises, it shall provide to the EPA Region 9, DTSC, and the Regional Water Quality ControL Board a copy of the assignment or sublease of the Leased Premises, by certified mail, within 14 days after the effective date of such transaction. The Lessee may delete the financial terms and any other proprietary information from the copy of any assignment or sublease furnished pursuant to this condition.

11. LAND USE RESTRICTIONS

A. The United States Department of the Army has undertaken careful environmental study of the Leased Premises and concluded that the land use restrictions set forth below are required to ensure protection of human health and the environment. The Lessee shall not undertake nor allow any activity on or use of the Leased Premises that would violate the land use restrictions contained herein.

1) **Residential Use Restriction.** The Lessee shall not use the Leased Premises for residential purposes. For purposes of this provision, residential use includes, but is not limited to: single family or multi-family residences; child care facilities; nursing home or assisted living facilities; and any type of educational purpose for children/young adults in grades kindergarten through 12.

2) **Groundwater Restriction.** Lessee is hereby informed and acknowledges that the groundwater under the Leased Premises has contamination consisting of chromium and cyanide at levels exceeding the remediation level State Drinking

Water Standard (DWS) maximum contaminant level (MCL) of 10 parts per billion (ppb) for hexavalent chromium and 200 ppb for cyanide. The Lessee shall not to access or use ground water underlying the Leased Premises for any purpose without the prior written approval of the United States Department of the Army, the U.S. Environmental Protection Agency, Region 9, the Department of Toxic Substances Control, and the Regional Water Quality Control Board, Central Valley Region. For the purpose of this restriction, "ground water" shall have the same meaning as in section 101(12) of CERCLA.

3) **Notice of Groundwater Monitoring Wells**. The Lessee is hereby informed and does acknowledge the presence of 100 groundwater monitoring wells, injection wells, and extraction wells on the Leased Premises. The Lessee shall not disturb or permit others to disturb the monitoring wells and extraction wells located on the Leased Premises without prior written approval from the Lessor, the U.S. Environmental Protection Agency, Region 9, the Department of Toxic Substances Control, and the Regional Water Quality Control Board, Central Valley Region. Upon the Lessor's determination that a well is no longer necessary, the Lessor will close such well at the Lessor's sole cost and expense in accordance with applicable laws, regulations, and ordinances.

4) **Excavation and Development Restriction.** The Lessee shall not conduct or permit others to conduct any excavation activities (i.e. digging, drilling, or any other excavation or disturbance of the land surface or subsurface) at the former Industrial Wastewater Treatment Plant (IWTP), or any other activities that may damage the IWTP cover, without prior written approval of the Lessor, the U.S. Environmental Protection Agency, Region 9, the Department of Toxic Substances Control, and the Regional Water Quality Control Board, Central Valley Region. The IWTP is a closed former RCRA site. The regulatory prescribed remedy at the IWTP (cover) shall remain in place. Any damage to this cover shall be promptly repaired. Any proposed alteration to the cover requires Lessor approval prior to execution of the alteration. No subsurface activities shall be permitted within the IWTP area.

5) **Landfill Restriction.** The Lessee shall not conduct or permit others to conduct any excavation activities (i.e. digging, drilling, or any other excavation or disturbance of the land surface or subsurface) at the landfill, or any other activities that may damage the RBAAP-01 Landfill soil cover and liner. The Lessee or any approved contractor, shall not construct, make, or permit any alterations, additions, or improvements to the landfill in any way that may violate this restriction.

B. **Modifying Restrictions.** Nothing contained herein shall preclude the Lessee from undertaking, in accordance with applicable laws and regulations and without any cost to the Lesor, such additional action necessary to allow for other less restrictive use of the Leased Premises. Prior to such use of the Leased Premises, the Lessee shall consult with and obtain the approval of the Lessor, and, as appropriate, the State or Federal regulators, or the local authorities in accordance with these Environmental Protection

Provisions. Upon the Lessee's obtaining the approval of the Lessor and, as appropriate, State or Federal regulators, or local authorities, the Lessor agrees to revise this Interim Lease.

C. **Submissions.** The Lessee shall submit any requests for modifications to the above restrictions to the Lessor, EPA, DTSC, and the Regional Water Board**,** by first class mail, postage prepaid, addressed as follows:

a. Lessor: Commander's Representative
Riverbank Army Ammunition Plant
P.O. Box 670
Riverbank, CA 95367-0670

b. EPA: Chief, Federal Facility and Site Cleanup Branch
Superfund Division
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street, Mail Code: SFD-8-3
San Francisco, CA 94105

c. DTSC: Chief of Northern California Operations
Office of Military Facilities
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826-3200

d. Regional Water Board:
Executive Officer
State of California
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite #200
Rancho Cordova, CA 95670-6114

12. HAZARDOUS WASTE MANAGEMENT

The Lessee shall not store or dispose of hazardous materials on the Leased Premises unless authorized under 10 U.S.C. § 2692. The Lessee shall strictly comply with hazardous waste management requirements under RCRA and the State of California Hazardous Waste Management Rules, including proper hazardous waste characterization, labeling, storage, disposal, and documentation requirements. Except as specifically authorized by the Lessor in writing, the Lessee must provide, at its own expense, such hazardous waste management facilities, as needed to maintain compliance with all laws and regulations. Lessor hazardous waste management facilities shall not be available to the Lessee.

13. EXISTING HAZARDOUS WASTE

The Lessee shall not use RBAAP hazardous waste accumulation points. Neither shall the Lessee

permit its hazardous wastes to be commingled with the Lessor's hazardous waste.

14. LESSEE RESPONSE PLAN

The Lessee shall submit to the Lessor, and maintain thereafter, a plan for responding to hazardous waste, fuel, and other chemical spills prior to commencement of operations on the Leased Premises. Such plan shall be independent of the Lessor's Spill Contingency Plan and, except for initial fire response and/or spill containment, shall not rely on use of RBAAP installation personnel or equipment. Should the Lessor provide any personnel or equipment, whether for initial fire response and/or spill containment, or otherwise on request of the Lessee, or because the Lessee was not, in the opinion of the Lessor, conducting timely cleanup actions, the Lessee agrees to reimburse the Lessor for its response costs.

15. ALTERATIONS, ADDITIONS AND IMPROVEMENTS TO THE LEASED PREMISES

The Lessee shall not construct, make or permit any alterations, additions, or improvements to the Leased Premises in any way which may adversely affect the Lessor's investigations, restoration, or human health or the environment without prior written consent of the Lessor. Such consent may include a requirement to provide the Lessor with a performance and payment bond and such other requirements as may be deemed necessary to protect the interests of the Lessor. Except as such written approval shall expressly provide otherwise, all such approved alterations/additions/ modifications shall become the Lessor's property when annexed to the Leased Premises.

16. NOTICE OF THE PRESENCE OF ASBESTOS AND COVENANT

a. The Lessee is hereby informed and does acknowledge that friable and non-friable asbestos or asbestos-containing materials (ACM) have been found on the Leased Premises, as described in the Condition Survey, attached as **Exhibit E**. To the best of the Lessor's knowledge, the ACM on the Leased Premises does not currently pose a threat to human health or the environment.

b. In addition to the Lessee's general indemnity contained in Condition No. 16, titled "Indemnity and Hold Harmless," above, the Lessee covenants and agrees that its use and occupancy of the Leased Premises shall comply with all applicable laws relating to asbestos and ACM. The Lessee similarly covenants and agrees that the Lessor assumes no liability for future remediation of asbestos, or for damages for personal injury, illness, disability, or death of the Lessee, its sublessees, successors or assigns or any other person, including members of the general public, arising from, or incident to, the lease, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos on the Leased Premises, whether the Lessee, its successors or assigns have properly warned or failed to properly to warn the individual(s) injured. The Lessee agrees to properly manage the ACM on the Leased Premises during the duration of the Interim Lease and to be responsible for any future remediation or abatement of any asbestos hazard found to be necessary on the Leased Premises.

C. The Lessee acknowledges that it has inspected or has had the opportunity to inspect the Leased Premises as to its asbestos and ACM content and condition, and any hazardous or environmental conditions relating thereto. The Lessee shall be deemed to have relied solely on its own judgment in assessing the overall condition of all or any portion of the Leased Premises, including, without limitation, any asbestos or ACM hazards or concerns.

17. NOTICE OF THE PRESENCE OF LEAD-BASED PAINT (LBP) AND COVENANT AGAINST THE USE OF THE PROPERTY FOR RESIDENTIAL PURPOSE

a. The Leased Premises do not contain residential housing and are not being leased for residential purposes. The Lessee is notified that the Leased Premises contain buildings built prior to 1978 that contain lead-based paint. Exposure to lead from lead-based paint may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. A risk assessment or inspection by Lessee for possible lead-based paint hazards is recommended prior to its execution of this Interim Lease.

b. Information concerning known lead-based paint and/or lead-based paint hazards, a list of the location of lead-based paint and/or lead-based paint hazards, and a chart showing the condition of painted surfaces are contained in the Condition Survey (Phase 1, Section 4.7), attached hereto as **Exhibit E** and previously provided to the Lessee. Additionally, the Lessee has been provided a copy of the federally-approved pamphlet on lead poisoning prevention. The Lessee hereby acknowledges receipt of all the information described in this paragraph.

c. The Lessee acknowledges that it has had the opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards prior to execution of this Interim Lease.

d. The Lessee shall not permit use of any existing buildings or structures on the Leased Premises for residential habitation.

18. PCB NOTIFICATION AND COVENANT

a. The following PCB-containing equipment is located on the Leased Premises: electrical transformers. This equipment is operational, properly labeled in accordance with federal and state regulations, and has been determined not to be leaking. A list of electrical transformers containing PCBs in excess of 50 parts per million (ppm) is presented in **Exhibit G** hereto. In addition, PCBs are present in the paint and coating on the exterior siding of several buildings.

b. Sampling results have detected PCBs above Toxic Substances Control Act (TSCA) criteria in several locations within and adjacent to buildings in the main plant area of the RBAAP and within the soil of Parcels 1 and 1A. The Lessor and Lessee intend to remove PCBs from these areas by use of an environmental remediation contractor working under an ESCA.

c. Two sites have been investigated and removal actions completed to address PCB contamination in soils. These sites include a location containing transformer oil storage tanks and a distribution system designated as Site AOC-8-B and an electrical substation transformer pad designated as Site AOC-16; see **Exhibit G**. Remedial activities are complete and no further action is required at these sites. Five additional locations were investigated for PCBs in a 2007 site investigation that found each site below the TSCA remediation requirements for PCBs and no further action was required.

d. If the Lessee causes, creates or exacerbates a release of PCBs from any equipment located within the Leased Premises the Lessee agrees to undertake any and all necessary abatement or remediation costs at its sole expense.

e. The Lessee assumes no obligation under this Interim Lease for the maintenance or disposal of out-of-service electrical equipment consisting of transformers and circuit breakers currently stored on the Leased Premises at the locations shown on **Exhibit I**, Out-of-Service Equipment Locations, attached hereto and made a part hereof.

19. "AS IS"

A. The Lessee acknowledges that it has inspected or has had the opportunity to inspect the leased Premises and accepts the condition and state of repair of the Leased Premises. The Lessee understands and agrees that the Leased Premises and any part thereof is leased "AS IS" without any representation, warranty, or guarantee by the Lessor as to quantity, quality, title, character, condition, size, or kind, or that the same is in condition or fit to be used for the purpose(s) intended by the Lessee, and no claim for allowance or deduction upon such grounds will be considered.

B. No warranties, either express or implied, are given with regard to the condition of the Leased Premises, including, without limitation, whether the Leased Premises does or does not contain asbestos, lead-based paint, or PCB-containing materials. The Lessee shall be deemed to have relied solely on its own judgment in assessing the overall condition of all or any portion of the Leased Premises, including, without limitation, any asbestos, lead-based paint, PCB-containing materials, or other conditions on the Leased Premises. The failure of the Lessee to inspect, or to exercise due diligence to be fully informed as to the condition of all or any portion of the Leased Premises, will not constitute grounds for any claim or demand against the Lessor.

C. Nothing in this "As Is" provision will be construed to modify or negate the Lessor's obligation under the CERCLA or any other statutory obligations.

20. HOLD HARMLESS

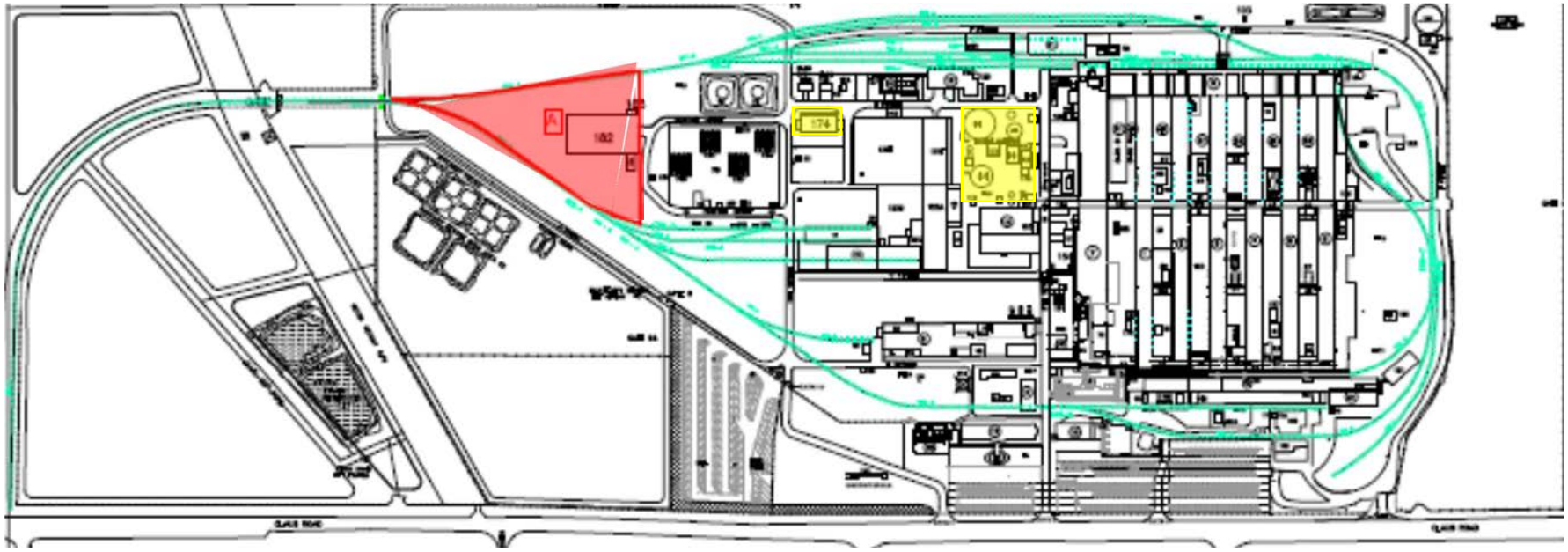
A. To the extent authorized by law, the Lessee, its successors and assigns, covenant and agree to indemnify and hold harmless the Lessor, its officers, agents, and employees from: (1) any and all claims, damages, judgments, losses, and costs, including fines and penalties, arising out of the violation of the Environmental Protection Provisions in this Interim Lease by the Lessee, its successors and assigns; and (2) any and all any and all claims, damages, and judgments arising out of, or in any manner predicated upon, human exposure to asbestos, lead-based paint, PCB-containing materials, or other condition on any portion of the Leased Premises after the Effective Date of this Interim Lease**.**

A. The Lessee, its successors and assigns, covenant and agree that the Lessor shall not be responsible for any costs associated with modification or termination of the Environmental Protection Provisions in this Interim Lease, including without limitation, any costs associated with additional investigation or remediation of asbestos, lead-based paint, PCB-containing materials or other condition on any portion of the Property.

B. Nothing in this Hold Harmless provision will be construed to modify or negate the Lessor's obligation under CERCLA or any other statutory obligations.

EXHIBIT 2 – ARMY HOLD BACK AREAS

RIVERBANK ARMY AMMUNITION PLANT



Army Holdback Area (2010 and 2016)

Parcels added to 2016 Lease that were previously Army holdback areas

RIVERBANK LOCAL REDEVELOPMENT AUTHORITY

RESOLUTION

A RESOLUTION OF THE LOCAL REDEVELOPMENT AUTHORITY OF THE CITY OF RIVERBANK, CALIFORNIA AUTHORIZING THE CITY MANAGER TO EXECUTE AN INTERIM LEASE NO. DACA05-1-16-516 BETWEEN THE SECRETAY OF THE ARMY AND THE CITY OF RIVERBANK

WHEREAS, on April 1, 2010, the US Army (hereinafter the "Army") and the City of Riverbank (hereinafter the "City") entered into that certain Army Lease No. DACA5-1010-525 (hereinafter the "Master Lease"), under authority of Title 10 United States Code section 2667 and Title 10 United States Code section 2687, "defense Base Realignment and Closure Act of 1990" (Public Law 101-510), as amended, for the Riverbank Army Ammunition Plant, Stanislaus County, California; and

WHEREAS, the City and the Army entered into Supplemental Agreement No. 1 dated June 29, 2011, Supplemental Agreement No. 2 dated August 17, 2011, Supplemental Agreement No. 3 dated October 6, 2011, Supplemental Agreement No. 4 dated April 17, 2012, Supplemental Agreement No. 5 dated July 2, 2013; Supplemental Agreement No. 6 dated April 1, 2014, Supplemental Agreement No. 7 dated February 3, 2015, and Supplemental Agreement No. 8 dated March 31, 2015; and

WHEREAS, the above noted Supplemental Agreement No. 8 indicates a term expiration date of March 31, 2016; and

WHEREAS, parties hereto desire to continue the leasing relationship by executing a new Interim Lease; and

WHEREAS, the City Council reconstituted as the Local Redevelopment Authority Board of Directors has received a draft of an Interim Lease No. DACA05-1-16-516 (hereinafter the "Interim Lease") for review and discussion; and

WHEREAS, the Interim Lease is subject to minor edits and changes prior to execution; and

WHEREAS, the Local Redevelopment Authority Board of Directors hereby authorizes the City Manager of the City of Riverbank to execute the Interim Lease once an executable document is received.

NOW, THEREFORE, be it resolved that the Local Redevelopment Authority Board of the City of Riverbank hereby authorizes the City Manager of the City of Riverbank to execute the final executable Interim Lease.

PROPOSED

PASSED AND ADOPTED by the Local Redevelopment Authority Board of the City of Riverbank at a meeting held on the 14th day of March, 2017; motioned by Authority Member , seconded by Authority Member , and upon roll call was carried by the following vote of :

AYES:
NAYS:
ABSENT:
ABSTAINED:

ATTEST:

_____
Annabelle H. Aguilar, CMC
City Clerk

APPROVED:

_____
Richard D. O'Brien
Mayor

PROPOSED