CONTINGENCY ACTION PLAN
TOURTELOT CLEANUP PROJECT
Benicia, California

June 2004

Lead Agency:
California Environmental Protection Agency
Department of Toxic Substances Control
Sacramento, California

Prepared on behalf of
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1.0 PLAN PURPOSE AND OVERVIEW

This Contingency Action Plan (CAP) has been prepared on behalf of Pacific Bay Homes, LLC (referred to herein as PBH), Granite Management Corporation and FN Projects, Inc. This CAP is required by the Final Remedial Action Plan (EarthTech, September 2001) (RAP) approved by the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC), for the Tourtelot Cleanup Project, Benicia, California (Project Site). The Tourtelot Cleanup Project involves investigative and remedial activities to locate and remove ordnance and explosives (OE) and metal fragments free of explosive residue remaining after demolition of OE items (OE Scrap) and to address chemically affected soils that are present on the Project Site as a result of activities of the United States Army on the Project Site between 1944 and 1960 when portions of the Project Site were operated as part of the Army's Benicia Arsenal.

1.1 RELATED DOCUMENTS

This CAP constitutes the Contingency Action Plan referred to in the Covenant to Restrict Use of Property (Environmental Restrictions) dated June 21, 2004, executed by and among Pacific Bay Properties, LLC, the City of Benicia, California (City) and DTSC (Restrictive Covenant), which Restrictive Covenant was recorded on June 23, 2004, in the Official Records of Solano County, California as instrument number 200400085397.

The RAP also required the preparation of an Operations and Maintenance Plan (O&M Plan), the purpose of which O&M Plan is to monitor and maintain the effectiveness of the remedial actions at the Project Site. The O&M Plan was approved by DTSC concurrently with the approval of this CAP. The O&M Plan includes figures depicting various characteristics of the Project Site, which figures are referred to in this CAP. The 220-acre Project Site is located in the City of Benicia, Solano County, California. The Project Site location and layout are shown in Figures 1-1 and 1-2 of the O&M Plan, and future land use at the Project Site is shown on Figure 1-3. Reviewers of this CAP should also familiarize themselves with the O&M Plan and refer to its figures when cited herein.

The requirements of this CAP and the O&M Plan are to be implemented in accordance with an Operations and Maintenance Agreement (O&M Agreement). The O&M Agreement is required by Section 5.14 of the Imminent and/or Substantial Endangerment Determination and Remedial Action Order (Docket No. I/SE 98/99-011) signed June 1, 1999 (Order), issued for the Project Site by the DTSC. The parties to the O&M Agreement include DTSC, the City, Granite Management Corporation, FN Projects, Inc. and PBH.

Copies of the Restrictive Covenant, O&M Plan and O&M Agreement are on file with the DTSC and the City and can be obtained from DTSC at the address set forth in Section 8.2 of this CAP or from the City's Project Manager for the Tourtelot Cleanup Project whose address is as follows:

Heather McLaughlin
City Attorney for the City of Benicia
250 East L Street
Benicia, CA 94510

1.2 OVERVIEW OF RESTRICTIVE COVENANT AND CAP

The Restrictive Covenant imposes land use restrictions on some portions of the Project Site which are designated as Open Space in the City's General Plan and its Zoning Code (Open Space Parcels). (See Figure 2-4 of O&M Plan.) Such land use restrictions require that the Open Space Parcels retain their current Open Space land use designation in perpetuity.

The Restrictive Covenant also imposes special safety requirements on Excavation Activities in most areas of the Open Space Parcels and beneath some paved areas of the Project Site. Two areas within the Open Space Parcels are not subject to the special safety requirements that apply to Excavation Activities in the remainder of the Open Parcels. No OE or OE Scrap items were located during point clearance activities in these two areas, identified in Figure 2-4 of the O&M Plan as "Land Use Covenant and Encroachment Prohibition Areas" and in the O&M Agreement as "Use Restricted Areas" (hereafter referred to as a Use Restricted Areas), and it is considered highly unlikely that any OE is present in such Use Restricted Areas. Although not subject to the special safety requirements that apply to Excavation Activities in the remainder of the Open Parcels, the Use Restricted Areas are subject to land use and encroachment prohibitions.

The restricted paved areas include (i) the portion of the McAllister Drive Land Bridge that had been paved prior to discovery of ordnance and explosives (OE) on the Project Site (Currently Paved Land Bridge Road), other than in the Dry Utilities Trench and the Wet Utilities Corridor, as more fully described in Section 3.3 and (ii) a small portion of McAllister Drive that is located within the area known as Unit D-1 (Restricted D-1 Street Area). The locations of the Currently Paved Land Bridge Road and the Restricted D-1 Street Area are identified in Figure 2-3 of the O&M Plan. Such restricted paved areas, together with the Open Space Parcels that are subject to special safety requirements when Excavation Activities occur and the Use Restricted Areas, are collectively referred to herein as Restricted Areas.

As used in the Covenant, the O&M Agreement, the O&M Plan and in this CAP, "Excavation Activities" means excavation or other ground-intrusive activities in the Restricted Areas that would require any digging or other penetration of the land surface that involves: (1) the displacement of 10 cubic feet or more of soil within one foot of the surface on any portion of the Restricted Areas located in Open Space Parcels, (2) any penetration to a depth greater than one foot on any portion of the Restricted Areas located in Open Space Parcels or (3) any penetration beneath the aggregate base that underlies

the asphalt and concrete surfaces of the Currently Paved Land Bridge Road or the Restricted D-1 Street Area.

The RAP requires that this CAP be prepared to specify the safety procedures to be followed if Excavation Activities are undertaken in any Restricted Areas. The RAP provides that the CAP is to specify the procedures to be followed by the City in approving any such Excavation Activities, address on-site safety support by OE-qualified personnel if Excavation Activities are conducted in Restricted Areas suspected of having the potential to contain OE items and describe the procedures to be followed if OE items or suspected OE items are encountered.

The City of Benicia currently owns some of the Open Space Parcels. PBH currently owns the remainder of the Open Space Parcels and the streets in Unit D-1 and the Currently Paved Portion of the Land Bridge. On June 1, 2004, the Benicia City Council approved Resolution 04-74 pursuant to which the City has agreed to accept PBH's dedication to the City of the ownership of the Open Space Parcels currently owned by PBH following completion of the cleanup activities at the Project Site and certification by the DTSC that remediation is complete at the Project Site and no further removal/remedial action is necessary. In Resolution 04-74, the City Council also approved the City's acceptance of PBH's dedication to the City of the ownership of the streets on the Project Site, subject to final approval by the Public Works Director as to the condition of the streets and related subdivision improvements and confirmation that they comply with the requirements of the City's Subdivision Improvement Agreements. Accordingly, it is anticipated that in the near future all Restricted Areas will be owned and controlled by the City.

2.0 BACKGROUND INFORMATION

Section 2 of the O&M Plan describes the historical background of the Project Site and describes the remedial activities that have been conducted. Sections 2.6 and 2.7 of the O&M Plan describe remedial activities that have been conducted to clear fill soils suspected of having the potential to contain OE from the Dry Utilities Trench (i.e., the trench where electrical, telephone, cable television and similar lines are located) on the McAllister Drive Land Bridge and adjacent to the Restricted D-1 Street Area and to construct a Wet Utilities Corridor (i.e. a corridor for water, sewer and storm water lines) across a portion of the McAllister Street Land Bridge. The location of the Dry Utilities Trench and the Wet Utilities Corridor on the McAllister Drive Land Bridge are shown on Figure 2-1 of the O&M Plan. A cross section of the Dry Utilities Trench and the Wet Utilities Corridor are shown on Figure 2-2 of the O&M Plan. Based on the remedial steps used in the Dry Utilities Trenches and Wet Utilities Corridor, in most circumstances Excavation Activities that occur in the Dry Utilities Trenches in Unit D-1 and on the McAllister Drive Land Bridge and in the Wet Utilities Corridor on a portion of the McAllister Drive Land Bridge will not require the special safety precautions that are required for Excavation Activities in Restricted Areas. However, as more fully described

in Section 2.5.1 of the O&M Plan, in the event of a wet utility line break that erodes the soil to a depth of twelve feet or more below the ground surface in the Wet Utilities Corridor, the eroded area ("Wet Utilities Blow-Out Area") will be treated as an OE Construction Support Area and will be subject to the special safety precautions set forth in Section 5.2 of this CAP.

Persons who review this CAP and are responsible for implementing its provisions are advised to review Section 2 of the O&M Plan.

3.0 EVALUATION OF RESTRICTED AREAS

The RAP anticipated that the procedures required by this CAP to be implemented when Excavation Activities occur in the Restricted Areas could be based in part on the potential risk that OE items could remain in a Restricted Area. The RAP also anticipated that different measures might be required in different portions of the Restricted Areas based on the relative risk of encountering OE items during Excavation Activities.

Based on the Final Conceptual Site Model, Tourtelot Cleanup Project, Benicia, California (Northgate Environmental Management, Inc., 2004) (Conceptual Site Model), the open space parcels in the Project Site have been assigned to one of four designations: (1) open space areas not requiring special safety requirements that apply to Excavation Activities because they do not have a potential to contain OE, (2) OE Construction Support Areas, (3) the Wetlands Risk Reduction Area and (4) OE Notice Areas. The designations for the Restricted Areas are shown on Figure 2-4 to the O&M Plan. As more fully discussed in Section 5 of this CAP, when Excavation Activities occur in OE Construction Support Areas, a military trained OE Technician is to be present. Before Excavation Activities may occur in the Wetlands Risk Reduction Area, OE clearance must be undertaken in the area where Excavation Activities will occur in accordance with a DTSC-approved work plan. When Excavation Activities occur on OE Notice Areas, the personnel who conduct the Excavation Activities are to be given a notice alerting the personnel to the possibility that OE items could be present and instructing them on the action to be taken if an OE item is found.

3.1 OPEN SPACE AREAS WITHOUT INSTITUTIONAL CONTROLS

Institutional controls will not apply to (i) a park location in the area of the Project Site designated on subdivision maps as Unit D-7, which is zoned as Open Space and designated for park use or (ii) an Open Space access path in the area of the Project Site designated on subdivision maps as Unit D-6. The RAP required that both of these open space areas be remediated to a level that would permit unrestricted use, and such remediation has occurred.

3.2 USE RESTRICTED AREAS

The special safety precautions for Excavation Activities in Restricted Areas will not apply to an area of open space located at the western end of the South Valley consisting primarily of an area that was designed as "Sector 4" during the remediation project. No OE-Like or OE Energetic items were found in this area during remediation. (The terms "OE-Like" and "OE-Energetic" are defined in Section 5.4 of this CAP.) This area has been defined by locating the farthest west OE-Like or OE-Energetic items located during remediation of the Project Site, placing a 200 foot arc around each and drawing a line north to south connecting the western apex of each arc. The area is shown in Figure 2-4 to the O&M Plan as a Land Use Covenant and Encroachment Prohibition Area. While special OE safety precautions for Excavation Activities are not required for this Use Restricted Area, such area will be subject to the Covenant's restrictions on changes in land use and to the City of Benicia's policy prohibiting the issuance of encroachment permits in open space areas of the Project Site, which policy is further described in Section 4.1 of this Contingency Action Plan.

Special OE safety precautions for Excavation Activities are also not required for an Open Space Parcel owned by the City on the northern boundary of the Project Site. (See area on northern boundary of Project Site that is identified on Figure 2-4 of the O&M Plan as a Land Use Covenant and Encroachment Prohibition Area. This open space area was included in the Project Site only because the TNT strips (see Figure 1-2 and discussion of TNT remediation in Section 2.4) extended across the boundary between the property owned by PBH and the City-owned property at this location. No OE or OE Scrap items were located during point clearance activities in this area, and it is considered highly unlikely that any OE is present. While special OE safety precautions for Excavation Activities are not required for this Use Restricted Area, such area will be subject to the Covenant's restrictions on changes in land use and to the City of Benicia's policy prohibiting the issuance of encroachment permits in open space areas of the Project Site, which policy is further described in Section 4.1 of this Contingency Action Plan.

3.3 OE CONSTRUCTION SUPPORT AREAS

OE Construction Support Areas include (i) the McAllister Drive Land Bridge, including (without limitation) the Currently Paved Land Bridge Road, but not including the Dry Utilities Trench and the Wet Utilities Corridor, (ii) the area underlying the Sewer Bench Road which area may contain fill that potentially contains OE, (iii) the Restricted D-1 Street Area which may be underlain with fill materials which potentially contain OE, and (iv) areas in the Open Space Parcels of the Project Site that have experienced landslides, erosion or other soil sloughing after the U.S. Army used the Site for demolition (Historic Landslide Areas). Such historic activities in the Historic Landslide Areas could potentially have covered OE items with soils to depths exceeding the reliable scanning depth of the geophysical instruments used to locate subsurface metallic anomalies during

point clearance.[1] Additionally, as discussed in Section 2.5.1 of the O&M Plan, should a break in a wet utility line in the Wet Utilities Corridor erode soil to a depth of twelve feet or more below the ground level, the Wet Utilities Blow-Out Area would be treated as an OE Construction Support Area.

As more fully described in Section 2.6 of the O&M Plan, the McAllister Drive Land Bridge was constructed using approximately 200,000 cubic yards of fill from the Ridge area of the Project Site, an area where the Conceptual Site Model concludes OE may have been present in surface soils. The sloping sides and other unpaved areas of the McAllister Drive Land Bridge have been subjected to OE point clearance. Additionally, soils on the sides of the Land Bridge have been excavated to a depth of two feet to remove the fill soils that contained OE or OE Scrap and the excavated materials have been replaced with OE free fill. However, given the very significant volume of fill soils in the McAllister Drive Land Bridge, it is not considered feasible to remove all potential OE from the entire mass of the Land Bridge. Instead a physical barrier consisting of wire mesh has been installed on the western and eastern sloping sides of the Land Bridge to curtail subsurface penetration, and the Dry Utilities Trench and Wet Utilities Corridor were constructed to facilitate maintenance of the dry utilities in the Dry Utilities Trenches on the Land Bridge and installation of the wet utilities across a portion of the Land Bridge. The McAllister Drive Land Bridge is designated as an OE Construction Support Area, except for the Dry Utilities Trench and the Wet Utilities Corridor (subject to the requirements that apply should a Wet Utilities Blow-Out Area develop). Accordingly, OE construction support will be required for Excavation Activities on the Land Bridge, including (without limitation) any Excavation Activities relating to the installation or maintenance of guardrails, fire hydrants and light poles.

If it were necessary that the City of Benicia repair or replace storm water drain lines installed on the Land Bridge to drain storm water into the wetlands area downstream from the McAllister Land Bridge, it may be necessary to remove temporarily a portion of the Land Bridge Mesh Barrier to gain access to some sections of the drain lines. Section 5.2 of this Contingency Plan discusses the requirements that would apply if the Barrier is to be temporarily removed to access such drain lines.

The Sewer Bench Road is located above City of Benicia sewer line which is currently servicing existing residential property up-slope and adjacent to the Project Site and which will also service additional residences to be constructed on the Project Site. Soils that potentially contain OE may have been used to fill the area surrounding some portions of the sewer line. Because of the presence of the sewer line and the depth of the fill around it, it is not considered feasible to remove the fill or to remove all potential OE from the fill. Accordingly, the Sewer Bench road has been designated as an OE Construction Support Area.

[1] OE point clearance includes locating, excavating, identifying and disposing of recovered subsurface items which may include OE, OE scrap and non-OE metallic debris.

The small Restricted Area of McAllister Drive within Unit D-1 which is identified on Figures 2-3 of the O&M Plan may be underlain with fill soils that potentially contain OE. Accordingly, the area is considered an OE Construction Support Area

Historic fill activities or landslide or other soils sloughing in the Historic Landslide Areas could potentially have covered OE items with soils to depths exceeding the reliable scanning depth of the geophysical instruments used to locate subsurface metallic anomalies during point clearance. Accordingly, the Historic Landslide Areas have been designated as OE Construction Support Areas.

Section 2.8.3(b) of the O&M Plan describes markers that have been placed in the Restricted Areas to assist field personnel in locating OE Construction Support Areas.

3.4 WETLANDS RISK REDUCTION AREA

During the OE clearance process in the South Valley, it was determined that certain areas in and adjacent to a portion of the wetlands (see Figure 1-2 to O&M Plan for location of wetlands) were heavily saturated with metallic materials from the Army's OE demolition activities in the area. The heavy metal content inhibited use of the OE point clearance techniques that the RAP had anticipated could be used across the entire Project Site to clear OE from the area. To address the problem, DTSC approved the use of mechanical excavation of soils in areas with heavy metallic density, so that the soils could be relocated to other areas on the Project Site for OE clearance either by mechanical sifting of the soils or by spreading the soils for scanning and digging of anomalies. Mechanical excavation was used in areas surrounding Demolition Site 3 (see Figure 2-4 to O&M Plan). However, to minimize impacts to the environmentally sensitive wetlands area, no mechanical excavation occurred in the wetlands adjacent to Demolition Site 3. Instead, an alternative clearance process was approved for the portion of the wetlands adjacent to Demolition Site 3 containing high concentrations of metal. (See Revised Wetlands OE Removal Plan, Tourtelot Cleanup Project, Benicia, California (Northgate, May, 2004), which Plan was incorporated into the Final Tourtelot Project Site Ordnance and Explosives Remedial Design Document (Northgate, February, 2002) through Field Change Request No. 36.)

Because the alternative clearance process used for the portion of the wetlands with heavy metal saturation may not have located all OE items for removal from beneath the deep sediment layer of the wetlands, additional risk reduction measures are required in such areas (Wetlands Risk Reduction Area). The Wetlands Risk Reduction Area is shown on Figure 2-4 of the O&M Plan. Section 2.8.3(a) of the O&M Plan describes how the area has been marked with signs to assist field personnel in identifying the Wetlands Risk Reduction Area. The risk reduction measures applicable to the Wetlands Risk Reduction Area are described in Section 5.3 of this CAP

3.5 OE NOTICE AREAS

All of the remaining Restricted Areas are considered OE Notice Areas. All OE Notice Areas have been subjected to two phases of point clearance followed by a Quality Assurance/Quality Control (QA/QC) check or have been cleared of OE using mechanical removal of the soils. The surface areas where mechanical removal of soils occurred have also been subjected to a subsequent confirmation geophysical scan to locate and remove any remaining subsurface metallic anomalies, if present. The geophysical equipment used for point clearance and for QA/QC confirmation scanning has been tested at the Project Site and determined to be able to reliably locate 100 percent of subsurface OE items of the characteristic size anticipated to be found at the Project Site to a depth of twelve inches. The geophysical equipment has also been able to detect deeper OE items but with progressively reduced reliability. OE items located on the Project Site have generally been found within twelve inches of the ground surface, with the exception of deeper finds in Historic Landslide Areas and in areas believed to have been used as Demolition Sites by the U.S. Army. As noted above, Historic Landslide Areas are considered OE Construction Support Areas.

The OE Notice Areas include the Demolition Sites located within Restricted Areas and the areas surrounding the Demolition Sites. (The locations of the Demolition Sites are shown in Appendix C to this CAP (see figure on page 2 of Appendix C)[2]) During OE clearance Demolition Sites 1 and 3 were excavated to bedrock and the excavated soils were replaced with OE free fill. During OE clearance, the area around the Demolition Site 3 was mechanically excavated to a depth of approximately eighteen inches. The excavated soils were relocated on the Project Site for OE clearance, either by mechanically sifting the soils using a mechanical screening apparatus or by spreading the soils for scanning and digging of anomalies. The area in which the soils had been mechanically excavated around the Demolition Site was also confirmation scanned using handheld geophysical scanning equipment shown to have a twelve inch reliable depth of detection on the Project Site. The area around Demolition Site 1 on the South slope of the South Valley did not contain the high density of metals found around Demolition Site 3, and was accordingly cleared using the point clearance techniques contemplated by the RAP. In addition to two phases of point clearance, the areas were further confirmation scanned using handheld geophysical equipment. Based on these clearance methods, the area around Demolition Sites 1 and 3 is believed to have a low risk of containing OE and the areas have been classed as an OE Notice Areas.

4.0 CONTINGENCY ACTION PLAN REQUIREMENTS FOR EXCAVATION ACTIVITIES IN RESTRICTED AREAS

[2] It should be noted that during OE clearance no OE-Energetic or OE-Like items were located in the area identified on the Figure as Demolition Site 2 and it has been determined not to have been used as a Demolition Site.

This Section 4.0 describes measures that will be employed when the City is involved with Excavation Activities in Restricted Areas. Additionally, Section 5.0 describes the required safety measures to be used while conducting Excavation Activities in Restricted Areas.

4.1 CITY PROHIBITION OF ENCROACHMENT IN RESTRICTED AREAS

As described in Section 1.2 of this CAP, in the near future, the City will own and control all Restricted Areas. Title 12, Chapter 12.12 of the Benicia Municipal Code prohibits Excavation Activities on City owned property unless the City has issued an encroachment permit. Additionally, the Benicia City Council has adopted a policy which prohibits encroachments into City-owned open space within the boundaries of the Tourtelot Project Site. (City of Benicia Resolution 04-74, approved June 1, 2004.) The Resolution directs City staff to require prompt removal of all encroachments in the open space of the Tourtelot Project Site.

As discussed in Section 3.5 of the O&M Plan, the City will monitor and periodically inspect the Restricted Areas to identify any unauthorized Excavation Activities in the Restricted Areas. If the City learns of unauthorized Excavation Activities in Restricted Areas, the City will promptly notify the perpetrator of the risk of encountering OE in the Restricted Area and that such Excavation Activities must immediately cease. If the perpetrator does not cease the unauthorized Excavation Activities, the City will take further corrective action pursuant to the then applicable enforcement provisions of Title 12, Chapter 12.12 of the Benicia Municipal Code.

Since the City will own all of the Restricted Areas and will not issue Encroachment Permits to permit Excavation Activities in the Restricted Areas, Excavation Activities may only legally be undertaken in Restricted Areas by the City or contractors under contract with the City (City Contractors). Any Excavation Activities undertaken by the City itself would be performed by personnel in the City's Department of Public Works. The Department of Public Works would also oversee any Excavation Activities undertaken on the City's behalf by a City Contractor.

4.2 UNDERGROUND SERVICE ALERT ARRANGEMENTS

The City of Benicia's City Engineer has met with representatives of Underground Service Alert (US Alert) to discuss the possibility of establishing a program which would allow US Alert to provide special notice to the City of Benicia when US Alert is notified of proposed Excavation Activities in any of the Restricted Areas. US Alert is a nonprofit organization that operates in Northern California and other locations. Its purpose is to receive planned excavation reports from public and private excavators and to transmit those planned excavation reports to all participating members of US Alert who may have underground facilities at the location of proposed excavation. The City of Benicia is a member of US Alert and eligible to receive such notifications of planned excavations.

US Alert has expressed interest in establishing the special notice program for the City of Benicia, but doing so will require approval of the Board of Directors of US Alert and the establishment of appropriate operating procedures.

The City's standard operating procedures provide that notice is to be given to US Alert whenever the City's Department of Public Works intends to conduct Excavation Activities. The City also requires that City Contractors give such notices to US Alert.

Under the anticipated arrangements with US Alert, the City would be notified by a fax to a special fax number provided by the City or to an email address designated by the City whenever US Alert receives notice of proposed Excavation Activities within a Restricted Area. If the City is notified by US Alert of any such proposed excavation in a Restricted Area, City personnel will act promptly to confirm that any Excavation Activities planned for the Restricted Area have been properly authorized by the City and that the persons who will conduct the excavation have been made aware of the procedures that this CAP requires be followed for excavation in the applicable Restricted Area. Should it be determined that a person not authorized to conduct excavation in a Restricted Area has notified US Alert of proposed activities in a Restricted Area, the City shall promptly notify such person that the City will not permit such person to conduct Excavation Activities in the Restricted Area. The City shall also conduct a follow up check to confirm that no unauthorized Excavation Activities are undertaken.

4.3 CITY MARKING OF PLANS

4.3.1 As-Built Plans

The City maintains "As Built" plans that show the location of underground utilities, including both "dry utilities" (electrical, telephone, cable television and similar lines) and "wet utilities" (water, sewer and storm water lines) that currently exist in the Tourtelot Project Site. The City will also maintain "As Built" plans showing underground utilities that are constructed in the Project Site in connection with the residential development of the Site.

PBH is assisting the City in confirming that the City's As Built plans for Restricted Areas are up to date and correctly show the locations of underground utility lines. The City's As Built plans will be prominently marked to identify OE Construction Support Areas, the Wetlands Risk Reduction Area and OE Notice Areas and to reference the requirements of this CAP for Excavation Activities in such areas.

It is standard procedure for personnel in the City Department of Public Works to consult such As Built plans when the City undertakes maintenance work on wet utility lines or authorizes a City Contractor to do so. (Since the dry utility trenches on the Project Site are not Restricted Areas, work in dry utility trenches will not require special safety precautions or OE Warning Notices.)

4.3.2 Permit Plans

The City maintains an electronic data base containing copies of final subdivision maps covering the Project Site, including all Restricted Areas (referred to by the City as "Permit Plans"). The City's Permit Plans will be prominently marked to identify the Restricted Areas and to reference the restrictions imposed by the Covenant on any changes in land use of the restricted open space areas. Notations will also be made on the Permit Plans referencing the City's policy prohibiting the issuance of encroachment permits for the Restricted Areas.

It is standard procedure for personnel in the City's Community Development Department to consult the Permit Plans when applications for encroachment permits are submitted or when zoning, use permits or other land use changes are under consideration.

5.0 CITY PROCEDURES FOR CONDUCTING EXCAVATION ACTIVITIES IN RESTRICTED AREAS

The procedures to be followed to conduct Excavation Activities in Restricted Areas will depend on whether the area where the Excavation Activities will occur is designated as an OE Notice Area, an OE Construction Support Area or a Wetlands Risk Reduction Area.

5.1 OE NOTICE AREAS.

As explained in Section 3.4, it is not anticipated that any OE items would remain below the reliable scanning depth in the Restricted Areas designated as OE Notice Areas. It is nonetheless important to notify persons who may conduct Excavation Activities of the possibility of encountering OE, educate them as to what to look for and instruct them in the procedures to be followed should potential OE items be located. An OE Warning Notice has been prepared to provide this information. A copy of the OE Warning Notice is attached as Appendix A to this CAP.

The City will provide copies of the OE Warning Notice to all City personnel involved in conducting Excavation Activities in OE Notice Areas. The City will also include a provision in its contracts with any City Contractor who is authorized to conduct Excavation Activities in OE Notice Areas to require the City Contractor to provide a copy of the OE Warning Notice to all City Contractor personnel who are involved in conducting the Excavation Activities.

As indicated in the OE Warning Notice, such personnel are instructed if any suspect OE items are encountered to immediately cease all activities, to secure the area to restrict unauthorized access, and to contact the City Police Department. As more fully discussed

in Section 6.0, the Police Department will coordinate with appropriate military Explosive Ordnance Disposal personnel to respond.

If any item is found in an OE Notice Area that is determined to be an OE-Energetic or OE-Like item (as defined in Section 5.4 below), the City shall notify DTSC orally of the discovery within forty-eight (48) hours. Within fifteen business days following the discovery, the City shall provide a written report to DTSC describing the circumstances in which the item was found and the measures taken to dispose of it. Thereafter, the location of the OE item and all surrounding area within 100 feet from such location shall be redesignated as an OE Construction Support Area. The City's As Built Plans and Permit Plans will be updated to show the changed designation.

5.2 OE CONSTRUCTION SUPPORT AREAS

5.2.1 Non-Emergency Excavation Activities

If the City proposes to conduct Excavation Activities in OE Construction Support Areas and such Activities are not required to address an Emergency situation (as described in Section 5.2.2), the City shall give prior written notice to the DTSC. The City shall employ a Qualified OE Contractor to prepare a work plan describing the safety measures to be taken to address OE safety considerations during the Excavation Activities. A list of Qualified OE Contractors is attached as Appendix B. Additional contractors may qualify to be added to the list of Qualified OE Contractors with the approval of DTSC. The City shall submit the proposed Work Plan to DTSC for review no later than thirty days prior to the anticipated commencement date for the Excavation Activities.

The Work Plan shall require that at least one qualified military trained OE Technician (Tech-3 or higher) be present at all times that Excavation Activities are being conducted in an OE Construction Support Area. The Work Plan will provide that the OE Technician is to be present at the excavation site at all times while Excavation Activities are underway. The OE Technician shall assess any suspicious items that may be encountered. The Work Plan will provide for the OE Technician to be equipped with a suitable hand-held geophysical survey instrument to aid in locating and identifying potentially hazardous OE items. If an OE item is discovered and determined to be of no hazard by the OE Technician, Excavation Activities may continue. Should a suspect OE-Energetic item be encountered, the OE Technician will contact the Benicia Police Department. They in turn will notify appropriate military EOD personnel (as described in Section 6.0). The Work Plan will direct that the OE Technician to standby awaiting arrival of the military EOD unit to fully apprise them of the situation. The Benicia Police Department will be responsible to keep unauthorized personnel out of the area until it has been determined that access control is no longer required.

If the Excavation Activities on the McAllister Drive Land Bridge involve repair or replacement of storm water drain lines installed on the Land Bridge to drain storm water

into the wetlands area downstream from the McAllister Land Bridge, it may be necessary to remove temporarily a portion of the Land Bridge Mesh Barrier to gain access to some sections of the drain lines. In such case, the City's Work Plan shall describe the measures to be taken to remove the Land Bridge Mesh Barrier and the security measures that are to be employed to prevent unauthorized access to the exposed ground surface of the slopes of the Land Bridge while the Mesh Barrier is removed. The Work Plan shall also address the measures to be taken to minimize any interference that the Mesh Barrier in areas surrounding the exposed area may cause for the handheld geophysical scanning equipment that the OE Contractor will utilize to locate potential OE items in areas where Excavation Activities are required.

If the DTSC provides comments on the Work Plan to the City or its Qualified OE Contractor at least five business days prior to the date specified in the Work Plan for the work to commence, the City or its Qualified OE Contractor will address DTSC's comments to DTSC's reasonable satisfaction before commencing Excavation Activities.

If any OE-Energetic or OE-Like item is located during Excavation Activities in an OE Construction Support Area, the City or its OE Qualified Contractor shall notify DTSC orally of the discovery within forty-eight (48) hours. Within fifteen business days following the discovery, the City shall provide a written report to DTSC describing the circumstances in which the item was found and the measures taken to dispose of it. If no OE items are located during such Excavation Activities, the City or the City's Contractors shall provide a written report to DTSC within thirty days following completion of the Excavation Activities that describes the Excavation Activities, the OE safety measures employed and confirming that no OE-Energetic or OE-Like item was located. If any OE Scrap (as defined in Section 5.4) is found during the Excavation Activities, the written report shall indicate the extent and nature of the OE Scrap and where it was located.

5.2.2 Emergency Work in OE Construction Support Areas

If an emergency situation (such as a sewer or water line break) should occur requiring Excavation Activities be conducted in an OE Construction Support Area without sufficient time to prepare a work plan as described in Section 5.2.1, the City shall promptly notify DTSC orally of the emergency situation. The City shall also use all reasonable efforts to have a Qualified OE Contractor deploy at least one qualified military trained OE Technician (Tech-3 or higher) to be present while Excavation Activities to address an emergency situation are being conducted in an OE Construction Support Area. The OE Technician shall access any suspicious items that may be encountered. The OE Technician should be equipped with a hand-held geophysical survey instrument to aid in locating and identifying potentially hazardous OE items. If an OE item is discovered and determined to be of no hazard by the OE Technician, Excavation Activities may continue. Should a suspect OE-Energetic item be encountered, the OE Technician will contact the Benicia Police Department. They in

turn will notify appropriate military EOD personnel (as described in Section 6.0). The OE Technician will standby awaiting arrival of the military EOD unit to fully apprise them of the situation. The Benicia Police Department will be responsible to keep unauthorized personnel out of the area until it has been determined that access control is no longer required.

The City shall take only the measures required to address the emergency situation that exists. Any additional Excavation Activities in the area beyond those needed to address the emergency shall be conducted in accordance with Section 5.2.1.

If the nature of the Emergency in an OE Construction Support Area is such that work must be commenced before an OE Technician can arrive at the scene, the City shall endeavor to notify the personnel who respond to the emergency of the potential for encountering OE items and, if possible, will provide such personnel with a copy of the OE Warning Notice. The City shall take only the measures required to address the immediate emergency situation and shall defer any additional work until an OE Technician is present.

When the emergency situation has been addressed, the City shall notify DTSC orally within forty-eight (48) hours. Within fifteen business days following any emergency work in an OE Construction Support Area, the City shall provide a written report to DTSC describing the circumstances in which the emergency arose and the measures taken to address it.

5.3 WETLANDS RISK REDUCTION AREA

If the City proposes to conduct Excavation Activities in the Wetlands Risk Reduction Area, the City shall give prior written notice to the DTSC. Before Excavation Activities occur, the portion of the Wetlands Risk Reduction Area in which the Excavation Activities will occur must be cleared of OE. Such clearance work shall be performed under the direction and supervision of a qualified professional engineer in the State of California with expertise in geotechnical engineering. Before commencing any such OE clearance activities in the Wetlands Risk Reduction Area, the City must submit to DTSC: a) the name and address of the project engineer chosen by the City to oversee the work (the Clearance Project Engineer); and b) in order to demonstrate expertise in hazardous substance cleanup, the resume of the proposed Clearance Project Engineer and the statement of qualifications of the consulting firm responsible for the work. The Clearance Project Engineer prepare a Work Plan describing the procedures to be utilized to clear the affected Wetlands Risk Reduction Area. The City shall submit the proposed Work Plan to DTSC for review no later than ninety days prior to the anticipated commencement date for the OE clearance activities.

The Clearance Project Engineer shall address any comments provided by the DTSC and obtain DTSC's approval before the clearance work commences. During the OE

clearance work, the Clearance Project Engineer shall promptly notify DTSC orally of any significant developments and shall provide such other reports are required by the approved Work Plan. No later than forty-five days following completion of the OE clearance work, the Clearance Project Engineer shall submit a report to DTSC describing the OE clearance work, and shall promptly address any questions or comments provided by DTSC on the report.

5.4 OE DEFINITIONS

The term "OE-Energetic" is defined as ammunition or ammunition components that contain measurable amounts of explosives that have been abandoned, expelled from demolition pits, burned, buried, lost or discarded; or soil containing 10 percent or more of explosives. The term "OE-Like" refers to any item that is (1) any recognizable, intact component of an OE item that presents no explosive hazard or (2) an ordnance item, other than small arms cartridges, casings, or bullets that has retained the shape of a projectile. Examples of OE-Like items are expended fuzes, burster tubes, booster caps, rocket motors, tail fin assemblies, practice warheads or projectiles, or solid ball projectiles (such as a 37 mm armor piercing projectile). "OE Scrap" includes those items that are fragments of intentionally destroyed items that do not contain explosives or explosive residue. OE Scrap is inert and does not pose a safety risk.

6.0 MONITORING AND REPORTING OF OE RELATED INCIDENTS

If any report is made to the City, including (but not limited to) reports to the City's Police Department and Fire Department, involving any reported encounter with OE or potential OE items on the Project Site, the City's Police Department shall promptly investigate the report. If a suspected OE item is still present on the Project Site, the Police Department shall restrict access to the area in which the suspect item is located. The Police Department shall promptly contact military EOD personnel at Travis Air Force Base and request support to investigate the suspect item. Current contact point is Travis Air Force Base, 60th Air Base Wing, Explosive Ordnance Disposal Flight at telephone number (707) 424-3146. The City shall keep a record of the location of any OE-Energetic or OE-Like item that is located on the Project Site with reference to landmarks in the area such that its location can be accurately reported to DTSC.

If a suspect item is determined to be an OE-Energetic or OE-Like item, the City shall give oral notice to DTSC within forty-eight (48) hours of the discovery of the item and shall advise DTSC of the action taken to remove it from the Project Site. Within ten working days, the City shall also provide a written report to DTSC regarding any discovery of OE-Energetic or OE-Like items on the Project Site.

If an OE-Energetic or OE-Like item is located in any Restricted Area that is not classified as an OE Construction Support Area, the location of such OE item and all surrounding area within 100 feet of such location shall be redesignated as an OE Construction Support

Area, and the City's As Built Plans and Permit Plans shall be updated to show the new designation. If an OE-Energetic or OE-Like item is located on the Project Site outside the Restricted Areas, the City shall consult with DTSC to determine what action should be taken to address any public health and safety concerns.

If an investigation of a reported encounter with OE on the Project Site does not result in the discovery of any OE-Energetic or OE-Like items, the City shall report the incident and the results of the investigation in the City's annual report to DTSC under Section 8.1.

7.0 EDUCATION PROGRAMS FOR CITY PERSONNEL ADMINISTERING CAP REQUIREMENTS

7.1 Educational Materials for Personnel in City's Community Development Department and Public Works Department

"Self study" educational materials that can be used as part of the City's annual educational programs for personnel in the City's Community Development Department and Public Works Departments have been prepared. Copies of the educational materials are attached as Appendix C to this CAP. They are designed to familiarize new City personnel with the requirements of the O&M Plan and this CAP and to remind continuing City personnel of the applicable requirements.

7.2 ANNUAL TRAINING REQUIREMENTS

The City's Human Resources Department shall be responsible for overseeing the annual education of personnel in the City's Community Development Department and Public Works Department, using the educational materials included in Appendix C.

7.3 POLICE AND FIRE DEPARTMENT TRAINING

The US Army Corps of Engineers (USACE) has produced a training video for the City to utilize in training Police and Fire Department personnel on proper responses to calls regarding potential OE items. The City's Human Resources Department shall be responsible for overseeing the annual training of personnel in the City's Police Department and Fire Department using the USACE training video or other suitable materials provided by USACE.

8.0 REPORTING; COMMUNICATIONS

8.1 ANNUAL REPORTS

In addition to any interim reports to DTSC required by this CAP, the City shall provide an annual report to DTSC describing the actions taken during the year by the City to comply with the obligations of this CAP. The annual reports shall include a discussion of

any changes to the procedures described in this CAP that are recommended based on the City's experience in administering the CAP requirements. Any such changes shall be subject to DTSC's approval.

8.2 DTSC CONTACTS FOR NOTICE

When this CAP requires that the City provide an oral notice to DTSC, the City shall contact the following individuals telephonically in the order listed until the City has reached at least one contact. If the City is unable to reach at least one contact telephonically, the City shall send an email message to each of the following persons that contains the information that the CAP requires to be provided orally. The email shall include points of contact at the City for recipients to contact for further information.

Rizgar Ghazi
California Department of Toxic Substances Control
Project Manager for Tourtelot Cleanup Project
Telephone Number: (916) 255-3610
Email: rghazi@dtsc.ca.gov

Jim Austreng
California Department of Toxic Substances Control
State Unexploded Ordnance Coordinator
Telephone number: (916)255-3702
Email: jaustreng@dtsc.ca.gov

Donn Diebert
California Department of Toxic Substances Control
Unit Chief, Office of Military Facilities
Telephone number: (916) 255-3728
Email: ddiebert@dtsc.ca.gov

Noel Laverty
Public and Business Liason
Telephone Number: (916) 255-3617
Email: NLaverty@dtsc.ca.gov

Written reports to DTSC under this CAP shall be provided to the following individual or to such other addressees as may be designated by DTSC by written notice to the City:

Rizgar Ghazi
California Department of Toxic Substances Control
Project Manager for Tourtelot Cleanup Project
8800 Cal Center Drive
Sacramento, CA 95826

9.0 FIVE YEAR REVIEW

At the end of five years following the date of DTSC's approval of the Implementation Reports for OE and Non-OE remediation at the Project Site and every 5 years thereafter, the City will submit a report to DTSC evaluating the success of the various activities required by this CAP. The report will include the City's recommendations as to any modification and/or termination of any requirements. Any such modification and/or termination of this CAP shall require DTSC approval.

10.0 REFERENCES

Earth Tech, Inc. Final Remedial Action Plan Tourtelot Cleanup Project, Benicia, California (September 2001)

Northgate Environmental Management, Inc. Final Conceptual Site Model, Tourtelot Cleanup Project, Benicia, California (June, 2004)

Northgate Environmental Management, Inc. Revised Wetlands OE Removal Plan, Tourtelot Cleanup Project, Benicia, California (Northgate, May, 2004), which Plan was incorporated into the Final Tourtelot Project Site Ordnance and Explosives Remedial Design Document (Northgate, February, 2002) through Field Change Request No. 36.)

APPENDIX A OE WARNING NOTICE

APPENDIX B OE QUALIFIED CONTRACTORS

APPENDIX C CITY EDUCATIONAL MATERIALS