
Chapter 3

Project Description

This chapter provides a description of the Proposed Project, including an overview and information on the existing conditions at the Alamo site and the Ulatis site.

3.1 PROJECT OVERVIEW

The City is proposing to design and construct two stormwater detention basins upstream and northwest of the City (Figure 3-1), one adjacent to Alamo Creek and one adjacent to Ulatis Creek (Figure 3-2). The detention basin sites are on City-owned property located in an unincorporated portion of the County zoned for agricultural uses. The purpose of the Proposed Project is to increase the detention capacity along the creek systems that convey stormwater runoff through Vacaville and reduce the incidents of future flooding and damage to properties during peak storm runoff flows.

The Proposed Project is designed to meet the following objectives:

- Increase the detention capacity along Alamo and Ulatis Creeks by intercepting and detaining peak storm flows upstream of the City before water runoff is conveyed through the City by these two main creekways;
- Reduce the incidents of flooding and damage to properties during peak storm runoff flows;
- Reduce the threat of property damage, personal injury, and other impacts on health and safety and associated costs caused by future flooding in the residential neighborhoods along the creeks as they flow through the City; and
- Preserve open space, wildlife habitat, and agricultural land in perpetuity consistent with the Solano County General Plan (Solano County 2008) land use policies and the draft Solano County Habitat Conservation Plan (HCP).

The Proposed Project consists of two non-adjacent sites; the Alamo site and the Ulatis site. Each site will have an independently operating detention basin. The Alamo site would address flood flows along Alamo Creek and flood conditions at neighborhoods adjacent to Alamo Creek, while the Ulatis site would address flood flows on Ulatis Creek and flood conditions at neighborhoods adjacent to Ulatis Creek. Therefore, each site has independent utility. Both basins, however, will provide some additional flood protection for downtown Vacaville.

The basins may be constructed independently or at the same time. The information included in Chapter 4 Environmental Evaluation of this EIR addresses each basin individually but also includes an analysis if the sites were constructed simultaneously. Therefore, the order of construction for each basin and the timing of construction does not alter the analysis or conclusion of this EIR.

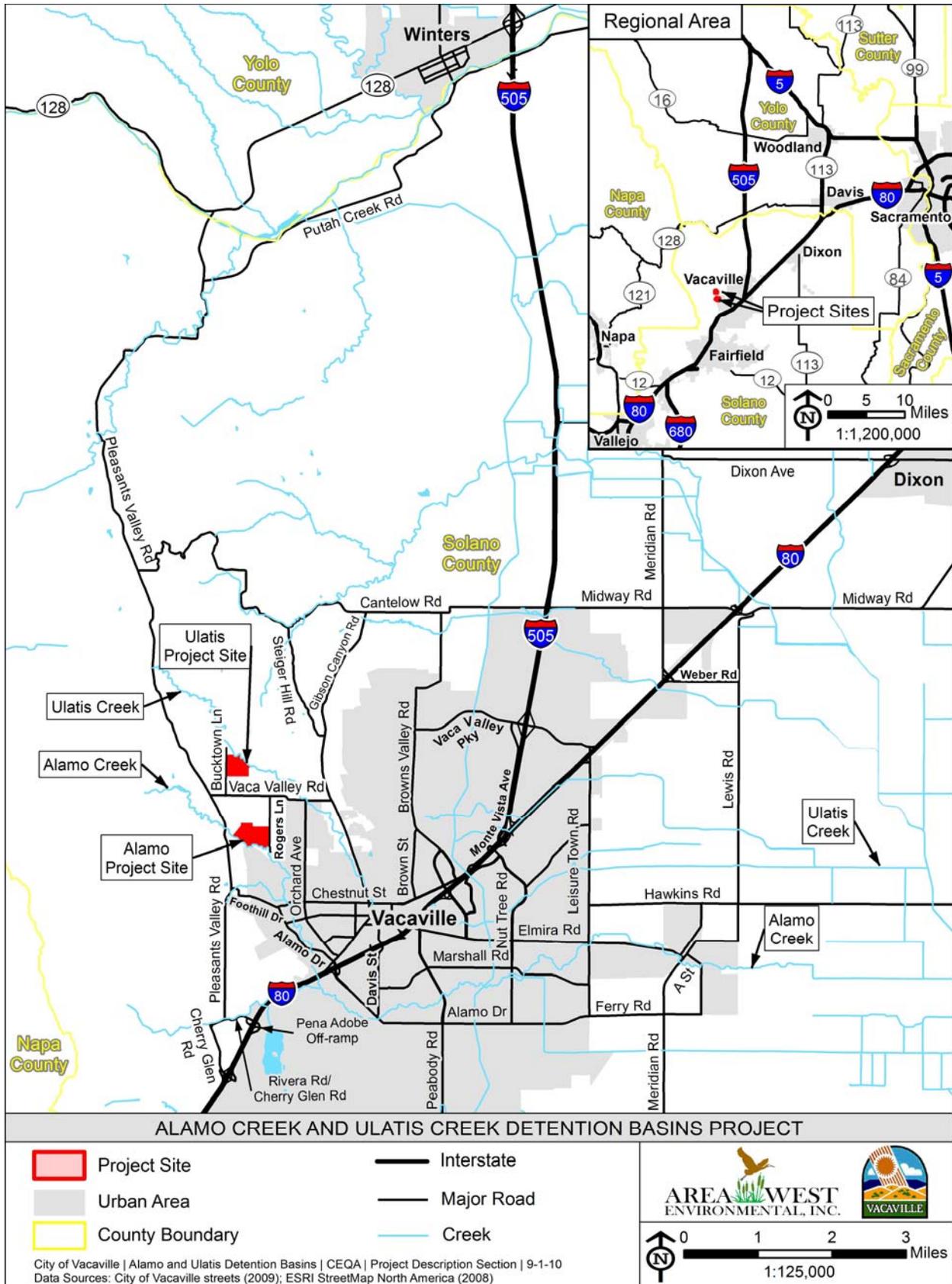


Figure 3-1. Project Vicinities

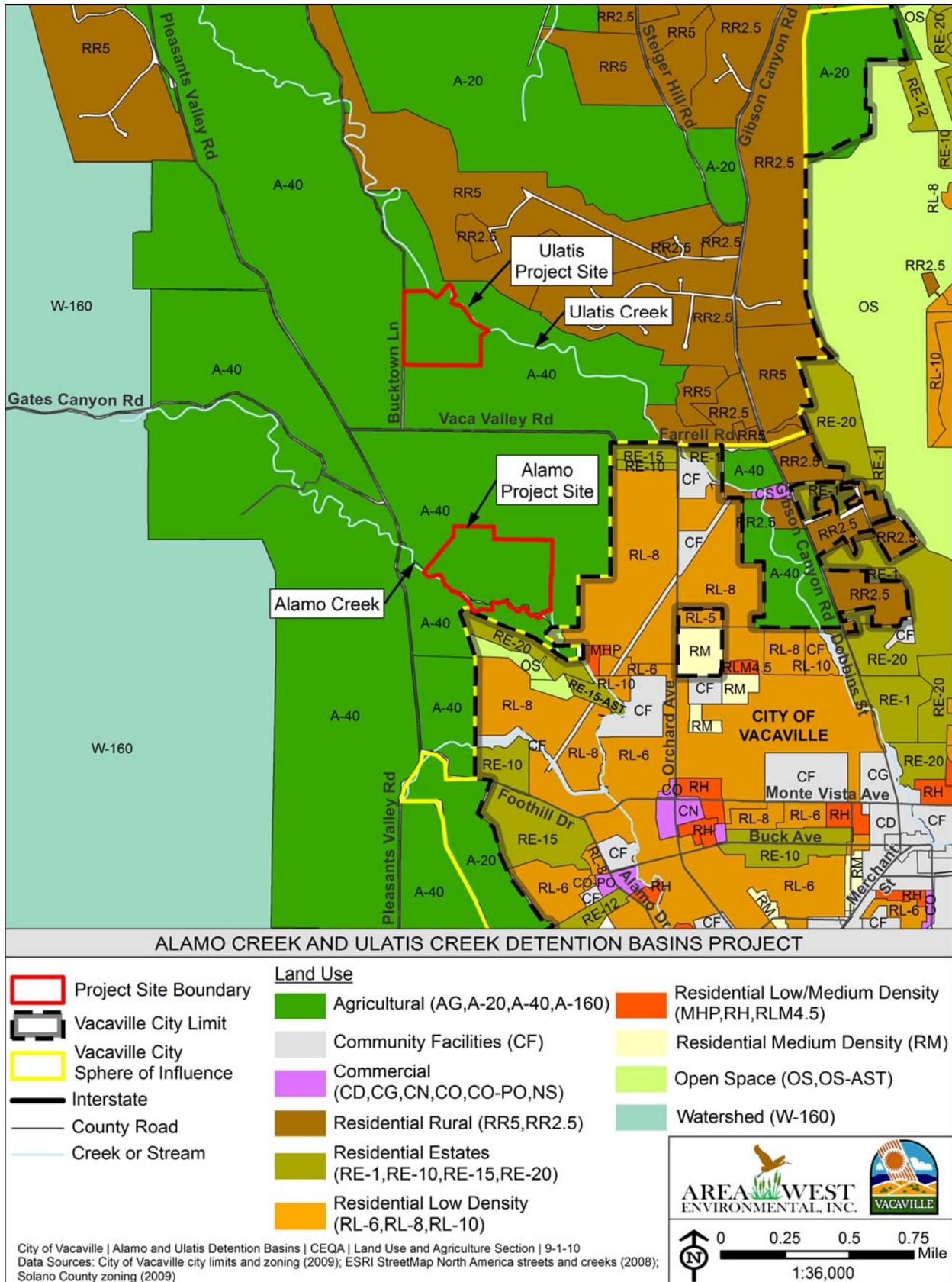


Figure 3-2. Land Use Near the Project Sites

3.2 EXISTING CONDITIONS

Site-specific conditions for each basin are described below.

3.2.1 Alamo Site Conditions

The Alamo site consists of approximately 79 acres of cultivated and uncultivated land located approximately 600 feet north and 1,200 feet west of the incorporated limits of the City in an unincorporated area of the County (Figure 3-2). The Alamo site is located on Assessor's Parcel Numbers (APNs) 124-010-210, 124-010-130, and 124-160-040. Alamo Creek flows northwest to southeast along the southern boundary of the site. The Alamo site is located approximately 700 feet east of Pleasants Valley Road and approximately 2112 feet south of Vaca Valley Road. The Alamo site is accessed by way of a private road easement named "Rogers Lane" that extends south into the site from Vaca Valley Road. The Alamo site currently supports a remnant plum orchard and fallow agricultural field. A 45-foot by 30-foot woodframe and corrugated metal-sided agricultural building is located on the east boundary of the Alamo site adjacent to Rogers Lane. A riparian corridor composed largely of native oaks, cottonwoods, and willows lines the southern boundary of the site along the bank of Alamo Creek. Existing Solano Irrigation District infrastructure is present on the Alamo site to provide irrigation water for agricultural purposes. Surrounding land uses consist primarily of agricultural, with residential to the south and east beyond agricultural land.

3.2.2 Ulatis Site Conditions

The Ulatis site consists of approximately 50 acres of uncultivated land located approximately 0.7 mile northwest of the incorporated limits of the City in an unincorporated area of the County (Figure 3-2). The Ulatis site is located on APN 123-100-090. Ulatis Creek flows from northwest to southeast along the northern boundary of the Ulatis site. The site is bounded by Bucktown Lane (a private road) to the west. The site is accessed from Bucktown Lane and is located approximately 1,400 feet north of Vaca Valley Road. The Ulatis site currently supports a fallow agricultural field and is bordered along the northern boundary by a riparian corridor composed largely of native oaks, cottonwoods, and willows along the bank of Ulatis Creek and an unnamed tributary. The unnamed tributary to Ulatis Creek flows from the west, under Bucktown Lane, and borders the northwest portion of the Ulatis site until it reaches the confluence with Ulatis Creek, approximately 500 feet east of Bucktown Lane.

Existing structures and easements within the Ulatis site include two Pacific Gas & Electric (PG&E) high-voltage transmission towers, located in the center of the Ulatis site, and one tower at the southwest corner of the site. The high-tension power lines associated with these towers extend across the property from northeast to southwest. The site also contains two a Solano Irrigation District distribution pipelines identified as the "Bucktown Lateral" and "Buck Lateral", which conveys agricultural irrigation water and non-potable water for in-home use to the Ulatis site and adjacent nearby properties. There are no urban services for potable water or public sewer to the site. An existing domestic well is located at the southwest corner of the property adjacent to Bucktown Lane. A water line runs east from the well along the south property line to serve an adjacent property owner. Surrounding land uses consist of open agricultural and natural lands, interspersed with rural residences.

3.3 PROJECT BACKGROUND

The City has historically experienced flooding within the urban reaches along Alamo and Ulatis Creeks. Within the City, at least 12 flood-related disaster events have occurred since 1963, including six federal flood-related declarations since 1986 (City of Vacaville 2008). Most recently, extensive flooding occurred within the Ulatis Creek watershed from two major storm events in December 2002 and December 2005. The December 2002 storm was estimated to have been a 20- to 50-year event and the December 2005 storm was estimated to be a 30- to over a 100-year event in the Vacaville area (West Yost Associates 2008). During the December 2002 and December 2005 storms, Alamo and Ulatis Creeks overtopped their banks and flooded established neighborhoods within the City. Along Alamo Creek, the Peabody/Tulare area, the Southwood area located west of Peabody Road, and the area along North Alamo Drive experienced significant flooding during the December 2005 flood event when waters reached 3 to 4 feet deep. Along Ulatis Creek, flooding within the Aegean Way, Allison Drive, and Nut Tree Road areas caused substantial damages to residences, the City Corporation Yard, and the City Water Treatment Plant. Property damage from the December 2005 storm was estimated at \$26 million (City of Vacaville 2008).

The City has conducted several studies to identify effective mechanisms by which to reduce flooding in the City's urban areas. Based on these studies, the City completed the following projects to reduce flood risk within the City:

- High-flow by-pass channel along Alamo Creek: Designed to lower water surface elevations during storms with a return frequency of less than 10 years.
- Detention basin near Southwood Park: Designed to mitigate increased flows resulting from development within the Alamo Creek watershed.
- Detention basin off Laguna Creek: Designed to reduce peak flows in Alamo Creek during 10-year storm events.

Although the projects listed above have aided in reducing flooding during small storm events, they do not provide significant storage capacity during moderate-to-large storm events. In recognition of this problem, the Solano County Water Agency (SCWA) completed the Ulatis System Drainage Study (USDS) in March 2008 (West Yost Associates 2008), which updated the hydrologic and hydraulic modeling of the Ulatis Creek system (including Ulatis and Alamo Creeks) and modeled flooding based on the December 2002 and December 2005 storms. This study identifies and evaluates flood control improvements, including the effectiveness of regional detention basins located upstream of the City.

Following the December 2005 storm, the City moved ahead with plans to implement the recommended regional detention facilities in the upstream tributaries of the City's creek system. The City has pursued grants and other financing opportunities to support the purchase of upstream properties that are suitably located for the design of detention facilities along the creek system that eventually flows through the City's urban reaches. In 2008, the City completed construction of three basins located on a 60-acre property west of the City limits along Encinosa Creek. These three basins, referred to as the Pleasants Valley Detention Basins Project, are located south of the Alamo and Ulatis sites.

3.4 PROJECT CHARACTERISTICS

The Proposed Project includes the construction of two stormwater detention basins: one along Alamo Creek and the other along Ulatis Creek (Figure 3-2). Each basin would include: a surrounding berm; an inlet structure to convey flood flows from the subject creek into the detention basin; outlet pipes to meter the reentry of detained flows back into the creek; and a spillway to provide for overflow stormwater to reenter the creek should the capacity of the detention basin be exceeded. The basins would be designed as “off-line” facilities where only the peak flows from large storm events would be directed out of the creek and into the basins for temporary storage. The basins would not impede normal and/or low flows of the creek and detained water would be metered back into the same system after a 24- to 72-hour period following storm subsidence and would have the capacity to handle the stormwater volume generated from a 100-year, 24-hour storm event. The basins would be located to avoid and minimize impacts on the adjacent riparian areas, and vegetation removal in the riparian zone would be limited to the area necessary to construct inlet and outflow structures. The proposed basin sites would remain as open-space habitat areas and have the potential for agricultural cultivation within the basin floor, new habitat creation, and incidental public access for passive recreation use during non-storm months. Characteristics for each of the two proposed detention basin sites are discussed separately below.

The Alamo site is the highest priority of the two basins. This basin would significantly reduce the amount of water overtopping the banks of Alamo Creek, thereby minimizing the impact of localized flooding in the Alamo/Peabody and Twin Creeks neighborhoods within the City. Based on a maximum capacity design concept of 952 acre-feet capacity, a detention basin at the Alamo site could reduce private property damage by approximately 25–50% during major flood events (West Yost Associates 2008). For lower intensity storms, property damage could be reduced by as much as 90–100% with the maximum design concept of 952 acre-feet capacity.

3.4.1 Alamo Creek Detention Basin Characteristics

The Alamo basin is proposed on an approximately 79-acre site north of Alamo Creek with approximately 63 acres of land potentially disturbed for construction of a 47-acre basin designed at maximum capacity (Figure 3-3). Development of the Alamo site includes: excavation of a basin floor to an approximate elevation range of 227 to 242 feet above sea level (asl); excavation of a foundation for the berms; construction of berms around the north, east, and south sides of the basin; and construction of an inlet weir and outlet pipe to provide for the gravity flow of water into and out of the basin from and to Alamo Creek (Figure 3-3). The maximum depth of excavation is estimated to be 17 feet. Prior to excavation activities, the existing orchard and a 45-foot by 30-foot agricultural building will be removed. Other trees located within the construction zone of the Alamo site will also be removed. Construction of the detention basin berms would require initial excavation to stabilize subsurface soil followed by buildup and compaction of suitable native material to create a berm along the north, east, and south sides of the basin. The basin would be excavated down from the existing grade at the western side of the site with no berm. The top of the basin berm would be level at approximately 255-feet asl, but would increase in height when viewed from surrounding properties, relative to the drop in natural grade from west to east across the site. As such, the height of the berm would gradually increase along the north and south sides of the basin to a height of approximately 25 feet above the existing surrounding topography at its highest point along the southeast edges of the basin. A mound of excavated material will be created at the northwest portion of the site and constructed to an elevation of 268 feet asl (approximately 23 feet above existing grade).

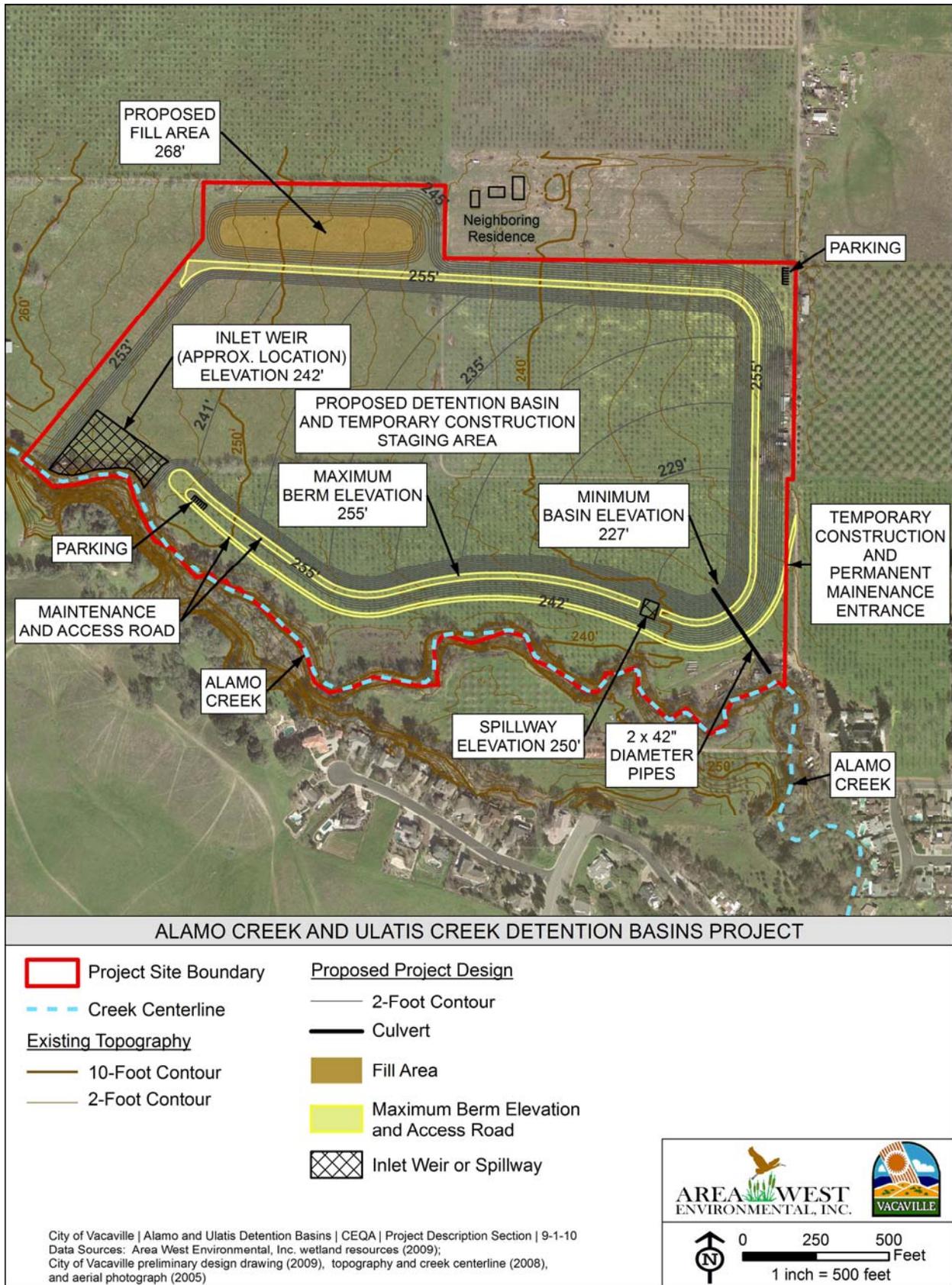


Figure 3-3. Preliminary Alamo Detention Basin Design Drawing

The preliminary design is for an approximately 300-foot wide, 13-foot deep inlet structure (approximate elevation of 242 feet asl) that would extend from Alamo Creek into the detention basin. The surface of the inlet weir structure would be articulated concrete revetment block or similar stabilization treatment. The design would also include the installation of two reinforced concrete outlet pipes (42 inches estimated diameter each) at the southeast corner of the basin (Figure 3-3) to meter the flow of stormwater back into the creek. The outlet would be backfilled with concrete slurry mix or other non-permeable material to prevent erosion around the pipe. Energy dissipation areas at the outflow location in Alamo Creek would be lined with clean rock (riprap) or similar erosion-control feature to reduce the potential for soil erosion and bank scour. The outlet would limit, but not stop, the gravity flow of stormwater back to the creek. Pipe size at the outfall would effectively control flow rate by metering water exiting the basin. An emergency spillway would be constructed of concrete at an approximate elevation of 250 feet asl within the basin berm just west of the outlet pipe (Figure 3-3). The overflow spillway would provide for the reentry of detained stormwater into Alamo Creek in the event that the capacity of the detention basin is exceeded. Photos of an existing detention basin depicting a similar design and outlet/inlet structures are presented in Appendix C.

A maintenance/access road would be installed from Rogers Lane extending south and wrapping around the outside toe of the southern berm. The access road would then turn eastward onto the top of the berm where the southern berm meets the existing grade at the eastern edge of the inlet weir. The access road would continue along the top of the basin berm until it again meets natural grade at the northwest corner of the basin, where a turn-around would be installed (Figure 3-3). Small parking areas for maintenance purposes and incidental public use are located at the northeast corner of the site and where the access road turns onto the berm at the eastern edge of the inlet structure (approximately 12 parking spaces for the site).

Based on preliminary estimates, construction at the Alamo site would require the excavation of approximately 700,000 to 800,000 cubic yards of soil. It is anticipated that approximately 300,000 cubic yards of onsite soils excavated from the detention basin would be used to construct the berms and temporarily retained within a designated fill area located at the northwestern corner of the basin (Figure 3-3). The remaining approximately 400,000 to 500,000 cubic yards of soil would be trucked offsite to a suitable disposal area as determined by the contractor and approved by the City and County. Existing vegetation consisting primarily of orchard trees and non-native grasses would be removed to construct the basin and improve the site for project implementation.

The Alamo basin has been sited and designed to avoid and minimize impacts to Alamo Creek and the adjacent riparian corridor. The majority of the riparian corridor within the Alamo site would not be disturbed; however, some riparian vegetation would need to be removed to create the inflow weir structure and install the outflow pipes. The area between the southern edge of the proposed maintenance road and the existing riparian habitat in the southern portion of the site is primarily vegetated with orchard trees and non-native grasses. Upon completion of the basin, this area may be planted with riparian and upland vegetation. Depending on post-construction conditions relative to groundwater, the basin floor would offer opportunities for the creation of seasonal wetland or could be used for agricultural cultivation. The City is presently anticipating a post-construction high-groundwater table that would result in implementation of the seasonal wetland alternative; however, if it is found that the post-construction conditions do not favor the creation of seasonal wetland, the City could pursue agricultural cultivation of a hay crop to continue agricultural use of the land. The City is also interested in establishing the site as a habitat mitigation area. Top soil would be reserved during excavation and respread on the site to support revegetation and possible mitigation plantings.

The Alamo basin would be an “off-line” facility and would not impede normal and/or low flows of Alamo Creek. Disturbance within the creek channel would be limited to the inlet and the outlet structures

and related erosion-control features. Construction would conform to all California Regional Water Quality Control Board (RWQCB) best management practices (BMPs) for construction, any conditions included in the U.S. Army Corps of Engineers (Corps) permit, U.S. Fish and Wildlife Service (USFWS) permit, and California Department of Fish and Game (DFG) permit.

The California Department of Water Resources' (DWR), Division of Safety of Dams, has jurisdictional authority under the California Water Code to regulate the design, construction, and operation of dams and other water impoundments, including detention basins with a berm height of 6 feet or greater, or impound over 50 acre-feet of water. As such, construction plans and specifications for the Alamo site would be subject to approval from the Division of Safety of Dams.

3.4.2 Ulatis Creek Detention Basin Characteristics

The objectives of the Ulatis basin are to reduce downstream flood damages and costs to public and private property, individuals, local businesses, and agencies by reducing stormwater flows within Ulatis Creek. Based on the Ulatis System Drainage Study (West Yost Associates 2008), the Ulatis basin could reduce peak flows through most of the City by an average of up to 30% for 5-year, 10-year, 25-year, 50-year, and 100-year storm events. This reduction in peak flow could reduce approximately 50% of flooding caused by overtopping of the channel banks from a 100-year storm event. The basin could also reduce flooding hazards during 50- to 100-year storm events and could eliminate flooding for 25-year events and under with a maximum design concept of 544 acre-foot capacity.

The Ulatis basin is proposed on an approximately 50-acre site south of Ulatis Creek with approximately 37 acres of land disturbed for construction of an approximately 35-acre basin designed at maximum capacity (Figure 3-4). Development of the detention basin includes: excavation of a basin floor to an approximate elevation range of 260 to 266 feet asl; excavation of a foundation for the berms; construction of berms around the majority of the basin at an approximate elevation of 282 feet asl (with exception of the northwest corner); and construction of an inlet weir and outlet pipes to provide for the gravity flow of water into and out of the basin from and to Ulatis Creek (Figure 3-4). The maximum depth of excavation is estimated to be 22 feet below existing grade. Construction of the detention basin berms would require initial excavation to stabilize subsurface soil followed by buildup and compaction of suitable native material to create a berm along the majority of the basin. The basin would be excavated down from existing grade at the northwest corner of the site with no berm along an approximately 550-foot portion to the west along Bucktown Lane and an approximately 700-foot section to the north along the riparian corridor. The top of the basin berm would be level at approximately 282 feet asl, but would increase in height when viewed from surrounding properties relative to the drop in natural grade from west to east across the site. As such, the height of the berm would appear to gradually increase along the west and south sides of the basin until it reaches a height of approximately 14 feet above the existing surrounding topography at its highest point at the southeast corner of the basin. When viewed from the east, the berm would be approximately 8 feet above surrounding grade along Ulatis Creek and 14 feet above adjacent grade at the southeast corner.

The design concept and construction methods for the Ulatis basin would be similar to the Alamo basin. The concrete revetment block upstream inlet weir would range in width from 100 to 300 feet, with an estimated depth of 6 feet (approximate elevation of 276 feet asl). The downstream outlet is anticipated to consist of two 48-inch diameter concrete pipes installed in the berm at the downstream portion of the basin to meter the flow of stormwater back into Ulatis creek. The emergency spillway would be constructed of concrete at an approximate elevation of 278 feet asl and would be located within the basin berm directly over the outlet pipes (Figure 3-4).

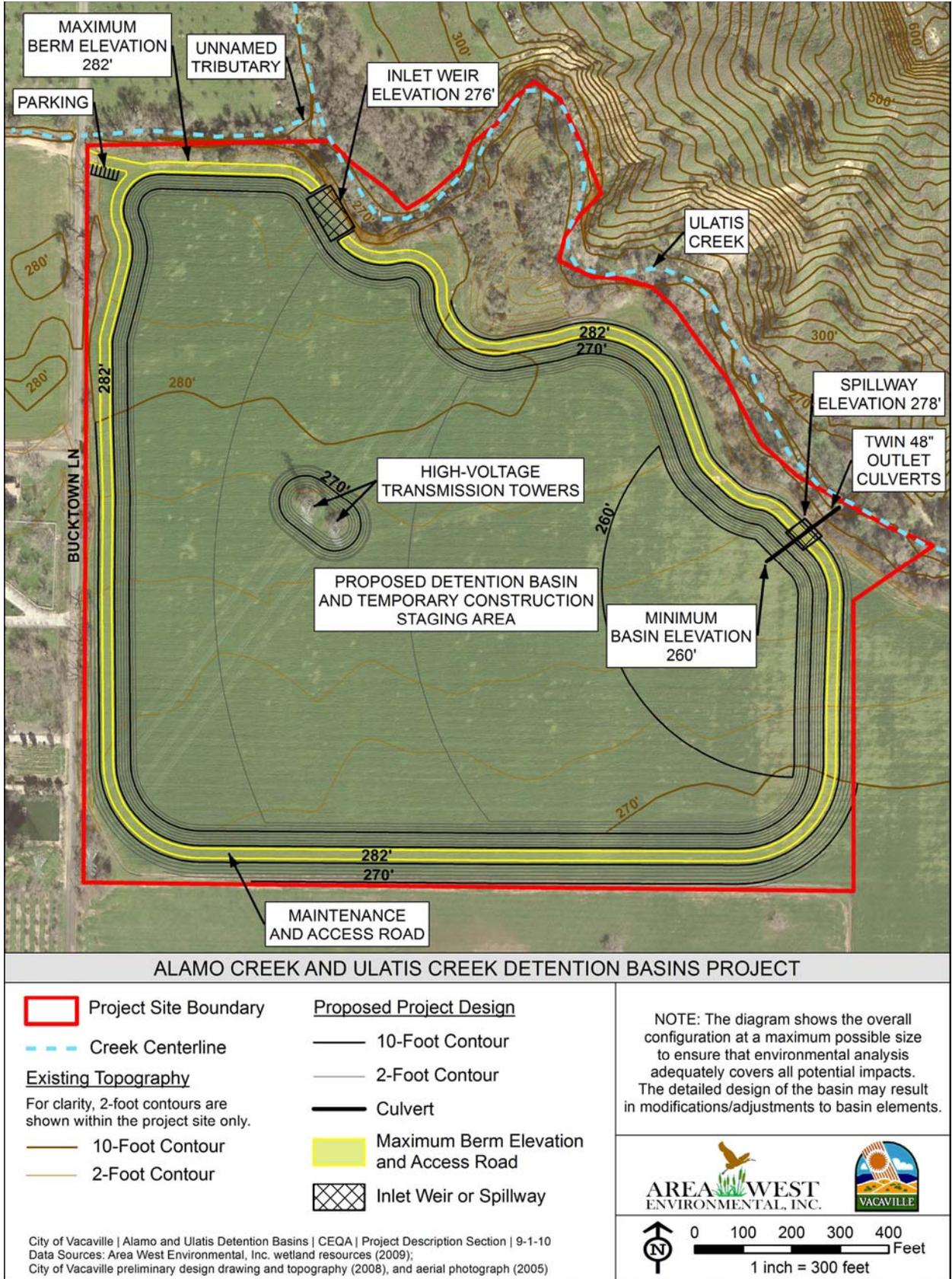


Figure 3-4. Preliminary Ulatis Detention Basin Design Drawing

The basin's floor and berms would be composed of suitable native material and all berms would be designed to meet the requirements of the Division of Safety of Dams. Disturbance within the creek channel would be limited to construction of the inlet and outlet structures and related erosion-control features. All construction methods would conform to RWQCB BMPs, as well as the specific permit conditions issued by the Corps, USFWS, and DFG.

A maintenance/access road would be installed with access from Bucktown Lane at the northwest corner of the Ulati site where the edge of the basin would be nearly level with the existing grade (Figure 3-4). The maintenance access road would be located on top of the berm (or at grade in the northwest corner) and extend around the entire basin. Depending on final design details and berm maintenance and monitoring requirements, there may also be a maintenance/access road along the outside toe of the berm around all or a portion of the basin perimeter. A small parking area (approximately 12 spaces) for maintenance purposes and incidental public use is planned to be located at the northwest corner of the site adjacent to Bucktown Lane (Figure 3-4).

Based on preliminary estimates, construction of the Ulati basin would require the excavation of approximately 500,000 to 600,000 cubic yards of soil. It is anticipated that approximately 150,000 to 200,000 cubic yards of onsite soils excavated from the detention basin would be used to construct the berms. The remaining approximately 300,000 to 450,000 cubic yards of soil would be trucked offsite to a suitable disposal area as determined by the contractor and approved by the City and County. Existing vegetation consisting primarily of non-native grasses would need to be removed to construct the basin and improve the site for project implementation.

Detention basin berms would be carefully sited to minimize and avoid riparian habitat removal. The majority of the riparian corridor would not be disturbed; however, some riparian vegetation would need to be removed to create the inflow weir structure and install the outflow pipes. The area between the toe of the basin berm and the existing riparian edge may be planted with native vegetation. Depending on post-construction conditions relative to groundwater, the basin floor would offer opportunities for the creation of seasonal wetland or could be used for agricultural cultivation. The City is presently anticipating a post-construction high-groundwater table that would result in implementation of the seasonal wetland alternative; however, if it is found that the post-construction conditions do not favor the creation of seasonal wetland, the City could pursue agricultural cultivation of a hay crop to continue agricultural use of the land. The City is also interested in establishing the site as a habitat mitigation area. Top soil would be reserved during excavation and respread on the site to support revegetation and possible mitigation planting.

3.4.3 Utilities

At the Ulati site, the existing PG&E high-voltage transmission towers, located in the center of the site and at the southwest corner of the site, would not be disturbed during construction. The design would maintain the existing grade around the tower and provide for access as required by PG&E. The project would either reroute or abandon the existing Bucktown Lateral and Buck Lateral agricultural water distribution lines on the Ulati site, depending on the requirements of the Solano Irrigation District and needs of the Proposed Project. An existing domestic well is located at the southwest corner of the Ulati site adjacent to Bucktown Lane. A water line runs east from the well along the south property line to serve an adjacent property owner to the east. If water service is still needed to the adjacent property at the time of construction, and depending on the final design and location of the berm along the southern boundary of the Ulati site, the existing water line will be left as-is or, if necessary, relocated closer to the site boundary and a water line easement will be established.

At the Alamo site, existing telephone lines are present along Rogers Lane at the eastern boundary of the site. These lines serve properties in the vicinity of the Alamo site and may need to be relocated. If relocation is required, the City will coordinate with the appropriate utility company. The Proposed Project would either reroute or abandon the existing agricultural water distribution line on the Alamo site, depending on the requirements of the Solano Irrigation District and needs of the Proposed Project. At least two existing domestic wells and two septic tanks associated with former farm buildings are located on the Alamo site. These features would be removed and/or properly abandoned.

3.4.4 Incidental Public Access and Use

The Alamo and Ulati sites would be available to the public for passive recreational use with access limited by an appointment or by a docent-led program. This incidental public use would not require the construction of improvements such as restrooms, picnic tables, play fields, paved trails, or other constructed facilities. Public access areas would be developed in a manner compatible with the natural resources and surrounding land uses. Incidental public access would be administered directly by the City or through an agreement with the Solano Land Trust, an organization that currently oversees similar activities on other properties throughout the County. These types of uses would be consistent with the Solano County's General Plan Agricultural designation, which supports recreation and open-space activities complementary and secondary to agricultural activities (Solano County 2008). Fencing on the detention basin sites would be placed only as required to restrict public access to component use areas, such as agricultural fields and sensitive habitat, and to protect neighboring properties from casual trespass.

3.4.5 Maintenance

Maintenance of the proposed detention basins would include debris removal and cleanup after the winter rains and weed abatement through summer. Some debris removal may occur during winter, but this would be infrequent and only as needed if more debris than planned enters the basin. Fire hazard reduction, primarily by mowing, would be done in the late spring and early summer months. The City would establish the necessary maintenance plan and associated funding mechanism to support long-term maintenance as required by permitting agencies. Maintenance of the site for agricultural activities would include planting, spraying, and harvesting. The City intends to investigate partnership opportunities, where possible, with the California Conservation Corps (CCC), the Solano Resource Conservation District (RCD), and/or The Solano Land Trust where possible to manage habitat areas, public access, and maintenance programs on the Alamo and Ulati sites. In the absence of a successful partnership with any of these organizations, the City would implement the maintenance and site management program at both sites.

The estimated type, hours of daily use, frequency of occurrence for equipment to be used during maintenance and possible agricultural activities at the Alamo and Ulati sites, is provided in Appendix D.

3.4.6 Construction Information

Construction access to the Alamo site would be via Rogers Lane from Vaca Valley Road. Construction access to the Ulati site would be via Bucktown Lane from Vaca Valley Road. Construction activities for the Proposed Project, including equipment staging and soil stockpile areas, and are anticipated to occur onsite. At the Alamo site, a small parking area would be developed within the northeast corner of the site (Figure 3-3). At the Ulati site, a small parking area would be developed within the western edge of the

site adjacent to Bucktown Lane (Figure 3-4). The location of the parking areas may be used during construction for staging and would be used after construction for future incidental public use and maintenance parking at each basin.

No equipment storage or staging, or soil stockpiling, is proposed in or near any sensitive habitat areas. Temporary exclusion area fencing would be installed to protect sensitive biological resources (i.e., riparian, elderberry shrubs) located on or adjacent to the sites. Traffic would be maintained on the adjacent roadways during construction of the Proposed Project; no road closures or detours are anticipated. Construction-related traffic associated with hauling soil offsite will be prohibited from using City streets unless needed to access a disposal site within the City, in which case the most direct route will be used that avoids local residential streets, subject to approval by the City's Traffic Engineer. The Proposed Project may require public utility relocation including, relocation or abandonment of the Solano Irrigation District's irrigation lines, relocation of the private domestic water line on the Ulatis site, and potential relocation of telephone lines on the Alamo and Ulatis sites.

As part of the Proposed Project, the Contractor will be required to identify haul routes and delivery locations where excess soil from the sites will be deposited. Haul routes and evidence of permit compliance at delivery locations will be submitted to the City and subject to review and approval by both the City and the County prior to commencement of offsite soil transport. Standard requirements regarding traffic operations and safety, dust control and other operational requirements will be specifically applied according to the details of the haul route by the City (through project Special Provisions) and the County (with the Encroachment Permit).

Heavy earth-moving equipment would be needed for excavation of the detention basins and construction of the berms. Such equipment would include, but would not be limited to:

- scrapers and large bulldozers with ripper attachments,
- excavators and/or backhoes for installation of outfall pipe,
- compactors for stabilizing the basin berms and other fill areas,
- water trucks for dust control,
- delivery vehicles for bringing construction materials (e.g., concrete truck) to the site,
- loaders and dump trucks for removing the off-haul dirt, and
- landscaping equipment to complete site work (e.g., hydroseed vehicles).

Detailed information regarding the approximate number and duration of use for each type of construction equipment at each basin; and the approximate number of vehicle trips, distance of travel, and route of travel for hauling soil offsite is provided in Appendix D.

3.5 PROJECT SCHEDULE

Construction at the Alamo site has been tentatively scheduled to begin in 2011 and end in 2012. It is estimated that 450 working days (15 months) would be required to construct the Alamo basin. Of the 450 workdays, approximately 240 days will be required to haul excavated soil offsite. Although a majority of the project would be limited to work between April 15 and October 15, the dates usually specified for construction by the various permitting agencies, other aspects of the work could continue depending on weather and resources.

Construction at the Ulatis site has not been scheduled. It is estimated that 340 working days would also be required to construct the Ulatis basin. Of the 340 workdays, approximately 310 days will be required to haul excavated soil offsite.

3.6 PROJECT REVIEW AND APPROVAL

The City has discretionary authority over approval of the Proposed Project; several other reviews and agency approvals may also be required for the Proposed Project and are described below.

3.6.1 Lead Agency

The City is a lead agency, pursuant to the State Guidelines for CEQA (CEQA Guidelines Section 15050). In conformance with Section 15050 and 15367 of the CEQA Guidelines, the City has been designated the “lead agency,” which is defined as the “public agency” that has the principal responsibility for carrying out or disapproving a project.

3.6.2 CEQA Actions

Prior to approving the Proposed Project, or any alternative project, the City is required to follow through with discretionary actions for project approval as follows:

- **Certification of the EIR** – (i) that the EIR has been completed in compliance with CEQA; (ii) that the City Council has reviewed the EIR and considered the information found therein; and (iii) that the EIR reflects the City’s independent judgment (see CEQA Guidelines, Section 15090);
- **Adoption of CEQA Findings** – Adoption of findings identifying each significant effect of the project and whether such effects (i) have been mitigated by changes to the project or alternatives to the project, (ii) can only be mitigated by actions taken by an agency other than the City, and/or (iii) cannot be mitigated because of the infeasibility of proposed mitigation measures or alternatives that reduce the severity of the effect (see CEQA Guidelines, Section 15091);
- **Mitigation Monitoring** – Adoption of a Mitigation Monitoring Plan to reflect the measures required to mitigate significant impacts of the project (CEQA Guidelines, Section 15097); and
- **Adoption of a Statement of Overriding Considerations** – Adoption of a statement identifying the specific economic, social, or other benefits of the project as approved that outweigh, in the City’s judgment, any significant unavoidable effects of the project (CEQA Guidelines, Section 15093).

3.6.3 Responsible Agencies

The following permits, consultations, and approvals are anticipated to be required for the Proposed Project:

- **National Environmental Policy Act (NEPA) Report under FEMA.** FEMA is providing funding for the Proposed Project therefore they are the federal lead agency for the Proposed Project and will prepare a separate environmental document under the NEPA.

- **Clean Water Act (CWA), Section 404 Permit from the Corps.** Construction of the Proposed Project would result in the filling of waters of the U.S., including wetlands, under the jurisdiction of the Corps. The Corps regulates the nation’s waterways and wetlands, and is responsible for implementing and enforcing Section 404 of the federal CWA. Corps regulations require that any activity that discharges dredge or fill material in “waters of the U.S. including wetlands”, obtain a Section 404 permit. To comply with the CWA, a Section 404 permit would be obtained for the Proposed Project.
- **CWA, Section 401 Water Quality Certification from the RWQCB and Section 402 National Pollutant Discharge Elimination System Permit from the State Water Resources Control Board (SWRCB).** The SWRCB and the RWQCB promulgate and enforce narrative and numeric water quality standards in order to protect water quality and adopt and approve Water Quality Control Plans. The SWRCB and the RWQCB also regulate discharges of harmful substances to surface waters, including wetlands, under the federal CWA and the California Porter-Cologne Water Quality Control Act. If issuance of a Section 404 permit is required, the Proposed Project would also require water quality certification under CWA Section 401.

Construction of the Proposed Project would result in 1 acre or more of ground disturbance and is therefore subject to preparation of a Notice of Intent and a Stormwater Pollution Prevention Plan (SWPPP) under CWA Section 402.

- **Fish and Game Code, Section 1602, Streambed Alteration Agreement from DFG.** Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify the Department before beginning any activity that would do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. The Proposed Project would affect the bank of Alamo Creek and Ulatis Creek. To comply with section 1602, a Streambed Alteration Agreement from DFG would be obtained and implemented for the Proposed Project.
- **National Historic Preservation Act (NHPA) of 1966, Section 106, Compliance.** For projects with federal funding, permits, or approvals, the NHPA, Section 106, as amended, includes provisions for protection of significant archaeological and historic resources. The administering agency for the Section 106 process is the federal lead agency and the State Historic Preservation Officer (SHPO). To comply with Section 106, a cultural resources survey and report for the Proposed Project would be prepared for review and approval by the SHPO.
- **Federal Endangered Species Act (ESA), Section 7, Consultation.** Section 7 of the federal ESA provides a means for authorizing “take” of a threatened or endangered species by federal agencies. Under Section 7, the federal agency that is conducting, funding, or permitting an action (i.e., FEMA) must consult with USFWS and/or National Marine Fisheries Service (NMFS) as appropriate to ensure that the proposed action would not jeopardize federally endangered or threatened species or destroy or adversely modify designated critical habitat. To comply with Section 7, FEMA would consult with USFWS to address the potential of the Proposed Project to adversely affect species under their jurisdiction including the federally threatened valley elderberry longhorn beetle and California red-legged frog. FEMA would also consult with NMFS to address potential adverse effects to anadromous fish species including the federally threatened Central Valley steelhead. If USFWS and NMFS determine that the Proposed Project would not jeopardize the continued existence of any federally threatened or endangered species or adversely

modify critical habitat, then these agencies would issue an incidental take permit (Biological Opinion) or finding of no effect for the Proposed Project.

- **Approval of the Construction Plans and Special Provisions by the Division of Safety of Dams.** Both the Alamo Creek and Ulati Creek detention basins fall under the jurisdiction of the Division of Safety of Dams because of the proposed berm heights and storage capacity of the basins; therefore, approval of the construction plans and specifications by the Division of Safety of Dams would be required for both basins.
- **Encroachment Permit from the County's, Department of Public Works.** The Proposed Project would require an encroachment permit from the County's, Department of Public Works, for access to the sites from Vaca Valley Road.
- **Williamson Land Act Contract Cancellation from California Department of Conservation.** A portion of the Alamo site was under Williamson Act Contract at the time that the City purchased the property. A provision of the existing contracts allowed for voiding of the contract if the property was purchased for public service. Cancellation of any existing contracts would be confirmed with the California Department of Conservation.