

4.0 CUMULATIVE IMPACTS

This cumulative impact analysis was developed to be consistent with guidance published by the CEQ (January 1997) and the USEPA (May 1999). In addition, the CEQ issued further guidance to federal agencies in June 2005 regarding the consideration of past actions in cumulative effects analysis. The guidance directs the agency preparing a NEPA document to determine what relevant information pertaining to past actions could be useful in illuminating or predicting the reasonably foreseeable direct and indirect effects of a proposed action (CEQ, 2005).

A cumulative impact is the effect on the environment that could result from the incremental impact of the proposed action when added to other past, present, or reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions that take place over time. Accordingly, a cumulative impact analysis identifies and defines the scope of other actions and their interrelationship with the proposed action or its alternatives if there is an overlap in space and time.

4.1 ASSESSMENT METHODOLOGY

The process of analyzing cumulative impacts involves the traditional components of an environmental impact assessment: scoping, describing the affected environment, and determining the environmental consequences (CEQ, 1997). Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. The approach utilized in this chapter to assess potential impacts included:

- Establishment of geographic scope (i.e., cumulative study area) and time frame for the cumulative impact analysis.
- Identification of significant cumulative effects issues associated with the Proposed Action, which focused on the direct and indirect effects of the Proposed Action. If the incremental impacts were deemed to be inconsequential or unimportant in the region, no analysis of cumulative effects is needed.
- Characterization of the existing resources and definition of baseline condition, including past actions that have affected resource in the cumulative study area.
- Identification of other reasonably foreseeable present and future actions affecting the resources in the cumulative study area.
- Identification of the important cause-and-effect relationships between human activities and resources in the geographic, or study area and identification of potential significant cumulative effects. If necessary, implement measures to avoid, minimize, or mitigation any potential significant cumulative effect.

This approach is further described below and summarized in Table 4-1.

In accordance with CEQ guidance, if a Proposed Action would not cause a direct or indirect impact on a resource, it would not contribute to a cumulative impact on that resource and would not need to be further evaluated. Therefore, if there was no impact on the resource resulting from the Proposed Action, then there would be no cumulative impact on that resource resulting from the Proposed Action.

Implementing the Navy's Proposed Action (i.e., fed-to-fed transfer of surplus property) would not contribute to any direct cumulative impacts to any resource analyzed in this document. Therefore, the discussion of cumulative impacts for each resource does not include further analysis of the Navy's Proposed Action. In addition, no analysis of cumulative impacts is necessary for the No Action Alternative, because no project would contribute toward potential cumulative impacts.

4.2 GEOGRAPHIC SCOPE AND TIME FRAME

Cumulative impacts are most likely to occur when a proposed action is related to actions that could occur in the same or an overlapping geographic location and at the same or similar time. Therefore, cumulative effects are considered within a geographic scope and time frame. The geographic scope (i.e., cumulative study area) utilized in this cumulative impacts analysis varies by the scale and interrelationships of each resource area. Generally, the cumulative study area includes the study area identified in the resource area sections analyzed in this EA, including the VA Transfer Parcel and its surrounding area. In addition, the cumulative study area would expand based on the individual characteristics and location of affected resources, ecosystems, and human communities.

The time frame utilized in this cumulative impacts analysis considers the past, present, and reasonably foreseeable future conditions within the cumulative study area. In addition, the time frame reflects the resource concerns, the cumulative study area, the Proposed Action, and how other important resources fit in. Present conditions reflect the year 2012 (the year this EA was initiated) and future conditions extend include reasonably foreseeable projects that are anticipated to be completed within the next 20 years.¹

Identification of potential past, present, and future conditions within the cumulative study area and time frame, as they related to potential cumulative impacts is included in Table 4-1.

4.3 DIRECT AND INDIRECT EFFECTS OF THE PROPOSED ACTION

To identify the resources to consider in the cumulative impact analysis, the direct and indirect impacts of the Proposed Action are identified. In accordance with CEQ guidance, if a Proposed Action would not cause a direct or indirect impact on a resource, it would not contribute to a cumulative impact on that resource and would not need to be further evaluated. Therefore, if there was no impact on the resource resulting from the Proposed Action, then there would be no cumulative impact on that resource resulting from the Proposed Action.

The resource areas impacted by the proposed action (i.e., those with direct and indirect impacts) are then assessed for potential cumulative impacts that could result from the incremental impact of the proposed action when added to other past, present, or reasonably foreseeable future actions within the cumulative study area and time frame. The resource area impacts resulting from the Proposed Action are identified in Table 4-1.

4.4 EXISTING RESOURCE CONDITION

To determine if past actions and existing resource conditions, in combination with the impacts of the Proposed Action, results in a cumulative impact, the analysis considers the existing condition of the resource area, including

¹ Note that CEQ regulations do not require agencies to catalog or exhaustively list and analyze all individual cumulative projects but to summarize the most pertinent cumulative projects.

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact	
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area		
Biological Resources (see Section 3.1 for more information)				
Vegetation and Wildlife Habitat	<p>Both Alternative 1 and 2 would result in the modification or loss of the existing vegetation and wildlife habitat area in an area limited to the VA Development Area. The majority of this area is comprised of marginal habitat (i.e., ruderal disturbed and nonnative annual grassland). To reduce adverse impacts to northern coastal salt marsh and seasonal wetlands located within the VA Development Area, the VA would implement mitigation (i.e., Mitigation Measure BIO-1).</p> <p>There is the potential for indirect adverse effects from construction-related activities including sources of noise (e.g., construction traffic and the operation of construction equipment) and increased human presence during construction to spill over into the remaining VA Transfer Parcel, including the CLT colony. To minimize and avoid adverse effects on the CLT, the VA, would implement avoidance and minimizations measures to control noise and other potential adverse effects that would be expected during construction. In addition, habitat within the VA Development Area would be improved with the introduction of managed</p>	<p>The entire parcel, which is comprised of human-made lands, has been developed or disturbed and is mostly comprised of former airfield infrastructure, paved aircraft parking areas, vacant structures and buildings, seven former military bunkers, and other airfield support infrastructure. Historically, the VA Transfer Parcel was utilized for active military flight operations, including the use of jet aircraft on the runways, taxiways, and parking areas. The area was also used for aircraft maintenance and other military training. Since closure of the former NAS Alameda in 1996, the Parcel has sat vacant and underutilized.</p> <p>Conservation and management activities for the CLT colony are currently ongoing and the Navy is conducting CERCLA remedial activities within the parcel. The VA Transfer Parcel is bordered by the San Francisco</p>	<p>Other non-project actions in the cumulative study area include the Navy’s disposal of the remaining portions of the former NAS Alameda (i.e., Alameda Point). This area would be reused and redeveloped in a manner consistent with the City of Alameda’s 1996 Reuse Plan.</p> <p>The Alameda Point planning areas in the vicinity of the VA Transfer Parcel include the Northwest Territories (to the north) and the Civic Core, Marina, and Inner Harbor to the east. Cumulatively, the Proposed Action in combination with other projects in the immediate vicinity would likely increase direct predation and perceived predation on the CLT by increasing the carrying capacity of potential predators, increasing their success rate, and reducing the ability to conduct effective predator management at the VA Transfer Parcel. Other actions, including Alameda Landing Mixed-use</p>	<p>Yes - retained for further, or more detailed, analysis of potential cumulative impacts. See Section 4.4.2.1 “Cumulative Impact Analysis – Biological Resources (Alternative 1 and 2)”.</p>

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
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	landscaping and the majority of the VA Transfer Parcel, including the CLT colony and other existing wetlands (e.g., Runway and West Wetlands) would be left undeveloped open space.	Bay to the west and south, and the remainder of the former NAS Alameda property (Alameda Point) to the north and east. The Alameda Point area to the north of the VA Transfer Parcel is comprised of vegetated open space, former airfield infrastructure, and vacant buildings and structures. Further north is the Oakland Inner Harbor and the Port of Oakland, an industrial shipping container terminal. The Alameda Point area to the east of the VA Transfer Parcel is comprised of the former air stations aircraft hangars, office and industrial buildings, and recreational space. This area is currently being utilized by tenants for non-military light-industrial/manufacturing, public administration, office, commercial, and recreational uses. Further east is the City of Alameda, including residential land uses.	Development and Boatworks Development, Alameda Beach Renovation, and Oakland Army Base Port Redevelopment Program Phase 1 are located at a sufficient distance from the VA Transfer Parcel and that effects on CLT and western snowy plover are not expected. In addition, potential climate change and sea level rise could have an effect on the CLT.	
Federally Listed Threatened and Endangered Species	<p>California Least Tern</p> <p>Direct effects to the CLT from construction activities would primarily consist of increased noise and vibration, construction traffic, and operation of construction equipment, which could have an effect on the CLT colony. In addition, increased human activities associated with construction may increase habitat for predators of the CLT. There is the potential for indirect adverse effects from construction-related activities including sources of noise (e.g., construction traffic and the operation of construction equipment) and increased human presence during construction. To minimize and avoid adverse effects, the VA, as described above, would implement conservation measures and best management practices to control noise and other potential effects that would be expected during construction. Operations would have no direct effects on CLT nesting or foraging habitat. Operational activities would occur year-round, but are removed</p>			

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	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
<p>from foraging and nesting habitats at a sufficient distance to avoid direct effects to the CLT. There is the potential for indirect adverse effects from operational activities including sources of noise (e.g., traffic and occupation and use of proposed facilities), increased human presence, and lighting. In addition, occupation and activities within the VA Development Area would have the potential to have an effect on the CLT, including predation, perceived predation and human disturbance, and reduce the ability to conduct effective predator management at the site.</p> <p>Western Snowy Plover</p> <p>Current evidence suggests that western snowy plover visits the surrounding area sporadically as a foraging migrant. The increased presence of humans and equipment during construction would increase the likelihood of disturbances (e.g., noise, light, etc.) to foraging and resting birds. These impacts would be intermittent, and are unlikely to affect the use of the site by snowy plover. Potential indirect effects of the project action on western snowy plover are generally shared and similar to those identified for CLT. Potential indirect</p>			

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
effects would arise from increased human activity near foraging and potential nesting areas (CLT colony) and the daily use of new structures in the vicinity of the of these areas. Should the western snowy plover reestablish itself as a nesting species in the action area, effects on the species are likely to be identical to those identified for the CLT and thus the proposed avoidance and minimization measures for the CLT are also adequately protective.			
Common Wildlife	Common species would be affected through the removal of marginal habitat (non-native grasslands), and removal of existing vegetated areas within the VA Development Area. In addition, common wildlife in the VA Development Area would be subjected to increases in noise and dust associated with construction. As a result, some habitats would be reduced in extent during construction and some common species would temporarily decline in local abundance. However, potential impacts to common species and habitats would not be substantial due to the current low abundance of wildlife on the site. Consequently, any impacts of the project on common species and habitats would have a negligible effect on regional populations. In addition, habitat within		

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	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area		
	the VA Development Area would be improved with the introduction of managed landscaping and the majority of the VA Transfer Parcel would be left undeveloped open space, which could be utilized by common wildlife.			
Habitat Linkages and Corridors	Because activities would be confined to the VA Development Area, impacts to migratory corridors are not expected to occur. Further, because the CLT colony would be preserved, and potential future public access would be limited to the perimeter of this area these areas are anticipated to be utilized by wildlife through the operational period of the VA facilities.			
Water Resources (see Section 3.2 for more information)				
Water Quality	During the construction period, excavation and grading activities would expose soil to water runoff and entrain sediment in the runoff. Sediment in discharge water as well as soil and debris could cause increased sediment to be carried off site into the storm drain/sewer, potentially clogging inlets and reducing the functional capacity of the pipes to convey flows. The delivery, handling, and storage of construction materials and waste, as well as the use of construction equipment, might introduce stormwater contamination. The on-site construction staging area	The entire parcel, which is comprised of human-made lands, has been developed or disturbed and is mostly comprised of former airfield infrastructure, paved aircraft parking areas, vacant structures and buildings, seven former military bunkers, and other airfield support infrastructure. Historically, the VA Transfer Parcel was utilized for active military flight operations, including the use of jet aircraft on the runways,	Other non-project actions in the cumulative study area include the Navy’s disposal of the remaining portions of the former NAS Alameda (i.e., Alameda Point). This area would be reused and redeveloped in a manner consistent with the City of Alameda’s 1996 Reuse Plan. The Alameda Point planning areas in the vicinity of the VA Transfer Parcel include the Northwest Territories (to the north) and the Civic Core,	No – The Proposed Action when combined with other non-project actions would not be expected to significantly impact water resources in the study area. This expectation is based on the assumption that all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that

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Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
could also be a source of pollution because paints, solvents, concrete, cleaning agents, and metals would be used during construction. Through compliance with these requirements and regulations, construction-related impacts on water quality would not be significant.	taxiways, and parking areas. The area was also used for aircraft maintenance and other military training. Since closure of the former NAS Alameda in 1996, the Parcel has sat vacant and underutilized.	Marina, and Inner Harbor to the east.	the other actions would implement all applicable measures and restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action.
Groundwater Resources	Should groundwater be encountered during construction, temporary dewatering would be necessary to keep the work area dry. Dewatering could lower local groundwater levels, but any changes in groundwater levels would be temporary and minimal. Therefore, construction-related impacts on groundwater would not be significant.		
Floodplains	Parts of the former NAS Alameda are located below the FEMA base 100-year flood elevation of 7 feet above msl (Navy, 1999). FEMA mapping completed for areas adjacent to the site indicates that portions of Alameda Point may be susceptible to inundation during the 100-year flood. In addition, if sea level rises as predicted, flood magnitude and frequency at the site could increase with time, exposing people and property to unacceptable flood-related hazards in the future.		

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Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact	
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area		
	The proposed final elevation for the developed areas would be 13.6 feet above msl. Thus, the finished elevation of the project facilities would be located above the FEMA base 100-year flood elevation of 7 feet above msl. Therefore, the operational impact associated with flooding would not be significant.			
Coastal Consistency	Under the CZMA, federal projects for activities must be consistent to the maximum extent practicable with the provisions of the federally approved state coastal management program, which includes the San Francisco Bay Plan (Bay Plan) and related San Francisco Bay Area Seaport Plan (Seaport Plan). The Proposed Action is consistent with the provisions of the Bay Plan and Seaport Plan. The VA is coordinating with BCDC and the Final EA will include a description of the outcome of this coordination. No significant adverse impact would be expected.			
Transportation, Traffic, Circulation, and Parking (see Section 3.3 for more information)				
Transportation, Traffic, Circulation, and Parking	Construction-related transportation impacts would be temporary and would not have an adverse effect on weekday peak-hour traffic conditions. Accordingly, construction-related traffic impacts of would not be significant.	Roadways within the VA Transfer Parcel and the VA Development Area are not publicly accessible, and are old and deteriorating given the closure of NAS Alameda 15 years ago. Regional access	Past, present, and probable future cumulative projects within this geographic context that were considered for cumulative impacts on transportation, traffic, circulation, and parking	Yes - retained for further, or more detailed, analysis of potential cumulative impacts. See Section 4.4.2.2 “Cumulative Impact Analysis – Transportation, Traffic, Circulation, and Parking

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Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact (Alternative 1 and 2)''.
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
<p>Operationally, the Proposed Action (year 2017) would not adversely affect any of the 11 study intersections during the weekday a.m. peak hour, weekday p.m. peak hour, and Saturday peak hour. All study intersections would operate at LOS D or better. Therefore, operational impacts of the Proposed Action on traffic operations at intersections would not be significant. The Proposed Action (year 2017) would also not adversely affect any of the 10 study roadway segments during the weekday a.m. peak hour, weekday p.m. peak hour, and Saturday peak hour. All study roadway segments would operate at LOS D or better. Therefore, operational traffic impacts of the Proposed Action on traffic operations on roadway segments would not be significant. In addition, the Proposed Action would add additional passengers to the municipal transit system, provide new pedestrian and bicycle amenities, add pedestrian users and bicyclist, provide on-site user specific surface parking, and improve site access and on-site circulation. None of these components would result in a significant adverse impact.</p>	<p>to and from the VA Transfer Parcel is provided by Interstate 880 (I-880), Interstate 980 (I-980), and the Webster Street Tube/Posey Tube. Because the public does not have site access, the only traffic on the VA Transfer Parcel is generated by Navy-authorized vehicles providing conservation management services for the existing CLT colony or assisting ongoing remediation activities.</p> <p>No transit service currently accesses the VA Transfer Parcel. The primary transit service in the surrounding area is provided by Alameda-Contra Costa Transit District, which provides local and regional bus service. Access to the VA Transfer Parcel is currently restricted, and no formal pedestrian facilities (i.e., improved sidewalks) exist on the property. All major streets in the surrounding area have sidewalks, and all major intersections have marked crosswalks. Generally, little</p>	<p>include all the projects from Table 4-1. Several projects such as the Oakland International Airport Runway Safety Area Program (Cumulative Project 18 listed in Table 4-1), Caltrans District 4 I-880 Operational and Safety Improvements at 23rd and 29th Avenue Overcrossings (Cumulative Project 11), and City of Alameda Landing Mixed-Use Project (Cumulative Project 2) could be under construction at the same time as the Proposed Action. The construction trips from these projects and the Proposed Action would cumulatively contribute to roadway volumes to I-880.</p>	

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Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
	<p>pedestrian activity was observed in the area immediately adjacent to the VA Transfer Parcel (i.e., Alameda Point area) during the weekday and weekend peak periods.</p> <p>Access to the VA Transfer Parcel is currently limited, and no formal bicycle facilities or lanes exist on the property. Several bicycle facilities are provided or planned for implementation in the area immediately adjacent to the VA Transfer Parcel. There are no designated parking or loading facilities on the VA Transfer Parcel. In general, on-street parking in the surrounding area consists of time-limited parallel parking.</p> <p>Historically, the former NAS Alameda was a major Naval facility and would have generated substantial traffic on the local and regional transportation network.</p>		

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	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area		
Cultural Resources (see Section 3.4 for more information)				
Archaeological Resources	No known archaeological resources would be directly or indirectly affected by construction, because no such resources are located within the boundary of the VA Transfer Parcel. The Proposed Action would have no adverse effect on known archaeological resources.	No archaeological resources have been identified within in the VA Transfer Parcel, including the VA Development Area. No archaeological resources have been identified within the proposed off-site road/utility corridor.	The NAS Alameda Historic District is located immediately adjacent to and east of the VA Transfer Parcel. This historic district is eligible under NRHP for its association with the strategic development of naval air stations in the 1930s, development of naval facilities in the Bay Area during World War II and the Navy's role in Pacific theater naval operations during World War II. The NAS Alameda Historic District is also eligible for its distinctive characteristics of type, period, and method of construction (Moderne style) in its design and planning.	No - In accordance with CEQ guidance, if a Proposed Action would not cause a direct or indirect impact on a resource, it would not contribute to a cumulative impact on that resource and would not need to be further evaluated.
Historic Resources	No known historic resources would be directly affected by construction within the VA Development Area because no such resources are present in that area. No development would occur within the remaining VA Transfer Parcel. The proposed development would not detract from location, design, character, setting, materials, workmanship, and feeling of the NAS Alameda Historic District, and the historic district would still be able to convey its significance as a naval station dating to the 1930s and World War II designed in the Moderne style. Therefore, there would be no adverse effect on historic resources.	No historic resources have been identified within the VA Transfer Parcel, including the VA Development Area. Under each alternative, the VA Transfer Parcel is located on a portion of the former NAS Alameda airfield and contains former ammunition storage bunkers, former runways, and other infrastructure built to support airfield operations. The Navy previously evaluated the airfield and related structures and SHPO has concurred that they are not eligible for the National Register. Therefore, the VA Transfer Parcel, including the VA Development Area does not contain historic resources.	The NAS Alameda Historic District was identified as eligible for listing in the NRHP in 1992. In 2011, the historic district was reassessed, and its boundary was expanded. In 2012, a historic designed landscape was also identified as a contributing element of the NAS Alameda Historic	

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District.				
Visual Resources and Aesthetics (see Section 3.5 for more information)				
Views and Visual Character	<p>Because the VA Development Area would still be restricted from public access during construction, the construction staging areas would not need to be screened. The construction contractor would implement management measures to screen construction staging areas during construction of the subsequent cemetery expansion phases, thus limiting the frequency and prominence of views of construction equipment, vehicles, and materials. Therefore, this construction-related impact related to visual character would not be significant.</p> <p>Implementing landscaping, landform, and perimeter barrier measures would not add any substantial vertical elements, but they would serve to reduce the amount of new development visible from surrounding areas. In addition, the landscaping, landform, and perimeter barriers would blend the development into the surrounding open field characterized by the former NAS Alameda airfield which is interspersed with grassy areas.</p>	<p>The VA Transfer Parcel is located at the west end of Alameda Island and is bordered by the Oakland Inner Harbor and the Port of Oakland to the north, San Francisco Bay to the west and south, and the City of Alameda to the east. The topography is flat, and bordered by urban and industrial land uses and open water of the San Francisco Bay.</p> <p>The VA Transfer Parcel consists primarily of former Naval (now abandoned) runways and taxiways that do not include any substantial vertical elements. Throughout the site there are views of the surrounding Bay Area and the San Francisco skyline. Heavy-industrial uses associated with the Port of Oakland including large shipping cranes are visible across the Oakland Inner Harbor north of Alameda Point. Other industrial and</p>	<p>No other non-project actions are known to exist within the immediate project area that would cumulatively impact the visual resources within the VA Transfer Parcel.</p> <p>However, other non-project actions, including the Alameda Point redevelopment would be expected to contribute light and glare effects.</p>	<p>No – Due to the distance of the VA Transfer Area from other cumulative sources of light and the avoidance and minimization measures that the City of Alameda will implement to reduce light population within the Alameda Point area, it is unlikely that other non-project actions, when combined with the Proposed Action, would result in a significant cumulative impact.</p> <p>In addition, all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the</p>

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<p>The VHA OPC, Conservation Management Office, and committal shelter structures proposed would be located in the central and/or inner portions of the VA Development Area that are less visible from outside the boundary than locations along the perimeter. For the most part, the buildings proposed for central and inner portions of the VA Development Area would not be visually dominant relative to the flat foreground portions of the site, given the distance to the proposed VA facilities from publicly accessible viewing locations at the end of Main Street and Middle Harbor Shoreline Park. In addition, views of these new buildings from outside the VA Development Area would be set back sufficiently from the boundaries to render them visually subordinate to other visible features. Therefore, buildings proposed for the central and inner portions of the VA Development Area would have a small effect on views and would minimally affect the visual character of the VA Transfer Parcel. In addition, the visual character of the VA Development Area would be improved compared to the former NAS Alameda airfield, which contains abandoned runways and taxiways that are no longer in use. In addition, the cemetery portion of the development</p>	<p>urban development is also immediately visible. The downtown Oakland skyline is noticeable farther to the northeast. The East Bay Hills are seen to the northeast and east.</p>	<p>potential environmental impact of the action.</p> <p>See the See Section 4.4.2.1 “Cumulative Impact Analysis – Biological Resources (Alternative 1 and 2)” for more information about potential effects to sensitive species.</p>	

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	is lower in height and allows for views through the site in any direction. Finally, accessible views toward the VA Development site from several locations is distant and due to shifting weather conditions prevalent in the Bay Area, including heavy fog and air quality, it is hard to distinguish new development within the proposed project setting. Therefore, the operational impacts related to visual character under Alternative 1 would not be significant.			
Light and Glare	<p>Construction activity under all phases would take place during daytime hours; therefore, no construction equipment lighting would be needed. Some low-level security lighting would be required in construction staging areas, which would have a small effect on the area’s ambient light levels. However, the construction contractor would use lighting features that would be shielded and directed downward, as required by management practices to minimize light spillover to neighboring undeveloped land on the VA Transfer Parcel. Therefore, this construction-related impact related to light would not be significant.</p> <p>Most proposed operations would take place during daytime hours. Nighttime</p>	<p>The VA Transfer Parcel consists of large expanses of abandoned runways and few small support buildings that were used when the site functioned as the airfield for NAS Alameda. No nighttime lighting or daytime glare emits from these sources. The VA Transfer Parcel is located within viewing distance of surrounding urban areas such as the more developed eastern portion of Alameda Island, industrialized areas of West Oakland, the San Francisco waterfront and hills, and the San Francisco Bay Bridge. Limited nighttime light spillage from these sources does reach the VA Transfer</p>		

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<p>lighting would consist primarily of shielded and downward-directed low-level security lights used around the VHA OPC and CMO buildings and parking facilities. Because the proposed VA facilities would generally be set back from the eastern and southern boundaries of the VA Transfer Parcel, low-level night lighting would not be substantially noticeable to distant residents to the east or to the CLT colony to the south. The operational impact related to nighttime lighting would not be significant.</p> <p>No substantial increase in glare would result from operation of the VHA OPC, NCA Cemetery, and CMO under Alternative 1. The windows of the OPC and CMO buildings in the VA Development Area may reflect the sun's rays at times, but these occurrences would be intermittent. Therefore, the operational impact related to daytime glare would not be significant.</p>	<p>Parcel.</p> <p>Light-sensitive receptors also may include wildlife. An existing colony of the CLT, a bird species that is federally and State listed as endangered, is located on the VA Transfer Parcel 1,430–1,766 feet south of the VA Development Area. The VA Transfer Parcel does not contain buildings with reflective materials or windows, and is therefore not a substantial source of glare.</p> <p>No glare-sensitive receptors are located near the VA Transfer Parcel.</p>			
Land Use (see Section 3.6 for more information)				
Existing and Surrounding Land Uses	Implementation of the Proposed Action would not physically divide an established community; conflict with substantive requirements of local land use plans or policies (as federally owned property, the VA Transfer	There are no known persistent influences from past external actions adversely affecting this resource. The parcel and sat vacant and unoccupied since active military and	The Alameda Point area is the focus of redevelopment by the City of Alameda. The City of Alameda adopted the <i>NAS Alameda Community Reuse Plan</i> in 1996, which was	No - In accordance with CEQ guidance, if a Proposed Action would not cause a direct or indirect impact on a resource, it would not contribute to a cumulative

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	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area		
Parcel would be outside the jurisdiction of local and State planning and zoning laws and regulations); and the Proposed Action is compatible with and would not have a substantial adverse impact on the existing character and planned uses of the surrounding community. Therefore, there would be no adverse effect on land use resources.	airfield operations ended in 1996. Previous uses included aircraft operations and associated land uses, which resulted in noise, light, air quality impacts to the site and surrounding land uses.	prepared to guide future development of Alameda Point following disposal from federal ownership. The Reuse Plan is a long-term plan that envisions redeveloping the former NAS Alameda into a mixed-use, transit-oriented land use community. The redevelopment would be phased and would consist of residential, commercial mixed use, town center retail, neighborhood center mixed-use, employment center, and community/civic uses (ARRA, 2006). The Reuse Plan does not apply to the VA Transfer Parcel (as federally owned property, the VA Transfer Parcel would be outside the jurisdiction of local and State planning and zoning laws and regulations) and only applies to the larger Alameda Point area.	impact on that resource and would not need to be further evaluated.	
Air Quality (see Section 3.7 for more information)				
Criteria Air Pollutants	Air quality impacts from proposed construction activities would occur from combustive emissions due to the use of fossil fuel-fired construction equipment and on-road trucks and fugitive dust emissions from earth-	Existing sources of criteria pollutant emissions on the VA Transfer Parcel are limited to vehicles and equipment associated with maintenance, security, and short-term	Other non-project actions, including the redevelopment of Alameda Point, would be expected to criteria air pollutants, hazardous air pollutants, and odors.	No – The Proposed Action when combined with other non-project actions would not be expected to significantly impact air quality resources.

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
<p>moving activities, and the use of vehicles on bare soils. Construction related emissions would be short-term and primarily occur within the boundaries of the VA Development Area. All construction activities would meet applicable State and federal air quality regulations and pollution control requirements to prevent exceedance of air quality standards during construction. Construction-related emissions of criteria air pollutants would be less than <i>de minimis</i> thresholds. Therefore, there would be no significant construction-related impact on criteria air pollutants.</p> <p>Proposed operations would generate criteria pollutant emissions from onsite area sources and vehicles that access the project site. Annual operational emissions in year 2017 would not exceed any of the <i>de minimis</i> thresholds. Therefore, there would be no significant operational-related impact on criteria air pollutants.</p>	<p>activities, such as activities associated with the management of the CLT colony. No permitted stationary sources of criteria pollutants, TACs, or odor sources are associated with the VA Transfer Parcel.</p> <p>Existing sources of emissions adjacent to or near the VA Transfer Parcel include industrial equipment, space heating equipment, and vehicles associated with interim reuse activities at Alameda Point; remediation activities undertaken by the Navy; ships and industrial activities at the Port of Oakland; and marine vessels in San Francisco Bay and the Oakland Estuary. The closest permitted stationary off-site source is Delphi Productions Inc., located approximately 1,500 feet from the southeastern most portion of the VA Transfer Parcel.</p>	<p>This expectation is based on the assumption that all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action.</p>	

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Hazardous Air Pollutants	<p>Initial construction would include mass site grading, trenching, building construction, asphalt paving, and application of architectural coatings. Most construction phases would involve the use of diesel-fueled construction equipment, except during the application of architectural coatings. Therefore, construction-related emissions of diesel PM have the potential to affect nearby sensitive receptors. In addition, VA would implement applicable best management practices to control dust and emissions from construction. Therefore, construction-related impacts of localized TAC and PM emissions on sensitive receptors would not be significant and additional evaluation (i.e., BAAQMD screening criteria) of potential health risks is not needed.</p> <p>Operation would not include TAC sources that would expose nearby receptors to substantial TAC concentrations. Therefore, impacts of localized TAC and PM emissions on sensitive receptors would not be significant</p>	Historically, the parcel was previously used as an active Navy airfield. Since closure, environmental effects from such uses (e.g., pollution from aircraft) have ended.		

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Odors	<p>Construction of the facilities and cemetery expansions could result in odors (e.g., from diesel exhaust emitted by equipment); however, these odors would be temporary and intermittent. Emissions would occur only during business hours during the construction period, and would disperse quickly given the area’s meteorological conditions. In addition, the nearest sensitive receptors are located 3,700 feet from the fence line of the VA Transfer Parcel and approximately 5,500 feet from where the bulk of construction activities (construction of the OPC and the first 18 acres of cemetery uses) would occur. Thus, even during intensive construction activities (i.e., soil import activities), because of the distance between the nearest receptor and the VA Transfer Parcel and the area’s high winds, there would be no significant construction-related impact from odors.</p> <p>The land uses proposed for the VA Transfer Parcel are not land uses that would typically generate substantial concentrations of odors. Therefore, it is unlikely that operation would expose sensitive receptors to substantial odor concentrations. The operational impact of Alternative 1</p>			

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
	related to odor exposure would not be significant.			
Greenhouse Gas Emissions (see Section 3.8 for more information)				
Greenhouse Gas Emissions Climate Change	<p>GHG emissions resulting from the initial phase of construction would total 4,422 MT of CO₂e. Emissions related to construction of subsequent phases of the NCA Cemetery would total 2,948 MT of CO₂e per occurrence through 2116. Daily GHG emissions would vary over this time depending on the intensity of construction activities each day. Thus, construction activities would not exceed the CEQ reference point of 25,000 MT of CO₂e, which serves as a minimum standard for reporting emissions under the CAA.</p> <p>In addition, operational activities would not exceed the CEQ reference point of 25,000 MT of CO₂e, which serves as a minimum standard for reporting emissions under the CAA.</p> <p>Based on sea level rise predictions, sea level rise could cause flooding in some of the coastal areas of Alameda Island, including the VA Transfer Parcel and the VA Development Area. Specifically, the VA Development Area would be located in an area identified as potentially exposed to sea</p>	<p>Existing sources of GHG emissions on the VA Transfer Parcel are limited to vehicles and equipment associated with maintenance, security, and short-term activities, such as activities associated with the management of the CLT colony.</p> <p>Existing sources of GHG emissions adjacent to or near the VA Transfer Parcel include industrial equipment and vehicles associated with interim reuse activities at Alameda Point; remediation activities undertaken by the Navy; ships and industrial activities at the Port of Oakland; and marine vessels in San Francisco Bay and the Oakland Estuary.</p> <p>Historically, the parcel was previously used as an active Navy airfield. Since closure, environmental effects from such uses (e.g., pollution from aircraft) have ended.</p>	<p>All existing and proposed future projects have the potential result in GHG emissions.</p>	<p>No – The potential effects of proposed GHG emissions are by nature global and cumulative in their impacts, since individual sources of GHG emissions are not large enough to have an appreciable effect on climate change. Therefore, an appreciable impact on global climate change would only occur when proposed GHG emissions combine with GHG emissions from other human-made activities on a global scale. Since GHG emissions from the proposed action in combination with other non-project actions in the region would equate to such a minimal amount of the U.S inventory, they would not substantially contribute to global climate change.</p> <p>In addition, all other non-project actions would need to comply with all applicable federal, State, and local</p>

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
level rise. However, as part of construction of VA facilities, the ground elevation would be raised to a higher elevation than projected sea level rise. As a result, there would be no climate change-related sea level rise impacts at the proposed facilities in the VA Development Area through the year 2099.			laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action.
Socioeconomics and Environmental Justice (see Section 3.9 for more information)			
Population, Employment, and Income	The Proposed Action would have no effect on existing population in study area. Construction and Operation of the Proposed Action would result in a positive growth in both construction and operational employment. The Proposed Action would not impede residential or business activity within the community surrounding the VA Transfer Parcel because all construction activities would be limited to the currently unoccupied area within the VA Development Area. Therefore, no residents or businesses would be displaced. No construction-related significant adverse impact related to displacement of persons, residences, and/or	Existing sources of employment on the VA Transfer Parcel are limited to maintenance, security, and short-term activities, such as activities associated with the management of the CLT colony.	Other non-project actions would be expected to generate new population and employment in the region. Specifically, the redevelopment of Alameda Point would consist of new residential development and other employment focused land uses such as commercial mixed-use, retail, neighborhood center mixed-use, and community/civic uses.
			No - In accordance with CEQ guidance, if a Proposed Action would not cause a direct or indirect impact on a resource, it would not contribute to a cumulative impact on that resource and would not need to be further evaluated.

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
	businesses would occur.			
Environmental Justice	The communities surrounding the VA Transfer Parcel do not have a disproportionately high minority or low-income population. In addition, there are no specific impacts on general health or quality of life that would adversely or disproportionately impact the surrounding population. Therefore, it was determined that no disproportionate adverse environmental justice effects would be associated with the Proposed Action.			
Hazards and Hazardous Materials (see Section 3.10 for more information)				
Releases of hazardous substances, pollutants, or contaminants	CERCLA, DERP, and NCP provisions require that all necessary remedial actions be taken to adequately protect human health and the environment from risks associated with the actual or potential release of hazardous substances, pollutants, or contaminants into the environment. The Navy would continue to perform its ongoing CERCLA obligations, including managing the investigation, remedy selection and remedial action phases, following the property transfer until completion of such obligations and approval by the regulatory agencies. Implementation of ICs will allow the property to be developed for its intended use, subject to land use restrictions designed to prevent	Much of the VA Transfer Parcel, and the larger former NAS Alameda property, is constructed on fill material that was placed in the late 19th century and the first half of the 20th century. The VA Transfer Parcel encompasses the former airfield area of the installation and is comprised of the former aircraft runways, taxiways, and support-service facilities. The VA Transfer Parcel is currently unused, aside from the active management of the CLT colony. There are no exiting hazardous materials uses or hazardous waste	No other non-project actions are known to exist within the immediate project area that would cumulatively impact hazards and hazardous materials.	No – The Proposed Action when combined with other non-project actions would not be expected to significantly impact hazards and hazardous materials. This expectation is based on the assumption that all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and restrictions

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
<p>exposure to residual levels of hazardous materials. VA will comply with the CERCLA ICs and would not use the property for any use or activity that is prohibited by the ICs. Such compliance will ensure that the property after transfer will be used in a manner that is adequately protective of the environment and human health as required by CERCLA. Further, VA would be required to manage hazardous materials and wastes in accordance with applicable federal, State, and local regulations.</p> <p>VA would be responsible for completion of CERCLA response actions at IR Site 2 after the Navy completes its responsibility. Such VA responsibilities include but are not limited to long-term monitoring, long-term operations, institutional control reporting and maintenance, engineering control maintenance (e.g., landfill cap/cover monitoring, maintenance and repair), regulatory agreement maintenance, CERCLA five year reviews, and responding to any failures of response actions.</p> <p>VA would, as the Federal land manager and lead Federal agency after transfer, be responsible for the release</p>	<p>generation occurring within the VA Transfer Parcel.</p>		<p>protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action.</p>

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
<p>of environmental contaminants on the property identified after the date of transfer and for future and/or newly-identified releases of environmental contaminants at, or from, the property that occur after the transfer. VA would not use the VA Transfer Parcel for any use or activity that is prohibited by CERCLA ICs. In addition, VA would be responsible for any and all additional necessary remedial or corrective actions resulting from a change in land use set forth in VA land use plans revised following the date of property transfer.</p> <p>For any petroleum sites identified prior to transfer of the property, the Navy would continue to manage the investigation, corrective action plan, and corrective action implementation phases. The Navy's responsibility for managing petroleum sites will cease upon the completion of corrective action or a no further action determination. VA would have responsibility for management, if applicable, of lead-based paint in soil, and asbestos and ACM on the property, including but not limited to, maintenance, renovation, or demolition of buildings and structures; and lead or asbestos related surveys or sampling, whether of action or</p>			

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
<p>corrective action, or other environmental action. VA would be responsible for managing lead-based paint, lead in soil, asbestos, and ACM in accordance with all applicable federal, State, and local laws, regulations, or other requirements.</p> <p>For these reasons, including the completed and ongoing CERCLA remedial actions and other ongoing non-CERCLA remediation efforts and compliance programs (e.g., Petroleum Program) there would be no hazard to the public or the environment, no reasonably foreseeable environmental impacts, and no significant environmental impacts as a result of releases of hazardous substances, pollutants, or contaminants during development or operation at the VA Transfer Parcel that are addressed under CERCLA.</p>			
Routine Use, Storage, Transport, or Disposal of Hazardous Materials	Hazardous materials uses and waste generation from proposed action operations and routine maintenance operations would not pose a substantial public health or safety hazard to the project vicinity. Impacts from the routine transport, use, or disposal of hazardous materials/waste (including radiological, hazardous, and medical wastes) from operation would not be significant.		

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Exposure to Hazardous Materials via Upset and Accident Conditions	Compliance with applicable city, State, and federal laws would minimize potential exposure to hazardous materials/waste, via upset and accident conditions and there would be no significant impact.		
Utilities (see Section 3.11 for more information)			
Water Supply and Wastewater	The existing EBMUD system would be expected to have sufficient capacity to meet any future water supply demands. Implementation would not be expected to have a significant impact on the future capacity and infrastructure of the regional water and wastewater system.	There is no existing demand for potable water and no functional potable water supply or sanitary sewer infrastructure within the VA Transfer Parcel. The EBMUD projects that it can meet future regional demands through the year 2040 during normal year conditions. Historically, the former uses of the property would have generated need for water and produced wastewaters into the municipal system.	Other non-project actions would be expected to generate new demand for water supplies, generate wastewaters, produce stormwater discharge, create demand for energy, and generate solids wastes.
			No – The existing and projected capacity of area utility systems have capacity for providing new services. In addition, all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action. Therefore, no significant adverse cumulative impact on municipal or regional utility systems would be expected.

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Stormwater Drainage Systems	With implementation best management practices, stormwater infrastructure that would be constructed as part of the project would be appropriately sized. As a result, operational impacts of Alternative 1 related to stormwater would not be significant.	Surface water runoff from the VA Transfer Parcel is collected in a stormwater drainage system that conveys surface water from the site directly to receiving waters. Seasonal flooding problems are common because of the deterioration of the storm drains. Some locations on the VA Transfer Parcel are subject to flooding during heavy rainstorms. Stormwater drainage is generally collected in a stormwater drainage system consisting of drains and catch basins and is discharged via outfalls to the Oakland Inner Harbor and San Francisco Bay.		
Energy (Electricity, Natural Gas, and Fuel)	The existing electric and natural gas system would be expected to have sufficient capacity to meet any future energy demands. Implementation would not be expected to have a significant impact on the future capacity and infrastructure of the electrical and natural gas systems.	The electrical facilities within the former NAS Alameda do not meet current standards or codes. Current activities on the VA Transfer Parcel do not demand any natural gas and no functional infrastructure exists.		

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Solid Waste Disposal	The anticipated volume of waste would be expected to be accommodated by landfills located in the region. Wastes would not have a significant impact on regional landfills or waste disposal facilities.	Current activities on the VA Transfer Parcel do not generate solid waste. Most nonhazardous solid waste generated in the City of Alameda is disposed of at the Altamont Landfill in Alameda County. At current disposal rates, the Altamont Landfill would be expected to reach capacity in January 2032.		restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action.
Noise (see Section 3.12 for more information)				
Noise	Construction activities would not result in a substantial increase in the ambient noise environment. As a result, construction-related noise impacts would be short-term and would not be significant. Operation of the Proposed Action would result in a minimal increase in noise levels from traffic and stationary sources (e.g., HVAC equipment, etc.) and would not result in a significant impact.	Very few noise sources currently exist within the VA Transfer Parcel. No public roadways currently traverse this area and public access is restricted. Noise sources that contribute to the overall ambient noise level in the area include occasional maintenance vehicles and marine activities along the Oakland Estuary and San Francisco Bay. Historically, the VA Transfer Parcel was an active Navy airfield and included associated noises including jet aircraft landing/takeoffs, engine run-ups, and other maintenance and industrial uses.	Other non-project actions, including the redevelopment of Alameda Point, would be expected to generate construction and operational noise and vibration.	No – Due to the distance of the VA Transfer Area from any sensitive noise or vibration source, it is unlikely that other non-project actions, when combined with the Proposed Action, would result in a significant cumulative impact. In addition, all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Vibration	Because there are no existing on-site human sensitive receptors (i.e., residences and inpatient facilities), and because off-site human sensitive receptors would be a minimum of 3,700 feet from the proposed development, construction would occur well beyond the threshold distances and would not expose any sensitive human receptors to excessive levels of vibration. Operation would not include any major sources of vibration. As a result, there would be no significant impact.	The predominant noise sources in the surrounding area are mobile sources, such as vehicles, and stationary equipment, such as heating, ventilation, and HVAC systems. Most of the perceivable noise from stationary-source equipment is located in the eastern portion of Alameda Point, where there are existing structures. Other stationary-source noise in the area is generated largely on the rooftops of existing structures and shielded from view by the existing structures.		
Public Services (see Section 3.13 for more information)				
Fire and Emergency Medical Services	Construction activities, including construction related traffic, would not have a significant adverse impact on fire and EMS services, including response times and site access. Operational activities, including daily occupation of the property by employees, patients, and visitors would not have a significant impact on fire and EMS services, including response times, site access, water supplies for fire suppression, or require an expansion of existing services.	The AFD provides emergency fire and medical response, emergency planning, and preventive services for the City of Alameda, including Alameda Point and the VA Transfer Parcel. The fire station closest to the VA Transfer Parcel is 2.5 miles from the VA Transfer Parcel.	Other non-project actions, including the redevelopment of Alameda Point, would be expected to generate additional need for fire, EMS, and police services. In addition, new residential and commercial development would draw new populations to the area, which would be expected to use local park and recreational facilities. However, many new non-project actions would add new	No – The Proposed Action when combined with other non-project actions would not be expected to significantly impact fire, EMS, and police services. In addition, the VA would provide their own police to supplement local police to secure the VA Transfer Parcel. Further, the undeveloped portion of the VA Transfer

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Police Services	Upon transfer of the VA Transfer Parcel from the Navy to VA, VA would augment the local police coverage of the site with VA Police and other law enforcement entities. Development and use of the property would not be expected to generate demand for additional APD police services that would exceed the capacity of existing services or result in an adverse impact to current service levels or require the need for an expansion of services. There would not be a significant impact on police services.	The APD provides law enforcement services within the City of Alameda, including the VA Transfer Parcel. The APD currently serves federal property at Alameda Point.	park space and recreational amenities to the local area.	Parcel would be left undeveloped open space and the VA Development Area would provide new public access close to coastal areas near the San Francisco Bay. This in combination with the other non-project actions, including the Northwest Territories proposed park and recreation space would result in a beneficial cumulative impact. Therefore, no significant adverse cumulative impact on public services would be expected.
Parks and Recreation	Although the Proposed Action would not contribute to the City of Alameda’s designated public parklands, Alternative 1 includes an access road and sidewalk along the northern VA Development Area allowing bicyclists and pedestrians to travel to a location approximately 100 feet from the western shoreline of the VA Development Area. The publically accessible road and sidewalk would allow limited access to additional open space and the shoreline. Further, the remaining 438 acres of the VA Transfer Parcel, including the existing	Historically, the VA Transfer Parcel was an active military installation and was not open to the public. The Alameda Recreation and Park Department administers an extensive system of local parks, athletic fields, dog parks, skate parks, historical museums, gymnasiums, a model airplane field, a community center, and a senior center. There are approximately five City of Alameda–owned parks and		

Table 4-1: Cumulative Impacts Analysis

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
	Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
CLT colony, would remain undeveloped. The undeveloped area would add to the cumulative open space within the City of Alameda, a beneficial impact. The Proposed Action would not have a significant impact.	recreational facilities within 0.5 mile of the VA Transfer Parcel.		
Geology (see Section 3.14 for more information)			
Erosion and Loss of Topsoil	Construction would involve site grading and preparation that would disturb exposed artificial fill. Excavation, grading, import of fill, and facility construction in the VA Development Area would require temporary disturbance of surface soils and removal of existing on-site pavements, five existing bunkers, and existing subsurface infrastructure. Exposed fill materials would be susceptible to erosion during construction-related excavation. Stormwater runoff could cause erosion during project construction, although most loosened and eroded soil would remain within the excavation pits. With implementation of a SWPPP, the construction-related impact of initial construction related to erosion and loss of topsoil would not be significant.	The VA Transfer Parcel is comprised of the airfield area of former NAS Alameda. The entire parcel, which is comprised of human-made lands, has been developed or disturbed and is mostly comprised of former airfield infrastructure (e.g., inactive paved runways and taxiways), paved aircraft parking areas, vacant structures and buildings, seven former military bunkers, and other airfield support infrastructure. Areas of vegetated open space are located throughout the parcel, with the largest vegetated areas located in the southern and western portions of the parcel.	<p><i>Other non-project actions, including the redevelopment of Alameda Point, would be expected to disturb the study areas soils and topography and could be effected by seismically induced ground shaking and associated ground failure.</i></p> <p>No – The Proposed Action when combined with other non-project actions would not be expected to significantly impact geology and soil resources.</p> <p>In addition, all other non-project actions would need to comply with all applicable federal, State, and local laws, regulations, and obtain and needed environmental reviews and approvals. It is assumed that the other actions would implement all applicable measures and restrictions protective of human health and the environment that are required by existing laws and regulations to lessen the potential environmental impact of the action.</p>

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
		Past Actions in Cumulative Study Area	Other Potential Present and Future Actions in Cumulative Study Area	
Alteration of Topography	Construction would not involve any below-grade development or substantial change in the current topography of the VA Development Area. However, the topography in the VA Development Area would be altered to include areas raised above the current topography to 12.5 to 13.5 feet above msl, but these changes in topography would be contoured gradually over the development area. Thus, the construction-related impact of Alternative 1 related to alteration of topography would not be significant.	The VA Transfer Parcel is primarily flat and comprised of human-made lands.		
Seismically Induced Ground Shaking and Associated Ground Failure	The project design would be required to include seismic safety-related features to mitigate the potential for seismically induced ground failure. Therefore, operational impacts related to seismically induced ground shaking and ground failure would not be significant.	The VA Development Area is located within an area that is mapped as a liquefaction hazard zone (CGS, 2003). Because the VA Development Area is located between two major active faults (the Hayward and San Andreas Faults) and the top 25–40 feet of soil consists of loose to very loose saturated sand, the potential for liquefaction and lateral spreading during a seismic event is high (Allegiance Group, 2012).		

Table 4-1: Cumulative Impacts Analysis

	Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)	Other Past, Present, and Future Potential External Influences		Potential for Significant Cumulative Impact
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Seismically Induced Landslides or Slope Failures	No operational impact related to seismically induced landslides or slope failures would occur.	The VA Development Area is not located within a designated landslide hazard zone, and no potential exists for landslides because the area is flat.		
Expansive or Corrosive Soils	The site-specific geotechnical investigation states that using one of the two options for seismic mitigation (stone columns or deep dynamic compaction) and subsurface engineering, and following standard VA seismic design recommendations for the proposed facilities, would help accommodate any potential expansion of Bay Mud (clay). Therefore, the operational impact of Alternative 1 related to expansive or corrosive soils would not be significant.	The VA Development Area is underlain by both young and old Bay Mud.		

Source: Data compiled by AECOM in 2012

past actions that have affected resource in the cumulative study area. The existing and past condition of the resource provides a context of the resource areas health, status, and historic condition of the potentially cumulatively impacted resource. For the purpose of this study, existing conditions are described in the applicable EA section for each resource. In addition, Table 4-1 identifies, if applicable, the conditions within the larger cumulative impact study area and any past actions that have potentially affected a resource in the cumulative study area. Once the existing and historic context of these resources is considered, the potential effects of future actions are assessed.

4.5 OTHER REASONABLY FORESEEABLE PRESENT AND FUTURE NON-PROJECT ACTIONS

Other reasonably foreseeable present and future non-project actions potentially affecting the resource area were considered with the impacts of the Proposed Action and the existing and historic context of these resources in the cumulative impact study. Potential resource area impacts from other reasonably foreseeable present and future non-project actions within the study area are identified in Table 4-1. A list of other reasonably foreseeable present and future non-project actions within the cumulative study area is included in Table 4-2 and shown in Figure 4-1.

This section identifies foreseeable non-project actions and long-term trends in or near the study area that may pose a cumulative effect on the resources, ecosystems, and human environment in the project area when considered with the effects of the Proposed Action. Using the best data available, other non-project actions include those actions that are likely or probable, rather than those that are merely possible and include those other non-project actions with a reasonable expectation of happening.

Scoping of cumulative non-project actions for this cumulative impact study entailed contacting key relevant agencies for information about past, ongoing, and reasonably foreseeable actions near the VA Transfer Parcel so they could be considered for each Alternative. The following agencies that provided information included: Navy, VA, Cities of Alameda, Oakland, San Francisco, Port of Oakland, EBRPD, EBMUD, California Department of Transportation (Caltrans) District 4, and Alameda County Transportation Commission (ACTC).

4.6 CUMULATIVE IMPACT ANALYSIS

The initial step in the cumulative impact analysis is the identification of the resources to be considered in the analysis. The resources to be considered would include those that would be adversely impacted, despite mitigation, by the Proposed Action and resources currently in poor or declining health, if project impacts are relatively minor. An initial assessment of the potential cumulative impacts per environmental resource area is summarized in Table 4-1.

Effects of a particular action or group of actions must meet the following criteria to be considered a cumulative impact:

- The effects of several similar actions that would occur in the same geographic area;
- The effects would not be localized (i.e., they could contribute to effects of an action in a different location);
- Effects on a particular resource would be similar (i.e., the same specific element of a resource would be affected); and
- Cumulative effects identified by other analyses in the area as cumulative.

Table 4-2: Cumulative Projects Identified Near the VA Transfer Parcel

Project No.	Agency Jurisdiction	Project Name and Location	Approved or Proposed Uses	Anticipated Construction Time Frame
1	Navy/City of Alameda	NAS Alameda Community Reuse Plan 1996	Development of the following neighborhood areas after transfer of NAS Alameda parcels to the City of Alameda: <i>Northwest Territories (regional park/sport complex, Civic Core, Main Street Neighborhoods, Inner Harbor, North Waterfront, and Marina.</i>	2015–2035
2	City of Alameda	Alameda Landing Mixed-use Development (just off Webster Street Tube in Alameda at Mitchell and 5th Streets)	72 acres total with up to 300 housing units; 15,000 square foot (sf) waterfront, visitor-serving retail; another 285,000 sf retail; 400,000 sf office space; up to 9 acres of green open space; and Pilot Estuary Water Taxi linking Alameda Landing and Oakland	2012–2017
3	City of Alameda	Alameda Towne Centre Expansion (523 S. Shore Center)	Renovation and expansion of existing retail center with a net change of 100,000 new sf of retail	2018–2020
4	City of Alameda	Boatworks Development (2235 Clement Street)	9.48 acres total with 156 single-family housing units, 26 multifamily units, and 2 acres of pedestrian pathways and waterfront open space	2016–2018
5	City of Alameda	Harbor Bay Business Park at Bay Farm Island (1141 Harbor Bay Parkway)	210,000-sf business park containing office and design studio uses	2010–2012
6	EBMUD	East Bayshore Recycled Water Project Phase 1B in Alameda	Recycled-water pipeline extending from the Webster Street Tube/Posey Tube out through the Northwest Territories at Alameda Point	2015–2020
7	EBRPD	Regional Park and Trail at Alameda Point	150-acre regional park incorporating the following elements: <ul style="list-style-type: none"> • 20 acres of seasonal wetlands • Non-irrigated perennial and annual grasses over 45% of the park area • Group and family picnic areas and observation areas with signage, benches, restrooms • Veterans’ memorial plaza 3 miles of asphalt-paved Bay Trail, 12 feet wide • 2.8 miles of asphalt-paved internal trails, 10 feet wide • 1.5 miles of asphalt-paved access roadway, 28 feet wide • Parking for approximately 800 cars on 5 acres • 8,000 linear feet of raised and bayside levees • Placement of approximately 400,000 cubic yards of fill material to create topography that will not exceed 25 feet in height 	2017–2022

Table 4-2: Cumulative Projects Identified Near the VA Transfer Parcel

Project No.	Agency Jurisdiction	Project Name and Location	Approved or Proposed Uses	Anticipated Construction Time Frame
8	EBRPD	Alameda Beach Renovation	Placement of 80,000 cubic yards of sand at Alameda Beach	2013
9	EBRPD	Brickyard Cove Improvements *	Improvements to Brickyard Cove in Eastshore State Park	2015
10	EBRPD/MTC/ BATA/CTC/ Caltrans District 4	Gateway Park (foot of new eastern span of San Francisco–Oakland Bay Bridge)	Development of 108-acre Gateway Park with three parcels: “Central Gateway” (60 acres), “East Gateway” (14 acres), and “West Gateway” (34 acres, are for mixed uses and public open space)	2016
11	Caltrans District 4	I-880 Operational and Safety Improvements at 23rd and 29th Avenue Overcrossings	Improvement of vehicle height clearances of the overcrossings, interchange spacing, and ramp configurations on I-880, at 29 th and 23rd Avenues	2013–2016
12	Caltrans District 4	San Francisco–Oakland Bay Bridge Seismic Safety Improvements	Construction of a new eastern span of the San Francisco–Oakland Bay Bridge	2009–2013
13	Caltrans District 4/SFCTA	Yerba Buena Island Bay Bridge Ramp Improvements	Construction and reconfiguration of ramps connecting to San Francisco–Oakland Bay Bridge	2012–2016
14	CCSF	San Francisco Bicycle Plan	Construction of bicycle path along new eastern span of San Francisco Oakland Bay Bridge	2013–2014
15	CCSF	Yerba Buena Island Bicycle Landing Facility	Construction of a bicycle landing facility with new bicycle path along new eastern span of San Francisco–Oakland Bay Bridge	2013–2015
16	CCSF	Treasure Island Redevelopment Plan	260-acre development housing, hotel, commercial office and retail 300 acres parks and open space and a 400-slip marina	2013–2028
17	Port of Oakland/City of Oakland	Oakland Army Base Port Redevelopment Program Phase 1	Improvement to backbone infrastructure of the former military site and construction of a new rail terminal	2013–2015
18	Port of Oakland	Oakland Airport Runway Safety Area Program*	Improvement of runway safety areas for two runways in North Field and one runway in South Field, including placement of fill; adding pavement, relocating lighting fixtures and the glide slope antennas; relocating taxiways and roadways; installing Engineered Material Arresting System	2013–2015
19	City of Oakland	116 E. 15th Street	92 affordable senior units	pending
20	City of Oakland	1396 5th Street	119 affordable senior units and 3,300-sf commercial space	2011–2013
21	City of Oakland	2501 Chestnut Street	50 live/work units	pending
22	City of Oakland	14th and Harrison Streets	98 condominium units, 9,000-sf commercial, and structured parking	pending
23	City of Oakland	176 11th Street, 198 11th Street, and 1110 Jackson Street	287 residential units and 3,660-sf retail	pending

Table 4-2: Cumulative Projects Identified Near the VA Transfer Parcel

Project No.	Agency Jurisdiction	Project Name and Location	Approved or Proposed Uses	Anticipated Construction Time Frame
24	City of Oakland	116 6th Street	70 affordable senior apartment units	pending
25	City of Oakland	1538 Broadway	60 residential units	pending
26	City of Oakland	721–741 Broadway	48 residential units, five live/work units, and 2,300-sf retail	pending
27	City of Oakland	1401–1405 Wood Street	301 apartments	pending
28	City of Oakland	2101–2116 Brush Street	146 residential units	pending
29	City of Oakland	459 23rd Street	60 residential units	pending
30	City of Oakland	1614 Campbell Street	92 live/work conversion units	pending
31	City of Oakland	377 2nd Street	96 units and 4,000-sf retail	pending
32	City of Oakland	1309 Madison Street	72 condominium units	pending
33	City of Oakland	1443 Alice Street/ 1434 Harrison Street	245 residential units	2013–2015
34	City of Oakland	222 19th Street	370 residential units and 933-sf café	pending
35	City of Oakland	325 7th Street	382 residential units and 9,000-sf commercial	pending
36	City of Oakland	Lake Merritt Station Area Plan (I-880 on south, 14th Street on north, Broadway on west, and 5th Avenue on east)	3,700–5,600 new housing units, up to 5,755 new jobs, 412,000 sf of additional retail space, and 2.1 million sf of additional office space	2035
37	City of Oakland	Broadway/Valdez District Specific Plan (I-580 on north, Grand Avenue on south, Webster and Valley Streets on west, and Harrison Street, Bay Place, 27th Street, Richmond Avenue, and Brook Street on east)	900–1,800 new housing units, 500,000–900,000 sf of commercial office, 800,000–1,400,000 sf of retail, and 50,000–120,000 sf of hotel	2035
38	City of Oakland	West Oakland Specific Plan	Development of vacant and/or underutilized commercial and industrial properties within West Oakland’s Opportunity Areas.	pending

Notes:

BATA = Bay Area Toll Authority; Caltrans = California Department of Transportation; CCSF = City and County of San Francisco; CTC = California Transportation Commission; EBMUD = East Bay Municipal Utility District; EBRPD = East Bay Recreation and Park District; I-580 = Interstate 580;

I-880 = Interstate 880; MTC = Metropolitan Transportation Commission; NAS = Naval Air Station; Navy = U.S. Department of the Navy; RV = recreational vehicle; sf = square feet; SFCTA = San Francisco County Transportation Authority

* Project not included in Figure 4-1

Sources: Navy, 1996; Oakland, 2011; Ott, pers. comm., 2012; Heinz, pers. comm., 2012; Manasse, pers. comm., 2012; Pretzer, pers. comm., 2012; Abudayeh, pers. comm., 2012; Anderson, pers. comm., 2012; Murphy pers. comm., 2012; Walukas, pers. comm., 2012; data compiled by AECOM in 2012



Sources: Navy, 1996; Oakland, 2011; Ott, pers. comm., 2012; Heinz, pers. comm., 2012; Manasse, pers. comm., 2012; Pretzer, pers. comm., 2012; Abudayeh, pers. comm., 2012; Anderson, pers. comm., 2012; Murphy pers. comm., 2012; Walukas, pers. comm., 2012; data compiled by AECOM in 2012

Figure 4-1: Location of Cumulative Projects Identified Near the VA Transfer Parcel

The purpose of the cumulative impact analysis is to determine if the direct, indirect, and contributed impacts of the Proposed Action on nearby resources, ecosystems, and human communities would:

- Result in an adverse cumulative impact would occur (if not, the cumulative impact would be minor).
- For any adverse cumulative impacts, determine whether the alternative's contribution to the cumulative impact would be significant (if not, the cumulative impact would be minor). To determine whether an alternative's contribution would be cumulatively significant, several factors were considered: the absolute size of the contribution; the relative size of the contribution; the comparative size of the other contributors; the effect of the contribution, or the effect combined with other contributors, on the environment; and whether the impact could be mitigated if this type of contribution were not mitigated.

4.6.1 Resources Areas Excluded from Further Cumulative Impact Analysis

After review of the direct and indirect effects of the Proposed Action, combined with the historic and existing resource conditions within the study area and other reasonably foreseeable present and future non-project actions, it was determined that there would be no significant adverse cumulative impact to the following 12 resources resulting from implementation of the Proposed Action (see Table 4-1). Therefore, the following resource areas have not been retained for a more detailed analysis:

- Water Resources;
- Cultural Resources;
- Visual Resources and Aesthetics;
- Land Use;
- Air Quality;
- Greenhouse Gas Emissions;
- Socioeconomics and Environmental Justice;
- Hazards and Hazardous Substances;
- Utilities;
- Noise;
- Public Services; and
- Geology and Soils.

4.6.2 Resources Retained for Further Cumulative Impact Analysis

Only two resource areas, biological resources and transportation, traffic, circulation and parking, were identified to be retained for further, or more detailed, analysis of potential cumulative impacts (see Table 4-1). Further analysis of these two resource areas are described below. Cumulative impacts on these resources for both Alternative 1 and 2 would be similar and therefore the discussion below applies to both alternatives.

Cumulative Impact Analysis – Biological Resources (Alternative 1 and 2)

Geographic Context and Time Frame

The geographic context for the analysis of cumulative biological impacts is generally comprised of the area comprising the Alameda Point Northwest Territories (vegetation and habitat areas) and the San Francisco Bay

coastal areas to the south, including the Alameda Point Marina Area (i.e., Seaplane Lagoon). The parcels isolated location at the western corner of Alameda Island, the San Francisco Bay (to the west and south), and the developed and disturbed lands of the remaining portions of the former NAS Alameda, in combination with the property being comprised of man-made lands and quality of existing habitat on site in the surrounding area limits the habitat and wildlife corridors to expand the geographic context beyond this area.

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)

Vegetation and Wildlife Habitat

For both Alternative 1 and 2, direct impacts to existing vegetation and wildlife habitat areas would be limited to the VA Development Area and the remaining portion of the VA Transfer Parcel, including the existing CLT colony and adjacent ruderal disturbed, nonnative annual grassland, northern coastal salt marsh, and the West and Runway Wetlands would be left undeveloped open space, and be preserved for future use of wildlife. The majority of the VA Development Area is comprised of marginal habitat (i.e., ruderal disturbed and nonnative annual grassland), but development would be expected to result in the loss of some northern coastal salt marsh and seasonal wetlands. To reduce adverse impacts to northern coastal salt marsh and seasonal wetlands located within the VA Development Area, the VA would implement mitigation (i.e., **Mitigation Measure BIO-1**). For a discussion of potential cumulative impacts to the CLT colony see section “*Federally Listed Wildlife Species*” below.

In addition, existing paved surfaces (e.g., runways, taxiways, aircraft parking areas) would be removed from the VA Development Area and areas outside of building and structure footprints would be landscaped, increasing pervious surface area, adding managed vegetation, and improving habitat for common wildlife. The 438 acres of undeveloped open space and landscaped portions of the VA Development Area would be a beneficial impact.

Federally Listed Threatened and Endangered Species

The Navy and VA has determined that the effects of Alternative 2 (Preferred Alternative) “may affect, and is likely to adversely affect” the CLT and “may effect, but is not likely to adversely affect” the western snowy plover. As identified above in section “Assessment Methodology”, the Navy and VA coordinated with and consulted with the USFWS pursuant to Section 7(a)(2) of the ESA, as amended, on this determination. The Navy and VA received concurrence from USFWS, as documented in the USFWS BO, dated August 29, 2012, on the determination that the “proposed project is likely to adversely affect the least tern” and “that the proposed project may affect, but is not likely to adversely affect the snowy plover” (USFWS, 2012). The USFWS BO states that the “proposed project will increase predation pressure, increase the perception of predation, and reduce the quantity and quality of foraging habitat, adversely affecting all life stages of the least tern at NAS Alameda, thereby resulting in take of the least tern in the form of harm, through habitat modification and disruptions in breeding success, and harassment.” The USFWS BO concludes, “that this level of anticipated take is not likely in jeopardy to the least tern” (USFWS, 2012).

California Least Tern - Alternative 2, with the implementation of specific avoidance and minimization efforts, would not result in a significant adverse impact to the CLT from construction and operational activities. No direct construction or operational activities would occur outside the VA Development Area and would not result in the modification or direct disturbance of the CLT colony or the habitat immediately surrounding it. However, implementation of Alternative 2 would result in the development of approximately 112 acres of currently vacant

land (i.e., VA Development Area). The reintroduction of uses within this former military airfield area would have the potential to have an effect on the CLT, including predation, perceived predation and human disturbance, and reduce the ability to conduct effective predator management at the site.

Direct effects to the CLT from activities would primarily consist of increased noise and vibration, construction traffic, and operation of construction equipment, which could have an effect on the CLT colony. In addition, increased human activities may increase habitat for predators of the CLT. There is the potential for indirect adverse effects from activities including sources of noise (e.g., construction traffic and the operation of construction equipment) and increased human presence in the VA Development Area. To reduce the adverse effects as described above, to the CLT to less than significant, the VA will implement **Mitigation Measure BIO-2** to minimize the potential for harm and harassment of the CLT resulting from the project related activities. With implementation there would be no significant impact to the CLT.

The Navy and VA has determined that the effects of Alternative 2 (Preferred Alternative) “may affect, and is likely to adversely affect” the CLT and “may effect, but is not likely to adversely affect” the western snowy plover. As identified above in section “Assessment Methodology”, the Navy and VA coordinated with and consulted with the USFWS pursuant to Section 7(a)(2) of the ESA, as amended, on this determination. The Navy and VA received concurrence from USFWS, as documented in the USFWS BO, dated August 29, 2012, on the determination that the “proposed project is likely to adversely affect the least tern” and “that the proposed project may affect, but is not likely to adversely affect the snowy plover” (USFWS 2012). The USFWS BO states that the “proposed project will increase predation pressure, increase the perception of predation, and reduce the quantity and quality of foraging habitat, adversely affecting all life stages of the least tern at NAS Alameda, thereby resulting in take of the least tern in the form of harm, through habitat modification and disruptions in breeding success, and harassment.” The USFWS BO concludes, “that this level of anticipated take is not likely in jeopardy to the least tern” (USFWS, 2012).

The Navy and VA, in a BA submitted to the USFWS on August 30, 2011 requesting formal consultation under Section 7 of the ESA, and determined that the effects of Alternative 1 “may affect, and is likely to adversely affect” the CLT and “may effect, but is not likely to adversely affect” the western snowy plover. The Navy and VA did not receive concurrence from USFWS on their August 30, 2011 affects determination for Alternative 1. If VA were to proceed with Alternative 1, VA would complete formal consultation under Section 7 of the ESA as is legally required. Subsequent NEPA analysis would also be required to incorporate the findings and conclusions of the Section 7 formal consultation into the biological resources analysis for Alternative 1.

Western Snowy Plover - Current evidence suggests that western snowy plover visits the surrounding area sporadically as a foraging migrant. As long as the species retains this status, direct effects on the species are likely to be minimal. The increased presence of humans and equipment would increase the likelihood of disturbances (e.g., noise, light, etc.) to foraging and resting birds. These impacts would be intermittent, and are unlikely to affect the use of the site by snowy plover. Potential indirect effects of the project action on western snowy plover are generally shared and similar to those identified for CLT, albeit on a smaller scale, as this species is currently only sporadically present as a migrant. Potential indirect effects would arise from increased human activity near foraging and potential nesting areas (CLT colony) and the daily use of new structures in the vicinity of these areas. Should the western snowy plover reestablish itself as a nesting species in the action area, effects on the species are likely to be identical to those identified for the CLT and thus the proposed avoidance and

minimization measures (i.e., Mitigation Measure BIO-2) for the CLT are also adequately protective. Based on current habitat use by the snowy plover, the effects would be minimal. Therefore, there would be no significant adverse impact on the western snowy plover.

Common Wildlife

Potential adverse impacts to common species and habitats would not be significant due to the current low abundance of wildlife on the site. This is due to the extent of developed/urban land uses on the site, the long history of site disturbance, the intensive nature of such disturbance in some areas, and the site's isolation from more extensive areas of natural habitat by the bay and by urban development in the project vicinity. In addition, habitat within the VA Development Area would be improved with the introduction of managed landscaping and the majority of the VA Transfer Parcel would be left undeveloped open space, which could be utilized by common wildlife.

Habitat Linkages and Corridors

Because ongoing activities at the VA facilities would be confined to the VA Development Area, impacts to migratory habitat in the remainder of the VA Transfer Parcel are not expected to occur. Further, because the CLT colony would be preserved, and potential future public access would be limited to the perimeter of this area these areas are anticipated to be utilized by wildlife through the operational period of the VA facilities. Therefore, operational impacts would not be significant.

See Section 3.1 (Biological Resources) for more information on the existing habitat in the VA Transfer Parcel and surrounding area and the potential impacts resulting from Alternative 1 and 2.

Other Past, Present, and Future Potential External Influences

Past Actions in Cumulative Study Area

The VA Transfer Parcel is comprised of the airfield area of former NAS Alameda. The entire parcel, which is comprised of human-made lands, has been developed or disturbed and is mostly comprised of former airfield infrastructure (e.g., inactive paved runways and taxiways), paved aircraft parking areas, vacant structures and buildings, seven former military bunkers, and other airfield support infrastructure. Historically, the VA Transfer Parcel was utilized for active military flight operations, including the use of jet aircraft on the runways, taxiways, and parking areas. The area was also used for aircraft maintenance and other military training. Since closure of the former NAS Alameda in 198, the VA Transfer Parcel is currently vacant and underutilized.

The VA Transfer Parcel is bordered by the San Francisco Bay to the west and south, and the remainder of the former NAS Alameda property (Alameda Point) to the north and east. The Alameda Point area to the north of the VA Transfer Parcel is comprised of vegetated open space, former airfield infrastructure, and vacant buildings and structures. Further north is the Oakland Inner Harbor and the Port of Oakland, an industrial shipping container terminal. The Alameda Point area to the east of the VA Transfer Parcel is comprised of the former air stations aircraft hangars, office and industrial buildings, and recreational space. This area is currently being utilized by tenants for non-military light-industrial/manufacturing, public administration, office, commercial, and recreational uses. Further east is the City of Alameda, including residential land uses.

Other Potential Present and Future Actions in Cumulative Study Area

Other potential future non-action projects located within the cumulative study area and have the potential to cumulatively affect biological resources include the following, which are also considered in Table 4-1 and identified in Table 4-2 and Figure 4-1:

- NAS Alameda Community Reuse Plan 1996 (**Cumulative Project #1** – see Table 4-2 and Figure 4-1);
- Alameda Landing Mixed-use Development (**Cumulative Project #2** – see Table 4-2 and Figure 4-1);
- Boatworks Development (**Cumulative Project #4** – see Table 4-2 and Figure 4-1);
- Regional Park and Trail at Alameda Point (**Cumulative Project #7** – see Table 4-2 and Figure 4-1); and
- Alameda Beach Renovation (**Cumulative Project #8** – see Table 4-2 and Figure 4-1).

In addition to the identified development actions, the assessment of cumulative impacts to biological resources considered projected future natural changes, including projected sea-level rise.

Cumulative Impact Analysis

Vegetation/Habitat Types

Cumulative impacts on vegetation types similar to those found within the VA Transfer Parcel could occur during the various construction activities for the above-listed projects. Of particular concern would be effects on seasonal wetlands and northern coastal salt marsh habitats. Northern coastal salt marsh and seasonal wetlands are likely to be considered Waters of the United States by the USACE; therefore, effects on these vegetation communities

could be considered cumulatively adverse. As noted in Section 3.1 (Biological Resources) implementation of Mitigation Measure BIO-1 by the VA would reduce this cumulative impact to seasonal wetlands and coastal salt marsh habitats to a level less than significant. For a discussion of potential cumulative impacts to the CLT colony see section “*Federally Listed Wildlife Species*” below.

In addition, the Proposed Action would result in the removal of existing paved surfaces (e.g., runways, taxiways, aircraft parking areas) would be removed from the VA Development Area, increasing pervious surface area, and the undeveloped area of the VA Transfer Parcel would be managed for the conservation of the CLT. The managed open space in combination with the proposed regional park and recreational space within the Alameda Point Northwest Territories would add open space and managed natural areas to the region, improving habitat for common wildlife.

Federally Listed Wildlife Species

California Least Tern - A cumulative impact analysis was included in the BA for the Alameda Landing Mixed-use Development and Boatworks Development (Cumulative Projects #2 and #4) (AECOM, 2011). The determination concluded that based on a review of available information, these proposed projects are located at a sufficient distance from the VA Transfer Parcel and that effects on CLT and western snowy plover are not expected. Therefore, no cumulative impacts are anticipated from Cumulative Projects 2 and 4.

The Alameda Beach Renovation (Cumulative Project 8) is also located some distance from VA Transfer Parcel; effects on CLT and western snowy plover are not expected to result from this project for the same reason as described for Cumulative Projects 2 and 4. Therefore, no cumulative effects are expected from Cumulative Project 8.

Cumulative Project 17 (Oakland Army Base Port Redevelopment Program Phase 1) proposes to improve the infrastructure of the former military site and construct a new rail terminal. This project would be located across the Oakland Inner Harbor and at a considerable distance from the CLT colony therefore, no cumulative impacts are expected.

Other non-project actions in the cumulative study area include the Navy's disposal of the remaining portions of the former NAS Alameda (i.e., Alameda Point). This area would be reused and redeveloped in a manner consistent with the City of Alameda's 1996 Reuse Plan. The Alameda Point planning areas in the vicinity of the VA Transfer Parcel include the Northwest Territories (to the north) and the Civic Core, Marina, and Inner Harbor to the east. The Northwest Territories would be redeveloped as a regional park and sports complex. The Civic Core would be comprised of a mixed-use development area and could include office, education and institutional, research and development, commercial, and recreational uses. The Marina would include boating uses and a mix of commercial, residential, retail and recreational uses and the Inner Harbor would include a mix of light-industrial and research and development with a potential for residential, office, retail, and recreational uses.

Cumulatively, the Proposed Action in combination with other projects in the immediate vicinity would likely increase direct predation and perceived predation on the CLT by increasing the carrying capacity of potential predators, increasing their success rate, and reducing the ability to conduct effective predator management at the VA Transfer Parcel. As identified in the 2012 USFWS BO, the Proposed Action has been located as far away for the CLT colony as the property configuration would allow for, providing an adequate buffer of the adverse effects of the development to the species, and the VA's Proposed Action and City's redevelopment include avoidance and minimization measures including height restrictions and configurations to reduce the effects of the proposed project to the CLT and maintaining a large buffer between development and the CLT colony (USFWS 2012). In addition, the Proposed Action includes predator control efforts, CLT monitoring, limiting the amount and type of vegetation, minimizing lighting, and restricting access.

The Alameda Point Marina area (i.e., Seaplane Lagoon) has been documented as being used by the CLT for foraging. Redevelopment of this area would reduce the quality of the foraging habitat as a result of the construction of boat berthing and increased boat traffic. In addition, the development of the Northwest Territories would obstruct access to documented foraging areas in the Oakland Inner Harbor (USFWS 2012). As identified in the 2012 USFWS BO, while the VA's Proposed Action and the redevelopment of Alameda Point have proposed numerous measures to minimize the short- and long-term effects of the redevelopment of NAS Alameda on the CLT, the USFWS expects the effects of the implementation of the projects to permanently decrease, by a small but measurable extent, the future reproductive potential and long-term average size of the CLT colony (USFWS 2012). The conclusion on loss of buffer zone habitat and associated additive effects considered the incremental decrease in the effectiveness of predator control; an incremental increase in actual and perceived predation and increased human disturbance for increased human presence; a reduction in the quality and quantity of foraging habitat; and the potential increase in foraging time due to the development of the Northwest Territories.

In addition, potential climate change and sea level rise could have an effect on the CLT. As identified in Section 3.8 (Greenhouse Gas Emissions and Climate Change), sea level rise is projected to occur and would potentially impact the project area. This projected rise in sea level would potentially threaten the long-term persistence of the CLT colony.

After reviewing the current status of the CLT, the environmental baseline for the species in the area, and the potential effects of the Alternative 2 (Preferred Alternative) and the cumulative effects from other non-project actions, the 2012 USFWS BO concluded that the Proposed Action (i.e., Alternative 2) is not likely to jeopardize the continued existence of the CLT. While USFWS expects that the incremental effects of the proposed development will reduce the ability of the CLT colony to achieve the high numbers of breeding pairs and fledglings, they expect it to continue to remain a productive breeding colony. The determination was based on the following: 1.) the VA will continue to fund predator management and CLT colony monitoring and other management activities at current or greater levels; 2.) predator management activities will adapt to predation pressures; 3.) the Proposed Action (i.e., Alternative 2) maintains a buffer zone of 511 acres, which, due to size, location, and configuration of the VA Development Area, does not result in a significant decrease in the buffer zone size of 525 acres, which the USFWS determined to be the minimum area necessary to conserve the CLT colony at NAS Alameda in their 1999 BO; and 4.) the Proposed Action includes design features and standards that have been specifically included to minimize the effects of the Proposed Action to the species (USFWS 2012).

Western Snowy Plover - Current evidence suggests that western snowy plover visits the surrounding area sporadically as a foraging migrant. As long as the species retains this status, direct effects on the species are likely to be minimal. The increased presence of humans and equipment would increase the likelihood of disturbances (e.g., noise, light, etc.) to foraging and resting birds. These impacts would be intermittent, and are unlikely to affect the use of the site by snowy plover. Potential indirect effects of the project action on western snowy plover are generally shared and similar to those identified for CLT, but on a smaller scale, as this species is currently only sporadically present as a migrant. Should the western snowy plover reestablish itself as a nesting species in the action area, effects on the species are likely to be identical to those identified for the CLT and thus the proposed avoidance and minimization measures for the CLT are also adequately protective. Based on current habitat use by the snowy plover, the effects would be minimal. Therefore, there would be no significant cumulative adverse impact on the western snowy plover.

For more information on the 2012 USFWS BO see Section 3.1 (Biological Resources) and Appendix B (Biological Resources Supporting Information).

Habitat Linkages and Corridors

Because of the developed nature of the Alameda Point area and the surrounding area, there are no habitat linkages or corridors for non-avian species. Avian species are not impeded from moving into or out of the Alameda Point area. Cumulative effects associated with construction of the projects listed above would not occur because the projects do not create barriers to avian movements.

Conclusion

There would be no significant adverse cumulative impacts from implementation of Alternative 2 (Preferred Alternative). If VA were to proceed with Alternative 1, VA would complete formal consultation under Section 7

of the ESA as is legally required. Subsequent NEPA analysis would also be required to incorporate the findings and conclusions of the Section 7 formal consultation into the biological resources analysis for Alternative 1.

Cumulative Impact Analysis – Transportation, Traffic, Circulation, and Parking (Alternative 1 and 2)

Geographic Context and Time Frame

The geographic context for the analysis of cumulative transportation, traffic, circulation, and parking impacts consists of the study area illustrated in Figure 3.3-1 in Section 3.3 (Transportation, Traffic, Circulation, and Parking) which includes 11 study intersections and 10 roadway segments in the City of Alameda and Downtown Oakland. The Cumulative (2035) Baseline Conditions involves planned and approved development projects, projected regional growth, and planned changes to the existing transportation network in the study area, as well as background growth throughout the region in Year 2035. For this analysis of cumulative impacts, Cumulative (2035) Baseline Conditions (without Proposed Action) were used as a future baseline to compare against Cumulative (2035) Baseline plus Proposed Action conditions. A conservative analysis was completed for Cumulative (2035) plus Proposed Action conditions.

Proposed Action Potential Direct/Indirect Impacts (Alternative 1 and 2)

Construction-related transportation impacts would be temporary and would not have an adverse effect on weekday peak-hour traffic conditions. Accordingly, construction-related traffic impacts of Alternative 1 would not be significant.

Operationally, the Proposed Action (year 2017) would not adversely affect any of the 11 study intersections during the weekday a.m. peak hour, weekday p.m. peak hour, and Saturday peak hour. All study intersections would operate at LOS D or better. Therefore, operational impacts of the Proposed Action on traffic operations at intersections would not be significant. The Proposed Action (year 2017) would also not adversely affect any of the 10 study roadway segments during the weekday a.m. peak hour, weekday p.m. peak hour, and Saturday peak hour. All study roadway segments would operate at LOS D or better. Therefore, operational traffic impacts of the Proposed Action on traffic operations on roadway segments would not be significant. In addition, the Proposed Action would add additional passengers to the municipal transit system, provide new pedestrian and bicycle amenities, add pedestrian users and bicyclist, provide on-site user specific surface parking, and improve site access and on-site circulation. None of these components would result in a significant adverse impact. See Section 3.3 (Transportation, Traffic, Circulation, and Parking) for more information on the existing resource and the potential impacts of the Proposed Action.

Other Past, Present, and Future Potential External Influences

Past Actions in Cumulative Study Area

The VA Transfer Parcel is located in the western half of the former NAS Alameda. Roadways within the VA Transfer Parcel and the VA Development Area are not publicly accessible, and are old and deteriorating given the closure of NAS Alameda more than 15 years ago. Because the public does not have site access, the only traffic on the VA Transfer Parcel is generated by Navy-authorized vehicles providing conservation management services for the existing CLT colony or ongoing remediation activities. Historically, the former NAS Alameda property, a

major naval airfield and ship facility, would have generated substantial volumes of traffic when the air station was operational.

For a description of the existing conditions within the cumulative study area see Section 3.3 of this EA.

Other Potential Present and Future Actions in Cumulative Study Area

Past, present, and probable future cumulative projects within this geographic context that were considered for cumulative impacts on transportation, traffic, circulation, and parking include all the projects from Table 4-1. Several projects such as the Oakland International Airport Runway Safety Area Program (Cumulative Project 18 listed in Table 4-1), Caltrans District 4 I-880 Operational and Safety Improvements at 23rd and 29th Avenue Overcrossings (Cumulative Project 11), and City of Alameda Landing Mixed-Use Project (Cumulative Project 2) could be under construction at the same time as the Proposed Action. The construction trips from these projects and the Proposed Action would cumulatively contribute to roadway volumes to I-880.

Cumulative Impact Analysis

Alternative 1 and 2 would both be located in the same location and would include the same scale of development, trip generation, trip distribution, mode choice, and trip assignment. Therefore, the volume of traffic generated under both alternatives and the potential effects on the study areas transportation network would be identical. The following assessment of potential cumulative impacts does not distinguish the effects resulting from two separate alternatives and instead refers to them both as the Proposed Action.

Cumulative Assessment Methods

Trip Generation

The person-trips that would be generated in year 2035 by the Proposed Action include the person-trips from initial construction (year 2017) and subsequent cemetery expansion construction (year 2027) and the person-trips from Phases 3 through 11. As noted in Section 3.3 (Transportation, Traffic, Circulation, and Parking), the person-trips generated during each individual subsequent phase of cemetery expansion construction would be the same.

The following assumptions were used to develop the year 2035 project trip generation:

- Construction trips consisted of truck trips and personnel trips with one person per vehicle;
- Based on the City of Alameda Ordinance Number 2712, construction is allowed only Monday through Friday between the hours of 7 A.M. and 7 P.M. and on Saturday between 8 A.M. and 5 P.M.;
- A Passenger Car Equivalent factor of 2.0 was applied to the truck trips to account for the additional space occupied by these vehicles and for the difference in operating capabilities of heavy vehicles compared with passenger cars;
- The total number of daily construction truck trips for the buildout of each 10-year increment of the NCA; Cemetery is 182 based on the construction data for the Proposed Action (Appendix D);
- The number of truck trips would be evenly distributed throughout the entire workday, because each truck would need time and work crews to load or unload each truckload of material; and

- Personnel trips would occur on weekday and weekend off-peak hours, coinciding with typical work schedules for construction personnel.

Table 4-3 presents the person-trip generation for year 2035 associated with the Proposed Action. The person-trips generated in year 2035 include the person-trips initial construction and subsequent cemetery phase construction (discussed in Section 3.3 [Transportation, Traffic, Circulation, and Parking]). The Proposed Action would generate 8,700 person-trips during the weekday. Of these weekday person-trips, 451 would occur during the weekday a.m. peak hour and 450 would occur during the weekday p.m. peak hour. A total of 178 person-trips would occur during the Saturday peak-generation hour for the Proposed Action.

Table 4-3: Proposed Action (Year 2035) Person-Trip Generation (Alternatives 1 and 2)

Land Use	Size	Weekday Daily ¹	A.M. Peak Hour			P.M. Peak Hour			Saturday Peak Hour of Generation		
			In	Out	Total	In	Out	Total	In	Out	Total
Office	12,500 gsf	149	19	2	21	4	16	20	2	2	4
Clinic	250 employees	2,093	239	93	332	136	196	332	10	10	20
Cemetery											
Employees	7 employees	30	8	0	8	0	8	8	0	0	0
Visitors		480	44	44	88	44	44	88	77	77	154
Corteges		5,940	0	0	0	0	0	0	0	0	0
Deliveries		8	1	1	2	1	1	2	0	0	0
Total		8,700	311	140	451	185	265	450	89	89	178

Notes: While the number of employees is used as the independent variable to calculate the trip generation for the clinic, the number of trips generated are from both employees and patients.

¹ The weekday daily person trips are the cumulative total trips generated for all phases of the project, i.e., 11 phases. For example, the total number of daily person trips associated with corteges is 540 for each phase. However, there are a total of 11 phases of the Project which results in a total of 5,940 person trips (11 phases x 540 daily person trips).

Source: AECOM, 2012

Trip Distribution

Trip distribution patterns were applied to Cumulative (2035) Baseline Conditions, based on the trip purpose associated with the Proposed Action–related activities for the scenario. The Proposed Action–generated person-trips were assigned to travel modes to determine the number of trips by automobile, Bay Area Rapid Transit (BART), and Alameda–Contra Costa Transit District (AC Transit), as well as “other” trips (Table 4-4). “Other” trips include those by motorcycle, taxi, bicycle, and pedestrian. The same assumptions as year 2017 were also assumed for year 2035 Conditions.

Traffic Volumes

The cumulative analysis was performed for a horizon year of 2035 to reflect foreseeable growth in the area. Forecasts of future-year traffic volumes were prepared using the ACTC and City of Alameda travel demand model. Existing traffic volumes were adjusted by applying growth factors to existing counts.

Table 4-4: Proposed Action (Year 2035) Trip Generation by Mode (Alternatives 1 and 2)

Direction	Person-Trips						Total	Vehicle Trips ^{2,3}
	Automobile	AC Transit	BART	Walk	Bike	Other ¹		
Weekday A.M. Peak Hour								
Inbound	288	5	13	5	0	0	311	270
Outbound	132	2	5	2	0	0	141	125
Total	420	7	18	7	0	0	452	395
Weekday P.M. Peak Hour								
Inbound	173	3	7	3	0	0	186	164
Outbound	243	4	11	4	0	0	262	228
Total	416	7	18	7	0	0	448	392
Saturday Peak Hour of Generation								
Inbound	88	0	1	0	0	0	89	87
Outbound	88	0	1	0	0	0	89	87
Total	176	0	2	0	0	0	178	174

Notes:

AC Transit = Alameda and Contra Costa County Transit District; BART = Bay Area Rapid Transit

¹ "Other" mode includes motorcycles and taxis.² Used the average vehicle occupancy of 1.08 from the 2000 U.S. Census Summary File 3 QT-PT23 to convert back to vehicle trips.³ Includes vehicle trips from cemetery visitors, corteges, and deliveries.

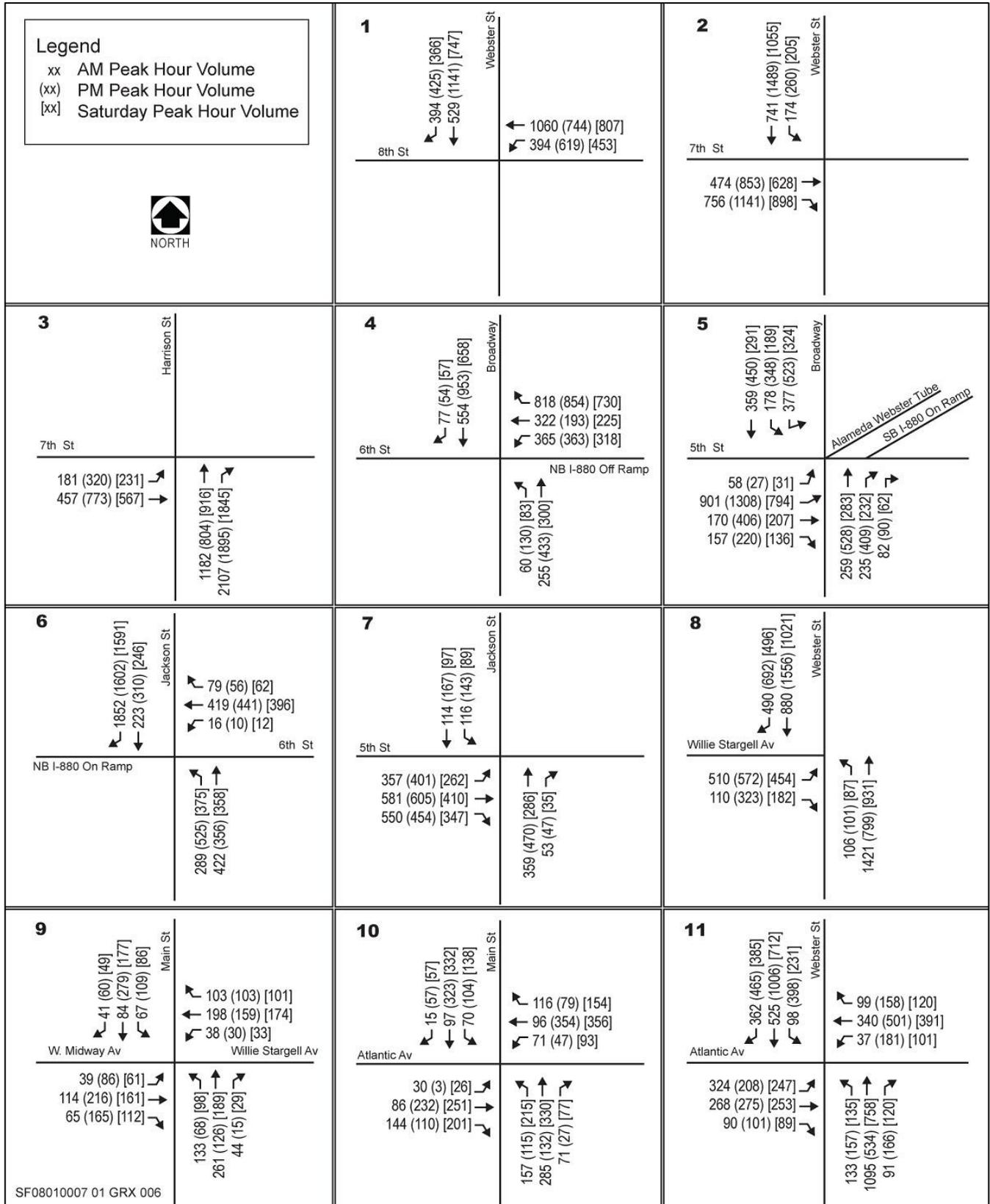
Sources: U.S. Census, 2000; AECOM, 2012

The traffic volumes during the weekday A.M. and P.M. peak hour and Saturday peak trip-generation hour at the study intersections are shown in Figure 4-2.

Transportation Network Modifications

Under Cumulative (2035) Baseline Conditions, the following roadway network changes are planned, programmed, and assumed within the City of Alameda:

- The Clement Street Extension from the intersection of Atlantic Avenue and Sherman Street to Grand Street, as a two-lane street;
- The Mitchell Street Extension from Mariner Square Loop to a new intersection on Main Street north of Singleton Avenue, as a two-lane street; and
- The 5th Street Extension from Willie Stargell Avenue north to Mitchell Street, as a two-lane street.
- Another planned improvement is the Broadway/Jackson Interchange at Interstate-880 (I-880). This project is a partnership among the Cities of Oakland and Alameda, Caltrans, ACTC, and other stakeholders. Its main goal is to improve traffic operations and circulation in the area around the I-880 Broadway/Jackson Street Interchange. Because of the absence of finalized design plans (the project is still in the environmental phase) and lack of assurance of full funding, this improvement was not assumed in Cumulative (2035) Baseline Conditions. Because the analysis presented in this traffic study does not assume the Broadway/Jackson Interchange project, the results of this analysis are therefore considered conservative.



Source: AECOM, 2012

Figure 4-2: Intersection Traffic Volumes under Cumulative (2035) Baseline Conditions

Cumulative (2035) Baseline Conditions (without Proposed Action) - Intersection and Roadway Levels of Service

Table 4-5 presents the summary LOS results for the study intersections under Cumulative (2035) Baseline Conditions (without Proposed Action). The baseline condition does not include the addition of the projected future traffic resulting from the Proposed Action. Even without the Proposed Action, three of the study intersections are projected to operate at unacceptable levels under Cumulative (2035) Baseline Conditions. The unacceptable performance of these three intersections is a result of other non-project cumulative actions. The three intersections include:

- 7th Street/Harrison Street during the weekday P.M. peak hour;
- Broadway/5th Street during the weekday P.M. peak hour; and
- Atlantic Avenue/Webster Street during the weekday A.M. and P.M. peak hours.

The remaining eight study intersections are projected to operate, without the addition of the Proposed Action, at acceptable levels as indicated by criteria of the Cities of Alameda and Oakland under Cumulative (2035) Baseline Conditions.

Table 4-6 presents the summary LOS results for the roadway segments under Cumulative (2035) Baseline Conditions (without Proposed Action). The table indicates that all of the roadway segments under Cumulative (2035) Baseline Conditions are forecasted to operate at acceptable levels as indicated by the City of Oakland's criteria.

Cumulative (2035) Baseline Conditions plus Proposed Action

The following presents the traffic operations and potential traffic impacts under the Cumulative (2035) Baseline Conditions plus Proposed Action at the 11 study intersections and 10 roadway segments. This includes both the Cumulative (2035) Baseline Condition in addition to the traffic projected as a result of the Proposed Action.

Traffic

Project-related construction activity—both construction truck traffic and additional vehicular traffic from construction workers—would not result in a significant cumulative impact to vehicular, pedestrian, and bicycle circulation. Parking demand generated by construction workers' personal vehicles is expected to be accommodated by existing parking facilities in the VA Development Area. Overall, construction-related transportation impacts under Alternative 1 would be temporary and would not result in a significant cumulatively adverse impact.

Several other projects such as the Oakland International Airport Runway Safety Area Program (Cumulative Project 18 listed in Table 4-1), Caltrans District 4 I-880 Operational and Safety Improvements at 23rd and 29th Avenue Overcrossings (Cumulative Project 11), and City of Alameda Landing Mixed-Use Project (Cumulative Project 2) could be under construction at the same time as the Proposed Action. The construction trips from these projects and the Proposed Action would cumulatively contribute to roadway volumes to I-880.

Table 4-5: Intersection Levels of Service—Cumulative Baseline Conditions (without Proposed Action)

Intersection	Peak Hour ¹	Year 2017 (without Proposed Action)		Year 2035 (without Proposed Action)	
		LOS	Delay ²	LOS	Delay ²
1 8th Street/Webster Street	Weekday A.M.	C	25.8	C	29.4
	Weekday P.M.	C	27.4	C	31.1
	Saturday	C	25.5	C	27.7
2 7th Street/Webster Street	Weekday A.M.	B	11.8	B	13.5
	Weekday P.M.	B	17.6	D	51.6
	Saturday	A	9.6	B	16.9
3 7th Street/Harrison Street	Weekday A.M.	B	16.1	C	24.1
	Weekday P.M.	D	41.4	F	114.0
	Saturday	B	13.2	C	27.0
4 Broadway/6th Street	Weekday A.M.	B	17.7	C	21.8
	Weekday P.M.	C	21.1	D	40.2
	Saturday	B	17.7	C	21.2
5 Broadway/5th Street	Weekday A.M.	C	33.4	D	50.0
	Weekday P.M.	E	74.9	F	119.2
	Saturday	C	28.2	C	32.6
6 Jackson Street/6th Street	Weekday A.M.	A	8.1	C	20.1
	Weekday P.M.	B	10.1	E	56.3
	Saturday	B	13.4	E	67.4
7 Jackson Street/5th Street	Weekday A.M.	C	31.9	D	50.4
	Weekday P.M.	B	15.1	D	35.3
	Saturday	B	13.5	B	14.6
8 Willie Stargell Avenue/Webster Street	Weekday A.M.	B	16.2	C	22.4
	Weekday P.M.	B	14.5	C	31.6
	Saturday	B	12.2	B	13.3
9 Willie Stargell Avenue/Main Street	Weekday A.M.	A	5.4	A	7.9
	Weekday P.M.	A	5.7	A	9.4
	Saturday	A	5.3	A	7.2
10 Atlantic Avenue/Main Street	Weekday A.M.	B	12.7	B	14.4
	Weekday P.M.	B	14.7	B	18.2
	Saturday	B	15.8	C	22.1
11 Atlantic Avenue/Webster Street	Weekday A.M.	D	43.7	F	95.8
	Weekday P.M.	C	26.7	E	64.6
	Saturday	C	23.7	C	31.6

Notes:

LOS = level of service

Bold indicates intersection operating at unacceptable levels (LOS F in downtown Oakland and LOS E or F in Alameda).

¹ "Saturday" indicates Saturday peak trip-generation hour of the project.

² Delay presented in seconds per vehicle.

Source: AECOM, 2012

Table 4-6: Roadway Segment Levels of Service - Cumulative Baseline Conditions (without Proposed Action)

Roadway Segment	Year 2017 (without Proposed Action)						Year 2035 (without Proposed Action)					
	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
	Volume	V/C ratio	LOS	Volume	V/C ratio	LOS	Volume	V/C ratio	LOS	Volume	V/C ratio	LOS
Northbound												
SR 260 Posey Tube	3,240	0.81	D	2,452	0.61	B	3,560	0.89	D	2,695	0.67	B
I-880 between 6th Street and I-980	3,766	0.38	A	4,507	0.45	A	4,472	0.45	A	5,352	0.54	A
I-880 between I-980 and 5th Street	2,015	0.25	A	2,746	0.34	A	2,288	0.29	A	3,118	0.39	A
I-880 between 5th Street and Union Street	5,063	0.84	D	4,868	0.81	D	5,681	0.95	E	5,462	0.91	E
I-880 between Union Street and 7th Street	4,004	0.50	A	3,938	0.49	A	4,529	0.57	A	4,454	0.56	A
I-880 between Embarcadero and 22nd Avenue	3,393	0.57	A	3,612	0.60	B	3,739	0.62	B	3,981	0.66	B
Southbound												
SR 260 Webster Street Tube	2,034	0.51	A	3,312	0.83	D	2,236	0.56	A	3,640	0.91	E
I-880 between 7th Street and Union Street	3,604	0.45	A	3,753	0.47	A	4,295	0.54	A	4,474	0.56	A
I-880 between 5th Street and 10th Avenue	3,940	0.49	A	3,602	0.45	A	4,402	0.55	A	4,025	0.50	A
I-880 between 10th Avenue and Embarcadero	3,321	0.55	A	3,233	0.54	A	3,702	0.62	B	3,603	0.60	B

Notes:

I-880 = Interstate 880; SR = State Route; V/C = volume-to-capacity

Bold indicates a roadway segment operating at an unacceptable level (i.e., LOS F)

Source: AECOM, 2012

It is anticipated that construction activities for the Proposed Action initial construction would take approximately 18 months to complete; these activities would begin in July 2015 and be completed in approximately December 2016. The Proposed Action would generate 498 daily construction vehicle trips during the peak month of construction. The construction vehicles would travel between I-880 and the VA Development Area. The AADT roadway volume on I-880 for Year 2010 near the Alameda Point Area is approximately 195,000 vehicles (Caltrans, 2010). The AADT is the total volume for the year divided by 365 days. Assuming a 1% growth rate per year, the estimated AADT for Year 2015 would be 204,950.

The construction trips from the Proposed Action plus those from other foreseeable projects would add to the projected volumes on I-880. Cumulatively, the projects could increase congestion and travel times, particularly during the peak-period commute hours. However, given the magnitude of future traffic volumes on this freeway and the temporary and variable nature of construction trips, the contribution of the Proposed Action to freeway operating conditions would be minimal. The peak volume of construction-related traffic from Alternative 1 would

be about 0.2% of projected I-880 AADT, so that the cumulative contribution of Alternative 1 would not be significant.

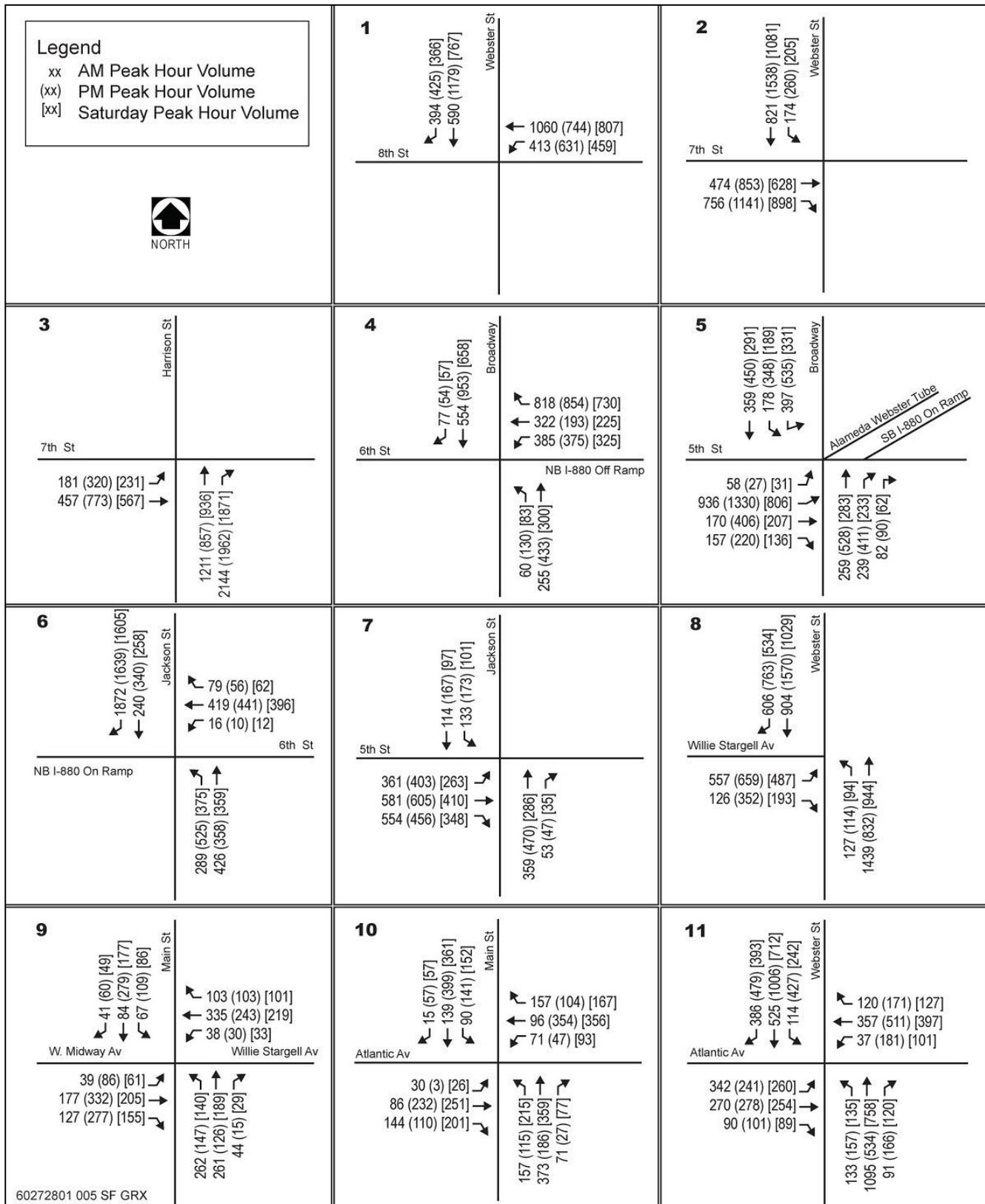
Project-generated year 2035 traffic volumes were added to Cumulative (2035) Baseline Condition traffic volumes to obtain the Cumulative (2035) Baseline plus Proposed Action traffic volumes. These traffic volumes reflect the assumptions regarding trip generation, trip distribution, mode split, and traffic assignment for the Proposed Action, described above. Cumulative (2035) Baseline Condition plus Proposed Action traffic volumes at the study intersections during the weekday a.m. and p.m. peak hours and the Saturday peak trip-generation hour for the Proposed Action are shown graphically in Figure 4-3.

Table 4-7 presents the summary LOS results for the study intersections under Cumulative (2035) Baseline Conditions plus Proposed Action. The same three intersections (i.e., 7th Street/Harrison Street [weekday P.M. peak hour]; Broadway/5th Street [weekday P.M. peak hour]; and Atlantic Avenue/Webster Street [weekday A.M. and P.M. peak hours]) that were identified as performing at unacceptable levels under Cumulative (2035) Baseline Conditions (without Proposed Action) continue to perform at an unacceptable level with the addition of the Proposed Action. Of note, these three intersections, at the specific peak hours, would operate at unacceptable levels without the implementation of the Proposed Action due the development and operation of other non-project actions in the study area. Cumulative conditions for years 2017 and 2035 with and without the Proposed Action at these three intersections are summarized in Table 4-8.

The remaining eight study intersections are projected to operate, with the addition of the Proposed Action, at acceptable levels as indicated by criteria of the Cities of Alameda and Oakland under Cumulative (2035) Baseline Conditions.

As identified in Table 4-8, during Cumulative (2017) Baseline Condition plus Proposed Action all study intersections would perform at acceptable levels, including 7th Street/Harrison Street, Broadway/5th Street, and Atlantic Avenue/Webster Street. Importantly, the initial phase of the Proposed Action (i.e., VHA OPC, VBA Outreach Office, Conservation Management Office, and first portion of the NCA Cemetery) would be completed and operational during this time period. This initial phase would contribute the largest share of traffic resulting from the Proposed Action to the study area transportation network. When added to other non-project actions during this time period, the study area intersections would operate at acceptable levels and would not have a significant adverse cumulative impact.

During year 2035, the three intersections are projected to perform at unacceptable levels without the contribution of the Proposed Actions traffic (see Table 4-8). The deterioration of the performance of these intersections is a result from other foreseeable non-project actions occurring in the study area, including the redevelopment of Alameda Point. Importantly, with the Proposed Action, the intersections would already be performing at unacceptable levels by the year 2035. Subsequent expansion of the cemetery (i.e., approximately 6 additional acres every 10 years) is only projected to contribute minimal additional traffic to the study area following the construction and operation of the initial phase of the Proposed Action in 2017, when the intersections were performing at acceptable levels with the addition of the Proposed Action and other cumulative projects. The minimal additional traffic resulting from the Proposed Action will not, cumulatively, make the already unacceptable intersections significantly worse.



Source: AECOM, 2012

Figure 4-3: Intersection Traffic Volumes under Cumulative (2035) Baseline Conditions plus Proposed Action

Table 4-7: Intersection Levels of Service— Cumulative (2035) Baseline Conditions (without and with Proposed Action)

	Intersection	Peak Hour ¹	Year 2035 (without Proposed Action)		Year 2035 (plus Proposed Action)	
			LOS	Delay ²	LOS	Delay ²
1	8th Street/Webster Street	Weekday A.M.	C	29.4	C	29.7
		Weekday P.M.	C	31.1	C	31.7
		Saturday	C	27.7	C	27.8
2	7th Street/Webster Street	Weekday A.M.	B	13.5	B	13.9
		Weekday P.M.	D	51.6	E	58.7
		Saturday	B	16.9	B	17.1
3	7th Street/Harrison Street	Weekday A.M.	C	24.1	C	26.4
		Weekday P.M.	F	114.0	F	127.3
		Saturday	C	27.0	C	29.7
4	Broadway/6th Street	Weekday A.M.	C	21.8	C	21.9
		Weekday P.M.	D	40.2	D	40.1
		Saturday	C	21.2	C	21.2
5	Broadway/5th Street	Weekday A.M.	D	50.0	E	55.8
		Weekday P.M.	F	119.2	F	124.4
		Saturday	C	32.6	C	33.3
6	Jackson Street/6th Street	Weekday A.M.	C	20.1	C	20.8
		Weekday P.M.	E	56.3	E	62.8
		Saturday	E	67.4	E	68.6
7	Jackson Street/5th Street	Weekday A.M.	D	50.4	D	51.2
		Weekday P.M.	D	35.3	E	55.9
		Saturday	B	14.6	B	14.7
8	Willie Stargell Avenue/Webster Street	Weekday A.M.	C	22.4	C	25.6
		Weekday P.M.	C	31.6	D	38.3
		Saturday	B	13.3	B	13.7
9	Willie Stargell Avenue/Main Street	Weekday A.M.	A	7.9	B	12.4
		Weekday P.M.	A	9.4	B	15.4
		Saturday	A	7.2	A	7.9
10	Atlantic Avenue/Main Street	Weekday A.M.	B	14.4	B	16.1
		Weekday P.M.	B	18.2	B	19.4
		Saturday	C	22.1	C	22.8
11	Atlantic Avenue/Webster Street	Weekday A.M.	F	95.8	F	104.3
		Weekday P.M.	E	64.6	E	71.6
		Saturday	C	31.6	C	32.5

Notes:

Bold indicates intersection operating at unacceptable levels (LOS F in Downtown Oakland, and LOS E or F in Alameda).

¹ "Saturday" indicates Saturday peak trip generation hour of the Project.

² Delay presented in seconds per vehicle.

Source: AECOM, 2012

Table 4-8: Projected Unacceptable Intersections - Cumulative Conditions (Year 2017 and 2035) with and without the Proposed Action

Intersection	Peak Hour ²	Year 2017 ¹ Cumulative Conditions		Year 2035 Cumulative Conditions	
		(without Proposed Action)	(plus Proposed Action)	(without Proposed Action)	(plus Proposed Action)
		LOS (Delay) ³	LOS (Delay) ³	LOS (Delay) ³	LOS (Delay) ³
7th Street/Harrison Street	Weekday A.M.	B (16.1)	B (16.3)	C 24.1	C (26.4)
	Weekday P.M.	D (41.4)	D (50.7)	F 114.0	F (127.3)
	Saturday	B (13.2)	B (13.2)	C 27.0	C (29.7)
Broadway/5th Street	Weekday A.M.	C (33.4)	D (35.3)	D 50.0	E (55.8)
	Weekday P.M.	E (74.9)	E (78.3)	F 119.2	F (124.4)
	Saturday	C (28.2)	C (28.3)	C 32.6	C (33.3)
Atlantic Avenue/Webster Street	Weekday A.M.	D (43.7)	D (49.5)	F 95.8	F (104.3)
	Weekday P.M.	C (26.7)	C (27.4)	E 64.6	E (71.6)
	Saturday	C (23.7)	C (23.8)	C 31.6	C (32.5)

Notes:

¹ The majority of the Proposed Action will be constructed and operational by the year 2017, including the VHA OPC, VBA Outreach Office, Conservation Management Office, and first phase of the NCA Cemetery.

² Saturday peak trip generation hour.

³ Delay presented in seconds per vehicle.

Source: AECOM, 2012

Further, the total effect on the whole resource within the study area, even with the three intersections performing at unacceptable levels, would continue to operate at acceptable levels. Unlike a direct or indirect effect, a cumulative impact is an impact on the whole and not the individual parts or components of a resource. Therefore, there may not be a significant adverse cumulative impact even with three individual underperforming intersections.

Therefore, as a total cumulatively impact, the Proposed Action would only minimally contribute to an adverse cumulative impact (i.e., minimal increase of projected delay at three already unacceptably performing intersections). However, the magnitude and significance of the cumulative effects, resulting from the Proposed Action, does not reach a level of magnitude to be considered a significant adverse cumulative impact on the total resource. This is because 1) after build-out of the initial and largest phase of the Proposed Action (year 2017) all study area intersections and roadway segments would operate at acceptable levels even under cumulative conditions; 2) the intersections of 7th Street/Harrison Street, Broadway/5th Street, and Atlantic Avenue/Webster Street would all be performing at unacceptable levels regardless of the introduction of the Proposed Action due to traffic generated by other non-project actions; 3) the Proposed Action would only generate and contribute minimal traffic to the study area following the initial phase (after 2017); and 4) the total resource would not be significantly impacted and the entire transportation and traffic resource would continue to operate at acceptable levels, even with three intersections performing at unacceptable levels.

Table 4-9 presents the summary LOS results for the roadway segments under Cumulative (2035) Baseline Conditions plus Proposed Action. The results show that all the roadway segments are forecasted to operate at acceptable conditions, LOS E or better, during the weekday A.M. and P.M. peak hours.

Table 4-9: Roadway Segment Levels of Service - Cumulative (2035) Baseline Conditions (without and with Proposed Action)

Roadway Segment	Year 2035 (without Proposed Action)						Year 2035 (plus Proposed Action)					
	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
	Volume	V/C ratio	LOS	Volume	V/C ratio	LOS	Volume	V/C ratio	LOS	Volume	V/C ratio	LOS
Northbound												
SR 260 Posey Tube	3,560	0.89	D	2,695	0.67	B	3,626	0.91	E	2,815	0.70	C
I-880 between 6th Street and I-980	4,472	0.45	A	5,352	0.54	A	4,492	0.45	A	5,389	0.54	A
I-880 between I-980 and 5th Street	2,288	0.29	A	3,118	0.39	A	2,304	0.29	A	3,147	0.39	A
I-880 between 5th Street and Union Street	5,681	0.95	E	5,462	0.91	E	5,697	0.95	E	5,491	0.92	E
I-880 between Union Street and 7th Street	4,529	0.57	A	4,454	0.56	A	4,545	0.57	A	4,483	0.56	A
I-880 between Embarcadero and 22nd Avenue	3,739	0.62	B	3,981	0.66	B	3,774	0.63	B	4,002	0.67	B
Southbound												
SR 260 Webster Street Tube	2,236	0.56	A	3,640	0.91	E	2,376	0.59	A	3,726	0.93	E
I-880 between 7th Street and Union Street	4,295	0.54	A	4,474	0.56	A	4,330	0.54	A	4,496	0.56	A
I-880 between 5th Street and 10th Avenue	4,402	0.55	A	4,025	0.50	A	4,419	0.55	A	4,055	0.51	A
I-880 between 10th Avenue and Embarcadero	3,702	0.62	B	3,603	0.60	B	3,719	0.62	B	3,633	0.61	B

Source: AECOM, 2012

Pedestrian

Pedestrian walk-ins are anticipated to be infrequent and pedestrian volumes are expected to be very low. Pedestrian trips generated by Proposed Action would include walk trips to and from the VA Development Area. A substantial change in pedestrian circulation is not expected under Cumulative (2035) plus Project Alternative 1 (Phases 1–11) at full build-out conditions. Build-out would not conflict with existing pedestrian facilities or propose design features that could be harmful to pedestrian operations. Therefore, cumulative impacts on pedestrian facilities would not be significant.

Bicycle

Bicycle trips generated by the Proposed Action are expected to be infrequent (Table 4-4). With the current bicycle and traffic volumes on the adjacent streets, bicycle travel generally occurs with limited impedances or safety issues. The negligible increase in bicycle trips would not be substantial enough to affect overall bicycle circulation or the operations in the area. Alternative 1 buildout would not conflict with existing or planned bicycle

facilities or propose design features that could be harmful to bicycle operations. Therefore, cumulative impacts on bicycle facilities would not be significant.

Parking and Loading

Based on the City of Alameda Municipal Code's requirements discussed in Section 3.3 (Transportation, Traffic, Circulation, and Parking), VA would be required to provide 623 parking spaces and one loading space when implementing Alternative 1. VA would provide approximately 640 parking spaces for users of the proposed facilities and two full-size truck bays to accommodate a typical semi-truck (approximately 55 feet in length), exceeding the Municipal Code's requirements. Thus, adequate parking would be provided on site, and the Proposed Action would not be expected to generate demand for parking off site. Therefore, no significant cumulative impact would be expected on parking resources in the surrounding area.

Transit

AC Transit Bus Line 31 is the closest bus line to the VA Development Area, with a bus stop approximately 1 mile from the eastern edge of the VA Development Area. Line 31 provides service with two buses in the northbound direction and two buses in the southbound direction with approximately 30-minute headways during the peak commute periods. A future route alignment closer to or into the VA Development Area for Bus Line 31 could be possible after build-out of the proposed VHA OPC, VBA Outreach Office, Conservation Management Office, and the first phase of the NCA Cemetery, but that would be determined and approved by AC Transit. Assuming that the existing transit service would remain unchanged, the estimated number of new project-related transit riders using the bus stop would equate to approximately two more riders per bus during the weekday a.m. and p.m. peak hours. These new riders could be accommodated by the current available ridership capacity of the bus service in the area. The Proposed Action would not be expected to have a substantial effect on transit operations. Therefore, cumulative impacts on transit would not be significant.

Site Access and Circulation

Access to the VA Transfer Parcel under Cumulative (2035) Baseline Conditions would be similar to access provided under 2017 conditions. The main access roadways to the proposed VHA OPC building would tie into the existing City of Alameda roadway system and would be located on the northern boundary of the VA Development Area. Taxis, private vehicles, and emergency vehicles would utilize the new main access and internal roadways. Additional emergency vehicle access, including an emergency access road, would be provided on the eastern perimeter of the VA Transfer Parcel. Build-out would not have a cumulative impact on site access and circulation or emergency vehicle access, because access to and from the VA Transfer Parcel, as well as internal circulation within the property, is sufficient. Cumulative impacts related to site access and circulation would not be significant.

Traffic Safety

The utility corridor would be built to City of Alameda design standards because the internal main access roadway would be a public street. Also, the internal main access roadway would be built to the standards of the American Association of State Highway and Transportation Officials (AASHTO) because this would be a federal roadway. The internal roadways that would provide circulation within the NCA Cemetery would be built in compliance

with Section 12.7 of VA's *National Cemetery Administration (NCA) Facilities Design Guide* (VA, 2010). The *National Cemetery Administration (NCA) Facilities Design Guide* specifies the road widths and minimum radius for the various types of roads (i.e., entrance road, primary road, secondary road, service roads, and committal service shelter drives). The design of the NCA Cemetery's roads would accommodate anticipated traffic volume at a maximum design speed of 15 miles per hour (VA, 2010). Through compliance with the roadway design standards of the City of Alameda, AASHTO, and NCA, cumulative traffic safety impacts would be negligible and would not result in a significant cumulative impact.

Conclusion

There would be no significant adverse cumulative impacts from implementation of the Proposed Action under either Alternative 1 or 2.

4.6.3 References

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