UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 15, 2014

Ms. Teresa Bresler
Navy Facilities Engineering Command Southwest
2730 McKean Street, Building 291
San Diego, California 92136

Subject: EPA Comments on the Navy Base Coronado Coastal Campus Draft Environmental Impact Statement, San Diego, California (CEQ # 20140199)

Dear Ms. Bresler:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

The Draft Environmental Impact Statement (DEIS) assesses the impacts from the development of nearly 1.5 million square feet of facilities to provide for administration, logistics and community support, operational units, and training for active Special Warfare Operators or Sea, Air, and Land (SEAL) teams at a consolidated Coastal Campus at Navy Base Coronado. The DEIS states that the proposed action consists of 24 military construction projects that would be constructed over 10 years at a cost of $700 million.

The proposed development site, on a low-laying coastal peninsula that currently experiences flooding and sea-water infiltration, is vulnerable to climate change effects, particularly sea-level rise and potentially increased incidence and severity of winter storms and erosion. The DEIS does not discuss these effects, nor does it incorporate adaptation measures to protect the project. Adaptation measures, themselves, may have environmental impacts that should be evaluated. The lack of adaptation measures for development on a site with a high coastal vulnerability to sea level rise appears inconsistent with the President's Climate Action Plan and the direction of *Executive Order 13653 - Preparing the United States for the Impacts of Climate Change*, which encourages actions by the Federal government to enhance climate preparedness and resiliency in its programs and operations. This call for resilience is echoed in the May 2014 report *National Security and the Accelerating Risks of Climate Change*[1], prepared by the Center for Naval Analysis, Military Advisory Board. Relevant recommendations regarding climate change resiliency are available in the report *Sea Level Rise – Adaptation Strategy for San Diego Bay* (Jan. 2012), which was developed with the participation of Navy Base Coronado and other Navy staff. The lack of discussion of the project site's vulnerability to the effects of climate change is a serious omission in the DEIS that should be rectified in the Final EIS.

[1] http://www.cna.org/sites/default/files/MAB_2014.pdf

Based on the lack of discussion of climate change effects relevant to the proposed project, and the impacts that adaptation measures could have on environmental resources, we have rated the DEIS as *Environmental Concerns – Insufficient Information* (EC-2), (see enclosed "Summary of Rating Definitions"). These and other concerns are discussed further in the attached Detailed Comments. We recommend that the Final EIS include analyses that evaluate the potential impacts from climate change on the project; identify, describe, and, as appropriate, commit to adaptation measures that could be incorporated into the project to increase its resiliency and protect the $700 million federal investment; and evaluate the impacts of such adaptation measures on environmental resources. If the analysis of climate change effects reveals significant new information, or the incorporation of adaptation measures would constitute a substantial change in the proposed action, the Navy should consider whether further NEPA documentation and public review are warranted, pursuant to 40 CFR 1502.9(c). For future projects, we recommend that information and analysis regarding climate change impacts and adaptability measures be included in the Draft EISs.

We appreciate the opportunity to review this DEIS. If you have any questions, please refer staff to Karen Vitulano at (415) 947-4178. Please send a copy of the Final EIS to this office (mail code ENF-4-2) when it is electronically filed with our Washington, D.C. office.

Sincerely,

/s/

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosure: Summary of EPA Rating Definitions
EPA's Detailed Comments

cc: Michael Hornick, Federal Emergency Management Agency

Flooding and Climate Change Effects

The Navy proposes to construct 1.5 million square feet of facilities for the new Coastal Campus on the Silver Strand Training Complex– South (SSTC-South) site on Navy Base Coronado. This site lies within the low-lying, relatively level coastal area on the ½-mile wide Silver Strand peninsula, between the Pacific Ocean and San Diego Bay, near sea level.

Excluding the beaches, the DEIS states that the elevation range on SSTC-South is between 10 feet above mean sea level in the southern portion to 40 feet in the north (p. 3.2-1). According to Google Earth, much of the site is below 40 foot elevation, with a substantial portion below 30 foot elevation. The DEIS does not provide a site plan, stating that the project would be a design/build project and the specific location and characteristics of the structures will not be known in detail until after award of the construction contract(s) (p. 3.2-7). Nevertheless, it implies that most of the development would be in the northern portion by stating that most of the development would be in the area not designated as tsunami inundation area (p. 3.2-5) and only structures in low-lying areas adjacent to the Pacific coast lying would be subject to damage from tsunamis (p. 3.2-9).

According to the DEIS, the potential for flooding[2] on the Coronado Peninsula is high (p. 3.5-10) and the development site at SSTC-South is susceptible to localized flooding and has been known to contain seasonal pools created by storm water runoff due to its low-lying flat terrain, poor drainage, and high water table (p. 3.5-10). Runoff from the City of Imperial Beach and sea water infiltration during high tides contribute to the seasonal formation of these pools. The impact analysis criteria include evaluating the potential for the site to result in substantial flooding or ponding of surface runoff, but the DEIS does not evaluate this factor, nor does it evaluate whether there would be a substantial increase in impervious surfaces and associated increased runoff, another impact assessment criterion (p. 3.5-10). It states only that the proposed action would increase impervious surfaces and associated runoff compared to existing conditions, without indicating how much of the 177 acre site will become impervious. The DEIS states that low impact development (LID) features will be installed and, therefore, impacts will not be significant; but it does not evaluate their use or function in this project setting (poor drainage, high water table, etc.).

EPA is particularly concerned by the DEIS' lack of discussion of the potential environmental impacts of the project in the context of reasonably foreseeable climate change effects. In particular, sea level rise -- coupled with potential increased frequency and severity of heavy rainfall events and flooding, especially during high tides, winter storms, and when exacerbated by El Niño occurrences -- could significantly impact the coastal site due to its low elevation and existing flooding issues. The U.S. Geological Survey ranked the San Diego coast as very high risk in its assessment of coastal vulnerability to sea-level rise[3]. Simulations prepared by local stakeholders predict an increasing tendency for heightened sea level events to persist for more hours, which will likely cause greater coastal erosion and related damage[4]. None of these effects are identified or evaluated in the DEIS. It is important that adaptation measures be identified and evaluated in the impact assessment, since some measures could have significant impacts to environmental resources (e.g. sea walls or massive soil importing).

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[2] The Federal Emergency Management Agency (FEMA) has not designated flood zones within Navy Base Coronado since military properties are exempt from FEMA regulations.

[3] See http://pubs.usgs.gov/of/2000/of00-178/

[4] Climate Change-Related Impacts in the San Diego Region By 2050, (Aug 2009). Available: http://www.energy.ca.gov/2009publications/CEC-500-2009-027/CEC-500-2009-027-F.PDF

Executive Order 13653 - Preparing the United States for the Impacts of Climate Change encourages actions by the Federal government to enhance climate preparedness and resiliency. The recent report by the Center for Naval Intelligence Military Advisory Board *National Security and the Accelerating Risks of Climate Change* (May 2014)[5] emphasizes the importance of considering projected impacts of climate change on future training operations when building new training facilities, stating that resilience and training flexibility should be hallmarks of all future state-of-the-art facilities (p. 23). The project description in the DEIS does not identify or imply any adaptation measures to increase resilience of the proposed project to climate change. Rather, the DEIS indicates that construction of the proposed military construction projects would be accomplished without substantial changes to the existing landform (p. 3.2-7).

San Diego area local governments, with the participation of federal agencies, including the Federal Emergency Management Agency (FEMA), the U.S. Fish and Wildlife Service, and the Navy, produced the report *Sea Level Rise – Adaptation Strategy for San Diego Bay* (Jan. 2012)[6]. The report concludes that the greatest cause for concern in the next few decades will be an increase in the kind of flooding that the region already experiences due to waves, storm surge, El Nino events, and very high tides. The report emphasizes the need to plan for extreme events to become more common and more severe within this period. The recommended adaptation strategies include incorporating sea level rise and associated impacts into relevant projects, and performing more detailed vulnerability assessments at a site-specific level as significant plans or capital projects are undertaken.

The importance of adaptation planning was also emphasized in a recent Government Accountability Office Report that concluded that investing in resilience can reduce the potential impacts of climate-related events[7]. This report highlighted the vulnerability of existing DoD facilities and cited the 2014 Quadrennial Defense Review, in which DoD stated that the impacts of climate change may undermine the capacity of domestic installations to support training activities.

> *Recommendation:* Because of the high-risk and vulnerability of the project site to the impacts of climate change – in particular, sea level rise – and the potential for adverse environmental impacts to occur as a result of measures that may be needed to reduce this vulnerability, we recommend that the Final EIS include an analysis of climate change effects on the proposed action. Include a more robust assessment of impacts from flooding from more frequent and severe storms, El Nino events, high tides along with predicted sea level rise and coastal erosion at the site. Describe the potential effects of sea-level rise on project infrastructure, including water, wastewater, stormwater facilities, roads, underground storage tanks, and existing leach fields. Identify adaptation measures that can be integrated into the project to increase its resilience to climate change effects and to minimize effects on project infrastructure. Evaluate impacts of these adaptation measures on environmental resources.
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> The FEIS should also identify the cumulative impacts that climate change will contribute to resources that are also effected by the project, including habitat, special status species, and effects on contaminated areas at the development site.

[5] Available: http://www.cna.org/sites/default/files/MAB_2014.pdf
[6] Available: http://www.sdfoundation.org/Portals/0/Newsroom/PDF/Reports/SLRAStrategy_Exec_Sum.pdf
[7] U.S. Government Accountability Office, *BUDGET ISSUES: Opportunities to Reduce Federal Fiscal Exposures through Greater Resilience to Climate Change and Extreme Weather*, July 29, 2014. Available: http://www.gao.gov/products/GAO-14-504T

Air Quality

The Air Quality analysis states that, "*as shown in Section 3.9 Traffic and Circulation, the proposed project traffic would not create failing project intersections (Level of Service E/F) or worsen failing project intersections; therefore, no localized carbon monoxide (CO) impacts would occur as a result of Proposed Action alternatives*" (p. 3.3-16). However, the traffic analysis in Section 3.9 does identify several project intersections that would experience a significant traffic impact (defined as causing a shift from an LOS of D or better to an LOS of E/F, or as a greater than 2 second delay at an intersection currently operating at LOS E or F) during both construction and operations. This appears inconsistent with the statement in the air quality section that states that the proposed project traffic would not create failing project intersections (LOS E/F) or worsen failing project intersections.

The DEIS identifies several measures to minimize air quality pollutants, which are primarily for dust control. It also states that diesel construction equipment and vehicles that are compliant with applicable California Air Resources Board (CARB) Air Toxic Control Measures to reduce diesel particulate matter would be used at these sites, which are adjacent to major and minor roadways that pass through developed and populated areas (p. 3.3-17).

> *Recommendation:* Clarify, in the FEIS, whether the conclusions regarding CO impacts considered the traffic analysis results in the Traffic and Circulation chapter.
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> Because the project site is located in a nonattainment area for 8-hour ozone (marginal), we recommend consideration of the following additional mitigation measures for the construction phase:
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> - Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections (Note: CARB has a number of mobile source anti-idling requirements, see their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm);
> - Maintain and tune engines per manufacturer's specifications to perform at CARB and/or EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
> - If practicable, lease new, clean equipment meeting the most stringent of applicable Federal[8] or State Standards[9]. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible;
> - Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using CARB and EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and
> - Consider alternative fuels such as natural gas and electricity (plug-in or battery).

Hazardous Materials

The DEIS identifies two CERCLA sites (Installation Restoration Site 10 and 11) on the development site at SSTC South (p. 3.4-8). The Proposed Action would disturb residual petroleum contamination in soil and/or groundwater from former USTs and asbestos contamination in soil from IR Site 11. The DEIS indicates that further actions are still being conducted for IR Site 10. We appreciate that the DEIS states that precautions would be taken during construction to screen for potential hazardous constituents

[8] EPA's website for nonroad mobile sources is http://www.epa.gov/nonroad/.
[9] For ARB emissions standards, see: http://www.arb.ca.gov/msprog/offroad/offroad.htm.

in soil and groundwater to minimize risks to human health and the environment and protect workers, and that any contaminated soils excavated during site improvements would be managed and disposed of in accordance with Navy regulations. Construction work within the identified Installation Restoration sites also requires thoughtful coordination with the environmental program and state regulators to ensure that construction work would not disrupt ongoing remedial actions or result in changes in site conditions that would affect cleanup progress, e.g. disturbing contaminated soil or causing contaminated groundwater to migrate in a way that would disrupt an ongoing remedial investigation.

Recommendation: We recommend that the analysis in the FEIS describe how project construction would interface with, or affect, ongoing remedial actions and whether the project would affect cleanup schedules.

Sustainability

We request clarification, in the FEIS, regarding the inclusion of the following sustainability elements, which are mentioned in the DEIS, but do not appear to be required project elements:

- ***LEED Certification***
  The DEIS does not state that the new campus facilities will be green building certified under Leadership in Energy and Environmental Design (LEED) or another system. LEED is mentioned in the noise chapter where it states that new facilities would include LEED-certified heating, ventilation and air conditioning components to minimize noise (p. 3.6-15), and LEED is also mentioned in the avoidance and minimization measures for migratory birds, noting that bird-friendly designs can contribute to LEED certification (p. 5-18). We understand that it has been a DoD policy that new buildings will be certified LEED Silver. Please confirm in the FEIS that the NBC Coastal Campus facilities would be constructed to meet LEED Silver certification standards. We also understand that passage of the National Defense Authorization Act for fiscal year 2014 now allows DoD to pursue LEED Gold or Platinum certification. We recommend that the FEIS discuss the possibility of pursuing the highest feasible LEED or equivalent certification for the campus.

- ***Construction and Demolition (C&D) Debris Recycling***
  The DEIS references Commander Navy Region Southwest Instruction 11350.1B, which requires a 50% diversion of C&D debris (p. 3.12-8); however, the DEIS states that a worst case scenario of no C&D reuse on site would result in 5,400 roundtrip truck trips to haul approximately 50,000 cubic yards of demolition materials (p. 3.6-12). We recommend that the FEIS commit to at least 50% reuse of C&D debris or explain why some or all of it would have no onsite reuse potential such that it would need to be shipped offsite.

- ***Use of Rooftop Photovoltaics***
  The DEIS states that "it is not known how much photovoltaics would be used since the building design has not occurred; however, architectural projections estimate that up to 67 percent of rooftop space could be used for photovoltaics" (p. 3.12-11). We recommend that the FEIS commit to maximizing the use of photovoltaics, including on buildings and on carports in parking lots, and include this requirement in the design specifications.

- ***Graywater use in buildings***
  The DEIS states that the design features for stormwater management would offer a supplemental resource for irrigation and/or graywater use in facility buildings (p. 3.12-13). We recommend that the FEIS indicate whether the building design will include graywater use for facility buildings and, if so, commit to this design feature so it is included in design specifications.