Supplemental Environmental Assessment
Powertrain PN 64026
Corpus Christi Army Depot, at Naval Air Station Corpus Christi, Texas

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Supplemental Environmental Assessment for Powertrain Project PN 64026

1.0. Introduction

This Supplemental Environmental Assessment (EA) evaluates the potential environmental impacts of expanding the footprint of the Powertrain Project (PN 64026) at Corpus Christi Army Depot (CCAD) by an additional 12.8 acres, constructing a new administrative annex, relocating as well as enlarging a proposed electrical duct bank, and changing and defining the location of a proposed communications duct bank to terminate at the new administrative annex facility. The analysis includes the impacts that could potentially result from implementation of activities associated with adding the property to the Installation Service Support Agreement (ISSA), construction of facilities on the added property, installation of the duct banks, already implemented improvements to stormwater infrastructure, and long term operation of the facilities.

This Supplemental EA has been conducted in accordance with the National Environmental Policy Act (NEPA), as amended (42 U.S.C. §§ 4321 et seq.), and regulatory requirements including the Council on Environmental Quality's 40 Code of Federal Regulations (CFR) Parts 1500-1508, U.S. Army's 32 CFR Part 651, and U.S. Navy's 32 CFR Part 775.

1.1. Background

CCAD is located within the boundaries of Naval Air Station Corpus Christi (NASCC). The Army is a tenant on the Installation. Therefore, NASCC is a cooperating agency on this EA since it has jurisdiction by law over activities on the Installation.

CCAD serves as the Army's premier and largest facility that repairs and overhauls rotary wing aircraft. CCAD was established at NASCC in 1961 and is the leading center of excellence for the modification, repair, and overhaul of rotary wing and unmanned aircraft components and platforms. CCAD is the largest tenant at NASCC with nearly 60 buildings and 2.3 million ft^2 of industrial space on approximately 158 acres.

CCAD is funded under the Army Working Capital Fund, and therefore must sustain its capability based on reimbursement by customers who use its services. The competitive nature of this mission and business caused CCAD to incur production and operation challenges as a result of aging equipment and facilities. Present and future technological advances on rotary and unmanned equipment require upgrades of capabilities that include the most modern and efficient technologies in order to meet client needs. In an attempt to remedy challenges experienced in a changing environment and create a solid future of support to the warfighter, CCAD needs to conduct upgrades and modernize its facilities.

The Powertrain Project (PN 64026) was analyzed in 2015 as a follow up to a 2009 EA titled, "Building 8 Replacement Facility," that examined construction and operation of new, modernized facilities to enhance the ever changing CCAD mission requirements. The two separate EAs concluded with Findings of No Significant Impact (FONSI) for the proposed construction and operation associated with the upgrade of facilities. Those EAs and their FONSIs are hereby incorporated by reference.

This Supplemental EA evaluates the direct, indirect, and cumulative effects that are associated with increasing the footprint of the Powertrain Project, relocating and enlarging a proposed

electrical duct bank, changing and defining the location of a proposed communications duct bank to terminate at the new administrative annex facility, and already implemented improvements to stormwater management infrastructure not previously assessed in the 2015 EA.

1.2. Synopsis of Previous Analysis

The Proposed Action is a continuation of the larger project analyzed in the 2009 EA entitled, “Building 8 Replacement Facility,” and followed with the 2015 EA entitled, “Powertrain PN 64026,” which analyzed additional phases of the proposed replacement facility. The 2009 EA evaluated relocation and construction of the Building 8 replacement facility and included two primary components:

1) The demolition of 23 existing NASCC and CCAD buildings totaling 329,457 square feet (ft^2), that included the demolition and replacement of the back nine holes on the Gulf Winds Golf Course; and

2) The construction of the Building 8 replacement facility including the entire nine phases of the proposed 1,300,000-ft^2 facility to be constructed.

Subsequently, the 2015 EA included vital project changes and completed analyses of the build out, relocation of NASCC facilities, and the demolition of Building 8 that had not been addressed in the 2009 EA. Further, it removed the demolition and replacement of the nine holes on the golf course and expanded the demolition of facilities by 972,598 ft^2 to 1,342,665 ft^2. Both EAs concluded that no significant unavoidable impacts to environmental, socioeconomic, visual, or scenic resources would occur as a result of the implementation of the Proposed Action, and FONSIs were issued reflecting these determinations.

Since the publication of the FONSI for the 2015 EA, several changes to the project have been proposed that warrant this supplemental EA. The new proposed Powertrain Project footprint would include an additional 10 acres of leased property that would be added to CCAD's ISSA. Additionally, a proposed electrical duct bank would need to be re-routed to avoid an Installation Restoration site, and would then disturb an additional 2.8 acres of land. Stormwater detention infrastructure was constructed in November 2018. Further, proposed access roads would need to be relocated to better accommodate site security and traffic flow. All of these additions and proposed changes warrant additional analysis.

1.3. Purpose and Need for the Proposed Action

The purpose of the Proposed Action is to provide supporting facilities and associated infrastructure for CCAD administration activities and to resolve stormwater infrastructure problems. The Proposed Action is needed because the approved Powertrain Project Expansion plans in 2015 did not allocate enough space for CCAD administration support, and the planned stormwater management infrastructure was inadequate.

The purpose of the additional acreage is to provide a 156,091 ft^2 administrative annex that houses safety, engineering, environmental, and civilian personnel services as well as additional parking. There is no space available in the previously analyzed Powertrain Project areas that would accommodate these personnel, and the current locations where the staff are located are scheduled for demolition. If space were to be made available within the current Powertrain

Project footprint, production would be limited and CCAD would not be able to accomplish its mission. The additional parking would remedy CCAD's persistent lack of available parking.

During a routine review of the proposed Powertrain Project, it was determined that the original proposed size and location of the electrical duct bank would not support the Powertrain facility. The proposed electrical duct bank was enlarged and moved as shown in Figure 2 to accommodate the increased requirement. The Proposed Action would result in additional land disturbance that was not examined in the 2009 or 2015 EAs for the Powertrain Project.

CCAD is funded under the Army Working Capital Fund, which means its customers pay for its services. CCAD provides services to many other entities besides the Army and other DoD customers, including but not limited to North Atlantic Treaty Organization participating countries and other allies of the United States. As a result of these reimbursable and working capital funding requirements, CCAD must compete on the open market for business. Therefore, without the Proposed Action, CCAD would be unable to compete successfully. The expansion of the Powertrain Project footprint by an additional 12.8 acres would allow CCAD to continue its mission and provide the highest quality work and components at the lowest cost to its customers, supporting the modern warfighter.

2.0. Description of the Proposed Action and Alternatives

2.1. Proposed Action

Under the Proposed Action, CCAD would expand its footprint by approximately 12.8 acres. The Proposed Action would relocate and enlarge a proposed electrical duct bank, modify proposed access roads, construct a new 156,091 ft^2 administrative annex with a parking lot, construct a two-story parking garage, modify the proposed communications duct bank to terminate at the new administrative annex facility, and revise the ISSA to accommodate this acreage. Ancillary features include a dumpster enclosure, service drive, and mechanical yard on the western end of the administrative annex. There are additional stormwater infrastructure modifications proposed for Phases 5 and 6. However, due to the length of time before these projects would be implemented, the proposed projects are not ripe for analysis. In the future, these proposed projects will undergo the appropriate NEPA analysis as necessary.

The Proposed Action provides a safe and efficient layout intended to best serve the needs of CCAD. The plan is designed to minimize future disruption to the site as the final phases of Building 1700 are constructed, so an additional road would be added to link the site together. Figure 1 shows the complete layout of the site including all the phases of the Building 1700 project.

The proposed spine road would provide a central artery for the ingress and egress of privately owned vehicles, delivery trucks, and CCAD carts. The road would connect directly to Midway Avenue and Avenue E with two branches connecting to Avenue D and 5th Street. The previously proposed realignment at 5th street and Avenue D will not be constructed as a result of the new spine road configuration.

The proposed administrative support annex would be a two-story building located in the boundaries of a block bounded by Avenue D to the north, 5th Street to the east, F Street to the south, and Midway Street to the west. The administrative annex would house associated

support services such as engineering, safety, environmental, and other administrative support services.

The annex would have two parking lots consisting of 718 spaces, and a parking garage is proposed near the entrance of Building 1700. Annex parking would be sited across 5th Street, east of the planned administrative annex and across Midway Street directly east of the addition to Building 1700. The parking garage would be located in place of the current Parking Lot F. Cart (scooter) parking would be provided on the south side of the administrative annex. The entrance to the cart parking area would be shared with the mechanical yard access drive. The layout can be seen in Figure 1.

A visitor parking lot would be constructed on the north side of Avenue D. A second parking lot would be constructed adjacent to Building 1770. Figure 1 shows an overview of proposed phased construction facilities, roads, parking garage and parking lots.

Sidewalks would be provided throughout the site in such a way as to minimize pedestrian and vehicular conflict points. The sidewalks along the spine road would provide a safe route from the site perimeter and parking lot areas to the central sidewalk leading to the southern building entrance. The central sidewalk would be a well-identified crossing in the road so occupants can safely walk from the building entrance to the main parking lot area. Sidewalks on the east side would connect with existing walkways and serve the visitor parking lot.

The proposed site plan would avoid disruption of existing utilities to the greatest extent possible. A majority of the site utilities within the project limits are associated with existing buildings that are scheduled for demolition as examined in the 2015 EA. Utilities associated with the demolished buildings would be removed as required during administrative annex construction. The remaining utilities are located at the site perimeter along existing streets. It is likely that at least one electrical pole at the intersection of Avenue E and Midway Avenue would need to be moved. An electrical transformer and emergency generator would be installed.

The proposed new electrical duct bank route begins at the corner of Iwo Jima Street and runs along the side of the road until it veers off through the golf course between Yorktown Drive and Lexington Boulevard. It moves along an existing sidewalk and crosses over Lexington Boulevard south of Avenue E, and crosses into the Powertrain Project footprint at Avenue F, then meets the Central Utility Plant. Total area of disturbance associated with the action is about 1 to 1 1/2 acres for installation of electrical vaults and conduit (Figure 2). Duct vaults would be placed at every 325 to 500 foot intervals and would be approximately 6 feet by 8 feet by 4 feet. Construction on the golf course would use directional boring in order to lessen ground disturbance and shorten recovery time. A utility tunnel would be constructed across the footprint in a north/south general direction, turning to meet the final destination of the Central Utility Plant. The tunnel would consist of square segmental concrete pipe with an inside diameter of 9 feet and an outside diameter of 11 feet. Access vaults would be constructed at each end of the tunnel, and would be approximately 9 feet deep, 9 feet wide and 11 feet tall.

Changes to the proposed communications duct bank and its new termination at the administrative annex have been documented and well defined in updated drawings. Detailed changes to the proposed communications duct bank include the following:

1) One 12-way duct bank from the administrative annex building to a new manhole (MH-CA) at the intersection of Fifth Street and Avenue D (approximately 300').

2) One 4-way duct bank from manhole MH-CA routed east along Avenue D to Lexington Boulevard, then north along Lexington Boulevard to Ocean Drive, then east along Ocean Drive to Building 112 (approximately 2700').
3) Two 8-way duct banks from manhole MH-CA routed west along Avenue D to a new manhole (MH-CB) at the intersection of Avenue D and Midway Street (approximately 900').
4) One 8-way duct bank from MH-CB routed north along Midway Street to a new manhole (MH-CC) located along Midway Street adjacent to Building 340 (approximately 600').
5) One 4-way duct bank from MH-CC to Building 340 (approximately 50').
6) One 4-way duct bank from MH-CC routed north along Midway Street to Ocean Drive then west along Ocean Drive to Building 1880 (approximately 1300').
7) One 8-way duct bank from MH-CB routed west along Avenue D to a new manhole (MH-CD) located near the entrance to the DCRF building (approximately 1500').
8) One 4-way duct bank from MH-CD to the DCRF in Building 1700 (approximately 600').
9) One 4-way duct bank from MH-CD routed west along Avenue D to the intersection of Avenue D and Crecy Street (Third Street) then north along Crecy Street to Building 8 and Building 1846 (DLA) (approximately 1800').

Figure 1. Overview of Proposed Site with All Phases

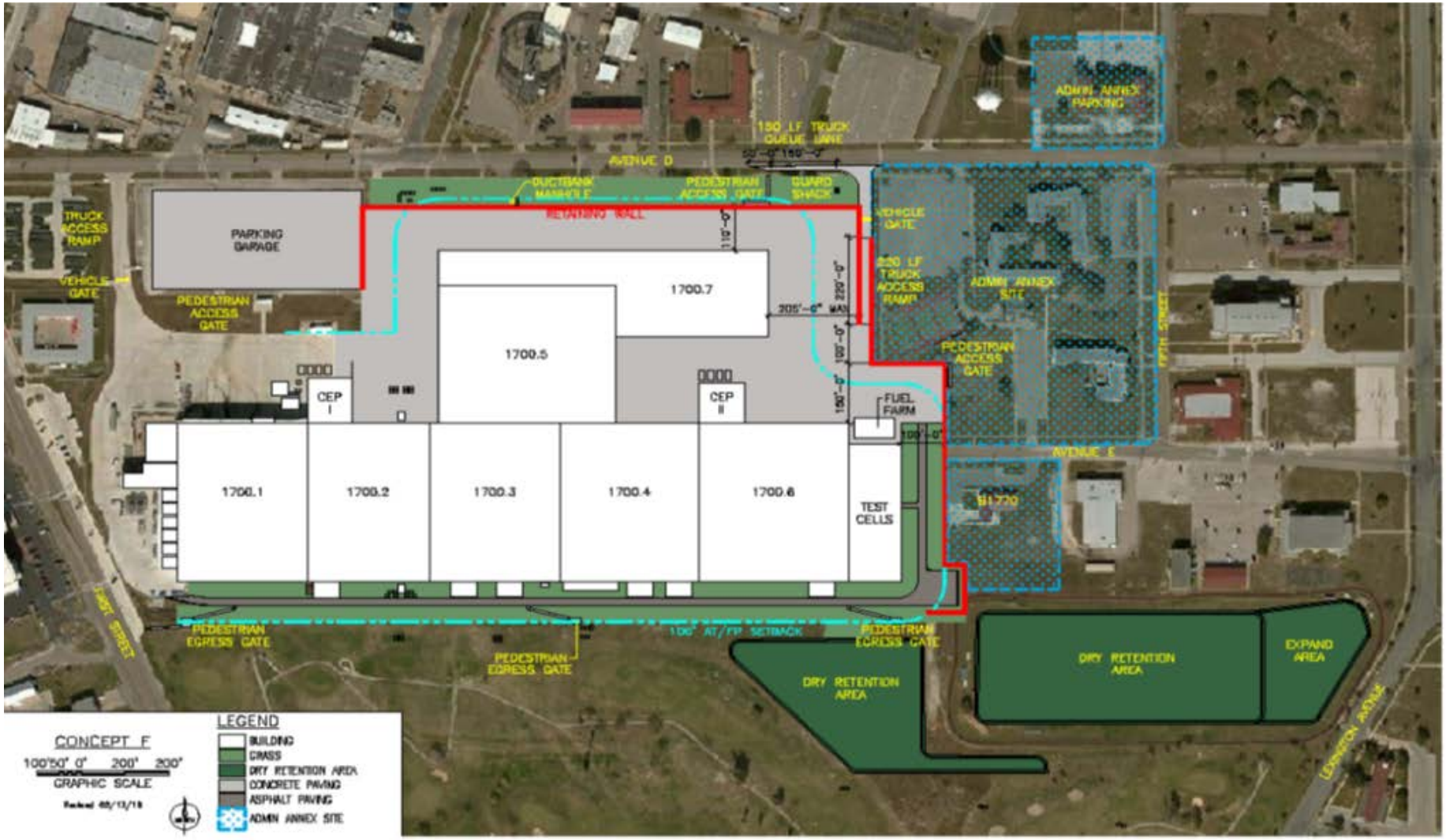


Figure 2. Proposed Electrical Duct Bank

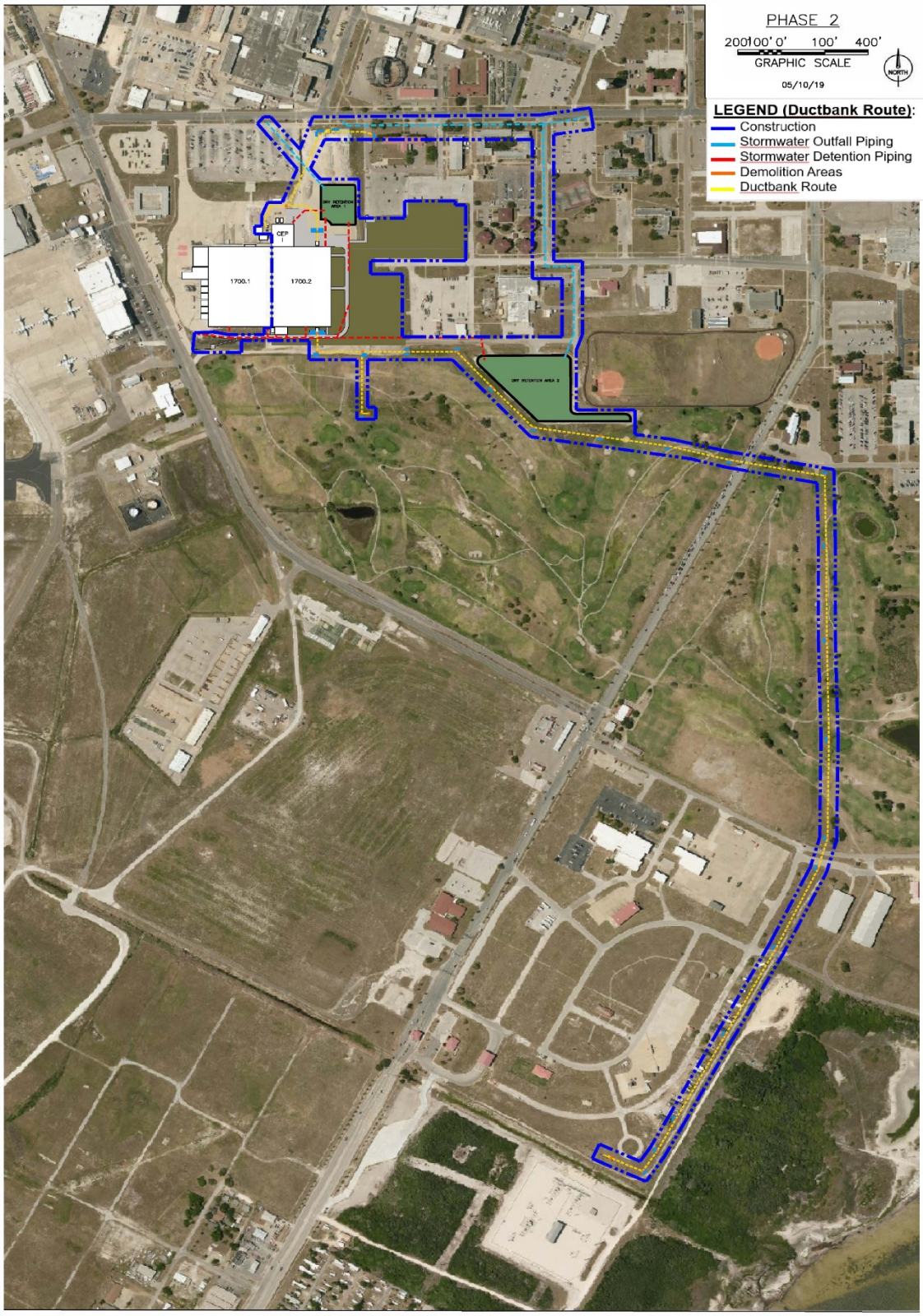


Figure 3. Phase 2 Construction Area, Including Relocated and Additional Ponds

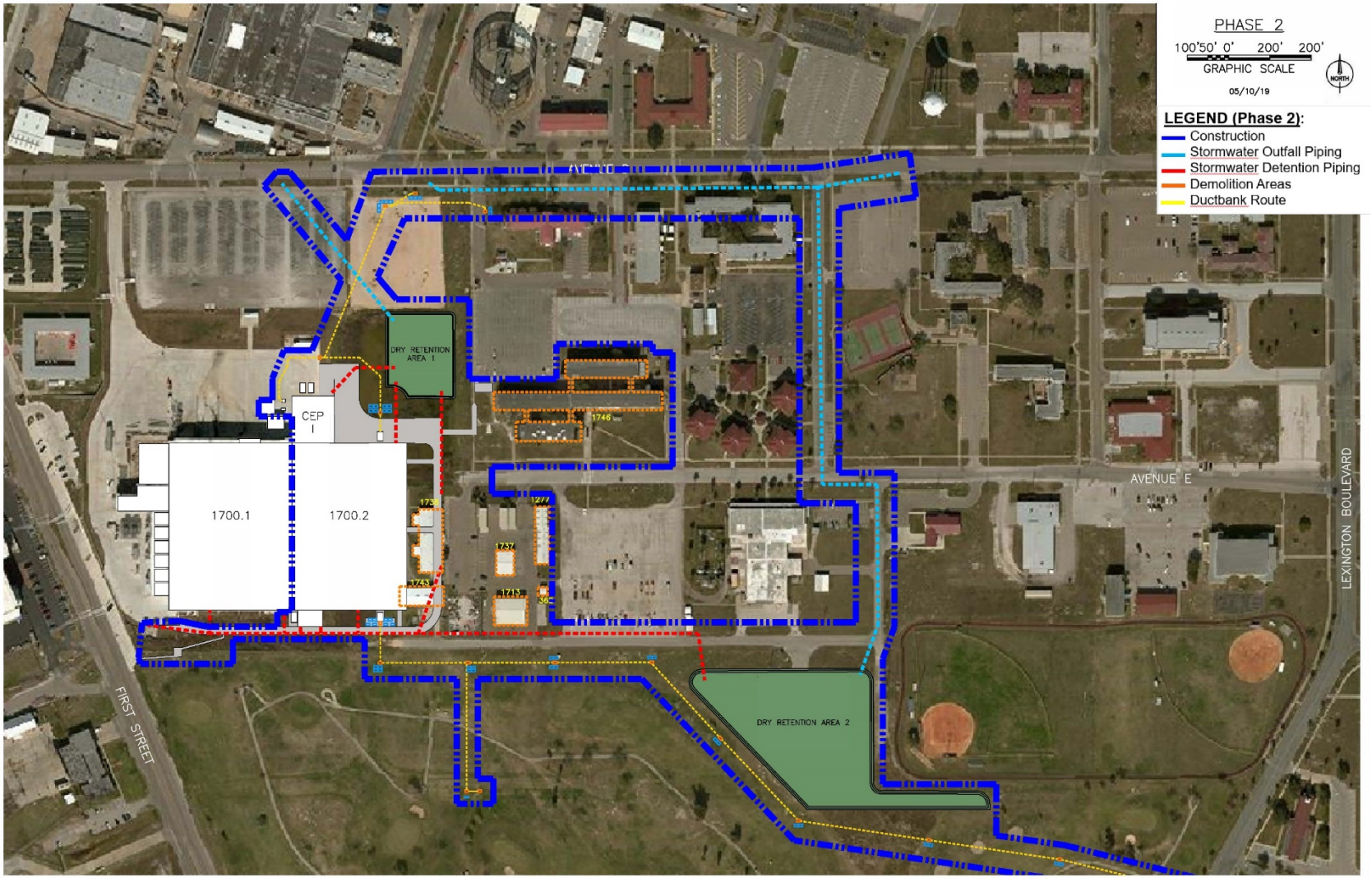
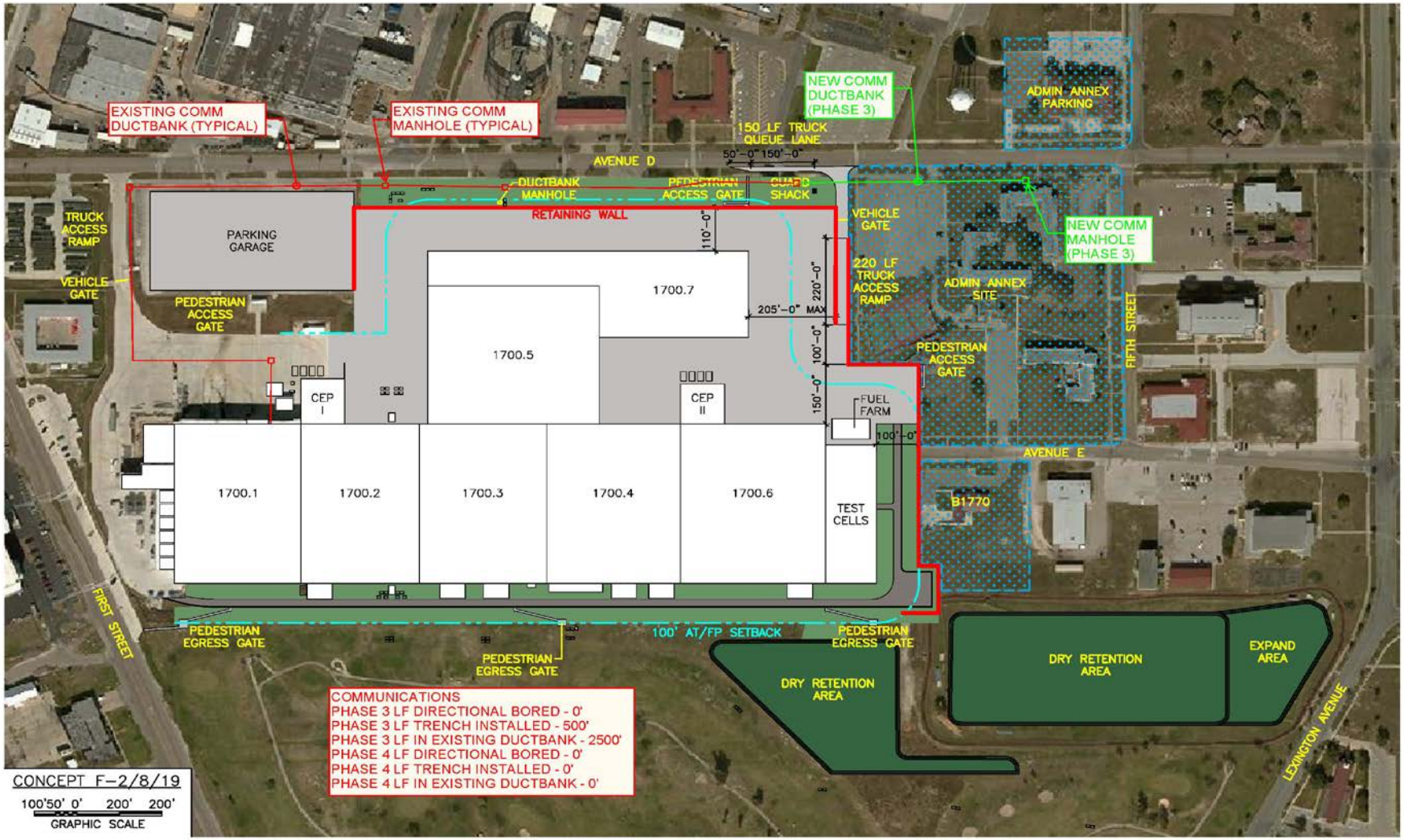


Figure 4. Overview of Communications Duct Bank



2.2. No Action Alternative

The No Action Alternative is used to analyze the consequences of not undertaking the Proposed Action and provides a benchmark enabling decision makers to compare the magnitude of environmental effects of the action alternatives.

Under the No Action Alternative, the additional acreage would not be acquired, the administrative facility and parking areas would not be constructed, the additional stormwater management infrastructure would not be required, and the proposed electrical and communications duct banks would not be relocated and enlarged. Further, if the electrical duct bank were not installed in the new location, the most recent phase of the Powertrain facility would not have access to adequate electrical power to support the intended use.

The No Action Alternative is used to analyze the consequences of not undertaking the Proposed Action and provides a benchmark enabling Decision Makers to compare the magnitude of environmental effects of the action alternatives. The No Action Alternative is carried forward for analysis as required by NEPA regulations and Army/Navy policy.

2.3. Alternatives Considered but Eliminated from Further Study

Several additional reasonable alternatives were considered but eliminated from further study because of their failure to meet the entire purpose and need. Following is an overview of these alternatives. They will not be examined further in this EA.

- Leaving the command structure and safety, environmental, and other administrative functions in Building 8 was considered. However, it was determined that the command structure and support were required to be closer to the larger Powertrain facility in order to be effective. Furthermore, Building 8 also did not allow for cohesive placement of command and support staff to effectively support production. Lastly, Building 8 is at the end of its useful lifecycle and repairs, renovations, and modifications of the building would be costly and ineffective. Therefore, this alternative was eliminated from further study because it did not meet the purpose and need, to create a comprehensive, connected production-centered facility to support current and future mission capability and client needs.
- The project team considered another area that was on the north side of D Street at the intersection of Avenue D, and 5th Street. However, it was determined that there was not enough space to build on this property, and it left the Powertrain site less contiguous than the Proposed Action site. Therefore, this alternative was eliminated from further study because the site was not suitable for the Powertrain Project and did not meet the purpose and need, to house production and supporting facilities required to improve production and support for the 21st century warfighter.
- During the original Powertrain Project analyses, it was also considered that the administrative areas would contain additional centers called “towers” that would be placed in the middle of each of the phased buildings. However, upon further analysis and review of the phase zero construction, it was determined that these costly additions would take up an inordinate amount of space in the proposed buildings, reducing space for production. They also disrupted the continuity and efficiency of production. Therefore, this option was eliminated from further study because it did not meet the purpose and need, being cost prohibitive and not allowing for efficient production work flow.

- The proposed electrical duct bank was originally routed directly through an IR site that has restrictions preventing soil disturbance and groundwater usage; therefore, it had to be moved to prevent interference with the cleanup effort.

3.0. Affected Environment and Environmental Consequences

3.1. Resources Examined and Eliminated from Study in this EA

Some resources were eliminated from further study in this EA because there would be no appreciable impacts to them, or the impacts were examined in the 2009 and 2015 EAs and have not changed. These are eliminated with explanation in this section. Some resources are examined in this EA because of the potential for slight change, direct, indirect, or cumulative effects that could occur as a result of implementation of the Proposed Action. They are discussed in detail with the affected environment and environmental consequences in this section. Table 1 below is an overview of the resources and potential impacts.

Table 1. Overview of Analyzed Resources and Impact Determination

Section	Resource	Impact
3.3.1	Geology	No impact.
3.4	Soils	Short term minor.
3.5	Water Resources	Minor.
3.5.1	Coastal Management	No impact.
3.5.2	Floodplains	Short term minor and temporary. No permanent floodplain alteration.
3.5.3	Groundwater	Short term minor and temporary. Permitting required.
3.5.4	Stormwater	Short and long term minor. Permitting required for construction.
3.5.5	Wetlands	No impact.
3.6	Biological Resources	Temporary and minor.
3.6.1	Terrestrial Habitat	No impact.
3.6.2	Aquatic Habitat	No impact.
3.6.3	Sea Grass Beds	Minor.
3.6.4	Threatened and Endangered Species	No impact.
3.6.4.1	State Species of Concern	Temporary and minor.
3.6.5	Wildlife	Temporary and minor.
3.3.6	Migratory Birds	Temporary and minor.
3.7	Cultural Resources	Awaiting SHPO concurrence on finding of no historic properties affected.
3.8	Socioeconomics	Minor, temporary beneficial.
3.9	Land Use	No impact.
3.10	Utilities	Minor to slightly beneficial due to increased efficiency.
3.10.6.7	Solid Waste	Temporary minor increase during construction. Long term no impact.
3.11	Hazardous Materials and Hazardous Waste	Temporary and minor increase during construction, long term no impact.
3.12	Visual Aesthetics	Short term and minor.
3.13	Traffic and Transportation	Short term minor increase during construction. Long term beneficial.
3.14	Noise	No impact.

3.15	Air Quality	Temporary and minor with construction. Long term, beneficial with increased efficiency.
4.0	Cumulative effects	Temporary and minor.

3.2. General Setting

CCAD is located within NASCC along the central Gulf of Mexico coastline in Corpus Christi, Nueces County, Texas. The Installation is approximately 10 miles southeast of downtown Corpus Christi, 150 miles south-southeast of San Antonio, and 200 miles southwest of Houston.

3.3. Physical Environment

To remain consistent with the 2015 EA, the physical environment section includes a description of the geology and soils for the project area.

3.3.1. Geology Affected Environment

The geology of the Texas Coastal Zone is comprised of several active environments: the fluvial-deltaic, barrier-strand plain-chenier, the bay-estuary-lagoon system and the eolian (wind) system. Most of the Corpus Christi Bay area is underlain by sediments of the Beaumont Formation which is composed mostly of fresh-water sediments that were deposited by rivers during the Pleistocene epoch (U.S. Army 2015). According to the 1975 Geologic Atlas of Texas, Corpus Christi Sheet, the extreme northwest, north, and northeast portions of NASCC are mapped as “Fill.” Fill is described as material dredged for raising land surface above alluvium and barrier island deposits and for creating land (U.S. Army 2015). The Proposed Action site is located within these types of geology.

3.3.2. Geology - No Action

Under the No Action Alternative, there would be no impacts to the physical environment which includes geology because the affected environment would remain the same.

3.3.3. Geology - Proposed Action

The 2015 EA considered impacts to lithology, stratigraphy, and geological structures that control groundwater quality, distribution of aquifers, and confining beds. It was determined that there would not be significant impacts to these resources, and the Proposed Action would not add any additional impacts. The Proposed Action is not expected to change the fundamental geological function of the Proposed Action site. Therefore, geological impacts as a result of the Proposed Action would not be significant.

3.3.4. Soils

A web soil survey was conducted using the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) web soil survey tool (USDA NRCS 2018) to determine soil types and vulnerabilities to soils as a result of the implementation of the Proposed Action.

3.3.5. Soils Affected Environment

Underlying the project area are Galveston and Mustang fine sands. The soil is made up of eolian sediments of the Holocene age that form dune fields and are excessively drained. Further, they have a very high capacity to transmit water and are prone to flooding. The soil is common to the Corpus Christi Bay area and characterized by rapid permeability and slow surface runoff.

The golf course area contains substantial fill used to improve drainage and peat that was installed to maintain greens and stabilize grass for golfing. The Proposed Action would replace the excavated soil by backfill, add additional peat where necessary and return the areas to their original condition. No additional fill would be brought in and added to the golf course or to raise the site of the administrative annex. The facility would be built at grade.

3.3.6. Soils - No Action

Under the No Action Alternative, there would be no impacts to the physical environment which includes soils, because the affected environment would remain the same.

3.3.7. Soils - Proposed Action

Consistent with the 2015 EA, the threshold of significance for soils could be exceeded if long-term, unmanaged erosion would occur as a result of implementation of the Proposed Action. Soils within the defined project area are already highly disturbed as a result of previous development. Long-term erosion would be proactively managed as part of the implementation of the Proposed Action by maintaining foundations and lawn areas to prevent erosion. There would be a slight increase in the amount of impervious area as a result of installing the spine road and additional parking. However, soils would be compacted and stabilized as part of normal construction that would stabilize the soil for long-term operation of the facilities.

Further, geotechnical borings may indicate the need for additional fill to stabilize the area to prevent long-term erosion. However, the sites themselves would not be raised, only stabilized. Any soils added to the proposed site would meet American Society for Testing and Materials (ASTM) standards for the importation of clean fill (ASTM D6913 and D6913M-17).

Short term minor direct impacts to soils are expected during construction of the proposed facilities. During construction, best management practices (BMPs) would be implemented in accordance with a site specific Stormwater Pollution Prevention Plan (SWPPP) that would prevent excessive erosion of soils and soil migration off the construction site.

Implementation of BMPs during construction, stabilization, reseeding and landscaping, and the regular maintenance and repairs performed on all disturbed areas, would significantly reduce the risk of long-term and indirect impacts to soils. Therefore, impacts to soils are expected to be direct, minor and temporary during construction only, and since the area would be returned to its original condition through watering and maintenance, impacts to soils would not be significant.

3.4. Water Resources

NASCC is located within the Nueces-Rio Grande Coastal Basin, bounded to the north and east by Corpus Christi Bay, to the west by Oso Bay, and to the southeast by the Laguna Madre.

3.4.1. Coastal Management Affected Environment

The Coastal Zone Management Act (CZMA) of 1972 was passed to preserve, protect, develop and, where possible, restore or enhance the nation's coastal zones. In 1996, the Texas Coastal Management Program was approved by the National Oceanic and Atmospheric Administration (NOAA) under the jurisdiction of the Coastal Coordination Council lead by the Texas General Land Office. The project area is located within the Texas coastal zone.

3.4.2. Coastal Management – No Action

Under the No Action Alternative, there would be no impacts to coastal natural resource areas because the affected environment would remain the same.

3.4.3. Coastal Management – Proposed Action

The Proposed Action would not have additional impacts that were not already identified and analyzed in the 2015 EA. The 2015 EA anticipated no appreciable impacts to coastal management resources would occur. A Negative Determination, stating the Proposed Action would not have adverse impacts on coastal natural resource areas, was submitted to the Texas General Land Office (TGLO) on June 11, 2019 (Appendix B). TGLO concurred with the Negative Determination on June 21, 2019. Therefore, impacts to coastal natural resource areas would not be significant.

3.4.4. Floodplains Affected Environment

Executive Order (EO) 11988 was issued 24 May 1977 to avoid long and short-term adverse impacts associated with the occupancy and modification of floodplain development. According to the Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM) for the area, only minimal flooding is anticipated at NASCC (FEMA, 1985). Although these floodplains indicate a possibility of minor flooding only, coastal flooding during hurricanes and tropical storms is considered. Surges from a 100-year storm are estimated to be 10 to 13 feet above mean sea level, whereas the average elevation on NASCC is 19 feet above mean sea level (NAVFAC SE, 2011).

3.4.5. Floodplains – No Action

Under the No Action Alternative, there would be no impacts to floodplains because the affected environment would remain the same.

3.4.6. Floodplains – Proposed Action

The Proposed Action is not located in a 100-year floodplain. A small portion of the electrical duct bank is located in the 500-year floodplain; however, because the electrical duct bank is not a critical action as defined in 44 CFR § 9.4, EO 11988 does not apply. Therefore, impacts to floodplains would not be significant.

3.4.7. Wetlands Affected Environment

According to United States Fish and Wildlife Service (USFWS) National Wetland Inventory maps, NASCC has both palustrine and estuarine wetlands on its grounds (U.S. Army 2015). Typical types of wetlands at NASCC include salt marsh, vegetated tidal flats, and freshwater marsh. Vegetation in these areas includes gulf cordgrass (*Spartins spartinae*), sea oxeye (*Borrichia frutescens*), saltgrass (*Distichlis spicata*), turtleweed (*Batis maritima*), saltmarsh cordgrass (*Spartina altinaflora*), salt meadow cordgrass (*patens*), bull rush (*Scripus* spp.), and marsh elder (*Iva* spp.). All of these sites are designated as special aquatic sites and protected under Section 404 of the Clean Water Act. Tidal flats provide a foraging habitat for species of shorebirds (U.S. Army 2015). Seagrass beds are essential fishery habitat, as they provide nursery areas, cover, and foraging for many species of commercially valuable fish and shellfish, but are analyzed as aquatic habitat in this document. Marshes along the shoreline also provide a valuable habitat to fish and shellfish.

3.4.8. Wetlands – No Action

Under the No Action Alternative, there would be no impacts to wetlands because the affected environment would remain the same.

3.4.9. Wetlands – Proposed Action

There are no wetlands or marshes located within the Proposed Action project site. The stormwater retention ponds would be drained and developed, and the ponds do not constitute an actual loss of wetlands or aquatic habitat. Therefore, impacts to wetlands would not be significant.

3.4.10. Groundwater

The Gulf Coast Aquifer is located beneath NASCC. It parallels the Texas coast from Louisiana to Mexico and includes the Chicot, Evangeline, and Jasper Aquifers (U.S. Army 2015). The Chicot Aquifer is shallowest, just beneath it is the Evangeline, and deepest is the Jasper Aquifer. Shallow groundwater in the NASCC area is found below four feet and is subject to salt water intrusion because of proximity to the surrounding bays. NASCC is underlain by the Beaumont Formation, characterized by barrier islands and beach deposits composed of fine-grained sands. Numerous pimple mounds and poorly defined relict beach ridges characterize the land surface. The coastal plain of the Corpus Christi area is underlain by Pleistocene river, delta, and shoreline sediments deposited during the interglacial periods.

3.4.11. Groundwater Affected Environment

Three lithologic units of the Beaumont Formation have been encountered during drilling activities at Building 8 and include very fine- to fine-grained silty sand, mottled greenish-gray discontinuous clay, and very fine- to fine-grained sands. These units are underlain by confining clay at approximately 43 to 55 feet below ground surface, which separates the shallow aquifer from the deeper aquifer below.

Saturation occurs within the upper silty sand, and the water bearing unit is classified as a Class 3 groundwater resource (EnSafe/Allen & Hoshall 1996). Historical groundwater flow direction is toward the northeast for the Building 8 area.

Proposed subgrade activities and changes to topography were considered to analyze groundwater interaction. Creation of a surface water body with mostly sand lithology can affect the subsurface groundwater flow direction. Any construction dewatering would require a Texas Pollutant Discharge Elimination Permit (TPDES) under the Clean Water Act National Pollutant Discharge Elimination System (NPDES) program. All activities associated with any dewatering would need to be permitted. Typically, permits lay out the site specific dewatering activities, amounts, and discharge outfalls allowable under the permit. Testing and monitoring are often required.

Two stormwater ponds were constructed in a previous phase of the Powertrain Project. The construction of the ponds was permitted in 2017 by TCEQ, prior to construction. A model was conducted that shows the groundwater water flow direction changed downgradient following the installation of these two stormwater detention ponds. The groundwater flow direction in and around Building 8 was a northeast direction toward Corpus Christi Bay. After construction of the ponds, the groundwater flow direction changed to a more north direction, which could affect the trichloroethylene (TCE) contamination plume located at Building 8.

3.4.12. Groundwater - No Action

Under the No Action Alternative, there would be no impacts to groundwater because the affected environment would remain the same.

3.4.13. Groundwater - Proposed Action

The excavation for the duct bank would include dewatering; therefore a Texas Pollutant Discharge Permit (TPDES) would be required prior to any dewatering activity. Further, the Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) would need to be updated and submitted to CCAD for review, and then to the Texas Commission on Environmental Quality (TCEQ). Final approval for the SWPPP must be obtained by NASCC. Permit coverage would be required under Texas General Construction Permit (TX150000) as part of the common plan of development rule. All areas would be backfilled with existing soil, compacted, and hydro seeded with an approved seed mix, until the grass is established for continued operation of the golf course. After hydro seeding, consistent watering until the golf course vegetation has been reestablished would be required prior to the issuance of a notice of termination under the general construction permit.

The proposed administrative annex and road construction would also require permitting if surveys found that groundwater would be encountered and dewatering would need to occur. Compliance with the permit would prevent any significant impacts to groundwater resources. Therefore, no significant unavoidable impacts to groundwater are expected as a result of the implementation of the Proposed Action.

3.4.14. Stormwater

The threshold for significance identified in the 2015 EA was modifications or improvements that cause an increase in stormwater flows or pollutant load that exceeds limits established within permits. A Stormwater Evaluation Report was conducted to examine the stormwater flows associated with the Powertrain Project. The analysis in the report was used to help quantify changes to stormwater in conjunction with the Proposed Action.

3.4.15. Stormwater Affected Environment

The majority of stormwater at NASCC is managed with a storm sewer system consisting of approximately 195,000 linear feet of pipe, 463 manholes, 210 junction inlets, 225 area inlets, and 265 curb inlets (U.S. Army 2015), and both Corpus Christi Bay and Oso Bay receive surface water runoff from NASCC. The current water quality of the Corpus Christi Bay runoff from NASCC is generally good. To maintain and improve the status of water quality of receiving waters, the NPDES permit program under the Clean Water Act has been delegated to the TCEQ. NASCC has two TPDES permits: a Small Municipal Separate Storm Sewer System (MS4) General Permit (TXR040000) and a Multi-Sector General Permit (MSGP) (TX R050000). NASCC maintains compliance with the permit under its Stormwater Management Plan and SWPPP. The permit also requires NASCC to develop standardized BMPs and monitor stormwater outfalls. The Proposed Action site area is included in the Small MS4 General Permit. It is currently an administrative area and that land use will not change as a result of the Proposed Action.

3.4.16. Stormwater - No Action

Two detention ponds were installed during Phase 2 construction. Pond 1 (approximately .67 acres) was constructed near the center of the Powertrain site, and Pond 2 (approximately 1.9 acres) was constructed directly to the west of the site (Figure 3). The ponds were permitted by TCEQ in March of 2017. The ponds were designed according to Federal Aviation Administration (FAA) Advisory Circular 150/5200-33B recommendations. They were designed to drain in 48 hours and to remain dry between rain events and slow the flow of stormwater prior to release into the established outfall. Pond 1 is proposed to be removed during Phase 5 of construction (approximately year 2025). Under the No Action Alternative, there would be no significant impacts to stormwater because the affected environment would remain the same.

3.4.17. Stormwater - Proposed Action

It is expected that there would be a slight increase in stormwater flow as a result of the increase in impervious areas. However, the proposed increase would be minor and the flows would not exceed the existing Small MS4 TPDES General Permit (TXR040000). The Proposed Action would require the expansion of the Notice of Intent and SWPPP under the Texas General Construction Permit (TX150000) for the new property during construction, and would require a Notice of Termination at the completion of construction. If dewatering would occur, an additional NPDES permit would be required. Disturbed areas would be reseeded with native grass mix, and vegetation would be re-established prior to the Notice of Termination. The new detention ponds detain water and release it more slowly, keeping NASCC within the limits of its permits.

Site specific BMPs would be identified and implemented to prevent stormwater pollution from occurring for all areas of the Proposed Action including the duct bank installation. BMPs could include, but are not limited to, stabilization and covering of stockpiles, the stabilization of soils and removed materials during demolition and site preparation, silt fencing, rip-rap use, covering storm drains or using straw wattles to prevent silt from entering existing storm drains, maintenance and clean up after rain events, and wheel wash stations to prevent track out from the construction site.

During long term operation, the proposed new facilities would continue to fall under the existing Small TPDES MS4 General Permit (TXR040000). The Proposed Action area is considered administrative in nature, and that would not change. The increase in impervious area compared

to existing impervious coverage is less than 30%. Taking into account the execution of a SWPPP, BMPs, and outfall monitoring already required under the permit, and the slight increase in stormwater as a result of the implementation of the Proposed Action, any impacts to stormwater would be minor and not significant.

3.5. Biological Resources

Biological resources considered in this EA include a description of the terrestrial habitats, aquatic habitats, wildlife, protected species, and migratory birds within the Proposed Action project area.

3.5.1. Aquatic Habitat and Sea Grass Beds

NASCC is adjacent to Corpus Christi Bay, in the southern Texas Coastal Bend Bay System. The Texas Coastal Bend Bay System also includes Oso Bay, Nueces Bay, and the Laguna Madre. The Texas Coastal Bend Bay System was designated as an estuary of National Significance by the National Estuary Program (NEP) under the Clean Water Act in 1987 (U.S. Army 2015). The NEP has developed a management plan for the system and goals include reducing debris in the Coastal Bend, ensuring the quality of seafood produced in the system, and minimizing the impacts of development to bay resources. No aquatic habitat is located within the project area.

Seagrasses are highly specialized marine flowering plants rooted and submersed in the higher salinity waters of most Texas bays and estuaries with five genera occurring in Texas coastal waters (*Halodule, Thalassia, Syringodium, Halophila, and Ruppiaceae*). Animal abundance in seagrass beds can be 2 to 25 times greater than in adjacent un-vegetated areas. The beds are recognized as vital nursery habitat for estuarine fisheries and wildlife. They are the major source of organic biomass for coastal food webs and the major biological agents in nutrient cycling and water quality processes. They also serve as a direct food source for fish, waterfowl, and sea turtles, and play a major role in the stabilization of coastal erosion and sedimentation (U.S. Army 2009).

3.5.2. Aquatic Habitat and Sea Grass Beds Affected Environment

Seagrass beds are considered special aquatic sites under the Clean Water Act Section 404(b)(1) guidelines and are generally recognized as significantly influencing or positively contributing to the general overall health or vitality of any ecosystem (U.S. Army 2015). The State of Texas has designated vegetated shallows (seagrass beds) as critical areas to be avoided unless there are no practicable alternatives (U.S. Army 2015). Aerial photography indicates the presence of extensive seagrass beds in the shallow waters of Corpus Christi Bay and the Laguna Madre along the northern and eastern shorelines of NASCC. No seagrass beds are located within the project areas, but there are seagrass beds located within a half mile of the project area to the north and east within Corpus Christi Bay and further east along the edge of the Laguna Madre (U.S. Army 2015).

3.5.3. Aquatic Habitat and Sea Grass Beds - No Action

Under the No Action Alternative, there would be no significant impacts to aquatic habitat or sea grass beds because the affected environment would remain the same.

3.5.4. Aquatic Habitat and Sea Grass Beds - Proposed Action

No direct impacts to seagrass beds or aquatic habitat are anticipated as a result of the Proposed Action, because there is no construction occurring in the aquatic seagrass habitat. Further, the increase in impervious area compared to existing impervious coverage is less than 30%, which would not cause an inordinate amount of stormwater increase into the Laguna Madre. During construction, the use of the SWPPP and BMPs identified in the General Construction Permit to minimize silt runoff from the proposed site would prevent significant impacts to seagrass beds. The use of BMPs during construction, the detention of water through the detention ponds, and adherence to the already existing Small MS4 permit requirements would make any impacts to seagrass beds minor and not significant.

3.5.5. Terrestrial Habitat Affected Environment

The proposed project area falls within the Gulf Prairies and Marshes of Texas, an area characterized by coastal plains fewer than 150 feet above mean sea level and barrier islands off the coast (U.S. Army 2015). Native vegetation within this region was historically characterized by tall grass prairies, salt grass marshes, post oak savannahs, and live oak woodlands.

Historically, the area was likely a mosaic of scrub-oak-redbay woodlands and mid-to-tall grass openings (U.S. Army 2015). However, none of this habitat exists today on the Proposed Action site. The area is developed urban land with landscaped buildings and parking lots. The lawn areas are populated with introduced grasses such as Bermuda grass (*Cynodon dactylon*) and St. Augustine (*Stenotaphrum secundatum*), with sparse mesquite (*Prosopis glandulosa)* and live oak (*Quercus virginiana*). Regular maintenance of the lawn areas has limited vegetation growth within the project area to common herbaceous species. The area is already highly developed, and changes in the availability and quality of habitat are not expected to reduce suitable foraging or nesting terrestrial habitat. Therefore, terrestrial habitat has been eliminated from further study in this EA.

3.5.6. Terrestrial Habitat - No Action

Under the No Action Alternative, there would be no significant impacts to terrestrial habitat because the affected environment would remain the same.

3.5.7. Terrestrial Habitat - Proposed Action

The developed, urban nature of the Proposed Action site favors wildlife species that are tolerant to disturbed habitat. There is no habitat left within the project area that has not been impacted by previous development.

Wildlife including birds, mammals, reptiles and amphibians, and migratory birds are expected to be temporarily displaced by construction of the proposed facilities. However, there is suitable habitat for these species to relocate in the surrounding areas, and any disruptions will be minor and temporary. During long term operation, habitat for wildlife would be restored and there would be no significant loss of habitat. Therefore, temporary minor impacts to wildlife are expected, but they would not be significant.

3.5.8. Threatened and Endangered Species

Special status species include plants and animals that, because of their scarcity or documented declining population numbers in the state or nation have been placed on lists of endangered, threatened, proposed, candidate or otherwise sensitive species. The USFWS and Texas Parks and Wildlife Department (TPWD) maintain such lists. No Federally listed species or Federally designated critical habitat is present in the Proposed Action project site. Therefore, the Proposed Action will have no adverse effect to Federally listed species or designated critical habitat. Federally Threatened and Endangered Species are eliminated from further study in this EA.

3.5.9. Threatened and Endangered Species - No Action

Under the No Action Alternative, there would be no impacts to threatened and endangered species because the affected environment would remain the same.

3.5.10. State of Texas Species of Concern

While State threatened and endangered species laws are not enforceable against Federal government agencies and coordination with State agencies is not required for state-listed species, Navy regulation OPNAV M-5090.1 states that “potential effects to state listed species and their habitats shall be evaluated and mitigations proposed in environmental planning documents, as appropriate.” Further, Army Regulation 200-3 also requires state species to be considered when "making decisions that may affect them." The TPWD designates plant and wildlife species with limited distribution and/or rare occurrence as species of concern and seeks to identify and minimize potential conservation threats. Based on previous surveys conducted at NASCC, the maritime pocket gopher (*Geomys personatus maritimus*) is present in parts of CCAD and the surrounding areas.

3.5.11. Texas State Species of Concern - Maritime Pocket Gopher Affected Environment

The deep sandy soils of the Encinal Peninsula are well suited for maritime pocket gopher habitat and active individuals are often identified in the presence of large, fan-shaped mounds. Gopher mounds have been observed throughout NASCC on athletic fields, the golf course, residential areas, and in vacant lots. Established vegetation around the sites potentially provides suitable habitat for the pocket gopher.

3.5.12. Texas State Species of Concern - No Action

As a result of construction of the existing Powertrain buildings and two detention ponds, potential maritime pocket gopher habitat was disturbed. Because of the detention of water function there may be times of year when the habitat is not available. However, substantial demolitions are being conducted on NASCC which would replace the lost habitat from the stormwater detention ponds, and the gophers will be able to relocate.

Under the No Action Alternative, there would be no impacts to any state species of concern because the affected environment would remain the same.

3.5.13. Texas State Species of Concern Maritime Pocket Gopher - Proposed Action

Disturbance to suitable habitat during construction may temporarily displace any maritime pocket gophers and their burrows. The golf course implements an elimination program to prevent the gophers in the golf course. Therefore, there are no gophers present on that portion

of the duct bank installation area. For the other areas considered under the Proposed Action, the gophers would likely relocate to adjacent habitat, as there is currently additional suitable habitat on all sides of the Proposed Action site for the pocket gopher to relocate temporarily. Once the project is complete, landscaping of the finished project would provide additional area as new habitat. Therefore, there would be no significant impacts to the maritime pocket gopher as a result of the Proposed Action implementation.

3.5.14. Migratory Birds

CCAD and NASCC are located within the Central Migratory Flyway of North America (U.S. Army 2015). The Central Flyway extends from northern Alaska, down through Canada, through the central United States and Texas into northern Mexico. Migratory species use this flyway to travel from wintering grounds in the south to summering grounds in the north. Approximately 53% of the 629 species of birds documented as occurring in Texas are classified as temperate to tropical latitude migrants.

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703). Illegal actions include any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any bird, egg, feather, or nest, or part thereof.

3.5.15. Migratory Birds Affected Environment

Because of its location at the southernmost end of the flyway, South Texas is a major hub of migratory bird activity. Bird species present in the Proposed Action area can vary greatly depending on the time of year. Killdeer (*Charadrius vociferous*) and meadowlark (*Sturnella spp*) are two species that are known to nest in areas with freshly cleared soils such as construction sites. Nesting season is between February and August for the killdeer and April and early August for the meadowlark.

3.5.16. Migratory Birds - No Action

Under the No Action Alternative, there would be no impacts to migratory birds because the affected environment would remain the same.

3.5.17. Migratory Birds - Proposed Action

CCAD would partner with the USDA BASH Biologist located at NASCC to survey the Proposed Action site during the migratory bird nesting season. BMPs and surveys to prevent impacts to migratory birds would keep impacts to migratory bird species temporary and minor.

3.6. Cultural Resources

Cultural resources include buildings, structures, objects, archaeological sites, and districts, as well as landscapes and traditional cultural properties that are nonrenewable resources that illustrate the historical development of our nation. These resources are distributed across the landscape as a reflection of prehistoric and historic processes and events. The National Historic Preservation Act (NHPA) of 1966, as amended, requires consultation if the potential to impact a cultural resource would occur as a result of a proposed project.

3.6.1. Cultural Resources Affected Environment

There are seven historic districts and one building (Facility 252) at NASCC that have been found eligible for listing in the National Register of Historic Places (NRHP). In addition, two archaeological sites determined ineligible for listing in the NRHP have been identified at NASCC. None of these properties are located in or near the Powertrain Project Area of Potential Effects (APE).

Consultation with the Texas State Historic Preservation Officer (SHPO) occurred under Section 106 of the National Historic Preservation Act (NHPA) in conjunction with both the 2009 and 2015 EA. A letter of concurrence that there would be no impact to cultural resources was received from the SHPO for both of these EAs.

Eight Native American tribes (Comanche Nation, Delaware Nation, Kickapoo Traditional Tribe of Texas, Kiowa Tribe of OklahomA, Mescalero Apache Tribe, Tonkawa Tribe of Oklahoma, United Keetowah Band of Cherokee Indians in Oklahoma, and the Wichita and Affiliated Tribes) have expressed cultural affinity to Corpus Christi and environs. Given the outcome of previous NEPA consultations in 2009 and 2015 and the limited potential for this project to affect archaeological resources, consultation was not conducted with these tribes in conjunction with this SEA.

3.6.2. Cultural Resources - No Action

Under the No Action Alternative, there would be no impacts to cultural resources because the affected environment would remain the same.

3.6.3. Cultural Resources - Proposed Action

In accordance with Section 106 of the NHPA (as amended), a Phase I archaeological survey was conducted along the Powertrain Project right-of-way (ROW) to ensure that utility excavations would not impact archaeological resources. That survey identified no archaeological resources in the ROW. Consultation was initiated with the Texas Historical Commission on July 19, 2019 concerning the results of this archaeological investigation (Appendix B). The Navy requested comment on a determination of “No Historic Properties Affected” for the proposed utility corridor of the electric duct bank. At the time of this publication, consultation with the Texas SHPO is still ongoing; however, a concurrence on the finding of “No Historic Properties Affected” is expected prior to the finalization of this SEA.

3.7. Socioeconomics, Environmental Justice, Protection of Children

Socioeconomic resources comprise the basic attributes and resources associated with the human environment, particularly population and economic activity. Population levels are subject to fluctuations from regional birth/death rates and immigration of people. Economic activity typically encompasses employment, personal income and economic growth. Impacts on these socioeconomic components also influence other issues such as housing availability and the provision of public services like schools, roads, and fire and police services. Analysis of environmental justice is directed by Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, which require analysis to make sure low-income populations, minority populations, and children are not disproportionately impacted as a result of the Proposed Actions.

3.7.1. Socioeconomics, Environmental Justice, Protection of Children Affected Environment

EO 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” requires each federal agency to identify and address whether their Proposed Action results in disproportionately high and adverse environmental and health impacts on low-income or minority populations.

EO 13045 “Protection of Children from Environmental Health Risks and Safety Risks” states that each federal agency “(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately impact children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.” Activities occurring near areas that could have higher concentrations of children during any given time, such as schools and childcare facilities, might further intensify potential impacts on children.

Socioeconomics, Environmental Justice, and Protection of Children were all examined in both the 2009 and 2015 EAs. The Proposed Action is located in an already developed administrative area of NASCC.

3.7.2. Socioeconomics, Environmental Justice, Protection of Children - No Action

Under the No Action Alternative, there would be no impacts to socioeconomics, environmental justice, or protection of the children because the affected environment would remain the same.

3.7.3. Socioeconomics, Environmental Justice, and Protection of the Children - Proposed Action

There would be no increase or decrease of employees as a result of the construction of the new facilities. Therefore, there would be no populations affected, no housing increase or decrease; the availability of services would not be impacted, and no low income populations or minority populations impacted as a result of the Proposed Action. NASCC provides police and fire services, and CCAD has its own security services as well. The Proposed Action would not impact these services beyond capacity. There would be no disproportionate and adverse impact to children or environmental justice communities as a result of the Proposed Action.

3.8. Land Use

Land use refers to the activities that take place in a particular area and generally describes the human modification of land, often for residential or economic purposes. Management plans and zoning regulations are used to determine the type and extent of land use allowable in areas and are often intended to protect environmentally sensitive areas.

3.8.1. Land Use Affected Environment

The NASCC property is Federally-owned Navy lands under the control of CNRSE and CNIC, with local NASCC operations and maintenance. CCAD operations, including the Powertrain PN64026 Project Area, are conducted on NASCC property leased by CCAD through an Installation Services Support Agreement (ISSA). The ISSA guides services for CCAD occupied space and building support, including funding for facility and environmental support.

3.8.2. Land Use - No Action

Under the No Action Alternative, there would be no impacts to land use because the affected environment would remain the same.

3.8.3 Land Use – Proposed Action

The Proposed Action site is in an already developed administrative area. The Proposed Action would result in some loss of open space where the new buildings and parking lots are planned. However, these do not represent a complete change in land use since the entire area is already developed for administrative purposes. Therefore, there will be no significant impacts to land use as a result of the Proposed Action.

3.9. Utilities

The utilities and infrastructure considered for this EA include stormwater, drinking water, wastewater, electricity, natural gas, telecommunications, and solid waste. Water resources are described in detail in Section 3.4 of this document and will not be revisited in this section.

3.9.1. Water Utility

The City of Corpus Christi provides potable water to NASCC and all NASCC tenants including CCAD. Water from the city comes from surface water sources, primarily the Nueces River. Lake Corpus Christi is fed by the Nueces River, and the water levels within the lake are controlled by dams (U.S. Army 2015). As indicated in the 2015 EA, water demand at NASCC including all tenants is approximately 344 million gallons per year.

3.9.2. Water Utility Affected Environment

The majority of NASCC's water system is over 40 years old and composed primarily of materials including ductile iron, asbestos cement, and polyvinyl chloride (PVC). Because of the age of the system, there are frequent water main issues including breakages. Domestic water lines would be removed and replaced as needed for the Proposed Action. It is likely all domestic lines for the new facility would be replaced.

3.9.3. Water Utility - No Action

Under the No Action Alternative, there would be no impacts to the water utility infrastructure because the affected environment would remain the same.

3.9.4. Water Utility - Proposed Action

The removal and replacement (as required) of existing water lines within the project footprint would be covered under the SWPPP, and BMPs would be applied to prevent migration of soils off site. Contaminated soils are not expected to be encountered as a result of the Proposed Action. Some dewatering may need to occur, and this activity would require permitting. Appropriate personal protective equipment (PPE) would be used by any person coming in contact with any possible hazardous substance (e.g., asbestos) during construction. Long term operation of CCAD and NASCC would benefit from the replacement of the infrastructure associated with the Proposed Action. With the implementation of BMPs, use of PPE, and site

specific permitting, no significant impacts to water utilities are expected, but long term benefits from replaced infrastructure would occur.

3.9.5. Industrial and Domestic Wastewater Affected Environment

CCAD is serviced by the NASCC wastewater system, which is divided into industrial and domestic branches that convey flows to two treatment plants located in the northwest corner of the Installation on Saipan Street. The industrial and domestic wastewater streams enter their respective treatment plants separately and are treated independently with biological processes. TCEQ issued NASCC a permit (USEPA I.D. No TX007889), State Permit No. WQ0002317000 under the TPDES program and Chapter 26 of the Texas Water Code: Water Quality Control, that authorizes treatment and discharge of waste directly to Corpus Christi Bay through associated outfalls 001 and 101. Outfall 001 is located approximately 800 feet northeast of the North Gate (Ocean Drive) entrance and discharges treated domestic wastewater effluent. Outfall 101 is located approximately 700 feet northeast of the North Gate (Ocean Drive) entrance and discharges treated industrial wastewater effluent. The permit includes specific effluent limitations for each outfall and monitoring requirements. Discharge limits stated in the permit include a daily average flow of effluent not to exceed 1.5 million gallons per day and a maximum flow not to exceed 3.75 million gallons per day (U.S. Army 2015).

3.9.6. Industrial and Domestic Wastewater - No Action

Under the No Action Alternative, there would be no impacts to the industrial and domestic wastewater system because the affected environment would remain the same.

3.9.7. Industrial and Domestic Wastewater – Proposed Action

The Proposed Action would not affect CCAD operations that currently generate industrial wastewater; therefore, the industrial wastewater load and composition from existing operations would not be expected to change. However, the Proposed Action would result in additional industrial wastewater infrastructure to provide service to the newly constructed buildings that would be connected to the existing industrial wastewater system. If carried forward, all improvements associated with the proposed project will be designed and installed according to applicable municipal, state, and Federal codes, criteria, standards, and specifications. For these reasons, the impact to industrial wastewater resulting from infrastructure improvements would not be considered significant.

Changes to domestic wastewater as a result of the Proposed Action are expected to be minor. Within the proposed Project Area, there would be no expected permanent change to the population; therefore, the domestic wastewater load would remain the same. The Proposed Action would be expected to result in changes to domestic wastewater infrastructure to provide service to the proposed facilities. If carried forward, all improvements will be designed, reviewed, and constructed according to applicable municipal, state, and Federal codes, criteria, standards, and specifications. Considering the age and condition of the wastewater infrastructure, resulting impacts of improvements associated with the Proposed Action could be beneficial.

During demolition and construction associated with the Proposed Action, an increase in construction workforce could result in a temporary minor increase in domestic wastewater load. Demolition and construction personnel could use portable restroom facilities managed by a

qualified contractor, which would include off-site disposal of wastewater and thereby minimize any potential increases in domestic wastewater load. In addition, the domestic wastewater treatment plant currently has capacity for increased wastewater loads associated with the Proposed Action. For this reason, the impact to domestic wastewater resulting from the Proposed Action would not be considered significant.

3.9.8. Electrical Utility Affected Environment

NASCC's electric service was privatized in 2007. Nueces Electric Cooperative, Robstown, Texas, holds the contract which includes conveyance of electrical distribution systems. The contract is for 50 years. The proposed project area is served by a network of overhead and underground electrical lines. Additional lines would be added to service the new facilities including a new duct bank. Figure 2 shows the location of the duct bank.

3.9.9. Electrical Utility - No Action

Under the No Action Alternative, there would be no impacts to the electrical utility because the affected environment would remain the same.

3.9.10. Electrical Utility - Proposed Action

The proposed electrical duct bank had to be rerouted, because the original design examined in the 2015 EA went through an IR site that had not been previously identified. The new route is detailed in the Proposed Action and is analyzed throughout this EA as part of the Proposed Action. The duct bank would be installed using directional boring techniques to minimize disturbance and aid in quick recovery. Additional substations would not be required to service the proposed facilities, and the electrical capacity is not beyond current electrical capability. Therefore, significant impacts to the electrical utility are not expected to result from implementation of the Proposed Action.

3.9.11. Natural Gas Affected Environment

The City of Corpus Christi provides natural gas to NASCC. The underground distribution system is at least 40 years old, though portions of the original system have been replaced. There are existing pipelines in the Proposed Action area.

3.9.12. Natural Gas - No Action

Under the No Action Alternative, there would be no impacts to the natural gas utility because the affected environment would remain the same.

3.9.13. Natural Gas – Proposed Action

If natural gas were to be used for systems in the proposed facilities, some of the existing lines may need replacement and/or new lines may be added. The extent of natural gas used for the building has not yet been determined, but the supply would be adequate and infrastructure could be upgraded and/or installed. Therefore, no significant impacts to the natural gas utility are expected to result from implementation of the Proposed Action.

3.9.14. Telecommunications Affected Environment

The NASCC telecommunications system is partially privatized, but some of the infrastructure is still government owned. Telecommunications infrastructure, including fiber and copper telecommunication lines, is maintained by the Base Communication Office (BCO). The Navy Marine Corps Intranet (NMCI) provides network access support, and AT&T provides support for local exchange services. The telecommunications load would remain the same, but additional infrastructure would be installed and new fiber would be required throughout the new facilities. A map of the Communication Lines can be seen below in Figure 4.

3.9.15. Telecommunications - No Action

Under the No Action Alternative, there would be no impacts to the telecommunications resources because the affected environment would remain the same.

3.9.16. Telecommunications - Proposed Action

All improvements would adhere to Federal, State, local, and DOD requirements and would terminate at the new administrative annex facility. None of them would surpass the requirements analyzed in the 2015 EA. The direct new pathway is defined in the description of the Proposed Action of this document. The additional disturbance related to the relocation of these lines is within the scope of this analysis, and no significant impacts to telecommunications and fiber utilities are expected as a result of the implementation of the Proposed Action.

3.9.17. Solid Waste Affected Environment

Solid waste from NASCC, including tenants, is sent to the Cefe Valenzuela Landfill which opened in October 2007 under permit number MSW2269. The landfill is located at the intersection of Farm to Market Road 2444 and County Road 20 in Nueces County. The landfill consists of two units and is classified as a Municipal Solid Waste Management Facility (U.S. Army 2015). The classification allows for the disposal of Municipal Solid Waste, Class 1 Nonhazardous Industrial Waste, Class 2 Industrial Waste, Class 3 Industrial Waste, and Special Waste.

3.9.18. Solid Waste - No Action

Under the No Action Alternative, there would be no impacts to solid waste management because the affected environment would remain the same.

3.9.19. Solid Waste - Proposed Action

During construction, there could be a slight increase in the amount of solid waste as a result of the Proposed Action, but it is not expected to exceed the capacity of the landfill, and the increase would be temporary and minor. No increase in municipal solid waste during long term operation of the facilities is expected as a result of the Proposed Action. Therefore, impacts to solid waste would be not be significant with the implementation of the Proposed Action. Hazardous waste analysis is separate and can be found in Section 3.10 of this document.

3.10. Hazardous Materials and Hazardous Waste Affected Environment

Hazardous materials including chemicals and fuel would be used during construction. All of these activities and chemicals would be approved through the CCAD chemical approval process and would be documented in the Hazardous Material Inventory Database System (HMIDS) software for tracking and storage of hazardous materials.

3.10.1. Hazardous Materials and Hazardous Waste - No Action

Under the No Action Alternative, there would be no impacts to hazardous materials or hazardous waste because the affected environment would remain the same.

3.10.2. Hazardous Materials and Hazardous Waste - Proposed Action

Hazardous waste as a result of construction activities would be managed by the HMIDS system, and disposal of these materials would adhere to the NASCC Hazardous Waste Management Plan. Site specific BMPs for the management of hazardous materials and waste would be developed in accordance with CCADR 200-16, Hazardous Materials Management, and the NASCC Hazardous Waste Management Plan. Spills and spill response would be managed through the Navy's Spill Prevention and Countermeasure Plan. During construction, regular site inspection would be required to affirm that all hazardous materials and hazardous waste would be purchased, stored, and disposed of properly.

During long term operation of the facilities, hazardous materials in the form of basic cleaning materials (e.g., mosquito spray) could be stored in some areas like kitchens or break areas. These would be minimal. There would be no satellite accumulation areas in the proposed building for hazardous waste disposal, and it is not expected that any substantial hazardous waste would be accumulated in the building. Therefore, impacts to solid waste would be minimal and not significant.

3.11. Visual Aesthetics Affected Environment

CCAD is located in the eastern portion of the City of Corpus Christi, Nueces County, Texas, within the boundaries of NASCC. The Proposed Action site is located in an already developed area of NASCC. The two story building and parking garage would change the views, but the overall scenic quality of the project areas would remain the same. The Proposed Action site construction would not inhibit any views of Corpus Christi Bay, and the view from the JFK Memorial Causeway off State Highway 358 would remain unchanged under the Proposed Action.

3.11.1. Visual Aesthetics - No Action

Under the No Action Alternative, there would be no impacts to visual aesthetics because the affected environment would remain the same.

3.11.2. Visual Aesthetics - Proposed Action

Visual aesthetics would be affected during construction, since there would be equipment on the golf course that would normally not be present. There would be some disruption to golf course use during construction. However, this impact would be short term and minor since after construction is complete the area would be restored to its original appearance. Therefore, impacts to visual aesthetics and land use would return to the previous condition.

3.12. Traffic and Transportation

Changes to facilities, operations, parking, and traffic circulation were considered to analyze traffic and transportation impacts as a result of the Proposed Action.

3.12.1. Traffic and Transportation Affected Environment

Access to NASCC and CCAD can be gained through two gated entrances. The Main/South Gate is located on Lexington Boulevard at the Installation boundary to the south. Traffic can access this gate from the south by four-lane, undivided State Route 358, a spur off of South Padre Island Drive that turns into Lexington Boulevard. The North Gate is located on coastal Ocean Drive at the Installation boundary to the northwest. Traffic can access this gate from the west after crossing a bridge that divides Oso Bay and Corpus Christi Bay. The transportation network onsite consists of three major roads – Lexington Boulevard, Ocean Drive, and Dimmit Drive, and is interconnected with a number of minor roads. Traffic congestion generally takes place during peak traffic hours, but delays are not significant. Parking areas within the CCAD footprint are generally undersized, and parking can be difficult. Visitor parking is limited.

3.12.2. Traffic and Transportation - No Action

Under the No Action Alternative, there would be no impacts to traffic and transportation, including improvements because the affected environment would remain the same.

3.12.3. Traffic and Transportation - Proposed Action

The Proposed Action has introduced additional parking to remedy the current parking issues. The proposed administrative support annex would have two parking lots consisting of 718 spaces, and a parking garage would be located near the entrance of Building 1700. A separate visitor parking lot would be constructed on the northeast side of the site which connects to Avenue D and Franklin Avenue. The addition of parking areas would alleviate congestion in undersized parking areas near busy intersections during peak traffic hours for employees and visitors.

The proposed spine road would provide a central artery for the ingress and egress of privately owned vehicles, delivery trucks, and CCAD carts, increasing traffic flow and consistency. The design of the road connects CCAD's facilities and includes turnstiles and sidewalks to facilitate the flow of pedestrian traffic.

During construction, traffic and congestion could increase in areas surrounding the project site for the administrative annex facility. Further, removal of parking lot F during construction of the parking garage would result in a temporary loss of crucial parking areas. However, these impacts would be temporary and minor. A traffic study would be conducted and temporary parking for construction would be identified to relieve this temporary minor impact. As a result of the Proposed Action, long term operation of the new facilities would improve parking, traffic flow, and secure accessibility, which would be a positive impact. Therefore, impacts to traffic and transportation would be limited to temporary and minor during construction and would not be significant.

3.13. Noise

The Noise Control Act of 1972 (P.L. 92-574) established a national policy that encourages freedom from noise that jeopardizes health and welfare (EPA 2018). The Act also serves to: (1) establish a means for effective coordination of Federal research and activities in noise control; (2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products.

Sound varies by both intensity and frequency. Sound Pressure Level (SPL), described in decibels (dB), is used to quantify sound intensity. A-weighted decibels (dBA) SPLs are typically used to account for the frequency response of the human ear. It is normally unacceptable for noise levels to reach 65 dBA at noise-sensitive receptors such as residences, schools, churches, and hospitals (U.S. Army 2015). Most interior noise levels are reduced by 15 to 25 dBA due to the attenuation of the sound energy by a structure (U.S. Army 2015). Additionally, the potential for permanent hearing loss arises from direct exposure to noise on a regular, continuing long-term basis (16 hours per day for 40 years) to levels above 75 dBA day-night sound level (U.S. Army 2015). Examples of noise created by various equipment are shown in Table 2.

3.13.1. Noise Affected Environment

DOD uses the Air Installations Compatibility Use Zones Program (AICUZ) to assess noise related specifically to aircraft and range operations. The goal of the AICUZ program is to prevent encroachment and incompatible uses in the surrounding areas in a way that ultimately compromises the viability of the Installation. As a result of the assessments, noise exposure contours are defined for the Installation. A noise level contour map was prepared when NASCC produced its master plan in 2011. The contour map depicts the baseline levels for NASCC. Current noise contour levels at the Installation range from 60 to 85 dBA.

3.13.2. Noise - No Action

Under the No Action Alternative, there would be no impacts to noise receptors because the affected environment would remain the same.

3.13.3. Noise - Proposed Action

The noise levels during construction could reach 85 dBA for brief periods during the operation of construction equipment onsite. However, these instances would be short term in duration, and hearing protection for employees or visitors onsite would be required at all times. During long term operations average noise levels would not exceed the Installation range and are expected to remain between 60 and 65 dBA at all times. During the electrical duct bank construction some noise would be expected, especially adjacent to the construction area while construction is occurring. There could be times when the noise levels reach above 75 dBA. However, these would occur only during construction and during daytime hours, and would be intermittent during digging and placing of piping. Therefore, no significant impacts relating to noise and noise receptors are expected as a result of the implementation of the Proposed Action.

Table 2. Examples of dBA Associated with Various Equipment

Peak Sound Pressure Level of Heavy Equipment

Equipment	Specification[a] Limit L_{max} (dBA)	Actual Measured[b] Limit L_{max} (dBA)
Backhoe	80	78
Chain Saw	85	84
Compactor (ground)	80	83
Compressor (air)	80	78
Dozer	85	82
Dump Truck	84	76
Front End Loader	80	79
Grader	85	NA
Pickup Truck	55	75
Scraper	85	84
Tractor	85	NA

Source: FHA, 2006.
Notes: [a] Specification - .refers to the specifications defined by manufacturers for the equipment measured from a distance of 50 feet from the loudest side of the equipment, and expressed as an L_{max} level in dBA.
[b] Actual Measured – refers to actual noise emission levels measured and averaged together from a distance of 50 feet from the equipment from the loudest side of the equipment.

dBA = A-weighted
L_{max} = maximum sound level
NA = Not Applicable

3.14. Air Quality

The Air Quality analysis includes a description of the air quality standards and regulations, existing conditions, regional air quality, and greenhouse gases that contribute to climate change due to the Proposed Action.

3.14.1. Air Quality Affected Environment

Under the Clean Air Act, the EPA established primary and secondary National Ambient Air Quality Standards (NAAQS) in 1990. Amendments to the Clean Air Act also set emission limits for certain air pollutants from specific sources, set new source performance standards based on best demonstrated technologies, and established national emission standards. Federal air quality standards are established for six pollutants (known as criteria pollutants), including carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide, (SO_2), particulate matter (PM) equal to or fewer than 10 micrometers in aerodynamic diameter (PM_{10}), and particulate matter equal to or fewer than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$).

CCAD is located within the Corpus Christi-Victoria Interstate Air Quality Control Region (ACQR). The EPA designation of the area is considered “in attainment” for all criteria pollutants. CCAD is not subject to the General Conformity regulations (40 CFR Parts 6, 51, and 93). CCAD is an existing major stationary source as defined under by the Clean Air Act, and maintains a Title V Air Operating Permit. The factors considered in this EA when evaluating air quality are the emissions generated from construction, the type of emissions generated from long term operation of the proposed facilities, and the potential for emissions to result in ambient air concentrations that exceed the NAAQS or CCAD’s air permit.

3.14.2. Air Quality - No Action

Under the No Action Alternative, there would be no impacts to air quality because the affected environment would remain the same.

3.14.3. Air Quality - Proposed Action

The Proposed Action would result in short-term fugitive dust emissions during construction. Furthermore, construction equipment would generate emissions during excavation and other construction activities. Fugitive dust emissions would be controlled by using BMPs such as watering the site and stabilizing and covering stockpiles of materials on site. Additionally, construction vehicles would use ultra-low-sulfur diesel and/or natural gas/propane in order to minimize emissions. Therefore, air emissions from construction of the proposed facilities would be temporary and minor.

The proposed facilities are expected to be Leadership in Energy and Environmental Design (LEED) Silver certifiable. Energy efficient fixtures such as light-emitting diode (LED) lights and Energy Star equipment would be used to create fewer greenhouse gas emissions to reduce the building’s overall footprint to the greatest extent practical. Heating, ventilation, and air conditioning systems would be designed and sized appropriately to provide maximum comfort while reducing the overall greenhouse gas footprint of the facility.

The new facility would be an improvement over the current occupation of multiple buildings, because it consolidates administrative staff from a variety of areas into one common location. Air quality impacts associated with long-term operation of the facilities proposed would not be significant and could actually improve overall air quality over time, because the new facilities would enable better traffic flow and consolidate separate offices into one centralized building that would be more efficient. Further, all impacts to air quality and permitting requirements associated with the Powertrain Project were identified and analyzed in the 2015 EA. There will be no additional emissions as a result of the implementation of the Proposed Action, and no additional permitting is required.

4.0. Cumulative Effects

Cumulative effects are defined in 40 CFR Section 1508.7 as, “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.”

Cumulative effects were assessed for each resource using reasonable assumptions of changes, growth, and development in and around CCAD and NASCC based on previous installation

history (past), current conditions (present), and reasonably anticipated (foreseeable future) activities of CCAD, NASCC, and NASCC tenants.

4.1. Projects Included in Cumulative Effects Analysis

Tables 3 and 4 include a list of past, present, and reasonably foreseeable future projects examined in the cumulative effects analysis. The analysis is conducted in accordance with the President's Council on Environmental Quality's Considering Cumulative Effects guidance published in 1997. All projects included were considered based on the principles of cumulative effects analysis in the guidance. It must be noted that while some of the projects listed are proposed, there may not be enough funding to complete them, and therefore they may later be eliminated or substantially downsized as a result.

Table 3. List of Past, Present, Reasonably Foreseeable Future CCAD Projects

CCAD Projects	FY	Project Number
Powertrain Project Building 1700.0	2009	30874
Aircraft Component Maintenance Facility Building 49 (Rotor Blade)	2013	45116
Powertrain Building 1700.1/2	2016	64026
Stormwater Pond Relocation Powertrain Phase II	2018	64026
Repair Building 8 North Phase D	2019	90017
1700.3 Powertrain Facility – Machining Phase 3 with Administrative Annex (Proposed Action)	2020	71594
Repair and Modernize Building 1808	2020	90018
Repair Hangar 47	2020	89194
Repair and Modernize Building 1828	2020	90019
Aircraft Maintenance Instructional Building	2021	89684
SAFR Engineering Analysis Facility	2021	77773
Repair Building 8 North Phase D, General Paint Area	2021	90017
Repair Building 8 North Phase E, Heat Treat and Foundry	2021	90017
Repair Building 8 North Phase F, Cowling and Fairing	2022	90017
Design RFP Repair Building 8 North Phase G	2022	90017
1700.4 Powertrain – Engines Assembly	2023	71596
Repair Building 8 North Phase G Airframes Pre-Shop Analysis	2023	90017
Repair Hangar 44	2024	90020
1700.5 Phase 5 Powertrain – Inspection	2025	71597
1700.6 Phase 6 Powertrain Facility Engine Final Assembly/Test	2025	71598
Repair and Modernize Building 339	2025	90022
1700.7 Powertrain Facility Hydraulic Components Bearing Shop	TBD	71599

Table 4. List of Past, Present, Reasonably Foreseeable Future NASCC Projects

NASCC Projects	FY	Project Number
Consolidated Squadron Operation and Flight Training Building	2019	N/A
Consolidated T6A/T44 Aircraft Maintenance Hangar	2019	N/A
Installation Command Headquarters	2018	N/A
Bachelor Enlisted Quarters	2021	N/A
Consolidated Child Development Center	2019	N/A
Redundant Water Line	2019	N/A
Renovate Auditorium B100	2023	N/A
Recapitalize and Reconfigure Hangars 55, 56, and 57	2021	N/A
Q4 NGIS Building 1281 Repair	2020	N/A
Central Sewer Plant Recapitalization	2020	N/A
Base Wide Potable Water Line Repair	2020	N/A
Base Wide Road Repairs	2019	N/A
Repair Fire Protection Systems Various Buildings	2020	N/A
Stabilize Seawall and Taxiway Sierra	2019	N/A
Replace 1.5 Miles of Sanitary Sewer Line D Street	2023	N/A

4.2. Past Projects

Powertrain Project Building 1700.0 (PN 30874), Aircraft Component Maintenance Facility Building 49 (Rotor Blade) (PN 45116) and Powertrain Building 1700.1/2 (PN64026) and the subsequence phases of Powertrain facility were examined for direct, indirect, and cumulative effects in the 2009 and 2015 EAs, and those impacts would not change with this Proposed Action. The addition of two additional stormwater ponds is analyzed throughout this document as part of the affected environment.

4.3. Physical Environment - Cumulative Effects

The soils of the Project area and the surrounding area of NASCC have been heavily disturbed over the course of CCAD and NASCC operations. There are no prime or unique farmlands in these areas. Although erosion may occur during construction, BMPs will be used to minimize any permanent long term or cumulative effects. Projects are staggered in locations across NASCC, and recovery time between projects allows for the regeneration and stabilization of the physical environment prior to additional new disturbance. Implementation of BMPs and staggering of projects would result in ground recovery, and no cumulative effects to the physical environment are expected as a result of implementing the Proposed Action. Therefore, no cumulative effects to the physical environment are expected.

4.4. Water Resources - Cumulative Effects

To analyze cumulative effects to water resources, all past, present, and foreseeable future actions including changes to facilities and operations were considered.

When taken together, stormwater management and permitting would not be significantly impacted. During Phase 2 construction of the stormwater detention ponds, studies showed that the groundwater flow shifted from its original direction. The shift was discovered during a semi-annual groundwater sampling event as required in the NASCC RCRA Permit Compliance Plan for the monitoring requirements at Building 8. Historic groundwater flow data shows that the groundwater flowed northeast from Building 8. Following installation of the two stormwater detention ponds the groundwater flow shifted to a more northward direction. As a result adjustments for the restoration treatability study for the TCE plume were evaluated.

When piping for Pond 2 is installed, the groundwater flow direction is anticipated to shift back to its original direction, but any additional pond construction could alter the flows. There are additional stormwater features proposed to be constructed during Phases 5, 6, and 7, around the year 2025 or later.

Short term impacts for groundwater direction flow changes will have impacts on the current TCE treatability studies being conducted in Building 8. Long term impacts could cause the contaminated area to be pushed to the west of the building. BMPs and monitoring of the groundwater plume would be required. Specifically, it is recommended that piping be installed prior to construction of the additional ponds to eliminate the risk of groundwater shift. The additional ponds would be considered carefully, and analysis of future mitigation, monitoring, and maintenance of them would occur prior to a final decision. If the appropriate mitigation measures and monitoring are implemented, no significant unavoidable cumulative effects to groundwater are expected.

As a result of the staggering and phasing of projects, time for recovery, and BMPs identified for all projects, no cumulative effects to water resources would be expected as a result of the implementation of the Proposed Action.

4.5 Biological Resources - Cumulative Effects

The disturbed nature of the existing environment has no habitat of high value for wildlife, threatened and endangered species. Species of concern would relocate during construction, and habitat would recover as a result of the staggered nature of the past, present, and foreseeable actions. MBTA adherence would be maintained throughout all projects, and

stormwater runoff would continue to flow via outfall to the Laguna Madre, as already permitted. If Pond 2 were to become permanent or if additional stormwater ponds are constructed in the future, BMPs to prevent the establishment of vegetation, forage and nesting habitat are required. Further BMPs recommended by FAA would be to install a concrete or paved pad and/or ditch/swale in the bottom to prevent vegetation that may provide bird nesting habitat. Additionally, to facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, and linearly shaped water detention basins. Moreover, FAA recommends physical barriers such as bird balls, wire grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue (FAA 2007). Therefore, no cumulative effects to biological resources are expected.

4.6 Land Use – Cumulative Effects

Changes to land use designations would not occur as a result of the Proposed Action. The golf course would be temporarily disturbed as a result of the Proposed Action, but it would be restored to its current condition, and overall land use would not change. The administrative facility would be built on already developed land for administrative use. Therefore, no cumulative effects to land use designations would occur as a result of implementation of the Proposed Action or any other past, present, or foreseeable future action.

4.7. Utilities and Infrastructure - Cumulative Effects

The electrical duct bank would provide the basic electrical infrastructure for the Powertrain Project. Impacts to the electrical utility were examined in the 2009 and 2015 EAs and would not change as a result of the Proposed Action. Further, stormwater, sanitary sewer, and fiber connections were also examined in the previous EAs and do not represent a change as a result of the Proposed Action. Additional utilities would be installed as a result of the administrative annex. This would be an upgrade to existing utilities. Therefore, no significant cumulative effects are expected as a result of the installation of new utilities associated with the Proposed Action.

4.8. Noise - Cumulative Effects

No significant change to the noise levels in the surrounding area is expected as a result of the Proposed Action or other past, present, and reasonably foreseeable future actions. Noise from construction would be highly localized, intermittent, and temporary. The proposed future development would occur over a period of many years and be physically distributed across NASCC. Therefore, there would be no significant cumulative adverse impacts as a result of implementation of the Proposed Action.

4.9 Air Quality - Cumulative Effects

The Proposed Action would result in short-term emissions during construction, demolition, paving and infrastructure activities. These emissions would be temporary and localized. Air quality as a result of the Powertrain Project implementation would not change from those impacts already studied in the 2009 and 2015 EAs except for these short-term impacts.
The minimal cumulative effects from the Proposed Action and other proposed projects would not have a significant impact on the local or regional air quality, therefore no cumulative long-term permanent impacts are expected as a result of the implementation of the Proposed Action.

4.10. Visual and Scenic - Cumulative Effects

The visual quality of the golf course would be temporarily altered during construction, but this impact would be temporary and the golf course would be restored after construction is complete. No other visual and scenic impacts would occur as a result of the implementation of this project when combined with other past, present, or foreseeable future projects, so no cumulative effects to visual and scenic resources are expected.

4.11. Conclusion

No significant direct, indirect, or cumulative effects to human health or the natural environment are expected as a result of implementation of the Proposed Action. Therefore, a FONSI is recommend to document there will be no significant impacts to the environment with implementation of the Proposed Action, and an Environmental Impact Statement (EIS) is not warranted.

5.0. Reference List

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5.1. List of Persons Consulted

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Appendix A. List of Acronyms

Acronym	Definition
AICUZ	Air Installation Compatibility Use Zones Program
ASTM	American Society for Testing and Materials
BMPs	Best Management Practices
CAA	Clean Air Act
CCAD	Corpus Christi Army Depot
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
FONSI	Finding of No Significant Impact
HMIDS	Hazardous Material Inventory Database System
IR	Installation Restoration
ISSA	Installation Service Support Agreement
LED	Light-Emitting Diode
LEED	Leadership in Energy and Environmental Design
MBTA	Migratory Bird Treaty Act
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
NAAQS	National Ambient Air Quality Standards
NASCC	Naval Air Station Corpus Christi
NEPA	National Environmental Policy Act
NEP	National Estuary Program
NHPA	National Historic Preservation Act
NO2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
O3	Ozone
OSHA	Occupational Safety and Health Administration
Pb	Lead
PM	Particulate Matter
PVC	Polyvinyl Chloride
REC	Record of Environmental Consideration
SHPO	State Historic Preservation Office
SO2	Sulfur Dioxide
SPL	Sound Pressure Level
SWPPP	Stormwater Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Elimination Permit
TPWD	Texas Parks and Wildlife Department
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service

Appendix B. Coastal Consistency Determination and Texas State Historic Preservation Office Consultation

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

June 21, 2019

NAVFAC SE, NAS Corpus Christi
8851 Ocean Drive, Bldg. 19, Rm. 136
Corpus Christi, Texas 78419
ATTN: Diana Maimone

Re: Construct new administrative annex, enlarging the CCAD by 12.8 acres, constructing a new building and associated parking, installing new electric and communication duct banks, and improving stormwater infrastructure
Nueces County, Texas
Texas CMP#: 19-1335-F2

Dear Applicant:

Based on information provided to the Texas Coastal Management Program (TCMP) on the above project, it has been determined that it will likely not have adverse impacts on coastal natural resource areas (CNRAs) in the coastal zone and is consistent with the goals and policies of the TCMP. However, siting and construction should avoid and minimize impacts to CNRAs. If a U. S. Army Corps of Engineers permit is required, it will be subject to consistency review under the Texas Coastal Management Program.

Please forward this letter to applicable parties. If you have any questions or concerns, please contact me at (361) 886-1630 or at federal.consistency@glo.texas.gov.

Sincerely,

Jesse Solis, Jr.
Federal Consistency - Coastal Resources
Texas General Land Office

1700 North Congress Avenue, Austin, Texas 78701-1495
P.O. Box 12873, Austin, Texas 78711-2873
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DRAFT FINDING OF NO SIGNIFICANT IMPACT

Supplemental Environmental Assessment, Powertrain PN 64026, Corpus Christi Army Depot, at Naval Air Station Corpus Christi, Texas

RESPONSIBLE AGENCY: Department of the Army

COORDINATING AGENCY: Department of the Navy

BACKGROUND:

This Finding of No Significant Impact (FONSI) has been prepared pursuant to the National Environmental Policy Act (NEPA), as amended (42 U.S.C. §§ 4321 et seq.), and regulatory requirements including the Council on Environmental Quality's 40 Code of Federal Regulations (CFR) Parts 1500-1508, U.S. Army's 32 CFR Part 651, and U.S. Navy's 32 CFR Part 775.

The FONSI has been issued to document conclusions, Best Management Practices (BMPs), and mitigation measures identified in the Supplemental Environmental Assessment (SEA) for the Powertrain (PN 64026) project at Corpus Christi Army Depot (CCAD), located on Naval Air Station Corpus Christi (NASCC).

The Proposed Action is a continuation of the larger project analyzed in the 2009 EA entitled, "Building 8 Replacement Facility," and followed with the 2015 EA entitled, "Powertrain PN 64026," which analyzed additional phases of the proposed replacement facility. Since the publication of the FONSI for the 2015 EA, several changes to the project have been proposed that warrant this supplemental EA.

PURPOSE AND NEED:

The purpose of the Proposed Action is to provide supporting facilities and associated infrastructure for CCAD administration activities and to resolve stormwater infrastructure problems. The Proposed Action is needed because the approved Powertrain Project Expansion plans in 2015 did not allocate enough space for CCAD administration support, and the planned stormwater infrastructure was inadequate.

PROPOSED ACTION:

Under the Proposed Action, CCAD would expand its footprint by approximately 12.8 acres. The Proposed Action would relocate and enlarge a proposed electrical duct bank, modify proposed access roads, construct a new 156,091 ft^2 administrative annex with a parking lot, construct a two-story parking garage, modify the proposed communications duct bank to terminate at the new administrative annex facility, and revise the Installation Service Support Agreement (ISSA) to accommodate this acreage. Ancillary features include a dumpster enclosure, service drive, and mechanical yard on the western end of the administrative annex.

NO ACTION ALTERNATIVE:

Under the No Action Alternative, no additional acreage would be acquired, the administrative facility and parking areas would not be constructed, the additional stormwater infrastructure would not be required, and the proposed electrical and communications duct banks would not be relocated and enlarged. Further, if the electrical duct bank were not installed in the new location, the most recent phase of the Powertrain facility would not have access to adequate electrical power to support the intended use.

The No Action Alternative is used to analyze the consequences of not undertaking the Proposed Action and provides a benchmark enabling Decision Makers to compare the magnitude of environmental effects of the action alternatives. The No Action Alternative is carried forward for analysis as required by NEPA regulations and Army/Navy policy.

SUMMARY OF FINDINGS FOR THE PROPOSED ACTION:

The findings and conclusions reached in this SEA are based on a thorough review of the impacts and analyses considered and disclosed in this Finding of No Significant Impact (FONSI).

Geology and Soils: No significant impacts to the geology or soils of the Project Area are expected as a result of the Proposed Action. Short term minor direct impacts to soils may occur during construction of the proposed facilities. However, during construction best management practices (BMPs) would be implemented in accordance with a site specific Stormwater Pollution Prevention Plan (SWPPP) that would prevent excessive erosion of soils and soil migration off the construction site. Therefore, any impacts would be expected to be minimal and temporary.

Water Resources: No significant impacts to coastal management resources, floodplains, wetlands, groundwater, or stormwater are expected as a result of the Proposed Action. A Negative Determination was submitted to the Texas General Land Office (TGLO) for review on June 11, 2019 in accordance with the Coastal Zone Management Act (CZMA). On June 21, 2019 the TGLO concurred that, based on the information provided, the project "will likely not have adverse impacts on coastal natural resource areas (CNRAs) in the coastal zone and is consistent with the goals and policies of the TCMP [Texas Coastal Management Program]." The Proposed Action would result in a slight increase in stormwater flow due to an increase in impervious areas. However, the proposed increase flows would not exceed existing permit limits.

Biological Resources: No significant impacts to aquatic habitats, terrestrial habitats, or wildlife are expected as a result of the Proposed Action. No known Federally-listed threatened or endangered species are known to inhabit the project area, and there is no designated critical habitat in the project area. Minor disturbance of suitable habitat for the maritime pocket gopher (*Geomys personatus maritimus*), a State of Texas species of concern, may occur during construction. However, no significant adverse impact is anticipated, and the landscaping of the finished project would provide additional area as new habitat.

Cultural Resources: No significant impacts to cultural resources, historic properties, or historic districts are expected as a result of the Proposed Action. Section 106 consultation with the Texas Historic Commission (THC) State Historic Preservation Office (SHPO) was conducted in accordance with the National Historic Preservation Act (as amended). Consultation was initiated with the THC on 19 July 2019. At the time of this publication, consultation with the Texas SHPO is still ongoing; however, a concurrence on the finding of "no historic properties affected" is expected prior to the finalization of this SEA and FONSI.

Socioeconomic Resources and Environmental Justice: No disproportionate adverse impacts to minority or low income populations and no health risks to children are expected as a result of the Proposed Action. No increase of permanent employees is expected. However, short term construction related jobs are expected, which would result in a temporary benefit to the local community.

Land Use: No significant impacts to land use are expected as a result of the Proposed Action. The Proposed Action would result in some loss of open space where the new buildings and parking lots are planned. However, the Proposed Action site would not result in a change in land use as the project area is in an already developed administrative area.

Utilities: No significant adverse impacts to potable water, industrial and domestic wastewater, electricity, natural gas consumption, or telecommunications are expected as a result of the Proposed Action. The Proposed Action may result in a benefit to the potable water infrastructure since aging domestic water lines would be removed and replaced as part of the implementation of the Proposed Action.

Hazardous Materials and Waste: No significant adverse impacts to hazardous materials and hazardous waste are expected as a result of the Proposed Action. During construction, there could be a slight increase in the amount of municipal solid waste as a result of the Proposed Action, but it is not expected to exceed the capacity of the landfill. There may be a temporary and minor impact to hazardous waste as a result of the Proposed Action. However, hazardous waste as a result of construction activities would adhere to the NASCC Hazardous Waste Management Plan.

Visual and Scenic Resources: No significant impacts to visual and scenic resources are expected as a result of the Proposed Action. The Proposed Action site is located in an already developed area of NASCC. The proposed two-story building and parking garage would change the views, but the overall scenic quality of the project areas would remain the same. The Proposed Action site construction would not inhibit any views of Corpus Christi Bay, and the view from the JFK Memorial Causeway off State Highway 358 would remain unchanged.

Traffic and Transportation: No significant adverse impacts to traffic and transportation are expected as a result of the Proposed Action. As a result of the Proposed Action, long term operation of the new facilities would improve parking, traffic flow, and secure accessibility, which would be a positive impact.

Noise: No significant impacts from noise are expected as a result of the Proposed Action. Construction and deconstruction activities would result in minor, short-term increases in noise

levels. Short-term noise created by the Proposed Action would not significantly impact sensitive receptors on CCAD or NASCC. The long-term noise levels would not be expected to significantly impact sensitive receptors as the activities within each of the new buildings already occur at their current locations, and these activities are not expected to change.

Air Quality: No significant impacts to air quality are expected as a result of the Proposed Action. The Proposed Action would result in short-term fugitive dust emissions during construction. Construction equipment would generate emissions from usage of fossil fuels. Fugitive dust emissions would be controlled by using BMPs to minimize dust like watering the site and stabilizing and covering stockpiles of materials on site. Construction vehicles would use ultra-low-sulfur diesel and/or natural gas/propane in order to minimize emissions.

SUMMARY OF CUMULATIVE EFFECTS:

The cumulative effects of implementing the Proposed Action along with other past, present, and reasonably foreseeable future actions in the Corpus Christi area were assessed in the attached SEA, and no significant cumulative effects were identified.

DECISION:

I have thoroughly reviewed the attached SEA, and it has revealed no significant environmental impacts. Based on this review and my consideration of all relevant factors, I have determined that proceeding with the Proposed Action will have no significant impact on the natural or human environment. Therefore, an environmental impact statement will not be prepared. I hereby authorize implementation of the Proposed Action.

_____ _____

[Name] Date
Colonel, U.S. Army
Commanding

_____ _____

[Name] Date
Rear Admiral, U.S. Navy
Commander, Navy Region Southeast

Enclosure:
SEA