

**Initial Study and Proposed Negative Declaration  
Health Care Facility Improvement Project  
for the  
North Kern State Prison  
Delano, California**

Prepared for:



**California Department of Corrections and Rehabilitation**  
Facility Planning, Construction and Management Division  
9838 Old Placerville Road, Suite B  
Sacramento, CA 95827

Contact: Roxanne Henriquez, Senior Environmental Planner

Prepared by:

**Michael Brandman Associates**  
2000 "O" Street, Suite 200  
Sacramento, CA 95811  
916.447.1100



Michael Brandman Associates

December 13, 2013



**FACILITY PLANNING, CONSTRUCTION AND MANAGEMENT**

9838 Old Placerville Road, Suite B  
Sacramento, CA95827



**California Department of Corrections and Rehabilitation**  
**Public Notice Announcement**  
**Release of an Initial Study and Proposed Negative Declaration**  
**for the**  
**Health Care Facility Improvement Project at the**  
**North Kern State Prison Correctional Facility**

**What's Being Planned:** The California Department of Corrections and Rehabilitation (CDCR) has released for public review the Initial Study and Proposed Negative Declaration (IS/Proposed ND) for the Health Care Facility Improvement Project at the North Kern State Prison (NKSP) Correctional Facility. The proposed project includes renovations and additions to existing health care facilities, the construction of small new facilities, and associated infrastructure improvements, all within the developed area of NKSP. Specifically, the project includes construction of a new correctional case management building, three new primary care clinics, medication distribution rooms, and additions and/or renovations to an existing primary care clinic, the central health services building and the reception center health care processing building. In total, the project includes 16,079 square feet of building renovations, 22,340 square feet of new buildings or additions, and 5,850 square feet of additional exterior impervious surface. All construction would be consistent in character, design, and height with other existing buildings and would not exceed one story. No high-mast lighting would be installed as part of the project. The project does not include any new inmate beds. Twelve additional employees would be hired. The project would not result in expansion of the existing secure perimeter. The project would include minor upgrades to the existing electrical system to serve the new and expanded buildings.

The NKSP project would remedy deficiencies in its health care delivery at NKSP through renovation of existing health care facilities and construction of new health care facilities. CDCR anticipates construction of the proposed project would begin in winter 2015, with an estimated completion date of fall 2016.

**Project Location:** The entire proposed project would be built within existing NKSP boundaries. NKSP is located at 2737 West Cecil Avenue in the City of Delano. NKSP is surrounded by undeveloped land and residential uses. NKSP is located on a State-owned, 640-acre parcel designated as Community Facilities under the Delano General Plan. NKSP is approximately 3.5 miles northwest of central Delano, eight miles northwest of central McFarland, and 30 miles south of central Tulare. NKSP is surrounded by County Line Road, undeveloped and agricultural land (north); Lytle Avenue, undeveloped land, agricultural land, and rural residences (east); West Cecil Avenue, agricultural land, a wastewater treatment plant, and undeveloped land (south); Kern Valley State Prison (southwest); and Wasco Pond Road and undeveloped land (west).

**Environmental Effects:** CDCR has prepared an IS/Proposed ND pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15063. CDCR has studied the effects that the proposed project may have on the environment. The studies show that the project would have less than significant effects on the quality of the environment and no mitigation is required.

**Where You Come In:** As lead agency under CEQA, CDCR is releasing the IS/Proposed ND for public review and comments. The IS/Proposed ND is available for a 30-day public review period from **December 16, 2013 to January 14, 2014**.

**Where to Review the Environmental Document and Provide Comments:** Formal comments regarding the IS/Proposed ND may be submitted in writing via mail, e-mail, or fax any time during the public review period. The IS/Proposed ND is available for a 30-day public review period from **December 16, 2013 to January 14, 2014**. Written comments regarding the scope and content of information in the IS/Proposed ND or any questions regarding the document should be postmarked no later than **January 14, 2014**. Comments may be sent to:

Roxanne Henriquez, Senior Environmental Planner  
Environmental Planning Section  
Facility Planning, Construction and Management  
California Department of Corrections and Rehabilitation  
9838 Old Placerville Road, Suite B  
Sacramento, CA 95827  
Phone: (916) 255-3010  
Fax: (916) 255-3030  
Email: Roxanne.Henriquez@cdcr.ca.gov

Copies of the IS/Proposed ND and all documents referenced in the IS/Proposed ND are available for public review during regular business hours at the office of CDCR identified above.

Digital copies of the IS/Proposed ND are available on the internet at <http://www.cdcr.ca.gov/FPCM/Environmental.html>.

Paper copies of the IS/Proposed ND are available for public review at the following location:

Delano Library  
925 10th Avenue  
Delano, CA 93215

## NEGATIVE DECLARATION

**Project:** Health Care Facility Improvement Project for the North Kern State Prison (NKSP), Delano, California (SCH No. *to be determined*)

**Lead Agency:** California Department of Corrections and Rehabilitation (CDCR)

**Project Description:** The proposed project includes renovations and additions to existing health care facilities, the construction of small new facilities, and associated infrastructure improvements, all within the developed area of NKSP. Specifically, the project includes construction of a new correctional case management building, three new primary care clinics, medication distribution rooms, and additions and/or renovations to an existing primary care clinic, the central health services building and the reception center health care processing building. In total, the project includes 16,079 square feet of building renovations, 22,340 square feet of new buildings or additions, and 5,850 square feet of additional exterior impervious surface. All construction would be consistent in character, design, and height with other existing buildings and would not exceed one story. No high-mast lighting would be installed as part of the project. The project does not include any new inmate beds. Twelve additional employees would be hired. The project would not result in expansion of the existing secure perimeter. The project would include minor upgrades to the existing electrical system to serve the new and expanded buildings.

The NKSP project would remedy deficiencies in health care delivery at NKSP through renovation of existing health care facilities and construction of new health care facilities. These improvements would provide the necessary facility infrastructure to support a timely, competent, and effective medical care delivery system at NKSP.

**Environmental Findings:** An Initial Study (IS) was prepared to assess the significance of the project's potential impacts on the environment. Based on the IS, and due to environmental protection features that CDCR has committed to before release of the proposed Negative Declaration (ND) and IS for public review, in light of the whole record, CDCR finds that the project will not have substantial adverse effects on the environment and no mitigation is necessary. This conclusion is supported by the following findings:

- The proposed project would have no impact to agricultural and forest resources, land use and planning, mineral resources, or recreation.
- The proposed project would have less than significant impacts on aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services, transportation/traffic, and utilities and service systems.

Questions or comments regarding this ND and IS may be addressed to:

Roxanne Henriquez, Senior Environmental Planner  
Environmental Planning Section  
Facility Planning, Construction and Management  
California Department of Corrections and Rehabilitation  
9838 Old Placerville Road, Suite B  
Sacramento, CA 95827  
Roxanne.Henriquez@cdcr.ca.gov  
Phone: 916-255-3010

California Department of Corrections and Rehabilitation

After comments are received from the public and reviewing agencies, CDCR may (1) adopt the ND and approve the proposed project, (2) undertake additional environmental studies, or (3) disapprove the project. If the project is approved, CDCR may proceed with implementation of the project.

Pursuant to Section 21082.1 of the California Environmental Quality Act, CDCR has independently reviewed and analyzed the IS and ND for the proposed project and finds that the IS and ND reflect the independent judgment of CDCR.

I hereby approve this project:

*Signature Pending Close of 30-day Public Comment Period*

**DEBORAH HYSEN**

Deputy Director

Facility Planning, Construction and Management

California Department of Corrections and Rehabilitation

\_\_\_\_\_

Date

## Table of Contents

<b>Acronyms and Abbreviations .....</b>	<b>v</b>
<b>Section 1: Introduction .....</b>	<b>1</b>
<b>Section 2: Project Description and Background.....</b>	<b>5</b>
<b>Section 3: Environmental Checklist and Discussion .....</b>	<b>23</b>
Project Information .....	23
Environmental Factors Potentially Affected.....	23
Environmental Determination .....	24
1. Aesthetics .....	25
2. Agriculture and Forestry Resources .....	39
3. Air Quality .....	42
4. Biological Resources .....	55
5. Cultural Resources .....	64
6. Geology and Soils .....	66
7. Greenhouse Gas Emissions .....	71
8. Hazards and Hazardous Materials .....	77
9. Hydrology and Water Quality.....	83
10. Land Use and Planning .....	87
11. Mineral Resources.....	89
12. Noise .....	90
13. Population and Housing .....	101
14. Public Services .....	103
15. Recreation .....	106
16. Transportation/Traffic .....	107
17. Utilities and Service Systems .....	111
18. Mandatory Findings of Significance.....	117
<b>Section 4: References.....</b>	<b>119</b>
<b>Section 5: List of Preparers .....</b>	<b>123</b>

## LIST OF APPENDICES

The digital version of this IS/Proposed ND and its Appendices are available on the CD affixed to the back cover.

### **Appendix A: Air Quality Model Methodology and Output**

A.1 - CalEEMod Methodology and Assumptions

A.2 - CalEEMod Output

### **Appendix B: Biological Resource Information**

### **Appendix C: Cumulative Projects**

### List of Tables

Table 1: NKSP New Building and Renovation Square Footage .....	9
Table 2: Medication Distribution Room Square Footage Summary .....	10
Table 3: Bakersfield-Municipal Airport Station Ambient Air Quality Monitoring Summary .....	44
Table 4: Construction Air Pollutant Annual Emissions .....	50
Table 5: Operational Air Pollutant Annual Emissions .....	51
Table 6: Construction Greenhouse Gas Emissions .....	73
Table 7: Operational CO <sub>2</sub> Generation (Year 2020) .....	74
Table 8: Short-Term Noise Level Monitoring Results .....	92
Table 9: Typical Construction Equipment Noise Levels .....	93
Table 10: Representative Vibration Source Levels for Construction Equipment .....	97

### List of Exhibits

Exhibit 1: Regional Location Map .....	15
Exhibit 2: Local Vicinity Map, Aerial Base .....	17
Exhibit 3: Site Plan .....	19
Exhibit 4a: Photograph Vantage Points .....	29
Exhibit 4b: Site Photographs .....	31
Exhibit 4c: Site Photographs .....	33
Exhibit 4d: Site Photographs .....	35
Exhibit 4e: Site Photographs .....	37
Exhibit 5: CNDDDB-Recorded Occurrences of Special-Status Species within Five Miles of the Project Site .....	59
Exhibit 6: Noise Monitoring Locations .....	95

## **ACRONYMS AND ABBREVIATIONS**

°F	degrees Fahrenheit
AB	Assembly Bill
AFY	acre-feet per year
ALUCP	Airport Land Use Compatibility Plan
ARB	California Air Resources Board
ASU	Administrative Segregation Unit
Cal OSHA	California Division of Occupational Safety and Health
CAP	Climate Action Plan
CBC	California Building Code
CCHCS	California Correctional Health Care Services
CCR	California Code of Regulations
CDCR	California Department of Corrections and Rehabilitation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Emergency Services Act
CESA	California Endangered Species Act
CFG	California Fish and Game <sup>1</sup>
CH <sub>4</sub>	methane
CHS	Central Health Services
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CUPA	Certified Unified Program Agency
CWHR	California Wildlife Habitat Relationship System
DART	Delano Area Rapid Transit
dBA	A-weighted decibel
DMG	California Department of Conservation, Division of Mines and Geology
DTSC	Department of Toxic Substances Control

<sup>1</sup> Consistent with the California Department of Fish and Game (CDFG), the title and acronym California Fish and Game (CFG) is used herein when referring to the CDFG's code of regulations (CFG Code).

**Acronyms and Abbreviations**

---

EIR	Environmental Impact Report
EOP	Enhanced Outpatient Program
EPA	United States Environmental Protection Agency
FAR	floor area ratio
FMMP	Farmland and Mapping Monitoring Program
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
gpm	gallons per minute
HCFIP	Health Care Facility Improvement Program
HCP	Habitat Conservation Plan
IS	Initial Study
kV	kilovolt
KVSP	Kern Valley State Prison
L <sub>eq</sub>	equivalent sound level
L <sub>max</sub>	Maximum sound level
L <sub>min</sub>	minimum sound level
LOS	level of service
LUST	Leaking Underground Storage Tank
LVN	Licensed Vocational Nurse
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MHPA	Multiple Habitat Planning Areas
MRZ	Mineral Resource Zone
MTCO <sub>2e</sub>	metric tons of carbon dioxide equivalents
ND	Negative Declaration
NESHAP	National Emission Standards for Hazardous Air Pollutants
NKSP	North Kern State Prison
NO <sub>2</sub>	nitrogen dioxide
NOA	naturally occurring asbestos
NO <sub>x</sub>	oxides of nitrogen
NRCS	Natural Resources Conservation Service
PFC	perfluorocarbon
PM <sub>10</sub>	particulate matter with a diameter between 10 micrometers and 2.5 micrometers
PM <sub>2.5</sub>	particulate matter with a diameter of less than 2.5 micrometers

ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
SCH	State Clearinghouse
SF <sub>6</sub>	sulfur hexafluoride
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLERA	Screening Level Ecological Risk Assessment
SLRA	Screening Level Risk Assessment
SLT	screening-level threshold
SR	State Route
SWL	Solid Waste List
TAC	toxic air contaminant
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WWTF	Wastewater Treatment Facility



## SECTION 1: INTRODUCTION

### 1.1 - Introduction and Regulatory Guidance

This Initial Study/Proposed Negative Declaration (IS/Proposed ND) has been prepared by the California Department of Corrections and Rehabilitation (CDCR) to evaluate the potential environmental effects associated with implementing health care facility improvements as part of CDCR's Health Care Facility Improvement Program (HCFIP) at the North Kern State Prison (NKSP), located in the City of Delano in Kern County. The proposed project includes renovations and additions to existing health care facilities, the construction of small new facilities, and associated infrastructure improvements, all within the existing NKSP footprint. Proposed improvements would include a total of 16,079 square feet of renovation, 22,340 square feet of new building space, and 5,850 square feet of exterior impervious surface. All construction would be consistent in character, design, and height with other existing buildings and would not exceed one story. No high-mast lighting would be installed as part of the project. The project does not include any new inmate beds. Twelve additional employees would be hired to meet the staffing needs of the new buildings. The project would not result in expansion of the existing secure perimeter.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Under CEQA, an Initial Study (IS) can be prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063(a)) and, thus, to determine the appropriate environmental document. In accordance with CEQA Guidelines Section 15070, a "public agency shall prepare . . . a proposed negative declaration or mitigated negative declaration . . . when: (a) The initial study shows that there is no substantial evidence . . . that the project may have a significant impact on the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR).

As described in Section 3 of this IS/Proposed ND, CDCR has found no substantial evidence that the project may have a significant effect on the environment. Based on the IS/Proposed ND, and because of environmental protection features that CDCR has committed to before release of the IS/Proposed ND for public review, the proposed project would avoid environmental effects to a point where, clearly, no significant effects would occur. Therefore, an IS/Proposed ND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed ND conforms to these requirements and to the content requirements of CEQA Guidelines Section 15071.

---

## 1.2 - Purpose of Document

---

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the proposed project. CDCR is the lead agency for the proposed project. CDCR has directed the preparation of an analysis that complies with CEQA. At the direction of CDCR, Michael Brandman Associates (MBA) has prepared this document. The purpose of this document is to present to decision-makers and the public the environmental consequences of implementing the proposed project. This disclosure document is being made available to the public for review and comment. The IS/Proposed ND is available for a 30-day public review period from December 16, 2013 to January 14, 2014.

If you wish to send written comments (including via e-mail), they must be postmarked by January 14, 2014. Written comments should be addressed to:

Roxanne Henriquez, Senior Environmental Planner  
Environmental Planning Section  
Facility Planning, Construction and Management  
California Department of Corrections and Rehabilitation  
9838 Old Placerville Road, Suite B  
Sacramento, CA 95827  
Roxanne.Henriquez@cdcr.ca.gov

If you have questions regarding the IS/Proposed ND, please call Roxanne Henriquez at (916) 255-3010.

After comments are received from the public and reviewing agencies, CDCR may (1) adopt the ND and approve the proposed project; (2) undertake additional environmental studies; or (3) abandon the project. If the project is approved and funded, CDCR could proceed with all or part of the project.

A copy of the IS/Proposed ND is available for public review online at <http://www.cdcr.ca.gov/FPCM/Environmental.html> and at the following public library:

Delano Library  
925 10th Avenue  
Delano, CA 93215

---

## 1.3 - Summary of Findings

---

Section 3, Environmental Checklist of this document contains the analysis and discussion of potential environmental impacts of the proposed project.

Based on the issues evaluated in that section, it was determined that the proposed project would have no impacts requiring the incorporation of mitigation.

The project was determined to have no impacts related to the following issue areas:

- Agriculture and Forestry Resources
- Land Use and Planning
- Mineral Resources
- Recreation

Impacts of the proposed project were determined to be less than significant for the following issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Population and Housing
- Public Services
- Transportation/Traffic
- Utilities and Service Systems

---

## 1.4 - Document Organization

---

This IS/Proposed ND is organized as described below.

**Section 1: Introduction.** This section introduces the environmental review process. It describes the purpose and organization of this document and presents a summary of findings.

**Section 2: Project Description and Background.** This section describes the purpose of and need for the proposed project, including its place within the HCFIP, and provides a detailed description of the proposed project.

**Section 3: Environmental Checklist.** This section presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if each of a range of impacts would result in no impact, a less than significant impact, a less than significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. However, for this project, CDCR has committed to and incorporated environmental protection features that would ensure all impacts would be less than significant. Therefore, the proposed project would avoid the effects to a point where, clearly, no significant effects would occur and no mitigation is required.

**Section 4: References.** This section lists the references used in preparation of this IS/Proposed ND.

**Section 5: List of Preparers.** This section identifies report preparers.



## SECTION 2: PROJECT DESCRIPTION AND BACKGROUND

### 2.1 - Introduction

CDCR plans to implement various health care facility improvements at NKSP located in Delano, California. The improvements include the renovation of existing facilities and addition of small, new, health care facilities, all of which would be located within the existing NKSP footprint. The proposed improvements to existing facilities would add health care treatment space, clinical support space, and office space to support the existing health care program. The proposed project would also support NKSP's existing operation as a "Reception Center" institution within the CDCR HCFIP strategy to address statewide prison health care deficiencies in its facilities. Reception Center institutions receive incoming inmates from counties, requiring them to provide both Basic and Intermediate levels of care to their inmate-patient population until they are classified and transferred to the appropriate institution. Intermediate inmate-patients are those identified as having multiple chronic and/or terminal illnesses requiring a high level of care such that tertiary care consultation and specialized services must be available. Intermediate institutions are those designed with the capability of providing specialized medical services and consultation, including those that utilize advanced technologies such as cardiology for inmate-patients with chronic illnesses (see Health Care Facility Improvement Program, Program Overview [April 2012]).

NKSP's inmate population has been decreased by 701 inmates, or 62 percent of the 2004 population, as of 2012. CDCR's long-term plan of operations, as detailed in the Future of California Corrections (referred to as the Blueprint), calls for further decreases in the population at NKSP. Along with inmate population reductions, NKSP has seen a corresponding reduction of the prison's impacts on environmental and infrastructure resources such as water, sewer, solid waste, and energy.

The proposed project does not include any new inmate beds. Twelve additional staff members would be added to NKSP to meet the custody and building maintenance needs of the new buildings. The concentration of inmate-patients requiring an Intermediate level of care, at 11 facilities statewide, allows the specialized services required to be delivered more effectively in areas where they are available locally and inside the institution, reducing the need to transport inmates to other institutions or community settings to receive services. This approach focuses facility improvements and upgrades at locations where health care services can most effectively be provided and results in savings to capital and transportation costs. This approach is also aimed at reducing inmate-patient community treatment expenses. Furthermore, providing these services in hubs is more effective than attempting to include such services at all CDCR institutions.

The proposed project at NKSP is one of several that are being funded through Assembly Bill (AB) 900, the Public Safety and Offender Rehabilitation Services Act of 2007 as amended by Chapter 22, Statutes of 2010 and Senate Bill 1022 approved in June 2012. These acts authorize the design and

construction of health care facilities, support space, and program space—and improvements to existing spaces—within existing prison facilities.

This IS prepared for the NKSP improvements concludes that there is no substantial evidence, in light of the whole record, that the improvements would have a significant effect on the environment. Thus, CDCR has determined that preparation of an ND is appropriate.

---

## **2.2 - Background**

---

In April 2001, a class action lawsuit, *Plata v. Schwarzenegger*, was filed by a group of prison inmates against the State of California contending that CDCR provided inadequate medical care to prison inmates in violation of the Eighth Amendment (prohibiting cruel and unusual punishment) and the Fourteenth Amendment (providing the right to due process and equal protection) of the United States Constitution. In 2006, the United States District Court for the Northern District of California placed California's prison health care system in receivership in response to the April 2001 *Plata v. Schwarzenegger* lawsuit.

The main goal of the HCFIP is to sufficiently improve the infrastructure at various existing CDCR facilities, including NKSP, to better ensure a timely, competent, and effective health care delivery system with appropriate health care diagnostics and treatment, medication distribution, and access to care for inmates. Implementation of the various HCFIP projects is intended to improve the overall delivery of adequate medical health care to the existing inmate population.

To this end, facility assessments have been performed at each of CDCR's adult institutions to determine the infrastructure deficiencies requiring improvement that exist within the prison system. The existing conditions and capabilities of the health care facilities were evaluated for conformance to the health care components established by the California Correctional Health Care Services (CCHCS) division of CDCR. Based on the facility assessments, CDCR and CCHCS found that the existing health care facilities constructed between 1852 and the 1990s have some deficiencies. These deficiencies include lack of space or design to take advantage of advances in medical equipment used for various diagnostic, treatment, and medical technologies. These and other factors have resulted in the need for increased and/or modified health care space.

---

## **2.3 - Need for the NKSP Project**

---

As noted above, NKSP is one of four existing institutions designated as having a Reception Center Level of Care based on an institution's ability to recruit and retain clinicians and its access to medical specialists and community medical centers of care. NKSP currently houses Reception Center and General Population Custody Levels I and III adult male inmates.

NKSP was opened in 1993 and was built according to the design standards in place at that time. Current code requirements and nationally accepted standards for health care spaces such as those

developed by the United States Department of Veterans Affairs have more clearly defined health care space requirements. Improvements are therefore needed to more effectively provide an Intermediate level of inmate care services.

In August 2009 and again in September 2012, a health care facility assessment was performed at NKSP to identify and document the existing conditions. The existing conditions and capabilities of the health care facilities were evaluated for conformance with the Medical Health Care Facility Components established by the CCHCS. The assessment included an inventory of existing health care spaces, including room size, availability of sinks, data and power connectivity, general features, and notable variations from generally accepted clinical standards. The type and number of inventoried spaces were compared with the CCHCS Health Care Components and related clinical utilization models to determine the infrastructure deficiencies that existed within the institution. Through this assessment process, existing facilities at NKSP were determined either to meet the requirements and objectives of each health care component or as having some deficiencies.

Deficiencies were identified at NKSP in the following seven health care components and their related objectives:

- Primary Care
- Specialty Care
- Medication Distribution
- Pharmacy
- Laboratory
- Reception Center Health Care Intake Screening
- Health Care Administration

The noted deficiencies of NKSP's existing facilities have the potential to compromise both proper infectious control protocols and the confidentiality of inmate health care information and treatment. Specifically, NKSP lacks sufficient outpatient and clinic support space to accommodate inmates' health care needs. As the volume and frequency of use for medical diagnostics, treatments, and technologies have increased and evolved, the staff at NKSP have attempted to remedy their need for additional space by utilizing janitor closets and small supply rooms as temporary exam rooms. These temporary areas typically lack sanitation and infection controls such as sinks or the ability to separate waste from sterile supplies. Direct Observation Therapy, which involves a caregiver observing and verifying that medication has been taken correctly, was also not practiced or designed for when NKSP was constructed.

To address the identified inadequacies, the proposed project includes eight sub-projects (described in detail in Section 2.5, Project Description). These sub-projects have been designed to remedy the health care deficiencies identified at NKSP and would enable NKSP to operate at an Intermediate

level of care, supporting the CDCR health care system. Renovation of the existing facilities and the construction of new facilities would be in accordance with the CDCR Institution Support Space Standards for health care spaces. These space standards were developed in 2010, based on the nationally accepted standards of the United States Department of Veterans Affairs, state and federal regulatory standards and codes, the Department of Public Health, the Department of Health and Human Services Centers for Disease Control and Prevention, Prevention Guidelines for Infection Control, the National Commission on Correctional Health Care, and the American Correctional Association.

---

## **2.4 - Project Location and Existing Conditions**

---

NKSP is located on 240 of 640 acres owned by CDCR at 2737 West Cecil Avenue in Delano, California. NKSP is approximately 3.5 miles west of central Delano, eight miles northwest of central McFarland, and 30 miles south of central Tulare. NKSP is surrounded by County Line Road, undeveloped and agricultural land (north); Lytle Avenue, undeveloped land, agricultural land, and rural residences (east); West Cecil Avenue, agricultural land, a wastewater treatment plant, and undeveloped land (south); Kern Valley State Prison (southwest); and Wasco Pond Road and undeveloped land (west). Regional location and vicinity maps are presented in Exhibit 1 and Exhibit 2, respectively.

NKSP consists of approximately 810,000 square feet of buildings and approximately 2,400,000 square feet of total impervious surface area. The majority of the project site is used as part of the existing facility or has been previously disturbed by facility-related activities.

---

## **2.5 - Project Description**

---

The NKSP project would remedy the identified deficiencies in the health care facility components through renovation of existing health care facilities and construction of new health care facilities. These improvements would provide critical facility infrastructure to support a timely, competent, and effective medical care delivery system at NKSP. The proposed project is expected to reduce the need for escorted inmate-patient vehicle trips to offsite specialty care treatment, due to the installation of telemedicine capabilities to enable remote diagnostics and treatment, and additional specialty care exam rooms would be provided that would allow additional specialty care treatment to take place onsite.

The proposed project consists of eight sub-projects that include new buildings, renovations to existing buildings, and additions to existing buildings. New buildings and/or renovations are summarized below in Table 1. The proposed project would result in 16,079 square feet of building renovations, 22,340 square feet of new building space, and 5,850 square feet of additional impervious surfaces. Total exterior disturbed area would consist of 40,190 square feet or 0.92 acre (combined total of 22,340 square feet of new building space, 5,850 square feet of additional impervious surface, and 12,000 square feet of temporary construction staging area). The total impervious surface added to the

institution would be only 25,018 square feet because two of the proposed buildings would be constructed on existing impervious surfaces. Note that all square footage amounts provided in this document are approximate based on conceptual plans

**Table 1: NKSP New Building and Renovation Square Footage**

Sub-project	Building Renovations (square feet)	New Buildings or Additions (square feet)	Additional Impervious Areas (square feet) <sup>1</sup>
1) Facility A Primary Care Clinic Addition and Renovation	973	1,145	0
2) New Facility B Primary Care Clinic	0	3,780	1,200
3) New Facility C Primary Care Clinic	0	5,129	1,800
4) New Facility D Primary Care Clinic	0	4,113	1,200
5) New Medication Distribution Rooms	0	1,456	1,300
6) Central Health Services Renovation and Addition	5,461	2,027	0
7) Reception Center Health Care Processing Renovation	9,645	0	0
8) New Correctional Case Management Building	0	4,690	350
Total	16,079	22,340	5,850
Note: <sup>1</sup> Accounts for additional parking, roadways, and walkways constructed outside of building footprints. Source: Vanir Construction Management, 2013.			

Each sub-project of the proposed project, as shown in Table 1, is discussed below.

### 2.5.1 - Sub-project 1: Facility A Primary Care Clinic Addition and Renovation

The existing Primary Care Clinic building would undergo 973 square feet of renovations and 1,145 square feet of additions to provide three appropriately sized exam rooms for primary healthcare treatment, a Licensed Vocational Nurse (LVN) alcove, and a lab draw alcove. All exam rooms would have sinks and would be sized to meet treatment and equipment needs. Staff workstations, offices, and clinic support spaces, including soiled and clean utility rooms, would also be provided.

### 2.5.2 - Sub-project 2: New Facility B Primary Care Clinic

A new 3,780-square-foot Primary Care Clinic would be constructed in Facility B. The clinic would include four primary care exam rooms, a multi-purpose exam room with a lab draw, an LVN alcove, staff workstations, clinic support areas, staff office, and clean and soiled utility rooms. All exam rooms would have sinks and be sized to meet treatment and equipment needs. An exterior concrete walkway totaling 1,200 square feet would be constructed adjacent to the building.

**2.5.3 - Sub-project 3: New Facility C Primary Care Clinic**

A new 5,129-square-foot Primary Care Clinic would be constructed in Facility C. The clinic would include six primary care exam rooms, a multi-purpose exam room with a lab draw, two LVN alcoves, a medication distribution room, staff workstations, clinic support areas, staff office, and clean and soiled utility rooms. All exam rooms would have sinks and be sized to meet treatment and equipment needs. An exterior concrete walkway totaling 1,800 square feet would be constructed adjacent to the building.

**2.5.4 - Sub-project 4: New Facility D Primary Care Clinic**

A new 4,113-square-foot Primary Care Clinic would be constructed in Facility D. The clinic would include four primary care exam rooms, a multi-purpose exam room with a lab draw, an LVN alcove, staff workstations, clinic support areas, staff office, and clean and soiled utility rooms. All exam rooms would have sinks and would be sized to meet treatment and equipment needs. An exterior concrete walkway totaling 1,200 square feet would be constructed adjacent to the building.

**2.5.5 - Sub-project 5: New Medication Distribution Rooms**

Two new Medication Distribution Rooms would be constructed at both Facilities B and D, each of which would provide sufficient pill line medication distribution windows, a secure area for administering injections, and secured medication distribution space to serve the inmate-patient populations housed in these facilities. Each new Medication Distribution Room would consist of hardened construction to provide secure storage of medication and would include two medication distribution windows, an injection room, countertops, sinks, a drinking fountain, and data connectivity. An exterior concrete walkway totaling 1,300 square feet would be constructed adjacent to each new Medication Distribution Room.

Table 2 summarizes the proposed new Medication Distribution Rooms.

**Table 2: Medication Distribution Room Square Footage Summary**

Facility	Number of Buildings	Square Feet Each	Square Feet Total
B	2	364	728
D	2	364	728
Total	4	—	1,456

Source: Vanir Construction Management, 2013.

**2.5.6 - Sub-project 6: Central Health Services Renovation and Addition**

The existing Central Health Services building would undergo 5,461 square feet of renovations and 2,027 square feet of additions to provide appropriate clinical space to accommodate a triage and treatment area for emergency services, specialty clinical services, and pharmacy space. Exam rooms

would include three specialty rooms, telemedicine room, optometry/ophthalmology room, optical services, and a physical therapy room. Emergency services rooms would include one standard bay, one trauma bay, and an emergency observation room. All exam rooms would have sinks and would be sized to meet treatment and equipment needs. Staff workstations, offices, and clinic support spaces, including soiled and clean utility rooms, would also be provided. Restrooms would be constructed to support the inmate and staff load of the building. Emergency vehicle access would also be provided.

### **2.5.7 - Sub-project 7: Reception Center Health Care Processing Renovation**

The existing Reception Center Health Care Processing area would undergo 9,645 square feet of renovation to accommodate comprehensive health screening (medical, mental health, and dental) of inmates newly received into the CDCR system. The new Reception Center Health Care Processing area would provide space for the Certified Nursing Assistant/LVN initial assessment, RN assessment, provider medical exam rooms with a digital chest X-ray exam room, staff offices, a medication storage room, a waiting area, and two lab draw rooms. Dental spaces would include two fully functional dental operatories to provide screenings and treatment and three dental X-ray rooms. The clinic would also include five mental health screening rooms. Additional inmate holding areas, staff offices, staff workstations, conference room, and staff support areas would be provided.

### **2.5.8 - Sub-project 8: New Correctional Case Management Building**

A new, 4,690-square-foot Correctional Case Management Building would be constructed to accommodate expanded health care processing adjacent to and integral with the existing Reception Center Health Care Processing area. The new Correctional Case Management Building would be located inside the secure perimeter on vacant land just outside central control. It would include space for correctional counselor staff displaced by the Reception Center Health Care Processing Renovation (sub-project 7), as well as private offices, workstations, staff restrooms, a break room, and building support spaces. An exterior concrete walkway totaling 350 square feet would be constructed to provide a path of travel to and from the building.

### **2.5.9 - Additional Project Information**

#### **Staffing**

The proposed project would remedy existing space deficiencies for the provision of health care services already provided at NKSP. As such, existing staff would utilize the new and renovated spaces. In addition, approximately 12 additional employees would be required to meet the staffing needs of the new buildings at NKSP. Eleven of the additional employees would serve as custody staff and would be distributed between two separate shifts: 6:00 a.m. to 2:00 p.m. and 2:00 p.m. to 10:00 p.m. Custody staff typically arrive earlier than their shift start time to relieve departing staff to ensure overlap. The remaining one additional employee would work a standard daytime shift.

## **Inmate Population**

The proposed project at NKSP does not provide additional inmate beds.

## **Visitation**

Visitation procedures for the institution would remain the same as existing visitation protocols. Because the proposed project at NKSP does not provide additional inmate beds, the project would not change visitation levels.

## **Parking**

Additional staff and visitor parking is not required for the new facilities. Parking for construction workers would be provided at the existing NKSP visitor parking area.

## **Lighting**

New buildings would include exterior lighting fixtures mounted on building facades. Exterior lighting would illuminate all recesses formed by the building shape and be consistent with CDCR Design Criteria Guidelines. All lighting would be consistent with the existing lighting of the facility, and no new high-mast lighting would be installed.

## **Utilities**

Utility service—including water, wastewater, stormwater, electricity, natural gas, telephone, and data communications—would be extended to new and renovated building spaces as necessary. Because the proposed project at NKSP does not include additional inmate beds and would require the addition of only 12 employees, additional water and wastewater needs would be minimal.

### **2.5.10 - Project Construction**

CDCR anticipates the construction of the proposed project to begin in early 2015. For the purposes of this IS/Proposed ND, it has been assumed that construction would take approximately 20 months and is scheduled to be completed in fall 2016. Primary phases of construction would include site mobilization and security, site preparation, and building construction. Construction of the sub-projects would be sequenced based on phasing requirements. Not all sub-projects would start construction at the same time. However, for the purposes of this analysis, it is assumed that all project components would be constructed simultaneously.

## **Construction Equipment**

Construction equipment types and numbers would vary, based on the phasing of project components and the sequencing of construction activities. The following construction equipment is anticipated for use in the site preparation and development of the project:

- Excavator
- Backhoe
- Jack hammer
- Front-end loader
- Tractor
- Dump truck
- Truck
- Grader
- Crane
- Fork lift
- Bobcat
- Air compressor
- Pneumatic lift
- Pneumatic tools

Earth-moving equipment, including backhoes, front-end loaders, and dump trucks, would be used during excavation for utilities and building foundations. Concrete trucks and pumpers would be onsite during concrete pours for foundations and slabs. Forklifts would be used during erection of walls and delivery of material from storage areas. Cranes would be operated for installation of precast panels, structural steel framing members, metal decking, and rooftop mechanical systems.

### **Construction Hours**

Construction would occur between the hours of 6:00 a.m. and 3:30 p.m., Monday through Friday. CDCR's contractor may request to work additional hours on weekdays and weekends with prior approval by the construction manager and institutional directors.

### **Site Demolition and Preparation**

All proposed onsite buildings and additions would be located within NKSP on previously disturbed and developed land. Building areas would be graded and soil engineered as necessary. A site-specific geotechnical engineering study would be completed for the project, and recommended soil preparation and construction methods would be incorporated into project plans and implemented onsite.

### **Construction Staging Areas**

Construction staging for all renovations or improvements would occur within the secure perimeter fence adjacent to construction areas for each sub-project as necessary. Combined, the construction staging areas would total approximately 12,000 square feet. All staging areas would be located in previously disturbed and developed areas. The staging areas would be used for approximately 20 months during project construction. Staging areas would be used for construction vehicles, equipment, and material storage. A small amount of fuels, lubricants, and solvents may be stored in these areas. Parking for construction workers would be provided at the existing NKSP visitor parking area.

### **Construction Traffic Trips**

Construction trips, including construction workers, soil hauling, demolition material removal, and building material delivery, are estimated at an average of 49 one-way trips or approximately 25 vehicles traveling to and from the project site per day (Vanir Construction Management 2013; MBA 2013). This average assumes soil hauling and demolition would occur at the same time as building

construction and is therefore a conservative estimate. Use of inmate workers as construction workers at NKSP allows for reduced offsite traffic trip generation.

### **2.5.11 - Hazardous Materials**

NKSP was constructed in 1993, after many hazardous materials were banned from construction materials. Nonetheless, prior to project construction, an industrial hygienist would perform a complete hazardous materials assessment of structures to be disturbed by the proposed project. The assessment would include sampling and testing of any suspect materials or coating for asbestos and lead. Any friable materials (material likely to emit asbestos if disturbed) and noted hazardous materials within the project area would be identified for appropriate removal and disposal during construction. All required notifications, equipment, handling, disposal, and clearance testing related to hazardous material removal would be performed in accordance with applicable regulations to ensure worker safety and best management practices are established and followed.

---

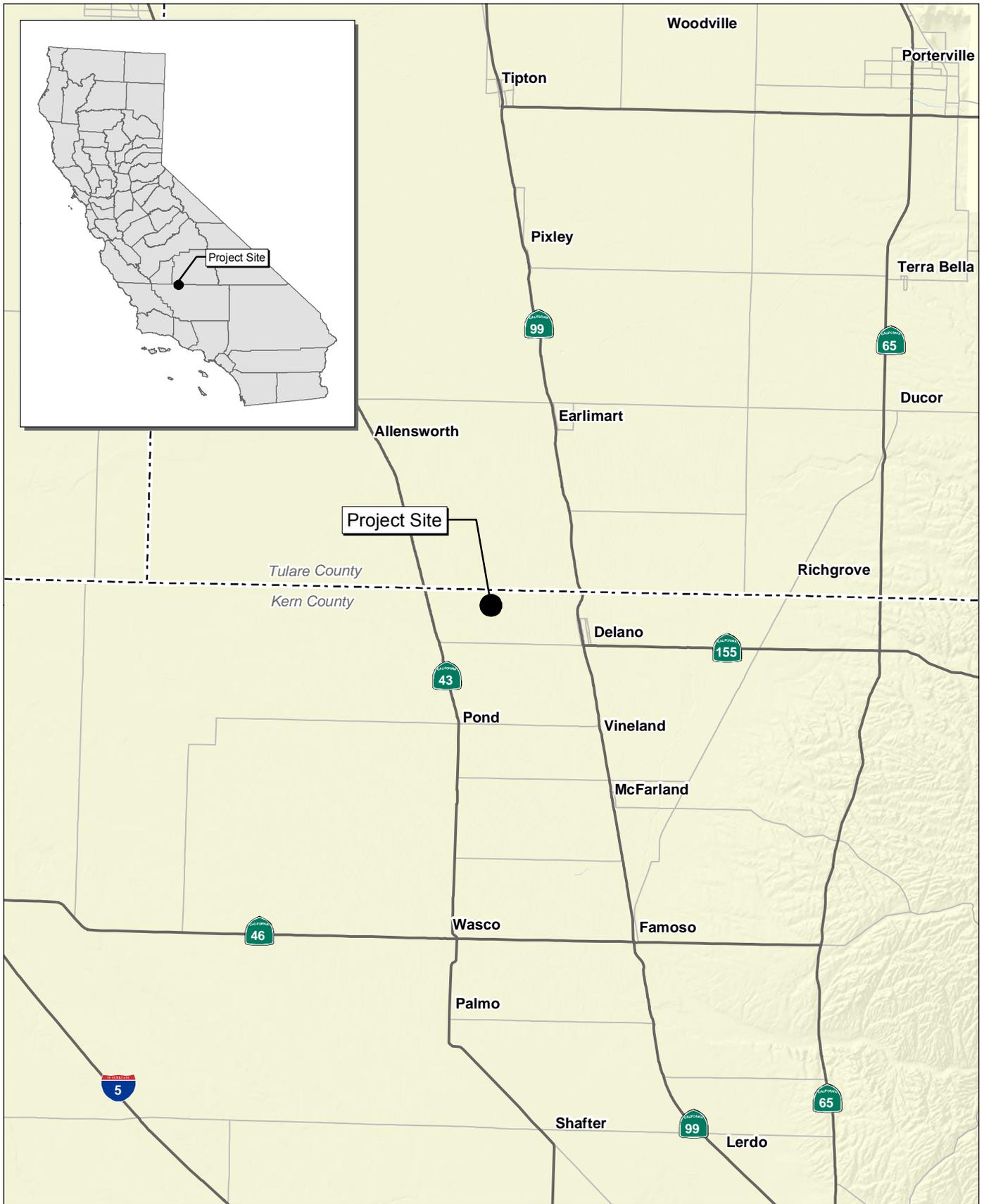
## **2.6 - Environmental Protection Design Features**

---

The following section describes features of the proposed project that would reduce potential environmental impacts.

### **2.6.1 - Inadvertent Discovery Clauses**

CDCR would require a standard inadvertent discovery clause in every construction contract to inform contractors that if a potentially significant cultural resource is encountered during subsurface earthwork, a buffer zone would be created around the find and further construction work would cease therein. Construction activities would be discontinued in the vicinity of the find in accordance with California Code of Regulations (CCR) Section 15064.5[f], until a qualified archaeologist or paleontologist determines whether the discovery requires a significance evaluation in accordance with CCR Section 15064.5(a)(3). Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramic, wood, or shell artifacts; or features including hearths, structural remains, or historic dumpsites that are more than 50 years old. In addition, the standard inadvertent discovery clause would require that if a potentially significant paleontological resource is encountered during subsurface earthwork, activities for the proposed project would cease until a qualified paleontologist determines whether the resource requires further study following Public Resources Code (PRC) Section 5097.5.



Source: Census 2000 Data, The CaSIL, MBA GIS 2013.



Michael Brandman Associates

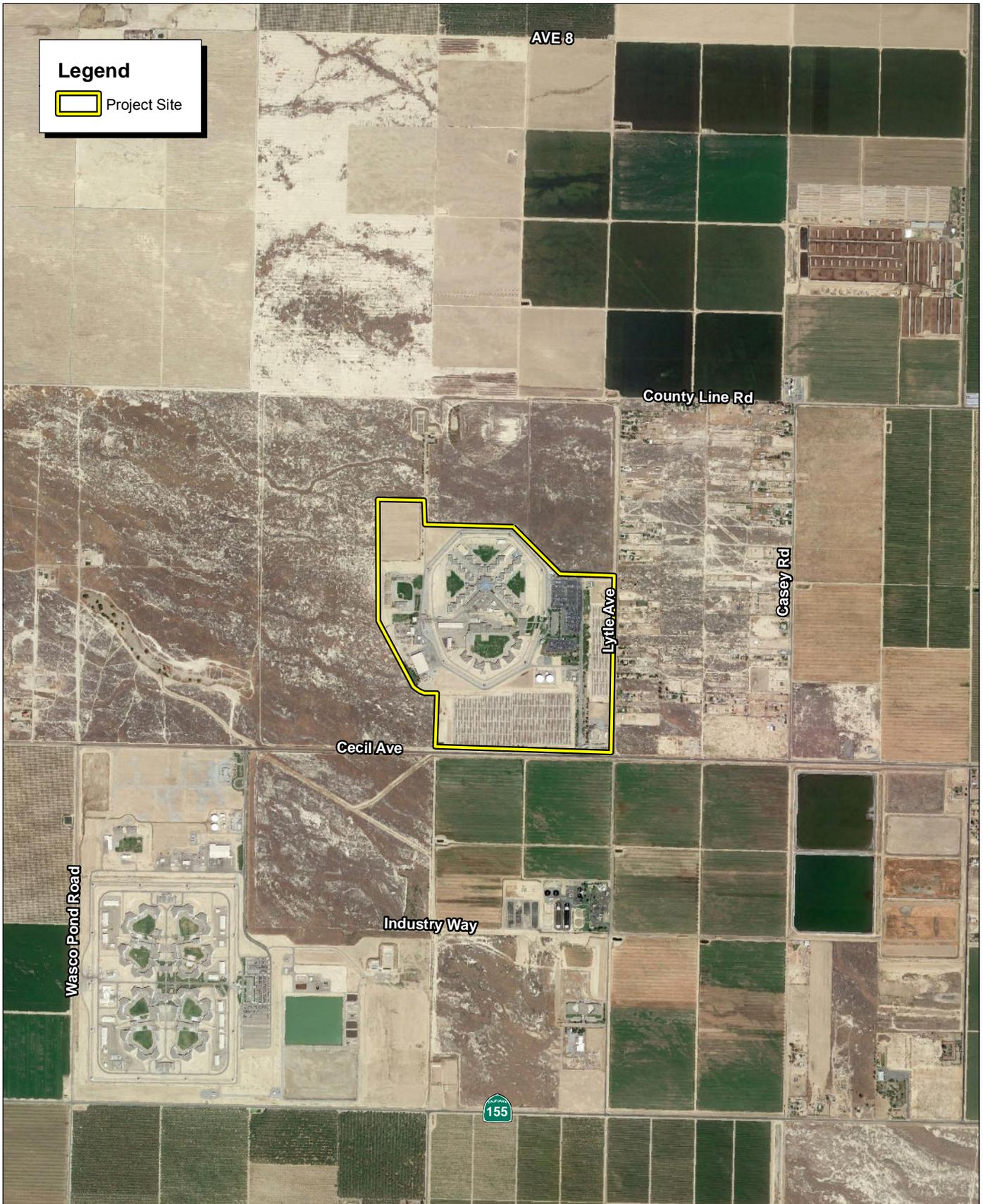
11540024 • 09/2013 | 1\_regional.mxd



## Exhibit 1 Regional Location Map

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION





Source: ESRI Aerial Imagery.



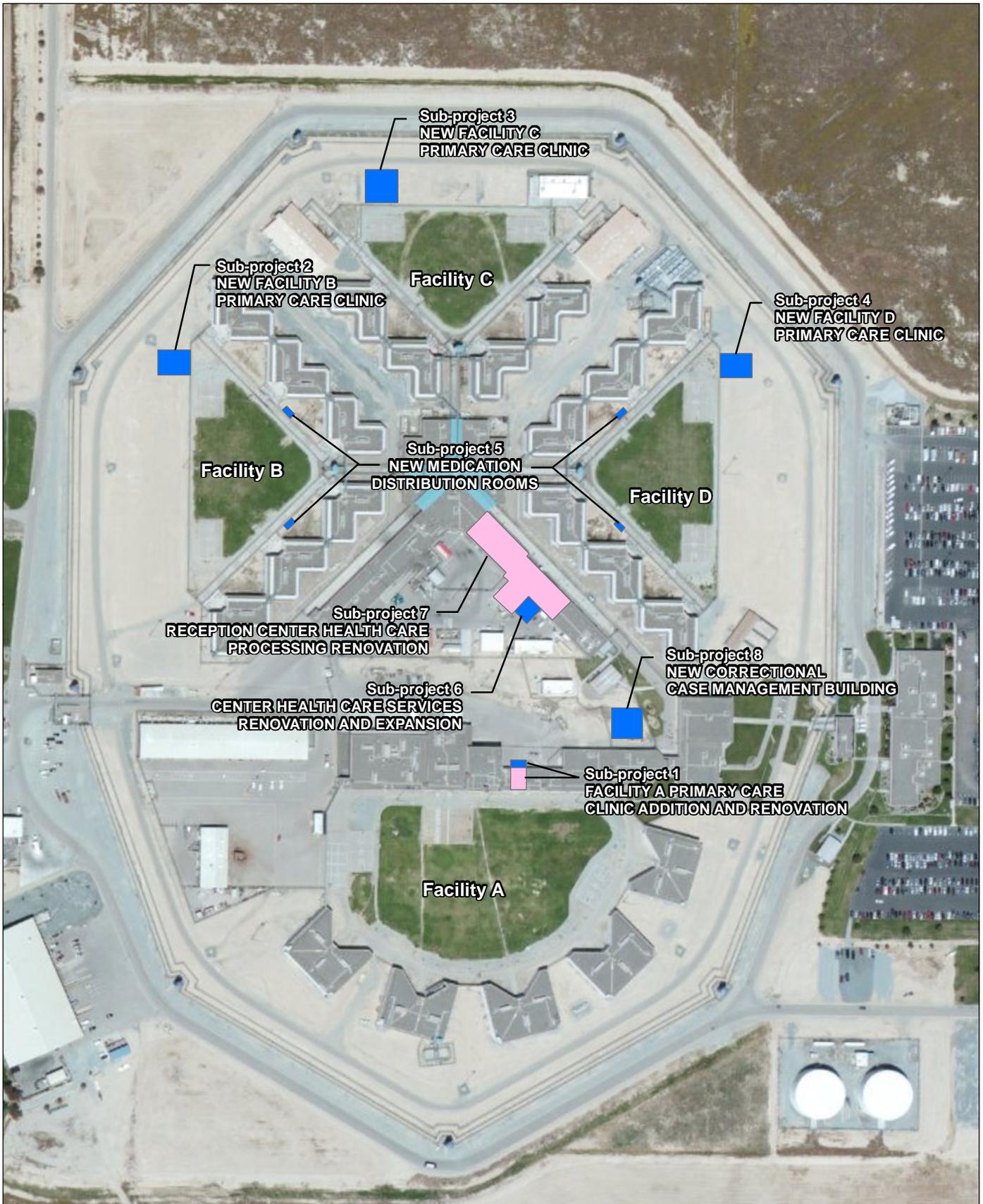
11540024 • 09/2013 | 2\_local\_aerial.mxd



## Exhibit 2 Local Vicinity Map Aerial Base

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION





Source: ESRI Aerial Imagery. MBA GIS Data.

California Department of Corrections and Rehabilitation - North Kern State Prison, 2013.



Michael Brandman Associates

11540024 • 09/2013 | 3\_site\_plan.mxd

## Exhibit 3 Site Plan

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION



## 2.6.2 - Geologic Stability

The proposed project's components have been designed to be consistent with the 2013 CBC, California Code of Regulations, Title 24, Part 2, Chapter 16, 18, 19, 20, 21, 22, and 23, and as outlined in Appendix D of CDCR's Design Criteria Guidelines. The CBC requires extensive geotechnical analysis and engineering for grading, foundations, retaining walls, and other structures, including criteria for seismic design. Incorporation of standard CBC design and construction methods would ensure that risks resulting from seismic shaking would be minimized. In addition, a geotechnical engineering report would be prepared for the project prior to final design and preparation of grading plans. The geotechnical engineering report would provide site-specific recommendations regarding site preparation, earthwork, appropriate sources and types of fill, structural foundations, grading practices, erosion, slope stability during construction and operation, earthquake resistant design, and road and pavement areas. In accordance with CBC and Appendix D of CDCR's Design Criteria Guidelines, recommendations from the geotechnical engineering report would be incorporated into project plans and implemented during project construction.

## 2.6.3 - Water Quality Protection

CDCR's Standard Design Document Guide Specification Section 31 25 00 defines standardized erosion and sedimentation controls that must be used during construction at CDCR institutions. In accordance with the specifications, CDCR and/or its contractors would be required to implement the following during construction:

- Provide materials, services, and equipment for controlling pollutants in storm water runoff associated with construction activity.
- Prevent siltation of streams, rivers, lakes, and bays etc.; avert instream degradation due to turbidity and pollutant load; and prevent toxic materials from leaving the construction site.
- All areas disturbed by demolition, site preparation, or earthwork must be protected by erosion and sedimentation controls. Other areas requiring protection include access roads, staging areas, and other areas potentially disturbed by construction activities.
- Maintain silt fences, fiber rolls, straw mulch, straw bales, aggregate for stabilized construction entrances, and other erosion control features.
- Construct erosion control measures early in the project, but no later than the start of excavation or hard demolition.
- Confine soil disturbance, grading, and machinery access to the construction areas.
- Prevent wind erosion and air pollution by wetting down or applying other approved dust control measures to the work site.

- Provide additional erosion control measures such as check dams, temporary sediment basins, or other controls as necessary to prevent site runoff to prevent precipitation during construction from producing contaminated runoff.
- Comply with laws, rules, and regulations of the State of California, United States Army Corps of Engineers (USACE), and the United States Environmental Protection Agency (EPA) prohibiting the pollution of lakes, oceans, bays, wetlands, streams, or river waters from the placing or dumping of refuse, construction materials, soils, or debris.

CDCR's Standard Design Document Guide Specifications also provide specific instructions on the placement, construction, and maintenance of silt fences, fiber rolls, straw bales, and stabilized construction entrances.

In addition, CDCR's Design and Construction Guidelines require that site design minimize the disruption to natural water flow and maximize the amount of natural infiltration on the site. Where appropriate, rainwater would be collected for stormwater control and non-potable water uses. Site grading would be designed for sheet flow of stormwater into the stormwater collection system at velocities that would not cause soil erosion and ensure no net increase of stormwater outfall would occur. Implementation of erosion and sedimentation controls during construction and incorporation of standard stormwater design requirements into the project design would ensure water quality is maintained. Erosion is minimized during both construction and operation of the project and no net increase in stormwater outfall would occur.

#### **2.6.4 - Building Energy Efficiency**

California Building Code Title 24, Part 6, establishes building energy efficiency standards for new construction (including requirements for new buildings, additions, alterations, nonresidential buildings, and repairs). Energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. All project components would be required to implement Title 24 Energy Efficiency design measures.

Consistent with Executive Order B-18-12, sustainable measures and conservation features would be implemented in accordance with the Green Building Code, assuring minimal energy use and further minimizing direct and indirect GHG emissions from project operations.

**SECTION 3: ENVIRONMENTAL CHECKLIST AND DISCUSSION**

Project Information	
1. Project Title	Health Care Facility Improvement Project for the North Kern State Prison
2. Lead Agency Name and Address	California Department of Corrections and Rehabilitation 9838 Old Placerville Road, Suite B, Sacramento, CA 95827
3. Contact Person and Phone Number	Roxanne Henriquez, Senior Environmental Planner (916)-255-3010
4. Project Location	2737 West Cecil Avenue, Delano, CA 93215
5. Project Sponsor's Name and Address	California Department of Corrections and Rehabilitation 9838 Old Placerville Road, Suite B, Sacramento, CA 95827
6. General Plan Designation	Community Facilities
7. Zoning	Community Facilities
8. Description of Project	See Section 2.5, Project Description
9. Surrounding Land Uses and Setting	See Section 2.4, Project Location and Existing Conditions
10. Other public agencies who approval is required (e.g., permits, financing approval or participation agreement)	Regional Water Quality Control Board State Department of Finance State Public Works Board Joint Legislative Budget Committee

Environmental Factors Potentially Affected			
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.			
<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry Resources
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards/Hazardous Materials
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Services Systems
<input type="checkbox"/>	None with Mitigation		



Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. Aesthetics</b> <i>Would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

---

## Environmental Setting

---

The following discussion is based on the site reconnaissance performed by MBA on September 11, 2013. High-resolution photographs were taken from representative viewpoints in the surrounding vicinity, and visual simulations were created to demonstrate the proposed project’s building massing.

### Visual Distance Zones

The following distance zones (foreground, middle ground, and background) are used to characterize the dominant visual character from each vantage point and describe views in terms that can be analyzed and compared. As discussed below, sensitivity of views modified from the existing environment is defined in order to establish thresholds for analysis of potential visual impacts resulting from the implementation of the proposed project.

**Foreground Views.** These views include elements that can be seen at a close distance and that dominate the entire view. Impacted views at this distance are generally considered potentially adverse when viewed by a sensitive viewer group, such as surrounding residents, workers, pedestrians, or regular motorists.

**Middle Ground Views.** These views include elements that can be seen at a middle distance and that partially dominate the view. Impacted views at this distance are generally considered potentially adverse when viewed by a sensitive viewer group.

**Background Views.** These views include elements that are seen at a long distance and typically do not dominate the view but are a part of the overall visual composition of the view. Impacted views at

this distance are generally considered not to be an adverse impact when viewed by a sensitive viewer group.

### **Regional Setting**

NKSP is located on 240 of 640 acres owned by CDCR at 2737 West Cecil Avenue in Delano, California (Exhibit 2). The City of Delano is located within Kern County in Southern California (Exhibit 1). The project area is located in the southern San Joaquin Valley, west of the Sierra Nevada mountain range, north of the Tehachapi Mountains, and east of the California Coast Range. Visually, the region is dominated by views of flat land consisting of agricultural land, undeveloped land, and intermittent cities or developed areas. NKSP is approximately 3.5 miles west of central Delano, eight miles northwest of central McFarland, and 30 miles south of central Tulare.

### **Visual Setting**

NKSP is surrounded by County Line Road, undeveloped and agricultural land (north); Lytle Avenue, undeveloped land, agricultural land, and rural residences (east); West Cecil Avenue, agricultural land, a wastewater treatment plant, and undeveloped land (south); Kern Valley State Prison (southwest); and Wasco Pond Road and undeveloped land (west).

Offsite views of the existing institution are generally seen from the adjacent roadways and nearby residential areas. NKSP is located in middle ground views as seen from these locations. Foreground views consist of undeveloped land, roadways, and minimal landscaping. Background views consist of undeveloped land, agricultural land and nearby mountain ranges.

Views of the project site from rural residences immediately east of NKSP off Lytle Avenue consist of foreground views of intermittent landscaping and NKSP's solar array, middle ground views of existing NKSP buildings, and background views of undeveloped and agricultural lands. Views of the project site from rural residences on West Cecil Avenue west of NKSP consist of middle ground views of undeveloped land, agricultural land, Kern Valley State Prison (KVSP), and existing NKSP buildings. Background views consist of the Sierra Nevada Mountains.

### **Sensitive Viewsheds**

Sensitive viewsheds typically consist of those seen from public land use areas (recreation areas, parks, trails, etc.) or views of significant landscape features (e.g., mountain ranges). The nearest public land areas are Bakersfield College's Delano Campus and Robert F. Kennedy High School, located adjacent to each other approximately two miles to the southeast, as well as Albany Park Elementary School and Albany Park, located approximately 2.3 miles to the east. Views of NKSP from these locations are generally negligible because of the intervening distance. Viewsheds as seen from public use areas located within the surrounding mountain areas may include NKSP. However, again, because of distance, views of the institution would be negligible. Views of the mountain ranges surrounding the region are located at a significant distance (the nearest being approximately 20

miles to the east) and are not blocked by existing NKSP buildings. Accordingly, no sensitive viewsheds are present.

---

## Discussion

---

Would the project:

**a) Have a substantial adverse effect on a scenic vista?**

**No impact.** The proposed project at NKSP would consist of eight new one-story buildings, four of which would be small (364 square feet) medication distribution rooms, as well as interior renovations and/or minor additions at three existing NKSP buildings. All construction would be consistent in character, design, and height with other existing buildings at NKSP and would not exceed one story. The proposed project building additions would be minimally visible from outside the secure perimeters. As such, existing views of the surrounding mountains as seen from outside the facilities would not change and the proposed project would not have an adverse effect on a scenic vista. No impact would occur.

**b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?**

**No impact.** There are no state-designated scenic highways near the project site and there are no officially designated state scenic highways in Kern County. The nearest officially designated state scenic highway is State Route 190 (SR-190) in Inyo County located approximately 103 miles northeast of the project site. The nearest eligible state scenic highways (not officially designated) are SR-395 and SR-14 in the northern portion of eastern Kern County located approximately 80 miles east of the project site. Accordingly, no impact would occur.

**c) Substantially degrade the existing visual character or quality of the site and its surroundings?**

**Less than significant impact.** The existing visual character of the project vicinity consists of views of undeveloped land covered in low lying ruderal vegetation, agricultural land, existing NKSP institutional buildings, nearby institutional facilities, rural residences, and background views of the Sierra Nevada Mountains, the Tehachapi Mountains, and the California Coast Range. NKSP significantly influences the character of the immediate site vicinity.

Locations from which photographs of NKSP were taken are illustrated in Exhibit 4a. The photographs are provided in Exhibit 4b through Exhibit 4e, which include block massing examples of several of the proposed facilities. Exhibit 4b provides views of the new Facility B Primary Care Clinic and the new Facility C Primary Care Clinic. Exhibit 4c provides views of the new Facility B Medication Distribution Room and the Central Health Services Building Expansion. Exhibit 4d provides views of the new Correctional Case Management Building and the new Facility D

Medication Distribution Room. Exhibit 4e provides views of the new Facility D Primary Care Clinic. Photographs of sub-project 5's proposed Facility A and C Medication Distribution Rooms are not provided but would be similar to the proposed Medication Distribution Rooms depicted for Facility B (Exhibit 4c) and Facility D (Exhibit 4d). As indicated in the representative site photographs, the proposed buildings would be consistent with the building massing existing at NKSP.

The proposed improvements at NKSP would be relatively minor additions to the existing large institution and, because of the distance from nearby viewpoints (adjacent roadways and residential areas), would represent minimal changes in the existing visual setting. As such, the proposed project would not represent a significant visual change as viewed from nearby residential areas, roadways, or public open space in the Sierra Nevada Mountains, Tehachapi Mountains, and California Coast Range. During construction, temporary staging areas would occur within the institution, and large equipment such as cranes may be used. Views of construction-related activity would be limited to the directly surrounding area and would be temporary. Accordingly, no substantial change would occur to the visual character or quality of the site and its surroundings. Impacts would be less than significant.

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less than significant impact.** The NKSP facility is currently well-lit with onsite high-mast and building mounted lighting. In addition, high-mast lighting is used at the nearby KVSP.

The proposed project would include exterior wall- and/or roof-mounted security lighting associated with the new and renovated structures. No new large sources of lighting (e.g., high-mast lighting) would be installed as part of the project. Existing high-mast lighting would not be altered. Newly added exterior wall and/or roof-mounted lighting would be consistent with CDCR Design Criteria Guidelines to minimize spillover light into surrounding properties. Furthermore, CDCR's Design Criteria Guidelines require a lighting plan for each institution to ensure light spillover is limited.

Given the existing lighting, the additional lighting associated with the proposed project would not increase the intensity of illumination in and around NKSP and, therefore, would not be expected to substantially affect nighttime views.

The proposed project does not include any building materials that would be expected to produce substantial amounts of glare. Given the distance to nearby residential development, no offsite impacts would be expected if glare were to occur. As such, impacts related to lighting and glare would be less than significant.



Source: ESRI Aerial Imagery. MBA GIS Data, 2013.



11540024 • 09/2013 | 4\_photo\_vantage\_points.mxd



## Exhibit 4a Photograph Vantage Points

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION





Photograph 1: View (facing northeast) of the proposed new Facility B Primary Care Clinic Building (Sub-project 2) location on the west side of Facility B.



Photograph 2: View (facing southwest) of the proposed new Facility C Primary Care Clinic Building (Sub-project 3) location on the north side of Facility C.

Source: MBA, 2013.



Michael Brandman Associates

11540024 • 09/2013 | 4b\_site\_photos.cdr

## Exhibit 4b Site Photographs

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION





Photograph 3: View (facing southeast) of the proposed new Facility B Medication Distribution Room (Sub-project 5) location on the south side of Facility B.



Photograph 4: View (facing northwest) of the proposed Central Health Services Building expansion (Sub-project 6).

Source: MBA, 2013.



Michael Brandman Associates

11540024 • 09/2013 | 4c\_site\_photos.cdr

## Exhibit 4c Site Photographs

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION





Photograph 5: View (facing southwest) of the proposed new Correctional Case Management Building (Sub-project 8) location, located in vacant land adjacent to central control.



Photograph 6: View (facing south) of the proposed new Medication Distribution Room (Sub-project 5) location in Facility D.

Source: MBA, 2013.



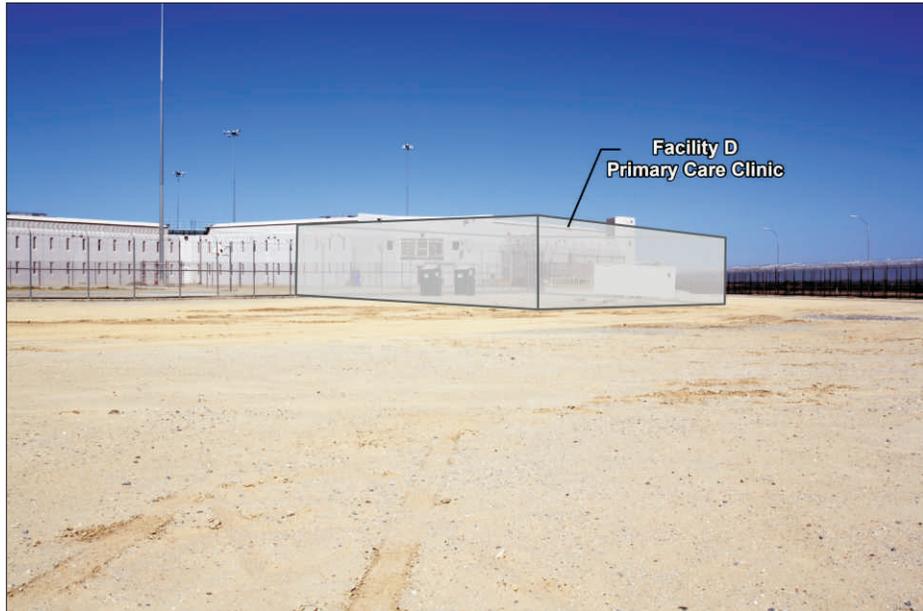
Michael Brandman Associates

11540024 • 09/2013 | 4d\_site\_photos.cdr

## Exhibit 4d Site Photographs

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION





Photograph 7: View (facing northwest) of the proposed new Facility D Primary Care Clinic Building (Sub-project 4) location on the northeast side of Facility D.

Source: MBA, 2013.



Michael Brandman Associates

11540024 • 09/2013 | 4e\_site\_photos.cdr

## Exhibit 4e Site Photographs

CDCR- HEALTH CARE FACILITY IMPROVEMENT PROGRAM  
FOR THE NORTH KERN STATE PRISON PROJECT  
INITIAL STUDY AND PROPOSED NEGATIVE DECLARATION



Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<p><b>2. Agriculture and Forestry Resources</b>  <i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i></p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

Agricultural production is a billion-dollar industry in Kern County with 2012 crop production values estimated at \$6.2 billion (Kern County 2013). The top five commodities during 2012 were grapes, almonds, milk, citrus, and pistachios (Kern County 2013). According to the Farmland Mapping and Monitoring Program's (FMMP) 2010 inventory (the most recent available), approximately 2,741,475 acres of agricultural/grazing land are located in Kern County (FMMP 2012). Currently, there are no active agricultural operations within NKSP.

---

**Discussion**

---

Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

**No impact.** Based on a review of maps prepared pursuant to the FMMP of the California Department of Conservation, the project site does not contain any land designated “Prime Farmland,” “Unique Farmland,” or “Farmland of Statewide Importance.” NKSP is designated by the FMMP as Urban and Built-Up Land (FMMP 2012). The proposed project would be located entirely within NKSP boundaries and would not impact any undisturbed lands. Therefore, no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No impact.** No Williamson Act contract land exists on the project site. NKSP is designated as Community Facilities on the Delano General Plan Land Use Map and is zoned Community Facilities on the Delano Official Zoning Map. Therefore, the proposed project would not conflict with any agricultural zoning. The proposed project is consistent with land use and zoning designations and is not expected to encourage the non-renewal or cancellation of other Williamson Act contract lands or conflict with agricultural zoning. No impact would occur.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

**No impact.** PRC Section 12220(g) defines forest land as “. . . land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” Additionally, timberland is defined by PRC Section 4526 as land “. . . which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products.” The project site consists of previously disturbed lands and non-native landscaping within a state correctional institution. Therefore, no forest land or timberland activity could be supported on the project site or in the vicinity of the project site. These conditions preclude the possibility of changes to forest land or timberland zoning resulting from the proposed project. For these reasons, no impact would occur.

**d) Result in the loss of forest land or conversion of forest land to non-forest use?**

**No impact.** See response to c), above. No forest land or timberland exists on the project site or in the vicinity of the project site. Therefore, no impact would occur.

**e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

**No impact.** Indirect impacts on agricultural lands can occur under two types of conditions: (1) development (urban, residential) can place pressure on adjacent agricultural lands to convert to non-agricultural uses, or (2) land uses (urban, residential) adjacent to existing agricultural lands can create conflicts between the two types of uses, which can, in turn, lead to the abandonment of agricultural uses in the area of conflict.

Improvements to NKSP would take place within the existing institutional boundaries and would only function to serve NKSP inmates and employees. The proposed land use is consistent with both the Delano General Plan land use and zoning designations. No farmland or forest land exists within NKSP. Moreover, the proposed project does not include components that would result in changes to surrounding land uses. Implementation of the proposed project would not result in conversion of farmland or forest land, and there are no project elements that would otherwise affect agricultural or forest lands. Therefore, no impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. Air Quality</b> <i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.</i> <i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Environmental Setting

The United States Environmental Protection Agency (EPA) sets National Ambient Air Quality Standards, also known as federal standards. There are federal standards for six common air pollutants, called criteria air pollutants, which were identified resulting from provisions of the Clean Air Act. The six criteria pollutants are ozone, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), nitrogen dioxide, carbon monoxide (CO), lead, and sulfur dioxide. The federal standards are set to protect public health, including that of sensitive individuals. Thus, the standards are periodically updated as more medical research is available regarding the health effects of the criteria pollutants.

The California Air Resources Board (ARB), a component of the California Environmental Protection Agency, administers California ambient air quality standards for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants consist of the six federal criteria pollutants listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. Health effects of the criteria pollutants may be found at the ARB's website (ARB 2012).

The project is within Kern County, west of Delano, which is part of the San Joaquin Valley Air Basin (SJVAB) and under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is the local regional jurisdictional entity charged with attainment

planning, rule making, rule enforcement, and monitoring under Federal and State Clean Air Acts and Clean Air Act Amendments. The SJVAB contains most of California's San Joaquin Valley, including western Kern County, Tulare County, Kings County, Fresno County, Madera County, Merced County, Stanislaus County, and San Joaquin County. The SJVAB is designated as non-attainment for the state and federal ozone and PM<sub>2.5</sub> standards, as well as the state PM<sub>10</sub> standard (SJVAPCD 2013). Therefore, the pollutants of concern for the project area are primarily ozone and particulate matter.

The SJVAB has had chronic non-attainment of federal and state clean air standards for ozone and particulate matter that are due to a combination of topography and climate. The San Joaquin Valley is hemmed in on three sides by mountain ranges, with prevailing winds carrying pollutants and pollutant precursors from urbanized areas to the north (and in turn contributing pollutants and precursors to downwind air basins). The Mediterranean climate of this region, with a high number of sunny days and little or no measurable precipitation for several months of the year, fosters photochemical reactions in the atmosphere, creating ozone and particulate matter.

Elevated levels of ozone, PM, and CO are seasonal in nature. Significant ozone formation generally requires an adequate amount of ozone precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. Ozone precursors are primarily oxides of nitrogen (NO<sub>x</sub>) and reactive organic gases (ROG). The conditions for ozone formation are prevalent during the summer when thermal inversions are most likely to occur. PM levels tend to be highest during the winter months when the meteorological conditions favor the accumulation of localized pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrate the pollution. In addition, CO concentrations are higher in winter.

Existing local air quality, historical trends, and projections of air quality are best evaluated by reviewing relevant air pollutant concentrations near the project area. The closest air monitoring station is in Bakersfield on South Union Avenue, approximately 36 miles southeast of the project. The South Union Avenue ambient air monitoring station (Bakersfield-Municipal Airport Station) measures 1-hour and 8-hour ozone, daily PM<sub>10</sub> and PM<sub>2.5</sub>, 8-hour CO, and 1-hour NO<sub>2</sub>. Table 3 summarizes 2010 through 2012 published monitoring data from ARB's Aerometric Data Analysis and Management System for the Bakersfield-Municipal Airport Station.

**Table 3: Bakersfield-Municipal Airport Station Ambient Air Quality Monitoring Summary**

Air Pollutant	Averaging Time	Measurement/Standard	Year		
			2010	2011	2012
Ozone	1 Hour	Max 1 hour measurement (ppm)	0.140	0.134	0.135
		Days above CAAQS of 0.09 ppm	59	71	72
	8 Hour	Max 8 hour measurement (ppm) <sup>1</sup>	0.114	0.105	0.116
		Days above CAAQS of 0.07 ppm	115	131	134
		Days above NAAQS of 0.075 ppm	93	109	105
Particulate matter (PM <sub>10</sub> )	24 Hour	State Annual Average (µg/m <sup>3</sup> ) <sup>2</sup>	35.0	44.2	41.4
		Max 24 hour measurement (µg/ m <sup>3</sup> )	235.6	151.8	138.6
		Est. days above CAAQS of 50 µg/ m <sup>3</sup>	67	113	55
		Est. Days above NAAQS of 150 µg/ m <sup>3</sup>	1	0	0
Fine particulate matter (PM <sub>2.5</sub> )	24 Hour	Annual Average (µg/m <sup>3</sup> ) <sup>2</sup>	17.2	18.2	17.9
		Max 24 hour measurement (µg/m <sup>3</sup> ) <sup>1</sup>	65	62	71
		Measured days above NAAQS of 35 µg/m <sup>3</sup>	47	65	39
Carbon monoxide (CO)	8 Hour	Max 8 hour measurement (ppm)	2.03	2.71	2.22
		Days above CAAQS standard of 9.0 ppm	0	0	0
		Days above NAAQS Standard of 9 ppm	0	0	0
Nitrogen dioxide (NO <sub>2</sub> )	Annual	Annual Average (ppm)	14	16	15
	1 Hour	Max 1 hour measurement (ppm)	82	69	78
		Days above CAAQS standard of 0.18 ppm	0	0	0
Abbreviations: ppm = parts per million                      µg/m <sup>3</sup> = micrograms per cubic meter Max = maximum                                  Est. = Estimated CAAQS = California ambient air quality standards NAAQS = National ambient air quality standards <sup>1</sup> From the California Measurement <sup>2</sup> Federal Annual Average Source: ARB 2013.					

**Sensitive Receptors**

Certain populations, such as children, the elderly, and persons with preexisting respiratory or cardiovascular illness, are particularly sensitive to the health impacts of air pollution. For purposes of CEQA, the SJVAPCD considers residences, schools, daycare centers, playgrounds, and medical facilities to be sensitive receptors. The proposed project has the potential to impact the existing sensitive inmate population and staff at NKSP. Some of the existing inmates may be considered sensitive receptors because they are long-term residents with pre-existing illnesses.

Rural residences are located east of the project sites along Lytle Avenue, of which the closest are approximately 1,400 feet from the closest sub-project to the property line of the closest residence. In addition, KVSP is located approximately one mile southwest of the closest sub-project site. Existing inmates at KVSP may also be considered sensitive receptors.

### **SJVAPCD Thresholds of Significance**

While the final determination of whether or not a project has a significant effect is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), SJVAPCD recommends that its air pollution thresholds be used to determine the significance of project emissions. The criteria pollutant thresholds and various assessment recommendations are contained in the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) and are discussed under the CEQA checklist questions below.

---

## **Discussion**

---

Would the project:

**a) Conflict with or obstruct implementation of the applicable air quality plan?**

**Less than significant impact** To meet federal Clean Air Act requirements, air districts must prepare attainment plans for pollutants for which they are in non-attainment. The SJVAPCD's most recent air quality plans are the 2007 PM<sub>10</sub> Maintenance Plan, the 2008 PM<sub>2.5</sub> Plan, the 2012 PM<sub>2.5</sub> Plan, and the 2007 Ozone Plan. These plans establish a comprehensive air pollution control program leading to the attainment of state and federal air quality standards in the SJVAB. The GAMAQI does not provide specific guidance on analyzing conformity with the District's Air Quality Plans (AQPs). Therefore, the following criteria were used for determining project consistency with the current AQPs:

1. Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the SJVAPCD for Regional and Local Air Pollutants.
2. Would the project conform to the assumptions in the AQPs?
3. Would the project comply with applicable control measures in the AQPs?

### **Project's Contribution to Air Quality Violations**

A measure of determining if the project is consistent with the AQP is if the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs. As shown in discussion b), neither construction nor operation of the project

would cause a Fugitive Dust or CO violation. As shown in discussion c), neither construction nor operation of the project would exceed SJVAPCD thresholds of significance.

The project would also be consistent with the applicable control measures from the attainment plans through compliance with applicable SJVAPCD rules and regulations. Specifically, the project is required to comply with the following applicable SJVAPCD rules and regulations:

- Rule 4002 – National Emission Standards for Hazardous Air Pollutants (related to asbestos containing materials).
- Rule 4102 – Nuisance. The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials.
- Rule 4601 – Architectural Coatings. The purpose of this rule is to limit ROG emissions from architectural coatings. Emissions are reduced by limits on ROG content and providing requirements on coatings storage, cleanup, and labeling.
- Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit ROG emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641.
- Regulation VIII – Fugitive PM<sub>10</sub> Prohibitions. Rules 8011-8081 are designed to reduce PM<sub>10</sub> emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc.
- Rule 9510 – Indirect Source Review. This rule reduces the impact of NO<sub>x</sub> and PM<sub>10</sub> emissions from growth on the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through onsite mitigation, offsite District-administered projects, or a combination of the two. An Air Impact Assessment application must be submitted to begin rule compliance because the size of the overall project meets the rule applicability threshold of 10,000 square feet of government space or 9,000 square feet of “unidentified” space. However, as shown in Section 3.3, Air Quality, Discussion c) below, the project’s construction and operational emissions are less than two tons per year each for NO<sub>x</sub> and PM<sub>10</sub>, thereby meeting the exemption threshold contained in Rule 9510 (Indirect Source Review). Therefore, the project is exempt from the emissions reductions requirements of SJVAPCD Rule 9510, which reduces the impact of NO<sub>x</sub> and PM<sub>10</sub> emissions from growth in the Air Basin.

Therefore, the project complies with this criterion.

### **Consistency with Assumptions in AQPs**

The primary way of determining consistency with the AQP's assumptions is determining consistency with the applicable General Plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the AQPs for the air basin.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designates locations for land uses to regulate growth. The applicable General Plan for the project is the City of Delano General Plan, which was adopted in 2005, prior to the SJVAPCD's adoption of the applicable AQPs. Therefore, if the project's population growth and VMT are consistent with the General Plan, then the project is consistent with the growth assumptions used in the applicable AQPs. The proposed project is consistent with the current general plan, and would not require a General Plan Amendment. The proposed project is an improvement project to an existing facility. The proposed project would be consistent with the allowable uses and development intensity of the land use designation and zoning. Furthermore, the project would not result in an increase in inmate population or visitation levels and would add only 12 additional staff members. The proposed project is expected to reduce the need for escorted inmate-patient vehicle trips to offsite specialty care treatment. As such, the project would not cause substantial increases in population, vehicle trips, or VMT that would conflict with the applicable AQPs and would be consistent with the assumptions in the AQPs. Therefore, the project complies with this criterion.

### **Control Measures**

The AQP contains a number of control measures, including the rules outlined by the SJVAPCD. The control measures in the AQP are enforceable requirements. The project would be required to comply with all of the SJVAPCD's applicable rules and regulations. Therefore, the project complies with this criterion.

### **Summary**

The proposed project would not contribute to air quality violations, would be consistent with assumptions in applicable AQPs, and would be required to comply with SJVAPCD's applicable control measures. As such, the proposed project would not conflict with or obstruct implementation of the applicable AQPs. Impacts would be less than significant.

#### **b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

**Less than significant impact.** This impact relates to localized criteria pollutant impacts. Potential localized impacts would be exceedances of State or federal standards for PM<sub>10</sub> or CO. Particulate matter emissions (primarily PM<sub>10</sub>) are of concern during construction because of the potential to emit fugitive dust during earth-disturbing activities. CO emissions are of concern during project operation

because operational CO hotspots are related to increases in on-road vehicle congestion. Each is discussed separately below.

### **Construction Fugitive Dust**

Dust emissions from grading and trenching can create nuisances and localized health impacts related to fugitive dust. According to the GAMAQI, implementation of all control measures indicated in Tables 6-2 and 6-3 of the GAMAQI would reduce construction-generated PM<sub>10</sub> emissions to a less than significant level. The GAMAQI was prepared in 2002, after which, the SJVAPCD adopted the control measures indicated in Tables 6-2 and 6-3 as components of Regulation VIII, Fugitive PM<sub>10</sub> Prohibitions. The project is required to comply with Regulation VIII. Therefore, the project would implement the control measures indicated in Tables 6-2 and 6-3 of the GAMAQI through regulatory compliance and would generate a less than significant impact for fugitive dust generation during project construction.

### **Operational CO Hotspot**

Localized high levels of CO (CO hotspots) are associated with traffic congestion and idling or slow moving vehicles. The SJVAPCD has established that if the project does not meet either of the following criteria at intersections affected by the proposed project, the project can be said to have no potential to create a violation of the CO standard:

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at more or more intersections in the project vicinity.

As discussed in Section 3.16, Transportation/Traffic, construction traffic would not occur during peak traffic hours and construction traffic impacts to existing LOS at affected intersections would be less than significant. As stated in the project description, the project would not result in an increase in visitation levels because no new inmate beds would be added. Inmate or delivery trips associated with the institutions would not increase. Eleven of the 12 additional employees would serve as custody staff and would be distributed between two separate shifts: 6:00 a.m. to 2:00 p.m. and 2:00 p.m. to 10:00 p.m., thereby requiring no work commute trips during peak traffic hours. Custody staff make only two trips per day, one trip to and one trip from NKSP. The addition of traffic trips from the remaining additional employee, who would work during a standard daytime shift, and could make up to four trips per day (two trips to and two trips from NKSP), would be minimal compared with the existing number of employee traffic trips to and from NKSP. Furthermore, the projects would be expected to result in a reduction of existing vehicle trips generated by NKSP, as the increased capacity of onsite medical services would alleviate the existing need for transportation between NKSP and offsite medical service locations. Therefore, operation of the project would result in a minimal increase in employee vehicle trips and a reduction of existing inmate transport trips, and it is

not anticipated to result in a deterioration of an intersection's LOS to E or F, or contribute additional traffic to an intersection that already operates at LOS of E or F. As such, the project would not meet either screening criteria and no additional analysis is needed. Impacts related to operational CO hotspots would be less than significant.

### Conclusion

In summary, the project would not emit a significant quantity of fugitive dust and would not significantly contribute to a CO hotspot. Therefore, the project would not contribute substantially to an existing or projected localized air quality violation. Impacts would be less than significant.

- c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?**

**Less than significant impact.** This impact is related to regional criteria pollutant impacts. The non-attainment regional pollutants of concern are ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. Ozone is not emitted directly into the air, but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, ROG and NO<sub>x</sub>, react in the atmosphere in the presence of sunlight to form ozone. Therefore, the SJVAPCD does not have a recommended ozone threshold, but it does have thresholds of significance for ROG and NO<sub>x</sub>. This impact section includes analysis of, and significance determinations for, those pollutants.

According to the GAMAQI, the SJVAPCD based the ozone precursor thresholds' "significant contribution" definition on the California Clean Air Act's offset requirements for ROG and NO<sub>x</sub>. The ROG and NO<sub>x</sub> offset thresholds are described in SJVAPCD Rule 2201 (New and Modified Stationary Source Review).

### Thresholds

The SJVAPCD's GAMAQI does not have quantitative thresholds for construction emissions. Therefore, the numeric thresholds used for assessing the significance of project operations is used to assess significance of construction emissions in this IS/Proposed ND.

The GAMAQI has operational thresholds for ROG and NO<sub>x</sub>. Since publication of the GAMAQI in 2002, the SJVAPCD has recommended use of a PM<sub>10</sub> threshold of 15 tons per year for project operations. Because the SJVAB is in non-attainment for PM<sub>2.5</sub>, the threshold for PM<sub>2.5</sub> for this project will be nine tons per year. The justification for this number is that PM<sub>2.5</sub> is in non-attainment and should have a more stringent threshold than PM<sub>10</sub> to provide a worst-case assessment. The annual standard for PM<sub>10</sub> is 20 µg/m<sup>3</sup> and the annual standard for PM<sub>2.5</sub> is 12 µg/m<sup>3</sup>. Therefore, the ratio of PM<sub>10</sub> to PM<sub>2.5</sub> results in a threshold for PM<sub>2.5</sub> of nine tons per year.

The annual significance thresholds to be used for the project for operational and construction emissions are as follows:

- 10 tons per year ROG
- 10 tons per year NO<sub>x</sub>
- 15 tons per year PM<sub>10</sub>
- 9 tons per year PM<sub>2.5</sub>

**Construction Emissions**

Construction activities associated with the proposed project would temporarily generate ROG, NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. The primary source of construction-related ROG and NO<sub>x</sub> emission is gasoline and diesel powered, heavy-duty mobile construction equipment. Primary sources of PM<sub>10</sub> and PM<sub>2.5</sub> emissions are generally clearing and demolition activities, grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed surfaces.

The California Emissions Estimator Model (CalEEMod) version 2013.2.2 was used to quantify project-generated construction emissions. The analysis methodology, assumptions and the CalEEMod output are provided in Appendix A. Renovations were not included in these construction calculations, as renovations would not require heavy duty equipment usage or large volume soils movement, which are the main sources of air pollutant emissions during construction. Construction activities would consist of demolition, site preparation, grading, building construction and architectural coating. Table 4 summarizes annual construction-related emissions for the pollutants of concern. As shown in the table, emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed the significance thresholds during the proposed project’s construction. Construction criteria impacts would be less than significant.

**Table 4: Construction Air Pollutant Annual Emissions**

Source of Emissions (year)	Emissions (tons per year)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction (2015)	0.08	0.68	0.06	0.04
Construction (2016)	0.23	0.32	0.03	0.02
<b>SJVAPCD threshold</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>9</b>
Significant impact?	No	No	No	No
Notes: ROG = reactive organic gases                      NO <sub>x</sub> = nitrogen oxides PM <sub>10</sub> and PM <sub>2.5</sub> = particulate matter less than 0.1 µg and less than 2.5 µg, respectively Source of emissions: CalEEMod Output (Appendix A).				

### Operational Emissions

Operational emissions occur over the lifetime of the project and are from two main sources: area sources (e.g., boilers, water heaters) and mobile sources (e.g., motor vehicles). The California Emissions Estimator Model (CalEEMod) version 2013.2.2 was used to quantify project-generated operational emissions. The analysis methodology, assumptions and the CalEEMod output are provided in Appendix A. Table 5 summarizes annual operational emissions. As shown in the table, operation of the new and renovated facilities would produce substantially less emissions than the SJVAPCD thresholds. Operational criteria pollutant impacts would be less than significant.

**Table 5: Operational Air Pollutant Annual Emissions**

Source of Emissions	Emissions (tons per year)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	0.10	0.00	0.00	0.00
Energy	0.00	0.05	0.00	0.00
Mobile	0.30	1.01	0.32	0.09
<b>Total Annual Emissions</b>	<b>0.41</b>	<b>1.06</b>	<b>0.32</b>	<b>0.10</b>
<b>SJVAPCD threshold</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>9</b>
Significant impact?	No	No	No	No
Notes: ROG = reactive organic gases                      NO <sub>x</sub> = nitrogen oxides PM <sub>10</sub> and PM <sub>2.5</sub> = particulate matter less than 0.1 µg and less than 2.5 µg, respectively Source of emissions: CalEEMod Output (Appendix A).				

### Conclusion

In summary, the project would not exceed the SJVAPCD’s significance thresholds for construction or operational pollutants. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Impacts would be less than significant

#### d) Expose sensitive receptors to substantial pollutant concentrations?

**Less than significant impact.** This discussion addresses whether the project would expose sensitive receptors to asbestos, construction-generated fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>), construction-generated diesel particulate matter (DPM), operational-related toxic air contaminants (TACs), or operational CO hotspots.

The SJVAPCD considers a sensitive receptor to be any land use or facility that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. The proposed project may be considered a sensitive receptor because some of the existing

inmates are long-term residents with pre-existing illnesses. Sensitive receptors also exist near the project site including existing nearby residences (the closest of which are approximately 1,400 feet east of the nearest sub-project) and the KVSP (located approximately one mile southwest of the nearest sub-project).

## **Asbestos**

### ***Asbestos-Containing Materials***

Asbestos is a fibrous mineral which is both naturally occurring in ultramafic rock (a rock type commonly found in California), and used as a processed component of building materials. Because asbestos has been proven to cause a number of disabling and fatal diseases, such as asbestosis and lung cancer, it is strictly regulated either based on its natural widespread occurrence, or in its use as a building material. In the initial Asbestos National Emission Standards for Hazardous Air Pollutants rule promulgated in 1973, a distinction was made between building materials that would readily release asbestos fibers when damaged or disturbed (friable) and those materials that were unlikely to result in significant fiber release (non-friable). The EPA has since determined that, severely damaged, otherwise non-friable materials can release significant amounts of asbestos fibers. Asbestos has been banned from many building materials under the Toxic Substances Control Act, the Clean Air Act, and the Consumer Product Safety Act. However, most uses of asbestos for building material are not banned. Therefore, the project would potentially expose receptors to asbestos during renovation of the existing structures.

Because the proposed project would involve renovation activity, various regulatory requirements apply. The SJVAPCD has regulations that require compliance with the asbestos demolition and renovation requirements developed by the United States Environmental Protection Agency (EPA) in the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation, 40 CFR, Part 61, Subpart M. These requirements include but are not limited to inspection, abatement, notification to the SJVAPCD, payment of fees, and demolition permit. Compliance with the SJVAPCD, federal, and state regulations reduces the potential of asbestos-containing material exposure to a less than significant impact.

### ***Naturally Occurring Asbestos***

The California Department of Conservation, Division of Mines and Geology (DMG) has a published guide for generally identifying areas that are likely to contain naturally occurring asbestos (NOA). The DMG map indicates that there were two former asbestos prospect sites and a small area of ultramafic rock within Kern County. However, the project site is approximately 50 miles from the nearest area likely to contain NOA. Therefore, disturbance of NOA during project construction is not a concern for the project.

### ***Construction: Fugitive Dust***

Dust emissions from grading, trenching, or land clearing can create nuisances and localized health impacts related to fugitive dust. As shown in Discussion b) and c) above, the project would not

exceed the threshold of significance for construction-generated PM<sub>2.5</sub> and PM<sub>10</sub> because the appropriate dust control measures would be implemented during each phase of construction, as required by SJVAPCD's Regulation VIII. Therefore, the project would not expose sensitive receptors to substantial PM<sub>10</sub> or PM<sub>2.5</sub> concentrations from construction activities.

***Construction: Diesel Particulate Matter***

Studies have demonstrated that diesel particulate matter (DPM) from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. The project would generate diesel exhaust, a source of DPM, during project construction. Onsite emissions of DPM would occur during construction from the operation of heavy-duty construction equipment and from vendor trucks that travel on the project site.

Construction phase risks would be considered acute health risks as opposed to cancer risks, which are long-term. The California Office of Environmental Health Hazard Assessment has yet to define acute risk factors for diesel particulates that would allow the calculation of a hazards risk index. Thus, evaluation of this impact would be speculative and no further analysis is necessary.

***Operation: Toxic Air Contaminants***

The GAMAQI states that hospitals, schools, convalescent facilities, and residential areas are considered sensitive receptor land uses. The GAMAQI states that any project with the potential to expose sensitive receptors (including residential areas) or the general public to substantial levels of toxic air contaminants would be deemed to have a potentially significant impact. This applies to receptors proposed to be located near existing sources of toxic air contaminants, as well as sources of toxic air contaminants proposed to be located near existing receptors. As previously stated, some of the existing inmates may be considered sensitive receptors because they are long-term residents with pre-existing illnesses. Therefore, the nearest location of sensitive receptors is on the project site.

The ARB's Air Quality and Land Use Handbook (Land Use Handbook) was used to determine if the project would be considered a "source" of toxic air contaminants. The Land Use Handbook contains recommendations for locating sensitive receptors in relation to known sources of toxic air contaminants in order to minimize potential health impacts to sensitive receptors (ARB 2005). The Land Use Handbook recommends avoiding siting new receptors within 1,000 feet of a distribution center that accommodates more than 100 trucks per day. Although the project is not a distribution center, the guidance is a good gauge of potential significance. As previously mentioned, operation of the project would result in a minimal increase in employee vehicle trips and a reduction of existing inmate offsite transport trips. Additional operational vehicle trips would be far less than 100. As such, potential health risks and exposure to TACs from operation of the project are less than significant.

**Operation: CO Hotspot**

As shown in Section 3.3, Air Quality, Discussion b) above, the project would not create a localized CO hotspot. Therefore, the project would not expose receptors to substantial CO concentrations from operational activities.

**Conclusion**

The project would not expose receptors to substantial quantities or significant concentrations of asbestos from renovation or soils disturbance, construction-generated fugitive dust, construction-generated DPM, operational TACs, or CO hotspots. Therefore, the project would result in a less than significant impact.

**e) Create objectionable odors affecting a substantial number of people?**

**Less than significant impact.** As indicated in the GAMAQI, while offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. Analysis of potential odor impacts should be conducted for the following two situations:

- **Generators** – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
- **Receivers** – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, the SJVAPCD has no rules or standards related to odor emissions, other than its nuisance rule. Any actions related to odors are based on citizen complaints to local governments and the SJVAPCD.

Land uses typically associated with odors include wastewater treatment facilities, waste disposal facilities, or agricultural operations. The existing institution does not produce or concentrate odiferous pollutants. Operations of the proposed project would be similar to the baseline conditions in regard to odor. Diesel exhaust and ROG—considered by some to be objectionable odors—would be emitted during construction of the project, but emissions would disperse rapidly from the project site and would not be at a level considered to induce a negative response. Therefore, the proposed project would not create significant amounts of objectionable odors and would not place sensitive receptors in proximity to existing odor sources. Impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>4. Biological Resources</b> <i>Would the project:</i>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

NKSP is located in the City of Delano, in the north central portion of Kern County. Local topography within the City is generally flat. Urban areas of Delano are located to the east of the project site, while undeveloped, rural residential and agricultural lands surround the project site to the north, south, and west. Temperatures in the project vicinity range from an average monthly high of 100 degrees Fahrenheit (°F) in July to an average monthly low of 34°F in December. The average annual rainfall in the project site is 7.23 inches (Western Regional Climate Center [WRCC] 2013).

## Vegetation Communities and Wildlife Habitats

Vegetation communities are assemblages of plant species that occur together in the same area and are defined by their structure and by the relative abundance of associated plant species. The vegetation communities within the project site are classified as urban according to the Guide to Wildlife Habitats (Mayer and Laudenslayer 1988). By using this classification system, it is possible to predict the wildlife species likely to occur within the project site using the California Wildlife Habitat Relationship System (CWHR). CWHR is based upon the Guide to Wildlife Habitats, a predictive model that lists species likely to occur in a given location under certain habitat conditions.

The proposed improvements at NKSP are within the existing secure perimeter lethal electrified fence surrounding the facility. The proposed site does not support any native vegetative communities. Vegetated areas within NKSP are mowed as part of ongoing facility maintenance. Soils are compacted and have been disturbed during previous construction. The areas associated with the proposed project are considered to have low habitat quality and provide limited habitat for wildlife species.

Wildlife diversity at the project site is low because of the relatively poor-quality habitat provided by the ruderal and lawn vegetation. Furthermore, there is a high level of disturbance in the vicinity of the project site. Wildlife species observed or expected to occur on the project site are limited to those adapted to disturbed conditions, such as American crow (*Corvus brachyrhynchus*) and rock dove (*Columba livia*). Other wildlife species observed on the site include turkey vulture (*Cathartes aura*), American kestrel (*Falco sparverius*), and side-blotched lizard (*Uta stansburiana*).

## Special-Status Species

Special-status species are those wildlife and plant species that, in the judgment of the resource agencies, trustee agencies, and certain non-governmental organizations, warrant special consideration in the CEQA process. These includes the following species:

- Officially designated “threatened,” “endangered,” or “candidate” species federally listed by the United States Fish and Wildlife Service (USFWS) and protected under the Federal Endangered Species Act.
- Officially designated “rare,” “threatened,” “endangered,” or “candidate” species. State listed by the CDFW and protected under the California Endangered Species Act. CDFW also maintains a list of “Fully Protected” species as well as “California Species of Special Concern” that are also generally included as special-status species under CEQA.
- Taxa considered rare, threatened, or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as plant taxa identified on lists 1A, 1B, and 2 in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California.
- Bat species listed as Medium or High Priority by the Western Bat Working Group.

## Methodology

This evaluation of biological resources includes a review and inventory of potentially occurring special-status species (including those officially designated as endangered or threatened), wildlife habitats, vegetation communities, and jurisdictional waters of the U.S. or State of California. The setting descriptions provided in this section are based upon a combination of literature reviews, site photographs, aerial photographs, and database queries. The reference data reviewed for this report include the following:

- Delano West, California, USGS 7.5-minute topographic quadrangle map (USGS 1969)
- CDFW California Wildlife Habitat Relationship System (CDFW 2013a)
- California Natural Diversity Database (CNDDDB), RareFind 4 computer program for Delano West, California USGS 7.5-minute topographic quadrangle map (CDFW 2013b)
- California Native Plant Society Electronic Inventory of Rare and Endangered Plants for the Delano West, USGS 7.5-minute topographic quadrangle map (CNPS 2013)
- United States Fish and Wildlife Service, Sacramento Office. Federal Endangered and Threatened Species that Occur in Delano West USGS 7.5-minute topographic quadrangle map (USFWS 2013a)
- United States Fish and Wildlife Service, Critical Habitat for Threatened & Endangered Species (USFWS 2013b)
- Special Animals List (CDFW 2013c)
- Endangered and Threatened Animals List (CDFW 2013d)
- Special Plants List (CDFW 20103e)

## Special-Status Plant Species

The special-status plant species reviewed for this document are included in several lists provided in Appendix B. These lists were compiled from query results from CNDDDB and the CNPS online inventory. CNDDDB-recorded occurrences of special-status plant species within five miles of the project site are shown in Exhibit 5.

Several regionally occurring species have no potential to occur within the project site, either because the distribution of the species does not extend into the vicinity or because the habitat and/or micro-site conditions (e.g., serpentine soils) required by the species are not present. As shown on Exhibit 5, no sensitive plant or wildlife species has been recorded to occur within the project site.

However, five sensitive plant species, heartscale (*Atriplex sp.*), Earlimart orache (*Atriplex cordulata* var. *erecticaulis*), alkali mariposa lily (*Calochortus striatus*), California jewel-flower (*Caulanthus*

*californicus*), and recurved larkspur (*Delphinium recurvatum*) were recorded within five miles of the project site. Recurved larkspur was previously recorded to occur 0.2 mile northeast of the project site in 2011. Heartscale, alkali mariposa lily, Earlimart orache, and California jewel-flower were recorded well over two miles from the project site.

No suitable habitat for any sensitive plant species currently exists onsite. There is no potential for these species or any other special-status plants to occur within the project site.

### Special-Status Wildlife Species

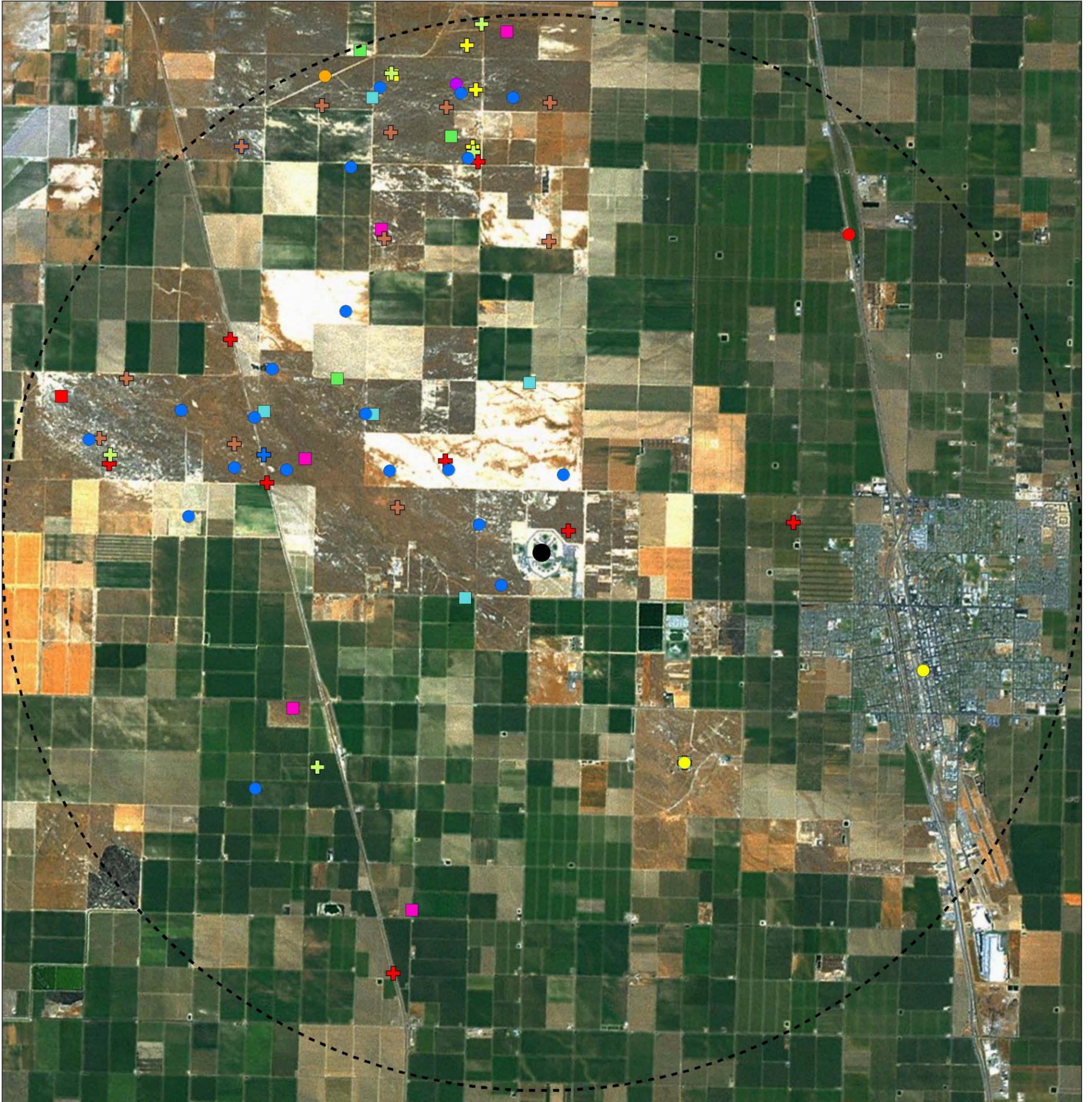
The special-status wildlife species reviewed for this document are included in several lists provided in Appendix B. The CNDDDB list was queried for results. CNDDDB-recorded occurrences of special-status wildlife species within five miles of the project site are shown in Exhibit 5. No critical habitat occurs within or adjacent to the proposed project site.

Several regionally occurring species have no potential to occur within the project site, either because the distribution of the species does not extend into the vicinity, or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present. As indicated in Exhibit 5, the blunt-nosed leopard lizard (*Gambelia silus*) and San Joaquin kit fox (*Vulpes macrotis mutica*) have been recorded on undeveloped lands within one mile of the project site. However, these species have a low potential to occur onsite. Other sensitive wildlife species recorded to occur within the same topographic quadrangle as the project site include Hopping's blister beetle (*Lytta hoppingi*), molestan blister beetle (*Lytta molesta*), western spadefoot (*Spea hammondi*), coast horned lizard (*Phrynosoma blainvillii*), San Joaquin whipsnake (*Masticophis flagellum ruddocki*), burrowing owl (*Athene cunicularia*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), San Joaquin pocket mouse (*Perognathus inornatus inornatus*), and American badger (*Taxidea taxus*). These species also have a low potential to occur onsite.

### Other Sensitive Biological Resources

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs (defined as "take").

Section 3503 of the California Fish and Game (CFG) Code makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Section 3503.5 further protects all birds in the orders Falconiformes and Strigiformes (birds of prey such as hawks and owls) and their eggs and nests from any form of take.



Source: ESRI Aerial Imagery. CNDDDB Data, September 2013.

### Legend

- Project Site
- ⋯ 5 Mile Buffer

#### Common Name - Scientific Name

- |   |   |
|---|---|
| ● California jewel-flower - <i>Caulanthus californicus</i>              | ■ Valley Saltbush Scrub - Valley Saltbush Scrub       |
| ● Dulzura pocket mouse - <i>Chaetodipus californicus femoralis</i>      | ■ Valley Sink Scrub - Valley Sink Scrub               |
| ● Earlimart orache - <i>Atriplex cordulata</i> var. <i>erecticaulis</i> | ■ alkali mariposa-lily - <i>Calochortus striatus</i>  |
| ● Hopping's blister beetle - <i>Lytta hoppingi</i>                      | ■ blunt-nosed leopard lizard - <i>Gambelia sila</i>   |
| ● San Joaquin kit fox - <i>Vulpes macrotis mutica</i>                   | ■ brittlescale - <i>Atriplex depressa</i>             |
| ● San Joaquin pocket mouse - <i>Perognathus inornatus inornatus</i>     | ⊕ burrowing owl - <i>Athene cunicularia</i>           |
| ■ Tipton kangaroo rat - <i>Dipodomys nitratoides nitratoides</i>        | ⊕ coast horned lizard - <i>Phrynosoma blainvillii</i> |
|   | ⊕ molestan blister beetle - <i>Lytta molesta</i>      |
|   | ⊕ recurved larkspur - <i>Delphinium recurvatum</i>    |
|   | ⊕ western spadefoot - <i>Spea hammondii</i>           |



A review of the USFWS's Critical Habitat designations for threatened and endangered species across the United States indicated that no critical habitat exists within the proposed project's vicinity. According to the query, the nearest existing critical habitat is located over 15 miles north of the proposed project site (USFWS 2013b). However, 360 acres of property surrounding NKSP are designated as protected wildlife habitat for the blunt-nosed leopard lizard (*Gambelia silus*), San Joaquin kit fox (*Vulpes macrotis mutica*), and Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*).

Improvements associated with NKSP would occur within the existing lethal electrified fence. There are no additional sensitive biological resources within or immediately adjacent to any of the project components. There are no wetlands, native trees, critical habitat, or existing ornamental trees that would be altered or removed during construction.

---

## Discussion

---

Would the project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Less than significant impact.** Based on a field reconnaissance survey performed on September 11, 2013, a literature review (as previously discussed), and the distance from known recorded occurrences of sensitive plant and wildlife species, the project site consists of developed and disturbed land and does not provide suitable habitat for any federally or state listed threatened or endangered species, or other sensitive plant or wildlife species, and it is highly unlikely that any sensitive plant or wildlife species would be directly impacted during project construction. All construction activities would occur on pre-developed or graded land within NKSP's existing footprint.

As previously mentioned, heartscale, alkali mariposa lily, California jewel-flower, Earlimart orache, recurved larkspur, blunt-nosed leopard lizard, San Joaquin kit fox, Hopping's blister beetle, molestan blister beetle, western spadefoot, coast horned lizard, San Joaquin whipsnake, burrowing owl, Dulzura pocket mouse, Tipton kangaroo rat, and San Joaquin pocket mouse, and American badger have been recorded within five miles of the project site. Because the proposed project would be located on previously disturbed land where current institution-related activities prevent the growth of native vegetation, there is a very low likelihood for heartscale, alkali mariposa lily, California jewel-flower, Earlimart orache, and recurved larkspur to be present. The blunt-nosed leopard lizard, San Joaquin kit fox, Hopping's blister beetle, molestan blister beetle, western spadefoot, coast horned lizard, San Joaquin whipsnake, burrowing owl, Dulzura pocket mouse, Tipton kangaroo rat, San Joaquin pocket mouse, and American badger are unlikely to occur within the project site because of

the lethal electrified fence that surrounds the institution. The impacts to sensitive wildlife species associated with the lethal electrified fence are covered by a separate incidental take permit.

There are no shrubs or trees capable of providing suitable nesting habitat for migratory birds within 300 feet of the proposed project's components. Suitable habitat for ground dwelling birds (e.g., burrowing owl) may be present outside NKSP's secure perimeter fence and on surrounding undeveloped land. However, no ground-level nesting activity or evidence of nesting activity was observed during the site visit performed by an MBA biologist on September 11, 2013. No ground disturbance would occur outside of the secure perimeter fence. Because of the existing level of human activity and ground disturbance within NKSP, the likelihood for ground-dwelling birds to be present on immediately adjacent undeveloped land is low and indirect impacts would not be likely to occur. As such, impacts would be less than significant.

**b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**No impact.** The project site does not support any native vegetative communities. Vegetated areas within NKSP are mowed as part of ongoing facility maintenance. There are no riparian habitats or other natural communities identified by CDFW, USFWS, or within regional plans or policies that would be impacted by the proposed project (confirmed by MBA biologist field reconnaissance survey, September 11, 2013). No impacts would occur.

**c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No impact.** There are no state or federally regulated wetlands or drainage features as defined by the USACE, the State Water Control Board, or the CDFW within the project site (confirmed by MBA biologist field reconnaissance survey, September 11, 2013). No impacts would occur.

**d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?**

**No impact.** Because of the developed nature of the project site and the existing secure perimeter, development would not create an impediment to any existing migratory corridor or movement of wildlife. All proposed development would occur within NKSP's existing footprint. No impacts would occur.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No impact.** As a state agency, CDCR is generally exempt from local plans, policies, and regulations, but it does consider them for purposes of complying with federal or state law. The City of Delano General Plan Open Space and Conservation Element's Policy 4.11.10 requires biological investigations to be conducted on properties which may contain listed plant and animal species. In accordance with this policy, a field reconnaissance survey was performed on September 11, 2013 during which no listed plant or animal species were observed onsite. Therefore, no impacts would occur.

**f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No impact.** CDCR has an approved Habitat Conservation Plan (HCP) for its Statewide Electrified Fence Project (CDCR 1999). The HCP covers the operation of lethal electrified fences that surround 27 state prisons, including NKSP. The proposed project would not involve impacts or modification to the existing lethal electrified fences. As such, the proposed project would not conflict with the HCP.

The 360 acres of property surrounding NKSP are designated as protected wildlife habitat for the blunt-nosed leopard lizard, San Joaquin kit fox, and Tipton kangaroo rat under an agreement among the USFW, CDFW, and CDCR. However, the proposed project would not involve impacts or modifications outside of the existing lethal electrified fence and therefore would not result in changes or impacts to the protected wildlife habitat or conflict with the management thereof.

The project site is not located within the boundaries of any other applicable habitat conservation plan or natural community conservation plans. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>5. Cultural Resources</b> <i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Environmental Setting

Review of historic topographic maps dated 1929, 1942, 1943, 1955, 1963, 1971, 1975 as well as an aerial map dated 2005 were examined as a part of this analysis to determine previous uses of the project site (NETROnline 2013). The project site is shown as undeveloped up to the 1975 map. The area was most likely vacant prior to the opening of NKSP in April, 1993.

### Discussion

Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

**Less than significant impact.** Historic aerials and topographic maps indicate that the NKSP site had been vacant prior to its use as a correctional institution. All onsite structures were constructed in 1990 or after and therefore would not qualify as historical resources as defined in CCR Section 15064.5. NKSP’s grounds have been extensively graded and disturbed over the years by previous excavations, trenching, and development projects. Since the project would conduct only minor excavations of less than three feet below existing grade at the proposed sub-project locations, there would be no impact to previously undisturbed soils. As such, impacts to historical resources would be less than significant.

**b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

**Less than significant impact.** According to the City of Delano General Plan, record searches identified one recorded archaeological site in the vicinity of the general plan area: an abandoned “domestic refuse” site, which is located in southwestern Delano (City of Delano General Plan 2005). The project site has been extensively graded and disturbed by previous excavations, trenching, and institutional development projects that completely disrupted topsoils in and near the perimeter of the institution. Because no aspects of the project would impact soils below the expected level of modern-era disturbance, the potential for impacts to buried archeological resources is considered low. Furthermore, implementation of the inadvertent discovery clause described under Environmental Protection Design Features in Section 2.6 would ensure this impact would be less than significant.

**c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Less than significant impact.** According to the Geologic Map of California, the project site is underlain by Holocene to late Pleistocene alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated; mostly non-marine (California Department of Conservation [CDC] 2010). The Holocene sediments are considered not sensitive for fossil resources, whereas Late Pleistocene sediments, which are very deep, would be moderately sensitive. However, all onsite soils, including all land inside the institution not yet built upon, were graded and engineered during construction of NKSP from 1990 to 1993. No significant archaeological or paleontological resources were encountered during the construction of NKSP. It is highly unlikely that archaeological and paleontological resources exist onsite. Furthermore, implementation of the inadvertent discovery clause described under Environmental Protection Design Features in Section 2.6 would ensure this impact would be less than significant.

**d) Disturb any human remains, including those interred outside of formal cemeteries?**

**Less than significant impact.** Human remains are unlikely to be found in the disturbed soil horizons of the project site. Nonetheless, implementation of the inadvertent discovery clause described under Environmental Protection Design Features in Section 2.6 would ensure this impact would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>6. Geology and Soils</b>				
<i>Would the project:</i>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

NKSP is located in the southern San Joaquin Valley portion of the Great Valley Geomorphic Province of California. This province is bounded by the California Coast Range to the west and the Sierra Nevada Mountains to the east. Local topography within the project vicinity is generally flat. The California Coast Range is located to the west, the Tehachapi Mountains to the south, and the Sierra Nevada Mountains to the east.

According to the Geologic Map of California, the project site is underlain by Holocene to late Pleistocene alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated; mostly non-marine (California Department of Conservation [CDC] 2010).

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, NKSP is located on soils consisting primarily of Garces silt loam, hard substratum (NRCS 2013).

The closest fault to the project site is the Pond-Poso Fault, located approximately four miles to the south. The San Andreas Fault is located approximately 43 miles to the southwest and the Garlock Fault is located approximately 68 miles to the southeast of the proposed project site.

---

## Discussion

---

Would the project:

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:**
  - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

**No impact.** The Alquist-Priolo Act (PRC Sections 2621-2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. Surface rupture is an actual cracking or breaking of the ground along a fault during an earthquake. Structures built over an active fault can be structurally compromised if the ground ruptures. Surface ground rupture along faults is generally limited to a linear zone a few yards wide. The Alquist-Priolo Act was created to prohibit the location of structures designed for human occupancy across the traces of active faults, thereby reducing the loss of life and property from an earthquake.

The closest fault to the project site is the Pond-Poso Fault, located approximately four miles to the south. According to the Alquist-Priolo Map by the California Department of Conservation, the project site is located outside the fault zone of the Pond-Poso Fault (CDC, 2013). There are no active faults designated on the Alquist-Priolo Fault Zone maps underneath or directly adjacent to the project site. Any surface ground rupture along the Pond-Poso Fault would be located four miles south of the project site. As such, the project site would not be susceptible to fault rupture and no impact would occur.

- ii) **Strong seismic ground shaking?**

**Less than significant impact.** Ground shaking—motion that occurs because of energy released during faulting—could result in damage or collapse of buildings and other structures, depending on

the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. Other factors that determine the amount of potential damage from strong seismic ground shaking are the characteristics of the underlying soil and rock, the building materials used, and the workmanship of the structure.

Ground motions from seismic activity can be estimated by a probabilistic method at specified hazard levels. These levels are determined by projecting earthquake rates based on earthquake history and fault slip rates (CGS 2007). Ground shaking is expressed in terms of peak ground acceleration using a percentage of gravity or a percentage of the earth's normal gravitational strength. The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristic of the source. According to the City's General Plan, Delano has not experienced any severe seismic-related activity and the probability for seismic ground shaking is low.

As described under Section 2.6, Environmental Protection Design Features, the proposed project has been designed to be consistent with CBC Title 24 regulations and Appendix D of CDCR's Design Criteria Guidelines. The CBC requires extensive geotechnical analysis and engineering for grading, foundations, retaining walls, and other structures, including criteria for seismic design. Incorporation of standard CBC design and construction methods would ensure that risks resulting from seismic shaking would be minimized. In addition, a geotechnical engineering report would be prepared as a part of the project. The geotechnical engineering report would provide site-specific recommendations regarding site preparation, appropriate sources and types of fill, structural foundations, grading practices, erosion/winterization, slope stability, and earthquake-resistant design. Incorporation of recommendations from the geotechnical engineering report and conformance to the CBC would ensure that the proposed project would result in less than significant impacts related to seismic ground shaking.

**iii) Seismic-related ground failure, including liquefaction?**

**Less than significant impact.** Liquefaction is a process by which water-saturated materials (including soils, sediment, and certain types of volcanic deposits) lose strength and may fail during strong ground shaking. Liquefaction occurs most frequently where unconsolidated sediments and a high water table coincide. In some cases, a complete loss of strength occurs and catastrophic ground failure may result. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater.

According to the Delano General Plan, liquefaction does not pose a serious threat in the Delano area. There are no known shallow water tables in the area and, as indicated in Discussion a) ii), a low probability for significant ground motion activity. Further, there have been no reports of liquefaction in the Delano area (City of Delano 2005).

As previously noted, and as included in Section 2.6, the proposed project's components have been designed to be consistent with CBC Title 24 regulations and Appendix D of CDCR's Design Criteria Guidelines. These regulations require the preparation of a geotechnical engineering report (that would address onsite liquefaction potential) and incorporation of resulting recommendations into project plans, thereby ensuring that impacts related to liquefaction would be less than significant.

**iv) Landslides?**

**No impact.** Landslides include many phenomena that involve the downslope displacement and movement of material, either triggered by static (gravitational) or dynamic (earthquake) forces. Steep, unstable slopes in weak soil or bedrock units typically characterize areas susceptible to landslides. NKSP is located on flat terrain and contains previously graded and engineered soils. Areas surrounding NKSP are primarily flat. The nearest terrain potentially capable of producing a landslide is more than 13 miles to the east. As such, no impact related to landslides would occur.

**b) Result in substantial soil erosion or the loss of topsoil?**

**Less than significant impact.** The proposed project would be constructed within the current NKSP boundary. Surface soils at NKSP consist primarily of Garces silt loam, hard substratum (NRCS 2013). All soil types onsite are moderately well drained with slow runoff and the erosion hazard is slight. The proposed project would disturb approximately 40,190 square feet or 0.92 acre of land inclusive of construction staging areas. All exterior areas to be disturbed have been previously graded or disturbed. Construction activities associated with the proposed project would involve grading and excavation activities that could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the project site. However, implementation of the environmental protection design features for water quality and erosion protection described in Section 2.6, including CDCR's standard erosion controls, sedimentation controls, and stormwater system design, would ensure that potential impacts from soil erosion or loss of topsoil would be less than significant.

**c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

**Less than significant impact.** All project components would be located within the developed NKSP footprint on soils that have been previously graded and engineered and do not contain any significant slopes. As indicated in Section 2.6, Environmental Protection Design Features, conformance with CBC requirements and implementation of soil preparation recommendations of the site-specific geotechnical engineering report would ensure that onsite soils are stable prior to building construction. Existing buildings undergoing renovations as a part of the project are not located on unstable soils. As such, impacts related to a geologic unit or soil that is unstable would be less than significant.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

**Less than significant impact.** Expansive soils are mainly comprised of clay. According to the NRCS Web Soil Survey, the main type of soil located on the project site ranges from approximately 10 to 18 percent clay. Since clay is not the main component of the onsite soils, risks from expansion are low. Nonetheless, as indicated in Environmental Protection Design Features in Section 2.6, prior to construction, all necessary soil preparation procedures recommended by a site-specific geotechnical engineering report would occur. As such, impacts related to expansive soils would be less than significant.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No impact.** The proposed project does not include the installation or use of septic tanks or alternative wastewater disposal systems. Wastewater generated at NKSP is screened and pumped via a 16-inch force main to the City of Delano's wastewater treatment plant approximately one mile south of the prison. As such, no impacts to soils due to septic tanks or alternative wastewater disposal systems would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>7. Greenhouse Gas Emissions</b> <i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

Climate change is a change in the average weather of the earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes that have occurred in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

Gases that trap heat in the atmosphere are greenhouse gases (GHGs). The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHG. The presence of GHGs in the atmosphere affects the earth’s temperature. However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

There have been significant legislative and regulatory activities that directly and indirectly affect climate change and GHGs in California. The primary climate change legislation in California is AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The California Air Resources Board (ARB) is the state agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming in order to reduce emissions of GHGs.

The ARB approved the Climate Change Scoping Plan (Scoping Plan) in December 2008. The Scoping Plan contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020. The Scoping Plan “proposes a comprehensive set of actions designed to reduce overall

greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health” (ARB 2008). The measures in the Scoping Plan were to be developed over the subsequent two years through rule development at the ARB and other agencies.

### **Emissions Inventories and Trends**

California is the second-largest contributor in the United States of GHGs and the sixteenth-largest in the world (California Energy Commission [CEC] 2006). According to the ARB’s recent greenhouse gas inventory for the State, released August 2013, California produced 448.1 million metric tons of carbon dioxide equivalents (MTCO<sub>2e</sub>) in 2011 (ARB 2013). The major source of GHGs in California is transportation, contributing 37.6 percent of the State’s total GHG emissions in 2011.

### **Potential Environmental Effects**

For California, climate change in the form of warming has the potential to incur/exacerbate environmental impacts, including but not limited to changes to precipitation and runoff patterns, increased agricultural demand for water, inundation of low-lying coastal areas by sea-level rise, and increased incidents and severity of wildfire events (Moser et al. 2009). Cooling of the climate may have the opposite effects. Although certain environmental effects are widely accepted to be a potential hazard to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location.

---

## **Discussion**

---

Would the project:

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less than significant impact.** The proposed project may contribute to climate change impacts through its contribution of GHGs. The proposed project would generate a variety of GHGs during construction and operation, including several defined by AB 32, such as CO<sub>2</sub>, methane (CH<sub>4</sub>), and nitrous dioxide (N<sub>2</sub>O) from the exhaust of equipment and the exhaust of vehicles for employees, visitors, and construction hauling trips. The proposed project may also emit GHGs that are not defined by AB 32. For example, the proposed project may generate aerosols from diesel particulate matter exhaust. Aerosols are short-lived GHGs, as they remain in the atmosphere for approximately one week. The proposed project would emit NO<sub>x</sub> and ROG, which are ozone precursors. Ozone is a GHG. However, unlike the other GHGs, ozone in the troposphere is relatively short-lived and is being reduced in the troposphere on a daily basis.

Certain GHGs defined by AB 32 would not be emitted by the project. Perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>) are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the proposed project would emit PFCs or SF<sub>6</sub>.

The basis of the SJVAPCD’s threshold for greenhouse gas emissions is ARB’s calculated AB 32-required target reduction for year 2020, as described in the ARB’s AB 32 Scoping Plan. At the time that the ARB’s AB 32 Scoping Plan was developed, the ARB forecasted the year 2020 business as usual scenario would result in 596 million metric tons of carbon dioxide equivalents (MMT<sub>CO<sub>2</sub>e</sub>). Therefore, it was calculated that the State would need to achieve a 29 percent reduction from the year 2020 business as usual forecast to hit the emission reduction goal of 427 MMT<sub>CO<sub>2</sub>e</sub>. However, because ARB revised the year 2020 emissions forecast, the State’s percentage reduction goal is now 22 percent. It follows that because the State’s emission reduction goal and business as usual forecast is the basis of the SJVAPCD’s threshold of significance, and because the State’s percent reduction from year 2020 business as usual has been recalculated from 29 percent to 22 percent, that the SJVAPCD’s threshold would similarly be updated to the current forecast.

The project’s estimated construction and operational emissions of greenhouse gases are provided below. For assumptions used in estimating these emissions, please refer to Appendix A.

**Construction**

Greenhouse gas emissions for construction are shown in Table 6. Construction equipment is expected to be used on the project site and would result in exhaust emissions consisting of carbon dioxide, methane, and nitrous oxide. Project construction emissions would occur prior to year 2020, which is the target year for the SJVAPCD’s threshold of significance for greenhouse gases. In addition, the SJVAPCD’s guidance does not address greenhouse gas emissions from project construction. Therefore, because the project construction emissions are short-term in nature, occur prior to year 2020, and are limited in quantity, the project’s construction emissions would be less than significant.

**Table 6: Construction Greenhouse Gas Emissions**

Construction Activity	MTCO <sub>2e</sub>
Demolition	6.53
Site Preparation	0.52
Grading	23.81
Building Construction	84.24
Paving	3.59
Painting	0.74
<b>Total</b>	<b>119.44</b>
Note: MTCO <sub>2e</sub> = metric tons of carbon dioxide equivalents Source: CalEEMod output (Appendix A).	

**Operation**

The SJVAPCD’s guidance states that “business as usual” is defined in ARB’s AB 32 Scoping Plan as emissions occurring in 2020 if the average baseline emissions during the 2005 period grew to 2020 levels without additional control. As previously stated, the State’s percent reduction from year 2020 business as usual has been recalculated from 29 percent to 22 percent and was subsequently adopted

as a threshold by the SJVAPCD. As shown in Table 7, operation of the project would generate approximately 627.11 MTCO<sub>2</sub>e per year, after full build out in 2020. This represents a 22-percent reduction from 2005 emissions, which does not exceed the threshold of 22 percent as outlined by SJVAPCD. In other words, the project’s emissions after full buildout in 2020 would meet the 22-percent emission reductions threshold from year 2005.

**Table 7: Operational CO<sub>2</sub> Generation (Year 2020)**

Emission Source	MTCO <sub>2</sub> e per year		Percent Reduction
	2005 Emissions	2020 Emissions	
Area	0	0	0%
Energy	144.38	118.01	18%
Mobile (Vehicles)	541.26	395.29	27%
Waste	106.61	106.61	0%
Water	8.21	7.20	12%
<b>Total Emissions</b>	<b>800.46</b>	<b>627.11</b>	<b>22%</b>
<b>Does the Project Exceed Threshold?</b>			<b>No</b>
Note: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalent. Source: CalEEMod output (Appendix A).			

**Conclusion**

As shown in Table 6 and Table 7, the proposed project’s construction and operational emissions would be far below the SJVAPCD’s daily and annual significance thresholds for GHG emissions. Impacts would be less than significant.

**b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?**

**Less than significant impact.** The City of Delano does not have a climate action plan or greenhouse gas reduction plan adopted as of the date of this analysis. Therefore, the applicable adopted law is AB 32, and the applicable plan is the Scoping Plan adopted by ARB, as discussed previously under Environmental Setting above.

The Scoping Plan states, “The 2020 goal was established to be an aggressive, but achievable, mid-term target, and the 2050 GHG emissions reduction goal represents the level scientists believe is necessary to reach levels that would stabilize climate” (ARB 2008). The year 2020 GHG emission reduction goal of AB 32 corresponds with the mid-term target established by Executive Order S-3-05, which aims to reduce California’s fair-share contribution of GHGs in 2050 to levels that would stabilize the climate.

Construction of the proposed project is estimated to generate greenhouse gases. However, AB 32 requires that greenhouse gas emissions generated in California in year 2020 be equal to or less than California's statewide inventory from 1990. Construction emissions would occur before the year 2020, so the project's construction would not contribute to year 2020 emissions. Therefore, construction emissions would not conflict with the AB 32 Scoping Plan.

The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a statewide renewable energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

As an institutional facility (rather than a residential, energy sector, or commercial facility), the majority of the Scoping Plan's recommended measures do not apply. The Scoping Plan's recommended measures mainly target reductions in the transportation and electricity sectors. Implementation of certain Scoping Plan measures may obliquely affect the project, such as the low carbon fuel standard and enactment of the Pavley standards, as part of California AB 1493. AB 1493 (Pavley) required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. The only measure directly applicable to the proposed project is energy efficiency.

As indicated in Environmental Protection Design Features in Section 2.6, the project would be consistent with Title 24, Part 6 energy efficiency standards. Consistent with Executive Order S-20-04, sustainable measures and conservation features would be implemented in accordance with the

Green Building Code, assuring minimal energy use and further minimizing direct and indirect GHG emissions from project operations. In addition, NKSP operates a recycling and salvage program for metal, cardboard, and white paper, resulting in a 40-percent reduction of solid waste delivered to landfills. NKSP reduces the consumption of new materials through source reduction measures, such as using reusable cups and trays, use of electronic forms, and double-sided copies. In addition, NKSP performs a variety of best management practices for water management and conservation for the prison, including items such as eliminating non-essential water use, modifying practices for water efficient landscaping, and leak detection and repair in buildings.

The proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for reducing the emissions of GHGs for the following reasons:

- The project would generate low levels of GHGs at project buildout (see Section 3.7, Greenhouse Gases, Discussion a).
- The project would continue the water efficiency, recycling, and source reduction measures enacted at NKSP.
- Sustainable measures and conservation features will be implemented for the NKSP project in accordance with the Green Building Code.

Accordingly, the project would not conflict with the applicable plan, policy, or regulation adopted for the purposes of reducing GHG. Therefore, impacts from the proposed project would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>8. Hazards and Hazardous Materials</b>				
<i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

NKSP was constructed between 1990 and 1993, prior to which the project site was undeveloped.

NKSP is not listed on the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances List (DTSC 2013) or the Superfund National Priorities List (EPA 2013). According to the

EPA's Envirofacts database, NKSP is not listed as a Resource Conservation and Recovery Act (RCRA) generator of hazardous waste (EPA 2013). There is one leaking underground storage tank (LUST) cleanup site listed on the DTSC's Envirostor database located at NKSP. There are no other listed sites in a 0.25 mile vicinity of the project.

The LUST cleanup site is related to two underground storage tanks used for fuel storage located outside the lethal electrified fence of NKSP. The tanks were removed in 2006 at which time adjacent soils tested positive for petroleum hydrocarbons and gasoline constituents were detected in groundwater. The site is currently undergoing groundwater monitoring and corrective actions in coordination with the Central Valley Regional Water Quality Control Board (DTSC 2013).

The project area was visually inspected for hazardous materials during a site visit on September 11, 2013 by a qualified environmental professional. No potential hazards were identified at any of the sub-project locations. The following discussion is based on database reviews, findings of the inspection, and conversations with institution personnel.

---

## **Discussion**

---

Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Less than significant impact.**

### **Short Term Construction Impacts**

Construction and operation of the proposed project would involve the transport and handling of hazardous substances such as diesel fuels, lubricants, solvents, asphalt, hospital supplies and waste. Handling and transport of these materials could result in the exposure of workers to hazardous materials. However, the proposed project would not create a significant hazard to the public or the environment, because project construction and operation would comply with applicable federal, state, and local laws pertaining to the safe handling and transport of hazardous materials, including California Division of Occupational Safety and Health Administration (Cal OSHA) requirements. For example, the California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) required preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories. In addition, the proposed project's implementation of CDCR's standard construction stormwater control measures would include spill prevention and cleanup measures applicable to hazardous waste.

The proposed project would be in accordance with NKSP's Hazardous Materials Business Plan, which includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in

safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). In addition, Cal OSHA's regulations for the use of hazardous materials in the workplace, as detailed in CCR Title 8, include requirements for safety training, availability of safety equipment, accidents and illness prevention programs, hazardous substance exposure warnings, and the emergency action and fire prevention plan preparation. Cal OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets be available to employees and that employee information and training programs are documented.

### **Long-Term Operations**

Medical facility operations, such as those included in the proposed project, typically involve the transport, storage, and use of relatively small quantities of materials that would be classified as hazardous. Types of hazardous materials found in medical facilities include pharmaceuticals; chemicals used to sterilize equipment; formaldehyde for specimen preservation; solvents, oxidizers, corrosives, and stains used in clinical laboratories; photographic processing chemicals used in some x-ray equipment; and certain biohazardous toxins used in treatment and processing. Facilities maintenance activities require various common hazardous materials, including cleaners (typically soaps and detergents, but also solvents and corrosives), paint, pesticides and herbicides (used in building maintenance), fuels (e.g., diesel), and oils and lubricants.

The medical facilities would also use and store radioactive material, used primarily to treat certain types of cancer. X-ray equipment is also regulated as radioactive material. Radioactive materials decay (become non-radioactive) over time. The time it takes for a material to shed approximately one-half of its radioactivity is referred to as the material's half-life. Radioactive materials with half-lives greater than 90 days are considered long-lived radioactive materials, while those with half-lives less than 90 days are considered short-lived radioactive materials. Some long-lived radioactive materials that may be used at the facility, such as those used in x-ray equipment, would essentially be a sealed, stationary source of radiation. Both short-lived and long-lived radioactive materials would be used for patient treatment, primarily for the treatment of cancer. Long-lived radioactive materials (such as cesium 137 used in cancer radiation therapy) are not disposed of but are retained over time for patient treatment.

State and federal laws require detailed planning to ensure that hazardous materials are properly transported, handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or mitigate injury to health or the environment. The California Department of Public Health's Medical Waste Management Act governs the management of medical waste to prevent the dissemination of potentially infectious organisms and the spread of infection to

others within the medical center and in the community. Certified Unified Program Agencies (CUPAs) are responsible for local regulation and enforcement of hazardous materials laws and regulations. The Kern County Environmental Health Services Department serves as the City of Delano's CUPA.

### **Conclusion**

In summary, use of hazardous materials during construction would be temporary and in accordance with regulation. Furthermore, operation of project components would be consistent with regulations regarding hazardous materials. As such, impacts related to the routine use, transport, or disposal of hazardous materials would be considered less than significant.

**b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**Less than significant impact.** Based on the nature of the hazardous materials that would be used, stored, and/or disposed of during construction (e.g., diesel-fueled equipment, asphalt) and operation (e.g., medical waste) of the proposed project, it is unlikely that upset and accident conditions involving the release of hazardous materials into the environment would occur. As indicated in Discussion 3.8 a) above, all hazardous materials would be handled in accordance with applicable laws. Medical wastes would be appropriately stored onsite and subsequently disposed of in accordance with health and safety regulations.

Furthermore, because the existing institution was constructed between 1990 and 1993, it is unlikely that building materials contain hazardous substances (e.g., asbestos, lead, polychlorinated biphenyls, and others that were once commonly used in building construction). Nonetheless, prior to project construction, an industrial hygienist would perform a complete hazardous materials assessment of structures to be disturbed by the proposed project. The assessments would include sampling and testing of any suspect materials or coating for asbestos and lead. Any friable materials (material likely to emit asbestos if disturbed) and noted hazardous materials within the project area would be identified for appropriate removal and disposal during construction. All required notifications, equipment, handling, disposal, and clearance testing related to hazardous material removal would be performed in accordance with applicable regulations to ensure worker safety and best management practices are established and followed. Therefore, impacts would be less than significant.

**c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**Less than significant impact.** No schools are located or proposed to be located within 0.25 mile of the project site. Bakersfield College's Delano Campus and the Robert F. Kennedy High School are located approximately two miles southeast of NKSP's eastern boundary and approximately 2.1 miles southeast of the nearest sub-projects (sub-projects 4 and 8). Based on the distance from the schools

and the proposed project's components, less than significant impacts would occur related to emissions or handling of hazardous materials within 0.25 mile of a school or similar type facility. Impacts would be less than significant.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**Less than significant impact.** As previously indicated, NKSP is not listed on the DTSC Hazardous Waste and Substances List (DTSC 2013) or the Superfund National Priorities List (EPA 2013). According to the EPA's Envirofacts database, NKSP is not listed as a Resource Conservation and Recovery Act (RCRA) generator of hazardous waste (EPA 2013). There is one leaking underground storage tank (LUST) cleanup site listed on the DTSC's Envirostor database located at NKSP outside of the lethal electrified fence. The site is currently undergoing groundwater monitoring and corrective actions in coordination with the Central Valley Regional Water Quality Control Board (DTSC 2013). None of the proposed sub-projects are located close to the LUST cleanup site, therefore, it does not present an environmental concern to the project.

A qualified hazardous materials professional conducted a site visit on September 11, 2013 and did not identify any potentially hazardous materials or conditions within the areas to be disturbed by the proposed project. Interviews with institution staff further confirmed that there are no potentially hazardous conditions at the project site, and all hazardous materials are handled and stored in accordance with applicable federal, state, and local regulations. In summary, implementation of the project would not affect any existing operations that generate hazardous waste and would not create a significant hazard to the public or the environment. Impacts would be less than significant.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

**No impact.** The nearest public airport to NKSP is the Delano Municipal Airport (approximately 4.2 miles to the southeast). NKSP is not located within the land use plan or safety zone of the airport. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area as a result of being located near a public airport. No impact would occur.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

**No impact.** The nearest private airstrip to NKSP is Cashen Airport located approximately 11.5 miles southwest of the project site. Because of the distance from the private airstrip, no safety hazards exist for people residing or working in the project area, and no impacts would occur.

**g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less than significant impact.** The California Emergency Services Act (CESA) of 1970 established authority for the preparation of an Emergency Preparedness Plan for correctional institutions. Each CDCR institution must assign an emergency coordinator to implement this plan and must prepare an Emergency Preparedness Plan for submission to the CDCR Office of Correctional Safety for review and approval. In accordance with CESA, such a plan was developed for NKSP according to the requirements of the State Office of Emergency Services and organized according to the specific site needs for this institution. The plan has a sub-plan that clearly identifies measures to be taken pertaining to specific emergencies in each area of the institutions. All institutions are required to ensure preparedness in dealing with disasters such as earthquakes, fires, and floods. The emergency plan for NKSP includes a contingency plan to respond to the following types of emergencies: war, flood, civil disturbance, pollution, earthquake, and fire. The plan provides detailed routes of egress to more secure buildings and/or areas in the event of an emergency evacuation of buildings and/or other areas within NKSP. Employees are trained to follow specific instructions and precautionary measures for emergencies, and in the use of emergency equipment and medical aids. The proposed project would not interfere with appropriate compliance with this plan in case of an emergency. The plan would be amended as necessary to ensure adequate coverage for the proposed project and associated buildings and operations. Therefore, implementation of the proposed project would not physically interfere with or impair implementation of the emergency response plan and impacts would be less than significant.

**h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

**Less than significant impact.** NKSP is not located within a very-high fire hazard severity zone according to the California Department of Forestry and Fire Protection's Fire Hazard Severity Zones in Local Responsibility Areas map. Areas to the east of NKSP are indicated as a Local Responsibility Area Moderate fire hazard severity zone.

All of the proposed project's components would be constructed within the existing NKSP institution which is surrounded by roads and areas devoid of vegetation that could serve as fire breaks. The proposed project would not include additional inmate beds and would not construct residences. The buildings that would be constructed as part of the proposed improvements would be designed to meet all fire code requirements that would address ignition-resistive construction, interior fire sprinklers, and/or sufficient water supply (volume) and pressure. As such, impacts related to the exposure of persons or structures to wildfire would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>9. Hydrology and Water Quality</b> <i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

---

## **Environmental Setting**

---

### **Climate**

Temperatures in the project vicinity range from an average monthly high of 100°F in July to an average monthly low of 34°F in December. The average annual rainfall in the project area is 7.23 inches (WRCC 2013).

### **Regional Hydrology**

The project site is located within the Tulare Lake Hydrologic Region, which covers approximately 10.9 million acres (17,000 square miles) in Kings County, Tulare County, and much of Fresno and Kern counties. The Tulare Lake Hydrologic Region includes the Kings, Kaweah, Tule, and Kern river systems, and many other internally drained basins.

Within Tulare Lake Hydrologic Region, NKSP is located in the Kern County sub-basin. The Kern County sub-basin is bounded on the north by the Kern County line and the Tule sub-basin, on the east and southeast by granitic bedrock of the Sierra Nevada foothills and Tehachapi Mountains, and on the southwest and west by the marine sediments of the San Emigdio Mountains and Coast Ranges. Natural recharge is primarily from stream seepage along the eastern sub-basin and the Kern River. Recharge of applied irrigation water, however, is the largest contributor (City of Delano 2010).

### **Local Drainage**

Local drainage channels consist of the Kings, Kaweah, Tule, and Kern river systems. Existing local and regional flood control facilities, including channels, storm drains, and retention basins, are located throughout the City.

### **Site Drainage**

The onsite drainage system for NKSP is limited to grading of the site that directs surface runoff away from the buildings and recreation yards into existing drainage facilities. The drainage facilities consist of pipes and swales that direct stormwater to an onsite retention pond for evaporation or percolation. The pond is located north of the minimum security yard and northwest of the main NKSP institution. The existing drainage facilities are in compliance with Kern County's requirement that onsite containment capacity be provided for rainfall events with return frequencies of 50 years. Sufficient capacity is available to serve the proposed project.

### **Flood Mapping**

NKSP is not located within a 100-year flood zone according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Number 06029C0200E. Existing local and regional flood control facilities in the City control local stormwater.

---

## Discussion

---

Would the project:

**a) Violate any water quality standards or waste discharge requirements?**

**Less than significant impact.** Short-term impacts to water quality standards might occur during project construction due to demolition, grading and construction activities resulting in the potential for stormwater to carry sediment and small quantities of pollutants into the stormwater system and local waterways. Implementation of the environmental protection design feature for water quality protection described in Section 2.6 would ensure that the proposed project would not violate any water quality standards or waste discharge requirements. As such, impacts would be less than significant.

**b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

**Less than significant impact.** The City's water system extracts its water supply from the Kern County Water Basin via 11 groundwater wells located throughout the City. Historically, this area of the water basin has been considered in overdraft condition. According to the 2010 Delano Urban Water Management Plan (UWMP), the City will abandon three existing wells and drill seven new wells for a total of 17 active wells with a combined capacity of 16,100 gallons per minute (gpm) (23 million gallons per day [mgd]) by the end of 2013. Five storage reservoirs provide a total capacity of 10.6 million gallons. Current average water demand for the City is 8.3 mgd, and the City is capable of handling a peak demand of 12.6 mgd. According to the supply and demand comparison in the UWMP, sufficient water is available to meet demands during normal, single-dry, and multiple-dry water years through 2035 (City of Delano 2011).

The proposed project would not change the source of potable water, and no groundwater wells would be drilled as part of the proposed project. Furthermore, since water usage at CDCR institutions is largely driven by the number of inmates, and no increase in inmate beds would occur, water use increases would be minimal. Accordingly, the proposed project would not deplete groundwater supplies.

The proposed project would increase impervious surface coverage at NKSP by 25,018 square feet or approximately 1.04 percent (based on existing impervious surface area of approximately 2,400,000 square feet). This addition of impervious surface area is minimal and would be located throughout the institution where undeveloped areas would continue to offer recharge potential. Therefore, the proposed project would not interfere substantially with groundwater recharge. Less than significant impact would occur.

**c-e) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation, or flooding on- or off-site?**

**Less than significant impact.** As stated in Discussion 3.9 b), the increase in impervious surface area at NKSP would be insignificant (1.02 percent) relative to the existing impervious areas and 240-acre parcel on which the institution is located. Furthermore, the existing stormwater system would be sufficient to handle runoff from the proposed project components. As indicated under Section 2.6, implementation of CDCR's standard erosion controls, sedimentation controls, and stormwater system design would ensure that stormwater quality would be properly managed and runoff would be properly directed to existing facilities, thereby inhibiting any erosion, siltation or flooding from occurring on- or offsite. As such, impacts would be less than significant.

**f) Otherwise substantially degrade water quality?**

**Less than significant impact.** Based on the discussion provided regarding the preceding checklist questions, the proposed project does not include any actions that are expected to substantially degrade water quality, and a less than significant impact to water quality would occur.

**g-h) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map or impede or redirect flood flows?**

**No impact.** The proposed project does not include any housing. According to the FEMA Flood Insurance Rate Map Number 06029C0200E, the project site is not located within a 100-year flood hazard area and, therefore, would not situate housing or structures in such a way that flood flows would be impeded or redirected. No impact would occur.

**i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

**No impact.** The project is not located close to a levee or dam and is not located within a dam inundation area. Therefore, the project area is not susceptible to flooding as a result of levee or dam failure. No impact would occur.

**j) Inundation by seiche, tsunami, or mudflow?**

**No impact.** Seiches are waves in inland bodies of water produced by earthquakes or landslides. The project site is not located near an inland body of water capable of producing seiches. The project site is located more than 50 miles inland from the Pacific Ocean and is not at risk for inundation by a tsunami. Terrain capable of producing a mudflow is not located close to the project site. No impacts related to seiche, tsunami, or mudflow would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>10. Land Use and Planning</b>				
<i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

This section describes the existing land use and potential effects from project implementation on the site and its surrounding area. As a state agency, CDCR is generally exempt from local plans, policies, and regulations, but it does consider them for purposes of complying with federal or state law.

### Site Vicinity Setting

NKSP is designated a Community Facility on the City of Delano General Plan Land Use Map and is zoned Community Facility on the City of Delano Official Zoning Map. NKSP is surrounded by County Line Road, undeveloped and agricultural land (north); Lytle Avenue, undeveloped land, agricultural land, and rural residences (east); West Cecil Avenue, agricultural land, a wastewater treatment plant, and undeveloped land (south); Kern Valley State Prison (southwest); and Wasco Pond Road and undeveloped land (west). NKSP is approximately 3.5 miles west of central Delano, eight miles northwest of central McFarland, and 30 miles south of central Tulare.

## Discussion

Would the project:

### a) Physically divide an established community?

**No impact.** The proposed project would not physically divide an established community. NKSP is located on 240 of 640 acres under CDCR jurisdiction and is directly surrounded by undeveloped land, agricultural land, and rural residential areas. Residential areas to the east and west of the project site are separated from NKSP by Lytle Avenue and Wasco Pond Road, respectively. All project

components would be located within the existing NKSP boundary. Thus, the proposed project would not physically divide an established community and no impact would occur.

**b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

**No impact.** The proposed project would be located within existing NKSP boundaries. NKSP is designated as Community Facility on the City of Delano General Plan Land Use Map and is zoned Community Facility on the City of Delano Official Zoning Map. As a correctional institution, NKSP is consistent with both the land use and zoning designations. The proposed project would be consistent with existing institutional land uses and would not change existing operations. As such, no impact would occur.

**c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?**

**No impact.** CDCR has an approved HCP for its Statewide Electrified Fence Project (CDCR 1999). The HCP covers the operation of lethal electrified fences that surround 27 state prisons, including NKSP. The proposed project would not involve impacts or modification to the existing lethal electrified fence. As such, the proposed project would not conflict with the HCP.

The 360 acres of property surrounding NKSP is designated as protected wildlife habitat for the blunt-nosed leopard lizard, San Joaquin kit fox, and Tipton kangaroo rat under an agreement among USFW, CDFW, and CDCR. However, the proposed project would not involve impacts or modifications outside of the existing lethal electrified fence, and therefore would not result in changes or impacts to the protected wildlife habitat or conflict with the management thereof.

The project site is not located within the boundaries of any other applicable habitat conservation plan or natural community conservation plans.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>11. Mineral Resources</b> <i>Would the project:</i>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

---

### Environmental Setting

---

According to the California Geological Survey, the project site is located within the Bakersfield Production-Consumption Region, which contains State Geologist Mineral Resource Zone (MRZ) classifications 1, 2, and 3 (CGS 2009). The project site is located within MRZ-3, which indicates that the area contains mineral deposits the significance of which cannot be evaluated from available data (inferred presence). The City of Delano General Plan indicates there are no significant mineral resources or mining operations within the City, and large, valuable mineral and aggregate deposits are not likely to be present (City of Delano 2005).

---

### Discussion

---

Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**No impact.** The project site is completely within existing NKSP boundaries and does not contain any known mineral resources as indicated by the City of Delano General Plan. In addition, the existing CDCR institution precludes mineral extractions from occurring onsite. As such, no impact would occur.

- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

**No impact.** As indicated in Discussion 3.11 a) above, the project site does not contain any known mineral resources. The existing NKSP institution precludes mineral extractions from occurring. Furthermore, no proposed, existing, or known abandoned mines exist at NKSP. Therefore, no impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>12. Noise</b> <i>Would the project result in:</i>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

---

### Environmental Setting

---

Sound levels are presented in logarithmic decibels (dB). The dB is a logarithmic unit, which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear and are adjusted to reflect only those frequencies that are audible to the human ear.

The equivalent sound level ( $L_{eq}$ ) represents a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, with adjustments for evening and night hours. Community Noise Equivalent Level (CNEL) is used to characterize sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels.

### Applicable Regulations

Subsection 9.36.220 of the City of Delano Municipal Code indicates that regulations of the Noise Chapter do not apply to activities of the federal, state or local government. Nonetheless, noise

standards presented in the City's Municipal Code and General Plan are used here for evaluating the compatibility of proposed project with the existing noise environment.

Table 7-1 of the City of Delano General Plan provides acceptable community noise exposure levels and indicates that the maximum normally acceptable noise level for residential land uses is 60 dB L<sub>dn</sub> or CNEL. Table 7-2 of the General Plan provides acceptable transportation noise exposure levels and indicates that the maximum exterior transportation noise level for residential uses is 65 dBA L<sub>dn</sub> or CNEL. Table 7-3 of the General Plan indicates that the maximum allowable noise exposure from a stationary noise source is 75 dB during the daytime (7:00 a.m. to 10:00 p.m.) and 70 dB during nighttime (10:00 p.m. to 7:00 p.m.).

Section 9.36.040 of the Delano Municipal Code indicates that any noise that exceeds the ambient noise level by more than five dB when measured at the adjacent property line is considered a noise level violation.

Subsection 9.36.110 of the Delano Municipal Code indicates that construction activities that would produce noise in violation of Section 9.36.40 is prohibited within a 300-foot radius of a residential zone unless permitted beforehand.

### **Sensitive Receptors**

Sensitive noise receptors are, in general, those areas of human habitation or substantial use where the intrusion of noise has the potential to adversely impact the occupancy, use, or enjoyment of the environment. These can include residences, schools, hospitals, parks, and places of business requiring low levels of noise. Correctional and government facilities, such as NKSP and the proposed project's additions and renovations, are not considered noise-sensitive land uses. The majority of the properties surrounding NKSP are undeveloped or consist of correctional and government facilities. The nearest sensitive receptors are residences located to the east of NKSP, opposite Lytle Avenue. The residential area to the west of NKSP is approximately 1.2 miles away, a distance at which noise impacts would not occur.

### **Existing Noise Levels**

To determine the existing noise at and adjacent to the project site, field monitoring was conducted on September 11, 2013. Short-term noise measurements were taken at three locations in the project study area and were monitored for a minimum period of 15 minutes. The locations and results of the measurements are presented in Table 8. Exhibit 6 illustrates the noise monitoring locations.

**Table 8: Short-Term Noise Level Monitoring Results**

Site No.	Site Description	Start Time and Duration (Minutes)	Noise Level (dBA L <sub>eq</sub> )
NM1	Northeast of "D" Yard and southwest of the Habitat Conservation Area	12:23 p.m. (15:00)	52.3
NM2	North of "B" Yard and west of "C" Yard	12:42 p.m. (15:00)	47.2
NM3	East of "A" Yard, west of the visitor parking lot, and southwest of Administrative building	1:08 p.m. (15:00)	55.3
Source: MBA 2013.			

As shown in Table 8, the monitored existing noise levels ranged from 47.2 to 55.3 dBA L<sub>eq</sub>, with the highest noise measurement at Site NM3.

---

## Discussion

---

Would the project result in:

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less than significant impact.** Short-term construction noise impacts would occur during construction activities from the transport of workers and movement of construction materials to and from the project site, and from the noise generated onsite during ground clearing, grading, and construction activities. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction. Equipment required during the construction process would typically include backhoes, dozers, compactors, graders, front-end loaders, and trucks. Additional equipment, such as a portable crane and paving equipment, may also be required on a short-term and intermittent basis. Noise generated by construction equipment can reach high levels. Typical noise levels for individual pieces of construction equipment are summarized in Table 9. Renovation activities occurring within existing NKSP facilities would not be likely to produce significant noise capable of affecting the surrounding areas.

**Table 9: Typical Construction Equipment Noise Levels**

<b>Type of Equipment</b>	<b>Typical Noise Level (dBA) at 50 feet</b>
Concrete Saw	90
Jack Hammer	88
Grader	85
Pneumatic Tools	85
Scraper	84
Compactor	83
Concrete Breaker	82
Dozer	82
Concrete Pump	81
Crane, Mobile	81
Generator	81
Water Pump	81
Front-end Loader	79
Air Compressor	78
Backhoe	78
Asphalt Paver	77
Trucks	74-81
Source: Federal Transit Administration 2011.	

All of the project’s sub-projects except for two would be constructed at locations that are surrounded by existing facilities that would block line-of-sight, and therefore attenuate construction and operational noise at nearby sensitive receptors. Sub-projects 3 and 4, which consist of the new, 5,129-square-foot Facility C Primary Care Clinic proposed along the north portion of the property and a new, 3,873-square-foot Facility D Primary Care Clinic proposed in the eastern portion of the institution’s property, would be the closest and only components with direct exposure to existing surrounding sensitive receptors. The locations of sub-projects 3 and 4 are illustrated on Exhibit 3. Offsite noise sensitive receptors (residences) are located approximately 1,400 feet east and 2,100 feet northeast of sub-projects 3 and 4, respectively.

Noise from a point source (such as a stationary piece of equipment) propagates at different rates, depending on the surfaces intervening between it and the receiver. With hard surfaces (such as concrete), noise is reduced at a rate of three dBA per doubling of distance from the source. With soft surfaces (such as natural landscaping), noise is reduced at a rate of six dBA for every doubling of distance. Surfaces between the sub-project sites and sensitive receivers are primarily undeveloped land consisting of low-lying vegetation.

Based on previously mentioned distances and assuming that certain pieces of construction equipment can generate maximum noise levels of 90 dBA at a distance of 50 feet, resulting construction equipment-specific noise levels at the nearby sensitive receivers would be 61 dBA at residences to the east and 56 dBA at residences to the northeast.

The total resulting noise levels, including worst-case construction activities, would be well below the maximum allowable exterior noise level of 75 dBA. Therefore, any construction-related noise would have a less than significant noise impact.

Once fully operational, the proposed project's components would not involve the use of any major stationary noise sources or activities, nor would the project significantly change the existing noise generating activities onsite. Exterior mechanical equipment would be required for the new buildings and possibly the building additions. Noise levels generated by exterior mechanical equipment typically average between 55 and 85 dBA at three feet from the source (EPA 1971). Mechanical equipment is typically shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures. The project's components would result in operations similar to those existing at NKSP.

As indicated by the previous discussion, the nearest sensitive receiver to a sub-project is a residence at approximately 1,400 feet from the sub-project 4 site. At that distance, project-related noise levels would be approximately 32 dBA  $L_{eq}$  and would be unnoticeable relative to ambient noise levels ranging from 47.2 to 55.3 dBA  $L_{eq}$ . Other sensitive receptors are further from the sub-projects and therefore would experience even lesser impacts. In summary, the noise generated from operation of the proposed project would not create a substantial permanent increase in ambient noise, and impacts would be less than significant.

**b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

**Less than significant impact.** The metric for measuring groundborne noise and vibration is peak ground velocity (measured in inches per second). During the site preparation and construction phase, which includes site excavation activities, groundborne vibration and groundborne noise may occur. However, these excavation activities do not include activities known to induce strong vibration effects, such as those produced by tunneling or blasting. Furthermore, the site has already been graded as part of previous NKSP construction activities.

The ground vibration levels associated with common construction equipment are depicted in Table 10. Ground vibration generated by construction equipment spreads through the ground and diminishes in strength with distance. The effects of ground vibration can vary from no perceptible effects at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

**Legend**

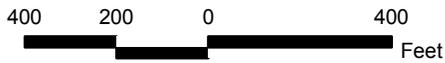
# Noise Monitoring Locations



Source: ESRI Aerial Imagery. MBA GIS Data.



Michael Brandman Associates



**Exhibit 6**

**Noise Monitoring Locations**



At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (PPV) threshold of 0.5 inch per second is sufficient to avoid structural damage, with the exception of fragile historic structures or ruins. There are no fragile historic structures or ruins within the project’s vicinity.

**Table 10: Representative Vibration Source Levels for Construction Equipment**

Equipment		Peak Particle Velocity at 25 feet (in/sec)
Pile Driver (impact)	Upper range	1.518
	Typical	0.644
Pile Driver (sonic)	Upper range	0.734
	Typical	0.170
Large Bulldozer		0.089
Caisson Drilling		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003
Source: Federal Transit Administration 2006.		

Long-term operation of the project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration. Ground vibration generated by the proposed construction activities would be primarily associated with the use of jackhammers, loaded trucks, and other mobile equipment, which, as shown in Table 10, would result in vibration levels of less than 0.09 inch per second PPV at 25 feet. Impact pile driving would not be required during project construction. Most ground vibration during construction would consist of onsite truck activity, which typically generates levels less than 0.08 in/sec PPV at 25 feet. In addition, the nearest sensitive receptor to the project is more than 1,400 feet east of the nearest sub-project site.

Construction and development of the project are anticipated to result in vibration levels that would not exceed the PPV threshold of 0.5 inch per second. Furthermore, long-term operation of the proposed project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration. As a result, impacts related to groundborne vibration levels will be less than significant.

**c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less than significant impact.** The project's potential to substantially increase ambient noise levels in its vicinity is determined by the definition of the term "substantial." Substantial is not defined in the CEQA Guidelines. However, research into the human perception of sound level increases indicates the following:

- A one-dBA or less increase is difficult to perceive,
- A three-dBA increase is just perceptible,
- A five-dBA increase is clearly perceptible, and
- A 10-dBA increase is perceived as being twice as loud.

Under typical outdoor ambient conditions, where constantly varying noise levels are occurring over time, people typically cannot clearly perceive increases in ambient noise levels until they reach approximately three dBA. Therefore, three dBA is generally accepted as the threshold beyond which increases to local ambient noise levels resulting from projects are considered substantial.

Considering the sound level perception thresholds and noise standards discussed above, a potentially significant increase in ambient noise levels would occur if noise generated by the project would permanently increase outdoor noise levels by three dBA or more, and if outdoor noise levels at a sensitive receiver would exceed the applicable noise standards.

The primary source of sound in the project's vicinity is from the nearby roadways. Traffic volumes on West Cecil Avenue, a major arterial, running south of the project site between Corcoran Road and Lytle Avenue averages approximately 2,200 trips per day (CEHTP 2013). Traffic trips would increase temporarily during construction because of construction workers traveling to and from the site and delivery of construction material and equipment. Once constructed, only a minimal increase in vehicle trips (related to the 12 additional employees) to the project site would be expected. Furthermore, the project would be expected to result in a reduction of existing vehicle trips generated by NKSP, as the increased capacity of onsite medical services would alleviate the existing need for transport between NKSP and offsite medical service locations. Typically, a doubling of vehicle traffic is required before a noticeable (three dBA or greater) increase in traffic noise levels would occur. Consequently, the proposed project would not result in a perceptible increase in local traffic noise levels.

In addition, long-term operational noise levels attributed to the proposed project are not anticipated to exceed applicable noise standards and/or result in any noticeable increase of three dBA or more in average daily ambient noise levels. Once fully operational, the proposed new buildings and additions would not involve the use of any major stationary noise sources or activities. In general, noise levels generated by building mechanical systems typically average between 55 and 85 dBA at three feet

from the source (EPA 1971). Building mechanical equipment is typically shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures. As shown by Table 8, noise levels at nearby sensitive receptors are already 47.2 to 55.3 dBA. The project components would result in operations similar to those existing at NKSP and, as such, would not result in a significant perceptible change in ambient noise levels.

As previously indicated in Discussion a), under a worst-case scenario, operational-sourced noise levels at the nearest sensitive receiver would be 32 dBA  $L_{eq}$ , which would be below existing ambient sound levels and, therefore, the threshold of perception.

In summary, noise generated from operation of the proposed project would not create a substantial permanent increase in ambient noise, and impacts would be less than significant.

**d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less than significant impact.** Construction of the project could generate a temporary increase in noise, corresponding to the particular phase of building construction and the noise-generating equipment used during construction. Certain pieces of construction equipment can generate noise levels of 85 dBA or louder at a distance of 50 feet. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Although there could be relatively high, single-event noise exposure potential resulting in potential short-term intermittent annoyances, the effect in long-term ambient noise levels would be small when averaged over the total time period.

As shown by the existing noise reading results in Table 8, offsite ambient noise levels in the vicinity of the project are between 47.2 and 55.3 dBA. As discussed above, the closest sensitive receivers to the project are at a distance of approximately 1,400 feet. At that distance, assuming a six dBA drop-off rate, construction equipment that generates 90 dBA at 50 feet would be reduced to 61.1 dBA at the closest residence property line. When combined with ambient noise levels, the total maximum noise level during construction would be 62.1 dBA at the closest sensitive receiver, which is below the allowable 65-dBA threshold for residential uses.

Furthermore, construction activities would occur in accordance with Municipal Code subsection 9.36.110, which prohibits construction noise within 300 feet of residences and any day between the hours of 8:00 p.m. and 7:00 a.m.

Since temporary construction activities at the NKSP institution are not expected to exceed the maximum allowable noise level of 65 dBA at nearby sensitive receivers, impacts related to the temporary increase in ambient noise levels would be less than significant.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**No impact.** The nearest public airport to NKSP is the Delano Municipal Airport, located 4.14 miles to the southeast. This distance precludes exposure of people residing or working in the project area to excessive airport noise levels. As such, no impact would occur.

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

**No impact.** The project site is not near a private airstrip. Thus, the proposed project would not result in the exposure of people residing or working in the project area to excessive airstrip noise levels. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>13. Population and Housing</b> <i>Would the project:</i>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

---

### Environmental Setting

---

NKSP is designated a Community Facility on the City of Delano General Plan Land Use Map and Official Zoning Map.

---

### Discussion

---

Would the project:

- a) **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**Less than significant impact.** The proposed project would not include additional inmate beds. Twelve additional employees would be required to meet the staffing needs of the new buildings at NKSP. The potential relocation of up to 12 employees to the project area would not be considered direct substantial population growth. The improvements include the addition and renovation of existing facilities and small new health care facilities, all of which would be located within the existing NKSP footprint and serve existing inmates. As such, the proposed project is not anticipated to induce substantial population growth in the area either directly or indirectly. Impacts would be less than significant.

**b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

**No impact.** The proposed project would not displace any existing housing units, inmates, or staff, and, therefore, would not necessitate the construction of replacement housing elsewhere. No impact would occur.

**c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No impact.** The proposed project would not displace any existing housing units, inmates, or staff, and, therefore, would not necessitate the construction of replacement housing elsewhere. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>14. Public Services</b>				
<i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</i>				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

---

## Environmental Setting

---

### Fire Services

The NKSP Fire Department provides fire protection and emergency response services to NKSP. The Fire Department maintains a mutual aid agreement with the Kern County Fire Department.

### Police Protection

NKSP provides law enforcement within its boundaries and is supplemented by a mutual aid agreement with the City of Delano Police Department. According to the City General Plan, the Delano Police Department, is also supplemented by mutual aid agreements with Kern County and Tulare County Sherriff Departments.

### Schools

The project site is located within the Delano Union Elementary School District and the Delano Union High School District. Together, these school districts include one high school, one continuation high school, two middle schools, and six elementary schools.

### Parks

Nearby recreational facilities consist of the City of Delano’s ten city parks and recreation facilities, the Colonel Allensworth State Historic Park, Kern National Wildlife Refuge, and Pixley National Wildlife Refuge.

---

## Discussion

---

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to

maintain acceptable service ratios, response times or other performance objectives for any of the public services:

**a) Fire protection?**

**Less than significant impact.** The onsite fire department at NKSP currently provides fire protection and emergency response services to NKSP and would continue to do so with the construction of the proposed project. All proposed buildings and renovations would be constructed in compliance with applicable fire code regulations. Because the proposed project does not include additional inmate beds, and would require only 12 additional staff members, a significant increase in fire protection and emergency medical services or facilities is not anticipated. The project would include the construction of new health care facilities and renovation of existing health care facilities, which would increase the medical capacity and decrease the number of medical-related emergency response calls. Therefore, the proposed project would not require the construction of new fire protection facilities or alter existing facilities to maintain performance objectives, and impacts would be less than significant.

**b) Police protection?**

**Less than significant impact.** NKSP handles all law enforcement needs at the institution without local public law enforcement assistance and has sufficient resources to serve the proposed project. Because the proposed project does not include additional inmate beds, and would require the addition of 12 staff members (11 of whom would serve as law enforcement within NKSP), an increase in police protection services or facilities is not anticipated. Therefore, the proposed project would not interfere with local law enforcement agency services and would not require the construction of new facilities or alterations to existing facilities to maintain performance objectives. Impacts would be less than significant.

**c) Schools?**

**No impact.** The proposed project does not include additional inmate beds at NKSP and would require the addition of only 12 staff positions. The additional 12 staff members would not result in a substantial increase in population requiring school facilities. Therefore, the proposed project would not require the construction of new school facilities or alterations to existing facilities to maintain performance objectives, and the current school facilities would continue to meet the demand for schools. No impact would occur.

**d-e) Parks? Other public facilities?**

**No impact.** As previously indicated, the proposed project does not include additional inmate beds at NKSP and would require only 12 additional staff positions. The addition of 12 staff members would not result in a substantial increase in population requiring parks or other public facilities. Therefore,

the proposed project would not require the construction of parks or other public facilities or alterations to existing facilities to maintain performance objectives. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>15. Recreation</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

Nearby recreational facilities consist of the City of Delano’s ten city parks and recreation facilities, the Colonel Allensworth State Historic Park, Kern National Wildlife Refuge, and Pixley National Wildlife Refuge.

**Discussion**

**a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**No impact.** Operation of the proposed project does not include additional inmate beds but would require 12 additional employees at NKSP, which would not be considered substantial population growth. Therefore, the proposed project would not cause a substantial increase in the use of local or regional recreational facilities. As such, substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities would not take place. No impacts would occur.

**b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

**No impact.** The proposed project does not include the construction or expansion of recreational facilities. No impacts would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>16. Transportation/Traffic</b> <i>Would the project:</i>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

NKSP is approximately 3.5 miles west of central Delano, eight miles northwest of central McFarland, and 30 miles south of central Tulare. Regional access to NKSP is provided by SR-99 and SR-43. Local access is provided by numerous local roadways including County Line Road, West Cecil Avenue, and Lytle Avenue. NKSP is primarily accessed via an entrance off West Cecil Avenue.

The nearest public transportation service is the Delano Area Rapid Transit (DART) which features two services, the Delano Area Dial-a-Ride and the DART fixed routes. DART Route 4's stop at the intersection of Timmons Avenue and Contessa Avenue is the closest stop to NKSP. Dial-a-Ride is an on-call service for seniors and persons with disabilities in the DART service area or general public

passengers who need transportation outside the DART bus service area (City of Delano 2013). An AMTRAK passenger service station is located in Wasco, approximately 15 miles southeast of the City of Delano (City of Delano 2005).

---

## **Discussion**

---

Would the project:

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

**Less than significant impact.** The quality of roadway facility operations is described with the term “level of service” (LOS). Six levels are defined, with LOS A representing the best operating conditions (minimal vehicular congestion) and LOS F representing the worst operating conditions (substantial vehicular congestion). The City of Delano General Plan Circulation Element indicates that LOS C is the minimum acceptable LOS within the city except for freeway interchanges or other high volume locations which use LOS D. The following intersections generally surround the proposed project and serve NKSP traffic:

1. West Cecil Avenue and Lytle Avenue
2. West Cecil Avenue and Wasco Pond Road
3. West Cecil Avenue and Casey Way

Intersections and roadways surrounding NKSP are generally stop-sign controlled, two-lane roads. Lytle Avenue to the west and County Line Road, to the north are not paved and used primarily for residential access and traffic accessing NKSP would not be likely to use these roadways.

As indicated in the City of Delano General Plan Circulation Element’s Table 3-3, all roadway segments within the City with available traffic volumes operate at acceptable LOS. Traffic volumes are not available for roadway segments directly surrounding the project site. The nearest roadway segments with recorded traffic volumes are 1.0 and 1.5 miles to the south and east, respectively. These nearby roadway segments have traffic volumes of approximately 550 to 1,300 vehicles per day and operate at LOC C to LOS A (City of Delano 2005).

Project construction would result in short-term traffic increases on local roadways during off-peak hours. Proposed project construction work shifts would occur from 6:00 a.m. to 3:30 p.m., Monday through Friday. Construction activities would average approximately 49 one-way trips or approximately 25 vehicles traveling to and from the project site per day (Vanir Construction Management 2013; MBA 2013). Because construction trips would be temporary and construction

workers would arrive and depart during off-peak hours, thereby avoiding conflicts with adjacent street peak hour traffic conditions, construction traffic impacts would be less than significant.

The proposed project does not include additional inmate beds. As such, existing traffic levels related to inmate visitation would not be expected to change. The proposed project would require 12 new employees. The addition of these employee's traffic trips to and from the project site would not result in a significant increase in traffic levels. Eleven of the additional employees would serve as custody staff and would be distributed between two separate shifts: 6:00 a.m. to 2:00 p.m. and 2:00 p.m. to 10:00 p.m., thereby requiring no work commute trips during peak traffic hours. The addition of traffic trips from the remaining additional employee, who would work during a standard daytime shift, would be minimal compared with the existing number of employee traffic trips to NKSP. Furthermore, the project would be expected to result in a reduction of existing vehicle trips generated by NKSP, as the increased capacity of onsite medical services would alleviate the existing need for transport between NKSP and offsite medical service locations. The addition of 12 employees would not be expected to result in a substantial increase in mass transit ridership. Furthermore, the proposed project does not include any modifications to the existing circulation system outside of the institution. As such, the proposed project would not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Impacts would be less than significant.

**b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

**Less than significant impact.** No congestion management plan is identified for the project area. As previously mentioned, the proposed project would result in the addition of only 12 employees and related traffic trips and existing surrounding roadways operate at acceptable levels. Furthermore, the City of Delano General Plan identifies several intersections that are known to have traffic congestion issues, none of which are within two miles of the project site.

Project-related construction trips would be temporary, and primarily occur during off-peak hours, thereby avoiding conflicts with adjacent street peak-hour conditions. Additionally, the project would increase the capacity of onsite medical services, which is expected to reduce the current need for transportation to and from offsite medical service facilities and potentially result in a decrease in number of trips and vehicle miles traveled. As such, the proposed project would not conflict with applicable level of service standards for designated roads or highways. Impacts would be less than significant.

**c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

**No impact.** The nearest public airport to NKSP is the Delano Municipal Airport (approximately 4.2 miles to the southeast). NKSP is not located within the land use plan or safety zone of the airport. The proposed project does not contain any uses that could alter air traffic patterns. Therefore, no impact would occur.

**d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**No impact.** The proposed project is located on the grounds of the existing NKSP institution. Existing roadways on the project site have been designed to safely serve the institution. The proposed project does not include the construction of any new roads. Minor driveways and reconfiguration of existing roadways would occur. All roadway configurations implemented as part of the proposed project would conform to CDCR design and safety standards. Therefore, project construction and operation would not increase hazards that are due to a design feature or incompatible use, and no impact would occur.

**e) Result in inadequate emergency access?**

**No impact.** According to existing NKSP staff, emergency access to the project site is adequate and in conformance with CDCR standards. Onsite emergencies are generally handled onsite and do not require outside access from emergency responders. Proposed project construction activities would occur entirely within the existing NKSP property and would not change or impair emergency vehicle access to the institution. Project operation would not result in an increase in inmate beds and would add only 12 employees. As such, existing emergency access would continue to be sufficient and no impact would occur.

**f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**

**No impact.** The proposed project would be located within the existing NKSP property boundaries. Construction and operation of the proposed project is not expected to impact existing alternative transportation. Furthermore, the project is not expected to generate increases in pedestrian, bicycle, and bus transit demand. The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation. Therefore, no impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>17. Utilities and Service Systems</b>				
<i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

### Potable Water

The City of Delano is the water purveyor throughout the city. The City's water system extracts its water supply from the Kern County Water Basin via 11 groundwater wells located throughout the City. Historically, this area of the water basin has been considered to be in overdraft condition. According to the 2010 Delano UWMP, the City will abandon three existing wells and drill seven new wells for a total of 17 active wells with a combined capacity of 16,100 gpm (23 mgd) by the end of 2013. Five storage reservoirs provide a total capacity of 10.6 million gallons. Current average water demand for the City is 8.3 mgd, and the City is capable of handling a peak demand of 12.6 mgd. According to the supply and demand comparison in the UWMP, sufficient water is available to meet

demands during normal, single-dry, and multiple-dry water years through 2035 (City of Delano 2011).

A Joint Powers Agreement between CDCR and the City of Delano entitles NKSP to 1.01 mgd of potable water. Existing average daily water demand at NKSP is approximately 0.98 mgd.

### **Wastewater**

The collection, treatment, and disposal of wastewater at NKSP is provided by the City of Delano's Wastewater Treatment Facility (WWTF), located approximately one mile south of the NKSP. The WWTF has a capacity of 8.8 mgd and uses approximately 450 acres for the disposal of treated water. In 2010, the WWTF collected and treated 1,571 million gallons (approximately 4.3 mgd) (City of Delano 2011).

A Joint Powers Agreement between CDCR and the City of Delano allocates an average daily flow of 0.80 mgd of wastewater from NKSP. According to data provided by the City of Delano WWTF, NKSP generated 20.7 million gallons of wastewater in September 2013 or approximately 0.70 mgd.

### **Stormwater**

Certain sections of the City of Delano and its General Plan study area are susceptible to flooding, of which with the High Street Pool, the 20th Avenue Pool, and the Rag Gulch are identified as flood hazard areas (City of Delano 2005). There are a number of existing local and regional flood control facilities in the City, including channels, storm drains, and retention basins. The onsite drainage system for NKSP is limited to grading of the site that directs surface runoff away from the buildings and recreation yards into drainage facilities. The drainage facilities consist of pipes and swales that direct stormwater to an onsite retention pond for evaporation or percolation. The pond is located north of the minimum security yard and northwest of the main NKSP institution. The existing drainage facilities are in compliance with Kern County's requirement that onsite containment capacity be provided for rainfall events with return frequencies of 50 years. Sufficient capacity is available to serve the proposed project.

### **Solid Waste**

The City of Delano is contracted to manage solid waste collection and disposal for NKSP. Solid waste is disposed of at the Shafter-Wasco Landfill, located approximately 19 miles southwest of the project site. The Shafter-Wasco Landfill has a maximum permitted daily capacity of 1,500 tons per day, and as of 2001 had an estimated remaining capacity of 7.9 million cubic yards and a closure date of 2027.

NKSP operates a recycling and salvage program that reduces waste delivered to landfills by as much as 40 percent. Regulated medical waste is collected by a private contractor for processing and final disposal.

## Electricity and Natural Gas

Electricity is provided by the Southern California Edison Company. Power is supplied via a substation located immediately southeast of the NKSP facility. Natural gas is provided by Southern California Gas Company.

---

## Discussion

---

Would the project:

**a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

**Less Than Significant Impact.** NKSP is authorized to release an average daily flow of 0.80 mgd of wastewater. According to data provided by the City of Delano WWTF, NKSP generated 20.7 million gallons of wastewater in September 2013 or approximately 0.70 mgd. NKSP's existing onsite wastewater collection system meets current demands, and has sufficient capacity to accommodate the proposed improvements. The collection, treatment, and disposal of wastewater at NKSP is provided by the City of Delano's WWTF, which has a capacity of 8.8 mgd and receives approximately 4.3 million gallons of wastewater per day (City of Delano 2011). The treatment plant is required to operate in compliance with its current NPDES permit, thereby ensuring wastewater treatment requirements are met.

The proposed project includes upgrades to existing health care service facilities and expansion of facilities to support improvement of health care services to the existing inmate population. The proposed project does not include additional inmate beds. Twelve additional staff members would be required. Since water usage and, therefore, wastewater production at CDCR institutions are largely driven by inmate levels, and since no increase in inmate beds would occur, water usage increases would be minimal. Furthermore, the new buildings and renovations would be constructed using the best available water conservation devices. Accordingly, the proposed project would not exceed wastewater treatment requirements and impacts would be less than significant.

**b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**No impact.** Water and wastewater facilities are discussed separately below.

## Water Facilities

As mentioned previously, NKSP currently uses an average of 0.98 mgd of water, which is within its 1.01-mgd entitlement. Water usage at NKSP has recently been reduced significantly as a result of the installation of toilet flush control valves and a reduction in inmate population. More importantly for the proposed project, negligible additional water consumption would result from the installation of

new health care facilities because they would continue providing services already performed at the institution. No new inmate beds would be added. Twelve additional staff members would be required at NKSP. Since water usage at CDCR institutions is largely driven by the number of inmates, and no increase in inmate beds would occur, water use increases would be minimal. Furthermore, the new buildings and renovations would be constructed using the best available water conservation devices. As such, no new or expanded water facilities are necessary for the proposed project. No impact would occur.

### **Wastewater Facilities**

NKSP is authorized to release an average daily wastewater flow of 0.8 mgd. NKSP's existing onsite wastewater collection system meets current demands and has sufficient capacity to accommodate the proposed improvements. Discharged wastewater is directed to the City of Delano WWTF, which has a capacity of 8.8 mgd. In 2010, the WWTF collected and treated 1,571 million gallons (approximately 4.3 mgd) (City of Delano 2011). As such, sufficient capacity is available.

As previously indicated, the project primarily includes upgrades to existing health facilities and expansion of facilities to support improvement of existing health care services to the inmate population. No new inmate beds would be added, and only 12 additional staff members would be required. Since wastewater usage at CDCR institutions is largely driven by inmate levels, and no increase in inmate beds would occur, wastewater production increases would be minimal. Furthermore, the new buildings and renovations would be constructed using the best available water conservation devices. As such, sufficient capacity is available to serve the proposed project.

In summary, the proposed project would not require or result in the construction or expansion of water or wastewater facilities and no impacts would occur.

**c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Less than significant impact.** The proposed project components would increase impervious surface coverage at NKSP by 25,018 square feet or approximately 1.04 percent. This increase in impervious surface area is a nominal amount compared with the existing 2,400,000 square feet of impervious surfaces. Therefore, existing stormwater infrastructure would be sufficient to serve the proposed project. Furthermore, as indicated in Section 2.6, CDCR would implement standard stormwater system designs to ensure stormwater runoff is safely retained, detained, and/or conveyed and no net increase of stormwater outfall would occur. Therefore, impacts would be less than significant.

**d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

**No impact.** See response to Discussion b) above. Increase in water demand associated with the project would be minimal. Therefore, current supplies would be sufficient. No impact would occur.

**e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**Less than significant impact.** See response to Discussion b) above. Given wastewater production at CDCR institutions is largely driven by inmate levels and no increase in inmate beds would occur, wastewater production increases would be minimal. Wastewater generated at NKSP is discharged to the City of Delano's WWTF, which has a capacity of 8.8 mgd and receives approximately 4.3 million gallons of wastewater per day (City of Delano 2011). As such, the wastewater treatment provider can adequately serve the proposed project. Impacts would be less than significant.

**f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

**Less than significant impact.** Solid waste from NKSP is transported to the Shafter-Wasco Landfill, located approximately 19 miles southwest of the project site. The Shafter-Wasco Landfill has a maximum permitted daily capacity of 1,500 tons per day, and as of 2001 had an estimated remaining capacity of 7.9 million cubic yards and a closure date of 2027.

Project construction would result in solid waste over the 20-month construction period. Construction-related solid waste would be recycled to the extent possible and remaining waste would be disposed at the Shafter-Wasco Landfill. Since construction waste disposal would be temporary and sufficient capacity exists, impacts would be less than significant.

CDCR bases waste generation rates on a factor of 3.6 pounds per inmate per day. However, the proposed project would not result in an increase in inmate beds. As such, negligible increases in operational waste production would be expected. While medical facilities have the potential to generate substantial amounts of waste, the proposed project would provide replacement and expanded space for existing medical facilities and services. As such, negligible increases in the existing medical waste production would be expected. Given the permitted capacity and anticipated closure date, sufficient permitted capacity is available at the Shafter-Wasco Landfill to accommodate the project's waste disposal needs. Therefore, impacts would be less than significant.

**g) Comply with federal, state, and local statutes and regulations related to solid waste?**

**Less than significant impact.** As part of standard procedure, the proposed project would be required to abide by all applicable local, state, and federal solid waste disposal regulations. As previously

discussed, NKSP implements several recycling programs. Furthermore, solid waste created by the construction and operation of the proposed project would be a small percentage of the overall waste production of the institution. As such, impacts related to solid waste regulation compliance would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>18. Mandatory Findings of Significance</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

---

## Discussion

---

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**Less than significant impact.** As evaluated in this IS/Proposed ND, the proposed project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. As described under Section 2.6, the project includes specific environmental protection design features to ensure avoidance of impacts to avian species, previously undiscovered human remains, and water quality. Therefore, less than significant impacts from project implementation would occur.

- b) **Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

**Less than significant impact.** Cumulative air quality and traffic impacts are considered in Section 3.3 and Section 3.16, respectively, in this IS/Proposed ND. As described in the impact analyses in Sections 3.1 through 3.17 of this IS/Proposed ND, the proposed project would not result in any potentially significant impacts requiring mitigation. The project would also not cause, or result in, a cumulatively considerable contribution to any significant adverse impacts when considered in connection with the effects of past projects, current projects, or probable future projects, primarily because the incremental contributions of the HCFIP are so modest.

Other current or probable future projects near the project site that could cause related impacts are listed in Appendix C. No other projects that could cause related impacts are proposed by CDCR, and as discussed in this document, the proposed project’s impacts are so limited they would not contribute considerably to any significant local or regional impacts. As explained in this IS/Proposed ND, CDCR has incorporated measures into the project such that its incremental impacts will not be cumulatively considerable (see Section 2.6, Environmental Protection Design Features).

Accordingly, the incremental addition of impacts from the proposed project would be considered less than cumulatively considerable.

- c) **Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less than significant impact.** The proposed project would not directly or indirectly cause substantial adverse effects on human beings. Air quality and/or noise would be the only avenues through which the project could have a substantial effect on human beings. However, all potential effects of the proposed project related to air quality and noise are identified as less than significant. The impact analysis included in this IS/Proposed ND indicates that for all other resource areas, the proposed project would have either no impact or less than significant impact.

## **SECTION 4: REFERENCES**

- ARB 2013. Aerometric Data Analysis and Management System: Top 4 Summary. Website: <http://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed October 3, 2013.
- California Air Resources Board (ARB). 2008. Climate Change Scoping Plan, A Framework for Change as approved December 2008. December.
- California Air Resources Board. 2010. Greenhouse Gas Inventory Data – 2000 to 2008. Website: [www.arb.ca.gov/cc/inventory/data/data.htm](http://www.arb.ca.gov/cc/inventory/data/data.htm).
- California Air Resources Board (ARB). 2012. Health Effects of Air Pollution. Website: <http://www.arb.ca.gov/research/health/health.htm>. Accessed July 2013.
- California Air Resources Board. 2013. Greenhouse Gas Inventory Data – 2000 to 2011. Website: [http://www.arb.ca.gov/cc/inventory/data/tables/ghg\\_inventory\\_trends\\_00-11\\_2013-10-02.pdf](http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_trends_00-11_2013-10-02.pdf).
- California Air Resources Board. 2013. Top 4 Summary. Website <http://www.arb.ca.gov/adam/topfour/topfour1.php>.
- California Department of Conservation. 2013. Alquist-Priolo Earthquake Fault Zones. Website: <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/Index.aspx>. Accessed August 20, 2013.
- California Department of Corrections and Rehabilitation. 1999. Statewide Electrified Fence Project Habitat Conservation Plan.
- California Department of Fish and Wildlife (CDFW) 2013a. California Wildlife Habitat Relationship System.
- California Department of Fish and Wildlife (CDFW). 2013b. California Natural Diversity Database (CNDDDB). Website: <http://www.dfg.ca.gov/biogeodata/cnddb/>. Accessed September 18, 2013.
- California Department of Fish and Wildlife (CDFW). 2013c. Special Animals List. The Resources Agency of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California. Website: [http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/species\\_list.pdf](http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/species_list.pdf). Accessed September 12.
- California Department of Fish and Wildlife (CDFW). 2013d. Endangered and Threatened Animals List. The Resources Agency of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California.
- California Department of Fish and Wildlife (CDFW). 2013e. Special Vascular Plants, Bryophytes, and Lichens List. The Resources Agency of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California.
- California Department of Forestry and Fire Protection (CALFIRE). 2007. Fire Hazard Severity Zones Kern County Local Responsibility Areas map. Website: [http://www.fire.ca.gov/fire\\_prevention/fhsz\\_maps\\_kern.php](http://www.fire.ca.gov/fire_prevention/fhsz_maps_kern.php). Accessed September 16, 2013.

**References**

---

- California Department of Toxic Substances Control (DTSC). 2013. Hazardous Waste and Substances List (Cortese List). Website: [http://www.dtsc.ca.gov/SiteCleanup/Cortese\\_List.cfm](http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm). Accessed September 16, 2013.
- California Department of Transportation. 2011. California Scenic Highway Mapping System. [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/scenic_highways/). Accessed September 12, 2013.
- California Energy Commission. 2006. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. Website: <http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF>.
- California Energy Commission, California Climate Change Center (CEC). July 2006. Our Changing Climate, Accessing the Risks to California. CEC-500-2006-077. Website: [www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF](http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF), Accessed in July 2013.
- California Environmental Health Tracking Program (CEHTP). 2013. Traffic Linkage Service Demonstration. Website: [http://www.ehib.org/traffic\\_tool.jsp](http://www.ehib.org/traffic_tool.jsp). Accessed September 2013.
- California Geological Survey (CGS). 2009. Update of Mineral Land Classification: Aggregate Materials in the Bakersfield Production-Consumption Region, Kern County, California. Website: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR\\_210/](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_210/). Accessed August 22, 2013.
- California Geological Survey. 2007. Probabilistic Seismic Hazards Assessment- Peak Ground Acceleration. Website: <http://www.consrv.ca.gov/cgs/rghm/psha/Pages/pga.aspx>.
- California Geological Survey, Department of Conservation. 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ms/59/MS59\\_Plate.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ms/59/MS59_Plate.pdf).
- California Native Plant Society (CNPS). 2013. Inventory of Rare and Endangered Vascular plants of California. 2010 Eighth edition. Sacramento, California. Website: <http://www.cnps.org/cnps/rareplants/inventory/>. Accessed September 23, 2013.
- City of Delano. 2010. Urban Water Management Plan. Website: <http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Delano,%20City%20of/Delano%20Final%202010%20UWMP.pdf>. Accessed September 20, 2013.
- City of Delano. 2005. City of Delano General Plan. Website: <http://www.cityofdelano.org/index.aspx?NID=113>. Accessed September 20, 2013.
- City of Delano. 2011. Urban Water Management Plan. Website: <http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Delano,%20City%20of/Delano%20Final%202010%20UWMP.pdf> Accessed October 20, 2013.
- City Of Delano. 2011a. City of Delano General Plan Map. Website: <http://www.cityofdelano.org/index.aspx?NID=112>. Accessed August 20, 2013.
- City Of Delano. 2011b. City of Delano Official Zoning Map. Website: <http://www.cityofdelano.org/index.aspx?NID=112>. Accessed August 20, 2013.

- City of Delano. 2013. Delano Area Rapid Transit (DART). Website: <http://www.cityofdelano.org/index.aspx?nid=92> Accessed September 16, 2013.
- Farmland Mapping and Monitoring Program (FMMP). 2012. Kern County Important Farmland 2010. Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/>. Accessed August 20, 2013.
- Kern County. 2007. Kern County General Plan. Website: <http://pcd.kerndsa.com/planning/planning-documents/general-plans>. Accessed August 20, 2013.
- Kern County. 2013. 2012 Kern County Agricultural Crop Report.
- Mayer, K.E. and W.F. Laudenslayer, Jr. 1988. A Guide to the Wildlife Habitats of California. California Department of Forestry and Fire Protection.
- Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2008-071. Website: <http://www.energy.ca.gov/2008publications/CEC-500-2008-071/CEC-500-2008-071.PDF>. Accessed July 7, 2013.
- Natural Resource Conservation Service (NRCS). 2013. Web Soil Survey. Natural Resource Conservation Service. Website: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed August 20, 2013.
- San Joaquin Valley Air Pollution Control District (SJVAPQD). 2002. Guide for Assessing and Mitigating Air Quality Impacts. Website: <http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf>.
- San Joaquin Valley Air Pollution Control District (SJVPCD) 2013. Ambient Air Quality Standards and Valley Attainment Status. Website: <http://www.valleyair.org/aqinfo/attainment.htm>. Accessed October 3, 2013
- United States Environmental Protection Agency (EPA). 1971. Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances. December 31.
- United States Environmental Protection Agency (EPA). 2013. Envirofacts. Website: <http://www.epa.gov/enviro/index.html>. Accessed September 16, 2013.
- United States Environmental Protection Agency (EPA). Superfund National Priorities List. Website: <http://www.epa.gov/superfund/sites/npl/index.htm>. Accessed September 16, 2013.
- United States Fish and Wildlife Service (USFWS). 2013a. Federal Endangered and Threatened Species that Occur in Delano West USGS 7.5-minute topographic quadrangle map.
- United States Fish and Wildlife Service (USFWS). 2013b. Critical Habitat for Threatened & Endangered Species.
- United States Geological Survey (USGS). 1969. Delano West, California 7.5-minute topographic quadrangle map.

**References**

---

Western Regional Climate Center (WRCC). Delano Station Period of Record Monthly Climate Summary and Wasco Station Period of Record Monthly Climate Summary. Website: <http://www.wrcc.dri.edu/Climsum.html>. Accessed August 23, 2013.

---

## SECTION 5: LIST OF PREPARERS

---

### California Department of Corrections and Rehabilitation

---

Project Director III ..... Gary O. Lewis  
Project Director ..... Troy West  
Chief, Environmental Planning Section ..... Nancy MacKenzie  
Senior Environmental Planner ..... Roxanne Henriquez

---

### Vanir Construction Management, Inc.

---

Deputy Program Manager ..... Kimberly Bobic  
Project Manager ..... Mason Mattos  
Project Coordinator ..... Melissa Wong

---

### Michael Brandman Associates - Environmental Consultant

---

2000 "O" Street, Suite 200  
Sacramento, CA 95811  
Phone: 916.447.1100  
Fax: 916.447.1210

Project Director ..... Trevor Macenski  
Senior Project Manager ..... Janna Waligorski  
Project Manager ..... Jenny Mailhot  
Air Quality Specialist ..... Chryss Meier  
Air Quality Analyst ..... Ian McIntire  
Biologist ..... Scott Crawford  
Environmental Analyst ..... Cory Phillips  
Environmental Analyst ..... Kyle Prosen  
Environmental Analyst ..... Catherine Lytle  
Environmental Analyst ..... Jeni Centner  
Editor/Word Processing ..... Ed Livingston  
Noise Specialist ..... Chryss Meier  
Noise Analyst ..... Ian McIntire  
Noise Analyst ..... Collin Ramsey  
Senior Editor ..... Sandra L. Tomlin  
Quality Assurance/Quality Control ..... Derrill Stepp  
GIS ..... Karlee McCracken  
GIS Technician ..... Ian McIntire  
Reprographics ..... Octavio Perez

