

Draft Final Finding of No Significant Impact: Supplemental Environmental Assessment for Construction, Operation, and Maintenance of the New Weed Army Community Hospital at Fort Irwin, California

Fort Irwin's population includes approximately 4,448 assigned military members, a 7,201-person civilian workforce, and 4,754 family members. In addition, approximately 5,600 soldiers visit Fort Irwin during training rotations that occur approximately 10 times each year, which makes for a daily population of approximately 24,979 people. The Weed Army Community Hospital is the primary health care facility for these individuals. The mission of the hospital is to provide and manage the health care of soldiers, military families, and retirees; to support the readiness and deployment of a medically protected force while achieving effective health care practices; and to meet diverse future requirements. In addition, there typically are 4,000 to 5,000 civilian contractors who work as support personnel on Base and who could also use the hospital in a medical emergency.

The Weed Army Community Hospital building is outdated and does not comply with California building requirements (Senate Bill 1953), primarily due to seismic concerns. Alterations or additions to the current building cannot be performed without a seismic retrofit, which would be cost prohibitive. An Environmental Assessment (EA)/Initial Study, titled *Construction and Operation of a New Weed Army Community Hospital*, was prepared in 2011 analyzing the construction of a replacement hospital that would comply with current building standards, and is hereafter referred to as 2011 EA. The 2011 EA analyzed the construction and operation, including associated maintenance, of a replacement hospital, within a 79-acre parcel that would comply with current building standards. During the construction, several design element changes were identified that would require additional National Environmental Policy Act of 1969 (NEPA) analysis prior to implementation. This Supplemental EA (SEA) analyzes and documents potential impacts on the human and natural environment that would result from implementation of these additional design element changes. The 2011 EA is incorporated by reference and attached as Appendix A in the SEA.

The actions considered in the SEA are part of a major federal action, which must be evaluated under NEPA. The 2011 EA was prepared pursuant to 32 Code of Federal Regulations Part 651 and the President's Council on Environmental Quality regulations (Title 40, U.S. Code Parts 1500-1508) for implementing the procedural requirements of NEPA.

In preparation of the SEA, it was determined that no alternatives other than the Proposed Action would satisfy the purpose and need of the proposed project. Two alternatives (the Proposed Action and the No Action Alternative) were selected for detailed analysis. No additional alternatives were considered.

Description of the Proposed Action

The Proposed Action includes the construction and operation of the following design element changes to the proposed new hospital within the 79-acre parcel evaluated in the 2011 EA:

- 518,000-gallon emergency water storage tank
- Ten 50,000-gallon emergency wastewater storage tanks (total of 500,000 gallons)
- 2.4-megawatt (MW) solar array
- Two 25,000-gallon belowground fuel storage tanks
- Five 2.5-million British thermal unit and two 1.0- million British thermal unit boilers
- Three 1.5-MW diesel generators

Temporary construction staging areas for the elements in the Proposed Action would be located within the 79-acre area evaluated in the 2011 EA.

1 In addition, a solar array was constructed based on the assessment in the 2011 EA, which included an
2 evaluation of impacts from construction of this infrastructure within the identified 79-acre project area. The
3 2011 EA did not include the specific size of the array or an evaluation of impacts from operation of this
4 element; therefore, the SEA will evaluate impacts from operation and maintenance and measures that
5 would be implemented to reduce potential impacts.

6 **Description of the No Action Alternative**

7 Under the No Action Alternative, the new design elements would not be incorporated. The new hospital
8 would be constructed without adequate support and resiliency to hospital systems. Backup water supply
9 and wastewater storage would not be provided. Emergency power from generators, fuel storage to support
10 generators, and heat energy from boilers would be inadequate. Solar power generation would not be used
11 to offset the operational power needs of the new hospital.

12 **Environmental Consequences**

13 The SEA evaluated potential impacts on biological resources; rare, threatened, and endangered species;
14 water resources; air quality; utilities; hazardous and toxic substances; noise; aesthetics; and air
15 transportation.

16 As discussed in the SEA, implementation of the Proposed Action would result in permanent minor negative
17 impacts on vegetation and fauna. The 7.82 acres of previously cleared land within the 79-acre parcel would
18 be permanently lost as a result of construction and operation of the 2.4-MW solar array. The solar array
19 would pose a less than significant permanent impact to birds due to collision-related fatalities.

20 The Proposed Action would result in temporary and negligible adverse impacts to groundwater resources
21 during construction. The Fort Irwin water system has the capacity to support the additional features in the
22 Proposed Action and groundwater supplies would not be substantially affected; therefore, a Less-Than-
23 Significant Impact to groundwater supplies during the operation and maintenance phase would be expected
24 as a result of the Proposed Action.

25 Implementation of the Proposed Action would result in less than significant impacts to air quality. The peak
26 annual construction emissions and operational emissions would be less than the Mojave Desert Air Quality
27 Management District significance thresholds for each year; therefore, construction, operation, and
28 maintenance of the Proposed Action would not have a significant adverse effect on air quality.

29 The Proposed Action would result in temporary and minor impacts to solid waste management. Operation
30 and maintenance of the Proposed Action elements would result in long-term negligible or less than
31 significant impacts to water, wastewater, and solid waste management. There would be a minor, short-term
32 adverse impact to water usage to fill the proposed 518,000-gallon water tank. However, Fort Irwin plans to
33 remove an existing 1,000,000-gallon underground potable water storage tank located within the
34 cantonment north of the residential area and outside the proposed hospital site. The underground concrete
35 tank was constructed in 1944 to provide water to the cantonment area. Under a separate project, the tank
36 will be decommissioned and disconnected from the Fort Irwin water system within the next six months and
37 will be demolished within the next 18 months. This would offset the water required to fill the 518,000-gallon
38 tank associated with the Proposed Action and would not significantly change annual water consumption
39 during filling. The proposed new 518,000-gallon potable water tank would only provide an emergency 3-day
40 water supply to the proposed hospital, and the tank would have a long detention time due to infrequent
41 demand. Therefore, operation of the proposed 518,000-gallon water storage tank would have a negligible
42 impact on the consumption rate at Fort Irwin. There would also be short-term and negligible impacts to
43 clean the solar array; however, the use of the solar array would provide long-term beneficial impacts.

44 There would be less than significant negative impacts from hazardous and toxic substances from the use of
45 small quantities of substances such as oils, grease, and fuels during construction. There would be a minor
46 increase in the use of hazardous or toxic substances during operation and maintenance of the

- 1 photovoltaic (PV) facility from expired, damaged, or malfunctioning solar equipment and from equipment
2 repairs.
- 3 Implementation of the Proposed Action would result in less than significant negative impacts from noise
4 associated with construction equipment. There would be no significant impacts from noise during operation
5 and maintenance of the proposed new features because there would be no long-term increase in ambient
6 noise levels beyond intermittent helicopter operation.
- 7 The water storage tank and solar array would not substantially degrade the visual character of the area;
8 therefore, aesthetic impacts would be less than significant.
- 9 No construction related impacts to air transportation would result from the Proposed Action. There would
10 be minor operational impacts to air transportation associated with glare from the solar array.
- 11 Indirect impacts would not be expected as a result of the Proposed Action and no significant adverse
12 cumulative impacts would result.
- 13 Mitigation measures would be implemented to ensure that adverse environmental impacts of construction
14 and operation and maintenance of the Proposed Action would be avoided or minimized. These mitigation
15 measures, summarized in Table 1, would be incorporated into the final design, implemented by the
16 construction contractor and/or operations contractor, and included in the contract documents.

TABLE 1

Mitigation Measures*Construction, Operation, and Maintenance of the New Weed Army Community Hospital, Fort Irwin, California*

Resource	Potential Impact	Mitigation Measure
Geology, Soils, and Mineral Resources		
	Soil Erosion	<p>Construction Phase: Employ BMPs for control of erosion and sediment.</p> <p>Implement SWPPP.</p> <p>Operation Phase: No mitigation is needed/proposed.</p>
Biological Resources		
	Desert tortoise (no effect)	<p>Construction Phase: Within 2 weeks of the onset of construction, 100 percent coverage ground surveys would be conducted of the project area for tortoises, signs of use, or burrows. If no tortoises or active burrows are identified, then construction would proceed without interruption.</p> <p>If active burrows or tortoises are identified, then tortoises would be relocated to areas off the construction site, and burrows collapsed. Tortoise relocation would require a Section 10(a) permit issued by the U.S. Fish and Wildlife Service under the Endanger Species Act.</p> <p>During land clearing and construction, a biological monitor would be available to observe construction activities and to verify that no tortoises wander into the construction area. If a tortoise is present, construction in the immediate vicinity would be halted while the tortoise is relocated out of the construction area.</p> <p>Before construction begins, personnel working on the site would be given a briefing on the desert tortoise, detailing its life history as well as the protocol to follow if a tortoise is encountered.</p> <p>Operation Phase: No mitigation is needed/proposed.</p>

TABLE 1

Mitigation Measures*Construction, Operation, and Maintenance of the New Weed Army Community Hospital, Fort Irwin, California*

Resource	Potential Impact	Mitigation Measure
	Special-status species (potential disturbance)	<p>Construction Phase: Land and vegetation clearing would occur outside the breeding season for birds of concern, defined as February 15 to August 31, where practicable.</p> <p>If vegetation clearing is required during the breeding season, then preconstruction surveys of breeding birds would be conducted. If active nests are identified, they would be protected from disturbance by a 500-foot nesting buffer, which would remain in place until the young have fledged from the nest, and no new nests would be initiated for the season.</p> <p>Operation Phase: No mitigation is needed/proposed.</p>
	Pest species	<p>Construction Phase: During construction, all trash and debris would be placed in receptacles for delivery to approved landfill facilities. Site cleanup of trash and debris would be required on a daily basis, including emptying and disposing of trash receptacles.</p> <p>Operation Phase: Proper waste management on the hospital grounds, fencing around the solar array, and removal of any dead or injured animals would limit the potential for pest species to occur.</p>
Water Resources		
Surface Water	Soil erosion, runoff, and sedimentation impacts	<p>Construction Phase: Proper BMPs would be implemented before land grading begins. Natural vegetation would be preserved when possible. Erosion, runoff, and sediment control measures would be implemented in case of a stormwater event. Erosion and stormwater control measures would be implemented per the SWPPP.</p> <p>Operation Phase: During operation of the Proposed Action, potential impacts on surface waters would be minimized by practicing good housekeeping at the facility to prevent any unwanted materials from being washed away during storm events. Examples of good housekeeping practices could include proper materials storage and keeping the site free of spills. Post-construction BMPs, consisting of detention ponds, would maintain pre-development runoff flows for 10-year floods and attenuate larger storm events.</p>
Water Supply	Reduction in water usage	<p>Construction Phase: Use tertiary-treated wastewater for dust control.</p> <p>Operation Phase: No mitigation is needed/proposed.</p>
Hazardous and Toxic Substances		
	Releases from equipment maintenance	<p>Construction Phase: Construction activities would be conducted consistent with hazardous waste and pollution regulations and with guidelines dictated in an SWPPP.</p> <p>Operation Phase: A Spill Prevention, Control, and Countermeasures Plan would be developed, implemented, and followed for the storage and use of cleaning agents, the use of fuels, and other hazardous wastes. The USTs supplying the fuel to the generators are equipped with a double wall leak detection system and the PV panels are encased to prevent any leakage.</p>

TABLE 1

Mitigation Measures*Construction, Operation, and Maintenance of the New Weed Army Community Hospital, Fort Irwin, California*

Resource	Potential Impact	Mitigation Measure
Noise		
	Noise impacts during construction	Construction Phase: Construction would only occur during normal daytime working hours.
	Adverse recurring short-term impacts from operation of diesel-powered emergency generator	Operation Phase: Measures that could be implemented include installation of an exhaust silencer and placement of the generator unit in a sound-attenuating enclosure. Exhaust silencers can achieve noise attenuation, up to 52 decibels (a-weighted). Placement of the generator inside a building or enclosure could achieve even greater noise attenuation.
Transportation		
Air Transportation	Glare	Construction Phase: No mitigation is needed/proposed. Operation Phase: The panels are tilted to minimize the potential for debris and water to collect on the panels' surfaces. Because the PV array would incorporate fixed-tilt PV panels rather than tracking panels, the time of day when glare could occur is limited. The panels' surfaces are constructed with an anti-glare reflective coating that reflects approximately 2 percent of the sunlight (Federal Aviation Administration, 2010).

BMP best management practice

SWPPP Stormwater Pollution Prevention Plan

1 The Final SEA was placed at the Barstow Public Library, the Fort Irwin Library, on the Fort Irwin website and
2 at the Fort Irwin Environmental Division, Directorate of Public Works, for public review. The public was
3 invited to comment through advertisements in the local papers.

4 For further information regarding this SEA or Draft Final Finding of No Significant Impact (FNSI), please
5 contact Mr. Clarence Everly at: Fort Irwin Directorate of Public Works, Environmental Division, Building 602,
6 P.O. Box 105085, Fort Irwin, California, 92310-5085, or via e-mail at clarence.a.everly.civ@mail.mil.

7 Conclusion

8 Based on the analysis presented in the SEA, I find that implementation of the Proposed Action, as described,
9 would have no significant impact on the human or natural environment. Therefore, a FNSI is issued for the
10 Proposed Action, and no Environmental Impact Statement is required.

11

12

13

14 Date

G. Scott Taylor

15

COL, AR

16

Commanding