FINAL ENVIRONMENTAL ASSESSMENT

for

SANITARY LANDFILL EXPANSION ON THE TONOPAH TEST RANGE, NYE COUNTY, NV

January 2007

U.S. AIR FORCE

FINDING OF NO SIGNIFICANT IMPACT

1. Name of the Action

SANITARY LANDFILL EXPANSION FOR TONOPAH TEST RANGE, NYE COUNTY, NV.

2. Description of the Proposed Action and Alternatives

The proposed action is construction, operation, and maintenance of an adequately sized and properly constructed Class .. sanitary landfill expansion to support the continued operations at the Tonopah Test Range (TTR) facility. The landfill would be located adjacent to the north side of the existing solid waste facility, would have a designed fill rate of 500 cubic yards per month and could accept all non-hazardous solid and semi-solid wastes. The preferred design for the expansion is a two cell configuration with a total life expectancy of 30 years. Each cell would be constructed with sufficient space to allow a bulldozer or dump truck to maneuver and turn around. Additionally, three gas monitoring wells would be installed in conjunction to monitor gases released from decomposition of the waste.

In determining the proposed site and action, a preliminary analysis of reasonable options for accomplishing the project was conducted. These options included a No-Action Alternative, two off-site waste disposal plans, and alternative designs. The analysis indicated that only one option, the proposed action, would meet operational, cost, and security requirements.

3. Summary of Environmental Resources and Impacts.

Implementation of the proposed action and the alternative actions would have no significant impacts on land use; air quality; water resources; safety; hazardous materials/hazardous waste; solid waste; biological resources; cultural resources; geology and soils; and socioeconomics. The proposed expansion would be designed using adequate engineering controls to ensure that solid waste materials are properly stored and that the possibility of releases is minimized to an appropriate level of risk. Additionally, the proposed action would allow the TTR facility to operate at its current output and security parameters without significant modifications.

4. Conclusion

Pursuant to the Council on Environmental Quality (CEQ) Regulations (40 CFR, Parts 1500 - 1508) implementing procedural provisions of the *National Environmental Policy Act* of 1969 (PL 91-190, 42 USC 4321-4347), as amended, and 32 CFR 989, which implements the Environmental Impact Analysis Process (EIAP) for Air Force actions, the United States Air Force at Nellis AFB explored and analyzed the potential environmental impacts from the proposed expansion of the TTR landfill in Nye County, NV in this EA. Based on the findings and conclusions of this EA, an Environmental Impact Statement is not required.

Maria J. Dowling — 1 MAR 07

MARIA J. DOWLING
Colonel, USAF
Vice Commander, 99th Air Base Wing

Date

ACRONYMS AND ABBREVIATIONS

ACC	Air Combat Command
AFB	Air Force Base
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CES	Civil Engineer Squadron
CEV	Environmental Management Flight
CFR	Code of Federal Regulations
CO	Carbon monoxide
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EO	Executive Order
EPA	Environmental Protection Agency
MSL	Mean sea level
NAAQS	National Ambient Air Quality Standards
NDEP	Nevada Division of Environmental Protection
NEPA	National Environmental Policy Act
NO_x	Nitrogen oxides
NRCS	Natural Resources Conservation Service
NTTR	Nevada Test & Training Range
Pb	Lead
PL	Public Law
PM_{10}	Particulate matter ≤ 10 microns in diameter
POL	Petroleum, oils, and lubricants
SHPO	State Historic Preservation Officer
SO_2	Sulfur dioxide
TTR	Tonopah Test Range
US	United States
USACE	United States Army Corps of Engineers
USC	United States Code
VOC	Volatile organic compound

EXECUTIVE SUMMARY

SANITARY LANDFILL EXPANSION FOR THE TONOPAH TEST RANGE IN NYE COUNTY, NEVADA

The United States (US) Air Force at Nellis Air Force Base (AFB) has prepared this Environmental Assessment to comply with the *National Environmental Policy Act* of 1969, as amended. This document evaluates the potential environmental impacts of activities associated with the proposed US Air Force expansion of the sanitary landfill that currently services the Tonopah Test Range (TTR) in Nye County, Nevada.

The proposed action is construction, operation, and maintenance of a Class II landfill expansion to support the continued operations at the TTR facility. The landfill would be located to the adjacent north of the existing solid waste facility, would have a designed fill rate of 500 cubic yards per month and could accept non-hazardous solid and semi-solid wastes. The preferred design for the expansion is a two cell configuration with a total life expectancy of 30 years. Each cell would be constructed with sufficient space to allow a bulldozer or dump truck to maneuver and turn around. Additionally, three gas monitoring wells would be installed in conjunction to monitor gases released from decomposition of the waste. No groundwater monitoring wells are required for this landfill due to the depth of the groundwater (>200 ft.) and the low level of precipitation.

In determining the proposed site and action, a preliminary analysis of reasonable options for accomplishing the project was conducted. In this analysis, two waste transport alternatives and a No-Action Alternative were examined. The current facilities are rapidly filling, and continued waste generation without implementation of the proposed action would eventually force TTR to cease generation activities or coordinate off-site removal and disposal of Class II solid waste. Alternative Action 1 was to transport waste to a small public landfill located in Tonopah, while Alternative Action 2 was to transport waste to the Apex Regional Landfill near Las Vegas. Given the secure nature of this facility, coordination of waste removal with off-site contractors presents security concerns. Additionally, ceasing waste generation would limit the research and testing activities at TTR and greatly reduce the facility's current productivity. As such, the No-Action Alternative and Alternative Actions 1 and 2 were rejected.

Based upon the nature of the activities that would occur under the proposed action and alternative actions, Nellis AFB environmental program managers determined that the following resources could be affected: land use; air quality; water resources; safety; hazardous materials/hazardous waste; solid waste; biological resources; cultural resources; geology and soils including Environmental Restoration Program sites; and socioeconomics. The existing conditions were evaluated and documented as the basis for determining the environmental consequences.

The environmental consequences of the proposed action and its alternatives were analyzed and no significant impacts to human health or the natural and cultural environment, now or in the foreseeable future, were found. These conclusions were the basis for the decision to issue a Finding of No Significant Impact in accordance with the Council on Environmental Quality Regulations (40 CFR, Parts 1500 -1508), which implements the procedural provisions of the *National Environmental Policy Act* of 1969 (PL 91-190, 42 USC 4321-4347), as

amended, and 32 CFR 989, which implements the Environmental Impact Analysis Process (EIAP) for Air Force actions.

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1.0 PURPOSE AND NEED FOR PROPOSED ACTION

Nellis Air Force Base (AFB) has prepared this Environmental Assessment (EA) to comply with the *National Environmental Policy Act* (NEPA) of 1969 (PL 91-190; 42 USC 4321-4347), as amended. Preparation of this EA followed regulations and instructions established in 32 CFR Part 989, *Environmental Impact Analysis Process* (EIAP) for the US Air Force, and 40 CFR 1500 – 1508, *Council on Environmental Quality* (CEQ). This EA evaluates the potential environmental impacts of activities associated with the proposed US Air Force expansion of the sanitary landfill at the Tonopah Test Range (TTR) in Nye County, Nevada.

1.1 Purpose and Need

The purpose of the proposed action is to construct, operate, and maintain an adequately sized and properly constructed Class II landfill expansion to support the present and future operations at the TTR facility. TTR has been used by the U.S. Department of Energy (DOE) since the early 1950s as a weapons delivery test area (SAIC, 1995). In 1992, it was transferred from the DOE to the Air Force. Since that time, the landfill has been operated and maintained by the 98th Range Wing (98 RANW). The landfill was put into service and officially approved as the primary solid waste landfill for TTR by the Nevada State Division of Environmental Protection (NDEP) on January 23, 1991. On February 23, 1993, a letter from the USAF to NDEP officially classified the TTR Landfill as a Class II landfill. The landfill was designed to accept less than 20 tons of waste per day and serve a maximum population of 10,000.

A Class II landfill is a facility that can receive no more than 20 tons of municipal solid waste per day and is located in an area receiving less than 25 inches of rainfall per year. More specifically, the landfill can accept all putrescible and non-putrescible refuse in solid or semi-solid form, including, but not limited to, garbage, rubbish, junk vehicles, ashes, incinerator residue, street refuse, dead animals, demolition waste, construction waste, solid or semi-solid commercial and non-hazardous industrial waste, pathological waste, and herbicide or pesticide containers. The TTR landfill permit will not allow the landfill to accept hazardous waste, septic waste, explosives, or chemical waste including herbicides and pesticides.

The landfill is rapidly filling, and continued waste generation without implementation of the proposed action would eventually force TTR to cease waste generation activities or coordinate with off-site landfills for removal and disposal of Class II solid waste produced at TTR. The current landfill is expected to reach capacity around March, 2007. The closest sanitary waste disposal facility is a small public landfill located in Tonopah, and no other municipal landfill facilities are located within a 50-mile radius. Given the secure nature of this facility, coordination of waste removal with off-site contractors presents security concerns. Additionally, ceasing waste generation would limit the research and testing activities at TTR and greatly reduce the facility's current productivity. Consequently, an expansion of the existing facility is needed to allow TTR continued operational autonomy.

1.2 Location of Proposed Action

The proposed action would be located at TTR approximately 40 miles southeast of Tonopah, Nevada in the Nevada Test and Training Range (NTTR) northern ranges. TTR, a component of NTTR, is located on the west side of Cactus Flat, near the base of the Cactus

Range and approximately 40 miles southeast of the City of Tonopah in Nye County, Nevada. According to the plans for the landfill expansion, the project site is located at Latitude North 37 degrees, 49 minutes, 51.4685 seconds and Longitude West 116 degrees, 45 minutes, 51.4454 seconds (NAFB 1998). The landfill expansion would be located immediately north and adjacent to the current landfill. Figures 1.1 through 1.3 show the location of the proposed action on a road atlas and USGS topographic maps.

Figure 1.1. Location of the proposed project area in southern Nevada in the NTTR northern ranges.

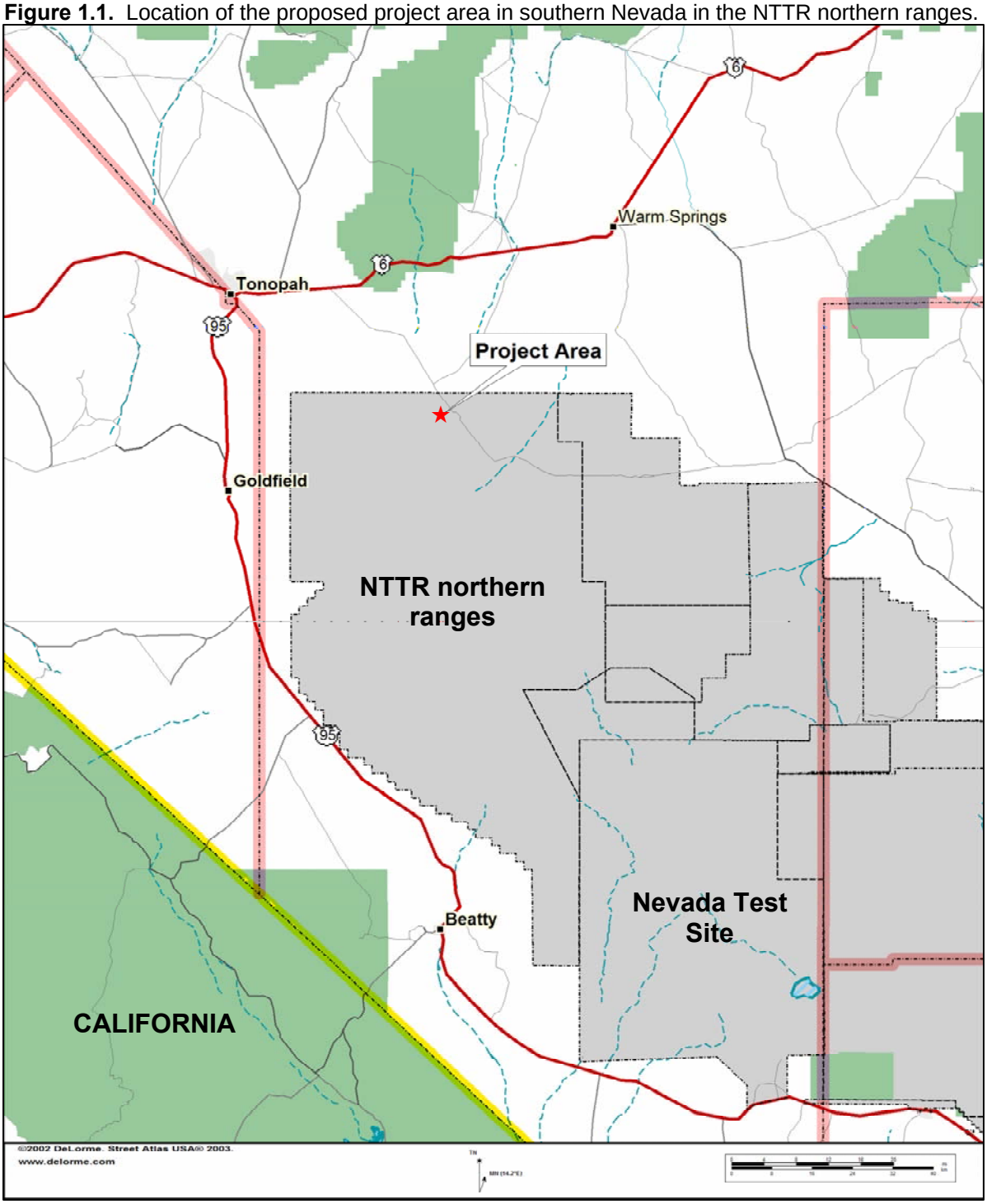


Figure 1.2. Location of the TTR landfill expansion project on a USGS topographic map (*Source: USGS 30 x 60 minute topographic map, Cactus Flat, NV*).

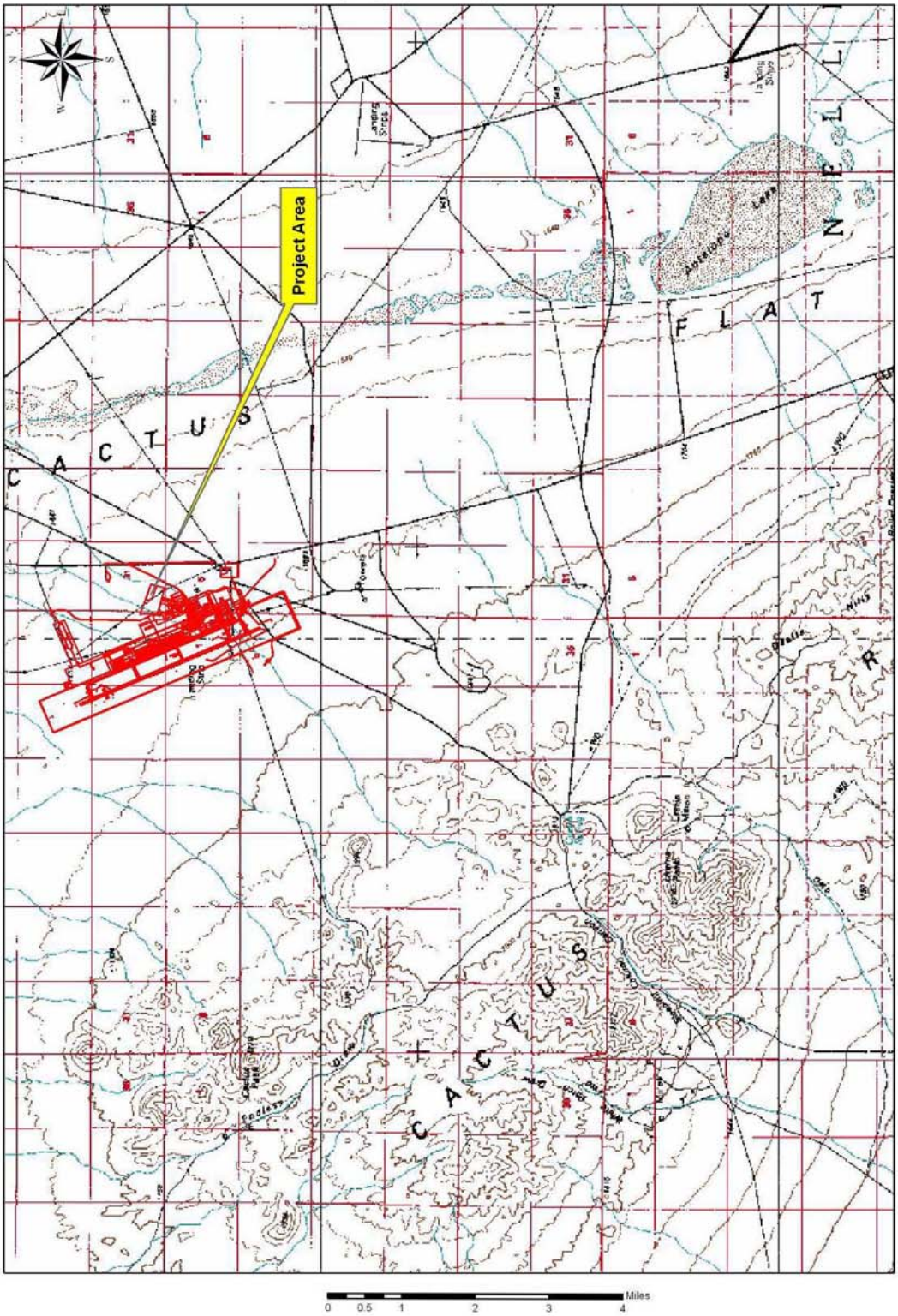
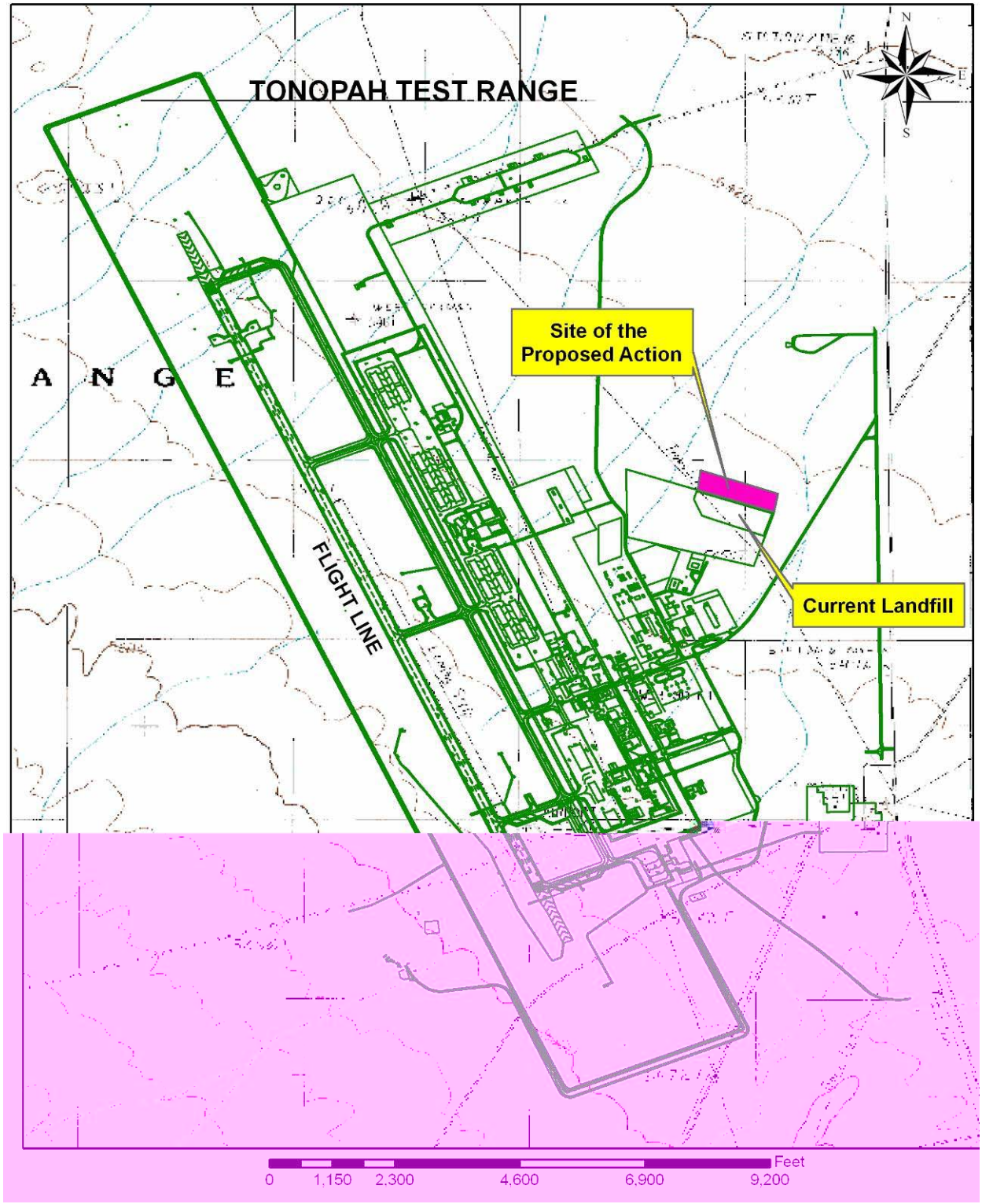


Figure 1.3. Location of the TTR landfill expansion project on a 7.5 minute USGS topographic map (*Source: USGS 7.5 minute topographic map, Cactus Flat, NV*).



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2.0 DESCRIPTIONS OF PROPOSED ACTION AND ALTERNATIVE ACTIONS

In the paragraphs that follow the Proposed Action, Alternative Actions and No-Action Alternative are described. The final selection of the preferred action was based on environmental impacts, economic analysis, and security issues and is discussed in Section 2.5.

2.1 Proposed Action

The sanitary landfill currently used to service TTR is approximately 15.85 acres in size. In 1992, it was transferred from the DOE to the Air Force. Since that time, the landfill has been operated and maintained by the 98th Range Wing (98 RANW). The landfill has been granted interim approval for operation by NAC §§444.704 *et.seq., Class II Sites*. Based on the present disposal rates and remaining landfill capacity, the current landfill is estimated to last until March 1, 2007. The expansion of the landfill must meet the requirements of a Class II landfill according to current Nevada solid waste regulations.

Two designs were considered for the landfill expansion (URS, 2004). Both designs would be located at the same site. The preferred design for the expansion is a two cell configuration (Figure 2.1), with the new expansion being approximately 10.75 acres. The total life expectancy of the landfill is 30 years based on current waste production. Each cell would be constructed with sufficient space to allow a bulldozer or dump truck to maneuver and turn around within the cell. Additionally, three gas monitoring wells would be installed in the landfill to monitor gases released from decomposition of the waste. If the concentration of gases exceeds the lower explosive limit for methane, the Nevada Division of Environmental Protection will be notified and an action plan to mitigate the problem will be initiated.

The second design considered for the project was the same size and location but designed with a three cell configuration (Figure 2.2). This design divides the landfill into three independent cells, each with an approximate volume of 84,000 cubic yards and a life expectance of 10 years per cell for a total life expectancy of 30 years. Each cell would be constructed with sufficient space to allow a bulldozer or dump truck to maneuver and turn around within each cell. As with the proposed action, a total of three gas monitoring wells would be installed in the landfill to monitor gases released from decomposition of the waste.

Soil excavated during the construction of the first cell would be stockpiled for use as daily cover and cap for the second cell. Appropriate best management practices will be used to minimize wind erosion and blowing dust originating from the stockpiled soils. Once the first cell is excavated, waste would be placed in the cell and covered with soil from excavation of the second cell. Using this procedure, daily operations of the landfill would not be hindered by construction and expansion activities.

2.2 Alternative Action 1

Alternative Action 1 is continuation of the existing landfill facility without expansion or modification and transporting waste to the Tonopah Municipal Landfill when the present landfill has reached capacity. The current landfill in use at TTR is rapidly filling, and continued waste generation without implementation of the proposed action would eventually force TTR to cease waste generation activities or coordinate off-site disposal of Class II solid waste. The Tonopah Municipal Landfill is the closest sanitary waste disposal facility to TTR and is located about 40 miles from TTR near Tonopah, Nevada.

2.3 Alternative Action 2

Alternative Action 2 is to transport waste to the next closest landfill which is the Apex Regional Landfill in Las Vegas, Nevada, approximately 200 miles from TTR.

2.4 No-Action Alternative

The No-Action Alternative for this analysis is continuation of the existing landfill facility without modification or expansion. According to current estimates, the landfill would reach capacity around March, 2007. At that time, the landfill would be closed. This would cease any waste generating activities at TTR and effectively stop use of the facility for the military mission.

Figure 2.1. Design of the proposed action for the TTR landfill expansion.

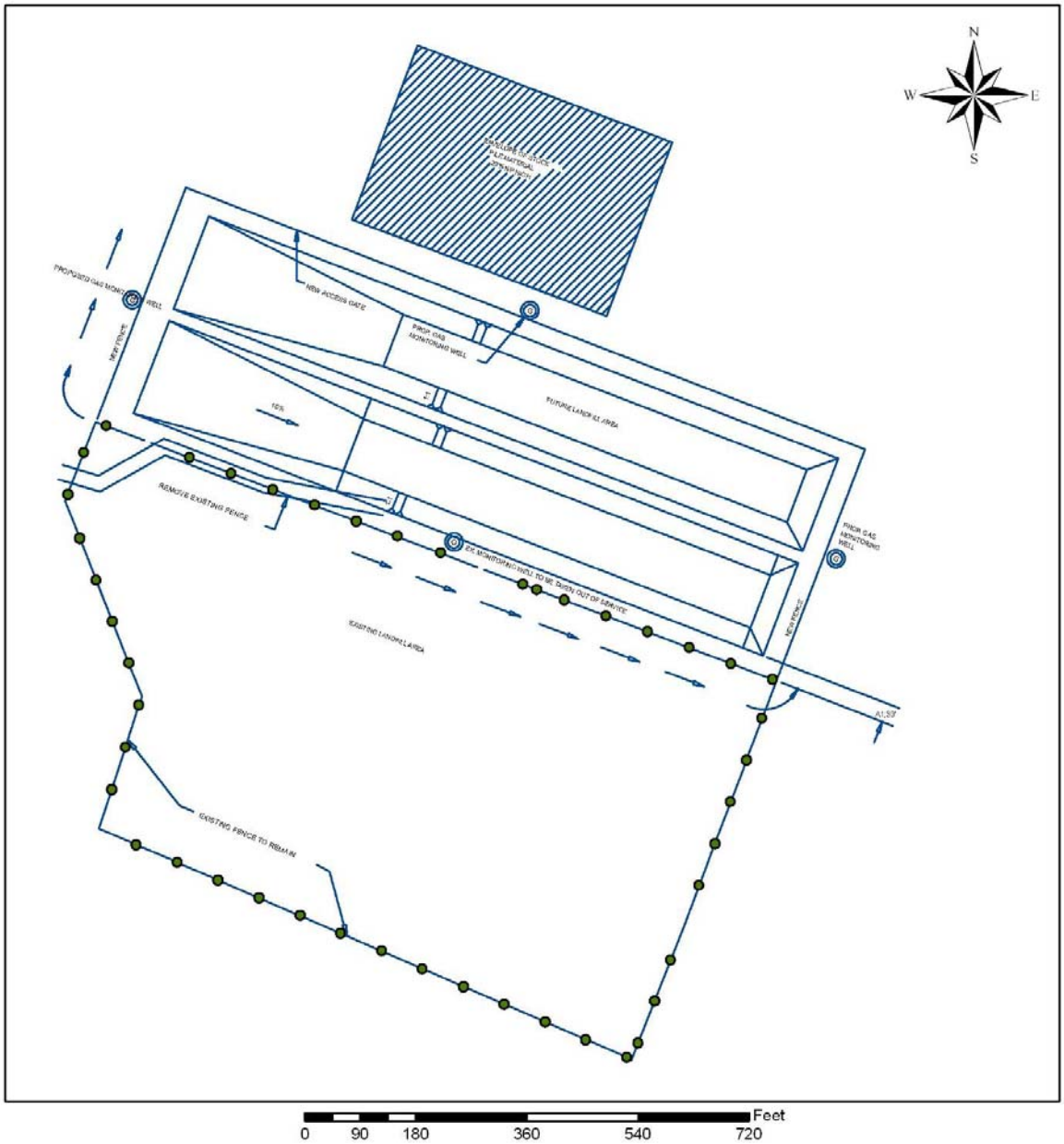
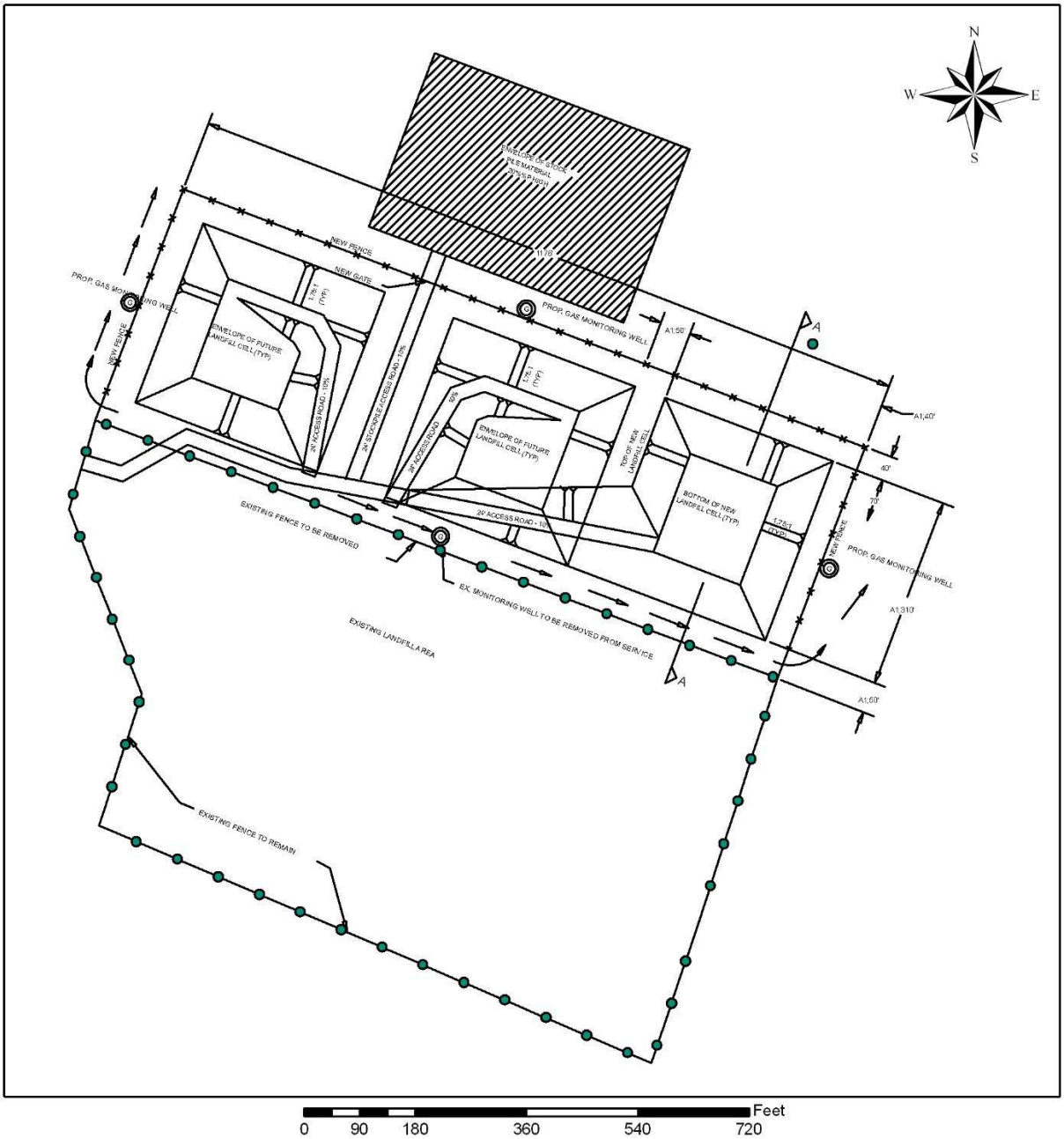


Figure 2.2. A second design that was considered as the proposed action for the TTR landfill expansion.



2.5 Comparison of the Actions

Analysis of the environmental impacts of each action concludes that the Proposed Action is the best alternative for the project. The Proposed Action was select based on the following criteria:

- Cost of landfill operation on-base would be less than transporting solid waste to off-site landfills.
- Irretrievable commitment of fuel would be much higher for Alternative Actions 1 and 2 due to transportation to off-base landfills.
- Security issues involved in disposal of sensitive materials off-base were much higher for Alternative Actions 1 and 2.
- Safety issues associated with regular off-base transportation of waste were higher for Alternative Actions 1 and 2.
- The No-Action alternative was not acceptable because discontinuing waste producing activities at NTTR would effectively close down operation of NTTR causing a significant negative impact to USAF operations and national security.

2.6 Federal, State, and Local Permits, Licenses, and Fees/Nellis AFB Environmental Plans

The 98 RANW would be responsible for constructing, operating, and maintaining the landfill and 99 ABW would obtain all required federal, state, and local permits. 99 ABW would ensure compliance with all applicable federal, state, and local regulations, and DoD and Air Force policy directives, instructions, and memoranda and adhere to all applicable Nellis AFB environmental plans.

Permits related to environmental concerns that would be required include, but may not be limited to a *General Storm Water Permit* and *the Class II Landfill Permit*. Among the Nellis AFB environmental plans that may be applicable to the proposed actions are *Nellis AFB Municipal Solid Waste Management Plan* (Jan 2003), *Nellis AFB Hazardous Material Management Plan* (December 2000), Nellis AFB Plan 19-1, *Facility Response Plan*, Volumes I & II (May 2002), *Nellis AFB Integrated Natural Resources Management Plan* (in revision), *Nellis AFB Cultural Resources Management Plan* (in revision), *Nellis AFB Pest Management Plan* (2005), *Nellis AFB Bird Aircraft Strike Hazard Plan* (in revision), *Range Management Plan* (in revision), and *Nellis AFB Water Management Plan* (May 2004).

98 RANW would contact the 99th Civil Engineer Squadron/Environmental Management Flight (99 CES/CEV) for assistance in obtaining the appropriate permits and electronic copies of environmental plans.

3.0 AFFECTED ENVIRONMENT

Based upon the nature of the activities that would occur under the proposed action and alternatives, Nellis AFB environmental program managers determined that the following resources could potentially be affected by this project: land use; noise; air quality; water resources; safety; hazardous materials/hazardous waste; solid waste; biological resources; cultural resources; geology and soils; and socioeconomics. The potentially affected environment is described below.

3.1 Land Use

The proposed landfill expansion would be constructed adjacent to the existing solid waste landfill on a site that currently consists of largely undeveloped land which has been impacted to a minor degree by development of the TTR compound area. No permanent works or structures are located on the proposed expansion site. The proposed project area is an undeveloped parcel of land east of the compound, approximately 25 miles south of Highway 6 in south-central Nevada. The area surrounding the proposed landfill expansion is used by the Air Force for various purposes to meet the needs of the military mission. The proposed landfill expansion is buffered from other facilities by the existing landfill and desert land (adjacent north and east).

Figure 3.1. View of the landfill expansion site towards the west. This is typical of the land use and vegetation of the project site and vicinity.

3.2 Noise

Noise is a problematic issue at TTR, mostly due to noise originating from incoming and outgoing aircraft. Thus, the highest levels of noise are centered on the flight lines, with noise levels decreasing for sites or receptors located remote from the flight line. With the exception of back-up warning signals and engine noise from the operation of heavy equipment, most other noise sources relative to construction and operation at the landfill would not exceed these levels. The landfill currently experiences noise from vehicles dumping trash and excavation equipment required to compact, bury, and cover trash. In general, the existing landfill and proposed expansion experience noise levels above those under normal conditions.

3.3 Air Quality

The Clean Air Act (CAA), Title 40 CFR Parts 50 and 51, dictates that the National Ambient Air Quality Standards (NAAQS), established by the EPA, must be maintained nationwide. The NAAQS were established to protect the public health and welfare with an adequate margin of safety. The NAAQS include standards for six "criteria" pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), "respirable" particulates (particulate matter less than 10 microns in diameter [PM_{10}]), sulfur dioxide (SO_2), and lead (Pb). These standards include short-term standards (1-hour, 8-hour, or 24-hour periods) for pollutants with acute health effects, and long-term standards (annual average) for pollutants with chronic health effects.

The NTTR is located in Nye County, Nevada, which is in attainment for all criteria pollutants except for a portion of the Pahrump Valley, near the California-Nevada border and outside (southwest) of the NTTR, which was recently designated non-attainment for PM^{10}. The project site does not lie in any portion of the non-attainment area and is currently not subject to the stringent rules associated with non-attainment.

The dominant air pollutant in the project area is particulate matter. Construction and excavation activities tend to aggravate dust production in the area, but natural sources, especially dust accumulating in dry lakes and playas, tend to be the dominant sources. Air traffic and ground vehicles are present on the site, but not in a density or number that would impact natural air conditions. Emission of air pollutants in the vicinity of the project area also result from aircraft operations from the surface to high altitudes. Prevailing winds from the southwest provide adequate transport and dispersion of locally generated air pollutants. The pollutants emitted from aircraft and particulate matter sources are therefore well dispersed and contribute only minor concentrations at any one location.

Ground-based operations often produce fugitive dust and engine emissions from ordnance delivery, target maintenance activities, and range vehicle travel on unpaved roads. Ground-based training activities within the NTTR are regulated under a Facility Wide Fugitive Dust Control Plan, which is required under the NDEP Title V permit (Permit #AP9711-1233) to reduce or minimize fugitive emissions. Approximately 11,834 acres of surface area are maintained annually, through a program of weed control and removal, terrain leveling, water spraying, and removal of unexploded ordnance.

Table 3.1. 2001 Baseline Emission Inventory for NTTR (ACC, 2003).

Air Pollutant (tons per year)					
Source	**PM_{10}**	**CO**	**NO_x**	**SO_x**	**VOC**
Ground-Based Operations	84.2	21.0	81.4	5.08	11.2
Aircraft	230	695	8,983	214	52

CO carbon monoxide
NO_x nitrogen oxides
PM_{10} particulate matter equal to or less than 10 microns in diameter
SO_x sulfur oxides
VOC volatile organic compound

3.4 Water Resources

Surface Waters

The proposed project area is located in an enclosed hydrographic basin with no connections to navigable waters of the U.S. No natural surface water resources are found in the vicinity of the project site. This includes floodplains, streams, wetlands, and groundwater recharge areas. In addition, no wild and scenic rivers are located in the vicinity of the project site.

Groundwater

Studies have been conducted to determine the depth of groundwater on the landfill site. The valley-fill alluvial deposits form the primary hydrologic unit for the project site with the Cactus Flat system being the primary groundwater system in the area. Recharge to the Cactus Flat system is from precipitation in the mountains that percolates into the alluvium and migrates towards the center of the basin. Depth to groundwater is estimated to be as shallow as 50 feet (ft) in the center of Cactus Flat and as deep as 500 ft closer to the valley slopes.

The saturated zone of the area is comprised of gravels, sands, silts, and clays with no continuous confining layer present. The general flow of groundwater in the area is to the northwest, around the end of the Cactus Range. The nearest water supply well is located approximately 1 mile west of the site with groundwater estimated to be about 300 ft below the ground surface (SAIC, 1995). Groundwater has not been encountered to depths of 40 ft as determined during site specific hydrogeologic investigations. In 1998, a boring was drilled about 120 ft east of the current landfill boundary to a depth of 200 ft below the ground surface and no groundwater was encountered (NAFB, 1998). The closest groundwater monitring well is located about 3200 ft. south of the site. The general direction of groundwater flow is to the northeast. The landfill permit does not require a liner because the precipitation is low in this area, the groundwater is greater than 200 ft. deep, and the production of leachate is low.

3.5 Biological Resources

Vegetation

The proposed expansion site has been impacted by wild horse grazing and development in and around the base area. The site currently supports a desert plant community dominated by shadscale (*Atriplex confertifolia*), winterfat (*Krascheninnikovia lanata*), and burro-weed (*Ambrosia dumosa*). Some Russian thistle (*Salsola tragus*) has encroached on the area. Total foliar cover of the vegetation on the site is about 20% with most of the site being bare ground. Other plant communities identified in the area are shown in Figure 3.2.

Wildlife

Wildlife on the project site is restricted to gregarious species of birds and small rodents attracted to landfills. The area immediately surrounding the site does not appear to support significant populations of birds, reptiles, or small mammals. Further from the site, populations of antelope (*Antilocapra americana*) have been observed. TTR lies within the Bureau of Land Management Wild Horse Management Area and wild horses (*Equus caballus*) have been observed in the area.

Figure 3.2. Plant communities found in the vicinity of the TTR landfill expansion site.

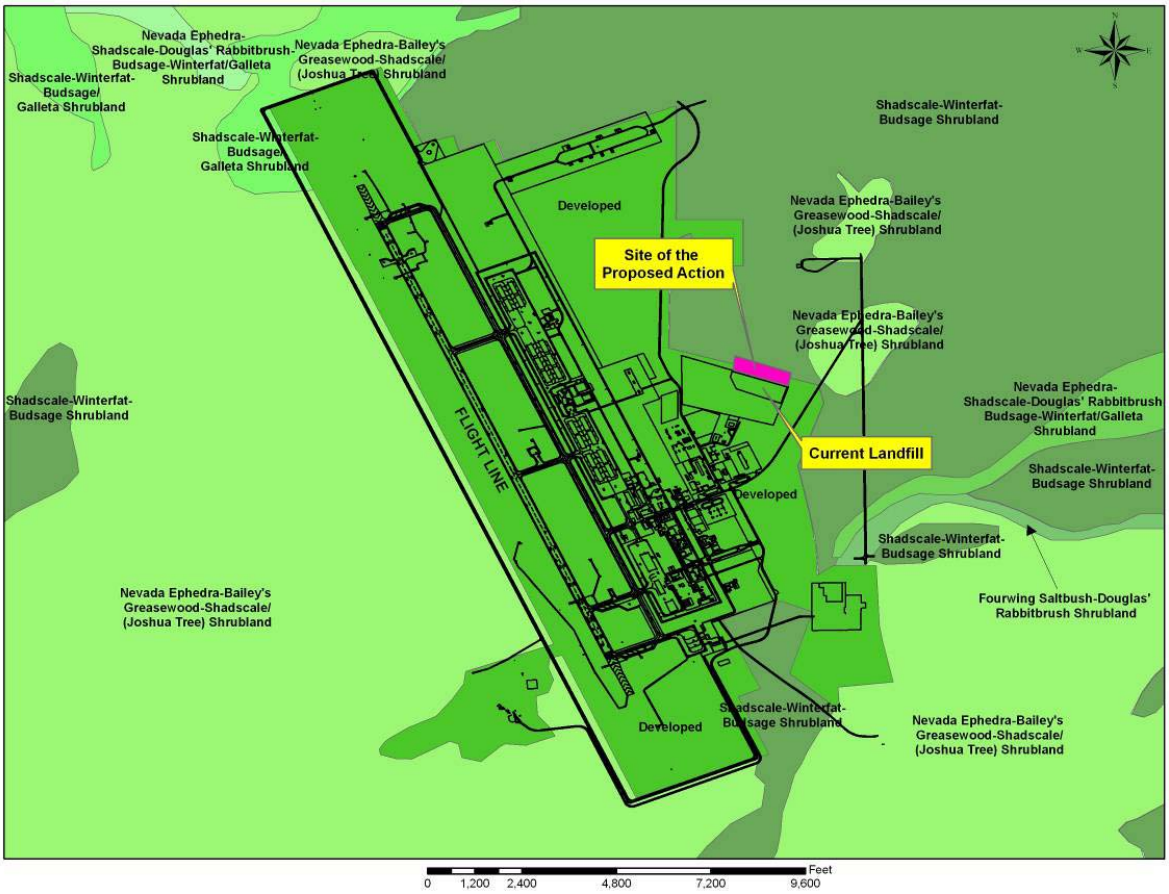


Figure 3.3. Photograph of the plant communities typical of those found on the project site.

Federally-Listed Threatened and Endangered Species

The purpose of the *Endangered Species Act of 1973*, as amended, is *to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions* regarding endangered species that the United States has with other countries. The Act protects all animal, plant, and insect species federally listed as threatened or endangered. The only federally-listed species potentially found on the NTTR is the desert tortoise (*Gopherus agassazii*). This range of this species is restricted to the southern ranges. The project site lies on the NTTR northern ranges, which is outside of the range of this species.

Other Species of Concern

Because the project area is located adjacent to an existing landfill (disturbed area) and active airfield, it is unlikely that any species of concern have become established on the project area. In fact, the habitat found on the site is not suitable for any of the state or federal listed species of concern found in the area. Most of these species require either water sources or specific habitat that is not present on the site. The Nature Conservancy has conducted a rare plant inventory for NTTR in 1996 and found no rare plants in the vicinity of the project site (The Nature Conservancy, 1996).

3.6 Cultural Resources

TTR is within an area considered by descendants of the tribes who called the NTTR home as primarily occupied by the Shoshone cultural group. The following descriptions of the cultural environment of the TTR region is summarized from the Nellis Air Force Base Cultural Resources Management Plan (1988), and from Chapter Four of the *final draft* Integrated Cultural Resources Management Plan (2006). Native Americans believe their ancestors were present in this region *since the beginning of time*. While archaeologists have evidence that indicates initial use of the region 10,000 years ago, presumably when Mud Lake retained water, several decades of research shows most occupation was during the past 2,000 years. The Cactus Flat Valley and Gold Flat zones that surround TTR possess a relative paucity of food and water sources which would have attracted concentrated ceremonial, habitation, and hunting uses, thus the 1998 CRMP predicted low potential for the presence of sites such as lithic scatters from tool-making and sharpening, and remains of hearths with short-term uses. Two decades of archaeological inventory have supported this proposition.

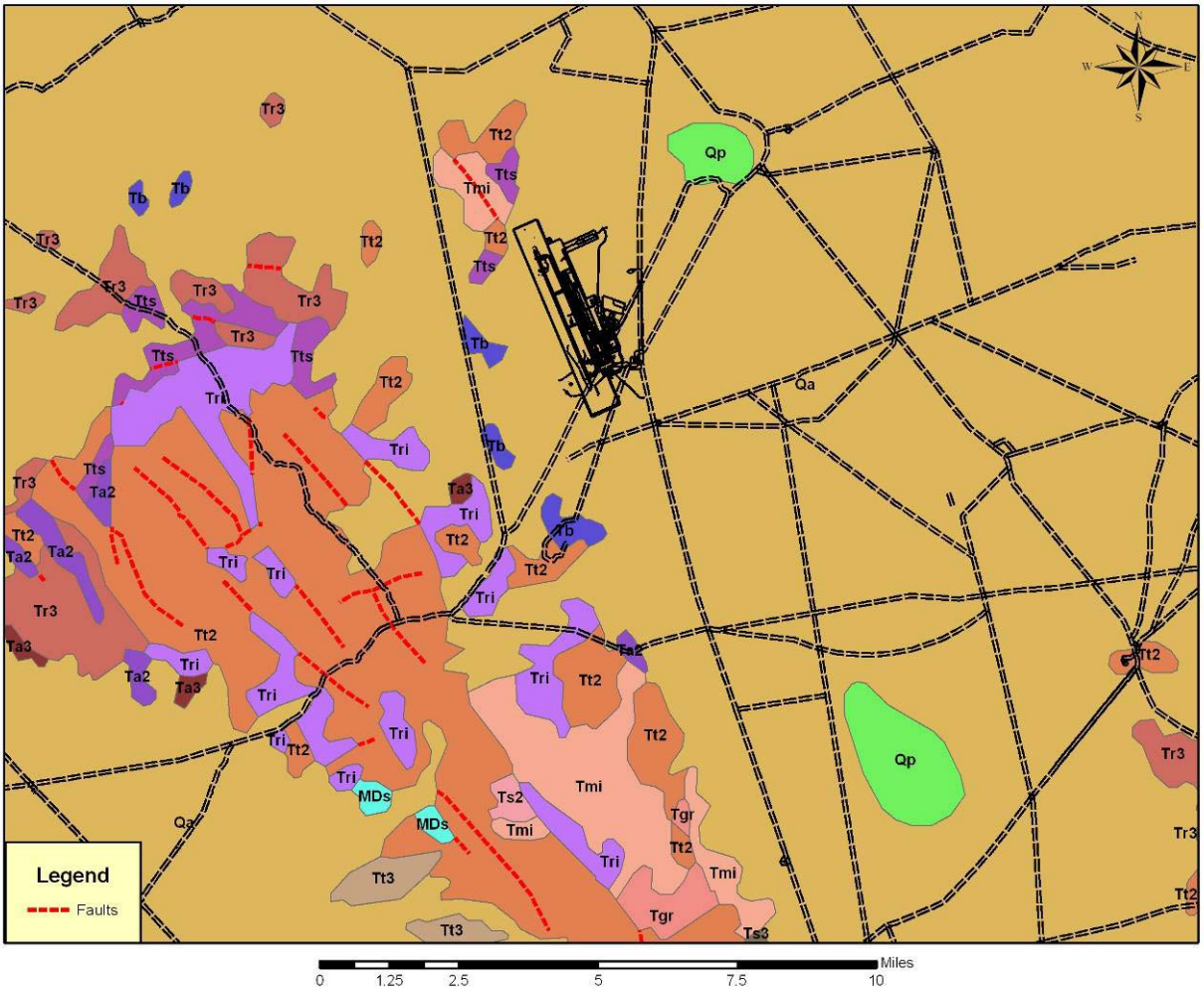
3.7 Geology and Soils

Geology

TTR is primarily located within in the Cactus Flat basin, an approximate 400-square mile area located within the Basin and Range physiographic province of Nevada. Cactus Flat is a broad, relatively level plain with an approximate topographic relief of 15 ft over a 20 mile expanse. The site is bounded by two minor mountain ranges. Gold Mountain and the Cactus Range abut TTR to the west, and the Kawich Range bounds the site to the east. TTR lies closest to the Cactus Range with portions of Gold Mountain (max. elevation of 6,000 ft MSL) and the Cactus Range (max. elevation of 7,500 ft MSL) located within the bounds of TTR. Because the site is located on an alluvial plain, topography tends to be relatively flat with slopes generally less than 1 percent. The project site is almost completely level, with a slight slope toward the east and an average elevation of 5,454 ft MSL.

Generally, the project area lies on flat alluvial deposits derived from volcanic rock and underlain by fine-grained, Miocene and Pliocene age sedimentary rock (Figure 3.8). The relative thickness of the alluvial deposits is unknown, but limited drilling activities have determined that the thickness of the alluvial layer exceeds 1,000 ft (Sinnock, 1982 from NAFB 1998). The composition of the alluvial field consists of coarse-to-medium-grained sands, which are the product of weathered volcanic rocks that have been transported by fluvial and eolian processes from the adjacent highlands. Remnant volcanic ash is also a minor constituent of the alluvial deposits. Volcanic rocks of the Cactus and Kawich Ranges and underlying the valley alluvium are estimated to be as thick as 20,000 ft (NAFB 1998).

Figure 3.4. Geologic formations and faults located in the vicinity of the proposed landfill expansion at TTR. *Source: Turner, R.M. and Bawiec, W.J. 1996. U.S. Geological Survey, Denver*



Code	Age	Lithology
MDs	Mississippian-Devonian	Shale, Siltstone, Sandstone, Chert-Pebble, Conglomerate and Limestone
Qa	Quaternary	Alluvial Deposits
Qp	Quaternary	Playa, Marsh, and Alluvial-Flat Deposits, Locally Eroded
Ta3	Tertiary	Andesite and Related Rocks of Intermediate Composition
Tb	Tertiary	Basalt Flows
Tgr	Tertiary	Granitic Rocks
Tmi	Tertiary	Intrusive Rocks of Mafic and Intermediate Composition
Tr3	Tertiary	Rhyolitic Flows and Shallow Intrusive Rocks
Tri	Tertiary	Rhyolitic Intrusive Rocks
Ts2	Tertiary	Tuffaceous Sedimentary Rocks
Ts3	Tertiary	Tuffaceous Sedimentary Rocks
Tts	Tertiary	Ash-Flow Tuffs and Tuffaceous Sedimentary Rocks
Tt2	Tertiary-Cretaceous	Welded and Nonwelded Silicic Ash-Flow Tuffs
Tt3	Tertiary	Welded and Nonwelded Silicic Ash-Flow Tuffs

Fault zones are present within the general location of the TTR facility. Most of the Cactus and Kawich Ranges consist of horst structures, and Cactus Flat consists of a graben structure. An additional geologic feature which exerts an influence on regional geology is the Walker Lane shear zone, which is located west of TTR. This transcurrent fault zone is ori-

ented in a northwest-to-southeast direction, and merges with the Las Vegas shear zone south of the TTR facility. As a consequence of regional geology, multiple volcanic centers are located within the vicinity of the Walker Lane shear zone. The Cactus Range is included among them, and this feature constitutes the western boundary of the TTR facility.

A project-specific evaluation of soils and geology for geotechnical purposes was documented in an August, 1998 report prepared for Nellis AFB by Black & Veach (NAFB, 1998). Based on a review of the report, one soil boring was advanced to the adjacent west of the existing landfill facility to a depth of 200 ft using an air-rotary drill rig equipped with a split-spoon sampler and downhole hydraulic hammer. In addition to providing site-specific information on soils and geology beneath the landfill area, the boring was advanced to determine if groundwater reserves were located within 200 ft of the surface. Under Nevada law, landfills located in areas where groundwater is located at least 200 ft below the landfill may obtain a variance from composite liner and groundwater monitoring requirements. The resulting analysis of collected soil samples indicated that the sediments underlying the existing and proposed landfill range from a clayey sand to a sand with clay. An estimated 25% fine gravel is intermixed among the sediments.

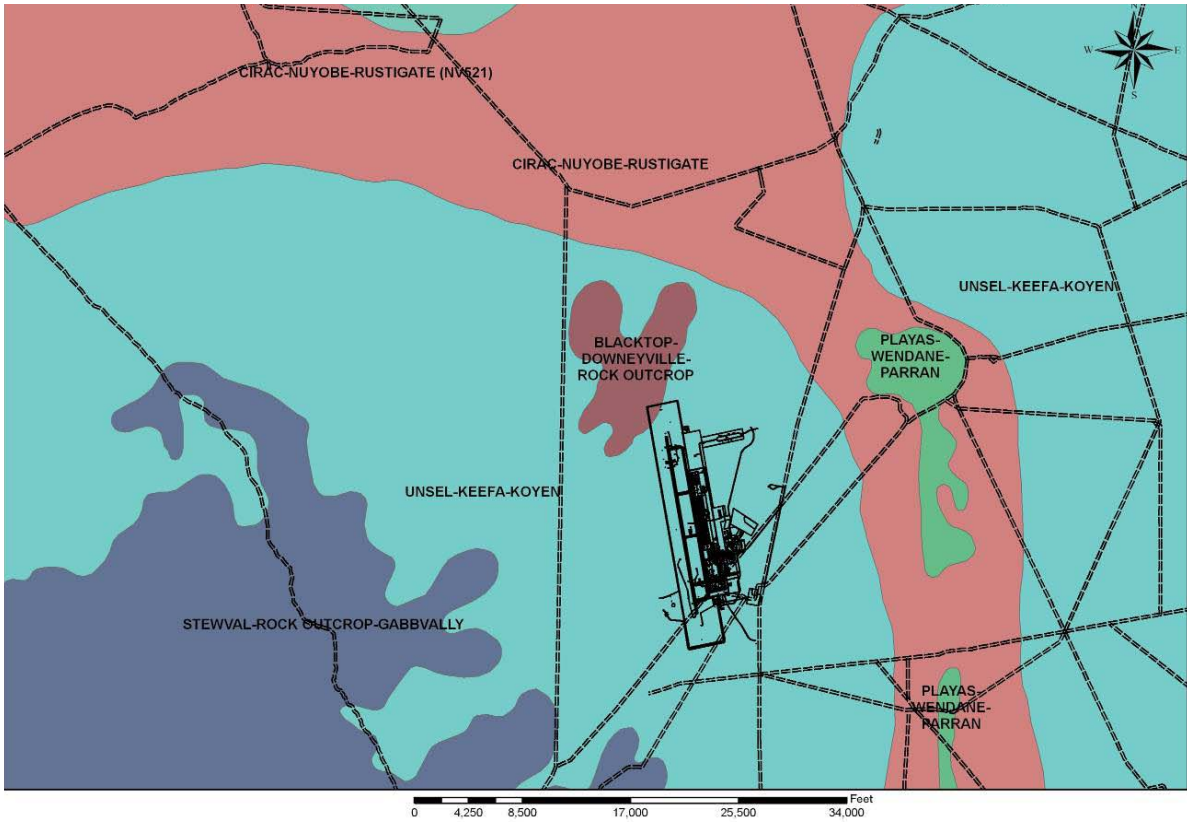
The site is located in Seismic Zone 3, which is an area of major damage potential. Figure 3-4 is a USGS map that shows the geologic outcrops and faults found on the project site and vicinity.

Soils

A site specific evaluation of soils and geology was conducted during the August 1998 subsurface investigation by Black and Veatch (NAFB, 1998). That study indicated that the soils on the proposed landfill site originated from recent valley fill deposits underlain by fine-grained sedimentary rocks. A site investigation conducted for this EA indicated that the soils throughout the entire proposed landfill location consist of brownish-red pebbly to gravelly silty clays and clayey silts. The pebbles and gravels in the soil matrix were volcanic and intrusive rock types.

According to the Natural Resources Conservation Service (NRCS) the project site lies on the Unsel-Keefa-Koyen soil association (NRCS, 2005) (Figure 3.5). Field observations indicate that soils on the site are probably mapping units that are members of the Unsel Series. The Unsel series consists of very deep, well drained soils that formed in alluvium derived from mixed rocks. Unsel soils are found on fan remnants and fan skirts with 0 to 30 percent slopes. The soils are well drained with medium or high surface runoff and moderately slow permeability in the subsoil and rapid permeability in the lower part of the substratum.

Figure 3.5. Soil associations found in the vicinity of the proposed landfill expansion for the current landfill at TTR. *Source: NRCS STASGO Data*



3.8 Socioeconomics

Nye County, located in the south-central portion of Nevada is the third largest county in the continental United States. Of its 11,960,560 acres of land, only about 7% consists of private land. 22% of its total land, including NTTR, is restricted to government activities. As of the 2000 census, the population of Nye County was estimated at 32,485 people. Of this population, 89.6% was white, 8.4% Hispanic, 1.2% African-American, and 2.0% Native-American (U.S. Census, 2000). By the year 2000, total housing units were 16,034, of which 13,309 were occupied. Median household income in 2,000 was $36,024. In the past, much of the business in Nye County was associated with either mining or ranching. However, today, the majority of employment in Nye county is tied to government agencies, especially the DOE and USAF.

3.9 Environmental Justice

On February 11, 1994, President Clinton issued Executive Order (EO) 12898,

income or minority populations. Therefore, Environmental Justice is not an issue and will not be further discussed in this EA.

3.10 Hazardous Materials and Items of Special Concern

The purpose of the proposed project is to construct an expansion of the existing solid waste storage facility. As such, the proposed action would lead to the additional accumulation and storage of Class II solid waste at the facility. As previously discussed, the expansion facility would be engineered and constructed to safely dispose of solid waste. The expansion would handle only Class II solid waste, which explicitly excludes the storage of hazardous waste, septic waste, explosive materials or chemical wastes including herbicides and pesticides.

No hazardous wastes or petroleum products are stored or disposed of in the area of the landfill expansion. Soils contaminated with hydrocarbons were encountered 500 ft. east of the current landfill in a trench that was identified as an old landfill cell. Metals including chromium, copper, magnesium and vanadium were also detected above their practical

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Land Use

Proposed Action. Construction of the proposed landfill expansion would result in a change in the use of the project site from a vacant, undeveloped tract of land to a Class II solid waste landfill facility. Within the context of the surrounding areas, this impact is minor, since adjacent properties are in commercial or industrial use. Additionally, the proposed impact is adjacent to an existing solid waste landfill facility and the use of the new landfill would be the same as the present landfill. Consequently, the proposed action would not significantly change land use in the area of the proposed project.

Alternative Action 1. Land use would not be impacted by Alternative Action 1 except that the current landfill would be closed and the area could be available for other appropriate uses after landfill closure is completed. The addition of TTR solid waste to the current waste stream at the Tonopah Landfill will decrease the life of the landfill to some degree. According to the 2004 Nevada Solida Waste Management Plan, the Tonopah Landfill has a total capacity of 144,504 cubic yards (CY) and is expected to reach capacity by 2011 (NDEP, 2004). The projected waste generation rate for TTR is about 17 CY per day. Thus, the TTR waste would add an additional 30,000 CY to the landfill in the next 5 years. This represents 20% of the original capacity of the landfill and would probably cause the landfill to close much sooner than expected.

Alternative Action 2. Land use would not be impacted by Alternative Action 2 except that the current landfill would be closed and the area could be available for other appropriate uses after landfill closure is completed. It is doubtful that the addition of the waste from TTR to the waste stream at the Apex Landfill would have an impact on the life of the landfill because the waste stream associated with TTR is minor compared to the waste stream associated with Clark County. Compared to the Tonopah landfill, Apex has a capacity of 81,000,000 and accepts over 8,000 tons per day (NDEP, 2004). TTR generates about 6 tons per day of solid waste which would increase the waste accepted by Apex by only 0.08%.

No-Action Alternative. The No-Action Alternative would result in the closure of the landfill in March 2007. The land currently used for the landfill would be available for other appropriate uses after landfill closure is completed. More importantly, without an option for disposal of solid waste, most of the operations at TTR would be ceased and current use of the area as a training facility would be ended.

4.2 Noise

Proposed Action. Operation of the proposed landfill expansion does not entail noise-producing actions above those currently present at the existing facility. On the short-term, construction activities are noise-producing actions. However, these actions would rarely produce noise levels higher than the ambient levels currently impacting the site from current operation of the landfill, aircraft and other sources.

Alternative Action 1. Alternative Action 1 is not expected to impact the existing noise levels at TTR. Waste transport vehicles would contribute a minimal level of additional highway noise to the local area.

Alternative Action 2. Impacts would be similar to those described under Alternative Action 1.

No-Action Alternative. The No-Action Alternative is not expected to impact the existing noise levels at TTR.

4.3 Air Quality

Proposed Action. Construction and excavation activities on the proposed expansion site would probably result in short-term elevation of particulate matter in the air in the immediate vicinity of construction. The source of particulate matter would be blowing dust and some carbon originating from diesel engines and heavy construction equipment. Also, use of construction equipment may cause localized, minor increases in carbon monoxide on the short term. However, these increases would be considered insignificant compared to the levels already occurring in the area due to vehicular and air traffic.

In addition to elevated levels of particulate matter associated with construction activities, an increase in nuisance odors associated with the additional volume of Class II solid waste would likely occur. Although this may result in a localized concentration of unpleasant odors, operational parameters, such as daily cover of solid waste, required by the USEPA would minimize the odor level and would not significantly impact human health and safety.

Alternative Action 1. Current, localized increases in carbon monoxide and dust resulting from operation of the landfill would continue until the landfill is closed. Once the landfill reaches capacity, sources of air pollution associated with the landfill would no longer be present. Waste transport vehicles would cause minor increases in carbon, carbon monoxide, and particulate matter along transport routes.

Alternative Action 2. Current, localized increases in carbon monoxide and dust resulting from operation of the landfill would continue until the landfill is closed. Once the landfill reaches capacity, sources of air pollution associated with the landfill would no longer be present. Waste transport vehicles would cause minor increases in carbon, carbon monoxide, and particulate matter along transport routes. Overall, the contribution of pollutants would be higher for Alternative Action 2 compared to Alternative Action 1 because of the additional 160 miles required to travel to the Apex Landfill.

No-Action Alternative. Current, localized increases in carbon monoxide and dust resulting from operation of the landfill would continue until the landfill is closed. Once the landfill reaches capacity, sources of air pollution associated with the landfill would no longer be present.

4.4 Water Resources

Surface Water

Proposed Action. The proposed project area does not lie in a 100-year floodplain. In addition, drainage characteristics of the land surface would not be significantly impacted by construction of the proposed landfill expansion. The landfill is designed to meet or exceed current solid waste regulations, which do not allow landfills to release untreated stormwater into streams or other surface waters. The closest surface water is an ephemeral wash 600 ft. downgradient of the Proposed Action. Since untreated runoff from the landfill is not allowed, impacts to surface water will not occur.

Alternative Action 1. Alternative Action 1 is not expected to impact streams, wetlands or other surface waters.

Alternative Action 2. Alternative Action 2 is not expected to impact streams, wetlands or other surface waters.

No-Action Alternative. The No-Action Alternative is not expected to impact streams, wetlands or other surface waters.

Groundwater

Proposed Action. Construction does not entail extensive drilling or deep excavation. Also, groundwater is over 200 ft deep with low permeable soils and low precipitation, resulting in little to no potential for leaching of contaminants to groundwater. Additionally, leachate production models conducted for the permit indicate that potential leachate production by the landfill will be low and impacts to ground water are very unlikely to occur (NAFB, 1998). Therefore impacts to groundwater are not anticipated.

Alternative Action 1. Alternative Action 1 is not expected to impact ground water.

Alternative Action 2. Alternative Action 2 is not expected to impact ground water.

No-Action Alternative. Under the no-action alternative, groundwater would not be affected.

4.5 Safety and Occupational Health

Ground Safety and Occupational Health

Proposed Action. Construction and landfill operation activities would be implemented in accordance with local, state, and federal requirements and all safety protocols rigorously followed resulting in minimal impacts to safety.

Alternative Action 1. Effects to ground safety or occupational health would remain at current levels until landfill closure. After landfill closure, safety issues associated

with the operation of the landfill would no longer exist. However, minor safety issues associated with use of vehicles for transport of waste would initiate after landfill closure.

Alternative Action 2. Effects to ground safety or occupational health would remain at current levels until landfill closure. After landfill closure, safety issues associated with the operation of the landfill would no longer exist. However, minor safety issues associated with use of vehicles for transport of waste would initiate after landfill closure. The potential for accidents is higher for Alternative Action 2 due to the additional distance of travel to the Apex Landfill.

No-Action Alternative. Effects to ground safety or occupational health would remain at current levels until landfill closure. No further effects on safety would be expected after the landfill is closed.

Flight Safety

Proposed Action. No part of these actions would employ or influence airspace operations or air traffic management at or around TTR. Construction, operation, and maintenance of the landfill may attract wildlife to the area, but no more than is already present. The landfill is located a sufficient distance from the airfield to not affect the bird/wildlife aircraft strike hazard on the flight paths at TTR. No impact to flight safety would be realized under the proposed action. Additionally, solid waste management guidelines dictate that landfill operations be modified to minimize attraction of the facility to birds. This is accomplished by covering the solid waste deposited in the landfill on a daily basis.

Alternative Action 1. Effects would be the same as described under the proposed action until the landfill is closed. Following landfill closure, Alternative Action 1 would no longer have effects on flight safety.

Alternative Action 2. Effects would be the same as described under the proposed action until the landfill is closed. Following landfill closure, Alternative Action 2 would no longer have effects on flight safety.

No-Action Alternative. The No-Action Alternative would have no effects on flight safety.

4.6 Hazardous Materials/Waste and Solid Waste

Hazardous Materials and Hazardous Waste

Proposed Action. The potential for affects from hazardous materials and hazardous waste associated with the construction and operation of the proposed action would be negligible. These would be likely to occur only in the event of construction or maintenance equipment (*i.e.* heavy equipment) malfunction or damage in the form of petroleum, oils, and lubricants (POL) spills. Hazardous waste would be managed in accordance with Nellis Air Force Base Plan 12, *Hazardous Waste Management Plan*. Nellis AFB Plan 19-1, *Facility Response Plan*, Volumes I & II (May 2002) would be adhered to in the event of an accidental spill.

Alternative Action 1. Effects would remain at current levels until landfill closure. After closure of the landfill, no releases of hazardous waste would be expected barring accidental releases of fuels or lubricants by transport vehicles.

Alternative Action 2. Effects would remain at current levels until landfill closure. After closure of the landfill, no releases of hazardous waste would be expected barring accidental releases of fuels or lubricants by transport vehicles.

No-Action Alternative. Effects would remain at current levels until landfill closure.

Solid Waste

Proposed Action. The proposed project involves the construction of a landfill expansion to accommodate continued Class II waste production at TTR. As such, an increase in solid waste storage would result. However, the waste would require disposal at this facility and no difference in impacts compared to the present operation of the landfill would be expected.

Alternative Action 1. Effects would remain at current levels until landfill closure. After closure of the landfill, generated waste would need to be manifested and transported to the Tonopah Landfill according to all regulations required for transport of solid waste. Additionally, because TTR is a restricted facility, the use of off-site contractors would impact the existing security and cost of disposal operations. As such, current military operations at TTR would be significantly impaired. The transport of solid waste off-base would burden Tonopah Landfill resulting in a decrease in its life. A simple analyses of cost based on the following assumptions was made:

- Average tipping fee: $30.00/ton
- Average transport cost: $0.15/ton/mile
- Cost of landfill expansion: $670.558 per cell
- Life of Cell: 10 years
- Cost of landfill construction per year: $67,056.00
- Cost of landfill operation: Not determined
- Cost of transport to Tonopah Landfill per year: $97,700.00

If we consider operation costs, the cost of landfilling on site and the cost of transport to Tonopah are probably very close.

Alternative Action 2. Effects would be the same as Alternative Action 1 except that the Apex Regional Landfill and not the Tonopah Landfill would be impacted to a minor degree.

No-Action Alternative. The existing landfill is rapidly reaching capacity. Under the No-Action Alternative, the landfill would be capped once capacity has been reached. Solid waste producing activities at TTR would have to cease.

4.7 Biological Resources

Proposed Action. Construction and excavation at the proposed landfill expansion site would result in temporary removal of established vegetation. However, the proposed project area is located in a plant community having less than 20% cover and does not provide significant functional value for wildlife due to its close proximity to

human activities and development. Ultimately, the removed vegetation would probably be replaced by vegetative cover once cells in the proposed landfill are filled and capped. The new landscaping associated with the caps would likely consist of native plant species in compliance with the landscape management plan for the base. Regardless, vegetation is not a significant component of those areas at this time, and impacts would be considered temporary and minimal. New landscaping may be an improvement compared to the present conditions.

Some temporary displacement of wildlife would be expected due to the construction of the proposed landfill expansion. However, most of the wildlife associated with these areas are sparse populations of transient birds and small mammals and would probably move to adjacent properties. Also, field observations indicate that the area is not being grazed or otherwise used by antelope or wild horses. Impacts to wildlife would be considered minor.

The proposed action is located in an area that current does not support habitat suitable for any endangered and threatened species. Therefore endangered and threatened species would not be impacted by this action.

Alternative Action 1. Effects would be the same as described under the proposed action until landfill closure. Once the landfill is closed, the area would revegetate and some small mammals would move back to the site. However, the surrounding areas may be developed in the future decreasing the value of the site as wildlife habitat.

Alternative Action 2. Effects would be the same as described under Alternative Action 1.

No-Action Alternative. Effects would be the same as described under Alternative Action 1.

4.8 Cultural Resources

Proposed Action. Section 106 of the *National Historic Preservation Act of 1966* requires that Federal agencies take into account the effects of their undertakings on historic properties. Efforts to identify and evaluate cultural resource properties for the federal action according to 36 CFR 800.4 were described in Cultural Resources Report NAFB 06-01, September 2006. A determination of *no historic properties present* was submitted to the Nevada State Historic Preservation Office, according to 36 CFR 800.5, in a letter dated 10 Oct 2006. SHPO concurred with the sufficiency of the inventory and the report of *no historic properties present* determination in a letter dated 7 November 2006. The Air Force has completed its responsibilities for the undertaking.

Alternative Action 1. No impacts to cultural resources would occur.

Alternative Action 2. No impacts to cultural resources would occur.

No-Action Alternative. No impacts to cultural resources would occur.

4.9 Geology and Soils

Geology

Proposed Action. The outcrop at the project site is an alluvial deposit, which does not contain sensitive geologic features and would not be significantly impacted by shallow excavation. Some drilling and placement of structures and monitoring wells would be a part of the project and would cause minor impacts to geologic formations. Some topographic changes due to capping of cells that have reached capacity would occur, but these minor increases in elevation are not expected to significantly alter area topography.

Alternative Action 1. Because it would continue to maintain the status quo (no additions to the existing landfill) Alternative Action 1 should have no direct impacts to outcrops and geologic formations, geologic faults, or topography. Following landfill closure, wastes would be manifested and transported to an off-site facility, which probably would not impact geologic features at that site if the facility is operated according to current EPA standards.

Alternative Action 2. Effects would be the same as that for Alternative Action 1.

No-Action Alternative. Effects would be the same as that for Alternative Action 1.

Soils

Proposed Action. Considerable disturbance and removal of the soil surface would occur during construction of the proposed landfill expansion. This would remove any of the plants currently growing on the soil surface. Removal of soils would also result in impacts to the re-establishment of vegetation due to the fact that an undisturbed soil profile would no longer be present. Topsoil is expected to be used to cap landfill cells; therefore, limited benefits may be associated with the establishment of a healthy native plant community on the landfill cap after closure. Also, vegetative communities established on capped portions of the landfill would ultimately reduce erosional processes at the site. During the construction phase of the project, exposure of soils to wind and storm water runoff can result in some soil loss.

Alternative Action 1. Following closure of the landfill, soils on the landfill cap would revegetate and return to natural conditions unless the area is developed for other uses. Soils would remain protected by gravel and vegetation, minimizing the potential for wind erosion. Additionally, no water erosion is expected from this action due the presence of vegetative or gravel cover and the flat topography.

Alternative Action 2. Effect on soils would be the same as Alternative Action 1.

No-Action Alternative. Effect on soils would be the same as Alternative Action 1.

4.10 Socioeconomics

Proposed Action. On the short term, the proposed action would provide job opportunities for both non-professional and professional contractors and subcontractors. Thus, positive impacts on socioeconomics would be anticipated. Also, the landfill would provide a necessary function to maintain the workforce at TTR.

Alternative Action 1. Effects would be the same as described under the proposed action until landfill closure. Labor forces used for the operation of the landfill would no longer be needed after the landfill is closed except for closure activities. New jobs associated with transport of waste would be created by this alternative. Preliminary cost estimates indicate that this alternative would be similar in cost to the Proposed Action.

Alternative Action 2. Effects would be the same as described under Alternative Action 1. However, preliminary estimates of the transportation costs indicate that this alternative would cost about $98,550 more per year than Alternative 1 and the Proposed Action.

No-Action Alternative. If the Proposed Action is not implemented and operations continue at TTR, the current landfill would be filled to capacity and the landfill would be closed. Jobs associated with the operation of the landfill would be lost. Additionally, a significant loss in the labor force would be realized by the cessation of waste producing activities at TTR which includes almost all operations currently in force.

5.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible and irretrievable resource commitments are defined as the use of non-renewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource, such as fossil fuels or minerals, that cannot be replaced within a reasonable period. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action, such as an archaeological site.

Proposed Action. An insignificant amount of irreversible resource commitments and no irretrievable resource commitments would be required for the proposed action. Irretrievable resources necessary to accomplish the proposed action would primarily be fossil fuels for transport of solid waste and construction items, as well as for operation of heavy equipment used to construct and operate the landfill.

Alternative Action 1. Under Alternative Action 1, waste would be transported to the Tonopah Landfill. As such, this alternative would require a greater quantity of fossil fuels to transport solid waste approximately 80 miles round trip compared to only local transport of solid waste with the Proposed Action.The same amount of fossil fuel would be required for operation and maintenance of the off-site landfill. The only fuel savings for Alternative Action 1 is fuel not needed for the construction of a new landfill. Thus, overall, Alternative Action 1 would result in more irreversible loss of resources compared to the Proposed Action and the No-Action Alternative.

Alternative Action 2. Under Alternative Action 2, waste would be transported to the Apex Regional Landfill. As such, this alternative would require fossil fuels to transport solid waste approximately 400 miles round trip compared to only local transport of solid waste with the Proposed Action and 80 miles round trip for Alternative Action 1. The same amount of fossil fuel would be required for operation and maintenance of the off-site landfill. The only fuel savings for Alternative Action 2 is fuel not needed for the construction of a new landfill. Thus, overall, the Alternative Action 2 would result in more irreversible loss of resources compared to the Proposed Action, Alternative Action 1, and the No-Action Alternative.

No-Action Alternative. Under the No-Action Alternative, The landfill would be closed and no further action would occur. Thus, overall, the No-Action Alternative would result in the least irreversible loss of resources compared to the Proposed Action, Alternative Action 1 or Alternative Action 2.

5.1 Cumulative Impacts

Cumulative impacts are defined as *the incremental impact of actions when added to other past, present and reasonably foreseeable future actions, regardless of which agency (Federal or non-Federal or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time* (40 CFR §1508.7).

Proposed Action. No cumulative impacts would be realized by the preferred action.

Alternative Action 1. No cumulative impacts would be realized by Alternative Action 1.

Alternative Action 2. No cumulative impacts would be realized by Alternative Action 2.

No-Action Alternative. The No-Action Alternative would cause no cumulative impacts to the environment.

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Appendix A: Comments

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Governor

STATE OF NEVADA

ANDREW K. CLINGER
Director

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December 6, 2006

Ms Lynn Haarklau
99 CES/CEV
4349 Duffer Dr, Suite 1601
Nellis AFB, NV 89191

Re: SAI NV # **E2007-142** Reference:

Project: **DEA for Landfill Expansion on Tonopah Test Range**

Dear Ms Lynn Haarklau:

The State Clearinghouse has processed the proposal and has no comment. Your proposal is not in conflict with state plans, goals or objectives.

This constitutes the State Clearinghouse review of this proposal as per Executive Order 12372. If you have questions, please contact me at (775) 684-0209.

Sincerely,

for

Gosia Sylwestrzak
Nevada State Clearinghouse

Enclosure

CEVN -

STATE OF NEVADA
DEPARTMENT OF CULTURAL AFFAIRS
Nevada State Historic Preservation Office
100 N. Stewart Street
Carson City, Nevada 89701
(775) 684-3448 • Fax (775) 684-3442
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KENNY C. GUINN
Governor

SCOTT K. SISCO
Interim Director

RONALD M. JAMES
State Historic Preservation Officer

November 7, 2006

Eloisa V. Hopper
Chief Environmental Flight
99 CES/CEV
4349 Duffer Drive Suite 1601
Nellis Base NV 89191-7007

RE: Landfill Expansion at Tonopah Test Range, Cactus Flat, Nye County (NAFB Report 06-01).

Dear Ms. Hopper:

The Nevada State Historic Preservation Office (SHPO) reviewed the subject undertaking. This cultural resource inventory report was completed following an intensive archaeological and historic inventory of the project area. The SHPO concurs with the U.S. Air Force's determination that no historic properties were found within the area of potential effects (APE) for the subject undertaking.

If you have any questions concerning this correspondence, please contact me by phone at (775) 684-3443 or by E-mail at rlpalmer@clan.lib.nv.us.

Sincerely,

Rebecca L Palmer

Rebecca Lynn Palmer
Review and Compliance Officer, Archaeologist