

Decision Notice & Finding of No Significant Impact

Las Vegas Ski and Snowboard Resort Avalanche Hazard Reduction Project

**USDA Forest Service
Spring Mountain National Recreation Area
Humboldt-Toiyabe National Forest
Clark County, Nevada**

I. Decision Summary

I have selected Alternative 1 to the Proposed Action. Alternative 1 permanently authorizes the use of a 105 millimeter (mm) howitzer for avalanche hazard reduction at the Las Vegas Ski and Snowboard Resort (LVSSR) and authorizes construction of a permanent facility to house the howitzer and munitions on the paved highway turnaround just off State Highway Route (SR) 156. Alternative 1 will result in no permanent loss or temporary disturbance of habitat since the facility will be on a paved and previously disturbed turnaround area. Therefore, Alternative 1 would be entirely consistent with the U.S. Forest Service (USFS) Spring Mountains National Recreation Area (SMNRA) General Management Plan (GMP) Standards and Guidelines 11.23 and 11.59, which emphasize the use of disturbed areas when expanding recreational facilities.

II. Introduction

Location

The Las Vegas Ski and Snowboard Resort is located approximately 40 miles to the west of Las Vegas, Nevada, in upper Lee Canyon, at the end of SR 156 in the Spring Mountains, on the Spring Mountains National Recreation Area, Humboldt-Toiyabe National Forest. The location is legally described as follows: Sec. 10, T 19 S, R 56 E, Mt. Diablo Principal Meridian.

Background

LVSSR is operated and managed by a private company under a Special Use Permit (SUP) issued by the USFS. The USFS prepared the Las Vegas Ski and Snowboard Resort Avalanche Hazard Reduction Environmental Assessment (EA) to analyze avalanche hazard reduction opportunities for LVSSR. LVSSR is responsible for implementing avalanche control activities within its permit boundary.

For over 30 years avalanche control at LVSSR consisted of placing hand-thrown charges on avalanche prone areas, as well as use of a compressed nitrogen powered launch system to place charges in areas not accessible to hand-charge placement. The compressed nitrogen powered launch system was operating near its maximum range and had to be transported by snow grooming machines to designated firing locations to adequately cover all target areas.

The compressed nitrogen and hand-charge placement methods were demonstrated to be inadequate for the following reasons:

- 1) Truly accurate targeting requires that an ordinance launcher be stationary and fired from the same location each time. This was not possible with the compressed nitrogen launcher because of the limited range of the system, the nature of the avalanche paths,

and the need for personnel to visually observe the target zone when using the system. The launcher had to be transported to and set up for firing in each vicinity

- 2) Compressed nitrogen projectiles are comparatively slow moving and subject to winds blowing them off target, thus requiring additional launches. This characteristic increases the number of projectiles used, increases the probability of a non-detonation (duds), and, therefore, could heighten the potential safety risk for LVSSR employees and visitors.
- 3) The hand-charge placement method is limited in its ability to accurately place the charges, since during heavy snowfalls it is difficult to access the avalanche target areas. This accuracy limitation potentially increases the risk of avalanche recurrence and subsequent safety concerns for recreationists who use the ski facilities.
- 4) Both compressed nitrogen launcher and hand-charge placement methods expose the avalanche hazard reduction teams to potential dangers associated with transporting explosive ordinances and equipment into the vicinity of avalanche-prone areas.

Beginning with the 2005/2006 avalanche season and continuing to present, the USFS gave authorization to LVSSR for temporary use of a 105 mm howitzer, on loan from the U.S. Army to the USFS. The howitzer is a cannon that was used during the World War II through the Vietnam eras. While no longer employed for military purposes, it is the preferred choice for avalanche control in many ski areas in the western United States and in Canada. It has many advantages, including positioning capability from a stationary location, easy handling, safe operation, compact size, ease of use, reduced “dud” rate, reduced risk for hazards associated with the use of hand-placed charges, and more accurate targeting capability than a compressed nitrogen system. LVSSR has been moving the howitzer into place for each operation on an outdoor mount located at the end of State Route (SR) 156 in a paved highway turnaround area.

Purpose and Need

The USFS review of LVSSR’s Ski Area Operating Plan, Winter Operating Season 2004-2005, included LVSSR’s avalanche hazard reduction program. The review demonstrated the need for a more accurate and flexible explosive projectile delivery system to improve avalanche hazard reduction and increase employee and public safety. Several measures were recommended including the need for enhanced avalanche hazard reduction tools. The recommendation to enhance the avalanche hazard reduction tool focused on (a) improving explosive projectile accuracy; (b) improving the ability to target avalanche-starting zones in poor visibility; (c) reducing the percentage of non-detonating rounds or “duds;” and (d) decreasing the vulnerability of avalanche control personnel to avalanche hazards.

Following the avalanche events of January, 2005 and USFS review of the LVSSR’s operating plan, LVSSR explored options for controlling avalanches within the ski area considering avalanche frequency, strength, elevation, geography, access to starting zones, cost, reliability, effectiveness, safety, impacts to the Mt. Charleston Wilderness, visual and biological impacts, and alternative avalanche tools and locations. The evaluation of these considerations indicated the continued use of the compressed nitrogen and hand-charge placement methods was no longer feasible due to accuracy and targeting limitations, and safety concerns for employees and recreationists.

The study concluded that the 105 mm howitzer was the preferred, most effective, and appropriate tool to control avalanches within the LVSSR area. As a result, under the USFS 2006 temporary authorization, LVSSR continues to use the 105 mm howitzer. Permanent authorization for its use is contingent on this decision.

There is a need for permanent authorization for use of the howitzer and there is also a need for permanent housing of the howitzer in a storage facility that would eliminate the need for transport and set-up for operation and would provide for consistent and accurate targeting of critical avalanche zones.

III. Public Involvement

The USFS prepared and mailed a scoping and comment document and published a Legal Notice inviting public comment on October 19, 2006, in the newspaper of record, the *Las Vegas Review-Journal*. In a public location at the resort, LVSSR also posted a copy of the document inviting comment. Seven comment letters were received from the public during the 30-day comment period.

Using the comments from the public and other agencies, the interdisciplinary team evaluated several issues regarding the effects of the proposed action (EA, Sec. 1.7, pp. 6-9). Issues identified by the public and agencies during the scoping process are addressed in Table 1 on pages 8-9 of the EA. Some of the public comments supported improved avalanche controls methods, while others expressed concerns over noise levels and security issues surrounding the use and housing of the howitzer and munitions, as well as concerns over hazards to low flying aircraft from howitzer firings. In all cases, the potential effects related to these issues were found to be negligible to non-existent or remedied by construction of a storage facility to house the howitzer.

IV. Alternatives

No Action

Under the No Action alternative, current management plans would continue to guide management of the project area; however neither the project purpose and need, nor the USFS SMNRA GMP goals and objectives, would be accomplished under this alternative (SMNRA GMP Objectives (11.21), p. 11-28).

As outlined in my December 2006 letter authorizing temporary use of a howitzer for avalanche control at LVSSR, continued and permanent operation of a howitzer for avalanche control is contingent on this decision. Under the No Action alternative, LVSSR would revert to conducting avalanche hazard reduction using hand-thrown charges on avalanche prone areas and using the compressed nitrogen powered launch system to place charges in areas not accessible to hand-charge placement. The equipment would be transported by a snow grooming machine to designated firing locations.

Proposed Action

The Proposed Action consists of two primary elements: (1) permanent authorization of the 105 mm howitzer and (2) construction of a storage facility to house the howitzer and ammunition. Storage facilities would be constructed on a minor ridge just outside a paved turnaround located approximately 200 to 300 feet northeast of the ski area parking lot, as shown in Figure 2. These facilities would consist of: (a) a building of approximately 640 to 900 square feet (depending on final design approvals), (b) a concrete equipment handling pad approximately 10 to 15 feet wide located adjacent to the building, (c) an underground concrete reinforced ammunition storage magazine approximately 400 square feet, (d) an unpaved access road approximately 20 feet wide by 120 feet long, and (e) a approximately 1,000-foot trench for electricity and telephone cables that is approximately three feet deep by four feet wide following the existing road footprint from the existing lodge, along the unpaved access road to the proposed facility. The Proposed Action would result in permanent loss of 0.102 acres of habitat and a total disturbance of 1.5 acres of habitat.

Alternative 1

As with the Proposed Action, Alternative 1 consists of two primary elements: (1) permanent authorization of the 105 mm howitzer and (2) construction of a storage facility to house the howitzer and ammunition. The storage facility would consist of: (a) a building of approximately 640 to 900 square feet (depending on final design approvals), (b) a concrete equipment handling pad approximately 10 to 15 feet wide located adjacent to the building, (c) an underground concrete reinforced ammunition storage magazine approximately 400 square feet, and (d) a trench for electricity and telephone cables, approximately three feet deep by four feet wide, that is 200-300 feet shorter than that of the Proposed Action, following the existing road footprint from the lodge.

Unlike the Proposed Action, the facility to house the howitzer and munitions would be constructed on the northeast corner of the paved highway turnaround area just off SR 156 (the main road to the ski resort) as shown on Figures 1 through 4. An unpaved access road would not be required and the trench for a utility corridor would be shortened by 200 to 300 feet since the location of the facility would be closer to the lodge. Alternative 1 would result in no permanent loss or temporary disturbance of habitat.

Other Alternatives Considered

In addition to the Proposed Action and the selected Alternative 1, the EA identifies six other avalanche hazard reduction systems as well as an alternate location of the storage structure. These included:

- Use of additional compressed nitrogen powered launch systems
- Use of additional hand-thrown charges
- Use of helicopters to provide access to avalanche starting zones
- Use of lift-served access to the ridge
- Use of a remote controlled cable system to deliver charges
- Use of fixed gas-explosion devices, and
- Locating the howitzer storage structure in the existing maintenance yard area

The rationale for eliminating these alternatives from detailed consideration can be found in the EA in Section 2.4 on pages 21-24. A comparison of effects of implementing the Proposed Action, the selected Alternative 1, and the No Action alternatives can be found in Section 3.0 of the EA on pages 25-53; a summary comparison of these alternatives is in Table 4 on pages 26-28.

V. Decision and Rationale

I have decided to select Alternative 1 to the Proposed Action, which includes (1) permanent authorization of the 105 mm howitzer and (2) construction of a storage facility to house the howitzer and ammunition, consisting of (a) a building of approximately 640 to 900 square feet (depending on final design approvals), (b) a concrete equipment handling pad approximately 10 to 15 feet wide located adjacent to the building, (c) an underground ammunition storage magazine approximately 400 square feet, and (d) a trench, approximately 700 to 800 feet in length and three feet deep by four feet wide, for electricity and telephone cables, that follows the existing road footprint from the existing lodge.

In making my decision, I considered all of the alternatives presented, the environmental analysis, and public input. I based my decision on two factors:

First, I considered how well each of the alternatives responded to the Purpose and Need of providing a more accurate and flexible explosive projectile delivery system to improve avalanche hazard reduction and increase employee and public safety. I concluded that both the Proposed

Action and Alternative 1 are responsive to the Purpose and Need. The rationale for my conclusion is as follows:

- 1) The Proposed Action and Alternative 1 would allow for the long-term use of a 105 mm howitzer that will enhance LVSSR's ability to: (a) improve explosive projectile accuracy, (b) improve the ability to target avalanche-starting zones during poor visibility conditions, (c) significantly reduce the percentage of non-detonating rounds or "duds," and (d) decrease the vulnerability of avalanche control personnel to avalanche hazards by eliminating the need for hand-charge placement or transporting portable compressed nitrogen launch systems. The 105 mm howitzer is the only avalanche control explosives launcher used in many ski areas in the western United States and Canada, and is the preferred and recommended method for avalanche hazard control (EA, Sec. 2.2.2, p. 13).
- 2) Both the Proposed Action and Alternative 1 would house the howitzer inside an avalanche control building/storage facility, thereby providing for: (1) increased security and safety of the howitzer and its operators, (2) improved operational capability during inclement weather, and (3) decreased wear and maintenance of equipment. In addition, the permanent housing of the howitzer within a storage facility would eliminate the need for transport and set-up during each mission, thus increasing the ability of the howitzer to consistently and accurately target critical avalanche zones (EA, Sec. 1.2, p. 3).
- 3) Finally, the Proposed Action and Alternative 1 differ in proposals for location of the howitzer storage facility. While the Proposed Action locates the facility on a minor rounded ridge approximately 120 feet from the edge of the paved highway turnaround just off SR 156, the location of the howitzer storage facility in Alternative 1 is on the northeast portion of the paved highway turnaround (Figure 4). The location was analyzed for potential effects on emergency response and vehicle access/turning. Results indicated that the storage facility would not cause restrictions or hinder the continued use of the area by either emergency response helicopters or vehicles, or oversized trucks with trailers (EA, Sec. 23., p. 21).

Second, I considered how well each of the alternatives was responsive to the SMNRA GMP. I concluded that Alternative 1 would best achieve GMP objectives and goals, which (a) emphasize the use of disturbed areas when expanding recreational facilities (SMNRA GMP, Management Area 11, Standards and Guidelines (11.23 and 11.59), pp. 11-32 and 11-35); and (b) result in the minimization of potential effects to the biological resources of Management Area 11 and the Lee Canyon Biodiversity Hotspot (SMNRA GMP, Standards and Guidelines (11.57), p. 11-35).

When compared to the Proposed Action, Alternative 1 will result in reduced environmental impacts, while maintaining improved operational and safety considerations at LVSSR. In contrast to the Proposed Action, Alternative 1 eliminates the need for an unpaved access ridge road, shortens the utility corridor by 200 to 300 feet, and results in no permanent loss or temporary disturbance of habitat. Monitoring and Conservation and Recovery Methods will further minimize the potential for adverse resource effects (EA, Sec. 2.2.4, pp. 20-21).

In addition, as part of this decision, we will incorporate permanent authorization for use of a 105 mm howitzer and the howitzer storage facility in its proposed location into LVSSR's Special Use Permit.

The Nevada Department of Transportation (NDOT) currently holds a Special Use Permit for the section of road on which the howitzer storage facility will be located. The USFS will need to modify the permit to exclude that portion of the paved highway turnaround just off SR 156 where

the facility will be situated. Construction will not commence prior to securing NDOT's concurrence.

VI. Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that this project will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following:

1. My finding of no significant environmental effects is not biased by the beneficial effects of the action.
2. Public health and safety would be enhanced in the project area by operation of the 105 mm howitzer that is currently in use under a USFS temporary authorization. With this tool, accurate evaluations of avalanche potential can be performed, and appropriate mitigation can be more quickly and effectively implemented. Thus, a reduction in risk to staff and visitors to LVSSR and potential damage to infrastructure will be realized (EA, Sec. 1.2, pp. 1-3).
3. There will be no significant effects on unique characteristics of the geographic area, since the Biodiversity Hotspot was determined to be the only unique resource in the project vicinity. Implementation of Alternative 1 would not result in any permanent removal or temporary disturbance of the habitat within the Hotspot and no effects to the Hotspot, or to any historic or cultural resources, park lands, prime farmlands, wetlands, or wild and scenic rivers are expected to occur (EA, Sec. 3.0, pp. 25-53).
4. The effects on the quality of the human environment are not likely to be highly controversial. Other agencies and the general public sent a total of seven comment letters and simple clarifications were sufficient to address comments relating to noise levels near the howitzer and its relation to winter camping or year-round residents and projectiles from the howitzer and their relation to aircraft within the area (EA, Table 1, p. 8-9). All data collection, inventories and analyses for this project have been conducted and prepared using methods commonly accepted in the scientific community; there is no known controversy over the effects of the project (EA, Sec. 3.0, pp. 25-53).
5. The effects on the human environment are not uncertain because use of howitzers for avalanche hazard reduction and control is a well-known and well-understood technology commonly used in comparable ski resorts throughout the United States (EA, p. 13). In addition, over the past two winter seasons, LVSSR has acquired considerable experience with its use and application (as temporarily authorized by the Forest Service). Analyses show that the effects are not uncertain, and do not involve unique or unknown risk.
6. The action is not likely to establish a precedent for future actions with significant effects, because it is a stand-alone decision and as such is not dependent on past or future projects. This project and decision do not obligate analyses or considerations of resources in future projects or adjacent areas (EA, Sec. 3.8, pp. 48-53).
7. Other past, present, and reasonably foreseeable future projects within the Developed Canyons Management Area include LVSSR Snowmaking System and Lower Area Parking Improvements, the proposed LVSSR Master Development Plan, and the Lift #1 Repair/Rehabilitation project. The cumulative contribution of this action to the direct and indirect affects of those projects would have either no effect or a negligible effect on biological resources and the Biodiversity Hotspot (EA, Sec. 3.8, pp. 48-53).

8. The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, because none occur in the area of affect. The action will also not cause loss or destruction of significant scientific, cultural, or historical resources. The USFS determined that the proposed project would have “No Effect” on historic properties and the State Historic Preservation Office (SHPO) concurred with that determination in a letter dated September 15, 2005 (EA, Sec. 3.3, pp. 36-37).
9. The action will not adversely affect any endangered or threatened species or habitat that has been determined to be critical under the Endangered Species act of 1973, because no threatened, endangered species or critical habitat are known to occur in the project area. (EA, Sec. 3.2, pp. 29-36). By letter dated March 3, 2008, the U.S. Fish and Wildlife Service concurred with USFS findings contained in the Biological Evaluation/Biological Assessment for the project.
10. As outlined in the Section VII of this Decision Notice, the action will not violate Federal, State, and local laws and regulations for the protection of the environment.

VII. Findings Required by Other Laws and Regulations

My decision is consistent with and meets requirements of the National Environmental Policy Act, as amended (42 USC 4321-4347; 40 CFR 1500, et seq.) and all laws, regulations, and USFS policies. The most relevant of these include the following:

- National Forest Management Act, as amended (16 USC §§ 1600-1614.);
- National Historic Preservation Act (16 USC 470) and its parallel authority, Protection of Historic Properties (36 CFR 800) (EA, Sec. 3.3, pp.36-37);
- Endangered Species Act (16 USC 1531-1543; EA, Sec. 3.2, pp. 29-36);
- Migratory Bird Treaty Act, as amended (16 USC 703-712).
- General Management Plan for the Spring Mountains National Recreation Area (October 1996), an amendment to the Toiyabe National Forest Land and Resource Management Plan (EA, Sec. 1.4, p. 4 and Sec. 3.0, pp. 44-45);
- Conservation Agreement for the Spring Mountains National Recreation Area, April 13, 1998 (EA, Sec. 1.4, p. 5).
- Clark County Multiple Species Habitat Conservation Plan (MSHCP) (EA, pp. 31, 32, 33, 36).

Other applicable laws, regulations and USFS policies and plans that were considered in the EA relating to the implementation of this project include:

- Noxious Weed Act, as amended
- Executive Order 12898, Environmental Justice
- Spring Mountains National Recreation Area Act
- USFS Handbooks and Manuals
- ATF Explosives Laws and Regulations
- Humboldt-Toiyabe National Forest Winter Operating Plan and Snow Safety Plan
- LVSSR Ski Area Special Use Permit
- Humboldt-Toiyabe National Forest’s Draft BMP for Road Construction and Heavy Equipment Use Prevention Guidelines for Noxious Weeds (USFS 2004)

The location, design, and construction of the howitzer storage facility as well as the ammunition bunker will require Alcohol, Tobacco and Firearms (ATF) approval in accordance with the ATF

Federal Explosives Law and Regulations (U.S.C. Ch. 40, Subpart K). The use and maintenance of the howitzer is subject to the approval and supervision of the USFS, and compliance with U.S. Army Regulation (AR) 725-20, *Requisition and Issue of Supplies and Equipment, Avalanche Control Program* (EA, Sec. 2.2, pp. 13-14).

The current howitzer operating crew completed training, including target acquisition procedure, in January 2007. Future training/target acquisition of any new personnel would be performed and conducted onsite and/or at the Nellis Air Force Base test and training range.

VIII. Public Notification, Administrative Appeal Process, Implementation

Administrative Review or Appeal Opportunities

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215.11. Only those individuals or organizations that submitted comments during the comment period specified at 215.6 may appeal this decision. The notice of appeal must meet the appeal content requirements at 36 CFR 215.14 (2005).

The appeal must be filed by regular mail, facsimile transmission, email (Microsoft Word (.doc) or rich text format (.rtf)), hand-delivery, express delivery, or messenger service. The appeal must have an identifiable name attached and verification of identity will be required when requested. A scanned signature may serve as verification on electronic appeals. The office business hours for those submitting hand-delivered appeals are 8:00 a.m. to 4:30 p.m. Monday through Friday, excluding holidays.

Appeals, including attachments, must be filed within 45 days from the publication date of this notice in the *Reno Gazette Journal*, the newspaper of record for this decision. Attachments received after the 45-day appeal period will not be considered. Legal Notice of the decision will also be published in the *Las Vegas Review Journal*; however, the publication date in the *Reno Gazette Journal* is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

Appeal filing information:

USDA Forest Service
c/o Planning, Appeals and Litigation
324 25th Street
Ogden, UT 84401
Facsimile: (801) 625-5277
Electronic mail: appeals-intermtn-regional-office@fs.fed.us
Office hours: Monday through Friday 8:00 a.m. through 4:30 p.m.

Implementation Date

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

Contact

Copies of the Environmental Assessment are available at the Spring Mountains National Recreation Area Office, 4701 North Torrey Pines Drive, Las Vegas, NV 89130, or on the website:

<http://www.fs.fed.us/r4/htnf>. For additional information concerning this decision or the USFS appeal process, contact:

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or

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s/

Edward Monnig
Forest Supervisor
Humboldt-Toiyabe National Forest

May 1, 2008

Date

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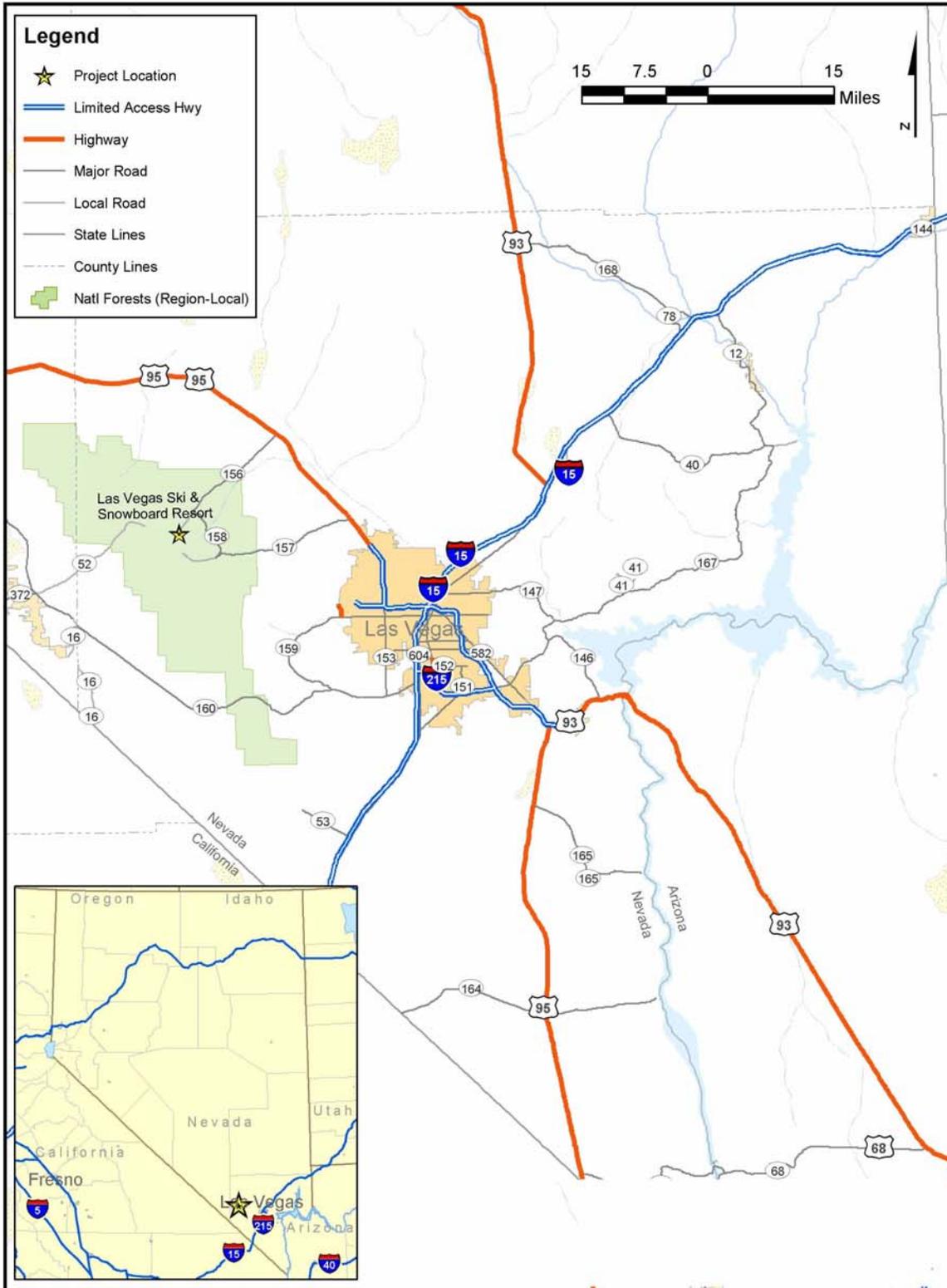


Figure 1. Project Vicinity

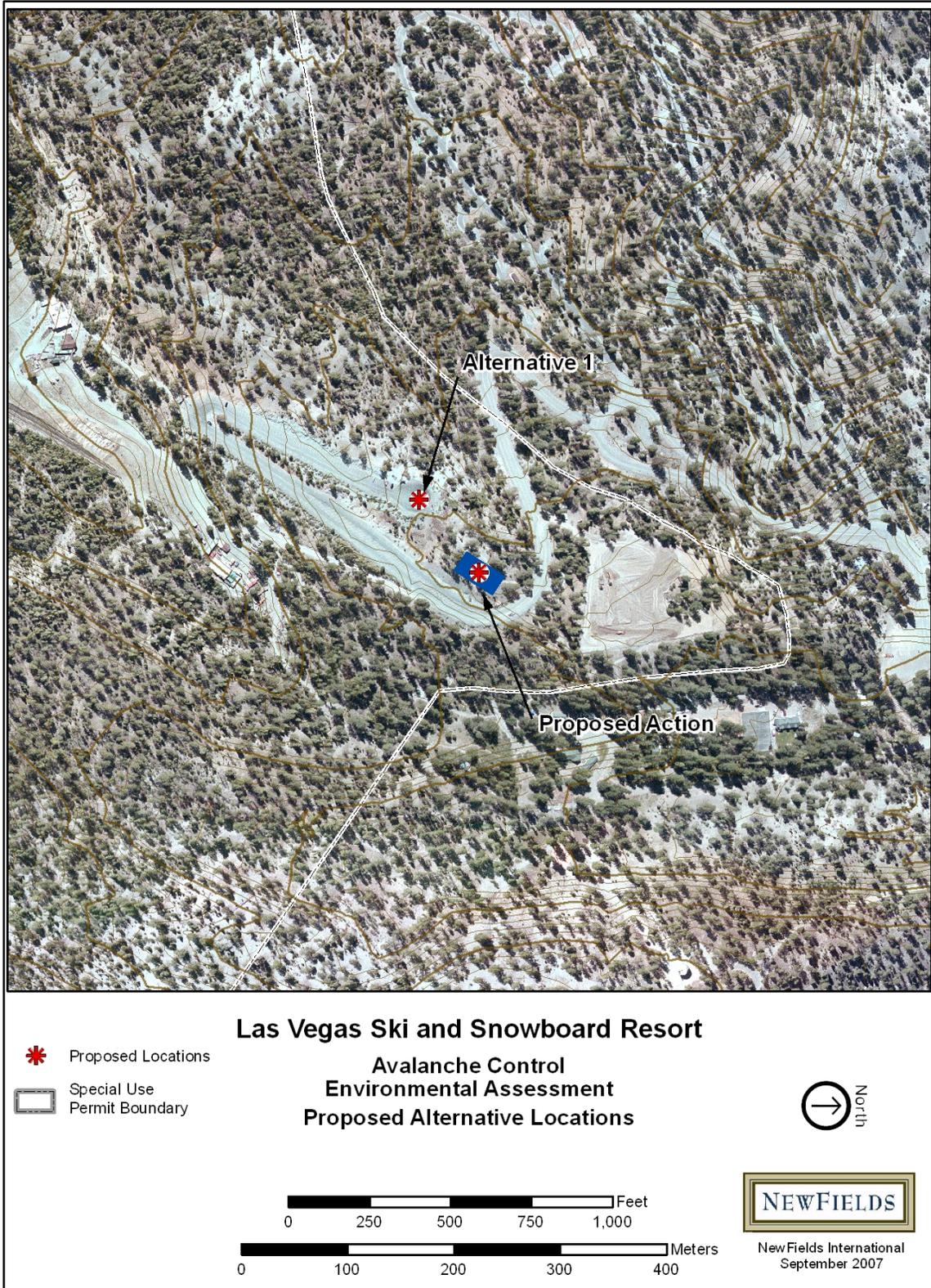


Figure 2. Proposed Action and Alternative 1 Project Locations

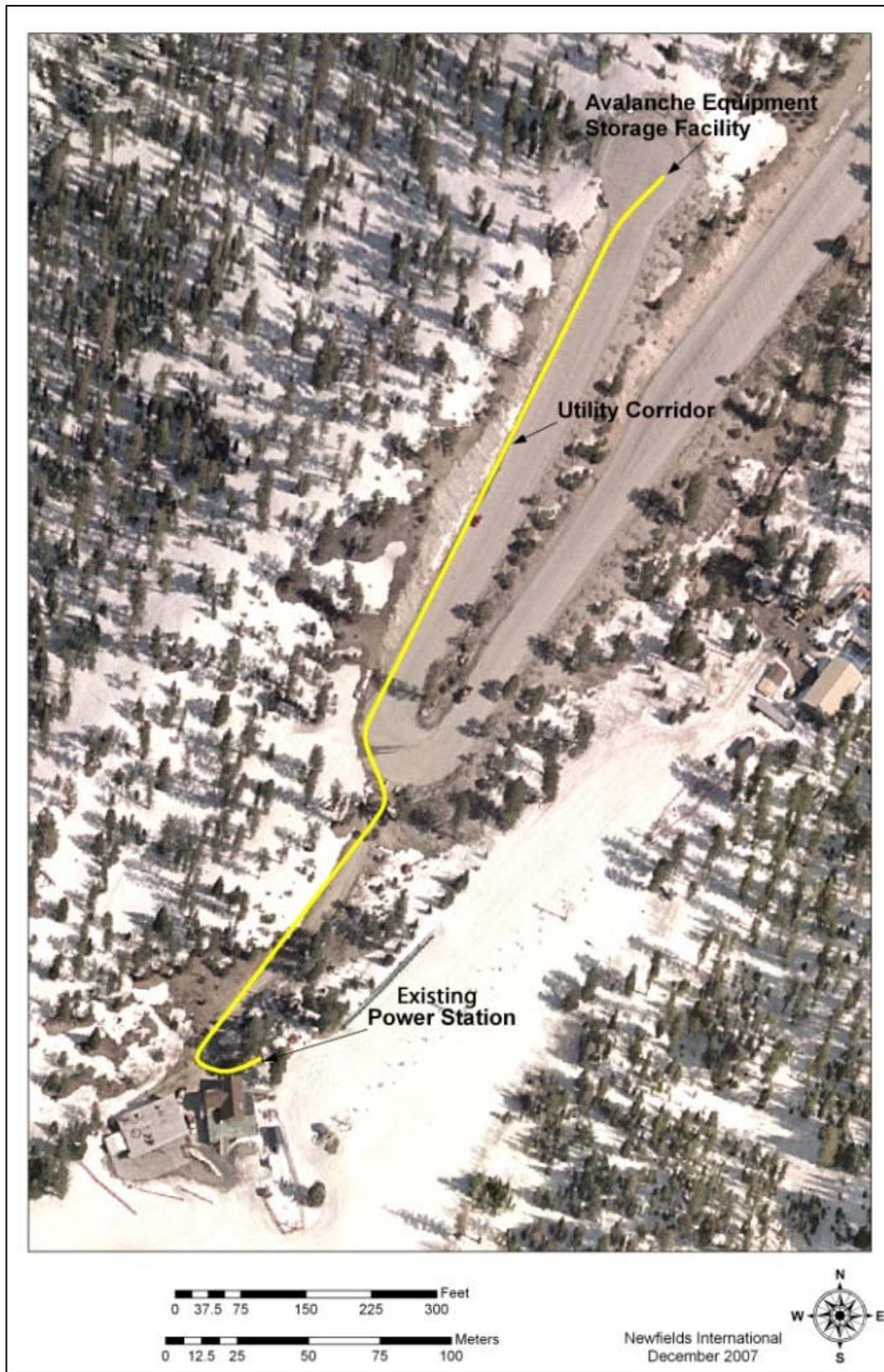


Figure 3. Proposed Alternative 1 Storage Facility and Utility Corridor Locations

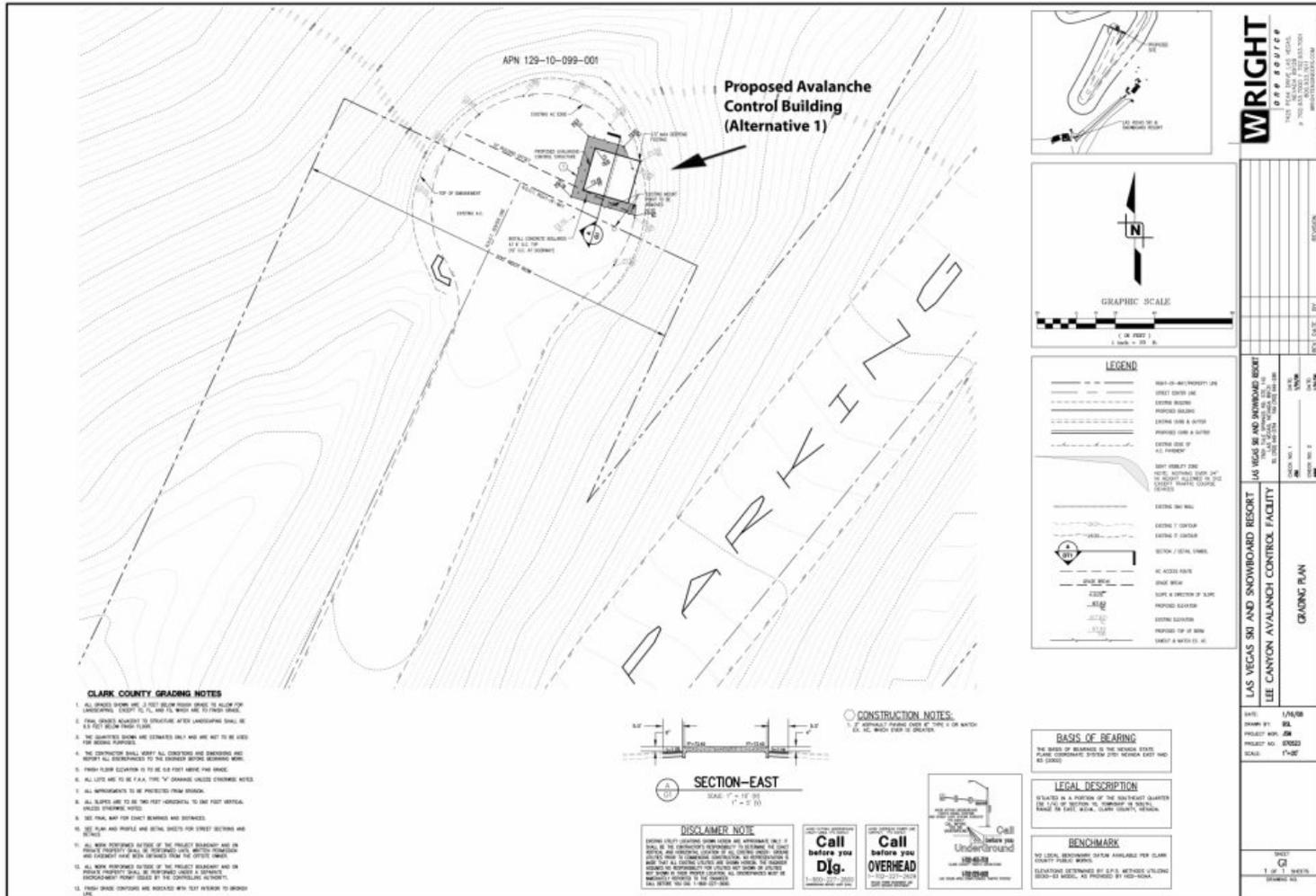


Figure 4. Alternative 1 Storage Facility Location on Highway Turnaround