DECISION MEMO
RAINBOW CANYON DIVERSION STRUCTURE
U.S. FOREST SERVICE
SPRING MOUNTAINS NATIONAL RECREATION AREA
HUMBOLDT-TOIYABE NATIONAL FOREST
CLARK COUNTY, NEVADA

BACKGROUND/PURPOSE AND NEED

The US Army Corps of Engineers (USACE), acting at the behest of the State of Nevada, is proposing to build a flood diversion structure in Rainbow Canyon to divert runoff and debris flows from impacting homes and infrastructure on the east side of the Rainbow Subdivision. The proposal is in response to flash flooding and debris flows which were intensified by burned slopes associated with the 2013 Carpenter 1 Fire in upper Rainbow Canyon. The annual monsoonal storm events in 2013 and 2014 have caused damage to numerous homes, recreation facilities, county and forest roads, and utilities.

On February 27, 2014, the State of Nevada submitted a request for direct and technical assistance to the USACE under the Advance Measures program as a result of the continuing threat of flooding and debris flows (see Attachment A). The USACE sent an assessment team to Rainbow Canyon. They completed a feasibility study which was reviewed by an interagency team. The study determined it was possible to construct a channel/berm to divert flows away from some of the private land improvements. The only viable location for the channel/berm is on National Forest System lands adjacent to Rainbow Subdivision.

The USACE approved the proposal for funding under their Advance Measures program to address imminent threats to life and property. They initiated design of the diversion channel/berm and completion of an Environmental Assessment in compliance with the National Environmental Policy Act. Given the location of the structure, they engaged the support of the US Forest Service for their knowledge of the area. The State of Nevada, through an agreement with USACE, has agreed to serve as the public sponsor, responsible for the ownership, operation and maintenance of the diversion channel/berm after construction, and its eventual removal.

The USACE proposes to develop an agreement with the US Forest Service for construction of the diversion channel/berm, and the State of Nevada is applying for a special use permit to operate and maintain the structure and eventually provide for its removal and site restoration once the burn area aggravated flooding and debris flows have abated and prior to expiration of the permit, unless reauthorized.

DECISION

I have decided to enter into an agreement with the USACE to allow for the construction of the diversion channel/berm described below and analyzed in their Environmental Assessment and Finding of No Significant Impact (EA/FONSI), and to issue a special use permit to the State of Nevada for the annual operation and maintenance of the structure and its eventual removal and site restoration, and the maintenance of access roads to recreation residences in Kyle Canyon Tract. The specific elements of the project proposed by the USACE and/or State of Nevada include:

- Construction of a temporary 2350 foot[1] long flood diversion channel/berm, with an average width of 95 feet. The channel will be armored as necessary with riprap. Constructed riprap features will be grouted to prevent erosion. The design footprint of the project is approximately five acres[2]. Trees within the design footprint will be felled and removed for proper disposal. Slash will be treated by chipping (spread depth no greater than 2" depth) and/or burning using a curtain burner.
- Use of multiple construction access points to the channel/berm, all from existing roads (Rainbow Canyon Blvd, Forest Roads 45579B, 45579C, 45579 and 45066). Forest road 45579C and a segment of 45579 will also serve as the new access to the Kyle Canyon Recreation Residence Tract. These two road segments, from the gate on Forest Road 45579C to the junction of Forest Roads 45579 and 45066, including crossings, will be improved and maintained to accommodate low clearance vehicle traffic.
- A staging area, less than a quarter acre in size, will be used for equipment and materials at an existing disturbed site at the south end of Rainbow Canyon Blvd. Another short term staging area off Davos Way is within the general footprint of the channel/berm.
- Upon completion of construction, responsibility for maintenance and operation of the flood control structure, and maintenance of Forest Roads 45579B, 45579C and 45579 (approximately 0.88 miles) including the gate, will transfer to the State of Nevada and be authorized by the special use permit.
- Upon a determination by the USACE, Forest Service, and State of Nevada that the post-fire factors that increase flood and debris-flow risks have diminished to approximate pre-fire runoff responses and prior to expiration of the special use permit, unless reauthorized, the temporary channel/berm will be removed by the State of Nevada and the disturbed area re-contoured and restored to approximate its preconstruction condition.
- Incorporation of design features for construction in the agreement between USACE and Forest Service, and incorporation of terms and conditions for operation and maintenance and eventual removal of the structure and site rehabilitation by the State of Nevada in the special use permit (Appendix C).

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[1] The original channel/berm length was estimated at approximately 1900 feet, but subsequent public input and a field review led the USACE to recommend a 450 foot extension to the southwest to capture flow out of the western most drainage of Rainbow Canyon. This western drainage contributed to debris flows from a July 28, 2014 storm event that damaged 10 homes.

[2] The original disturbance footprint of the 1900 foot channel/berm was estimated at approximately four acres. The subsequent extension of 450 feet added another acre of disturbance.

A copy of the USACE Environmental Assessment and FONSI for the Rainbow Canyon Diversion Structure dated October 3, 2014, is incorporated herein by reference. A location map and drawings of the proposed diversion channel/berm are included in Appendix B. The draft terms and conditions of the agreement and the special use permit are attached as Appendix C.

This action is categorically excluded from documentation in an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). The applicable category of actions is identified in agency procedures as 36 CFR 220.6(e)(3)—approval, modification, or continuation of minor special uses of NFS lands that require less than five contiguous acres of land. This category of action is applicable because the disturbance footprint of the proposed flood diversion structure is approximately five contiguous acres.

I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS. I took into account information from the USACE NEPA process and documentation and resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist:

- Federally listed threatened or endangered species or designated critical habitat, species proposed for federal listing or proposed critical habitat, or Forest Service sensitive species.

  There are no federally listed threatened or endangered species or designated critical habitat, or species proposed for listing in the project area.

  A Biological Evaluation was completed for Forest Service R4 Sensitive species and species identified in a Conservation Agreement (CA) (1998) between the Forest Service and US Fish and Wildlife Service. Numerous individuals of rough angelica were identified within the project area. Several individuals of Charleston violet (*Viola charlestonensis*) were also found in the project area. In addition, potential habitat was observed in the proposed project site for the following USFS R4 Sensitive and CA wildlife species: pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), spotted bat (*Euderma maculatum*), Long-eared myotis (*Myotis evotis*), Fringed myotis (*Myotis thysanodes*), Long-legged myotis (*Myotis volans*), Palmer's Chipmunk (*Neotamias palmeri*), northern goshawk (*Accipiter gentilis*), peregrine falcon (*Falco peregrinus anatum*), flammulated owl (*Otus flammeolus*), Spring Mountains icarioides blue butterfly (*Plebejus icarioides austinorum*), Carole's silverspot butterfly (*Speyeria carolae*), and Charleston ant (*Lasius nevadensis*). The proposed project is likely to impact the local populations of these species but is not likely to cause a trend to federal listing or loss of viability.

  This determination was submitted to the US Fish and Wildlife Service (FWS) and they concurred with the findings on May 20, 2014. An addendum to the Biological Evaluation to address the minor extension of the proposed channel/berm made the same determination. The addendum was submitted to the FWS and they concurred on October 2, 2014.

- Flood plains, wetlands, or municipal watersheds. There are no federally designated flood plains, wetlands, or municipal watersheds in the project area. The project does modify

drainages that carry runoff from Rainbow Canyon to Kyle Wash; however, the project only affects the routing of the runoff; it does not alter the volume or timing.

- Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas. The project is not within a wilderness or wilderness study area. It is on National Forest lands within the Spring Mountains National Recreation Area (SMNRA) on the Humboldt-Toiyabe National Forest. The purpose of the project is to reduce flood risk to human life and property. Its location does not affect general recreation uses in the SMNRA, but will be visually evident to the permittees with cabins in the Rainbow Canyon Recreation Residence Tract. The actions and their effects are within the scope of the Wilderness Act (1964) and the Spring Mountains National Recreation Act (1993).
- Inventoried roadless areas or potential wilderness areas. The project is not within an inventoried roadless area or potential wilderness area. It is adjacent to developed residential areas.
- Research natural areas. The project is not within a research natural area.
- American Indians and Alaska Native religious or cultural sites. Government-to-government consultation was conducted with the Native American Tribes culturally affiliated with the SMNRA. Based on the procedures outlined in the Collaborative Resource Stewardship Plan, the Forest Service mailed a one page project description to each member of a tribally-approved body called the Nuwuvi Working Group, and each Tribal Chair. Later the Forest Service SMNRA Tribal Liaison followed up with a phone call to each tribal representative to answer questions and receive comments. No significant concerns were stated during these calls. Following is a record of the telephone conversations conducted:

Tribal Member Contacted	Tribe	Date of Conversation	Comments
Ron Escobar	The Chemehuevi Indian Tribe	Apr 29, 2014	No Concerns
Betty Cornelius	Colorado River Indian Tribes	Apr 29, 2014	No Concerns
Kenny Anderson	Las Vegas Paiute Tribe	May 1, 2014	No Concerns
Deanna Domingo	The Moapa Band of Paiute Indians	May 6, 2014	No Concerns
Richard Arnold	Pahrump Paiute Tribe	Apr 29, 2014	No Concerns
Charley Bulletts	The Kaibab Band of Paiute Indians	No response	

- Archaeological sites, or historic properties or areas. A cultural survey report on potential pre-historic and historic resources was completed and submitted to the Nevada State Historic Preservation Office (SHPO). Four historic stone and earthen check dams (CK-4367, CK-4368, and CK-4369) are located approximately 260 meters upslope of the proposed project footprint. These dams were found to be ineligible for the National Register of Historic Places in 1998 when they were originally recorded. They will not be affected by the proposed project. No other archaeological sites or features are located in the project area. The SHPO concurred with the report and findings on September 9, 2014.

A supplement to the cultural resource report to address the minor extension of the proposed channel/berm was submitted to the SHPO. SHPO concurred with the supplement on October 1, 2014.

OTHER CONSIDERATIONS

- Migratory Birds. If construction activities, including tree falling, occur during bird breeding season (May 20-July 20), a qualified biologist who is familiar with the birds of southern Nevada and can accurately identify nesting and breeding behaviors will conduct nest searches in the project area. To the extent possible, appropriate buffers will be designated for any nests located based on the species' habitat requirements. If nest trees must be felled, the USACE will coordinate with FWS to determine if a depredation permit is required and the on-site biologist will recover any chicks or eggs that are displaced.

- Visual Quality. The project area falls within a Visual Quality Objective of retention. Generally, lands within the Developed Canyons are managed for their scenic quality with an emphasis on views from major roads and use areas. Although the retention VQO provides for management activities that are not visually evident, the activities authorized under the agreement will noticeably modify this area as viewed from a number of residences, both on National Forest land or adjacent to it. However, the homes on the adjacent private lands are benefitting from the reduced flood risk provided by the proposed structure. The structure and associated opening in the forest canopy should not be visible from major roads and developed recreation areas.

  The visual impact will be temporary because the structure will not remain on the landscape after the threat of flooding and debris flows have abated. Once the structure is removed and the site restored, the visual quality will return, over time, to its pre-construction quality. The impact to visual quality is a recognized consequence in order to provide for public safety and protection of private property.

CLIMATE CHANGE

The heavy equipment used for excavation proposed for this project will be licensed to comply with state air quality standards. Given the small scope of this project, it is not possible to quantify or qualify the direct or indirect effects from heavy equipment emissions, nor establish a cause-effect relationship between this single project and global climate change.

PUBLIC INVOLVEMENT

On April 7, 2014, and several dates thereafter, notice of the project proposal was forwarded to interested and affected parties, including residents and recreation cabin owners in the Mt. Charleston area by the USACE. A copy of those contacted is included in the USACE EA/FONSI. The project was discussed by representatives of the USACE and US Forest Service at the May 1, 2014 meeting of the Mt. Charleston Town Advisory Board, with representatives of

Clark County also present. On May 17, 2014, the Forest Service facilitated a field tour with representatives of the Kyle Canyon Recreation Residence Tract. The USACE, US Forest Service and State of Nevada held another public meeting at Mt. Charleston on September 12, 2014 to review the proposal and present project designs and construction schedules. A summary of comments received through all of the preceding efforts and responses to them are provided in the USACE EA/FONSI.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

This decision is consistent with the Land and Resource Management Plan (LRMP) for the Toiyabe National Forest and the SMNRA General Management Plan (GMP), an amendment to the Toiyabe LRMP. The project was designed in conformance with the direction in these plans, specifically:

Public Safety - Floodplains

- GMP, SMNRA-Wide Objective (0.27) Minimize damage to roads and facilities from floods, and protect public safety in floodplains.

Visual Quality

- Toiyabe LRMP, Forest-Wide Standards and Guidelines, Recreation 4: Protect the scenic quality of the Forest by achieving the designated visual quality objectives, unless modified by a site-specific environmental assessment.
- GMP, SMNRA-Wide Objective (0.17) Visual quality objectives are used as guidelines to manage the forest landscape. In general, this should include a predominantly natural appearance, especially as viewed from roads, trails, and other areas of high recreation use.

Access

- GMP, SMNRA-Wide Guideline (0.115) Roads in and to developed recreation areas or administrative sites, and roads leading to moderate or high use areas, should be maintained for sedans (low clearance vehicles).

Recreation Residences

- GMP, Management Area 11 Objective (11.15) Develop cooperative management relationships with recreational residence associations. (Objective)

The proposal is consistent with Forest Service special use screening criteria. The USACE has secured required Section 401 and 404 permits under the following laws:

- Clean Air Act (42 U.S.C. §§ 7401-7602, December 31, 1970, as amended 1977, 1990, 2004) ; and
- Clean Water Act (33 U.S.C. §1251 et seq., 1972) .

The proposal complies with all laws and Executive Orders affecting National Forest management, including the following:

- National Environmental Policy Act, as amended (42 USC §§4321-4347);

- National Historic Preservation Act (16 USC 470) and its parallel authority, Protection of Historic Properties (36 CFR 800);
- Endangered Species Act (16 USC 1531-1543);
- Noxious Weed Act, as amended (7 USC. 2801, et seq.);
- Spring Mountains National Recreation Area Act (16 U.S.C. §460hhh; Pub. L. 103-63, Aug. 4, 1993, 107 Stat. 297); and
- Executive Order 12898, Environmental Justice (Feb. 11, 1994, 59 Fed. Reg. 7629). There will be no adverse effects on health, human safety, consumers, minorities, civil rights, American Indian rights, or women's rights.

The project is consistent with the following policies and guidance relating to the implementation of this project:

- Humboldt-Toiyabe National Forest Draft BMP for Road Construction and Heavy Equipment Use Prevention Guidelines for Noxious Weeds (FSM 2000, Ch. 2080 – Sec. 7 (a-m));
- Conservation Agreement for the Spring Mountains National Recreation Area (April 13, 1998); and
- Clark County Multiple Species Habitat Conservation Plan Environmental Impact Statement (September 2000).

ADMINISTRATIVE REVIEW (APPEAL) OPPORTUNITIES

This decision is not subject to appeal in accordance with the Consolidated Appropriations Act of 2014 (Public Law No. 113-76, 128 Stat. 5, (2014)).

IMPLEMENTATION DATE

The USACE desires to start construction of the flood diversion structure as soon as possible with construction expected to take 30 to 45 days. An agreement between the Forest Service and USACE will be signed prior to construction. Upon completion of construction, USACE will turn the project over to the State of Nevada. A special use permit will be issued to the State of Nevada for their operation and maintenance of the structure and recreation residence access road and the eventual removal of the structure and restoration of the site.

CONTACT

For additional information concerning this decision, contact: Randy Swick, Area Manager, Spring Mountains NRA, 4701 N. Torrey Pines Drive, Las Vegas, NV 89130. 702-515-5448.

10/6/2014

William Dunkelberger — Date

Humboldt-Toiyabe National Forest Supervisor

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APPENDIX A

Brian Sandoval
Governor

Nevada Department of Public Safety

James M. Wright
Director

Christopher B. Smith
Chief

Division of Emergency Management
Homeland Security
2478 Fairview Drive
Carson City, Nevada 89701
Telephone (775) 687-0300 • Fax (775) 687-0322 • http://dem.state.nv.us/

February 27, 2014

Colonel Kimberly Colloton
US Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard
Los Angeles, CA 90046

Dear Colonel Colloton:

RE: Request for Direct and Technical Advanced Measures Assistance – Clark County Flood Events in Kyle Canyon and Rainbow Subdivision

In accordance with Public Law 84-99, Response and Recovery Assistance I am requesting direct and technical assistance from the U.S. Army Corps of Engineers (USACE) under the Advanced Measures policies. This request is a result of the imminent threat of unusual flooding to the Kyle Canyon and Rainbow Subdivision. The threat is the outcome of the Carpenter 1 Fire in the Spring Mountain National Recreation Area during the first week of July 2013. Please see the enclosed document entitled "Nevada Carpenter 1 (FM 5034)" which is FEMA's Fire Management Assistance Grant approval for assistance as of July 4, 2013. This unusual threat is also due to denuded vegetation in the burn area which will certainly have a long term impact to the residents of this area of Nevada.

The U.S. Forest Service, in conjunction with a multi-agency group of stakeholders including the National Weather Service, completed a Burned Area Emergency Response (BAER) report. The report details the burned areas of concern and ranks the threats to human life and safety to the residents, workforce, visitors, and travelers as "Very High", due to flooding, hillslope erosion and sediment and heavy debris flows. The report also ranks threats to improved property, natural resources and cultural and heritage resources as" Very High". The report estimated the burned areas at 27,881 acres affected and an estimated 5 to 7 years for a vegetative recovery timeframe. Please refer to pages 3 and 4 of the attached BAER report depicting the "Critical Values/Resources and Threats"to the burned areas.

Col. Colloton
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Feb. 27, 2014

During July to August 2013, monsoon rains resulted in severe and unusual flooding causing heavy debris flows, erosion and significant property damages in the Rainbow Subdivision as well as most of Clark County (Documented and supported through video links, pictures and news articles attached to this request.) The existing debris fields, erosion and damages will further be exacerbated by current winter weather, snowpack runoff and future annual monsoonal events. These types of events will have catastrophic consequences to life safety and property and are expected to continue. The State's concerns about significant flash flooding and increased run-off potential are further supported by the attached letter from Mr. Daniel S. Berc, Warning Coordination Meteorologist from the National Weather Service.

The State of Nevada, Clark County and the affected cities do not possess the technical expertise, capacity, capability, or the resources to determine the feasibility, cost effectiveness and design requirements to implement the mitigation activities that reduce the imminent threat of flooding as identified and detailed in the BAER report under section H; T01 – T11. (Land Treatments, Road and Trail Treatments, and Protection/Safety Treatments.)

Thank you for considering this request. If you have any questions, or require additional information, please feel free to contact me at (775) 687-0300.

Best regards,

Christopher B. Smith

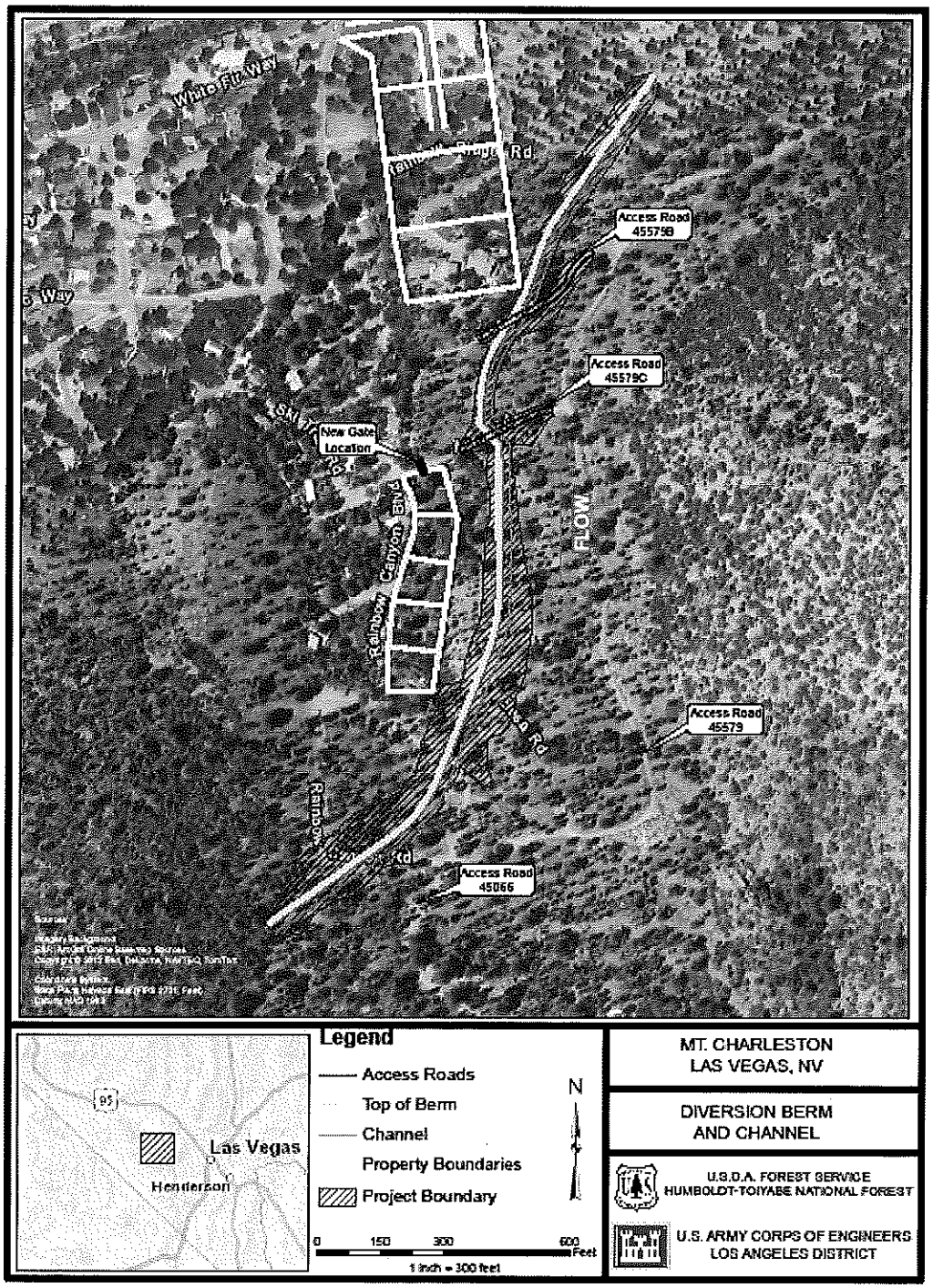
Attachments:

1. Carpenter 1 Fire FMAG Approval
2. BAER Report FS25000-8 Carpenter1 Fire
3. Video Links depicting damages from monsoonal moisture:

   08-21-12 Tony Propp US 93 Las Vegas, NV Flash Flooding - http://youtu.be/6iltCpNO5D4

   Las Vegas Flash Flood August 2013 - 08/25/13 and 08/26/13 - http://youtu.be/lfln50LhUbw

APPENDIX B


White Fir Way
Access Road 45579B
Access Road 45579C
New Gate Location
Rainbow Canyon Blvd
FLOW
Access Road 45579
Access Road 45066
Legend
Access Roads
Top of Berm
Channel
Property Boundaries
Project Boundary
N
0 150 300 600 Feet
1 inch = 300 feet
Las Vegas
Henderson
MT. CHARLESTON
LAS VEGAS, NV
DIVERSION BERM
AND CHANNEL
U.S.D.A. FOREST SERVICE
HUMBOLDT-TOIYABE NATIONAL FOREST
U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

APPENDIX C

A. Design Criteria for Construction to be incorporated into Financial Agreement between USACE and Forest Service.

The following terms and conditions are in addition to measures already described in the USACE Environmental Assessment and FONSI, which included topsoil/seedbank conservation (salvage of top 12" and spread across disturbed area as appropriate) and their Environmental Protection Plan for construction, including on-site fuel storage, fuel spill measures, erosion and sediment control, storm water management, fire prevention, etc.

- **Weed Prevention**: USFS and Humboldt-Toiyabe NF Best Management Practices (Humboldt-Toiyabe Supplemental FSM 2080) will be employed during project implementation to prevent and control the introduction and spread of invasive species.

  Inspection of erosion control and road materials, equipment, and vehicles will occur prior to contracted work to ensure that they are free of mud and visible plant debris. The materials, equipment, and vehicles will also be cleaned prior to moving from an infested treatment unit to a unit that is free of weeds.

  Any new infestations of noxious weeds discovered during implementation will be documented and locations marked by on a map or GPS. Newly discovered noxious weeds will be treated by prior to conducting additional activities within the infested area.

- **Native Grass Seeding**: Disturbed and denuded areas as well as berm slopes that are prone to erosion will be seeded with a native grass seed mix to revegetate and stabilize the slopes. Implementers will follow Forest Service Policy (FSM 2070) and use genetically appropriate native materials for rehabilitation and restoration when possible. To comply with 2070.3(5) of the policy, a qualified FS Botanist or Ecologist will be involved in development, review, and/or approval of plant materials selected for use in this project. Seed will be certified free of noxious weeds.

- **Migratory Birds**: A nest search will be conducted if construction occurs during bird breeding season between May 20 and July 20. A qualified biologist who is familiar with the birds of southern Nevada and can accurately identify nesting and breeding behaviors will conduct all nest searches. To the extent possible, appropriate buffers will be designated for any nests located based on the species habitat requirements.

  If nest trees must be felled during bird breeding season, the USACE will coordinate with FWS to determine if a depredation permit is required and the on-site biologist will recover any chicks or eggs that are displaced.

- **Limited Operating Period for sensitive bats**: Construction activities will occur in daylight hours only, i.e. one hour after dawn until one hour before dusk.

- **Snags**: Retain snags that do not pose a threat to public safety or extreme fire danger.

- **Protection of Residual Trees:** Do not place overburden within canopy drip line of residual trees.

- **Staging Areas**: Temporary equipment and material staging areas will be located within the project boundary and in previously disturbed (e.g., roads, parking) areas.

- **Cultural:** Should any new archaeological sites or features be uncovered during construction, all work in the area of the new discovery will stop until it is evaluated by an archaeologist.

- **Public Safety and Access:** Keep gates on access roads closed during active construction but allow access for administrative use, emergency use, and Kyle Canyon Tract Recreation Residence permit holders and their guests, as operations permit.

- **Dust abatement:** A dust permit will be obtained from Clark County prior to construction and its standards for reducing dust during construction adhered too.

B. Special Terms and Conditions for State of Nevada Special Use Permit

- **Weed Prevention**: USFS and Humboldt-Toiyabe NF Best Management Practices (Humboldt-Toiyabe Supplemental FSM 2080) will be employed during operation and maintenance of the diversion structure and road maintenance to prevent and control the introduction and spread of invasive species.

  Inspect erosion control and road materials, equipment, and vehicles prior to maintenance work to ensure that they are free of mud and visible plant debris. The materials, equipment, and vehicles will also be cleaned prior to moving from an infested treatment area to an area that is free of weeds.

  Any new infestations of noxious weeds discovered during maintenance implementation will be documented and locations marked on a map or GPS. Newly discovered noxious weeds will be treated prior to conducting additional maintenance activities within the infested area.

- **Weed Monitoring**: Conduct annual surveys to document any new infestations of noxious and invasive weeds, including expansion of cheatgrass. New infestations will be treated.

- **Public Safety and Access:** Keep gates on access roads closed during operation and maintenance activities but allow access for administrative use, emergency use, and Kyle Canyon Tract Recreation Residence permit holders and their guests, as operations permit.

  Maintain Forest Roads 45579B (.12 miles), 45579C (.085 miles) and 45579 (0.67 miles), including the gate and drainage crossings to the Kyle Canyon Recreation Residence Tract from junction with Rainbow Canyon Drive (a County Road) to Forest Road 45066 "Kyle

Summer Home Road," keeping the roads open year round. Monitor the diversion channel crossing and other drainage crossings during and after storm events and keep road open and serviceable to low clearance vehicles (sedans).

- **Removal of Debris**: If operation and maintenance of structure require removal of debris from channel, the material shall be hauled off-site and off-Forest to an approved location, unless otherwise agreed to by Forest Service.

- **Removal of Structure and Restoration of Site**: Remove the diversion structure and related appurtenances when post-fire factors increasing flood and debris flow risks have abated to standards identified in Cooperative Agreement with USACE or upon termination of permit. Recontour and restore site to its natural setting.

  Prior to removal of diversion structure, provide removal plans, site restoration, and revegetation plans to USFS for approval. Incorporate the following elements in such plans:

  - Use native tree, shrub and grass/forb species that currently exist on the site.
    Tree Planting: Seedlings procured for planting by permittee will follow Forest Service Policy (R4 FSH 2409.26f) and use genetically appropriate materials developed from specified regional seed transfer zones unless otherwise agreed to with Forest Service.
    Native Grass Seeding: Disturbed areas will be seeded with a native grass seed mix to revegetate and stabilize the slopes. Implementers will follow Forest Service Policy (FSM 2070) and use genetically appropriate native materials for rehabilitation and restoration when possible. To comply with 2070.3(5) of the policy, a qualified FS Botanist or Ecologist will be involved in development, review, and/or approval of plant materials selected for use in this project. Seed will be certified free of noxious weeds.

    Maintain vegetation for five years after planting/seeding to assure survival and vegetation establishment. Annually monitor area for infestations of noxious and invasive weeds for same period (5 years) and treat as needed.

  - Consult with a qualified biologist who is familiar with the birds of southern Nevada and provide measures to protect migratory birds during removal activities such as precluding use of heavy equipment during bird breeding season between May 20 and July 20.

  - Protect sensitive bat species by limiting removal activities to day daylight hours only, i.e. one hour after dawn until one hour before dusk.

  - Retain access road that was improved to provide access to Kyle Canyon Recreation Residence Tract Recreation Residence Tract during use of diversion structure (still serves as a fire/administrative use road). Consult with FS on

whether to re-establish original access road (45066 Kyle Summer Homes Road) to tract from end of Rainbow Canyon Blvd. after removal of diversion structure.