

Appendix B

Documentation for the Army Corps of Engineering



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NEW MEXICO 87109

December 20, 2016

Regulatory Division

SUBJECT: Nationwide Permit (NWP) Re-verification – Action No. SPA-2009-00295-ABQ,
Permeable Reactive Barrier and Components in Canon de Valle

Stephani Swickley
Los Alamos National Security
P.O. Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Dear Ms. Swickley:

The U.S. Army Corps of Engineers (Corps) is in receipt of your request for modification and re-verification of your authorization under NWP for the Permeable Reactive Barrier and Components in Canon de Valle Removal project located at approximately latitude 35.849, longitude -106.338, in Los Alamos County, New Mexico. Specifically, you requested to remove the infiltration gallery located a few feet downstream of the treatment vessel in addition to removal of the barrier and other components previously authorized. We have assigned Action No. SPA-2009-00295-ABQ to this project. Please reference this number in all future correspondence concerning the project.

Based on the information provided, we have determined that the modified project is authorized by NWP 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities. This verification of authorization supersedes our verification letter dated November 28, 2016. A summary of this permit and the New Mexico Regional Conditions are available on our website at www.spa.usace.army.mil/reg/nwp. Please refer to our website at www.spa.usace.army.mil/reg/wqc for specific information regarding compliance with water quality certification (WQC) requirements. The permittee must ensure that the work complies with the terms and conditions of the permit, including New Mexico Regional Conditions and conditions of the WQC.

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 18 and 20. Based on the information provided, we understand that Department of Energy, Los Alamos National Laboratory is the lead federal agency for compliance with the Endangered Species Act and National Historic Preservation Act, and have determined that this project will not affect any federally listed threatened or endangered species or any historic properties. However, please note that the permittee is responsible for meeting the requirements of general condition 18 on endangered species and general condition 20 on historic properties.

This letter does not constitute approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations. The permittee and/or any contractors acting on behalf of the permittee must possess the authority and any other approvals required by law, including property rights, in order to undertake the proposed work.

This permit verification is valid until March 18, 2017 (33 CFR 330.6), unless the NWP is modified, suspended, revoked or reissued prior to that date. Continued confirmation that an activity complies with the terms and conditions, and any changes to the NWP, is the responsibility of the permittee. Activities that have commenced, or are under contract to commence, in reliance on a NWP will remain authorized provided the activity is completed within 12 months of the date of the NWP's expiration, modification, or revocation.

Within 30 days of project completion, the permittee must fill out the enclosed Certification of Compliance form and return it to our office. The landowner must allow Corps representatives to inspect the authorized activity at any time deemed necessary to ensure that it is being, or has been, accomplished in accordance with the terms and conditions of the NWP.

If you have any questions, please contact me at (505) 342-3216 or by e-mail at Kelly.E.Allen@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Kelly E. Allen
Regulatory Project Manager

Enclosure(s)

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00295-ABQ

Name of Permittee: Stephani Swickley, Los Alamos National Security

Nationwide Permit: 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Kelly Allen
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started _____

Date Work Completed _____

Signature of Permittee

Date



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NM 87109

March 13, 2017

Regulatory Division

SUBJECT: Nationwide Permit (NWP) Verification – Action No. SPA-2009-00297-ABQ, Beers, LANL, SWSC Spring Carbon Filters, Canon de Valle, Los Alamos

Stephani Swickley
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Dear Ms. Swickley:

I am writing this letter in response to your preconstruction notification (PCN) dated March 7, 2017 for the proposed Removal of the Sanitary Wastewater Systems Consolidation (SWSC) Spring Carbon Filter Unit and Components project located at approximately latitude 35.851, longitude -106.353, in Los Alamos County, New Mexico. The work, as described in your PCN, will consist of the removal of a carbon filter unit and all associated piping located above and below the unit while the weir box will remain in place to continue flow monitoring. After removal any trenches will be backfilled with clean fill and restored to preconstruction contours in accordance with the special condition listed below. The removal of the filtration unit and components will result in a temporary impact of approximately 0.0003 acres to the SWSC Spring. We have assigned Action No. SPA-2009-00297-ABQ to this project. Please reference this number in all future correspondence concerning the project.

Based on the information provided, we have determined that the project is authorized by NWP 18 for Minor Discharges. A summary of this permit and the New Mexico Regional Conditions are available on our website at www.spa.usace.army.mil/reg/nwp. Please refer to our website at www.spa.usace.army.mil/reg/wqc for specific information regarding compliance with water quality certification (WQC) requirements. The permittee must ensure that the work complies with the terms and conditions of the permit, including New Mexico Regional Conditions and conditions of the WQC and the special condition listed below.

1. Los Alamos National Laboratory shall set aside the top 12-18 inches of soil cover from the on-site wetland located within the proposed project construction footprint and place this material back in its original location upon removal of the filtration unit, piping, and clean soil backfill of the remaining voids.

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 18 and 20. Based on the

information provided, we understand that the Department of Energy, Los Alamos National Laboratory is the lead federal agency for compliance with the Endangered Species Act and the National Historic Preservation Act, and has determined that this project will not affect any federally listed threatened or endangered species or any historic properties. However, please note that the permittee is responsible for meeting the requirements of general condition 18 on endangered species and general condition 20 on historic properties.

This letter does not constitute approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations. The permittee and/or any contractors acting on behalf of the permittee must possess the authority and any other approvals required by law, including property rights, in order to undertake the proposed work.

This permit verification is valid until March 18, 2017 (33 CFR 330.6), unless the NWP is modified, suspended, revoked or reissued prior to that date. Continued confirmation that an activity complies with the terms and conditions, and any changes to the NWP, is the responsibility of the permittee. Activities that have commenced, or are under contract to commence, in reliance on a NWP will remain authorized provided the activity is completed within 12 months of the date of the NWP's expiration, modification, or revocation.

Within 30 days of project completion, the permittee must fill out the enclosed Certification of Compliance form and return it to our office. The landowner must allow Corps representatives to inspect the authorized activity at any time deemed necessary to ensure that it is being, or has been, accomplished in accordance with the terms and conditions of the NWP.

If you have any questions, please contact Wyatt Medley at 505-342-3200 or by e-mail at Wyatt.T.Medley@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Kelly E. Allen
Regulatory Project Manager

Enclosure(s)
Copy Furnished:
Neal Schaeffer, NMED

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00297-ABQ

Name of Permittee: Stephani Swickley, Los Alamos National Laboratory

Nationwide Permit: 18 for Minor Discharges

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Wyatt Medley
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, NM 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started _____

Date Work Completed _____

Signature of Permittee

Date



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NM 87109

March 13, 2017

Regulatory Division

SUBJECT: Nationwide Permit (NWP) Verification – Action No. SPA-2009-00299-ABQ, Beers, LANL, Martin Spring Filtration, Martin Spring Canyon, Los Alamos

Stephani Swickley
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Dear Ms. Swickley:

I am writing this letter in response to your pre-construction notification (PCN) dated March 10, 2017 for the proposed Removal of the Martin Spring Carbon Filter Units and Components project located at approximately latitude 35.843, longitude -106.337, in Los Alamos County, New Mexico. The work, as described in your PCN will consist of the removal of a carbon filter unit all associated piping located above and below the unit while the weir box will remain in place to continue flow monitoring. After removal any trenches will be backfilled with clean fill and restored to preconstruction contours in accordance with the special condition listed below. The removal of the filtration unit and components will result in a temporary impact of approximately 0.0004 acres to Martin Spring. We have assigned Action No. SPA-2009-00299-ABQ to this project. Please reference this number in all future correspondence concerning the project.

Based on the information provided, we have determined that the project is authorized by NWP 18 for Minor Discharges. A summary of this permit and the New Mexico Regional Conditions are available on our website at www.spa.usace.army.mil/reg/nwp. Please refer to our website at www.spa.usace.army.mil/reg/wqc for specific information regarding compliance with water quality certification (WQC) requirements. The permittee must ensure that the work complies with the terms and conditions of the permit, including New Mexico Regional Conditions and conditions of the WQC and the special condition listed below.

1. Los Alamos National Laboratory shall set aside the top 12-18 inches of soil cover from the on-site wetland located within the proposed project construction footprint and place this material back in its original location upon removal of the filtration unit, piping, and clean soil backfill of the remaining voids.

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 18 and 20. Based on the

information provided, we understand that the Department of Energy, Los Alamos National Laboratory is the lead federal agency for compliance with the Endangered Species Act and the National Historic Preservation Act, and has determined that this project will not affect any federally listed threatened or endangered species or any historic properties. However, please note that the permittee is responsible for meeting the requirements of general condition 18 on endangered species and general condition 20 on historic properties.

This letter does not constitute approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations. The permittee and/or any contractors acting on behalf of the permittee must possess the authority and any other approvals required by law, including property rights, in order to undertake the proposed work.

This permit verification is valid until March 18, 2017 (33 CFR 330.6), unless the NWP is modified, suspended, revoked or reissued prior to that date. Continued confirmation that an activity complies with the terms and conditions, and any changes to the NWP, is the responsibility of the permittee. Activities that have commenced, or are under contract to commence, in reliance on a NWP will remain authorized provided the activity is completed within 12 months of the date of the NWP's expiration, modification, or revocation.

Within 30 days of project completion, the permittee must fill out the enclosed Certification of Compliance form and return it to our office. The landowner must allow Corps representatives to inspect the authorized activity at any time deemed necessary to ensure that it is being, or has been, accomplished in accordance with the terms and conditions of the NWP.

If you have any questions, please contact Wyatt Medley at 505-342-3200 or by e-mail at Wyatt.T.Medley@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Kelly Allen
Regulatory Project Manager

Enclosure(s)
Copy Furnished:
Neal Schaeffer, NMED

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00299-ABQ

Name of Permittee: Stephani Swickley, Los Alamos National Laboratory

Nationwide Permit: 18 for Minor Discharges

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Wyatt Medley
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, NM 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started _____

Date Work Completed _____

Signature of Permittee

Date



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NM 87109

March 6, 2017

Regulatory Division

SUBJECT: Nationwide Permit (NWP) Verification – Action No. SPA-2009-00472-ABQ, Beers, LANL, Burning Ground Spring, Carbon Filtration, Canon de Valle, Los Alamos

Stephani Swickley
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Dear Ms. Swickley:

I am writing this letter in response to your pre-construction notification (PCN) dated February 15, 2017, for the proposed Removal of the Burning Ground Spring Carbon Filter Unit and Components project located at approximately latitude 35.84988, longitude -106.33823, in Los Alamos County, New Mexico. The work, as described in your PCN and subsequent emails, will consist of the removal of a carbon filter unit and all associated piping located above and below the unit while the weir box will remain in place to continue flow monitoring. After removal any trenches will be backfilled with clean fill and restored to preconstruction contours in accordance with the special condition listed below. The removal of the filtration unit and components will result in a temporary impact of approximately 0.0004 acres to the Burning Ground Spring. We have assigned Action No. SPA-2009-00472-ABQ to this project. Please reference this number in all future correspondence concerning the project.

Based on the information provided, we have determined that the project is authorized by NWP 18 for Minor Discharges. A summary of this permit and the New Mexico Regional Conditions are available on our website at www.spa.usace.army.mil/reg/nwp. Please refer to our website at www.spa.usace.army.mil/reg/wqc for specific information regarding compliance with water quality certification (WQC) requirements. The permittee must ensure that the work complies with the terms and conditions of the permit, including New Mexico Regional Conditions and conditions of the WQC and the special condition listed below.

1. Los Alamos National Laboratory shall set aside the top 12 – 18 inches of soil cover from the on-site wetland located within the proposed project construction footprint and place this material back in its original location upon removal of the filtration unit, piping, and clean soil backfill of the remaining voids.

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 18 and 20. Based on the information provided, we understand that Department of Energy, Los Alamos National Laboratory is the lead federal agency

for compliance with the Endangered Species Act and the National Historic Preservation Act, and has determined that this project will not affect any federally listed threatened or endangered species or any historic properties. However, please note that the permittee is responsible for meeting the requirements of general condition 18 on endangered species and general condition 20 on historic properties.

This letter does not constitute approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations. The permittee and/or any contractors acting on behalf of the permittee must possess the authority and any other approvals required by law, including property rights, in order to undertake the proposed work.

This permit verification is valid until March 18, 2017 (33 CFR 330.6), unless the NWP is modified, suspended, revoked or reissued prior to that date. Continued confirmation that an activity complies with the terms and conditions, and any changes to the NWP, is the responsibility of the permittee. Activities that have commenced, or are under contract to commence, in reliance on a NWP will remain authorized provided the activity is completed within 12 months of the date of the NWP's expiration, modification, or revocation.

Within 30 days of project completion, the permittee must fill out the enclosed Certification of Compliance form and return it to our office. The landowner must allow Corps representatives to inspect the authorized activity at any time deemed necessary to ensure that it is being, or has been, accomplished in accordance with the terms and conditions of the NWP.

If you have any questions, please contact Wyatt Medley at 505-342-3200 or by e-mail at Wyatt.T.Medley@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Kelly Allen
Regulatory Project Manager

Enclosure(s)

1. NWP 18 Summary
2. NMED's WQC for the 2012 NWPs

Copy Furnished:

Neal Schaeffer, NMED
Robert Gallegos, LANL

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00472-ABQ

Name of Permittee: Stephani Swickley, Los Alamos National Laboratory

Nationwide Permit: 18 for Minor Discharges

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Wyatt Medley
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, NM 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started _____

Date Work Completed _____

Signature of Permittee

Date



Environmental Protection & Compliance Division (EPC-DO)
Environmental Compliance Programs (EPC-CP)

PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

Date: **NOV 21 2016**
Symbol: EPC-DO-16-353
LA-UR: 16-28792
Locates Action No.: N/A

Ms. Kelly E. Allen
Regulatory Project Manager
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Dear Ms. Allen:

Subject: Removal of the Permeable Reactive Barrier (PRB) and Components in a Perennial Reach of Cañon de Valle (SPA-2009-00295-ABQ)

Pursuant to the requirements of the 2012 Nationwide Permits, Los Alamos National Security, LLC (LANS) requests authorization from the U.S. Army Corps of Engineers (USACE) to conduct the following work in a perennial reach of Cañon de Valle (CdV) water course.

The Permeable Reactive Barrier (PRB) was authorized by the USACE in 2009, assigned the action number SPA-2009-00295-ABQ and permitted under Nation-Wide Permit #18. The purpose of the project was to remediate contaminants present in the alluvial groundwater system in CdV. A series of storm events in July and August of 2011 resulted in severe flooding in the watershed. The flooding resulted in damage to the PRB, rendering the treatment unit inoperable. Floodwaters and sediments infiltrated the PRB vessel chambers. Headcutting occurred in the channel immediately downgradient of the PRB cutoff wall destroying the cutoff wall and associated piping and sampling components that were within the channel.

Consequently, the PRB treatment vessel, filter media, corrugated steel culverts and surrounding appurtenances will be removed and replaced with existing soils and clean fill. The site will be seeded and returned to grade. Work in the stream channel will not occur within flowing waters. Enclosure 1 includes a plan and profile view of the PRB. The Dredge and Fill Quantities worksheet is included in Enclosure 2. Removal of alluvial monitoring wells and portions of the cutoff wall will not require disturbance below the ordinary high water mark (Enclosure 3).



Perennial Reach of Cañon de Valle

- Name of Waterbody: Cañon de Valle
- Project Location: 35° 50' 58.01" N 106° 20' 08.79" W
- Waterbody Classification: – Perennial Reach (20.6.4.126)
- Type of Material Discharged: Clean Fill
- Surface Area of Waters Dredge/Fill: 0.007 acres (59 Cubic Yards)
- Surface Area of Wetlands Filled: Not Applicable

The following documents are enclosed:

- Enclosure 1 - Plan and Profile View of Permeable Reactive Barrier
- Enclosure 2 - Dredge and Fill Quantities Worksheet
- Enclosure 3 – Photographs of PRB, Cutoff Wall and Alluvial Well
- Enclosure 4 - USFWS Concurrence with Habitat Management Plan
- Enclosure 5 - Programmatic Agreement Between Los Alamos National Laboratory-State Historic Preservation Office- Advisory Council for Historic Preservation

The project manager and applicant for this project is:

Stephani F. Swickley
Project Manager
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Because this activity involves the discharge of fill material into waters of the U.S., LANS is aware that measures must be taken to minimize impacts and comply with General Conditions. These measures will include:

1. General Condition #2 – Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

Removal of the PRB will occur outside of the area of persistent flows.

2. General Condition #6 – No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

No unsuitable materials will be utilized or discharged.

3. General Condition # 10 – The activity must comply with applicable Federal Emergency Management Agency (FEMA) approved state or local floodplain management requirements.

The project will occur within the 100-year floodplain; best management practices regarding equipment staging and refueling are required for the project. The Department of Energy has determined that a floodplain assessment is not required.

4. General Condition #12 – Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tideline, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

Work will be performed outside the area of flowing water and during periods of low flow. Steps will be taken to minimize soil disturbance and restore work area to original grade.

5. General Condition #14 – Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable Nation-Wide Permit (NWP) general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

Permitted structure is no longer functional and will be removed.

6. General Condition #15 – Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Not applicable.

7. General Condition #18 – Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

Endangered Species – Los Alamos National Laboratory (LANL) follows a Threatened and Endangered Species Habitat Management Plan (HMP). The HMP is a comprehensive plan that balances current operations at LANL and future development within habitat of listed species. The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS consultation numbers 2-22-98-I-336 and 2-22-95-I-108) (USFWS Concurrence with Habitat

Management Plan). In the 2011 update, management guidelines from the 1999 HMP for listed species were retained. We have also 1) updated some descriptive information, 2) included habitat boundary changes that received USFWS concurrence in 2005 (USFWS consultation number 22420-2006-I-0010), and 3) removed species that are no longer federally listed as threatened or endangered. The 2014 HMP update retains management guidelines from the 1999 HPM for listed species, updated some descriptive information, and added the Jemez Mountain Salamander (*Plethodon neomexicanus*), which was federally listed in September 2013 (USFWS) consultation # (02ENNM00-2014-I-0014).

The purpose of the HMP is to provide a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*) and Southwestern Willow Flycatcher (*Empidonax trailii extimus*). Site plans provide a set of requirements to facility managers to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

Suitable habitats for federally listed threatened and endangered species have been designated as Areas of Environmental Interest (AEIs). AEIs are the geographical units at LANL that are managed for the protection of listed species and consist of core habitat areas and buffer areas. Site plans identify restrictions on activities within the AEIs. Allowable activities are activities that the USFWS has reviewed and has provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day disturbance activities, such as access into an AEI, and long-term impacts, such as habitat alteration in the AEI.

The Laboratory's Biological Resources subject matter experts (SMEs) completed a Biological Resources Review of the proposed project and placed certain restrictions on project activities for the protection of the Mexican Spotted Owl and the Jemez Salamander. Cañon de Valle provides core habitat for both the Jemez Mountain Salamander and the Mexican Spotted Owl, both federally listed endangered species under the Endangered Species Act.

8. General Condition #20-Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

The Laboratory's Cultural Resources Team, in accordance with their standard operating procedure - Cultural Resources Project Review (ES-412, R3, December 2, 2011) - completed a cultural resources review of the proposed project. The Laboratory manages historic properties in accordance with its Cultural Resources Management Plan (CRMP). The CRMP is a plan for the management

of the cultural heritage at the Laboratory and is used in accordance with a Programmatic Agreement between the US Department of Energy, the NM State Historic Preservation Office (SHPO) and the Advisory Council for Historic Preservation (Programmatic Agreement Between LANL-SHPO-ACHP). The CRMP establishes a set of procedures for effective compliance with historic preservation laws.

The Laboratory's cultural resources subject matter experts, in accordance with Policy 400, Environmental Protection, completed a cultural resources review of the proposed project and placed no restriction of project activities.

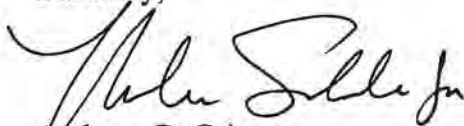
9. General Condition #21- Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Discoveries of Previously Unknown Remains and Artifacts - If inadvertent discoveries are made during all ground-disturbing project activities, work must stop immediately. This includes activities that encounter bones (possible burials), clusters or alignments of rock situated above bedrock (possible masonry walls), charcoal stains (possible hearths or burned wooden structures), or clusters of artifacts such as pottery, pieces of chipped stone, and historic debris such as cans or glass. Project staff are instructed to immediately contact a LANL Cultural Resources SME. The LANL Cultural Resources SME will arrange an emergency field inspection to be conducted prior to the resumption of project ground-disturbing activities at the specific location of the inadvertent discovery.

With respect to NEPA the proposed work is bounded by the 2008 SWEIS, Appendix I, Major Material Disposal Area Remediation, Canyon Cleanups, and other Consent Order actions.

Please contact Robert Gallegos at (505) 665-0450 or by email at rgallegos@lanl.gov if you have questions.

Sincerely,



Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (EPC-CP)
Los Alamos National Security, LLC

ARG:MTS:RMG/lm

Enclosures:

- Enclosure 1 - Plan and Profile View of Permeable Reactive Barrier
- Enclosure 2 - Dredge and Fill Quantities Worksheet
- Enclosure 3 - Photographs of PRB, Cutoff Wall and Alluvial Well
- Enclosure 4 - USFWS Concurrence with Habitat Management Plan
- Enclosure 5 - Programmatic Agreement between Los Alamos National Laboratory-State Historic Preservation Office- Advisory Council for Historic Preservation

Cy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Neal Schaeffer, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Craig S. Leasure, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
John C. Bretzke, EPC-DO, (E-File)
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Stephani F. Swickley, ADEM-PO
Tim J. Goering, ER-ES, (E-File)
Ted T. Ball, PM6, (E-File)
Jocelyn Y. Buckley, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
Ellena I. Martinez, ADESH, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
epccat@lanl.gov, (E-File)

ENCLOSURE 1

Plan and Profile View of Permeable Reactive Barrier

EPC-DO-16-353

LA-UR-16-28792

Date: NOV 21 2016

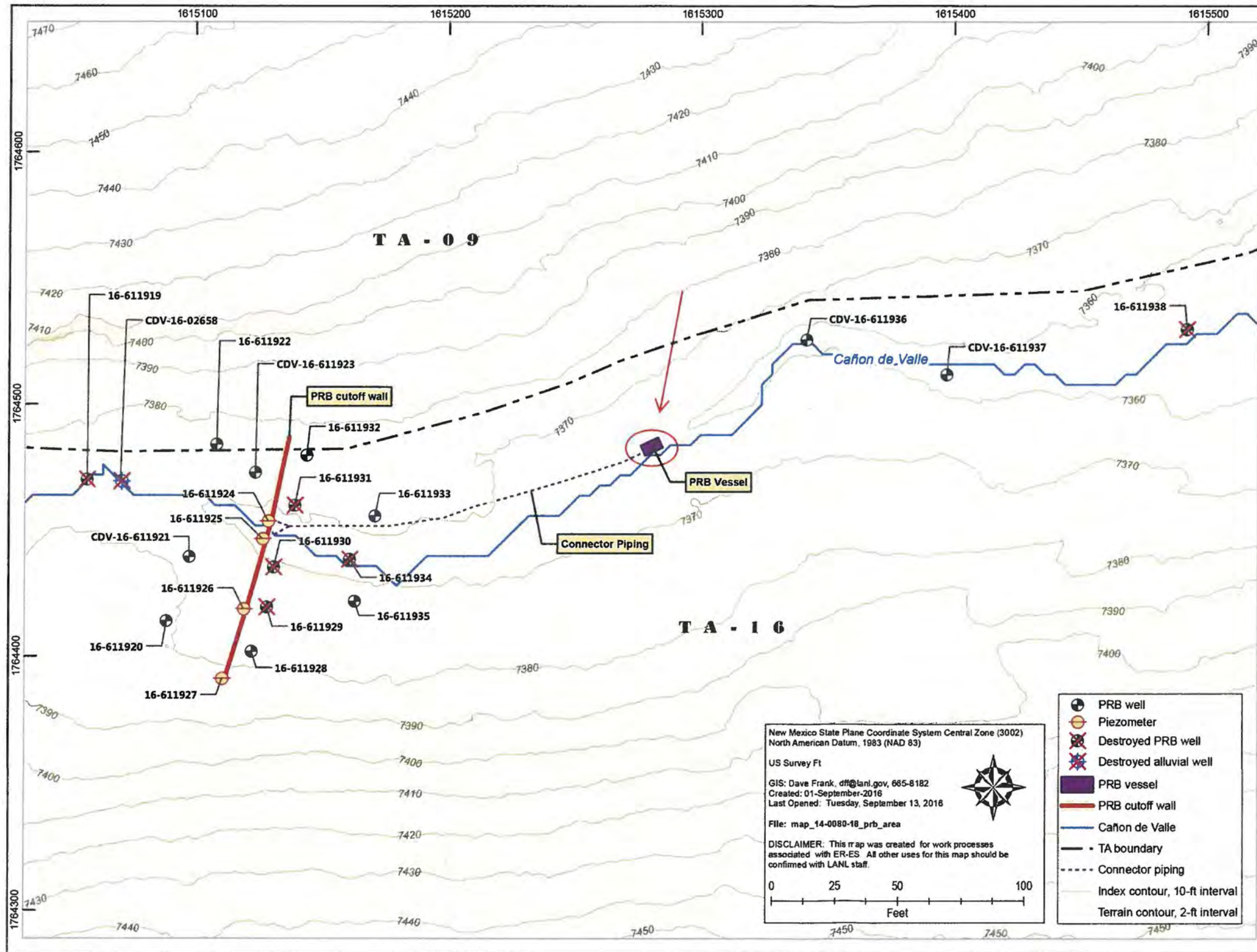
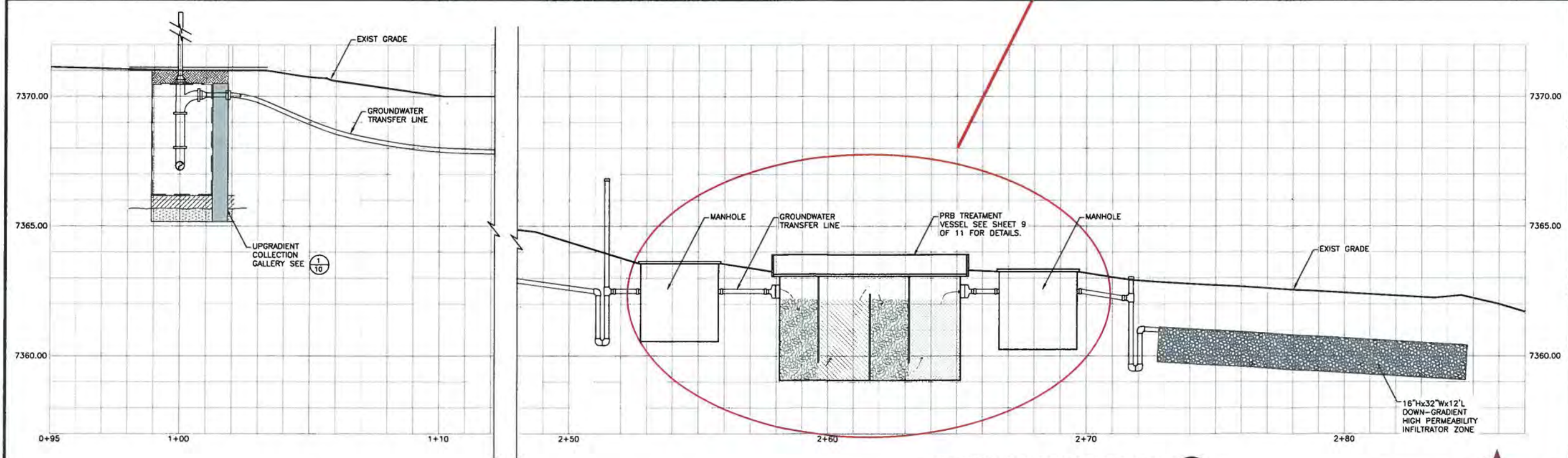
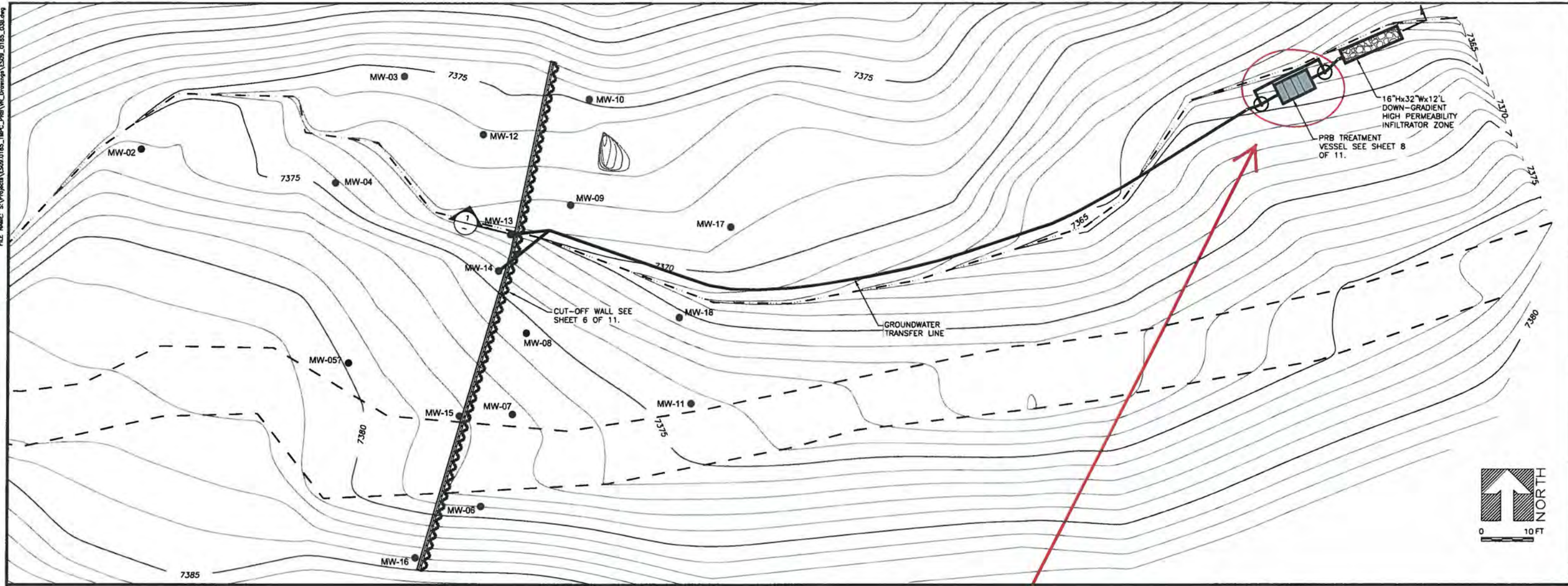


Figure 2.1-3 Location of the alluvial monitoring wells and piezometers in the vicinity of the PRB

FILE NAME: S:\Projects\1509\0185_TWP_PRR\PRR_Drawing\1509_0185_038.dwg



GROUNDWATER TRANSFER LINE PROFILE 1

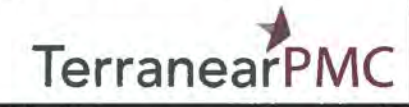
HORIZONTAL SCALE: 1"=2'

VERTICAL SCALE: 1"=2'

| No. | Revision | Date | Drawn By | Design By | Check Eng | Appr. PM |
|-----|-------------------------|------------|----------|-----------|-----------|----------|
| 1 | AS-BUILT | 2/18/2010 | KDB | BPD | KR | PG |
| 0 | ISSUED FOR CONSTRUCTION | 12/04/2009 | KDB | BPD | KR | PG |

Daniel B. Stephens & Associates, Inc.
 ENVIRONMENTAL SCIENTISTS & ENGINEERS
 6020 ACADEMY NE, SUITE 100
 BOZEMAN, MT 59716
 (406) 822-9440

CORRECTIVE MEASURES IMPLEMENTATION
 CONSOLIDATED UNIT 16-021(C)-99
 CAÑON DE VALLE/MARTIN SPRING CANYON PPRB
**GROUNDWATER TRANSFER LINE
 PLAN AND PROFILE**



ENCLOSURE 2

Dredge and Fill Quantities Worksheet

EPC-DO-16-353

LA-UR-16-28792

Date: NOV 21 2016

ENCLOSURE 2
Dredge and Fill Quantities Worksheet
 Action No. SPA-2009-00265-ABQ

| Discharges to Canon de Valle | | | | | | | | | | | | | |
|---|------------------|----------------------------------|----------|-----------------------|-------------------|-------------|------------|------------|-----------------|----------------|------------------|--------|---|
| Site # | Type | Location | Wetland? | Wetlands Width** (ft) | Channel OHWM (ft) | Length (ft) | Width (ft) | Depth (ft) | Volume (cu.ft.) | Area (sq. ft.) | Cubic Yards (CY) | Acres | Materials |
| 1 | Dredge (Removal) | Permeable Reactive Barrier (PRB) | N | NA | 17 | 20 | 6 | 5 | 600 | 120 | 22.22 | 0.0028 | PRB treatment vessel, filter media, culverts |
| 2 | Dredge (Removal) | PRB | N | NA | 17 | 20 | 2 | 5 | 200 | 40 | 7.41 | 0.0009 | Soil, Sediments and existing alluvial materials from water course |
| Total Dredge Discharges Canon de Valle | | | | | | | | | 800 | 160 | 30 | 0.0037 | |
| 1 | Fill | PRB Removal Site within CdV | N | NA | 17 | 20 | 6 | 5 | 600 | 120 | 22.22 | 0.0028 | Soil, Sediments and existing alluvial materials from water course |
| 2 | Fill | PRB Removal Site within CdV | N | NA | 17 | 20 | 2 | 5 | 200 | 40 | 7.41 | 0.0009 | Clean Fill |
| Total Fill Discharges to Canon De Valle | | | | | | | | | 800 | 160 | 30 | 0.0037 | |
| | | | | | | | | | 320 | 59 | 0.007 | | |

ENCLOSURE 3

Photographs of PRB, Cutoff Wall and Alluvial Well

EPC-DO-16-353

LA-UR-16-28792

Date: NOV 21 2016

Removal of Permeable Reactive Barrier



PRB Cutoff Wall and Alluvial Monitoring Well



ENCLOSURE 4

USFWS Concurrence with Habitat Management Plan

EPC-DO-16-353

LA-UR-16-28792

Date: NOV 21 2016



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

February 12, 1999

Cons. #2-22-98-I-336
Cons. #2-22-95-I-108

David A. Gurule, Acting Area Manager
Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87545

Dear Mr. Gurule:

This responds to your letter dated August 6, 1998, requesting our review and concurrence with the Threatened and Endangered Species Habitat Management Plan (HMP) for Los Alamos National Laboratory (LANL). The HMP was prepared by the LANL Ecology Group for the Department of Energy (DOE) as part of the Dual-Axis Radiographic Hydrodynamics Test Facility (DAHRT) Mitigation Action Plan. The U.S. Fish and Wildlife Service (Service) has worked closely with LANL in the development of the HMP. As a result of discussions and meetings following the August 6, 1998, submittal, additional information/clarification was provided via letters, updated Biological Evaluations/HMPs, and e-mail messages, dated September 8, October 20, November 25, and December 9, 1998, and January 4, January 22, and January 29, 1999. The purpose of the HMP is to provide for the protection of threatened and endangered species and their habitats on LANL. The HMP consists of three components that must be used together to assure proper management of the threatened and endangered species: an Overview Document, Site Plans, and Monitoring Plans. It was determined that if all the restrictions and protective measures outlined in the HMP are strictly followed, the implementation of this HMP may affect, but is not likely to adversely affect the Mexican spotted owl (owl), peregrine falcon (falcon), bald eagle (eagle), and southwestern willow flycatcher (flycatcher). The Biological Evaluation (BE) also considered potential impacts on the black-footed ferret, arctic peregrine falcon, and whooping crane. It was determined that there would be no effect on these species because of a lack of habitat.

Property at LANL varies from remote isolation to heavily developed and/or industrialized. The Service agrees, as stated in the Overview document, that a number of activities at LANL have the potential to adversely impact threatened and endangered species. Many of the industrial processes used at LANL have involved hazardous and radioactive materials. These materials as well as remediation of potential release sites may disturb

David A. Gurule, Acting Area Manager

2

or reduce population viability of threatened and endangered species. In addition, other potential sources of disturbance or habitat alterations are possible as a result of the residential and commercial development in the LANL area. While the HMP identifies potential sources of adverse effects, this consultation does not necessarily cover all of those impacts. The Service does not anticipate that DOE will be able to plan all of its operations at LANL in accordance with this plan. The direct effects of most actions can be minimized through implementation of the HMP; however, a more thorough assessment is necessary to adequately evaluate the indirect and cumulative impacts of all actions that are funded, authorized, and permitted by DOE, as well as potential impacts from interrelated and interdependent actions. It was agreed (by Service, DOE, and LANL personnel) that consultation concerning ongoing LANL operations would be handled separately from the HMP, under the consultation on the Site-Wide EIS.

The Site Plans identify the particular areas of LANL where operations might impact known occupied or potential habitat for the flycatcher, eagle, falcon, and owl. Suitable habitat for these species, along with protective buffer areas surrounding their habitat, have been designated as Areas of Environmental Interest (AEIs). For the flycatcher, one AEI was established based on an observation of a migrant male flycatcher in 1997. The AEI is located in the Pajarito wetland area and includes the best available riparian habitat. For eagles, one AEI has been identified for wintering habitat that exists along the Rio Grande on the eastern edge of LANL. It is based on the locations of known and potential roost sites. For the falcon, four AEIs have been identified. They consist of the habitat previously identified under the 1985 interagency agreement. These areas are centered on deep canyons on the eastern side of LANL or on adjacent lands. LANL has agreed to implement the recommended management guidelines, which utilize four management zones (A through D) to protect nesting peregrine falcons from disturbance. For the owl, six AEIs have been identified, but only one of these sites is known to be occupied. These AEIs are based on and located in canyons that have been defined as suitable nest/roost habitat.

The AEI management section of each Site Plan provides guidelines for LANL operations to reduce or eliminate threats to each species. The primary threats on LANL property are (1) impacts on habitat quality from LANL operations and (2) disturbance of nesting or roosting birds. The site plans provide information on their location and guidelines for their management. The AEI Site Plans consist of a species description, descriptions of the AEIs for the species, descriptions of current impacts in the AEIs, management plans that describe allowable activities within core and buffer areas under the guidelines of the sites plan and protective measures. Activities discussed in the site plans include day to day activities, such as access into an AEI, as well as long-term projects, such as levels of habitat alteration in the buffer area of an AEI. Restrictions will be implemented on activities that could cause disturbance (people, vehicles and machinery, aircraft, light production, and noise) within occupied AEIs. The location of a potential disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not an activity is allowable. Habitat alterations are always restricted in core areas, but a limited amount of future development is allowed in currently undeveloped DOE-controlled buffer areas under the guidelines of this site plan as long

David A. Gurule, Acting Area Manager

3

as it does not alter habitat in the undeveloped AEI (including light and noise guidelines). The purpose of buffer areas is to protect core areas from undue disturbance or habitat alteration or habitat degradation. Each AEI is specific to the situation or circumstances of the site it covers. According to the HMP, development beyond the cap established for each AEI, or greater than 2 hectares in size, including the developed-area border, requires independent review for ESA compliance.

Varying amounts of development and/or ongoing activities exist in the cores and buffers of each AEI. These developments may include residential, commercial, and light industrial areas, as well as roads and utility corridors. Existing/ongoing activities may include periodic scientific surveys, power line maintenance, recreational use, residential development, ER Program activities, and possible use of a firing site. Potential disturbance may be associated with automobile and truck traffic, construction activities, a live-fire range, explosives testing, and aircraft traffic at the County airport. Ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities including further development within already existing developed areas are not restricted unless they impact undeveloped portions of an AEI core. If a proposed action within a developed area does not meet site plan guidelines, it must be individually reviewed for ESA compliance.

Some activities such as utility corridor maintenance, fuels management, and a limited amount of development are allowed in each AEI (as described in the HMP). The potential impacts of these activities are considered to be insignificant or discountable because they will occur in habitat that has been previously disturbed or is of poor quality due to its size or proximity to already developed areas. It is our understanding (based on the January 22, 1999, e-mail response from Terry Foxx) that the fuels management activities within the owl AEIs will only consist of ongoing and proposed fire protection activities around existing facilities (e.g. thinning around buildings) or those activities that are already covered under the Dome Fire Emergency BA. The other fire management activities mentioned in the HMP will go through the ESH-ID process and further consultation with the Service when a fire management plan is completed in the future.

In general, activities that detrimentally alter habitat in an AEI or would cause unacceptable disturbance to the species inhabiting the AEI are not allowed under the guidelines of a Site Plan. The Site Plans are designed to minimize impacts to threatened and endangered species and their habitat. The protective measures and restrictions outlined in the Site Plans were developed using the best available data, in cooperation with Service biologists.

The U.S. Fish and Wildlife Service concurs with DOE's determination that implementation of LANL's HMP may affect, but is not likely to adversely affect the Mexican spotted owl, American peregrine falcon, bald eagle, and southwestern willow flycatcher based on the protective measures described in the BA and HMP. If all the restrictions and protective measures outlined in the HMP are strictly followed, potential impacts on owls, falcons, eagles, and flycatchers are expected to be insignificant or

David A. Gurule, Acting Area Manager

4

discountable for the following reasons: 1) appropriate seasonal restrictions will be implemented to avoid disturbance to potentially breeding flycatchers, peregrines, and owls and wintering eagles; 2) no nest or roost habitat for any listed species will be altered; 3) the total amount of potential foraging habitat that could be impacted within each species home ranges is expected to be insignificant compared to the amount of available foraging habitat throughout the area; 4) monitoring plans have been developed as an integral part of the HMP; and 5) a mechanism for incorporating necessary technical and regulatory changes and updating the HMP has been included (page 32 of the Overview Document).

In future communications regarding this project, please refer to Consultation #2-22-98-1-336. If we can be of further assistance, please contact Carol Torrez of my staff at (505) 346-2525, ext. 115.

Sincerely,



Jennifer Fowler-Propst
Field Supervisor

cc:

Teralene Foxx, Project Manager, Ecology Group, Los Alamos National Laboratory,
P.O. Box 1663, Mail Stop M887, Los Alamos, New Mexico 87545
Elizabeth Withers, U.S. Department of Energy, Los Alamos Area Office, 35th Street, Los
Alamos, New Mexico
Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Phoenix,
Arizona

ENCLOSURE 5

**Programmatic Agreement between Los Alamos
National Laboratory-State Historic Preservation
Office- Advisory Council for Historic Preservation**

EPC-DO-16-353

LA-UR-16-28792

Date: NOV 21 2016

**Programmatic Agreement
Between
The U.S. Department of Energy, National Nuclear Security Administration,
Los Alamos Site Office,
The New Mexico State Historic Preservation Office
And
The Advisory Council for Historic Preservation
Concerning Management of the Historic Properties of
Los Alamos National Laboratory, New Mexico
LA-UR-06-1975**

WHEREAS, this Programmatic Agreement (PA) replaces the previous PA dated April 26, 2000 (MOU DE-GM32-00AL77152);

WHEREAS, the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Site Office (LASO) has responsibility for the management of all historic properties at Los Alamos National Laboratory (LANL) that have either been determined eligible for listing in the National Register of Historic Places (Register) or are awaiting eligibility assessments, pursuant to Section 110 of the National Historic Preservation Act (NHPA) as amended, and must assess the effect of any Federal undertaking upon historic properties included in, eligible for, or properties with undetermined eligibility for the Register pursuant to Section 106 of the NHPA;

WHEREAS, LASO has determined that the mission of LANL as a scientific laboratory, with its associated operation, maintenance, research, development, waste management, and decontamination-decommissioning activities, may have both direct and indirect effects on historic properties;

WHEREAS, LASO has a cultural resource program manager and LANL has a qualified staff of cultural resource specialists who meet the qualifications set forth in the Secretary of the Interior's Standards and Guidelines for Professional Qualifications (36 CFR Part 61), or work under the supervision of individuals who meet these qualifications;

WHEREAS, LASO recognizes the potential affect of mission activities on archaeological sites, sacred places and traditional use areas that are affiliated with Native American and Hispanic peoples;

NOW, THEREFORE, LASO, the State Historic Preservation Office (SHPO), and the Advisory Council for Historic Preservation (ACHP) agree that LASO and LANL activities that have the potential to affect historic properties shall be administered in accordance with the Stipulations of this Programmatic Agreement to satisfy LASO's responsibilities under Sections 106 and 110 of the NHPA. For purposes of this PA, the term "including" shall mean "including but not limited to." For the purposes of this PA, the term "historic properties" shall mean all properties, archaeological sites, traditional cultural properties, standing structures, buildings, associated records and artifacts that are included in, eligible for, or have not yet been evaluated for the Register.

STIPULATIONS

- I. The Cultural Resources Management Plan (CRMP)
 - A. The LASO will manage historic properties at LANL in accordance with its CRMP *A Plan for the Management of the Cultural Heritage at Los Alamos National Laboratory, New Mexico*, developed from guidance contained in the *Environmental Guidelines for Development of Cultural Resource Management Plans* (August 1995, DOE/EH-0501).
 - B. The scope of the LANL CRMP includes:
 1. Part I: Background (Sections 1-6), which contains the purpose of the CRMP, applicable historic preservation laws, regulations, guidelines and policies, glossary, environmental setting and culture history.
 2. Part II: National Historic Preservation Act (NHPA) Compliance (Section 106) reviews and Section 106 compliance process (Sections 7-11). Key provision include:
 - Section 9: Historic building/structure property types exempt from Section 106.
 - Section 9: Annual reporting to SHPO of no property-no effect undertakings.
 - Section 9: Review of LANL undertakings pursuant to 36 CFR 800.4-800.6.
 - Section 9: Procedural exceptions regarding "adverse effect" undertakings: 1) Resolution of adverse effects to surface prehistoric artifact scatters and historic trash scatters, and 2) Resolution of adverse effects to historic buildings and structures (not including "exceptionally significant" properties, which will be reviewed on a case by case basis).
 - Section 10: Methods and procedures for post-1942 historic buildings management.
 - Section 11: Methods and procedures for archaeological resources management.
 3. Part III: National Historic Preservation Act Compliance (Section 110) and the Section 110 compliance process (Sections 12-16). Key sections include:
 - Section 13: Archaeological survey.
 - Section 14: Curation of federally owned and administered collections. (36 CFR Part 79)
 - Section 15: Potential National Historic Landmarks.
 - Section 16: Potential National Register Districts.
 4. Part IV: Native American Consultation and Outreach discusses the consultation process.
 - Section 17: Cultural affiliation, traditional cultural properties and the Native American Graves and Repatriation Act.

5. Part V: Strategic Planning and Long-Term Management Issues and Goals presents a 10-year management plan for LANL (Sections 18-22). Key sections include:
 - Section 19: Prioritization strategy for register eligible determinations.
 - Section 20: Site monitoring and protection.
 - Section 21: Public education and outreach.
 - Section 22: Procedures of emergency situations.
 6. Part VI: Safety, Security and Assurance summarize the steps taken to make sure that all field, laboratory and office work is conducted in a safe and secure manner (Sections 23-25).
 7. Appendix A contains the 10-year plan.
 8. Appendix B contains an annotated list of documents that support the LANL cultural resource program.
- D. The LASO shall consult with the SHPO and the ACHP if LASO proposes changes to the CRMP.

II. Data Sharing

- A. The LASO will maintain spatial and tabular site and survey data in its corporate database and GIS systems, and will provide information in a compatible format to the statewide database maintained by SHPO.
- B. The LASO and the SHPO will ensure that site locations and other confidential information are protected and made available only to qualified persons in accordance with state and federal guidelines, including Section 304 of NHPA and Section 9 of the Archaeological Resources Protection Act (ARPA).

III. American Indian Involvement in Consultation

The LASO will consult on a Government-to-Government basis with those Indian Tribes that ascribe cultural affiliation to LANL lands as defined in Part IV Section 17 of the CRMP for matters pertaining to the NHPA (except as noted below), the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, and the American Indian Religious Freedom Act. Additional tribes may be consulted at the discretion of LASO and as warranted by individual circumstances. NHPA Section 106 actions pertaining to the modification, decommissioning, or demolition of post-1942 historic buildings and structures will be exempted from tribal consultation unless there is the potential to affect Native American cultural resources or by the specific request of a tribe.

IV. Interested Person Participation

- A. The LASO will seek and consider views of the public in carrying out the terms of this PA in a manner consistent with 36 CFR Part 800.
- B. Information concerning proposed undertakings subject to the terms of this agreement shall be made available to the Public. LASO will follow the processes as presented in *Guidance on Effective Public Participation under the National Environmental Policy Act (NEPA)*.

- C. Nothing in this PA will be interpreted as limiting or otherwise hindering cooperative efforts regarding historic preservation between LASO and other interested individuals or groups. All forms of cooperation are encouraged.
- D. The LANL Cultural Resources Council is a forum for public review of the LANL historic preservation program. The Council is composed of public citizens and representatives from local, tribal and federal governments.

V. Post-review Discovery

If historic properties are discovered or unanticipated effects on historic properties found after the Section 106 process for a proposed undertaking has been completed, LASO will follow the procedures in 36 CFR Part 800.13 with the following modifications:

If the undertaking has been approved and the construction has commenced, LASO, in consultation with the SHPO will determine the actions necessary to resolve the adverse effects. Once a mutually acceptable resolution plan has been agreed upon, LASO will notify the ACHP of the plan and provide them an opportunity to comment.

If no mutually acceptable resolution of adverse effects can be reached between LASO and the SHPO, LASO or the SHPO may ask the ACHP to participate in the consultation process.

VI. Duration of PA

- A. This PA will be effective for five (5) years from the date of signature by all parties and by mutual agreement can be extended for an additional five-year period.

VII. Agreement Review

- A. Any party may request a review of this PA. The parties will consult concerning any proposed changes. The parties may revise or amend this PA by written agreement of all parties.
- B. The SHPO may monitor activities carried out pursuant to the PA, and the ACHP may review such activities if so requested. LASO will cooperate with the ACHP and the SHPO in carrying out their monitoring and review responsibilities.

VIII. Termination


Any party to this PA may terminate it by providing 60 days notice to the other parties providing that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, LASO will comply with 36 CFR Part 800 and the CRMP.

IX. Dispute Resolution

The LASO and the SHPO shall jointly attempt to resolve any disagreement arising from implementation of this PA. If the LASO determines that the disagreement cannot be resolved, the LASO shall request the further comments of the ACHP.

Execution of this PA, and the implementation of its terms, evidences that LASO has afforded the SHPO an opportunity to comment on the effects of its activities on historic properties as defined herein, and that LASO has taken into account the effects of such undertakings on these historic properties.

U.S. DEPARTMENT OF ENERGY, NATIONAL NUCLEAR SECURITY
ADMINISTRATION, LOS ALAMOS SITE OFFICE

By:  Date: 4/20/06

NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

By: Leah Marie Stadi Date: 5/23/06

THE ADVISORY COUNCIL FOR HISTORIC PRESERVATION

By: John W. Fowler Date: 6/15/05



Environmental Protection Division
Environmental Compliance Programs (EPC-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

Date: JAN 27 2017
Symbol: EPC-DO: 17-081
LAUR: 17-20548
Locates Action No.: N/A

Ms. Kelly E. Allen
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Subject: Certification of Compliance for Removal of the Permeable Reactive Barrier (PRB) and Components in a Perennial Reach of Cañon de Valle (SPA-2009-00295-ABQ)

Dear Ms. Allen:

The Department of Energy/Los Alamos National Security (DOE/LANS) has completed removal of the Permeable Reactive Barrier in Cañon de Valle. Construction of the project began on November 30, 2016 and was completed on January 6, 2017. Attached is the Certification of Compliance specifying completion of the work in accordance with Nation-Wide Permit #27. Photographic documentation of the project during the removal phase is attached. Snow cover at the site prevents us from providing photographs of the completed project at this time. When the snow clears photographs of the completed project will be taken and submitted to the Corps.

Please contact Robert Gallegos (505) 665-0450 of the Environmental Compliance Programs (EPC-CP) if you have questions.

Sincerely,

Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (EPC-CP)
Los Alamos National Security, LLC

ARG/MTS/RMG: am

Enclosures:

1. Certification of Compliance – PRB Removal
2. Photographs of PRB Removal

Copy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Neal Schaeffer, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
John C. Bretzke, EPC-DO, (E-File)
John P. McCann, EPC-DO, (E-File)
Michael T. Saladen, EPC-CP, (E-File)
Stephani F. Swickley, ADEM-PO, (E-File)
Ted T. Ball, PM6 (E-File)
Tim J. Goering, ER-ES, (E-File)
Jocelyn Y. Buckley, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
epccat@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

ENCLOSURE 1

Certification of Compliance – PRB Removal

EPC-DO: 17-081

LA-UR-17-20548

JAN 27 2017

Date: _____

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00295-ABQ

Name of Permittee: Stephani Swickley, Los Alamos National Security

Nationwide Permit: 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Kelly Allen
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started November 11, 2016

Date Work Completed January 6, 2017


Signature of Permittee


Date

ENCLOSURE 2

Photographs of PRB Removal

EPC-DO: 17-081

LA-UR-17-20548

Date: JAN 27 2017

PRB Removal (December 2016)





Environmental Protection & Compliance Division (EPC-DO)

Environmental Compliance Programs (EPC-CP)

PO Box 1663, K490

Los Alamos, New Mexico 87545

(505) 667-0666

Date: **FEB 15 2017**

Symbol: EPC-DO: 17-094

LA-UR: 17-20206

Locates Action No.: N/A

Ms. Kelly E. Allen
Regulatory Project Manager
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Subject: Removal of the Burning Ground Spring Carbon Filter Unit and Components (SPA-2009-00472-ABQ)

Dear Ms. Allen:

Pursuant to the requirements of the 2012 Nationwide Permits, Los Alamos National Security, LLC (LANS) requests authorization from the U.S. Army Corps of Engineers (USACE) to conduct the following work in a perennial reach of Cañon de Valle (CdV) water course.

The Burning Ground Spring Carbon Filter Unit was authorized by the USACE in 2009, assigned the action number SPA-2009-00472-ABQ and permitted under Nation-Wide Permit (NWP) #18. The purpose of the project was to capture and treat spring flow for the remediation of high explosives (HE) from the alluvial system in CdV.

In September 2016 LANS completed a corrective measures implementation report (Evaluation Report for Surface Corrective Measures Implementation Closure, Consolidated Unit 16-021(c)-99, EP2016-0119) which was approved by NMED on October 21, 2016. The analysis contained in the report concluded:

- HE concentrations in the spring have decreased
- HE concentrations in down gradient alluvial wells are at or below target screening levels
- Monitoring of flow and contaminant concentrations will continue
- Treatment is no longer necessary
- Carbon units and piping will be removed

The original components permitted under NWP #18 included the weir box and the inlet treatment unit piping. The carbon filter unit and outlet piping are located above the ordinary high water mark and not included in resource impact calculations. The weir box will remain in place to accommodate flow monitoring. The carbon filter units and associated piping will be entirely removed. Flows will be temporarily diverted around site during project activities.

Perennial Reach of Cañon de Valle

- Name of Waterbody: Cañon de Valle
- Project Location: 35° 50' 59.07" N 106° 20' 16.80" W
- Waterbody Classification: Perennial Reach (20.6.4.126)
- Type of Material Discharged: Clean Fill
- Surface Area of Waters Dredge/Fill: 0.0004 acres
- Surface Area of Wetlands Filled: Not Applicable

The following documents are enclosed:

- Enclosure 1 - Project Location, Photograph of Project Site and As-Built Drawing
- Enclosure 2 - Dredge and Fill Quantities Worksheet for Burning Ground Spring Treatment Unit
- Enclosure 3 - USFWS Concurrence with Habitat Management Plan
- Enclosure 4 - Programmatic Agreement Between Los Alamos National Laboratory - New Mexico State Historic Preservation Office - Advisory Council for Historic Preservation

The project manager and applicant for this project is:

Stephani F. Swickley
Project Manager
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Because this activity involves the discharge of fill material into waters of the U.S., LANS is aware that measures must be taken to minimize impacts and comply with General Conditions. These measures will include:

1. General Condition #2 – Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

Flows will be temporarily diverted around project site during removal activities.

2. General Condition #6 – No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

No unsuitable materials will be utilized or discharged.

3. General Condition #10 – The activity must comply with applicable Federal Emergency Management Agency (FEMA) approved state or local floodplain management requirements.

The project will occur within the 100-year floodplain; best management practices regarding equipment staging and refueling are required for the project. The Department of Energy has determined that a floodplain assessment is not required.

4. General Condition #12 – Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tideline, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

Work will be performed during periods of low flow. Steps will be taken to minimize soil disturbance and restore work area to original grade.

5. General Condition #14 – Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable Nation-Wide Permit (NWP) general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

Some of the permitted features are no longer needed and will be removed.

6. General Condition #15 – Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Not applicable.

7. General Condition #18 – Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed

activity has been completed. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

Endangered Species – Los Alamos National Laboratory (LANL) follows a Threatened and Endangered Species Habitat Management Plan (HMP). The HMP is a comprehensive plan that balances current operations at LANL and future development within habitat of listed species. The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS consultation numbers 2-22-98-I-336 and 2-22-95-I-108) (USFWS Concurrence with Habitat Management Plan). In the 2011 update, management guidelines from the 1999 HMP for listed species were retained. We have also 1) updated some descriptive information, 2) included habitat boundary changes that received USFWS concurrence in 2005 (USFWS consultation number 22420-2006-I-0010), and 3) removed species that are no longer federally listed as threatened or endangered. The 2014 HMP update retains management guidelines from the 1999 HPM for listed species, updated some descriptive information, and added the Jemez Mountain Salamander (*Plethodon neomexicanus*), which was federally listed in September 2013 (USFWS) consultation # (02ENNM00-2014-I-0014).

The purpose of the HMP is to provide a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*) and Southwestern Willow Flycatcher (*Empidonax trailii extimus*). Site plans provide a set of requirements to facility managers to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

Suitable habitats for federally listed threatened and endangered species have been designated as Areas of Environmental Interest (AEIs). AEIs are the geographical units at LANL that are managed for the protection of listed species and consist of core habitat areas and buffer areas. Site plans identify restrictions on activities within the AEIs. Allowable activities are activities that the USFWS has reviewed and has provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day disturbance activities, such as access into an AEI, and long-term impacts, such as habitat alteration in the AEI.

The Laboratory's Biological Resources subject matter experts (SMEs) completed a Biological Resources Review of the proposed project and placed certain restrictions on project activities for the protection of the Mexican Spotted Owl and the Jemez Salamander. Cañon de Valle provides core habitat for both the Jemez Mountain Salamander and the Mexican Spotted Owl, both federally listed endangered species under the Endangered Species Act. All work in core habitat for the Jemez Mountains Salamander must be coordinated with EPC-ES biologist.

8. **General Condition #20-Historic Properties.** (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

The Laboratory's Cultural Resources Team, in accordance with their standard operating procedure - Cultural Resources Project Review (ES-412, R3, December 2, 2011) - completed a cultural resources review of the proposed project. The Laboratory manages historic properties in accordance with its Cultural Resources Management Plan (CRMP). The CRMP is a plan for the management of the cultural heritage at the Laboratory and is used in accordance with a Programmatic Agreement between the US Department of Energy, the NM State Historic Preservation Office (SHPO) and the Advisory Council for Historic Preservation (Programmatic Agreement Between LANL-SHPO-ACHP). The CRMP establishes a set of procedures for effective compliance with historic preservation laws.

The Laboratory's cultural resources subject matter experts, in accordance with Policy 400, Environmental Protection, completed a cultural resources review of the proposed project and placed no restriction of project activities.

9. **General Condition #21 - Discovery of Previously Unknown Remains and Artifacts.** If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Discoveries of Previously Unknown Remains and Artifacts - If inadvertent discoveries are made during all ground-disturbing project activities, work must stop immediately. This includes activities that encounter bones (possible burials), clusters or alignments of rock situated above bedrock (possible masonry walls), charcoal stains (possible hearths or burned wooden structures), or clusters of artifacts such as pottery, pieces of chipped stone, and historic debris such as cans or glass. Project staff are instructed to immediately contact a LANL Cultural Resources SME. The LANL Cultural Resources SME will arrange an emergency field inspection to be conducted prior to the resumption of project ground-disturbing activities at the specific location of the inadvertent discovery.

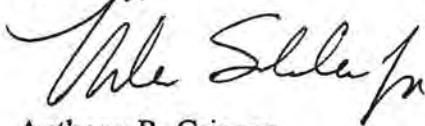
Ms. Kelly E. Allen
EPC-DO: 17-094

- 6 -

With respect to NEPA the proposed work is bounded by the 2008 SWEIS, Appendix I, Major Material Disposal Area Remediation, Canyon Cleanups, and other Consent Order actions.

Please contact Robert Gallegos at (505) 665-0450 or by email at rgallegos@lanl.gov if you have questions.

Sincerely,



Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (EPC-CP)
Los Alamos National Security, LLC

ARG/MTS/RMG: am

Enclosures:

1. Enclosure 1 - Project Location, Photograph of Project Site and As-Built Drawing
2. Enclosure 2 - Dredge and Fill Quantities Worksheet for Burning Ground Spring Treatment Unit
3. Enclosure 3 - USFWS Concurrence with Habitat Management Plan
4. Enclosure 4 - Programmatic Agreement Between Los Alamos National Laboratory - New Mexico State Historic Preservation Office - Advisory Council for Historic Preservation

Copy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Neal Schaeffer, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Craig S. Leasure, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
John C. Bretzke, EPC-DO, (E-File)
Michael A. Saladen, EPC-CP, (E-File)
Stephani F. Swickley, ADEM-PO
Tim J. Goering, ER-ES, (E-File)
Ted T. Ball, PM6, (E-File)
Jocelyn Y. Buckley, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
epccat@lanl.gov, (E-File)

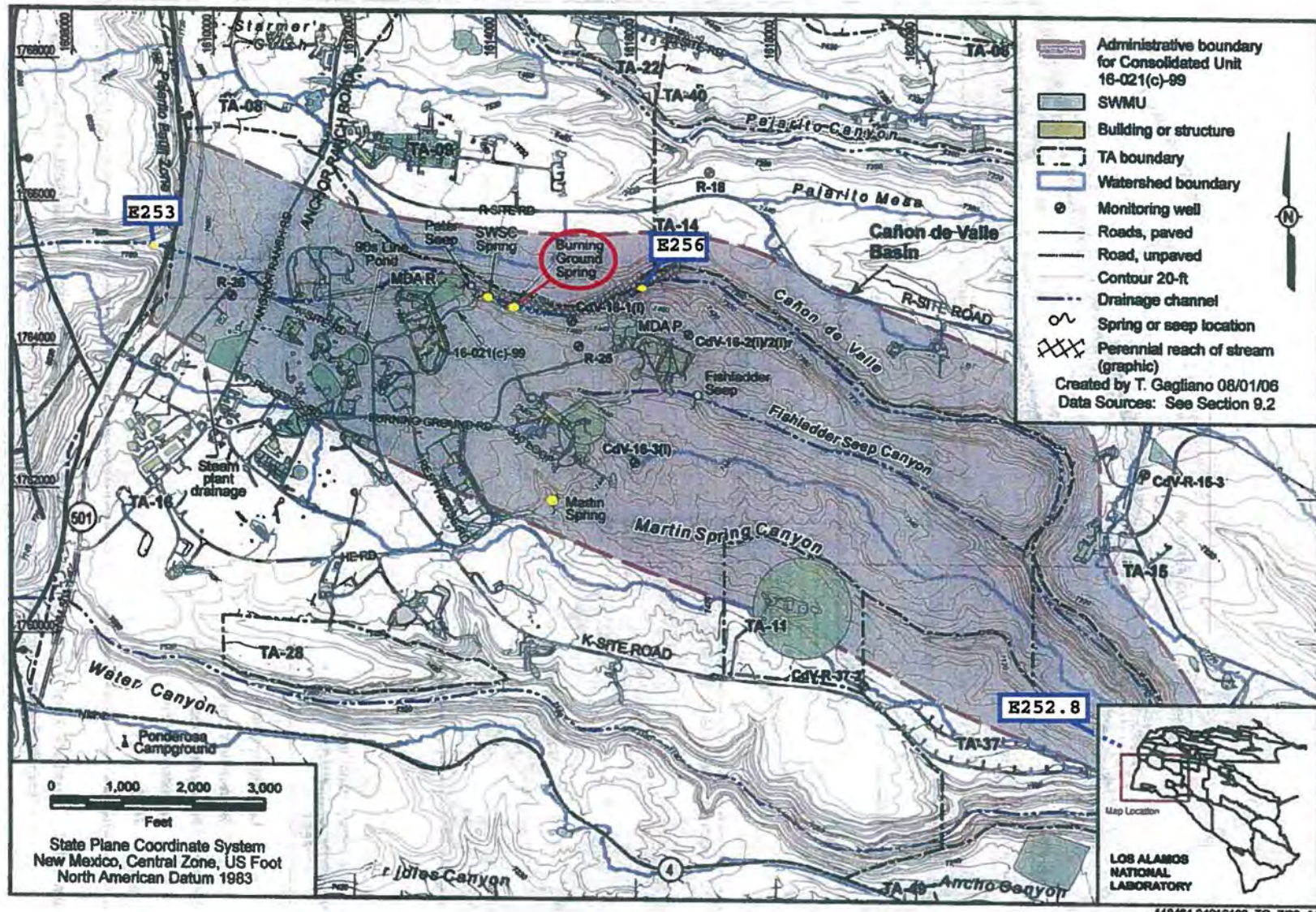
ENCLOSURE 1

Project Location, Photograph of Project Site and As-Built Drawing

EPC-DO: 17-094

LA-UR-17-20206

Date: FEB 15 2017



Consolidated Unit 16-021(c)-99 CMI Plan, Revision 1

17

Springs Locations And Associated Gaging Stations At TA-16

Burning Ground Spring Weir Box and Carbon Unit (December 2, 2016)



EP2010-0069

29

Consolidated Unit 16-021(c)-99 CMI Summary Report

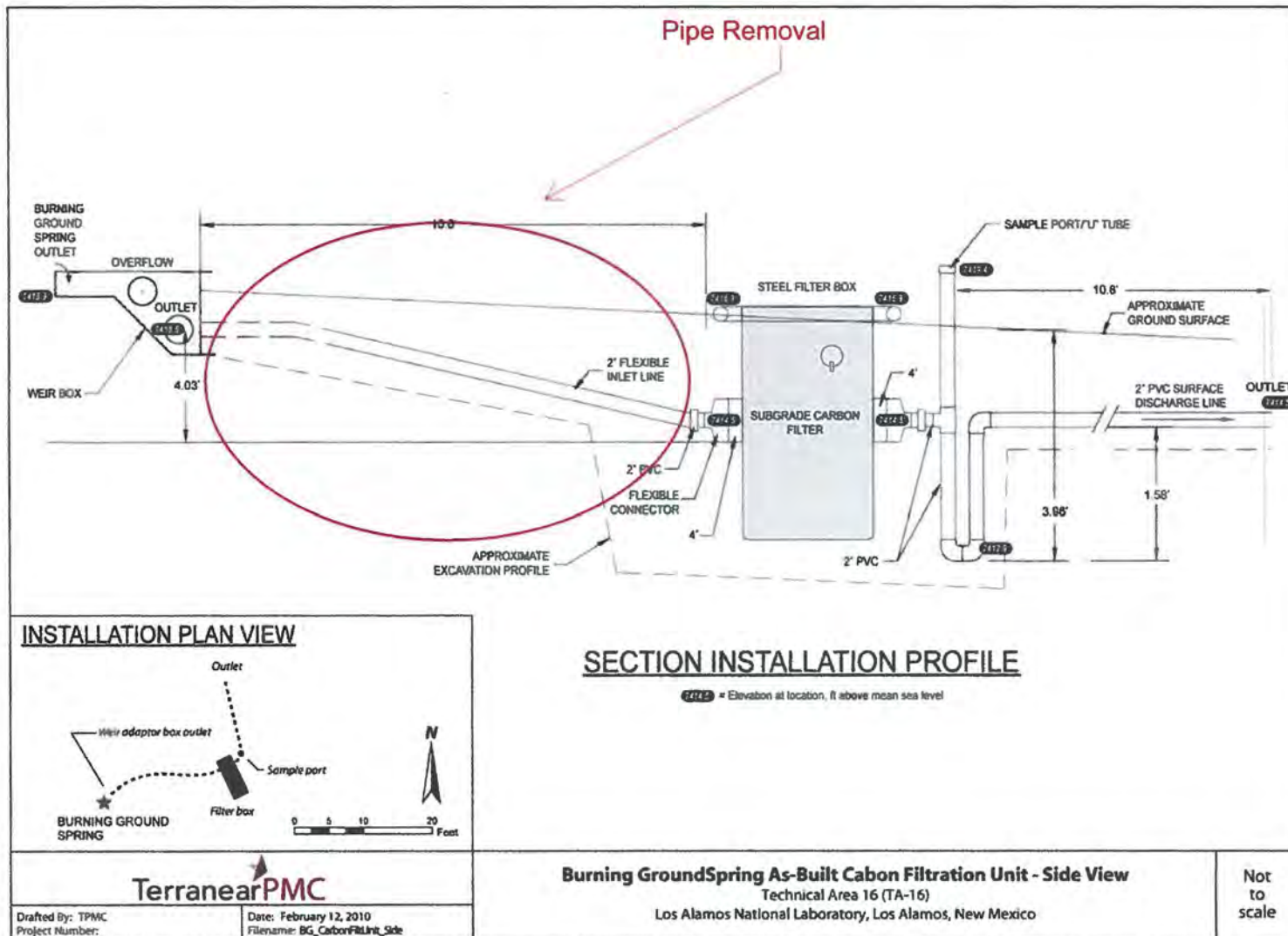


Figure 4.4-2 As-built diagram of Burning Ground Spring carbon-filter system

March 2010

ENCLOSURE 2

Dredge and Fill Quantities Worksheet for Burning Ground Spring Treatment Unit

EPC-DO: 17-094

LA-UR-17-20206

Date: FEB 15 2017

ENCLOSURE 2
Dredge and Fill Quantities Worksheet
Action No. SPA-2009-00472-ABQ

Discharges to Water Canyon

| Site # | Type | Location | Wetland? | Wetlands Width** (ft) | Channel OHWM (ft) | Length (ft) | Width (ft) | Depth (ft) | Volume (cu.ft.) | Area (sq. ft.) | Cubic Yards (CY) | Acres | Materials |
|---|--------|----------------|----------|-----------------------|-------------------|-------------|------------|------------|-----------------|----------------|------------------|--------|------------------------------|
| 1 | Dredge | Below Weir Box | N | NA | 3 | 16 | 1 | 3 | 48 | 16 | 1.78 | 0.0004 | Piping and Channel Materials |
| Total Dredge Discharges Canon de Valle (Burning Ground Spring) | | | | | | | | | 48 | 16 | 2 | 0.0004 | |
| 1 | Fill | Below Weir Box | N | NA | 3 | 16 | 1 | 3 | 48 | 16 | 1.78 | 0.0004 | Channel Materials |
| Total Fill Discharges to Canon de Valle (Burning Ground Spring) | | | | | | | | | 48 | 16 | 2 | 0.0004 | |

32 4

ENCLOSURE 3

USFWS Concurrence with Habitat Management Plan

EPC-DO: 17-094

LA-UR-17-20206

Date: **FEB 15 2017**



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

February 12, 1999

Cons. #2-22-98-I-336
Cons. #2-22-95-I-108

David A. Gurule, Acting Area Manager
Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87545

Dear Mr. Gurule:

This responds to your letter dated August 6, 1998, requesting our review and concurrence with the Threatened and Endangered Species Habitat Management Plan (HMP) for Los Alamos National Laboratory (LANL). The HMP was prepared by the LANL Ecology Group for the Department of Energy (DOE) as part of the Dual-Axis Radiographic Hydrodynamics Test Facility (DAHRT) Mitigation Action Plan. The U.S. Fish and Wildlife Service (Service) has worked closely with LANL in the development of the HMP. As a result of discussions and meetings following the August 6, 1998, submittal, additional information/clarification was provided via letters, updated Biological Evaluations/HMPs, and e-mail messages, dated September 8, October 20, November 25, and December 9, 1998, and January 4, January 22, and January 29, 1999. The purpose of the HMP is to provide for the protection of threatened and endangered species and their habitats on LANL. The HMP consists of three components that must be used together to assure proper management of the threatened and endangered species: an Overview Document, Site Plans, and Monitoring Plans. It was determined that if all the restrictions and protective measures outlined in the HMP are strictly followed, the implementation of this HMP may affect, but is not likely to adversely affect the Mexican spotted owl (owl), peregrine falcon (falcon), bald eagle (eagle), and southwestern willow flycatcher (flycatcher). The Biological Evaluation (BE) also considered potential impacts on the black-footed ferret, arctic peregrine falcon, and whooping crane. It was determined that there would be no effect on these species because of a lack of habitat.

Property at LANL varies from remote isolation to heavily developed and/or industrialized. The Service agrees, as stated in the Overview document, that a number of activities at LANL have the potential to adversely impact threatened and endangered species. Many of the industrial processes used at LANL have involved hazardous and radioactive materials. These materials as well as remediation of potential release sites may disturb

David A. Gurule, Acting Area Manager

2

or reduce population viability of threatened and endangered species. In addition, other potential sources of disturbance or habitat alterations are possible as a result of the residential and commercial development in the LANL area. While the HMP identifies potential sources of adverse effects, this consultation does not necessarily cover all of those impacts. The Service does not anticipate that DOE will be able to plan all of its operations at LANL in accordance with this plan. The direct effects of most actions can be minimized through implementation of the HMP; however, a more thorough assessment is necessary to adequately evaluate the indirect and cumulative impacts of all actions that are funded, authorized, and permitted by DOE, as well as potential impacts from interrelated and interdependent actions. It was agreed (by Service, DOE, and LANL personnel) that consultation concerning ongoing LANL operations would be handled separately from the HMP, under the consultation on the Site-Wide EIS.

The Site Plans identify the particular areas of LANL where operations might impact known occupied or potential habitat for the flycatcher, eagle, falcon, and owl. Suitable habitat for these species, along with protective buffer areas surrounding their habitat, have been designated as Areas of Environmental Interest (AEIs). For the flycatcher, one AEI was established based on an observation of a migrant male flycatcher in 1997. The AEI is located in the Pajarito wetland area and includes the best available riparian habitat. For eagles, one AEI has been identified for wintering habitat that exists along the Rio Grande on the eastern edge of LANL. It is based on the locations of known and potential roost sites. For the falcon, four AEIs have been identified. They consist of the habitat previously identified under the 1985 interagency agreement. These areas are centered on deep canyons on the eastern side of LANL or on adjacent lands. LANL has agreed to implement the recommended management guidelines, which utilize four management zones (A through D) to protect nesting peregrine falcons from disturbance. For the owl, six AEIs have been identified, but only one of these sites is known to be occupied. These AEIs are based on and located in canyons that have been defined as suitable nest/roost habitat.

The AEI management section of each Site Plan provides guidelines for LANL operations to reduce or eliminate threats to each species. The primary threats on LANL property are (1) impacts on habitat quality from LANL operations and (2) disturbance of nesting or roosting birds. The site plans provide information on their location and guidelines for their management. The AEI Site Plans consist of a species description, descriptions of the AEIs for the species, descriptions of current impacts in the AEIs, management plans that describe allowable activities within core and buffer areas under the guidelines of the sites plan and protective measures. Activities discussed in the site plans include day to day activities, such as access into an AEI, as well as long-term projects, such as levels of habitat alteration in the buffer area of an AEI. Restrictions will be implemented on activities that could cause disturbance (people, vehicles and machinery, aircraft, light production, and noise) within occupied AEIs. The location of a potential disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not an activity is allowable. Habitat alterations are always restricted in core areas, but a limited amount of future development is allowed in currently undeveloped DOE-controlled buffer areas under the guidelines of this site plan as long

David A. Gurule, Acting Area Manager

3

as it does not alter habitat in the undeveloped AEI (including light and noise guidelines). The purpose of buffer areas is to protect core areas from undue disturbance or habitat alteration or habitat degradation. Each AEI is specific to the situation or circumstances of the site it covers. According to the HMP, development beyond the cap established for each AEI, or greater than 2 hectares in size, including the developed-area border, requires independent review for ESA compliance.

Varying amounts of development and/or ongoing activities exist in the cores and buffers of each AEI. These developments may include residential, commercial, and light industrial areas, as well as roads and utility corridors. Existing/ongoing activities may include periodic scientific surveys, power line maintenance, recreational use, residential development, ER Program activities, and possible use of a firing site. Potential disturbance may be associated with automobile and truck traffic, construction activities, a live-fire range, explosives testing, and aircraft traffic at the County airport. Ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities including further development within already existing developed areas are not restricted unless they impact undeveloped portions of an AEI core. If a proposed action within a developed area does not meet site plan guidelines, it must be individually reviewed for ESA compliance.

Some activities such as utility corridor maintenance, fuels management, and a limited amount of development are allowed in each AEI (as described in the HMP). The potential impacts of these activities are considered to be insignificant or discountable because they will occur in habitat that has been previously disturbed or is of poor quality due to its size or proximity to already developed areas. It is our understanding (based on the January 22, 1999, e-mail response from Terry Foxx) that the fuels management activities within the owl AEIs will only consist of ongoing and proposed fire protection activities around existing facilities (e.g. thinning around buildings) or those activities that are already covered under the Dome Fire Emergency BA. The other fire management activities mentioned in the HMP will go through the ESH-ID process and further consultation with the Service when a fire management plan is completed in the future.

In general, activities that detrimentally alter habitat in an AEI or would cause unacceptable disturbance to the species inhabiting the AEI are not allowed under the guidelines of a Site Plan. The Site Plans are designed to minimize impacts to threatened and endangered species and their habitat. The protective measures and restrictions outlined in the Site Plans were developed using the best available data, in cooperation with Service biologists.

The U.S. Fish and Wildlife Service concurs with DOE's determination that implementation of LANL's HMP may affect, but is not likely to adversely affect the Mexican spotted owl, American peregrine falcon, bald eagle, and southwestern willow flycatcher based on the protective measures described in the BA and HMP. If all the restrictions and protective measures outlined in the HMP are strictly followed, potential impacts on owls, falcons, eagles, and flycatchers are expected to be insignificant or

David A. Gurule, Acting Area Manager

4

discountable for the following reasons: 1) appropriate seasonal restrictions will be implemented to avoid disturbance to potentially breeding flycatchers, peregrines, and owls and wintering eagles; 2) no nest or roost habitat for any listed species will be altered; 3) the total amount of potential foraging habitat that could be impacted within each species home ranges is expected to be insignificant compared to the amount of available foraging habitat throughout the area; 4) monitoring plans have been developed as an integral part of the HMP; and 5) a mechanism for incorporating necessary technical and regulatory changes and updating the HMP has been included (page 32 of the Overview Document).

In future communications regarding this project, please refer to Consultation #2-22-98-1-336. If we can be of further assistance, please contact Carol Torrez of my staff at (505) 346-2525, ext. 115.

Sincerely,



Jennifer Fowler-Propst
Field Supervisor

cc:

Teralene Foxx, Project Manager, Ecology Group, Los Alamos National Laboratory,
P.O. Box 1663, Mail Stop M887, Los Alamos, New Mexico 87545
Elizabeth Withers, U.S. Department of Energy, Los Alamos Area Office, 35th Street, Los
Alamos, New Mexico
Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Phoenix,
Arizona

ENCLOSURE 4

Programmatic Agreement Between Los Alamos National Laboratory - New Mexico State Historic Preservation Office - Advisory Council for Historic Preservation

EPC-DO: 17-094

LA-UR-17-20206

Date: FEB 15 2017

**Programmatic Agreement
Between
The U.S. Department of Energy, National Nuclear Security Administration,
Los Alamos Site Office,
The New Mexico State Historic Preservation Office
And
The Advisory Council for Historic Preservation
Concerning Management of the Historic Properties of
Los Alamos National Laboratory, New Mexico
LA-UR-06-1975**

WHEREAS, this Programmatic Agreement (PA) replaces the previous PA dated April 26, 2000 (MOU DE-GM32-00AL77152);

WHEREAS, the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Site Office (LASO) has responsibility for the management of all historic properties at Los Alamos National Laboratory (LANL) that have either been determined eligible for listing in the National Register of Historic Places (Register) or are awaiting eligibility assessments, pursuant to Section 110 of the National Historic Preservation Act (NHPA) as amended, and must assess the effect of any Federal undertaking upon historic properties included in, eligible for, or properties with undetermined eligibility for the Register pursuant to Section 106 of the NHPA;

WHEREAS, LASO has determined that the mission of LANL as a scientific laboratory, with its associated operation, maintenance, research, development, waste management, and decontamination-decommissioning activities, may have both direct and indirect effects on historic properties;

WHEREAS, LASO has a cultural resource program manager and LANL has a qualified staff of cultural resource specialists who meet the qualifications set forth in the Secretary of the Interior's Standards and Guidelines for Professional Qualifications (36 CFR Part 61), or work under the supervision of individuals who meet these qualifications;

WHEREAS, LASO recognizes the potential affect of mission activities on archaeological sites, sacred places and traditional use areas that are affiliated with Native American and Hispanic peoples;

NOW, THEREFORE, LASO, the State Historic Preservation Office (SHPO), and the Advisory Council for Historic Preservation (ACHP) agree that LASO and LANL activities that have the potential to affect historic properties shall be administered in accordance with the Stipulations of this Programmatic Agreement to satisfy LASO's responsibilities under Sections 106 and 110 of the NHPA. For purposes of this PA, the term "including" shall mean "including but not limited to." For the purposes of this PA, the term "historic properties" shall mean all properties, archaeological sites, traditional cultural properties, standing structures, buildings, associated records and artifacts that are included in, eligible for, or have not yet been evaluated for the Register.

STIPULATIONS

- I. The Cultural Resources Management Plan (CRMP)
 - A. The LASO will manage historic properties at LANL in accordance with its CRMP *A Plan for the Management of the Cultural Heritage at Los Alamos National Laboratory, New Mexico*, developed from guidance contained in the *Environmental Guidelines for Development of Cultural Resource Management Plans* (August 1995, DOE/EH-0501).
 - B. The scope of the LANL CRMP includes:
 1. Part I: Background (Sections 1-6), which contains the purpose of the CRMP, applicable historic preservation laws, regulations, guidelines and policies, glossary, environmental setting and culture history.
 2. Part II: National Historic Preservation Act (NHPA) Compliance (Section 106) reviews and Section 106 compliance process (Sections 7-11). Key provision include:
 - Section 9: Historic building/structure property types exempt from Section 106.
 - Section 9: Annual reporting to SHPO of no property-no effect undertakings.
 - Section 9: Review of LANL undertakings pursuant to 36 CFR 800.4-800.6.
 - Section 9: Procedural exceptions regarding "adverse effect" undertakings: 1) Resolution of adverse effects to surface prehistoric artifact scatters and historic trash scatters, and 2) Resolution of adverse effects to historic buildings and structures (not including "exceptionally significant" properties, which will be reviewed on a case by case basis).
 - Section 10: Methods and procedures for post-1942 historic buildings management.
 - Section 11: Methods and procedures for archaeological resources management.
 3. Part III: National Historic Preservation Act Compliance (Section 110) and the Section 110 compliance process (Sections 12-16). Key sections include:
 - Section 13: Archaeological survey.
 - Section 14: Curation of federally owned and administered collections. (36 CFR Part 79)
 - Section 15: Potential National Historic Landmarks.
 - Section 16: Potential National Register Districts.
 4. Part IV: Native American Consultation and Outreach discusses the consultation process.
 - Section 17: Cultural affiliation, traditional cultural properties and the Native American Graves and Repatriation Act.

5. Part V: Strategic Planning and Long-Term Management Issues and Goals presents a 10-year management plan for LANL (Sections 18-22). Key sections include:
 - Section 19: Prioritization strategy for register eligible determinations.
 - Section 20: Site monitoring and protection.
 - Section 21: Public education and outreach.
 - Section 22: Procedures of emergency situations.
 6. Part VI: Safety, Security and Assurance summarize the steps taken to make sure that all field, laboratory and office work is conducted in a safe and secure manner (Sections 23-25).
 7. Appendix A contains the 10-year plan.
 8. Appendix B contains an annotated list of documents that support the LANL cultural resource program.
- D. The LASO shall consult with the SHPO and the ACHP if LASO proposes changes to the CRMP.

II. Data Sharing

- A. The LASO will maintain spatial and tabular site and survey data in its corporate database and GIS systems, and will provide information in a compatible format to the statewide database maintained by SHPO.
- B. The LASO and the SHPO will ensure that site locations and other confidential information are protected and made available only to qualified persons in accordance with state and federal guidelines, including Section 304 of NHPA and Section 9 of the Archaeological Resources Protection Act (ARPA).

III. American Indian Involvement in Consultation

The LASO will consult on a Government-to-Government basis with those Indian Tribes that ascribe cultural affiliation to LANL lands as defined in Part IV Section 17 of the CRMP for matters pertaining to the NHPA (except as noted below), the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, and the American Indian Religious Freedom Act. Additional tribes may be consulted at the discretion of LASO and as warranted by individual circumstances. NHPA Section 106 actions pertaining to the modification, decommissioning, or demolition of post-1942 historic buildings and structures will be exempted from tribal consultation unless there is the potential to affect Native American cultural resources or by the specific request of a tribe.

IV. Interested Person Participation

- A. The LASO will seek and consider views of the public in carrying out the terms of this PA in a manner consistent with 36 CFR Part 800.
- B. Information concerning proposed undertakings subject to the terms of this agreement shall be made available to the Public. LASO will follow the processes as presented in *Guidance on Effective Public Participation under the National Environmental Policy Act (NEPA)*.

- C. Nothing in this PA will be interpreted as limiting or otherwise hindering cooperative efforts regarding historic preservation between LASO and other interested individuals or groups. All forms of cooperation are encouraged.
- D. The LANL Cultural Resources Council is a forum for public review of the LANL historic preservation program. The Council is composed of public citizens and representatives from local, tribal and federal governments.

V. Post-review Discovery

If historic properties are discovered or unanticipated effects on historic properties found after the Section 106 process for a proposed undertaking has been completed, LASO will follow the procedures in 36 CFR Part 800.13 with the following modifications:

If the undertaking has been approved and the construction has commenced, LASO, in consultation with the SHPO will determine the actions necessary to resolve the adverse effects. Once a mutually acceptable resolution plan has been agreed upon, LASO will notify the ACHP of the plan and provide them an opportunity to comment.

If no mutually acceptable resolution of adverse effects can be reached between LASO and the SHPO, LASO or the SHPO may ask the ACHP to participate in the consultation process.

VI. Duration of PA

- A. This PA will be effective for five (5) years from the date of signature by all parties and by mutual agreement can be extended for an additional five-year period.

VII. Agreement Review

- A. Any party may request a review of this PA. The parties will consult concerning any proposed changes. The parties may revise or amend this PA by written agreement of all parties.
- B. The SHPO may monitor activities carried out pursuant to the PA, and the ACHP may review such activities if so requested. LASO will cooperate with the ACHP and the SHPO in carrying out their monitoring and review responsibilities.

VIII. Termination


Any party to this PA may terminate it by providing 60 days notice to the other parties providing that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, LASO will comply with 36 CFR Part 800 and the CRMP.

IX. Dispute Resolution

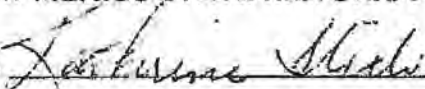
The LASO and the SHPO shall jointly attempt to resolve any disagreement arising from implementation of this PA. If the LASO determines that the disagreement cannot be resolved, the LASO shall request the further comments of the ACHP.

Execution of this PA, and the implementation of its terms, evidences that LASO has afforded the SHPO an opportunity to comment on the effects of its activities on historic properties as defined herein, and that LASO has taken into account the effects of such undertakings on these historic properties.

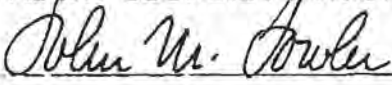
U.S. DEPARTMENT OF ENERGY, NATIONAL NUCLEAR SECURITY
ADMINISTRATION, LOS ALAMOS SITE OFFICE

By:  Date: 4/20/06

NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

By:  Date: 5/23/06

THE ADVISORY COUNCIL FOR HISTORIC PRESERVATION

By:  Date: 6/15/06



Environmental Protection & Compliance Division (EPC-DO)

PO Box 1663, K499

Los Alamos, New Mexico 87545

(505) 667-2211

Date: **MAR 07 2017**

Symbol: EPC-DO: 17-121

LA-UR: 17-20213

Locates Action No.: N/A

Ms. Kelly E. Allen
Regulatory Project Manager
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Subject: Removal of the Sanitary Wastewater Systems Consolidation (SWSC) Spring Carbon Filter Unit and Components (SPA-2009-00297-ABQ)

Dear Ms. Allen:

Pursuant to the requirements of the 2012 Nation-Wide Permits, Los Alamos National Security, LLC (LANS) requests authorization from the U.S. Army Corps of Engineers (USACE) to conduct the following work in a perennial reach of Cañon de Valle (CdV) water course.

The Sanitary Wastewater Systems Consolidation (SWSC) Spring Carbon Filter Unit was authorized by the USACE in 2009, assigned the action number SPA-2009-00297-ABQ and permitted under Nation-Wide Permit (NWP) #18. The purpose of the project was to capture and treat spring flow for the remediation of high explosives (HE) from the alluvial system in CdV.

In September 2016 LANS completed a corrective measures implementation report (Evaluation Report for Surface Corrective Measures Implementation Closure, Consolidated Unit 16-021(c)-99, EP2016-0119) which was approved by NMED on October 21, 2016. The analysis contained in the report concluded:

- HE concentrations are reduced in down gradient alluvial wells
- Continue to monitor flow and contaminant concentrations
- Treatment is no longer necessary
- Remove carbon units and associated piping

The original components permitted under NWP #18 included the weir box and the inlet treatment unit piping. The carbon filter unit and all associated piping located above and below the filter will be removed. The carbon filter unit and outlet piping are located above the ordinary high water mark and not included in

resource impact calculations. The weir box will remain in place to accommodate flow monitoring. The top 12" – 18" of soil cover will be retained and placed back once piping is removed. The SWSC Spring discharge has significantly reduced in recent years. At this time the spring is not flowing.

Perennial Reach of Cañon de Valle

- Name of Waterbody: Cañon de Valle
- Project Location: 35° 51' 01.02" N 106° 20' 22.43" W
- Waterbody Classification: Perennial Reach (20.6.4.126)
- Type of Material Discharged: Channel Materials and Clean Fill
- Surface Area of Waters Dredge/Fill: 0.0003 acres
- Surface Area of Wetlands Filled: Not Applicable

The following documents are enclosed:

- Project Location, Photographs of Project Site and As-Built Drawing
- Dredge and Fill Quantities Worksheet for SWSC Spring Treatment Unit
- USFWS Concurrence with Habitat Management Plan
- Programmatic Agreement Between U.S. DOE/NNSA and New Mexico State Historic Preservation Office and Advisory Council for Historic Preservation

The project manager and applicant for this project is:

Stephani F. Swickley
Project Manager
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Because this activity involves the discharge of fill material into waters of the U.S., LANS is aware that measures must be taken to minimize impacts and comply with General Conditions. These measures will include:

1. General Condition #2 – Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

SWSC Spring is not currently discharging.

2. General Condition #6 – No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

No unsuitable materials will be utilized or discharged.

3. General Condition #10 – The activity must comply with applicable Federal Emergency Management Agency (FEMA) approved state or local floodplain management requirements.

The project will occur within the 100-year floodplain; best management practices regarding equipment staging and refueling are required for the project.

4. General Condition #12 – Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tideline, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

Work will be performed during periods of low flow. Steps will be taken to minimize soil disturbance and restore work area to original grade.

5. General Condition #14 – Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable Nation-Wide Permit (NWP) general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

Some of the permitted features are no longer needed and will be removed.

6. General Condition #15 – Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Not applicable.

7. General Condition #18 – Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

Endangered Species – Los Alamos National Laboratory (LANL) follows a Threatened and Endangered Species Habitat Management Plan (HMP). The HMP is a comprehensive plan that balances current operations at LANL and future development within habitat of listed species. The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS

consultation numbers 2-22-98-I-336 and 2-22-95-I-108) (USFWS Concurrence with Habitat Management Plan). In the 2011 update, management guidelines from the 1999 HMP for listed species were retained. We have also 1) updated some descriptive information, 2) included habitat boundary changes that received USFWS concurrence in 2005 (USFWS consultation number 22420-2006-I-0010), and 3) removed species that are no longer federally listed as threatened or endangered. The 2014 HMP update retains management guidelines from the 1999 HPM for listed species, updated some descriptive information, and added the Jemez Mountain Salamander (*Plethodon neomexicanus*), which was federally listed in September 2013 (USFWS) consultation # (02ENNM00-2014-I-0014).

The purpose of the HMP is to provide a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*) and Southwestern Willow Flycatcher (*Empidonax trailii extimus*). Site plans provide a set of requirements to facility managers to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

Suitable habitats for federally listed threatened and endangered species have been designated as Areas of Environmental Interest (AEIs). AEIs are the geographical units at LANL that are managed for the protection of listed species and consist of core habitat areas and buffer areas. Site plans identify restrictions on activities within the AEIs. Allowable activities are activities that the USFWS has reviewed and has provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day disturbance activities, such as access into an AEI, and long-term impacts, such as habitat alteration in the AEI.

The Laboratory's Biological Resources subject matter experts (SMEs) completed a Biological Resources Review of the proposed project and placed certain restrictions on project activities for the protection of the Mexican Spotted Owl and the Jemez Salamander. Cañon de Valle provides core habitat for both the Jemez Mountain Salamander and the Mexican Spotted Owl, both federally listed endangered species under the Endangered Species Act.

8. **General Condition #20 - Historic Properties.** (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

The Laboratory's Cultural Resources Team, in accordance with their standard operating procedure - Cultural Resources Project Review (ES-412, R3, December 2, 2011) - completed a cultural resources review of the proposed project. The Laboratory manages historic properties in accordance

with its Cultural Resources Management Plan (CRMP). The CRMP is a plan for the management of the cultural heritage at the Laboratory and is used in accordance with a Programmatic Agreement between the U.S. Department of Energy (DOE)/National Nuclear Security Administration (NNSA), and the New Mexico State Historic Preservation Office (SHPO) and the Advisory Council for Historic Preservation (Programmatic Agreement). The Programmatic Agreement was updated in 2015 and an extension to the agreement was completed in December 2016. The CRMP establishes a set of procedures for effective compliance with historic preservation laws.

The Laboratory's cultural resources subject matter experts, in accordance with Policy 400, Environmental Protection, completed a cultural resources review of the proposed project and determined that there are no cultural resource issues within the SWSC Spring project location.

9. General Condition #21- Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Discoveries of Previously Unknown Remains and Artifacts - If inadvertent discoveries are made during all ground-disturbing project activities, work must stop immediately. This includes activities that encounter bones (possible burials), clusters or alignments of rock situated above bedrock (possible masonry walls), charcoal stains (possible hearths or burned wooden structures), or clusters of artifacts such as pottery, pieces of chipped stone, and historic debris such as cans or glass. Project staff are instructed to immediately contact a LANL Cultural Resources SME. The LANL Cultural Resources SME will arrange an emergency field inspection to be conducted prior to the resumption of project ground-disturbing activities at the specific location of the inadvertent discovery.

With respect to NEPA the proposed work is bounded by the 2008 SWEIS, Appendix I, Major Material Disposal Area Remediation, Canyon Cleanups, and other Consent Order actions.

Please contact Robert Gallegos at (505) 665-0450 or by email at rgallegos@lanl.gov if you have questions.

Sincerely,



Anthony R. Grieggs
Group Leader

ARG/MTS/RMG:am

Enclosures:

1. Project Location, Photographs of Project Site and As-Built Drawing
2. Dredge and Fill Quantities Worksheet for SWSC Spring Treatment Unit
3. USFWS Concurrence with Habitat Management Plan
4. Programmatic Agreement Between U.S. DOE/NNSA and New Mexico State Historic Preservation Office and Advisory Council for Historic Preservation

Copy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Neal Schaeffer, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Pete Maggiore, NA-LA, (E-File)
Jody Pugh, NA-LA, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Cassandra Begay, NA-LA, (E-File)
Darlene Rodriguez, NA-LA, (E-File)
Michael T. Brandt, ADESH, (E-File)
John C. Bretzke, EPC-DO, (E-File)
Michael A. Saladen, EPC-CP, (E-File)
Stephani F. Swickley, ADEM-PO
Tim J. Goering, ER-ES, (E-File)
Ted T. Ball, PM6, (E-File)
Jocelyn Y. Buckley, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
epccat@lanl.gov, (E-File)

ENCLOSURE 1

Project Location, Photographs of Project Site and As-Built Drawing

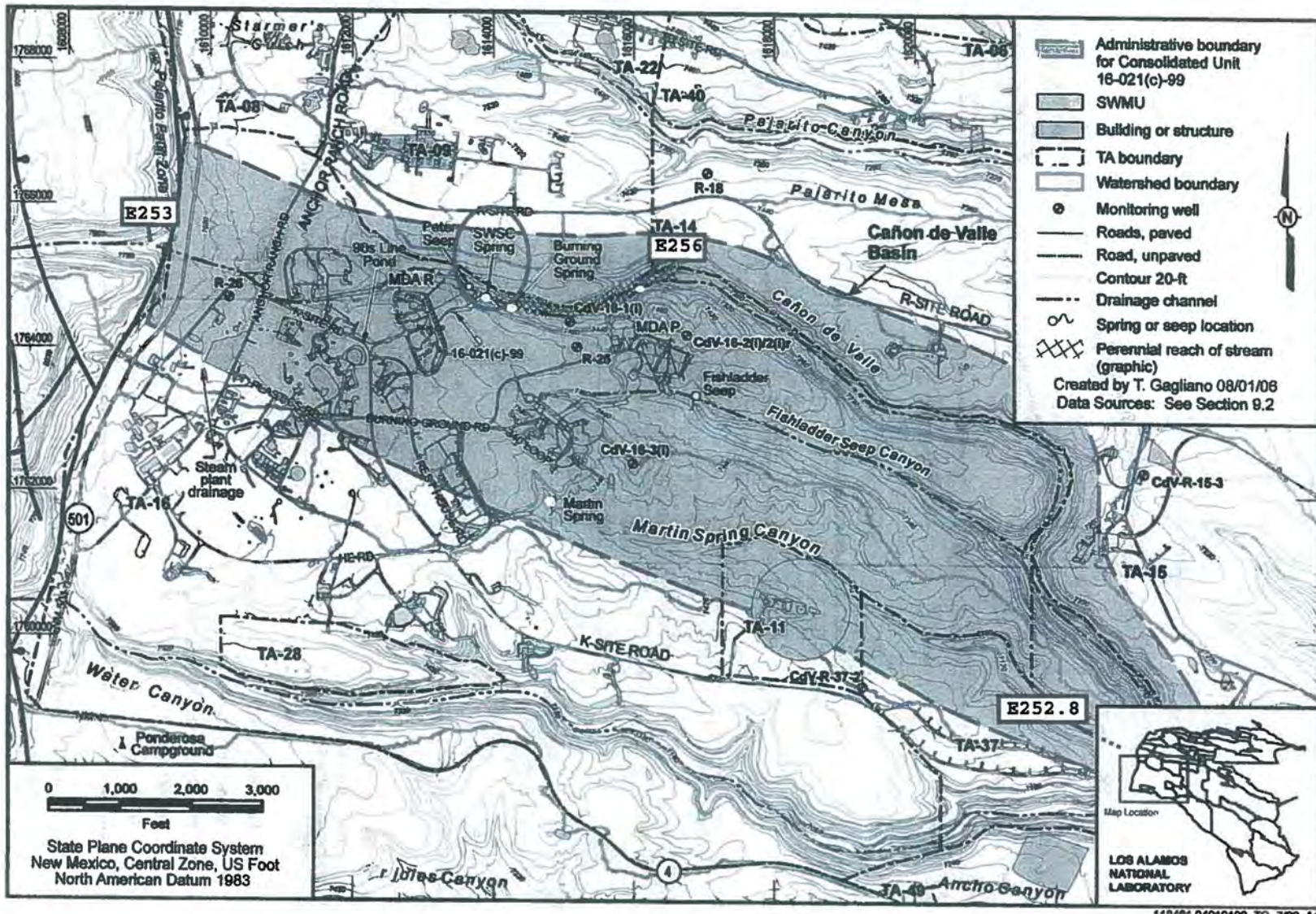
EPC-DO-17-121

LA-UR-17-20213

MAR 07 2017

Date: _____

Consolidated Unit 16-021(c)-99 CMI Plan, Revision 1



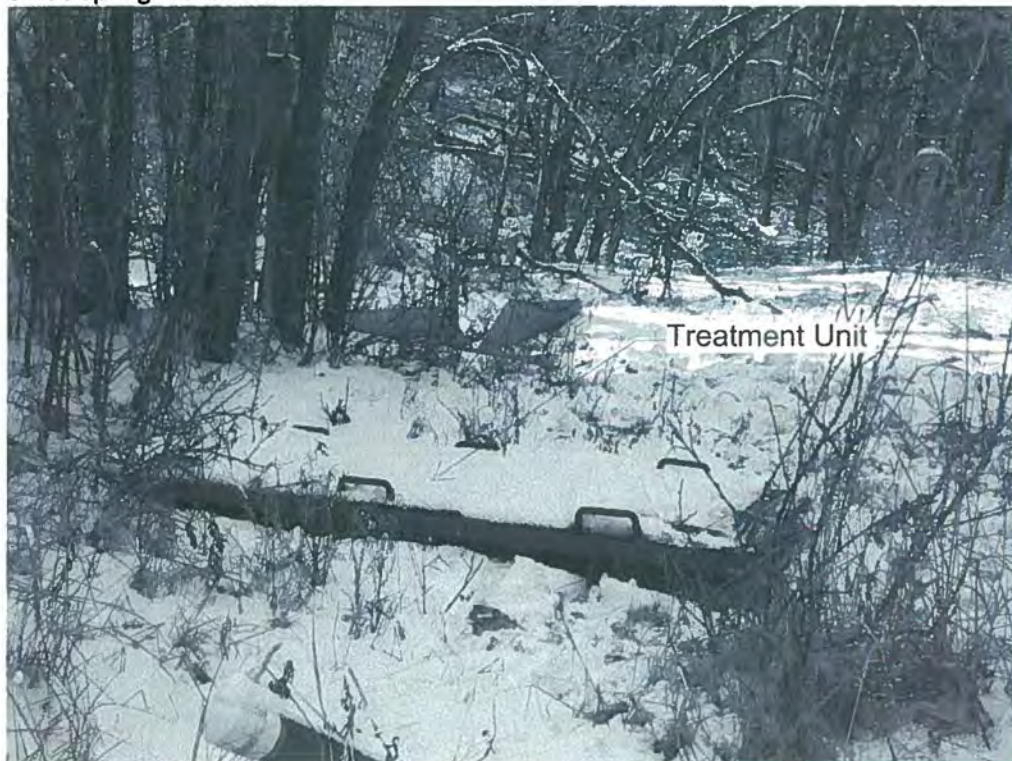
17

Springs Locations And Associated Gaging Stations At TA-16

SWSC Spring Weir Box



SWSC Spring Treatment Unit



March 2010

28

Consolidated Unit 16-021(c)-99 CMI Summary Report

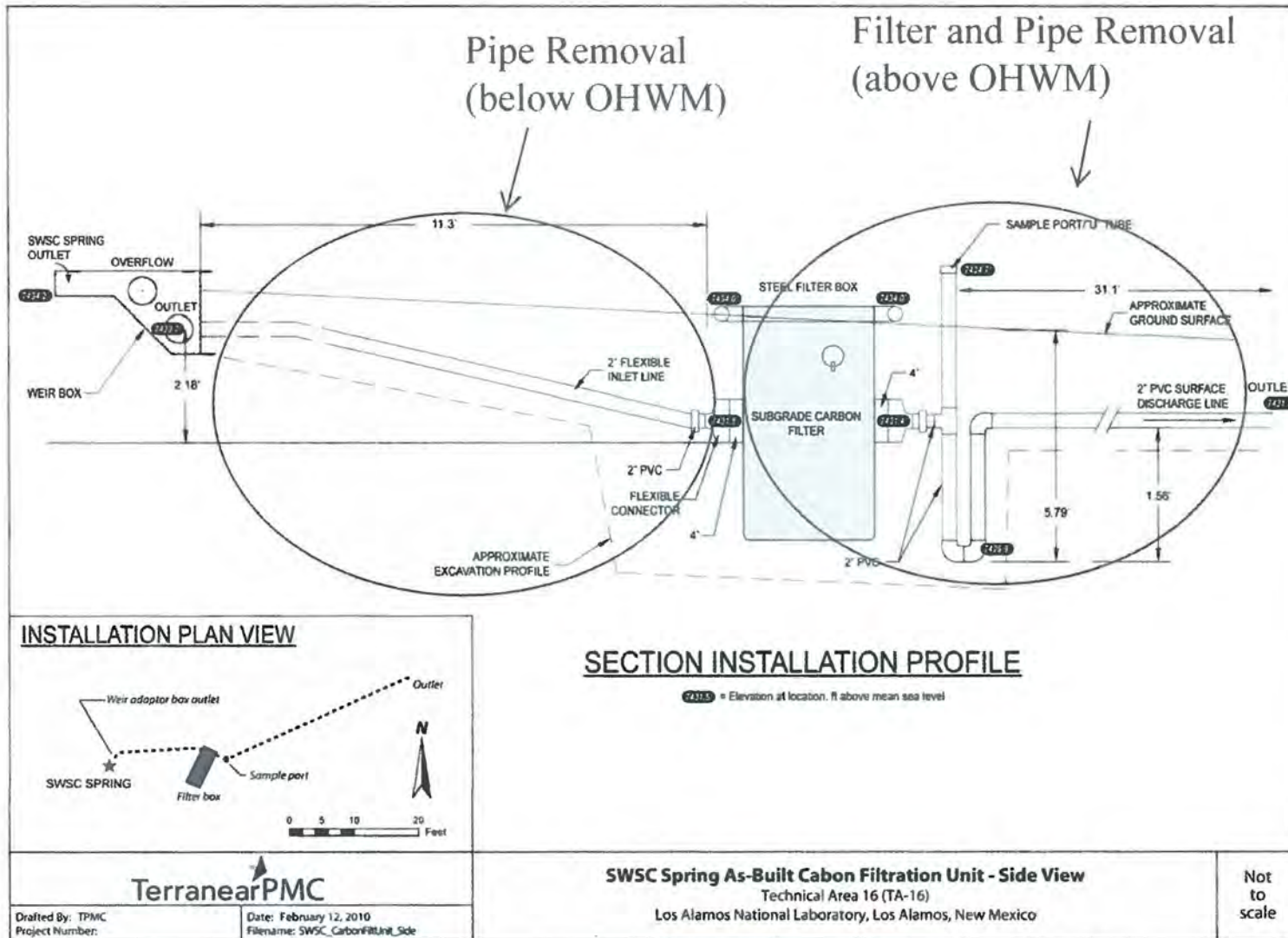


Figure 4.4-1 As-built diagram of SWSC Spring carbon-filter system

EP2010-0069

ENCLOSURE 2

Dredge and Fill Quantities Worksheet for SWSC Spring Treatment Unit

EPC-DO:17-121

LA-UR-17-20213

MAR 07 2017

Date: _____

ENCLOSURE 2
Dredge and Fill Quantities Worksheet
Action No. SPA-2009-00297-ABQ

| Discharges to Canon de Valle | | | | | | | | | | | | | |
|---|--------|----------------|----------|-----------------------|-------------------|-------------|------------|------------|-----------------|----------------|------------------|--------|------------------------------|
| Site # | Type | Location | Wetland? | Wetlands Width** (ft) | Channel OHWM (ft) | Length (ft) | Width (ft) | Depth (ft) | Volume (cu.ft.) | Area (sq. ft.) | Cubic Yards (CY) | Acres | Materials |
| 1 | Dredge | Below Weir Box | N | NA | 2 | 12 | 1 | 3 | 36 | 12 | 1.33 | 0.0003 | Piping and Channel Materials |
| | | | | | | | | | | | | | |
| Total Dredge Discharges Canon de Valle (SWSC Spring) | | | | | | | | | 36 | 12 | 1 | 0.0003 | |
| 1 | Fill | Below Weir Box | | | 2 | 12 | 1 | 3 | 36 | 12 | 1.33 | 0.0003 | Channel Materials |
| | | | | | | | | | | | | | |
| Total Fill Discharges to Canon de Valle (SWSC Spring) | | | | | | | | | 36 | 12 | 1 | 0.0003 | |
| | | | | | | | | | | 24 | 3 | | |

ENCLOSURE 3

USFWS Concurrence with Habitat Management Plan

EPC-DO:17-121

LA-UR-17-20213

MAR 07 2017

Date: _____



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

February 12, 1999

Cons. #2-22-98-I-336

Cons. #2-22-95-I-108

David A. Gurule, Acting Area Manager
Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87545

Dear Mr. Gurule:

This responds to your letter dated August 6, 1998, requesting our review and concurrence with the Threatened and Endangered Species Habitat Management Plan (HMP) for Los Alamos National Laboratory (LANL). The HMP was prepared by the LANL Ecology Group for the Department of Energy (DOE) as part of the Dual-Axis Radiographic Hydrodynamics Test Facility (DAHRT) Mitigation Action Plan. The U.S. Fish and Wildlife Service (Service) has worked closely with LANL in the development of the HMP. As a result of discussions and meetings following the August 6, 1998, submittal, additional information/clarification was provided via letters, updated Biological Evaluations/HMPs, and e-mail messages, dated September 8, October 20, November 25, and December 9, 1998, and January 4, January 22, and January 29, 1999. The purpose of the HMP is to provide for the protection of threatened and endangered species and their habitats on LANL. The HMP consists of three components that must be used together to assure proper management of the threatened and endangered species: an Overview Document, Site Plans, and Monitoring Plans. It was determined that if all the restrictions and protective measures outlined in the HMP are strictly followed, the implementation of this HMP may affect, but is not likely to adversely affect the Mexican spotted owl (owl), peregrine falcon (falcon), bald eagle (eagle), and southwestern willow flycatcher (flycatcher). The Biological Evaluation (BE) also considered potential impacts on the black-footed ferret, arctic peregrine falcon, and whooping crane. It was determined that there would be no effect on these species because of a lack of habitat.

Property at LANL varies from remote isolation to heavily developed and/or industrialized. The Service agrees, as stated in the Overview document, that a number of activities at LANL have the potential to adversely impact threatened and endangered species. Many of the industrial processes used at LANL have involved hazardous and radioactive materials. These materials as well as remediation of potential release sites may disturb

David A. Gurule, Acting Area Manager

2

or reduce population viability of threatened and endangered species. In addition, other potential sources of disturbance or habitat alterations are possible as a result of the residential and commercial development in the LANL area. While the HMP identifies potential sources of adverse effects, this consultation does not necessarily cover all of those impacts. The Service does not anticipate that DOE will be able to plan all of its operations at LANL in accordance with this plan. The direct effects of most actions can be minimized through implementation of the HMP; however, a more thorough assessment is necessary to adequately evaluate the indirect and cumulative impacts of all actions that are funded, authorized, and permitted by DOE, as well as potential impacts from interrelated and interdependent actions. It was agreed (by Service, DOE, and LANL personnel) that consultation concerning ongoing LANL operations would be handled separately from the HMP, under the consultation on the Site-Wide EIS.

The Site Plans identify the particular areas of LANL where operations might impact known occupied or potential habitat for the flycatcher, eagle, falcon, and owl. Suitable habitat for these species, along with protective buffer areas surrounding their habitat, have been designated as Areas of Environmental Interest (AEIs). For the flycatcher, one AEI was established based on an observation of a migrant male flycatcher in 1997. The AEI is located in the Pajarito wetland area and includes the best available riparian habitat. For eagles, one AEI has been identified for wintering habitat that exists along the Rio Grande on the eastern edge of LANL. It is based on the locations of known and potential roost sites. For the falcon, four AEIs have been identified. They consist of the habitat previously identified under the 1985 interagency agreement. These areas are centered on deep canyons on the eastern side of LANL or on adjacent lands. LANL has agreed to implement the recommended management guidelines, which utilize four management zones (A through D) to protect nesting peregrine falcons from disturbance. For the owl, six AEIs have been identified, but only one of these sites is known to be occupied. These AEIs are based on and located in canyons that have been defined as suitable nest/roost habitat.

The AEI management section of each Site Plan provides guidelines for LANL operations to reduce or eliminate threats to each species. The primary threats on LANL property are (1) impacts on habitat quality from LANL operations and (2) disturbance of nesting or roosting birds. The site plans provide information on their location and guidelines for their management. The AEI Site Plans consist of a species description, descriptions of the AEIs for the species, descriptions of current impacts in the AEIs, management plans that describe allowable activities within core and buffer areas under the guidelines of the sites plan and protective measures. Activities discussed in the site plans include day to day activities, such as access into an AEI, as well as long-term projects, such as levels of habitat alteration in the buffer area of an AEI. Restrictions will be implemented on activities that could cause disturbance (people, vehicles and machinery, aircraft, light production, and noise) within occupied AEIs. The location of a potential disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not an activity is allowable. Habitat alterations are always restricted in core areas, but a limited amount of future development is allowed in currently undeveloped DOE-controlled buffer areas under the guidelines of this site plan as long

David A. Gurule, Acting Area Manager

3

as it does not alter habitat in the undeveloped AEI (including light and noise guidelines). The purpose of buffer areas is to protect core areas from undue disturbance or habitat alteration or habitat degradation. Each AEI is specific to the situation or circumstances of the site it covers. According to the HMP, development beyond the cap established for each AEI, or greater than 2 hectares in size, including the developed-area border, requires independent review for ESA compliance.

Varying amounts of development and/or ongoing activities exist in the cores and buffers of each AEI. These developments may include residential, commercial, and light industrial areas, as well as roads and utility corridors. Existing/ongoing activities may include periodic scientific surveys, power line maintenance, recreational use, residential development, ER Program activities, and possible use of a firing site. Potential disturbance may be associated with automobile and truck traffic, construction activities, a live-fire range, explosives testing, and aircraft traffic at the County airport. Ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities including further development within already existing developed areas are not restricted unless they impact undeveloped portions of an AEI core. If a proposed action within a developed area does not meet site plan guidelines, it must be individually reviewed for ESA compliance.

Some activities such as utility corridor maintenance, fuels management, and a limited amount of development are allowed in each AEI (as described in the HMP). The potential impacts of these activities are considered to be insignificant or discountable because they will occur in habitat that has been previously disturbed or is of poor quality due to its size or proximity to already developed areas. It is our understanding (based on the January 22, 1999, e-mail response from Terry Foxx) that the fuels management activities within the owl AEIs will only consist of ongoing and proposed fire protection activities around existing facilities (e.g. thinning around buildings) or those activities that are already covered under the Dome Fire Emergency BA. The other fire management activities mentioned in the HMP will go through the ESH-ID process and further consultation with the Service when a fire management plan is completed in the future.

In general, activities that detrimentally alter habitat in an AEI or would cause unacceptable disturbance to the species inhabiting the AEI are not allowed under the guidelines of a Site Plan. The Site Plans are designed to minimize impacts to threatened and endangered species and their habitat. The protective measures and restrictions outlined in the Site Plans were developed using the best available data, in cooperation with Service biologists.

The U.S. Fish and Wildlife Service concurs with DOE's determination that implementation of LANL's HMP may affect, but is not likely to adversely affect the Mexican spotted owl, American peregrine falcon, bald eagle, and southwestern willow flycatcher based on the protective measures described in the BA and HMP. If all the restrictions and protective measures outlined in the HMP are strictly followed, potential impacts on owls, falcons, eagles, and flycatchers are expected to be insignificant or

David A. Gurule, Acting Area Manager

4

discountable for the following reasons: 1) appropriate seasonal restrictions will be implemented to avoid disturbance to potentially breeding flycatchers, peregrines, and owls and wintering eagles; 2) no nest or roost habitat for any listed species will be altered; 3) the total amount of potential foraging habitat that could be impacted within each species home ranges is expected to be insignificant compared to the amount of available foraging habitat throughout the area; 4) monitoring plans have been developed as an integral part of the HMP; and 5) a mechanism for incorporating necessary technical and regulatory changes and updating the HMP has been included (page 32 of the Overview Document).

In future communications regarding this project, please refer to Consultation #2-22-98-1-336. If we can be of further assistance, please contact Carol Torrez of my staff at (505) 346-2525, ext. 115.

Sincerely,



Jennifer Fowler-Propst
Field Supervisor

cc:

Teralene Foxx, Project Manager, Ecology Group, Los Alamos National Laboratory,
P.O. Box 1663, Mail Stop M887, Los Alamos, New Mexico 87545
Elizabeth Withers, U.S. Department of Energy, Los Alamos Area Office, 35th Street, Los
Alamos, New Mexico
Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Phoenix,
Arizona

ENCLOSURE 4

**Programmatic Agreement Between U.S. DOE/NNSA
and New Mexico State Historic Preservation Office and
Advisory Council for Historic Preservation**

EPC-DO-17-121

LA-UR-17-20213

MAR 07 2017

Date: _____

**AMENDMENT TO
Programmatic Agreement
Between
The U.S. Department of Energy, National Nuclear Security Administration,
Los Alamos Field Office,
The New Mexico State Historic Preservation Office
And
The Advisory Council for Historic Preservation
Concerning Management of the Historic Properties of
Los Alamos National Laboratory, New Mexico**

WHEREAS, the U. S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office, New Mexico State Historic Preservation Office and the Advisory Council for Historic Preservation executed this *Programmatic Agreement Between The U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office, The New Mexico State Historic Preservation Office And The Advisory Council for Historic Preservation Concerning Management of the Historic Properties of Los Alamos National Laboratory, New Mexico* on December 23, 2015;

WHEREAS, stipulation VIII, "Agreement Review" of the Programmatic Agreement states that the agreement may be amended;

WHEREAS, the Los Alamos Field Office consulted with the State Historic Preservation Office and Advisory Council for Historic Preservation to develop this amendment;

WHEREAS, through this amendment, the Los Alamos Field Office intends to continue to consult and finalize a new Programmatic Agreement that incorporates the Cultural Resource Management Plan;

NOW THEREFORE, pursuant to stipulation VII. "Agreement Review" of the Programmatic Agreement, the Los Alamos Field Office, State Historic Preservation Office and Advisory Council for Historic Preservation agree to amend the Programmatic Agreement as follows.

AMENDED STIPULATIONS

The following is added as to modify stipulation VII "Duration" and will replace the existing stipulation in the Programmatic Agreement;

This Programmatic Agreement will be effective until March 30, 2017 or otherwise agreed to by the parties;

All other terms of the Programmatic Agreement are to remain unchanged.

SIGNATORIES:

U.S. DEPARTMENT OF ENERGY, NATIONAL NUCLEAR SECURITY
ADMINISTRATION, LOS ALAMOS FIELD OFFICE MANAGER

By: Kimberly Davis Lebak Date: 11/23/16
Kimberly Davis Lebak, Field Office Manager

NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

By: [Signature] Date: 11/30/16
Jeff Pappas, PhD., State Historic Preservation Officer

THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 12/6/16
John M. Fowler, Executive Director

**Programmatic Agreement
Between
The U.S. Department of Energy, National Nuclear Security Administration,
Los Alamos Field Office,
The New Mexico State Historic Preservation Office
And
The Advisory Council for Historic Preservation
Concerning Management of the Historic Properties of
Los Alamos National Laboratory, New Mexico**

WHEREAS, this Programmatic Agreement (PA) replaces the previous PA dated June 11, 2006; and

WHEREAS, the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office (Field Office) has responsibility for the management of all historic properties at Los Alamos National Laboratory (LANL) that have either been determined eligible for listing in the National Register of Historic Places (Register) or are awaiting eligibility assessments, pursuant to Section 110 of the National Historic Preservation Act (NHPA) as amended, and must assess the effect of any Federal undertaking upon historic properties included in, eligible for, or properties with undetermined eligibility for the Register pursuant to Section 106 of the NHPA; and

WHEREAS, the Field Office has determined that the mission of LANL as a scientific laboratory, with its associated operation, maintenance, research, development, waste management, and decontamination-decommissioning activities, may have both direct and indirect effects on historic properties; and

WHEREAS, the Field Office has a cultural resource program manager and LANL has a qualified staff of cultural resource specialists who meet the qualifications set forth in the Secretary of the Interior's Standards and Guidelines for Professional Qualifications (36 CFR Part 61, Appendix A), or work under the supervision of individuals who meet these qualifications; and

WHEREAS, the Field Office recognizes the potential affect of mission activities on archaeological sites, sacred places and traditional use areas that are affiliated with Native American and Hispanic peoples; and

NOW, THEREFORE, the Field Office, the State Historic Preservation Office (SHPO), and the Advisory Council for Historic Preservation (ACHP) agree that the Field Office and LANL activities that have the potential to affect historic properties shall be administered in accordance with the Stipulations of this Programmatic Agreement to satisfy the Field Office's responsibilities under Sections 106 and 110 of the NHPA. For purposes of this PA, the term "including" shall mean "including but not limited to." For the purposes of this PA, the term "historic properties" shall mean all properties, archaeological sites, traditional cultural properties, standing structures, buildings, associated records and artifacts that are included in, eligible for, or have not yet been evaluated for the Register.

STIPULATIONS**I. The Cultural Resources Management Plan (CRMP)**

- A. The Field Office will manage historic properties at LANL in accordance with its *CRMP A Plan for the Management of the Cultural Heritage at Los Alamos National Laboratory, New Mexico*, developed from guidance contained in the *Environmental Guidelines for Development of Cultural Resource Management Plans* (August 1995, DOE/EH-0501).
- B. The scope of the LANL CRMP includes:
1. Part I: Background (Sections 1-6), which contains the purpose of the CRMP, applicable historic preservation laws, regulations, guidelines and policies, glossary, environmental setting and culture history.
 2. Part II: National Historic Preservation Act (NHPA) Compliance (Section 106) reviews and Section 106 compliance process (Sections 7-11). Key provision include:
 - Section 9: Historic building/structure property types exempt from Section 106.
 - Section 9: Annual reporting to SHPO of no property-no effect undertakings.
 - Section 9: Review of LANL undertakings pursuant to 36 CFR 800.4-800.6.
 - Section 9: Procedural exceptions regarding "adverse effect" undertakings. 1) Resolution of adverse effects to surface prehistoric artifact scatters and historic trash scatters, and 2) Resolution of adverse effects to historic buildings and structures (not including "exceptionally significant" properties, which will be reviewed on a case by case basis).
 - Section 10: Methods and procedures for post-1942 historic buildings management.
 - Section 11: Methods and procedures for archaeological resources management.
 3. Part III: National Historic Preservation Act Compliance (Section 110) and the Section 110 compliance process (Sections 12-16). Key sections include:
 - Section 13: Archaeological survey.
 - Section 14: Curation of federally owned and administered collections. (36 CFR Part 79)
 - Section 15: Potential National Historic Landmarks.
 - Section 16: Potential National Register Districts.
 4. Part IV: Native American Consultation and Outreach discusses the consultation process.
 - Section 17: Cultural affiliation, traditional cultural properties and the Native American Graves and Repatriation Act.
 5. Part V: Strategic Planning and Long-Term Management Issues and Goals presents a 10-year management plan for LANL (Sections 18-22). Key sections include:

- Section 19: Prioritization strategy for register eligible determinations.
 - Section 20: Site monitoring and protection.
 - Section 21: Public education and outreach.
 - Section 22: Procedures of emergency situations.
6. Part VI: Safety, Security and Assurance summarize the steps taken to make sure that all field, laboratory and office work is conducted in a safe and secure manner (Sections 23-25).
 7. Appendix A contains the 10-year plan.
 8. Appendix B contains an annotated list of documents that support the LANL cultural resource program.
- C. The Field Office will continue to consult with the SHPO and the ACHP, while revising the CRMP.

II. Programmatic Agreement Consultation

Prior to the expiration of this PA, the Field Office will initiate consultation to develop a Programmatic Agreement that incorporates the revised CRMP.

III. Data Sharing

- A. The Field Office will maintain spatial and tabular site and survey data in its corporate database and GIS systems, and will provide information in a compatible format to the statewide database maintained by SHPO.
- B. The Field Office and the SHPO will ensure that site locations and other confidential information are protected and made available only to qualified persons in accordance with state and federal guidelines, including Section 304 of NHPA and Section 9 of the Archaeological Resources Protection Act (ARPA).

IV. American Indian Involvement in Consultation

The Field Office will consult on a Government-to-Government basis with those Indian Tribes that ascribe cultural affiliation to LANL lands as defined in Part IV Section 17 of the CRMP for matters pertaining to the NHPA (except as noted below), the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, and the American Indian Religious Freedom Act. Additional tribes may be consulted at the discretion of the Field Office and as warranted by individual circumstances. NHPA Section 106 actions pertaining to the modification, decommissioning, or demolition of post-1942 historic buildings and structures will be exempted from tribal consultation unless there is the potential to affect Native American cultural resources or by the specific request of a tribe.

V. Interested Person Participation

- A. The Field Office will seek and consider views of the public in carrying out the terms of this PA in a manner consistent with 36 CFR Part 800.
- B. Information concerning proposed undertakings subject to the terms of this agreement shall be made available to the Public. The Field Office will follow the processes as presented in *Guidance on Effective Public Participation under the National Environmental Policy Act (NEPA)*.
- C. Nothing in this PA will be interpreted as limiting or otherwise hindering cooperative efforts regarding historic preservation between the Field Office and other interested individuals or groups. All forms of cooperation are encouraged.
- D. The LANL Cultural Resources Council is a forum for public review of the LANL historic preservation program. The Council is composed of public citizens and representatives from local, tribal and federal governments.

VI. Post-review Discovery

If historic properties are discovered or unanticipated effects on historic properties found after the Section 106 process for a proposed undertaking has been completed, the Field Office will follow the procedures in 36 CFR Part 800.13 with the following modifications:

If the undertaking has been approved and the construction has commenced, the Field Office, in consultation with the SHPO will determine the actions necessary to resolve the adverse effects. Once a mutually acceptable resolution plan has been agreed upon, the Field Office will notify the ACHP of the plan and provide them an opportunity to comment.

If no mutually acceptable resolution of adverse effects can be reached between the Field Office and the SHPO, the Field Office or the SHPO may ask the ACHP to participate in the consultation process.

VII. Duration of PA

- A. This PA will be effective until December 31, 2016.

VIII. Agreement Review

- A. Any party may request a review of this PA. The parties will consult concerning any proposed changes. The parties may revise or amend this PA by written agreement of all parties.
- B. The SHPO may monitor activities carried out pursuant to the PA, and the ACHP may review such activities if so requested. The Field Office will cooperate with the ACHP and the SHPO in carrying out their monitoring and review responsibilities.

IX. Termination

Any party to this PA may terminate it by providing 60 days notice to the other parties providing that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the Field Office will comply with 36 CFR Part 800.

X. Dispute Resolution

The Field Office and the SHPO shall jointly attempt to resolve any disagreement arising from implementation of this PA. If the Field Office determines that the disagreement cannot be resolved, the Field Office shall request the further comments of the ACHP.

Execution of this PA, and the implementation of its terms, evidences that the Field Office has afforded the SHPO an opportunity to comment on the effects of its activities on historic properties as defined herein, and that the Field Office has taken into account the effects of such undertakings on these historic properties.

U.S. DEPARTMENT OF ENERGY, NATIONAL NUCLEAR SECURITY
ADMINISTRATION, LOS ALAMOS FIELD OFFICE

By: Kimberly Davis Lebak Date: 12/16/15
Kimberly Davis Lebak, Manager

NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

By: Jeff Pappas Date: 12/16/15
Jeff Pappas, DCA

THE ADVISORY COUNCIL FOR HISTORIC PRESERVATION

By: John M. Fowler Date: 12/23/15
John M. Fowler, Executive Director



Environmental Protection & Compliance
Los Alamos National Laboratory
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-2211

Date: JUN 06 2017
Symbol: EPC-DO: 17-211
LAUR: 17-24371
Locates Action No.: N/A

Mr. Wyatt Medley
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPRA-RD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Subject: Certification of Compliance for Removal of the Martin Spring Carbon Filter Units and Components (SPA-2009-00299-ABQ)

Dear Mr. Medley:

The Department of Energy/Los Alamos National Security (DOE/LANS) has completed work on the removal of the carbon filter units from Martin Spring. Construction of the project began on March 28, 2017 and was completed on May 4, 2017. Attached is the Certification of Compliance specifying completion of the work in accordance with Nation-Wide Permit #18. Photographic documentation of the completed project is attached.

Please contact Robert Gallegos (505) 665-0450 of the Environmental Compliance Programs (EPC-CP) if you have questions.

Sincerely,

Anthony R. Grieggs
Group Leader

ARG/MTS/RMG: am

Enclosure(s): 1) Certification of Completion – Carbon Filter Removal at Martin Spring
2) Photographs of Completed Task Features at Martin Spring

Copy: Kelly E. Allen, USACE, Albuquerque, NM, (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Abe Franklin, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Craig S. Leasure, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Stephani F. Swickley, ADEM-PO, (E-File)
John C. Bretzke, EPC-DO, (E-File)
Michael T. Saladen, EPC-CP, (E-File)
Ted T. Ball, PM6, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
LASOmailbox@nnsa.doe.gov, (E-File)
locateteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00299-ABQ
Name of Permittee: Stephani Swickley, Los Alamos National Laboratory
Nationwide Permit: 18 for Minor Discharges

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Wyatt Medley
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, NM 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started March 28, 2017

Date Work Completed May 4, 2017

Stephani Swickley
Signature of Permittee

6/1/17
Date

ENCLOSURE 2

Photographs of Completed Task Features at Martin Spring

EPC-DO: 17-211

LA-UR-17-24371

Date: _____

Martin Spring Carbon Filter Removal – May 2017

Water Course Below Spring Box



Martin Spring Box and Water Course – May 2017



Area of Treatment Box Removal – May 2017





Environmental Protection & Compliance
Los Alamos National Laboratory
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-2211

Date: **JUL 13 2017**
Symbol: EPC-DO: 17-270
LAUR: 17-24473
Locates Action No.: N/A

Mr. Wyatt Medley
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Subject: Certification of Compliance for Removal of the Burning Ground Spring Carbon Filter Unit and Components (SPA-2009-00472-ABQ)

Dear Mr. Medley:

The Department of Energy/Los Alamos National Security (DOE/LANS) has completed work on the removal of the carbon filter unit from Burning Ground Spring. Construction of the project began on May 5, 2017 and was completed on June 30, 2017. Attached is the Certification of Compliance specifying completion of the work in accordance with Nation-Wide Permit #18. Photographic documentation of the completed project is attached.

Please contact Robert Gallegos (505) 665-0450 of the Environmental Compliance Programs (EPC-CP) if you have questions.

Sincerely,

Anthony R. Grieggs
Group Leader

ARG:MTS:RMG: am

Enclosures:

1. Certification of Compliance – Carbon Filter Removal at Burning Ground Spring
2. Photograph of Completed Task Feature at Burning Ground Spring

Copy: Kelly E. Allen, USACE, Albuquerque, NM, (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Abe Franklin, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Arturo Q. Duran, EM-SG, (E-File)
David S. Rhodes, EM-SG, (E-File)
Craig S. Leasure, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
John C. Bretzke, EPC-DO, (E-File)
Bruce A. Robinson, ADEM-PO, (E-File)
Ted T. Ball, PM6, (E-File)
Tim J. Goering, ER-ES, (E-File)
Michael T. Saladen, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
LASOmailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

ENCLOSURE 1

**Certification of Compliance – Carbon Filter Removal
at Burning Ground Spring**

EPC-DO: 17-270

LA-UR-17-24473

Date: **JUL 13 2017**

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00472-ABQ
Name of Permittee: Stephani Swickley, Los Alamos National Laboratory
Nationwide Permit: 18 for Minor Discharges

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Wyatt Medley
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, NM 87109

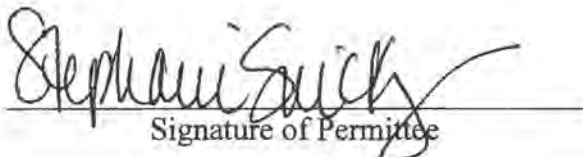
Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

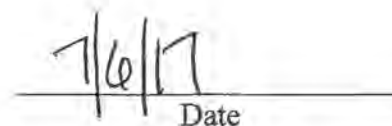
Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started May 5, 2017

Date Work Completed June 30, 2017


Signature of Permittee


Date

ENCLOSURE 2

Photograph of Completed Task Feature at Burning Ground
Spring

EPC-DO: 17-270

LA-UR-17-24473

Date: **JUL 13 2017**

Site of Burning Ground Spring Carbon Filter Unit Removal (SPA-2009-00472-ABQ) – June 2017





Environmental Protection & Compliance

Los Alamos National Laboratory

PO Box 1663, K490

Los Alamos, New Mexico 87545

(505) 667-2211

Date: JUL 14 2017

Symbol: EPC-DO: 17-276

LAUR: 17-25461

Locates Action No.: N/A

Mr. Wyatt Medley
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESP-ARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Subject: Certification of Compliance for Removal of the SWSC Spring Carbon Filter Units and Components (SPA-2009-00297-ABQ)

Dear Mr. Medley:

The Department of Energy/Los Alamos National Security (DOE/LANS) has completed work on the removal of the carbon filter units from SWSC Spring. Construction of the project began on May 5, 2017 and was completed on June 30, 2017. Attached is the Certification of Compliance specifying completion of the work in accordance with Nation-Wide Permit #18. Photographic documentation of the completed project is attached.

Please contact Robert Gallegos (505) 665-0450 of the Environmental Compliance Programs (EPC-CP) if you have questions.

Sincerely,

Anthony R. Grieggs
Group Leader

ARG/MTS/RMG: am

Enclosure(s):

1. Certification of Compliance – Carbon Filter Removal at SWSC Spring
2. Photograph of Completed Task Feature at SWSC Spring

Copy: Kelly E. Allen, USACE, Albuquerque, NM, (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Abe Franklin, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Arturo Q. Duran, EM-SG, (E-File)
David S. Rhodes, EM-SG, (E-File)
Craig S. Leasure, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Bruce A. Robinson, ADEM-PO, (E-File)
John C. Bretzke, EPC-DO, (E-File)
Ted T. Ball, PM6, (E-File)
Tim J. Goering, ER-ES, (E-File)
Michael T. Saladen, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
LASOmailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

ENCLOSURE 1

**Certification of Compliance – Carbon Filter Removal
at SWSC Spring**

EPC-DO: 17-276

LA-UR-17-25461

Date: JUL 14 2017

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00297-ABQ

Name of Permittee: Stephani Swickley, Los Alamos National Laboratory

Nationwide Permit: 18 for Minor Discharges

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Wyatt Medley
Albuquerque District, U.S. Army Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, NM 87109

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started May 5, 2017

Date Work Completed June 30, 2017


Signature of Permittee

7/14/17
Date

ENCLOSURE 2

Photograph of Completed Task Feature at SWSC Spring

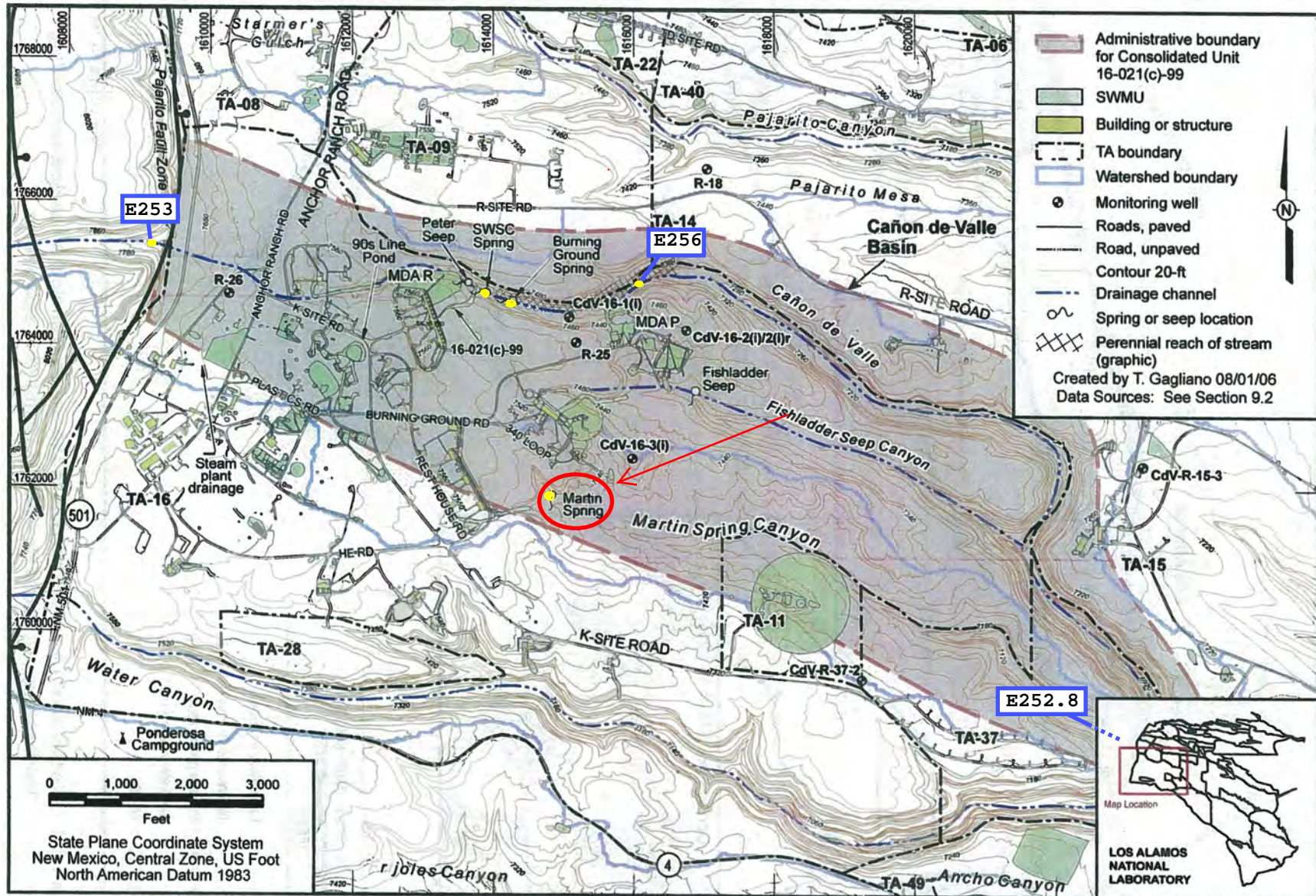
EPC-DO: 17-276

LA-UR-17-25461

Date: JUL 14 2017

Removal Site of the SWSC Spring Carbon Filter Unit (SPA-2009-00297-ABQ) – June 2017





17

Consolidated Unit 16-021(c)-99 CMI Plan, Revision 1

Springs Locations And Associated Gaging Stations At TA-16

Martin Spring Weir Boxes (December 2, 2016)



Martin Spring Weir Box (2009)

Martin Spring Weir Box (2000)

Martin Springs Treatment Units (December 2, 2016)



Martin Spring Upper Treatment Unit



Martin Spring Lower Treatment Unit





Environmental Protection & Compliance Division (EPC-DO)
Environmental Compliance Programs (EPC-CP)

PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

Date:
Symbol: EPC-DO-17-XXX
LA-UR: 17-20207
Locates Action No.: N/A

Ms. Kelly E. Allen
Regulatory Project Manager
U.S. Army Corps of Engineers
Albuquerque District
Regulatory Division, CESPARD
4101 Jefferson Plaza NE
Albuquerque, NM 87109-3435

Dear Ms. Allen:

Subject: Removal of the Martin Spring Carbon Filter Units and Components (SPA-2009-00299-ABQ)

Pursuant to the requirements of the 2012 Nationwide Permits, Los Alamos National Security, LLC (LANS) requests authorization from the U.S. Army Corps of Engineers (USACE) to conduct the following work in a perennial reach of Water Canyon water course.

On September 12, 2000 the USACE authorized the installation of a weir box and carbon filter at Martin Spring and assigned action number 1999-00212. The permit was modified in 2009, assigned the action number SPA-2009-00472-ABQ and permitted under Nation-Wide Permit (NWP) #18. The purpose of the project was to capture and treat spring flow for the remediation of high explosives (HE) from the alluvial system in CdV.

In September 2016 LANS completed a corrective measures implementation report (Evaluation Report for Surface Corrective Measures Implementation Closure, Consolidated Unit 16-021(c)-99, EP2016-0119) which was approved by NMED on October 21, 2016. The analysis contained in the reported concluded:

- HE concentrations in the spring and down gradient alluvial wells are at or below target screening levels
- Monitoring of flow and contaminant concentrations will continue
- Treatment is no longer necessary
- Carbon units and piping will be removed

The components of the permitted features consist of two weir boxes, two carbon filtration units and associated piping. The carbon filters and associated piping will be removed. A portion of the upper carbon filter is located below the ordinary high water mark (OHWM) and included in the resource impacts estimates contained in Enclosure 2. The carbon filters are located above current flow levels so diversion of flows will not be necessary. Piping from the weir box to the upper carbon filter is located, in part, below the OHWM. The precise location of the piping is not known at this time but for purposes of determining resource impacts estimates are provided in Enclosure 2. The weir boxes will remain in place to accommodate flow monitoring.

Perennial Reach of Cañon de Valle

- Name of Waterbody: Water Canyon
- Project Location: 35° 50' 33.41" N 106° 20' 11.55" W
- Waterbody Classification: – Perennial Reach (20.6.4.126)
- Type of Material Discharged: Channel Materials and Clean Fill
- Surface Area of Waters Dredge/Fill: 0.0005 acres
- Surface Area of Wetlands Filled: Not Applicable

The following documents are enclosed:

- Enclosure 1 – Project Location and Photographs of Project Site
- Enclosure 2 - Dredge and Fill Quantities Worksheet for Martin Spring Treatment Units Removal
- Enclosure 3 - USFWS Concurrence with Habitat Management Plan
- Enclosure 4 - Programmatic Agreement Between Los Alamos National Laboratory-New Mexico State Historic Preservation Office- Advisory Council for Historic Preservation

The project manager and applicant for this project is:

Stephani F. Swickley
Project Manager
Environmental Remediation
Los Alamos National Security
PO Box 1663, Mail Stop: M997
Los Alamos, NM 87545

Because this activity involves the discharge of fill material into waters of the U.S., LANS is aware that measures must be taken to minimize impacts and comply with General Conditions. These measures will include:

1. General Condition #2 – Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

Flows will be temporarily diverted around project site during removal activities.

2. General Condition #6 – No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

No unsuitable materials will be utilized or discharged.

3. General Condition # 10 – The activity must comply with applicable Federal Emergency Management Agency (FEMA) approved state or local floodplain management requirements.

The project will occur within the 100-year floodplain; best management practices regarding equipment staging and refueling are required for the project. The Department of Energy has determined that a floodplain assessment is not required.

4. General Condition #12 – Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tideline, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

Work will be performed during periods of low flow. Steps will be taken to minimize soil disturbance and restore work area to original grade.

5. General Condition #14 – Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable Nation-Wide Permit (NWP) general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

Some of the permitted features are no longer needed and will be removed.

6. General Condition #15 – Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Not applicable.

7. General Condition #18 – Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The

district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

Endangered Species – Los Alamos National Laboratory (LANL) follows a Threatened and Endangered Species Habitat Management Plan (HMP). The HMP is a comprehensive plan that balances current operations at LANL and future development within habitat of listed species. The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS consultation numbers 2-22-98-I-336 and 2-22-95-I-108) (USFWS Concurrence with Habitat Management Plan). In the 2011 update, management guidelines from the 1999 HMP for listed species were retained. We have also 1) updated some descriptive information, 2) included habitat boundary changes that received USFWS concurrence in 2005 (USFWS consultation number 22420-2006-I-0010), and 3) removed species that are no longer federally listed as threatened or endangered. The 2014 HMP update retains management guidelines from the 1999 HPM for listed species, updated some descriptive information, and added the Jemez Mountain Salamander (*Plethodon neomexicanus*), which was federally listed in September 2013 (USFWS) consultation # (02ENNM00-2014-I-0014).

The purpose of the HMP is to provide a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*) and Southwestern Willow Flycatcher (*Empidonax trailii extimus*). Site plans provide a set of requirements to facility managers to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

Suitable habitats for federally listed threatened and endangered species have been designated as Areas of Environmental Interest (AEIs). AEIs are the geographical units at LANL that are managed for the protection of listed species and consist of core habitat areas and buffer areas. Site plans identify restrictions on activities within the AEIs. Allowable activities are activities that the USFWS has reviewed and has provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day disturbance activities, such as access into an AEI, and long-term impacts, such as habitat alteration in the AEI.

The Laboratory's Biological Resources subject matter experts (SMEs) completed a Biological Resources Review of the proposed project and placed certain restrictions on project activities for the protection of the Mexican Spotted Owl and the Jemez Salamander. Cañon de Valle provides core habitat for both the Jemez Mountain Salamander and the Mexican Spotted Owl, both federally listed endangered species under the Endangered Species Act.

8. General Condition #20-Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate

documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

The Laboratory's Cultural Resources Team, in accordance with their standard operating procedure - Cultural Resources Project Review (ES-412, R3, December 2, 2011) - completed a cultural resources review of the proposed project. The Laboratory manages historic properties in accordance with its Cultural Resources Management Plan (CRMP). The CRMP is a plan for the management of the cultural heritage at the Laboratory and is used in accordance with a Programmatic Agreement between the US Department of Energy, the NM State Historic Preservation Office (SHPO) and the Advisory Council for Historic Preservation (Programmatic Agreement Between LANL-SHPO-ACHP). The CRMP establishes a set of procedures for effective compliance with historic preservation laws.

The Laboratory's cultural resources subject matter experts, in accordance with Policy 400, Environmental Protection, completed a cultural resources review of the proposed project and placed no restriction of project activities.

9. General Condition #21- Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Discoveries of Previously Unknown Remains and Artifacts - If inadvertent discoveries are made during all ground-disturbing project activities, work must stop immediately. This includes activities that encounter bones (possible burials), clusters or alignments of rock situated above bedrock (possible masonry walls), charcoal stains (possible hearths or burned wooden structures), or clusters of artifacts such as pottery, pieces of chipped stone, and historic debris such as cans or glass. Project staff are instructed to immediately contact a LANL Cultural Resources SME. The LANL Cultural Resources SME will arrange an emergency field inspection to be conducted prior to the resumption of project ground-disturbing activities at the specific location of the inadvertent discovery.

With respect to NEPA the proposed work is bounded by the 2008 SWEIS, Appendix I, Major Material Disposal Area Remediation, Canyon Cleanups, and other Consent Order actions.

Please contact Robert Gallegos at (505) 665-0450 or by email at rgallegos@lanl.gov if you have questions.

Sincerely,

Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (EPC-CP)
Los Alamos National Security, LLC

ARG:MTS:RMG/am
Enclosures:

1. Enclosure 1 - Project Location and Photographs of Project Site
2. Enclosure 2 - Dredge and Fill Quantities Worksheet for Martin Spring Treatment Units Removal
3. Enclosure 3 - USFWS Concurrence with Habitat Management Plan
4. Enclosure 4 - Programmatic Agreement Between Los Alamos National Laboratory-New Mexico State Historic Preservation Office- Advisory Council for Historic Preservation

Cy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Neal Schaeffer, NMED/SWQB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Cheryl L. Rodriguez, EM-SG, (E-File)
Craig S. Leasure, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
John C. Bretzke, EPC-DO, (E-File)
Michael A. Saladen, EPC-CP, (E-File)
Stephani F. Swickley, ADEM-PO
Tim J. Goering, ER-ES, (E-File)
Ted T. Ball, PM6, (E-File)
Jocelyn Y. Buckley, EPC-CP, (E-File)
Robert M. Gallegos, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
epccat@lanl.gov, (E-File)