Appendix A

Photos of Flooding in the Project Area

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NO PONDING After Project Isleta Phase I



















































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Rain Floods S. Valley Area









































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Appendix B

Clean Water Act Section 404 Nationwide Permits

Clean Water Act Section 401 Water Quality Certification This page intentionally left blank.



Nationwide Permit Summary

US Army Corps of Engineers® Albuquerque District

NATIONWIDE PERMIT 12

Utility Line Activities Effective Date: March 19, 2007 Expiration Date: March 18, 2012 (NWP Final Notice, 72 FR 11182, para. 12)

Utility Line Activities. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2 acre of waters of the United States.

<u>Utility lines</u>: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A utility line is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term utility line does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

<u>Utility line substations</u>: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2 acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

<u>Foundations for overhead utility line towers, poles, and anchors</u>: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the total discharge from a single and complete project does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over

section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 27.) (Sections 10 and 404)

<u>Note 1</u>: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters), copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

<u>Note 2</u>: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, accordance with the requirements for temporary fills.

<u>Note 3</u>: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

NATIONWIDE PERMIT GENERAL CONDITIONS

<u>General Conditions</u>: The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

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. Culverts placed in streams must be installed to maintain low flow conditions.

3. **Spawning Areas**. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas**. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds**. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. **Suitable Material**. 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).

7. **Water Supply Intakes**. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows**. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains**. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment**. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

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 tide line, 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.

13. **Removal of Temporary Fills**. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance**. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. **Wild and Scenic Rivers**. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ``study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. **Tribal Rights**. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. **Endangered Species**. (a) No activity is authorized under any NWP which is likely to 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 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.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity ``may affect" or will have ``no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have ``no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the

``take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with ``incidental take" provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal ``takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their worldwide Web pages at http://www.fws.gov/ and http://www.noaa.gov/fisheries.html respectively.

18. **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.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete preconstruction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the

NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. **Designated Critical Resource Waters**. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33,

34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. **Mitigation**. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example,

if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally

include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activityspecific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United

States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. **Water Quality**. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA

Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

22. **Coastal Zone Management**. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

23. **Regional and Case-By-Case Conditions**. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one

NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing, over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. **Transfer of Nationwide Permit Verifications**. If the permittee sells the property associated with the nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: ``When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit, and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

26. **Compliance Certification**. Each permittee who received the NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;

(b) A statement that any required mitigation was completed in accordance with the permit conditions; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

27. **Pre-Construction Notification**. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity:

(1) Until notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) If 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is ``no effect" on listed species or ``no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if

the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring preconstruction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the

project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either:

(1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit;

(2) That the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or

(3) That the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

28. **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.

D. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

E. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term ``discharge" means any discharge of dredged or fill material and any activity that causes or results in such a discharge.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a

gain in aquatic resource area.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR Part 60).

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated.

Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open-water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of ``open waters'' include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term ``single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a ``single and complete project" is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of ``waterbodies'' include streams, rivers, lakes, ponds, and wetlands.

ADDITIONAL INFORMATION

For additional information concerning the nationwide permits or for a written determination regarding a specific project, please contact the office below:

In New Mexico:

Chief, Regulatory Division Albuquerque District, US Army Corps of Engineers 4101 Jefferson Plaza, NE Albuquerque, NM 87109-3435 Telephone: (505) 342-3283

In Southeastern Colorado:

Southern Colorado Regulatory Office 200 S. Santa Fe Avenue, Suite 301 Pueblo, CO 81003 Telephone: (719) 543-9459

In Southern New Mexico and Western Texas: El Paso Regulatory Office P.O. Box 6096 Ft. Bliss, TX 79906-0096 Telephone: (915) 568-1359

In Northwestern New Mexico: Durango Regulatory Office 799 E. 3rd Street, Suite 2 Durango, CO 81301 Telephone: (970) 375-9506

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be accessed on our Internet page: http://www.spa.usace.army.mil/reg/

This nationwide permit is effective March 19, 2007, and expires on March 18, 2012.

Summary Version: March 19, 2007



Nationwide Permit Summary

US Army Corps of Engineers® Albuquerque District

NATIONWIDE PERMIT 18 Minor Discharges

Effective Date: March 19, 2007 Expiration Date: March 18, 2012 (NWP Final Notice, 72 FR 11184, para. 18)

Minor Discharges. Minor discharges of dredged or fill material into all waters of the United States, provided the activity meets all of the following criteria:

(a) The quantity of discharged material and the volume of area excavated do not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line;

(b) The discharge will not cause the loss of more than 1/10 acre of waters of the United States; and

(c) The discharge is not placed for the purpose of a stream diversion.

<u>Notification</u>: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) The discharge or the volume of area excavated exceeds 10 cubic yards below the plane of the ordinary high water mark or the high tide line, or (2) the discharge is in a special aquatic site, including wetlands. (See general condition 27.) (Sections 10 and 404)

NATIONWIDE PERMIT GENERAL CONDITIONS

<u>General Conditions</u>: The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

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. Culverts placed in streams must be installed to maintain low flow conditions.

3. **Spawning Areas**. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas**. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds**. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. **Suitable Material**. 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).

7. **Water Supply Intakes**. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows**. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains**. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment**. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

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 tide line, 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.

13. **Removal of Temporary Fills**. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance**. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. **Wild and Scenic Rivers**. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ``study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. **Tribal Rights**. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. **Endangered Species**. (a) No activity is authorized under any NWP which is likely to 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 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.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity ``may affect" or will have ``no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have ``no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the

``take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with ``incidental take" provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal ``takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their worldwide Web pages at http://www.fws.gov/ and http://www.noaa.gov/fisheries.html respectively.

18. **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.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete preconstruction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. (e) Prospective permittees should be aware that section 110k of the

NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. **Designated Critical Resource Waters**. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33,

34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. **Mitigation**. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example,

if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address

documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activityspecific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United

States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. **Water Quality**. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA

Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

22. **Coastal Zone Management**. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

23. **Regional and Case-By-Case Conditions**. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one

NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing, over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. **Transfer of Nationwide Permit Verifications**. If the permittee sells the property associated with the nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: ``When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit, and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received the NWP verification from the Corps must submit a

signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;

(b) A statement that any required mitigation was completed in accordance with the permit conditions; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

27. **Pre-Construction Notification**. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity:

(1) Until notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) If 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is ``no effect" on listed species or ``no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation

demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring preconstruction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS), With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP. If the district

engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either:

(1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit;

(2) That the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or

(3) That the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

28. **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.

D. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

E. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term ``discharge" means any discharge of dredged or fill material and any activity that causes or results in such a discharge.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places

maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR Part 60).

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated.

Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open-water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of ``open waters'' include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term ``single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a ``single and complete project" is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any
wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of ``waterbodies'' include streams, rivers, lakes, ponds, and wetlands.

ADDITIONAL INFORMATION

For additional information concerning the nationwide permits or for a written determination regarding a specific project, please contact the office below:

In New Mexico:

Chief, Regulatory Division Albuquerque District, US Army Corps of Engineers 4101 Jefferson Plaza, NE Albuquerque, NM 87109-3435 Telephone: (505) 342-3283

In Southeastern Colorado:

Southern Colorado Regulatory Office 200 S. Santa Fe Avenue, Suite 301 Pueblo, CO 81003 Telephone: (719) 543-9459

In Southern New Mexico and Western Texas: El Paso Regulatory Office P.O. Box 6096 Ft. Bliss, TX 79906-0096 Telephone: (915) 568-1359

In Northwestern New Mexico: Durango Regulatory Office 799 E. 3rd Street, Suite 2 Durango, CO 81301 Telephone: (970) 375-9506

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be accessed on our Internet page: http://www.spa.usace.army.mil/reg/

This nationwide permit is effective March 19, 2007, and expires on March 18, 2012.

Summary Version: March 19, 2007



BILL RICHARDSON Governor

DIANE DENISH Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building, N2050 1190 South St. Francis Drive (87505) P.O. Box 5469, Santa Fe, NM 87502-5469 Phone (505) 827-0187 Fax (505) 827-0160 www.nmenv.state.nm.us



RON CURRY Secretary

SARAH COTTRELL Deputy Secretary

August 9, 2010

CERTIFIED MAIL NO. 7008 1830 0003 4174 5685

Ms. Julie Alcon United States Army Corps of Engineers 4101 Jefferson Plaza, NE. Albuquerque, New Mexico 87109

Subject: Clean Water Act Section 401 Water Quality Certification for *NMED SWQB File SF-*729: Southwest Valley Flood Damage Reduction Project, Bernalillo County, New Mexico.

Dear Ms. Alcon:

The Surface Water Quality Bureau (SWQB) of the New Mexico Environment Department has examined the application for the project indicated above under Sections 404 and 401 of the federal Clean Water Act. According to the application, this project involves improving stormwater management in the area by expanding and linking existing irrigation drains, adding two stormwater detention ponds and creating a new stormwater spillway to the Rio Grande. This project does involve the use of asphalt, wet or poured concrete or similar construction materials.

The U.S. Army Corps of Engineers (USACE) will regulate this project under Nationwide Permit NW-12 and 43. A state Water Quality Certification is required by Section 401 of the federal Clean Water Act to ensure that the project complies with the State of New Mexico water quality standards (*State of New Mexico, Standards for Interstate & Intrastate Surface Waters, New Mexico Water Quality Control Commission, 20.6.4 New Mexico Administrative Code (NMAC) amendments effective on August 1, 2007*). A Section 401 Water Quality Certification is also required to comply with General Condition 21 (Water Quality) and General Condition 23 (Regional and Case-By-Case Conditions) of the Nationwide Permits.

The State of New Mexico water quality standards applicable to the project, which are available on the web at http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0004.pdf include, but are not limited to:

20.6.4.8	Antidegradation Policy and Implementation Plan	
20.6.4.13 A. B. F. I	General Criteria for Bottom Deposits and Suspended or Settleable Solids,	
and	Floating Solids, Oil and Grease, Toxic Pollutants, Temperature, and Turbidity	
20.6.4.13.J	Turbidity attributable to other than natural causes shall not reduce light	
	transmission to the point that the normal growth, function or reproduction of	

aquatic life is impaired or that will cause substantial visible contrast with the natural appearance of the water. Turbidity shall not exceed 10 NTU over background turbidity when the background turbidity is 50 NTU or less, or increase more than 20 percent when the background turbidity is more than 50 NTU. Background turbidity shall be measured at a point immediately upstream of the turbidity-causing activity. However, limited-duration activities necessary to accommodate dredging, construction or other similar activities and that cause the criterion to be exceeded may be authorized provided all practicable turbidity control techniques have been applied and all appropriate permits and approvals have been obtained.

The main stem of the Rio Grande from the headwaters of Elephant Butte reservoir

20.6.4.105

20.6.4.900

upstream to Alameda bridge (Corrales bridge) and intermittent water below the perennial reaches of the Rio Puerco that enters the main stem of the Rio Grande. Standards Applicable to Attainable or Designated Uses

According to the State of New Mexico water quality standards, the Rio Grande (Isleta Pueblo boundary to Alameda Street Bridge) is designated for the following uses: irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat, and secondary contact.

"Surface water(s) of the state" means all surface waters including lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds.

Section 401 Water Quality Certification with Conditions:

Pursuant to Section 401 of the Clean Water Act and 40 Code of Federal Regulations Part 121, the SWQB hereby issues a conditional Section 401 Water Quality Certification for the Southwest Valley Flood Damage Reduction Project based on the application and/or information provided. This certification is subject to conditions to reasonably assure that the activity is consistent with state law, will be conducted in a manner that will not violate applicable State of New Mexico water quality standards, and implements the Water Quality Management Plan, including Total Maximum Daily Loads (TMDLs), the Continuing Planning Process, and Antidegradation Policy Implementation Plan. Therefore, this Certification is not valid unless the following conditions are adhered to:

- 1. Erosion control measures for all portions of the project area that drain to or would have runoff toward surface water must be properly selected, installed, inspected, repaired, and maintained. Erosion and sediment control structures (e.g., silt fences, sediment basins, etc.) must be inspected after significant storm events and repaired as necessary. Sediment must be removed from erosion control structures when the sediment reaches one-half the height of the structure or wet storage volume is reduced by one-half.
- 2. Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals must not be stored within the 100-year floodplain and must have a secondary containment system to prevent spills. Appropriate spill clean-up materials such as booms and absorbent pads must be available on-site at all times during construction.
- 3. All heavy equipment used in the project area must be pressure washed and/or steam cleaned before the start of the project and inspected daily for leaks. A written log of inspections and

maintenance must be completed. Leaking equipment must not be used in or near surface water. Refuel equipment at least 100 feet from surface water.

- 4. Local weather forecasts must be monitored to avoid working in high water. Do not work within the stream channel during spring runoff or the summer monsoon season. Work in the stream channel should be limited to periods of no flow when practicable, and must be limited to periods of low flow. The SWQB must be notified and provided descriptions of temporary diversion structures and any other planned methods to avoid or minimize turbidity and to avoid spills.
- 5. Flowing water must be temporarily diverted around the work area, but remain within the existing channel to minimize erosion and turbidity and to provide for aquatic life movement. Diversion structures must be non-erodible, such as sand bags, water bladders, concrete barriers, or channel lined with geotextile or plastic sheeting. Dirt cofferdams are not acceptable diversion structures. Diversion structures must be capable of carrying anticipated stream flows during the construction period. Fish passage must be maintained at all times. Fish that become stranded in the dewatered channel must be immediately captured and returned to the active channel without further harm. All man-made materials must be removed from the diversion channel and water returned to the original channel in a manner that avoids or minimizes turbidity. Temporary diversion channels must be backfilled in a manner that prevents erosion and diversion of the stream from its natural channel.
- 6. All asphalt, concrete, drilling fluids and muds, and other construction materials must be properly handled and contained to prevent releases to surface water. Poured concrete must be fully contained in mortar-tight forms and/or placed behind non-erodible cofferdams to prevent releases to surface water or ground water. Appropriate measures must be used to prevent wastewater from concrete batching, vehicle wash-down, or aggregate processing entering the watercourse. Dumping of waste materials near watercourses is strictly prohibited.
- 7. Protective measures must be used to prevent blast, ripped or excavated soil or rock from entering surface water. Construction excavation dewatering discharges are to be uncontaminated and include all practicable erosion control measures and turbidity control techniques.
- 8. Work or the use of heavy equipment in wetlands must be avoided or minimized unless the impacts are to be mitigated. Construction activities in wetlands must be scheduled during low water or winter (frozen) conditions. Temporary protective mats are required for heavy equipment working in wetlands to minimize impacts to soil and vegetation and are to be removed when no longer necessary. Wetland crossings must be restricted to a single location and constructed perpendicular to and at a narrow point of the wetland. Wetland vegetation and excavated material (top soil) must be retained and reused to improve seeding success. Flows to wetlands must not be permanently disrupted. Permeable fills should be designed and installed, when practicable. Fill materials must be clean and consist of coarse material with minimal fines. Ditches or culverts in wetlands must have properly designed, installed and maintained siltation or sedimentation structures at the outfall.
- 9. During repair, demolition, treatments, or cleaning activities of bridges or associated structures (e.g., deck, pier, abutment and wing walls), materials must be kept out of the

channel. Before removing bridge or related structures, impermeable containment material (e.g., plastic sheet, canvas, tarpaulins or other catchment devices) must be secured above the water, under the bridge, and on the banks to capture any debris that may fall into the stream channel. Sandblasting operations must include vacuum systems or the bridge and associated structures must be completely "bagged" to collect all lead paint and concrete debris. Any debris that falls onto the containment area or into the channel must be properly disposed in accordance with the New Mexico Solid Waste Regulations (20.9.1 NMAC). Applicable Material Safety Data Sheets of water repellants and surface finish treatments must be maintained at the project area to assist the SWQB in monitoring or inspections, if needed.

- 10. Culverts and structures at stream crossings must be properly designed, installed and maintained to allow passage of sediment, bedload, and woody debris, and to prevent erosion problems or diversion of the stream from its natural channel. The project must not alter the natural stream channel size or shape (width, depth, gradient, direction or meander pattern), streamflow velocity (sediment transport rates), or water flow capacity after completion except for projects specifically designed to restore previously degraded and unstable streams.
- 11. Culverts at stream crossings must not be installed below the existing grade of the channel to prevent the initiation of headcutting and erosion problems. Culverts at stream crossings should be oriented with the natural channel and present no angular deviation from the natural channel. At the inlet approach, the channel should be narrow and confined and have a regular cross section with well-defined non-meandering thalweg so that stream flow has a consistent velocity profile, and high enough energy to facilitate the passage of sediment and woody debris. Culverts must be designed for 100-year flow events. Culvert design must allow for the passage of fish and other aquatic organisms. The gradient within the culvert must not exceed one percent. The road grade at culvert stream crossings must prevent the diversion of the stream from its channel in the event of culvert failure due to plugging or the exceedance of capacity. If the flow overtops the road, it must return to its natural channel instead of running down the road into a new channel, which would have greater erosive consequences.
- 12. Excavated trenches must be backfilled and match the compaction and elevation of the adjacent undisturbed soil.
- 13. All areas adjacent to the watercourse that are disturbed because of the project, including temporary access roads, stockpiles and staging areas, must be restored to pre-project elevations. Disturbed areas outside the channel that are not otherwise physically protected from erosion must be reseeded or planted with native vegetation. Stabilization measures including vegetation are required at the earliest practicable date, but by the end of first full growing season following construction.
- 14. A copy of this Section 401 Water Quality Certification must be kept at the project site during all phases of construction. All contractors involved in the project must be provided a copy of this certification and made aware of the conditions prior to starting construction.
- 15. The SWQB must be notified at least five days before starting construction to allow time to schedule monitoring or inspections. The SWQB must be notified if the project exceeds applicable State of New Mexico water quality standards.

16. Report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission regulations (20.6.2.1203 NMAC). For non-emergencies during normal business hours, call 505-428-2500. For non-emergencies after hours, call 866-428-6535 or 505-428-6535 (voice mail, twenty-four hours a day). For emergencies only, call 505-827-9329 twenty-four hours a day (New Mexico Department of Public Safety).

Violations of State of New Mexico water quality standards could lead to penalties under the New Mexico Water Quality Act. Section 74-6-10.1 B of the Act states, "Any person who violates any provision of the New Mexico Water Quality Act other than Section 74-6-5 NMSA 1978 or any person who violates any regulation, water quality standard, or compliance order adopted pursuant to that act shall be assessed civil penalties up to the amount of ten thousand dollars (\$10,000) per day for each violation."

The SWQB specifically reserves the right to amend or revoke this conditional Section 401 Certification at any time to ensure compliance with the State of New Mexico water quality standards. If you have any questions regarding this Section 401 Water Quality Certification, please feel free to contact Mike Matush of my staff at (505) 827-0505. Thank you for your cooperation.

Sincerely,

Dale Marines for Glerm Saums

Glenn Saums, Acting Chief Surface Water Quality Bureau

GS: mm

 xc: NMED District I Manager, Albuquerque Kelly Allen, U.S. Army Corps of Engineers Tom Nystrom, Wetlands, Region 6, USEPA Jill Wick, New Mexico Department of Game and Fish Brian Millsap, U.S. Fish and Wildlife Service 401 Certification File SF-729

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Appendix C

AMAFCA National Pollutant Discharge Elimination System Draft Permit This page intentionally left blank.



Region 6 1445 Ross Avenue Dallas, Texas 75202-2733

NPDES Permit No. NMS000101

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"), the co-permittees as listed below,

City of Albuquerque Department of Municipal Development P.O. Box 1293 Albuquerque, NM 87103 Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) 2600 Prospect NE Albuquerque, NM 87107

New Mexico Department of Transportation District III P.O. Box 91750 Albuquerque, NM 87199-1750 University of New Mexico Department of Safety, Health and Environmental Affairs 1801 Tucker Street N.E. Albuquerque, NM 87131

are authorized to discharge from all portions of the Albuquerque Municipal Separate Storm Sewer System (MS4) owned or operated by any permittee listed above, to waters of the United States, in accordance with the Storm Water Management Program(s), effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, IV, V, VI, VII, and VIII herein.

This is a renewal NPDES permit issued for these portions of the municipal separate storm sewer system.

This permit shall become effective on

This permit and the authorization to discharge shall expire the earlier of (1) ninety (90) days following the effective date of a watershed-based permit for the regulated Middle Rio Grande MS4s in the Albuquerque area or (2) at midnight

Issued on

Prepared by

Miguel I. Flores Director Water Quality Protection Division Suzanna M. Perea Environmental Scientist NPDES Permits and TMDLs Branch

ALBUQUERQUE MUNICIPAL SEPARATE STORM SEWER SYSTEM

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PART I. INDIVIDUAL PERMIT CONDITIONS

A. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1. <u>Permit Area.</u> This permit covers all areas within the corporate boundary of the City of Albuquerque served by, or otherwise contributing to discharges from the municipal separate storm sewer system (MS4) owned and/or operated by the permittees. For purposes of this permit, "permittee," "permittees" and/or "co-permittees" may refer to the City of Albuquerque (COA), Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), New Mexico Department of Transportation (NMDOT), and University of New Mexico (UNM), as a group or as separate entities.

2. <u>Authorized Discharges</u>. This permit authorizes stormwater discharges to waters of the United States from all outfalls owned and/or operated by the permittees.

3. <u>Authorized Non-Stormwater Discharges</u>. The following non-stormwater discharges need not be prohibited unless determined by the permittees, U.S. Environmental Protection Agency (EPA), or New Mexico Environment Department (NMED) to be significant contributors of pollutants to the municipal separate storm sewer system (MS4). Any such discharge that are identified as significant contributor pollutants to the MS4, or as causing or contributing to a water quality standards violation, must be addressed as an illicit discharge under the illicit discharge and improper disposal practices established pursuant to Part I.D.2 of this permit. For all of the discharges listed below, not treated as illicit discharges, the permittee must document the reason these discharges are not expected to be significant contributors of pollutants to the MS4. This documentation may be based on either the nature of the discharge or any pollution prevention/treatment requirements placed on such discharges by the permittee.

- a. potable water sources, including routine water line flushing;
- lawn, landscape, and other irrigation waters provided all pesticides, herbicides and fertilizers have been applied in accordance with approved manufacturing labeling and any applicable permits for discharges associated with pesticide, herbicide and fertilizer application;
- c. diverted stream flows;
- d. rising ground waters;
- e. uncontaminated groundwater infiltration (as defined at 40 CFR §35.2005 (20));
- f. uncontaminated pumped groundwater;
- g. foundation and footing drains;
- h. air conditioning or compressor condensate;
- i. springs;
- j. water from crawl space pumps;
- k. individual residential car washing;
- I. flows from riparian habitats and wetlands;
- m. dechlorinated swimming pool discharges;
- n. street wash waters that do not contain detergents and where no un-remediated spills or leaks of toxic or hazardous materials have occurred;
- o. discharges or flows from fire fighting activities (does not include discharges from fire fighting training activities); and,
- p. other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.).

B. SPECIAL CONDITIONS

1. <u>Compliance with Water Quality Standards</u>. Pursuant to Clean Water Act §402(p)(3)(B)(iii) and 40 CFR §122.44(d)(1), this permit includes provisions to ensure that discharges from the permittee's MS4 do not cause or contribute to exceedances of State and Tribal surface water quality standards, in addition to requirements to control discharges to the maximum extent practicable (MEP) set forth in Part I.D. Permittees shall address stormwater management through development of the Stormwater Management Program (SWMP) that shall include the following elements and specific requirements included in PART VI, Tables III and IV.

a. Permittee's discharges shall not cause or contribute to an exceedance of surface water quality standards (including numeric and narrative water quality criteria) applicable to the receiving waters. In determining whether the SWMP is effective in meeting this requirement or if

enhancements to the plan are needed, the permittee shall consider available monitoring data, visual assessment, and site inspection reports.

- Applicable surface water quality standards for discharges from the permittees' MS4 are those that are in place upon the effective date of this permit found at New Mexico Administrative Code §20.6.4. Discharges from various portions of the MS4 also flow downstream into waters with Pueblo of Isleta and Pueblo of Sandia Water Quality Standards;
- c. In the event that EPA determines that a discharge from the MS4 causes or contributes to an exceedance of applicable surface water quality standards and notifies the permittee of such an exceedance, the permittee shall, within sixty (60) days of notification, submit to EPA, NMED, Pueblo of Isleta and Pueblo of Sandia, a report that describes controls that are currently being implemented and additional controls that will be implemented to prevent pollutants sufficient to ensure that the discharge will no longer cause or contribute to an exceedance of applicable surface water quality standards. The permittee shall implement such additional controls upon notification by EPA and shall incorporate such measures into their SWMP as described in Part I.D of this permit. NMED or the affected Tribe may provide information documenting exceedance of water quality standards caused or contributed to by the discharges authorized by this permit to EPA Region 6 and request EPA take action under this paragraph.
- d. <u>Dissolved Oxygen</u>: The permittees shall take measures to address concerns regarding discharges to receiving waters of the Rio Grande, including modifications to the North Diversion Channel, by developing and implementing a strategy to eliminate conditions that cause or contribute to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. The permittees shall, in accordance with schedules in Part VI, Table III:
 - Identify structural elements or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;
 - (ii) Develop and implement controls, as necessary, to eliminate structural elements or the discharge of pollutants at levels that cause or contribute to exceedances of State or Tribal water quality standards for dissolved oxygen in waters of the United States; and
 - (iii) Provide an initial progress report to EPA within six (6) months of the permit effective date. Subsequent progress reports shall be included in the Annual Report. Each progress report shall include the information in Part VI, Table III.
- e. <u>PCBs in San Jose Drain and North Diversion Channel:</u> The permittees shall address concerns regarding PCBs in the San Jose Drain and North Diversion Channel drainage areas by performing activities to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States in accordance with the schedules in Part VI, Table IV.
- f. <u>Temperature</u>: The permittees shall take measures to address concerns regarding discharges to the Rio Grande, by developing and implementing a strategy to eliminate conditions that cause or contribute to exceedances of State and Tribal temperature water quality standards in waters of the United States. The permittees shall, in accordance with schedules in Part VI, Table V:
 - Identify structural elements, post construction design standards, or pollutants contributing to raised temperatures in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;
 - (ii) Develop and implement controls to eliminate structural elements, post construction design standards, or the discharge of pollutants at levels that cause or contribute to exceedances of State or Tribal water quality standards for temperature in waters of the United States; and
 - (iii) Provide an initial progress report to EPA within six (6) months of the permit effective date. Subsequent progress reports shall be included in the Annual Report. Each progress report shall include the information in Part VI, Table V.

2. **Discharges to Impaired Waters**. Impaired waters are those that have been identified pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State or Tribal surface water quality standards. This may include both, waters with EPA-approved Total Maximum Daily Loads (TMDLs) and those for which a TMDL has not yet been approved. For the purposes of this permit, the conditions for discharges to impaired waters also extend to controlling pollutants in MS4 discharges to tributaries to the listed impaired waters in the proximity of Albuquerque.

- a. <u>Existing Discharges to an Impaired Water without an Approved TMDL.</u> If the permittee's MS4 discharges to an impaired water without an approved TMDL, the permittee shall comply with Part I.C.1. of this permit and address in its SWMP and annual reports how the discharge of the pollutant(s) identified as causing the impairment will be controlled such that they do not cause or contribute to the impairment. The permittee shall:
 - (i) Evaluate the potential for discharges from the MS4 to impaired waters to contribute to the pollutant(s) of concern;
 - (ii) Identify additional or modified controls in the SWMP to ensure that discharges do not cause or contribute to the impairment; and
 - (iii) Implement identified additional controls and include the status of each in the annual report.
- b. Existing Discharges to an Impaired Water with an Approved TMDL. If the permittee's MS4 discharges to an impaired water with an approved TMDL and a waste load allocation (WLA) has been established that applies specifically to its MS4 discharges, or more generally to discharges from MS4s, the permittee shall comply with the requirements of Part I.B.1 and specific controls to support the achievement of the WLA. The permittee shall include these controls in their SWMP and address in their SWMP and annual reports how the discharge of the pollutant(s) identified as causing the impairment will be controlled such that they comply with the requirements of Part I.B.1. If EPA determines more stringent requirements are necessary to support achievement of the WLA, EPA will incorporate such requirements through a modification to this permit pursuant to Part V of this permit or by incorporation into the next permit.
 - (i) If the approved TMDL does not include a WLA applicable to discharges from the permittee's MS4, the permittee shall comply with Part I.B.1 of this permit and address in their SWMP and annual reports how the discharge of the pollutant(s) identified as causing the impairment will be controlled such that they do not cause or contribute to the impairment. Unless otherwise notified by EPA or NMED, compliance with the requirements of Part I.B of this permit shall be presumed to be adequate to meet the requirements of the approved TMDL.
 - (ii) Applicable TMDLs for discharges from the permittee's MS4 are those that are approved by EPA as of the effective date of this permit. See also Part I.B.2.c below.
 - (iii) The permittee shall highlight in their annual reports all control measures currently being implemented or planned to be implemented to control the pollutants identified in approved TMDLs.
- c. <u>Bacteria TMDL.</u> The permittees shall implement measures necessary to bring MS4 discharges into compliance with the Middle Rio Grande Total Maximum Daily Load (TMDL) for Bacteria. Specific permit requirements to implement the TMDL are included in PART VI, Tables II.A, II.B.1, II.B.2, and II.C.

A new bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Environment Department on April 13, 2010. The new TMDL modifies: 1) the indicator parameter for bacteria from fecal coliform to *E. coli*, and 2) the way the WLAs are assigned. The permittees are required to modify the bacteria control plan required under the previous permit as necessary to comply and be consistent with the assumptions of the new TMDL. Table II.C contains elements that must be addressed in the conversion to the new TMDL.

C. STORMWATER MANAGEMENT PROGRAM (SWMP)

1. <u>General Requirements</u>. The permittee shall continue implementation of the existing SWMP, and where necessary modify or revise existing elements and/or develop new elements to comply with all discharges from the MS4 authorized in Part I.A. The updated SWMP shall satisfy all requirements of this permit, and be implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act

(Act), and the Stormwater Regulations (40 CFR §122.26 and §122.34). This permit does not extend any compliance deadlines set forth in the previous permit effective December 1, 2003.

2. <u>Legal Authority</u>. Each permittee shall implement the legal authority granted by the State to control discharges to and from those portions of the MS4 over which it has jurisdiction. Permittees may use a combination of statute, ordinance, permit, contract, order, interagency or inter-jurisdictional agreement(s) with permittees to:

- a. Control the contribution of pollutants to the MS4 by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity;
- b. Control the discharge of stormwater and pollutants associated with land disturbance and development activities, both during the construction phase and after site stabilization has been achieved (post-construction), consistent with Part I.C.5.a and Part I.C.5.b.
- c. Prohibit illicit discharges and sanitary sewer overflows to the MS4 and require removal of such discharges consistent with Part I.C.5.e;
- d. Control the discharge of spills and prohibit the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
- e. Control, through interagency or inter-jurisdictional agreements among permittees, the contribution of pollutants from one (1) portion of the MS4 to another;
- f. Require compliance with conditions in ordinances, permits, contracts and/or orders; and
- g. Carry out all inspection, surveillance and monitoring procedures necessary to maintain compliance with permit conditions.

3. Shared Responsibility.

- a. The SWMP, in addition to any interagency or inter-jurisdictional agreement(s) among permittees, shall clearly identify the roles and responsibilities of each permittee.
- b. Implementation of the SWMP may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part I.C in lieu of creating duplicate program elements for each individual permittee.
 - Implementation of one (1) or more of the control measures may be shared with another entity, or the entity may fully take over the measure. A permittee may rely on another entity only if:
 - (1) the other entity, in fact, implements the control measure;
 - (2) the control measure, or component of that measure, is at least as stringent as the corresponding permit requirement;
 - (3) the other entity agrees to implement the control measure on the permittee's behalf. Written acceptance of this obligation is expected. The permittee must maintain this obligation as part of the SWMP description. If the other entity agrees to report on the minimum measure, the permittee must supply the other entity with the reporting requirements in Part III.H of this permit. The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component.
- c. Each permittee shall provide adequate finance, staff, equipment, and support capabilities to fully implement its SWMP and all requirements of this permit.

4. <u>Measurable Goals</u>. The permittees shall control the discharge of pollutants from its MS4. The permittee shall implement the provisions set forth in Part I.C.5 below, and shall at a minimum incorporate into the SWMP the control measures listed in Part I.C.5 below. The SWMP shall include measurable goals, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions and the frequency of the action.

5. Control Measures.

- a. <u>Construction Site Stormwater Runoff Control</u>. The permittees shall coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction activities within the permit area to ensure that the construction stormwater runoff control program controls or eliminates erosion and maintains sediment on site. Planning documents include, but are not limited to; comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances. The program shall address stormwater management during construction and include in the SWMP a description of the mechanism(s) utilized to comply with each of the following elements and the schedules contained in Table I.A:
 - (i) an ongoing program to assess, implement, and enforce the existing program to control stormwater discharges from construction activities that result in a land disturbance of greater than or equal to one (1) acre. Construction activities disturbing less than one (1) acre must be included in the program if that construction activity is part of a larger common plan of development or sale that may disturb one (1) acre or more. Permittees shall update the "NPDES Stormwater Management Guidelines for Construction and Industrial Activities Handbook" to be consistent with promulgated construction and development effluent limitation guidelines;
 - (ii) a procedure or system to review, update, and/or enact an ordinance(s) or other appropriate legal authority mechanism, that addresses stormwater runoff from construction sites one (1) acre or greater, to require developers and construction site operators to implement an erosion and sediment control program, control waste and properly dispose of wastes, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
 - (iii) procedures for review of all site plans and pre-construction review meetings that consider stormwater controls or management practices of potential water quality impacts and ensure consistency with local and State sediment and erosion control requirements. The site plan review must be conducted prior to commencement of construction activities, and include a review of the site design, the planned operations at the construction site, the planned control measures during the construction phase (including the technical criteria for selection of the control measures), and the planned controls to be used to manage runoff created after the development. The review procedure must incorporate procedures for the consideration of potential water quality impacts; procedures for pre-construction review; and, procedures for receipt and consideration of information submitted by the public. The site plan review procedure must also include evaluation of opportunities for use of green infrastructure practices and when the opportunity exists, encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site.
 - (iv) procedure for development of an application process whereby the construction site operator describes the sediment and erosion control measures to be taken on the site. The application shall include a listing of all water bodies into which the construction site will discharge and whether or not they are on the 303(d) list for impaired waters;
 - (v) procedures for site inspection (during construction) and enforcement of control measures, including provisions to ensure proper construction, operation, maintenance, and repair. The procedures must clearly define who is responsible for site inspections; who has the authority to implement enforcement procedures; and the steps utilized to identify priority sites for inspection and enforcement based on the nature of the construction activity. If a construction site operator fails to comply with procedures or policies established by the permittee, the permittee may request EPA enforcement assistance. Permittees shall:
 - (1) annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres. Site inspections are to be followed by any necessary compliance or enforcement action. Follow-up inspections are to be conducted to ensure corrective maintenance has occurred; and, all projects must be inspected at completion for confirmation of final stabilization; and

- (2) describe sanctions and enforcement mechanism(s) for violations of permit requirements and penalties with detail regarding corrective action follow-up procedures, including enforcement escalation procedures for recalcitrant or repeat offenders.
- (vi) procedure for providing education and training for permittee personnel involved in the planning, review, permitting, and/or approval of construction site plans, inspections and enforcement. Education and training shall also be provided for developers, construction site operators, contractors and supporting personnel, including requiring a stormwater pollution prevention plan for construction sites within the permitee's jurisdiction; and
- (vii) procedures for keeping records of and tracking all regulated construction activities within the MS4, i.e. site reviews, inspections, inspection reports, warning letters and other enforcement documents. A summary of the number and frequency of site reviews, inspections (including inspector's checklist for oversight of sediment and erosion controls and proper disposal of construction wastes) and enforcement activities that are conducted annually and cumulatively during the permit term shall be included in each annual report.
- b. <u>Post-Construction Stormwater Management in New Development and Redevelopment</u>. The permittees shall coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private new development and redevelopment projects/activities within the permit area to ensure the hydrology associated with new development and redevelopment sites mimic the pre-development hydrology of the previously undeveloped site. Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.

The permittee shall protect the physical, chemical and biological integrity of receiving waters, and their designated uses from the impacts of stormwater discharges through the implementation of watershed protection elements and site and neighborhood design elements. The purpose of watershed protection elements is to manage the impacts of stormwater on receiving waters that occur because of regional or watershed-scale management decisions. The primary purpose of site and neighborhood design elements is to manage the impacts of stormwater on receiving waters that occur because of site and neighborhood design management decisions. The technical principles of these management practices have many complementary similarities, and must be implemented in tandem.

The program shall address post-construction stormwater management and include the following elements in the SWMP and comply with the schedules contained in Table I.B:

- (i) procedure or system to review and update, as necessary, the existing program to ensure that stormwater controls or management practices for new development and redevelopment projects/activities disturbing greater than or equal to one (1) acre, including projects less than one (1) acre that are part of a larger common plan of development or sale, continue to meet the requirements and objectives of the permit;
- (ii) procedure or system to review, update, and/or enact an ordinance(s) or other appropriate legal authority mechanism, as necessary to ensure implementation of the SWMP.
- (iii) assessment of all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of green infrastructure practices. The permittee shall develop a report of the assessment findings, which is to be used to provide information to the permittee, of the regulation changes necessary to remove impediments and allow implementation of green infrastructure practices. The assessment shall include a list of the identified impediments, necessary regulation changes, and recommendations and proposed schedules to incorporate policies and standards to relevant documents and procedures to maximize infiltration, recharge, water harvesting, habitat improvement, and hydrological management of stormwater runoff;
- (iv) implementation and enforcement, via ordinance and/or other enforceable mechanism(s), of site design standards that prevent an increase in the one-hundred-year (100-yr), two-hour (2hr) peak runoff, a change in the time of the peak, or an increase in the total runoff from its

pre-development values to ensure the hydrology associated with new development and redevelopment sites mimic the pre-development hydrology of the previously undeveloped site. Management of runoff volume may be achieved by canopy interception, soil amendments, rainfall harvesting, engineered infiltration, extended filtration, other appropriate techniques, and any combination of these practices. Pre-development runoff values may be achieved through on-site utilization of practices including dry swales, bioretention, rain tanks and cisterns, soil amendments, roof top disconnections, permeable pavement, porous concrete, permeable pavers, reforestation, grass channels, green roofs or other green infrastructure practices as appropriate.

For projects/activities that cannot meet the pre-development runoff values requirement on site, two (2) alternatives are available; off-site mitigation and payment in lieu. If these alternatives are chosen, the permittee must develop and apply criteria for determining the circumstances under which these alternatives will be available. A determination that standards cannot be met on site may not be based solely on the difficulty or cost of implementing measures, but must include multiple criteria that rule out an adequate combination of the practices set forth in this section, such as: too small a lot outside of the building footprint to create the necessary infiltrative capacity even with amended soils; soil instability as documented by a thorough geotechnical analysis; a site use that is inconsistent with capture and reuse of stormwater; or other physical conditions that preclude use of green infrastructure techniques. In instances where an alternative to complete pre-development runoff values on site is chosen, technical justification as to the infeasibility of on-site management is required to be documented.

- (a) Off-site mitigation. Runoff practices achieving pre-development runoff values may be implemented at another location within the MS4 area, approved by the permittee. The permittee shall identify priority areas within the MS4 in which mitigation projects can be completed. Off-site mitigation must be for retrofit or redevelopment projects, and cannot be applied to new development. The permittee shall determine who will be responsible for long-term maintenance on off-site mitigation projects.
- (b) Payment in lieu. Payment in lieu may be made to the permittee, who will apply the funds to a public stormwater project. MS4s shall maintain a publicly accessible database of approved in lieu projects.
- (c) *Other.* EPA specifically requests comments for alternate approaches by which permittees may meet these objectives.
- (v) citations and descriptions of design standards for structural and non-structural controls to control pollutants in stormwater runoff, including discussion of the methodology used during design for estimating impacts to water quality and selecting structural and non-structural controls;
- (vi) estimation of the number of acres of impervious area (IA) and directly connected impervious area (DCIA). For the purpose of this part, IA includes conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops. DCIA is the portion of IA with a direct hydraulic connection to the permitee's MS4 or a waterbody via continuous paved surfaces, gutters, pipes, and other impervious features. DCIA typically does not include isolated impervious areas with an indirect hydraulic connection to the MS4 (e.g, swale or detention basin) or that otherwise drain to a pervious area. The permittee shall report the tabulated results and its estimation methodology in the first annual report. Beginning with the second year annual report and in each subsequent annual report, the permittee shall estimate the number of acres of IA and DCIA that have been added or removed during the prior year. The permittee shall include in its estimates the additions and reductions resulting from development, redevelopment, or retrofit projects undertaken directly by the permittee; or by private developers and other parties in a voluntary manner on in compliance with the permittee's regulations;
- (vii) an inventory and priority ranking of MS4-owned property and infrastructure (including public right-of-way) that may have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges to and from its MS4. In determining the potential for retrofitting, the permittee shall consider factors such as

the complexity and cost of implementation, public safety, access for maintenance purposes, subsurface geology, depth to water table, proximity to aquifers and subsurface infrastructure including sanitary sewers and septic systems, and opportunities for public use and education. In determining its priority ranking, the permittee shall consider factors such as schedules for planned capital improvements to storm and sanitary sewer infrastructure and paving projects; current storm sewer level of service and control of discharges to impaired waters, first or second order streams, and critical receiving water (drinking water supply sources). A report on those MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges shall be submitted beginning with the third year annual report and each subsequent annual report. The permittee may also include in its annual report non-MS4 owned property that has been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormore of the frequency, volume, and peak intensity of stormore for the frequency, volume, and peak intensity of stormore for the frequency, volume, and peak intensity of stormore designed to control the frequency.

- (viii) incorporation of watershed protection elements into all relevant policy and/or planning documents as they come up for regular review. If a relevant planning document is not scheduled for review during the term of this permit, the permittee must identify the elements that cannot be implemented until that document is revised, and provide to EPA and NMED a schedule for incorporation and implementation not to exceed five years from the effective date of this permit. As applicable to each permittee's MS4 jurisdiction, policy and/or planning documents must include the following:
 - (a) A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4.
 - (b) Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each watershed, by controlling the creation, extension and widening of parking lots, roads and associated development.
 - (c) Identify environmentally and ecologically sensitive areas that provide water quality benefits and serve critical watershed functions within the MS4 and ensure requirements to preserve, protect, create and/or restore these areas are developed and implemented during the plan and design phases of projects in these identified areas. These areas may include, but are not limited to critical watersheds, riparian corridors, headwaters, floodplains, wetlands, and areas with endangered species concerns and historic properties. Stakeholders shall be consulted as appropriate.
 - (d) Implement stormwater management practices that protect water quality impacts to streams, including disconnecting discharges to surface waters from impervious surfaces such as parking lots.
 - (e) Implement stormwater management practices that protect and enhance groundwater recharge.
 - (f) Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.
 - (g) Develop and implement policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils.
- (ix) procedures for site inspection and enforcement to ensure proper long-term operation, maintenance, and repair of stormwater management practices that are put into place after the completion of construction projects/activities. Procedure(s) shall include the requirement that as-built plans be submitted within ninety (90) days of completion of construction projects/activities that include controls designed to manage the stormwater associated with the completed site (post-construction stormwater management). Procedure(s) may include the use of dedicated funds or escrow accounts for development projects or the adoption by the permittee of all privately owned control measures. This may also include the development of maintenance contracts between the owner of the control measure and the permittee. The maintenance contract shall include verification of maintenance practices by the owner, allow the MS4 owner/operator to inspect the maintenance practices, and perform maintenance if inspections indicate neglect by the owner. Include a summary and analysis of

all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually shall be included in each annual report;

- (x) procedure to develop and implement an educational program for project developers regarding designs to control water quality effects from stormwater, and a training program for plan review staff regarding stormwater standards, site design techniques and controls, including training regarding Green Infrastructure practices. Training may be developed independently or obtained from outside resources, ie., federal, state, or local experts; and
- (xi) a cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program during the permit term, and a cumulative listing of annual revisions to administrative procedures made or ordinances enacted during the permit term shall be included in each annual report.
- c. Pollution Prevention/Good Housekeeping for Municipal Operations. The permittee shall implement, review and enhance their current pollution prevention practices and develop new source control procedures as detailed in this part to control the amount of pollutants in stormwater contributing to or discharging from its MS4. The permittee shall implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or controlling pollutant runoff from municipal operations due to activities, including but not limited to, park and open space maintenance, roadways and parking lots, fleet and building maintenance, new construction and land disturbances, operation and maintenance of industrial facilities owned and operated by permittees, and stormwater system maintenance. The program shall include the following elements:
 - (i) Maintenance activities, maintenance schedules, and long-term inspection procedures for measures to control floatables and other pollutants to the MS4. Permittees shall:
 - (1) provide an updated list of all stormwater quality facilities by drainage basin, including location and description;
 - (2) enhance the Inspection and Maintenance Program by coordinating with maintenance personnel to ensure that a target number of structures per basin are inspected and maintained per quarter; and,
 - (3) enhance the existing program to control the discharge of floatables and trash from the MS4 by implementing source control of floatable in industrial and commercial areas.
 - (ii) Measures to control or eliminate the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt and sand storage locations and snow disposal areas. Permittees shall modify the following as necessary:
 - (1) the existing operational manual for de-icing activities addressing alternate materials and methods to control impacts to stormwater quality;
 - (2) roadway, debris control and roadside vegetation management practices;
 - (3) the existing program to control pollution in stormwater runoff from equipment and vehicle maintenance yards and maintenance center operations located within the MS4;
 - (4) the street sweeping program. Assess possible benefits from changing frequency or timing of sweeping activities or utilizing different equipment for sweeping activities; and
 - (5) the description of procedures used by permittees to target roadway areas most likely to contribute pollutants to and from the MS4 (i.e., runoff discharges directly to sensitive receiving water, roadway receives majority of de-icing material, roadway receives excess litter, roadway receives greater loads of oil and grease).
 - (iii) Procedures to properly dispose of waste removed from the MS4 and municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris. Permittees shall modify the following as necessary:
 - (1) the standard operating procedures for collection of used motor vehicle fluids (at a minimum oil and antifreeze) and toxics (including paint, solvents, fertilizers, pesticides,

herbicides, and other hazardous materials) used in permittee operations or discarded in the MS4, for recycle, reuse, or proper disposal;

- (2) the standard operating procedures for the disposal of accumulated sediments, floatables, and other debris collected from the MS4 and during permittee operations to ensure proper disposal; and
- (3) the existing litter source control program to include public awareness campaigns targeting the permittee audience.
- (iv) Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are re-assessed for incorporation of additional water quality protection devices or practices. The potential of retro-fitting existing structural flood control devices to provide additional pollutant removal from stormwater shall be evaluated routinely to ensure new and/or innovative practices are implemented where applicable. Structural controls for pollutant removal must be located offline or prior to a discharge entering a water of the United States and not built as a treatment unit located in a water of the United States. Permittees shall:
 - review and revise, as necessary, the technical criteria guidance document and program for the assessment of water quality impacts and incorporation of water quality controls into future flood control projects.
 - (a) Describe how new flood control projects are assessed for water quality impacts.
 - (b) Provide citations and descriptions of design standards that ensure water quality controls are incorporated in future flood control projects.
 - (c) Include method for permittees to update standards with new and/or innovative practices.
 - (d) Describe master planning and project planning procedures and design review procedures.
 - (2) review and revise, as necessary, the criteria, procedures and schedule to evaluate existing flood control devices, structures and drainage ways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. Implement routine review to ensure new and/or innovative practices are implemented where applicable.
 - (3) include in each annual report, a cumulative summary of retrofit evaluations conducted during the permit term on existing flood control devices, structures and drainage ways to benefit water quality. Update the SWMP to include a schedule (with priorities) for identified retrofit projects.
- (v) Procedures to control the discharge of pollutants related to: 1) the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right of ways, parks, and other municipal property; and 2) commercial application and distribution of pesticides, herbicides, and fertilizers where permittee(s) hold jurisdiction over lands not directly owned by that entity (e.g. incorporated city). Permittees shall:
 - (1) review and revise, as necessary, the procedures and internal policies in place to ensure that herbicide and pesticide applicators doing business within the permittee's jurisdiction have been properly trained and certified, are encouraged to use the least toxic products, and control use and application rates according to applicable National, State, and Tribal requirements; and
 - (2) provide an updated description of the data monitoring system for all permittee departments utilizing pesticides, herbicides and fertilizers.
- (vi) Procedures to control industrial runoff from facilities owned or operated by the permittees and ultimately discharge to the MS4. Monitoring shall comply with requirements found in Part I.C.5.d. Permittees shall include:
 - (1) a list of municipal/permittee operations impacted by this program,
 - (2) a map showing the industrial facilities owned and operated by the MS4,

- (3) a list of the industrial facilities (other than large construction activities defined as industrial activity) that will be included in the industrial runoff control program by category and by basin, and
- (4) the permit authorization number or a MSGP NOI form for each facility.
- (vii) Development and implementation of an employee training program to incorporate pollution prevention and good housekeeping techniques into everyday operations and maintenance activities. Develop a tracking procedure and ensure that employee turnover is considered when determining frequency of training.
- d. <u>Industrial and High Risk Runoff</u>. (Applicable to facilities other than those owned or operated by the permittee(s) (Part I.C.5.c)). The permittee shall continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in annual reporting required in Part III.H. The program shall include the following elements in the SWMP and comply with the schedules contained in Table I.C:
 - (i) identify and control pollutants in stormwater discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee(s) determines are contributing a substantial pollutant loading to the MS4. The permittee shall modify the following as necessary:
 - (1) the list of the facilities included in the program, by category and basin;
 - (2) the schedules and frequency of inspection for listed facilities. Facility inspections may be carried out in conjunction with other municipal programs (e.g. pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but must include random inspections for facilities not normally visited by the municipality;
 - (3) the priorities for inspections and procedures used during inspections (e.g. inspection checklist, review for NPDES permit coverage; review of stormwater pollution prevention plan; etc.);
 - describe the current monitoring program for stormwater discharges from the facilities identified in the program included in Part I.C.5.d, in accordance with Part III.C. The permittee shall modify the following as necessary:
 - (1) monitoring frequency,
 - (2) parameters and
 - (3) entity performing monitoring and analyses (MS4 permittees or subject facility). The monitoring program may include a waiver of monitoring for parameters at individual facilities based on a "no-exposure" certification;
 - (iii) establish and implement control measures for such discharges.
- e. <u>Illicit Discharges and Improper Disposal</u>. The permittees shall implement and enforce an Illicit Discharge Detection and Elimination (IDDE) program to systematically detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4, and to implement defined procedures to prevent illicit connections and illegal dumping into the MS4. Note that the term "illicit discharge" also covers illegal or improper disposal or dumping of wastes into the MS4. Illicit discharges into the MS4 shall be effectively prohibited and appropriate enforcement procedures and actions shall be implemented. Within three (3) years, the permittee shall enhance the existing program to utilize procedures and methodologies consistent with those described in "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments," by The Center for Watershed Protection and R. Pitt, dated 2004, as a model for development and implementation of the Illicit Discharges and Improper Disposal Program. The following elements shall be included in the SWMP and comply with the schedules contained in Table I.D:
 - (i) Illicit discharges to the MS4 are prohibited, and any such discharge subject to the NPDES permitting program violates the Clean Water Act §301(a) prohibition on discharge of

pollutants without an NPDES permit and remains in violation until eliminated (or becoming authorized under an NPDES permit). The permittees shall prohibit through ordinance or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implementation of appropriate enforcement procedures and actions (including enforcement escalation procedures for recalcitrant or repeat offenders). The program must include procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4s jurisdiction. If an illicit discharger fails to comply with procedures or policies established by the permittee, the permittee may rely on EPA and the state environmental agency for assistance in enforcement of this provision of the permit.

Upon detection (including receipt of notification by any party of an illicit discharge), the permittee shall investigate the suspected illicit discharge within forty-eight (48) hours eliminate such discharges as expeditiously as possible; and, require immediate cessation of illicit discharges upon confirmation of responsible parties in accordance with its legal authorities. Where elimination of an illicit discharge within thirty (30) days of its confirmation is not possible, the permittee shall establish an expeditious schedule for its elimination. No later than six (6) months after confirmation, such discharges shall be eliminated or appropriate enforcement actions shall be initiated by the permittee. In the interim, the permittee shall take all reasonable and prudent measures to control the discharge of pollutants to its MS4 from the identified illicit source(s).

- (ii) The sources of non-stormwater listed in Part I.A.3 of this permit need not be eliminated from discharging to the MS4 provided that the permittee determines that these discharges are not significant contributors of pollutants to the MS4. These non-stormwater discharges must not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the MS4 (e.g. a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, controls on the wash water, etc.). Discharges regulated by a separate NPDES permit and discharges for which an NPDES permit application has been submitted need not be addressed as illicit discharges by the permittees nor prohibited from entering the Municipal Separate Storm Sewer System.
- (iii) The permittee shall review complaint records for the past permit term and develop a targeted source reduction program for those categories of illicit discharge/improper disposal incidents, that have occurred more than twice in two (2) or more years from different locations, e.g., for improper disposal of paint waste: provide targeted outreach to painting contractors, develop handout regarding proper brush cleaning to be provided to all building supply stores upon sale of paint and brushes; for improper used oil disposal: develop handout for auto parts stores to provide upon sale of oil filters and motor oil, etc.
- (iv) The permittee (NMDOT) shall review within six (6) months, and expeditiously revise as necessary, within no more than two (2) years, the existing permitting/certification program to ensure that any entity applying for the use of Right of Way implements controls in their construction and maintenance procedures to control pollutants entering the MS4.
- (v) The Illicit Discharge Detection and Elimination (IDDE) program shall be a written document revised as necessary to be inclusive of the elements described below. If the IDDE program does not contain all the elements outlined in this permit, the IDDE program shall include written documentation or rationale as to why an element is not applicable to the permittee. The permittee shall maintain all records used to develop the IDDE program as described in Part I.C.7.
 - (1) The permittee shall maintain adequate legal authority to implement the IDDE program to prohibit illicit discharges and investigate suspected illicit discharges. The written IDDE program shall include a reference or citation of the authority the permittee will use to implement all aspects of the IDDE program. Failure to have exercised authority granted under State law (e.g., ability to pass ordinances) shall not be considered a lack of legal authority.

(2) The permittees shall maintain a map of their portion of the MS4 identifying all discharge points into waters of the United States and into major drainage channels draining more than twenty (20) percent of the MS4 area (City of Albuquerque only). To make the IDDE system more effective and less costly to administer in the long term, the permittees are strongly encouraged to record the system map and basin delineation on a Geographic Information System (GIS) mapping system. Once delineated, each catchment or basin shall be assessed based on currently available data to determine the potential for illicit discharges.

If the boundaries of the catchment or basin extend beyond the boundaries of the MS4, the permittee is encouraged to work with neighboring MS4s to ensure an accurate assessment for potential illicit discharges.

The permittee shall delineate the MS4 into catchments or basins and assess the illicit discharge potential of all catchments or basins. The permittee may draw from existing information about the MS4 for initial characterization of the illicit discharge potential of all catchments or basins of the MS4. In the situation where there are known illicit discharges, the permittee shall identify these catchments or basins as Problem Catchments/Basins.

Within one (1) year, the permittee shall develop and submit to EPA and NMED (and Pueblo of Sandia for North Diversion Channel only) an initial priority ranking of the MS4 catchments or basins. EPA recommends that the permittee consider the perceived severity of the known or suspected pollution, the current or intended uses of receiving waters, and impairment status in the development of its priority ranking. For each Problem Catchment/Basin, the permittee shall provide all available documented evidence, including monitoring results, of illicit discharges and sewer overflows; completed, ongoing or planned corrective measures addressing the documented illicit discharges and sewer overflows; and, a schedule for completing and verifying measures correcting the documented illicit discharges and sewer overflows.

(3) The permittee shall implement specific inspection, screening, monitoring and response/enforcement activities to support the permitee's required assessments of its SWMP, and to complete requirements of the IDDE Program.

Upon the effective date of this permit, the permittee shall begin implementation of activities described in this part. The permittee shall complete implementation of the IDDE activities, described in this part, for one-third (1/3) of its total MS4 service area no later than three (3) years from the effective date of this permit and for 100 percent of the MS4 within five (5) years from the effective date of this permit. The permittee shall cause the removal of all identified illicit discharges and sewer overflows pursuant to Part I.C.5.e of this permit. Within six (6) months, of the effective date of this permit, the permittee shall submit as part of its updated SWMP, a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected.

(a) The permittee shall update a written systematic procedure for system screening, follow-up activities to locate source of suspected illicit discharges, or improper disposal, eliminating or requiring elimination of illicit discharges (including enforcement procedures) and to document the elimination of the illicit connection or discharge. Screening frequencies for individual basins shall be based on the priority ranking within the MS4 system. Priorities for activities for further investigation and elimination of illicit discharges and improper disposal shall be based on the results of dry weather field screening, the magnitude and nature of the suspected discharge, the sensitivity of the receiving water; and/or other relevant factors. System screening procedures may be a combination of testing, visual monitoring and/or evaluation for basins with low potential based on past history and initial screening results. The permittee shall take into account any limitations regarding accessibility of the monitoring locations such as safety and access to private property when developing this procedure. The written systematic procedure shall be updated as soon as possible, but no later than six (6) months from the effective date of the permit.

- (b) The permittee shall begin systematically locating illicit discharges using the procedure developed in accordance with this part no later than one (1) year from the effective date of the permit. The permittee is required to complete the IDDE activities implementation for Problem Catchments defined in Part I.C.5.e.(v)(2) within three (3) years and for the remainder of the system within five (5) years from the effective date of the permit.
- (4) Methods for informing the general public of hazards associated with illegal discharges and improper disposal of waste, including training for public employees.
- f. <u>Control of Floatables Discharges</u> (e.g. litter and other human-generated solid refuse). The floatables control program shall include source controls and, where necessary, structural controls. Permittees shall include the following elements in the SWMP and comply with the schedules contained in Table I.E:
- (i) synthesize findings from the 2005 AMAFCA/COA Floatable and Gross Pollutant Study to develop a schedule for implementation of controls or additional study; and
- (ii) estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type.
- g. <u>Waste Collection Programs.</u> Programs to collect used motor vehicle fluids (at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal, and to collect household hazardous waste materials (including paint, solvents, fertilizers, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis. Collection programs operated by third parties may be a component of the programs. Permittees shall enhance these programs by establishing the following elements as a goal in the SWMP and comply with the schedules contained in Table I.F:
 - (i) Increasing the frequency of the collection days hosted;
 - (ii) Expanding the program to include commercial fats, oils and greases; and
 - (iii) Coordinating program efforts between applicable permittee departments.
- h. <u>Spill Prevention and Response</u>. The permittee shall implement a program to prevent, contain, and respond to spills that may discharge into the MS4.
 - (i) Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or insure the party responsible for the spill takes, all reasonable steps to control or prevent any adverse effects to human health or the environment.
 - (ii) The spill response program may include a combination of spill response actions by the permittee(s) (and/or another public or private entity), and legal requirements for private entities within the permittee's municipal jurisdiction.
- i. <u>Public Education and Outreach on Stormwater Impacts</u>. The permittees shall continue implementation of the joint public education program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in annual reporting required in Part III.H. The program shall include the following elements in the SWMP and comply with the schedules contained in Table I.G:
 - (i) increase public awareness about stormwater pollution including its causes and effects, and actions that citizens, commercial, industrial and institutional entities may take to control the impact of stormwater pollution on water quality;
 - (ii) promote, publicize and facilitate the various elements of the SWMP through varied public education and outreach methods including public websites. The permittee shall make information available for non-English speaking residents, where appropriate;
 - (iii) disseminate information to the general public regarding the proper handling, disposal and recycling of used motor vehicle fluids, household hazardous waste, grass clippings, car wash waters, and proper use of fertilizers, pesticides, and herbicides, and oil and toxics used on

roadways, including information on the steps to report illicit discharges and/or improper disposal of materials;

- (iv) educate pet owners about proper disposal of pet waste; and
- (v) educate owners and operators of commercial, industrial, and institutional facilities regarding their responsibility to control pollutants in stormwater discharges from their property to the MS4;

Where necessary the existing program shall be modified or revised to include:

- a detailed description of the program and outreach activities, including methods for disseminating information; target audiences; target pollutants and sources addressed in the program; how target pollutants and sources were selected; estimation of people with whom you intend to communicate; and a schedule and/or frequency of activities;
- (2) the development and implementation of a program to promote, publicize and facilitate the use of Green Infrastructure Practices;
- (3) an examination of impediments to implementing an integrated public education program (including all permittee departments and programs within the MS4) regarding litter reduction, recycling and proper disposal (including yard waste, HHW, and used motor vehicle fluids), and green infrastructure practices (including xeriscaping, reduced water consumption, and subsequent reduction in pesticide/herbicide use);
- (4) a plan to leverage resources by combining outreach efforts with small MS4s in the Albuquerque Urbanized area; and
- (5) a plan to target outreach to stakeholders such as the Middle Rio Grande Water Quality Work Group, the Middle Rio Grande Bosque Initiative, the Middle Rio Grande Endangered Species Act Collaborative Program, the Middle Rio Grande-Albuquerque Reach Watershed Group, as well as the Pueblos of Sandia and Isleta and Albuquerque Bernalillo County Water Utility Authority.

For the purposes of this permit:

- (vi) Traditional municipal entities such as cities, counties and tribes, etc. must address the general public being served by the MS4;
- (vii) Non-traditional municipalities such as universities, hospital complexes, prisons, special districts, etc. and federal facilities must address the community served by the MS4. For example, a university must address the faculty, other staff, students, and visitors, while military base must address military personnel (and dependents), contractors, employees, tenants, visitors, etc; and
- (viii)Departments of transportation must address the community working on or served by the transportation network within the MS4 including employees, contractors, and the general public.
- j. <u>Public Involvement and Participation</u>. The permittee shall develop and implement, within one (1) year, a plan to encourage public involvement and provide opportunities for participation in the review, modification and implementation of the SWMP; develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP; and, make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4. The plan shall include the following elements in the SWMP and comply with the schedules contained in Table I.H:
 - a detailed description of the general plan for informing the public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how the public was involved in development of the SWMP;
 - (ii) the development and implementation of at least one (1) assessment of public behavioral change following a public education and/or participation event;
 - (iii) a process to solicit involvement by environmental groups and civic organizations interested in water quality-related issues, including but not limited to the Middle Rio Grande Water Quality

Work Group, the Middle Rio Grande Bosque Initiative, the Middle Rio Grande Endangered Species Act Collaborative Program, the Middle Rio Grande-Albuquerque Reach Watershed Group, the Pueblos of Sandia and Isleta, Albuquerque Bernalillo County Water Utility Authority, UNM Colleges and Schools, and Chartered Student Organizations; and,

(iv) an evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities and awareness throughout the metropolitan area.

6. Stormwater Management Program Review and Modification.

- a. <u>Program Review</u>. Each permittee shall participate in an annual review of its SWMP in conjunction with preparation of the annual report required in PART III.H. Results of the review shall be discussed in the annual report and shall include an assessment of:
 - (i) SWMP implementation, progress in achieving measurable goals, and compliance with program elements and other permit conditions;
 - (ii) the effectiveness of its SWMP, and any necessary modifications, in complying with the permit, including requirements to control the discharge of pollutants, and comply with water quality standards and any applicable approved TMDLs; and the adequacy of staff, funding levels, equipment, and support capabilities to fully implement the SWMP and comply with permit conditions.
 - (1) Project staffing requirements, in man hours, for the implementation of the MS4 program during the upcoming year.
 - (2) Staff man hours used during the previous year for implementing the MS4 program. Man hours may be estimated based on staff assigned, assuming a forty (40) hour work week.
- b. <u>Program Modification</u>. The permittee(s) may modify its SWMP with prior notification or request to the EPA and NMED in accordance with this section.
 - (i) Modifications adding, but not eliminating, replacing, or jeopardizing fulfillment of any components, controls, or requirements of its SWMP may be made by the permittee(s) at any time upon written notification to the EPA.
 - (ii) Modifications replacing or eliminating an ineffective or unfeasible component, control or requirement of its SWMP, including monitoring and analysis requirements described in Part V, may be requested in writing at any time. If request is denied, the EPA will send a written explanation of the decision. Modification requests shall include the following:
 - (1) a description of why the SWMP component is ineffective, unfeasible (including cost prohibitions), or unnecessary to support compliance with the permit;
 - (2) expectations on the effectiveness of the proposed replacement component; and
 - (3) an analysis of how the proposed replacement component is expected to achieve the goals of the component to be replaced.
 - (iii) Modifications resulting from schedules contained in PART VI may be requested following completion of an interim task or final deadline.
 - (iv) Modification requests or notifications shall be made in writing, signed in accordance with PART IV.H by all directly affected permittees, and include a certification that all permittees were given an opportunity to comment on the proposed modification prior to submittal to the EPA.
- c. <u>Program Modifications Required by EPA</u>. Modifications requested by EPA shall be made in writing, set forth the time schedule for the permittee(s) to develop the modifications, and offer the permittee(s) the opportunity to propose alternative program modifications to meet the objective of the requested modification. The EPA may require changes to the SWMP as needed to:
 - Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
 - (ii) Include more stringent requirements necessary to comply with new State or Federal statutory or regulatory requirements; or

- (iii) Include such other conditions deemed necessary by the EPA to comply with the goals and requirements of the Clean Water Act.
- d. <u>Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation</u>: The permittee(s) shall implement the SWMP:
 - (i) On all new areas added to their portion of the MS4 (or for which they become responsible for implementation of stormwater quality controls) as expeditiously as possible, but not later than one (1) year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately;
 - (ii) Within ninety (90) days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee(s) shall have a plan for implementing the SWMP on all affected areas. The plan may include schedules for implementation; and
 - (iii) Information on all new annexed areas and any resulting updates required to the SWMP shall be submitted in the annual report.

7. <u>Retention of Program Records</u>. The permittee shall retain SWMP records developed in accordance with Part I.D and Part VI for at least five (5) years after coverage under this permit terminates.

NPDES Permit No. NMS000101 Page 1 of Part II

PART II. NUMERIC DISCHARGE LIMITATIONS

A. DISCHARGE LIMITATIONS. Reserved

PART III. MONITORING AND REPORTING REQUIREMENTS

A. STORM EVENT DISCHARGE MONITORING

1. <u>Representative Monitoring</u>. Monitoring shall be conducted on representative outfalls, internal sampling stations, and/or in-stream monitoring locations to characterize the quality of stormwater discharges from the MS4.

- a. Monitoring Requirements: Refer to Tables X.A and X.B
- b. Monitoring Location Descriptions: Refer to Table X.C

Alternate representative monitoring locations may be substituted for just cause during the term of the permit. Requests for approval of alternate monitoring locations shall be made to the EPA in writing and include the rationale for the requested monitoring station relocation. Unless disapproved by the EPA, use of an alternate monitoring location (except for those with numeric effluent limitations) may commence thirty (30) days from the date of the request. For monitoring locations where numeric effluent limitations have been established, the permit must be modified prior to substitution of alternate monitoring locations. Six (6) samples shall be collected during the first year of monitoring at substitute monitoring locations.

2. <u>Representative Monitoring - Rapid Bioassessment Option</u>. The permittee(s) has the option of developing and implementing a rapid bioassessment monitoring program.

- a. The permittee(s) shall obtain all necessary aquatic wildlife collection permits from appropriate State, Tribal and/or Federal agencies.
- b. Permittee(s) utilizing the rapid bioassessment monitoring option shall conduct monitoring of the separate storm sewer system as described in Part III.A.1, except bacteria.
- c. If the permittee(s) elects to develop and implement a rapid bioassessment monitoring program, the permittee(s) shall submit an approvable monitoring program to EPA no later than one (1) year from the effective date of this permit. An approvable program must include:
 - i. Monitoring of at least two (2) locations in the Rio Grande receiving, directly or indirectly, stormwater discharges from the MS4 plus a reference site located within the same ecological region as the MS4; and
 - ii. Monitoring of each station at least twice per year, with monitoring conducted at essentially the same time periods each year.
- d. Unless disapproved by the EPA within sixty (60) days, a proposed rapid bioassessment monitoring plan meeting the criteria herein shall be deemed approved and the permittee(s) may implement the alternate rapid bioassessment program.
- e. The permittee(s) shall notify the EPA and NMED (addresses provided in Part III.G), in writing, at least fourteen (14) days prior to commencing an alternate rapid bioassessment monitoring program.

3. <u>Additional Monitoring Sites</u>. Within six (6) months of the permit effective date, the permittee(s) shall develop a plan utilizing wet and dry weather screening, industrial and high risk monitoring, and representative monitoring results to identify at least three (3) additional monitoring sites within the MS4.

- a. Additional monitoring sites shall be located at sensitive areas or areas indicated as potential sources of pollution to the MS4.
- b. Monitoring may be for specific pollutants and for abbreviated periods of time.
- c. The SWMP shall be updated to include the additional monitoring sites identified. Monitoring of pollutants listed at Tables X.A and X.B shall comply with the required monitoring frequency beginning with the subsequent monitoring period or follow the monitoring strategy (pollutants and

monitoring frequency) developed in accordance with Part III.A.3.b above. Monitoring results shall be reported in the Annual Report.

4. **Storm Event Data**. For Part III.A.1 and any additional sampling conducted for Part III.A.5, quantitative data shall be collected to estimate pollutant loadings and event mean concentrations for each parameter sampled. Records shall be maintained of all analytical results, the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; the duration (in hours) between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled.

5. <u>Sample Type, Collection, and Analysis</u>. The following requirements apply only to storm event discharge samples collected for Parts III.A.1 and III.A.5.

- a. <u>Composite Samples</u>: Flow-weighted composite samples shall be collected as follows:
 - i. Composite Method Flow-weighted composite samples may be collected manually or automatically. For both methods, equal volume aliquots may be collected at the time of sampling and then flow-proportioned and composited in the laboratory, or the aliquot volume may be collected based on the flow rate at the time of sample collection and composited in the field.
 - ii. Sampling Duration Samples shall be collected for at least the first three (3) hours of discharge. Where the discharge lasts less than three (3) hours, the entire discharge must be sampled.
 - iii. Aliquot Collection A minimum of three (3) aliquots per hour, separated by at least fifteen (15) minutes, shall be collected. Where more than three (3) aliquots per hour are collected, comparable intervals between aliquots shall be maintained (e.g. six aliquots per hour, at least seven (7) minute intervals).
- b. Grab Samples: Grab samples shall be taken during the first two (2) hours of discharge.
- c. <u>Representative Storm Events</u>: Samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least seventy-two (72) hours from the previously measurable (greater than 0.1 inch rainfall) storm event.

The required seventy-two (72) hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge. The required seventy-two (72) hour storm event interval is also waived where the permittee(s) documents that less than a seventy-two (72) hour interval is representative for local storm events during the season when sampling is being conducted.

d. <u>Analytical Methods:</u> Analysis and collection of samples shall be done in accordance the methods specified at 40 CFR §136. Where an approved 40 CFR §136 method does not exist, any available method may be used unless a particular method or criteria for method selection (such as sensitivity) has been specified in the permit. The minimum quantification levels (MQLs) at Table X.B are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

6. **Seasonal Loadings and Event Mean Concentrations**. All necessary sampling data shall be collected to provide estimates for each major outfall (or appropriate sub-watershed) of seasonal pollutant loadings and event mean concentrations for a representative storm event for the parameters listed in Table X.A - Representative Monitoring Annual Requirements. This information may be estimated from the representative monitoring locations and shall take into consideration land uses and drainage areas for the outfall. A cumulative estimate of seasonal loadings and event mean concentrations shall be developed each year and reported in each annual report.

B. FLOATABLES MONITORING. The permittees shall establish locations for monitoring floatable material in discharges to and/or from their MS4. Floatable material shall be monitored at least twice per year, as described below, and the amount of collected material shall be estimated in cubic yards.

- 1. Albuquerque/AMAFCA two (2) stations, and
- 2. NMDOT and UNM one (1) station each.

C. INDUSTRIAL AND HIGH RISK RUNOFF MONITORING. Each permittee shall monitor stormwater discharges from Type 1 and 2 industrial facilities which discharge to the MS4. Permittees shall:

1. Conduct analytical monitoring of Type 1 facilities that discharge to the MS4. Type 1 facilities are municipal landfills; hazardous waste treatment, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and industrial facilities the permittee(s) determines are contributing a substantial pollutant loading to the MS4.

- a. The following parameters shall be monitored:
 - any pollutants limited in an existing NPDES permit for a subject facility;
 - oil and grease;
 - chemical oxygen demand (COD);
 - pH;
 - biochemical oxygen demand, five-day (BOD₅);
 - total suspended solids (TSS);
 - total phosphorous;
 - total Kjeldahl nitrogen (TKN);
 - nitrate plus nitrite nitrogen;
 - any discharge information required under 40 CFR §122.21(g)(7)(iii) and (iv);
 - total cadmium;
 - total chromium;
 - total copper;
 - total lead;
 - total nickel;
 - total silver;
 - total zinc; and,
 - PCBs.
- b. Frequency of monitoring shall be established by the permittee(s), but may not be less than once per year;
- c. In lieu of the above parameter list, the permittee(s) may alter the monitoring requirement for any individual Type 1 facility:
 - i. To coincide with the corresponding industrial sector-specific monitoring requirements of the 2008 Multi-Sector General Stormwater Permit or any applicable general permit issued after September 2008. This exception is not contingent on whether a particular facility is actually covered by the general permit; or
 - ii. To coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility, and
 - iii. Any optional monitoring list must be supplemented by pollutants of concern identified by the permittee(s) for that facility.

2. Conduct appropriate monitoring (e.g. analytic, visual), as determined by the permittee(s), at Type 2 facilities that discharge to the MS4. Type 2 facilities are other municipal waste treatment, storage, or disposal facilities (e.g. POTWs, transfer stations, incinerators) and industrial or commercial facilities the permittee(s) believed contributing pollutants to the MS4. The permittee shall include in each annual report, a list of parameters of concern and monitoring frequencies required for each type of facility;

3. May use analytical monitoring data, on a parameter-by-parameter basis, that a facility has collected to comply with or apply for a State or NPDES discharge permit (other than this permit), so as to avoid unnecessary cost and duplication of effort;

4. May allow the facility to test only one (1) outfall and to report that the quantitative data also apply to the substantially identical outfalls if:

- a. A Type 1 or Type 2 industrial facility has two (2) or more outfalls with substantially identical effluents, and
- Demonstration by the facility that the stormwater outfalls are substantially identical, using one (1) or all of the following methods for such demonstration. The NPDES Stormwater Sampling Guidance Document (EPA 833-B-92-001), available on EPA's website at http://www.epa.gov/npdes/pubs/owm0093.pdf provides detailed guidance on each of the three options: (1) submission of a narrative description and a site map; (2) submission of matrices; or (3) submission of model matrices.

5. May accept a copy of a "no exposure" certification from a facility made to EPA under 40 CFR §122.26(g), in lieu of analytic monitoring.

D. TOXICITY MONITORING TO PROTECT LISTED THREATENED AND ENDANGERED SPECIES (24-HOUR ACUTE NOEC FRESHWATER). It is unlawful and a violation of this permit for a permittee or a designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA or NMED.

1. Conduct monitoring to collect samples and test stormwater for its toxic effects on the fathead minnow (*Pimephales promalas*) and *daphnia pulex*. The monitoring strategy shall include all elements of Part III.D and specific requirements in Part VI, Table VI:

- a. include monitoring of one (1) storm event per year, at minimum, for the NPDES permit term,
- b. comply with EPA 24-hour LC₅₀ acute toxicity monitoring and testing described below,
- c. provide EPA with monitoring data, in accordance with the annual reporting requirements in PART III.E,
- d. notify the EPA immediately upon the detection of any toxicity (addresses provided in Part III.G). Toxicity is defined as an LC_{50} of <100 percent effluent, and
- e. compile a final report to be submitted to EPA four (4) years and six (6) months from the effective date of that permit that contains:
 - i. all results of toxicity testing,
 - ii. an evaluation of the toxicants (if any), and
 - iii. the permittees actions to eliminate that toxicity, including activities ongoing during the current permit term and any needed activities which would extend past the five (5) year permit term.

2. Scope and Methodology

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO:	North Diversion Channel where it enters the main channel of the Rio Grande
CRITICAL DILUTION (%):	100%
EFFLUENT DILUTION SERIES (%):	0%, 12.5%, 25%, 50% 75%, 100%
SAMPLE TYPE:	Grab
TEST SPECIES/METHODS:	40 CFR §136

<u>Daphnia pulex</u> acute static non-renewal 24-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

<u>Pimephales promelas</u> (Fathead minnow) acute static non-renewal 24-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The LC₅₀ is defined as the effluent concentration which causes fifty (50) percent or greater mortality at the end of the exposure period. Test failure is defined as a demonstration fifty (50) percent or greater mortality at test completion (24 hours).
- c. This permit may be reopened to require whole effluent toxicity limitations, chemical specific effluent limitations, additional testing, and/or other appropriate actions to address toxicity.
- d. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report (addresses provided in Part III.G) the test results to EPA and NMED, Surface Water Quality Bureau, in writing, within five (5) business days of notification the test failure. EPA will determine appropriate action if necessary.

3. Required Toxicity Testing Conditions

- a. Test Acceptance: The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:
 - i. Each toxicity test control (0% effluent) must have a survival equal to or greater than ninety (90) percent.
 - ii. The percent coefficient of variation between replicates shall be forty (40) percent or less in the control (0% effluent) for: *Daphnia pulex* survival test; and Fathead minnow survival test.
 - iii. The percent coefficient of variation between replicates shall be forty (40) percent or less in the critical dilution, <u>unless</u> significant lethal effects are exhibited for: *Daphnia pulex* survival test; and Fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than forty (40) percent. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

- b. Statistical Interpretation: For the *Daphnia pulex* survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the LC_{50} EPA-821-R-02-012 or the most recent update thereof.
- c. Samples and Composites
 - i. The permittee shall collect one (1) grab composite sample from the monitoring location listed at Item 2.a above.
 - The maximum holding time for any effluent sample shall not exceed thirty-six (36) hours. The toxicity test must be initiated within thirty-six (36) hours after the collection of grab sample. Samples shall be chilled to six (6) degrees Centigrade during collection, shipping, and/or storage.
 - iii. The permittee must collect samples such that the effluent samples are representative of any periodic storm event discharged on an intermittent basis.

4. Reporting

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or

invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART IV.P of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

- b. A valid test for each species must be reported during each reporting period specified in PART III.H of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only <u>ONE</u> (1) set of biomonitoring data for each species is to be recorded for each reporting period. The data submitted should reflect the <u>LOWEST</u> Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached for review.
- c. The permittee shall report the following results of each valid toxicity test. Submit retest information, if required, clearly marked as such. Only results of valid tests are to be reported.
 - i. Pimephales promelas (Fathead minnow)
 - 1) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution.
 - 2) Report the NOEC value for survival.
 - 3) Report the highest (critical dilution or control) Coefficient of Variation.
 - ii. Daphnia pulex
 - 1) If the NOEC for survival is less than the critical dilution.
 - 2) Report the NOEC value for survival.
 - 3) Report the highest (critical dilution or control) Coefficient of Variation.

E. WET WEATHER SCREENING OF MS4. Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of wet weather discharges. Results of the wet weather screening shall be provided in each annual report. The wet weather screening program shall be described in the SWMP and comply with the schedules contained in Table VII:

1. shall screen one-third (1/3) of the drainage area of MS4 within three (3) years of the effective date of this permit and complete screening 100 percent of the MS4 within five (5) years;

2. shall include sufficient screening points to adequately assess pollutant levels from all areas of the MS4 and at least five (5) screening points along each major drainage channel that drains 20 percent or more of the land area within the City of Albuquerque;

3. shall screen for BOD₅, sediment or a parameter addressing sediment (e.g., TSS or turbidity), *E. coli*, Oil and Grease, nutrients, and any pollutant that has been identified as a cause of impairment of a waterbody receiving discharges from that portion of the MS4;

4. shall specify the sampling and non-sampling techniques to be used for initial screening and follow-up purposes. Sample collection and analysis need not conform to the requirements of 40 CFR Part 136;

5. An assessment of wet weather screening results (including data from the previous permit term) shall be performed and benchmarked against national stormwater databases and data collected for the representative monitoring program;

6. Wet weather monitoring shall be performed only when the predicted (or actual) rainfall magnitude of a storm event is greater than 0.25 inches and an antecedent dry period of at least forty-eight (48) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology will consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each. Individual grab samples shall be preserved and delivered to the laboratory where samples will be combined into a single composite sample from each monitoring location; and,

7. At the time of sampling, the permittee shall record any observed erosion of stream banks, scouring or sedimentation in streams, such as sand bars or deltas.

F. DRY WEATHER DISCHARGE SCREENING OF MS4. Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of dry weather discharges. Results of the assessment shall be provided in each annual report. This program may be coordinated with the illicit discharge detection and elimination program. The dry weather screening program shall be described in the SWMP and comply with the schedules contained in Table VIII:

1. shall screen one-third (1/3) of the drainage area of MS4 within three (3) years of the effective date of this permit and complete screening 100 percent of the MS4 within five (5) years;

2. shall include sufficient screening points to adequately assess pollutant levels from all areas of the MS4 and at least five (5) screening points along each major drainage channel that drains 20 percent or more of the land area within the City of Albuquerque;

3. shall screen for, at a minimum, BOD₅, sediment or a parameter addressing sediment (e.g., TSS or turbidity), *E. coli*, Oil and Grease, nutrients, and any pollutant that has been identified as a cause of impairment of a waterbody receiving discharges from that portion of the MS4;

4. shall specify the sampling and non-sampling techniques to be used for initial screening and follow-up purposes. Sample collection and analysis need not conform to the requirements of 40 CFR Part 136; and,

5. shall be performed only when an antecedent dry period of at least seventy-two (72) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology shall consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each. Grab samples will be combined into a single composite sample from each station, preserved, and delivered to the laboratory for analysis. A flow weighted automatic composite sample may also be used.

G. IMPAIRED RECEIVING WATERS WET WEATHER ASSESSMENT OF POTENTIAL WATER

QUALITY IMPACTS The permittees shall conduct wet weather monitoring to gather information on the response of impaired receiving waters to wet weather discharges from the MS4. Results of the assessment shall be provided in each annual report. The receiving water impact assessment program shall be described in the SWMP and comply with the schedules contained in Table IX:

1. shall perform in-stream wet weather monitoring at all locations tributary to impaired waters listed under CWA §303(d), plus one (1) location located upstream of the MS4. Specific monitoring locations shall be established by the permittee and may take advantage of monitoring stations/efforts utilized by the permittees or others and data collected at such stations to satisfy part, or all, of this requirement provided the data collection by that party meets the requirements of this part;

2. shall perform annual in-stream wet weather monitoring for the impaired water pollutant(s) of concern at one (1) location upstream of the MS4 and one (1) downstream of the last MS4 drainage area entering the impaired water;

3. shall perform wet weather monitoring for the impaired water pollutant(s) of concern at 100 percent of the MS4 drainage areas tributary to the impaired waterbody within five (5) years from the effective date and for at least one-third (1/3) of those MS4 areas within three (3) years;

4. wet weather monitoring shall be performed only when the predicted (or actual) rainfall magnitude of a storm event is greater than 0.25 inches and an antecedent dry period of at least forty-eight (48) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology will consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each. Individual grab samples shall be preserved and delivered to the laboratory where samples will be combined into a single composite sample from each monitoring location.

5. monitoring methodology at each MS4 monitoring location shall consist of a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each (or a flow weighted automatic

composite), collected during any portion of the monitoring location's discharge hydrograph (i.e. first flush, rising limb, peak, and falling limb) after a discernable increase in flow at the tributary inlet. In order to accommodate the timely completion of all required monitoring, no minimum rainfall magnitude or antecedent dry period criterion need be established beyond the requirement that qualifying storm events be sufficient in magnitude to generate stormwater runoff and resultant discharge at the monitoring locations or discernable increased flow at tributary inlets to be monitored.

H. ANNUAL REPORT. Each permittee shall contribute to the preparation of an annual system-wide report to be submitted by no later than **April 1st**. The report shall cover the previous year from **January 1st to December 31st** and include the below separate sections, with an overview for the entire MS4 and subsections for each permittee. Additionally, the year one (1) and year four (4) annual report shall include submittal of a complete SWMP revision.

1. <u>SWMP(s) status of implementation</u>: shall include the status of compliance with all schedules established under this permit and the status of actions required in Part I.C and Part III.D, including, but not limited to the Dissolved Oxygen Assessment Status, TMDL Progress Report, and Acute Toxicity Testing Results.

2. <u>SWMP revisions</u>: shall include revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application under 40 CFR §122.26(d)(2)(iv), §122.26(d)(2)(v), and §122.34 are to be included, as well as a cumulative list of all SWMP revisions during the permit term.

3. Performance assessment: shall include:

- an assessment of performance in terms of measurable goals, including, but not limited to, a description of the number and nature of enforcement actions and inspections, public education and public involvement efforts;
- a summary of the data, including monitoring data, that is accumulated throughout the monitoring year (October 1 to September 30); actual values of representative monitoring results shall be included, if results are below minimum analytical level (MAL); and
- c. an identification of water quality improvements or degradation.

4. <u>Annual expenditures</u>: for the reporting period, with a breakdown for the major elements of the stormwater management program and the budget for the year following each annual report.

5. <u>Annual Report Responsibilities</u>: Preparation and submittal of a system-wide report shall be coordinated by the City of Albuquerque. The report shall indicate which, if any, permittee(s) have failed to provide the required information on the portions of the MS4 for which they are responsible to the City of Albuquerque.

- a. Joint responsibility for report submission shall be limited to participation in preparation of the overview for the entire system and inclusion of the identity of any permittee who failed to provide input to the annual report.
- b. Individual permittees shall be individually responsible for content of the report relating to the portions of the MS4 for which they are responsible and for failure to provide information for the system-wide annual report no later than March 1st of each year. The annual report shall be signed and certified, in accordance with Part IV.H and include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or been apprised of the content of the Annual Report. Annual report shall be due no later than April 1st of each year.

I. CERTIFICATION AND SIGNATURE OF REPORTS. All reports required by the permit and other information requested by the EPA shall be signed and certified in accordance with Part IV.H.
J. REPORTING: WHERE AND WHEN TO SUBMIT

1. Representative monitoring results (Part III.A.1) and toxicity monitoring results (Part III.D.1) obtained during the reporting period running from **October 1st** to **September 30th** shall be submitted on discharge monitoring report (DMR) forms along with the annual report required by Part III.H. Fort representative monitoring results, a separate DMR form is required for each monitoring period (season) specified in Part III.A.1.

2. Signed copies of DMRs required under Part III, the Annual Report required by Part III.H, and all other reports required herein, shall be submitted to:

U.S. EPA, Region 6 Compliance Assurance and Enforcement Division Water Enforcement Branch (6EN-WC) 1445 Ross Avenue Dallas, Texas 75202-2733

3. Requests for SWMP updates, modifications in monitoring locations, or application for an individual permit shall, be submitted to:

U.S. EPA, Region 6 Water Quality Protection Division Operations Support Office (6WQ-O) 1445 Ross Avenue Dallas, Texas 75202-2733

4. Additional Notification. Permittee(s) shall also provide copies of DMRs, annual reports, requests for SWMP updates, items for compliance with permit requirements for TMDL implementation (Tables I, II.A, II.B1 and 2, II.C, III, IV, and V), programs or changes in monitoring locations, and all other reports required herein, to:

New Mexico Environment Department Surface Water Quality Bureau 1190 St. Francis Drive P.O. Box 5469 Santa Fe, New Mexico 87502

Pueblo of Sandia Box 6008 Bernalillo, NM 87004 Attn: Water Quality Officer

Pueblo of Isleta P.O. Box 1270 Isleta, NM 87022 Attn: Director, Pueblo Environment Department

PART IV. STANDARD PERMIT CONDITIONS

A. DUTY TO COMPLY. The permittee(s) must comply with all conditions of this permit insofar as those conditions are applicable to each permittee, either individually or jointly. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS. The EPA will adjust the Civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (Federal Register: Dec. 31, 1996, Volume 61, No. 252, pages 69359-69366, as corrected, March 20, 1997, Volume 62, No. 54, pages 13514-13517) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every four years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties listed below were adjusted for inflation starting in 1996.

- 1. Criminal Penalties.
- a. Negligent Violations: The Act provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one (1) year, or both.
- b. Knowing Violations: The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three (3) years, or both.
- c. Knowing Endangerment: The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than fifteen (15) years, or both.
- d. False Statement: The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two (2) years, or by both. If a conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both. (See Section 309(c)(4) of the Act).

2. <u>**Civil Penalties**</u>. The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.

3. <u>Administrative Penalties</u>. The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

- a. Class I penalty: Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.
- b. Class II penalty: Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.

C. DUTY TO REAPPLY. If the permittee wishes to continue an activity regulated by this permit after the permit expiration date, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days prior to expiration of this permit. The EPA may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR §122.6 and any subsequent amendments.

D. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

E. DUTY TO MITIGATE. The permittee(s) shall take all reasonable steps to control or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. DUTY TO PROVIDE INFORMATION. The permittee(s) shall furnish to the EPA, within a time specified by the EPA, any information which the EPA may request to determine compliance with this permit. The permittee(s) shall also furnish to the EPA upon request copies of records required to be kept by this permit.

G. OTHER INFORMATION. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in any report to the EPA, he or she shall promptly submit such facts or information.

H. SIGNATORY REQUIREMENTS. For a municipality, State, or other public agency, all DMRs, SWMPs, reports, certifications or information either submitted to the EPA or that this permit requires be maintained by the permittee(s), shall be signed by either a:

- 1. principal executive officer or ranking elected official; or
- 2. duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described above and submitted to the EPA.
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

3. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new written authorization satisfying the requirements of this paragraph must be submitted to the EPA prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification: Any person signing documents under this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I. **PENALTIES FOR FALSIFICATION OF MONITORING SYSTEMS**. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the Act.

J. OIL AND HAZARDOUS SUBSTANCE LIABILITY. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act or section 106 of CERCLA.

K. PROPERTY RIGHTS. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

L. SEVERABILITY. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

M. REQUIRING A SEPARATE PERMIT.

1. The EPA may require any co-permittee authorized by this permit to obtain a separate NPDES permit. Any interested person may petition the EPA to take action under this paragraph. The Director may require any co-permittee authorized to discharge under this permit to apply for a separate NPDES permit only if the co-permittee has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form (as necessary), a statement setting a deadline for the co-permittee to file the application, and a statement that on the effective date of the separate NPDES permit, coverage under this permit shall automatically terminate. Separate permit applications shall be submitted to the address shown in Part III.G. The EPA may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit, prior to the deadline of the time extension, a separate NPDES permit application as required by the EPA, then the applicability of this permit to the co-permittee is automatically terminated at the end of the day specified for application submittal.

2. Any co-permittee authorized by this permit may request to be excluded from the coverage of this permit by applying for a separate permit. The co-permittee shall submit a separate application as specified by 40 CFR §122.26(d) with reasons supporting the request to the Director. Separate permit applications shall be submitted to the address shown in Part III.J. The request may be granted by the issuance of a separate permit if the reasons cited by the co-permittee are adequate to support the request.

N. STATE / ENVIRONMENTAL LAWS.

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by section 510 of the Act.

2. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

O. PROPER OPERATION AND MAINTENANCE. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of stormwater management programs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

P. MONITORING AND RECORDS.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of the reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the EPA at any time.

- 3. Records of monitoring information shall include:
- a. The date, exact place, and time of sampling or measurements;
- b. The initials or name(s) of the individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The time(s) analyses were initiated;
- e. The initials or name(s) of the individual(s) who performed the analyses;
- f. References and written procedures, when available, for the analytical techniques or methods used; and
- g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

Q. MONITORING METHODS. Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit. The minimum quantification levels (MQLs) at Table X.B are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

R. INSPECTION AND ENTRY. The permittee shall allow the EPA or an authorized representative of EPA, or the State, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act, any substance or parameters at any location.

S. PERMIT ACTIONS. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

T. ADDITIONAL MONITORING BY THE PERMITTEE(S). If the permittee monitors more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

U. ARCHEOLOGICAL AND HISTORIC SITES. This permit does not authorize any stormwater discharges nor require any controls to control stormwater runoff which are not in compliance with any historic preservation laws.

- 1. In accordance with the Albuquerque Archaeological Ordinance (Section 2-12-2, 14-16-5, and 14-14-3-4), an applicant for either:
- a. A preliminary platt for any subdivision that is five acres or more in size; or
- b. A site development plan or master development plan for a project that is five acres or more in size on property that is zoned SU-1 Special Use, IP Industrial Park, an SU-2 zone that requires site plan review, PC Planned Community with a site, or meets the Zoning Code definition of a Shopping Center must first obtain either a Certificate of No Effect or a Certificate of Approval from the City Archaeologist. Details of the requirements for a Certificate of No Effect or a Certificate of Approval are described in the ordinance. Failure to obtain a certificate as required by ordinance shall subject the property owner to the penalties of §1-1-99 ROA 1994.

2. If municipal excavation and/or construction projects implementing requirements of this permit will result in the disturbance of previously undisturbed land, and the project is not required to have a separate NPDES permit (e.g. general permit for discharge of stormwater associated with construction activity), then the permittee may seek authorization for stormwater discharges from such sites of disturbance by:

- a. Submitting, thirty (30) days prior to commencing land disturbance, the following to the State Historic Preservation Officer (SHPO) and to appropriate Tribes and Tribal Historic Preservation Officers for evaluation of possible effects on properties listed or eligible for listing on the National Register of Historic Places:
 - i. A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground, and
 - ii. A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.
 - iii. The addresses of the SHPO and Sandia Pueblo are:

State Historic Preservation Officer New Mexico Historic Preservation Division Bataan Memorial Building 407 Galisteao Street, Ste. 236 Santa Fe, New Mexico 87501

Pueblo of Sandia Box 6008 Bernalillo, New Mexico 87004

Pueblo of Isleta P.O. Box 1270 Isleta Pueblo, New Mexico 87022

3. If the permittee receives a request for an archeological survey or notice of adverse effects from the SHPO, the permittee shall delay such activity until:

- a. A cultural resource survey report has been submitted to the SHPO for a review and a determination of no effect or no adverse effect has been made, and
- b. If an adverse effect is anticipated, measures to minimize harm to historic properties have been agreed upon between the permittee and the SHPO.

4. If the permittee does not receive notification of adverse effects or a request for an archeological survey from the SHPO within thirty (30) days, the permittee may proceed with the activity.

5. Alternately, the permittee may obtain authorization for stormwater discharges from such sites of disturbance by applying for a modification of this permit. The permittee may apply for a permit modification by submitting the following information to the Permitting Authority 180 days prior to commencing such discharges:

- a. A letter requesting a permit modification to include discharges from activities subject to this provision, in accordance with the signatory requirements in Part IV.H.
- b. A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground; County in which the facility will be constructed; type of facility to be constructed; size area (in acres) that the facility will encompass; expected date of construction; and whether the facility is located on land owned or controlled by any political subdivision of New Mexico; and
- c. A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.

PART V. PERMIT MODIFICATION

A. MODIFICATION OF THE PERMIT. The permit may be reopened and modified, in accordance with 40 CFR §122.62, §122.63, and §124.5, during the life of the permit to address:

- 1. Changes in the State's Water Quality Management Plan, including Water Quality Standards;
- 2. Changes in State, Tribal, or Federal statutes or regulations;
- 3. A new permittee who is the owner or operator of a portion of the MS4;
- 4. Changes in portions of the SWMP that are considered permit conditions;
- 5. Construction activities implementing requirements of this permit that will result in the disturbance of previously undisturbed land and not required to have a separate NPDES permit; or
- 6. Other modifications deemed necessary by the EPA to meet the requirements of the Act.

B. TERMINATION OF COVERAGE FOR A SINGLE PERMITEE. Permit coverage may be terminated, in accordance with the provisions of 40 CFR §122.64 and §124.5, for a single permittee without terminating coverage for other permittees.

C. MODIFICATION OF THE SWMP(s). Only those portions of the SWMPs specifically required as permit conditions shall be subject to the modification requirements of 40 CFR §124.5. Addition of components, controls, or requirements by the permittee(s); replacement of an ineffective or infeasible control implementing a required component of the SWMP with an alternate control expected to achieve the goals of the original control; and changes required as a result of schedules contained in Part VI shall be considered minor changes to the SWMP and not modifications to the permit. (See also Part I.D.6)

D. CHANGES IN REPRESENTATIVE MONITORING SITES. Changes in monitoring sites, other than those with specific numeric effluent limitations (as described in Part III.A.1.c), shall be considered minor modifications to the permit and shall be made in accordance with the procedures at 40 CFR §122.63.

PART VI. SCHEDULES FOR IMPLEMENTATION AND COMPLIANCE.

A. IMPLEMENTATION AND AUGMENTATION OF THE SWMP(s). The permittee(s) shall comply with all elements identified in Parts I and III, and the schedules contained in Tables I.A, I.B, I.C, I.D, I.E, I.F, I.G, I.H, I.I, I.J, II.A, II.B.1, II.B.2, II.C, III, IV, and V for SWMP implementation and augmentation, and permit compliance. The EPA shall have sixty (60) days from receipt of a modification or augmentation made in compliance with Part VI to provide comments or request revisions. During the initial review period, EPA may extend the time period for review and comment. The permittee(s) shall have thirty (30) days from receipt of the EPA's comments or required revisions to submit a response. All changes to the SWMP or monitoring plans made to comply with schedules in Tables I.A, I.B, I.C, I.D, I.E, I.F, I.G, I.H, I.I, I.J, II.A, II.B.1, II.B.2, II.C, III, IV, and V must be approved by EPA prior to implementation.

B. COMPLIANCE WITH EFFLUENT LIMITATIONS. Reserved.

C. REPORTING COMPLIANCE WITH SCHEDULES. No later than fourteen (14) days following a date for a specific action (interim milestone or final deadline) identified in the Part VI schedule(s), the permittee(s) shall submit a written notice of compliance or noncompliance to the EPA in accordance with Parts III.G.

D. MODIFICATION OF THE SWMP(s). The permittee(s) shall modify its SWMP, as appropriate, in response to modifications required in Part VI.A. Such modifications shall be made in accordance with Part V.C.

TABLE I.A: Construction Site Stormwater Runoff Control

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.a, the permittee shall, in the Construction Site Stormwater Runoff Control Program, coordinate all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction activities within the permit area to ensure that the program controls or eliminates erosion and maintains sediment on site. The program shall address stormwater management during construction and include in the SWMP a description of the mechanism(s) utilized to comply with each of the following elements: 1) an ongoing program to assess, implement, and enforce the existing program to control stormwater discharges from construction activities that result in a land disturbance of greater than or equal to one (1) acre. 2) a procedure or system to review, update, and/or enact an ordinance(s) or other appropriate legal authority mechanism, that addresses stormwater runoff from construction sites one (1) acre or greater, to require developers and construction site operators to implement an erosion and sediment control program, control waste and properly dispose of wastes. 3) procedures for review of all site plans and pre-construction review meetings that consider stormwater controls or management practices of potential water quality impacts and ensure construction site operator describes the sediment and erosion control requirements. 4) a procedures for site inspection (during construction) and enforcement of control measures, including provisions to ensure proper construction, operation, maintenance, and repair. 5) procedures for keeping records of and tracking all regulated construction activities within the MS4, i.e. site reviews, inspections, inspection reports, warning letters and other enforcement documents. 7) procedures for keeping records of and tracking all regulated construction activities within the MS4, i.e. site reviews, inspections, inspection reports, warning letters and other enforcement	Albuquerque AMAFCA NMDOT UNM	Within six (6) months of permit effective date
 conduct construction site inspections of 100 percent of all installed control measures each year. include in each annual report, a summary of the number and frequency of site reviews, inspections and enforcement activities that are conducted annually and cumulatively during the permit term. 	Albuquerque AMAFCA NMDOT UNM	During the permit term

TABLE I.B: Post-Construction Stormwater Management in New Development and Redevelopment

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.b, the permittee shall, in the Post-Construction Stormwater Management in New and Redevelopment Program, coordinate all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private new development and redevelopment projects/activities within the permit area to ensure the hydrology associated with new development and redevelopment hydrology of the previously undeveloped site. The program shall address post-construction stormwater management and include the following elements in the SWMP: 1) procedure or system to review and update, as necessary, the existing program to ensure that stormwater controls or management practices for new development and redevelopment practices/activities disturbing greater than or equal to one (1) acre, including projects less than one (1) acre that are part of a larger common plan of development or sale, continue to meet the requirements and objectives of the permit. 2) procedure or system to review, update, and/or enact an ordinance(s) or other appropriate legal authority mechanism, as necessary to ensure implementation of the SWMP. 3) procedures for site inspection and enforcement to ensure proper long-term operation, maintenance, and repair of stormwater management practices that are put into place after the completion of construction projects/activities. 	Albuquerque AMAFCA NMDOT UNM	Within six (6) months of permit effective date
 procedure to develop and implement an educational program for project developers regarding designs to control water quality effects from stormwater, and a training program for plan review staff regarding stormwater standards, site design techniques and controls, including training regarding Green Infrastructure practices. assessment of all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of green infrastructure practices. estimation of the number of acres of impervious area (IA) and directly connected impervious area (DCIA). 	Albuquerque AMAFCA NMDOT UNM	Within one (1) year of permit effective date
 report of the assessment findings, which is to be used to provide information to the permittee, of the regulation changes necessary to remove impediments and allow implementation of green infrastructure practices. citations and descriptions of design standards for structural and non-structural controls to control pollutants in stormwater runoff. Include discussion regarding methodology used during design for estimating impacts to water quality and for selecting appropriate structural and non-structural and non-structural controls. 	Albuquerque AMAFCA NMDOT UNM	Within eighteen (18) months of permit effective date
 9) implementation and enforcement, via ordinance and/or other enforceable mechanism(s), of site design standards that prevent an increase in the one-hundred-year (100-yr), two-hour (2-hr) peak runoff, a change in the time of the peak, or an increase in the total runoff from its pre-development values to ensure the hydrology associated new development and redevelopment sites mimic the pre-development hydrology of the previously undeveloped site. 10) an inventory and priority ranking of MS4-owned property and infrastructure (including public right-of-way) that may have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges to and from its MS4. 	Albuquerque AMAFCA NMDOT UNM	Within two (2) years of permit effective date

 11) a summary and analysis of all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually shall be included in each annual report. 12) report the tabulated results of the number of acres of IA and DCIA and its estimation methodology in the first annual report. 13) estimations of the number of acres of IA and DCIA that have been added or removed during the prior year shall be submitted beginning with the second year annual report and each subsequent annual report. 14) a report on those MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges shall be submitted beginning with the third year annual report and each subsequent annual report. 15) a cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program during the permit term, and a cumulative listing of annual revisions to administrative procedures made or ordinances enacted during the permit term shall be included in each annual report. 	Albuquerque AMAFCA NMDOT UNM	During the permit term
16) incorporation of watershed protection elements into all relevant policy and/or planning documents as they come up for regular review, yet no more than five years from the permit effective date.		

TABLE I.C: Industrial and High Risk Runoff

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.d, the permittee shall: 1) continue implementation and enforcement of the Industrial and High Risk Runoff program; 2) assess the overall success of the program; and, 3) document both direct and indirect measurements of program effectiveness in annual reporting required in Part III.H. 	Albuquerque AMAFCA NMDOT UNM	With each Annual Report during the permit term

TABLE I.D: Illicit Discharges and Improper Disposal

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.e, the permittees shall implement and enforce an illicit discharge detection and elimination (IDDE) program to systematically detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4, and to implement defined procedures to prevent illicit connections and illegal dumping into the MS4. The program shall include the following elements in the SWMP: 1) prohibition, through ordinance or other regulatory mechanism, of non-stormwater discharges into the sewer system. 2) implementation of appropriate enforcement procedures and actions (including enforcement escalation procedures for recalcitrant or repeat offenders). 3) procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4 jurisdiction. 4) investigation of suspected illicit discharges within forty-eight (48) hours of detection; elimination of such discharges as expeditiously as possible; and, requirement of immediate cessation of illicit discharges upon confirmation of responsible parties. 5) review complaint records for the past permit term and develop a targeted source reduction program for those illicit discharge/improper disposal incidents that have occurred more than twice in two (2) or more years from different locations. 	Albuquerque AMAFCA NMDOT UNM	Within six (6) months of permit effective date

6) review (NMDOT) within six (6) months the existing permitting/certification program to ensure that any entity applying for the use of Right of Way implements controls in their construction and maintenance procedures to control pollutants entering the MS4.		
 B. As described in Part I.C.5.e(v), the permittee shall, in the IDDE Program: maintain adequate legal authority to implement the IDDE program to prohibit illicit discharges and investigate suspected illicit discharges. maintain a map of their portion of the MS4 identifying all discharge points into waters of the United States and into major drainage channels draining more than twenty (20) percent of the MS4 area. delineate the MS4 into catchments or basins; assess the illicit discharge potential of all catchments or basins; and begin implementation of activities described in Part I.C.5.e(v)(3), unless otherwise noted, implement methods for informing the general public of hazards associated with illegal discharges and improper disposal of waste, including training for public employees. 	Albuquerque AMAFCA NMDOT UNM	Upon permit effective date
 submit as part of its updated SWMP, a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected. update a written systematic procedure as soon as possible, but no later than six (6) months, for system screening, follow-up activities to locate source of suspected illicit discharges, or improper disposal, eliminating or requiring elimination of illicit discharges and to document the elimination of the illicit connection or discharge. 	or Albuquerque ta AMAFCA NMDOT es UNM	Within six (6) months of permit effective date
 7) develop and submit to EPA and NMED (and Pueblo of Sandia for North Diversion Channel), an initial priority ranking of the MS4 catchments or basins. 8) begin systematically locating illicit discharges using the procedure developed in accordance with Part I.C.5.e.(v)(3)(b). 	Albuquerque AMAFCA NMDOT UNM	Within one (1) year of permit effective date
 9) expeditiously revise (NMDOT) as necessary, within no more than two (2) years, the existing permitting/certification program to ensurt that any entity applying for the use of Right of Way implements controls in their construction and maintenance procedures to control pollutants entering the MS4. 10)enhance the existing program, within three (3) years, to utilize procedures and methodologies consistent with those described in "Illi Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments." 11)complete implementation of the IDDE activities, described in Part I.C.5.e(v) for one-third of (1/3) its total MS4 service area no later three (3) years from the permit effective date, and for 100 percent for the MS4 within five (5) years. 12)complete the IDDE activities implementation for Problem Catchments defined in Part I.C.5.e(v)(2) within three (3) years and for the remainder of the system with five (5) years from the effective date of the permit. 	re Albuquerque AMAFCA NMDOT cit UNM	During the permit term

TABLE I.E: Control of Floatables Discharges

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.h, the permittee shall: 1) synthesize findings from the 2005 AMAFCA/COA Floatable and Gross Pollutant Study to develop a schedule for implementation of controls or additional study. 2) estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type. 	Albuquerque AMAFCA NMDOT UNM	Within six (6) months of permit effective date

TABLE I.F: Waste Collection Programs

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.i, the permittee shall enhance programs for collecting motor vehicle fluids and household hazardous waste materials by: 1) increasing the frequency of collection days hosted. 2) expanding programs to include commercial fats, and oils and greases. 3) coordinating program efforts between applicable permittee departments. 	Albuquerque AMAFCA NMDOT UNM	Within two (2) years of permit effective date

TABLE I.G: Public Education and Outreach on Stormwater Impacts

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.k, the existing Public Education and Outreach Program shall be modified to include: 1) a detailed description of the program and outreach activities, including methods for disseminating information; target audiences; target pollutants and sources addressed in the program; how target pollutants and sources were selected; estimation of people with whom you intend to communicate; and a schedule and/or frequency of activities. 2) a plan to target outreach to stakeholders listed in Part I.C.5.k(v)(5). 	Albuquerque AMAFCA NMDOT UNM	Within six (6) months of permit effective date
 3) the development and implementation of a program to promote, publicize and facilitate the use of green infrastructure practices. 4) an examination of impediments to implementing an integrated public education program regarding litter reduction, recycling and proper disposal, and green infrastructure practices. 5) a plan to leverage resources by combining outreach efforts with small MS4s in the Albuquerque Urbanized area. 	Albuquerque AMAFCA NMDOT UNM	Within eighteen (18) months of permit effective date

TABLE I.H: Public Involvement and Participation

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part I.C.5.I, the permittee shall: develop and implement a plan to encourage public involvement and provide opportunities for participation in the review, modification and implementation of the SWMP. develop and implement a process by which public comments to the plan are received and reviewed by person(s) responsible for the SWMP. make the SWMP available to the public and to the operator of any MS4 or Tribal Authority receiving discharges from the MS4. 	Albuquerque AMAFCA NMDOT UNM	Within one (1) year of permit effective date

TABLE II.A: Discharges to Impaired Waters – Implementation of Bacteria TMDL (NOTE: Will be replaced by/integrated with Table II.C in final permit, if TMDL is approved by EPA by that date)

Activity	Responsible Permittee(s)	Compliance Due Date
 A. <u>Monitoring Program</u>. Review the current bacteria monitoring program. Target values and equation for comparison of loadings are included in Table II.B.1 below. While evaluating the current monitoring program, permittees shall take into account the frequency of storm events, and the variation in bacteria levels within individual storm events. Collection and analysis of samples shall be conducted in accordance with Part III.A requirements. Following approval of the new <i>E. coli</i> TMDL, Table II.B.1 will expire and the permittees shall adopt the applicable waste load allocations of the new TMDL numeric target values. 1) Submit certification of completion of review. 	Albuquerque AMAFCA NMDOT UNM	Within three (3) months of permit effective date
2) Sample analysis results shall be submitted in Discharge Monitoring Report (DMR) forms.	Albuquerque AMAFCA NMDOT UNM	With First year Annual Report
3) Initiate <i>E. coli</i> sampling and reporting on DMRs.	Albuquerque AMAFCA NMDOT UNM	Upon permit effective date
B. <u>Control Assessment</u> . Assess control effectiveness and compliance with the Bacteria TMDL at North Diversion Floodway Channel, San Jose Drain, South Diversion Channel and Tijeras Arroyo. Submit control evaluations and assessment, and suggested revisions to the programs above, if deemed necessary, based on monitoring data obtained. Provide annual assessment.	Albuquerque AMAFCA NMDOT UNM	With Second year Annual Report
C. <u>Annual TMDL Progress Reports</u> . The permittees shall submit annual reports describing progress on the activities required in Table II.A to comply with the Bacteria TMDL. The reports shall follow the requirements included in Part III . Results of the monitoring program shall be summarized in the Annual TMDL Progress Report, and shall include graphic representation of bacteria trends, along with computations of annual percent reductions achieved from the baseline loads and comparisons with the target loads.	Albuquerque AMAFCA NMDOT UNM	With First year Annual Report

Conveyance	(30-day geometric mean)	
North Diversion Floodway Channel	6.438x10 ¹¹ cfu/day	
San Jose Drain	1.068x10 ¹⁰ cfu/day	
South Diversion Channel	1.444x10 ¹¹ cfu/day	
Tijeras Arroyo	1.199x10 ¹¹ cfu/day	
Formula to Compare Actual Loadings to Target Values		
The resultant formula for Bacteria TMDL should be used to address Fecal Coliform loadings:		
C as cfu/100 ml * 1000 ml/1 L /0.264 gallons * Q = cfu/day		
Where: C = 30-day geometric mean FC concentration Q = event flow in million gallons/day		

Table II.B.1: Fecal Coliform Numeric Target Values for Stormwater Conveyances¹

¹ Middle Rio Grande Total Maximum Daily Load for Fecal Coliform, NMED, 2001. This Table will be superseded by Table II.B.2 values in the new Middle Rio Grande Total Maximum Daily Load for *E. coli*, once approved by EPA.

	FLOW CONDITIONS & ASSOCIATED WLA (cfu/day) ⁴					
Rio Grande Assessment Unit	High	Moist	Mid- Range	Dry	Low	
Isleta Pueblo boundary to Alameda Street	3.36 x 10 ¹¹	8.41 x 10 ¹⁰	5.66 x 10 ¹⁰	2.09 x 10 ¹⁰	4.67 x 10 ⁹	
NM08330000)	>3360 cfs	929-3360 cfs	664-929 cfs	319-664 cfs	<319 cfs	
non-Pueblo Alameda Bridge to Angostura	5.25 x 10 ¹⁰	1.52 x 10 ¹⁰	-	5.43 x 10 ⁹	2.80 x 10 ⁹	
Station NM08329928)	>3670 cfs	922-3670 cfs	647-922 cfs	359-647 cfs	<359 cfs	
Formula to Compare Actual Loadings to Target Values The resultant formula for Bacteria TMDL should be used to address <i>E. coli</i> loadings: C as cfu/100 ml * 1000 ml/1 L /0.264 gallons * Q = cfu/day						
Where: C = water quality standard criterion for bacteria Q = stream flow in million gallons per day (mgd)						

TABLE II.B.2: Discharges to Impaired Waters – TMDL Waste Load Allocations (WLAs)³ for *E. coli*: Rio Grande²

² Total Maximum Daily Load for the Middle Rio Grande Watershed, NMED, 2010.

³ The WLAs for the stormwater MS4 permit was based on the percent jurisdiction area approach. Thus, the MS4 WLAs are a percentage of the available allocation for each hydrologic zone, where the available allocation = TMDL – WLA – MOS.

⁴ Flow conditions relate to percent of days the flow in the Rio Grande at a USGS Gauge exceeds a particular level: High 0-10%; Moist 10-40%; Mid-Range 40-60%; Dry 60-90%; and Low 90-100%. (Source: Figures 4.3 and 4.4 in 2010 Middle Rio Grande TMDL)

TABLE II.C: Discharges to Impaired Waters – Implementation of New Bacteria TMDL, Once Approved by EPA

Activity	Responsible Permittee(s)	Compliance Due Date
 A. <u>Revision of Bacteria Target Values for Consistency with the New TMDL</u>. Review the current bacteria reduction program for consistency with new TMDL requirements and allocations. In consultation with NMED and EPA Region 6, revise target values included in the bacteria control plan, as necessary, based on the new TMDL. Adopt the new <i>E. coli</i> waste load allocations as measurable goals for the SWMP. 1) Submit certification of completion of review and revisions. 	Albuquerque AMAFCA NMDOT UNM	Within three (3) months of permit effective date
 B. <u>Revision of Monitoring Program</u> In consultation with NMED and EPA Region 6, revise the bacteria monitoring program as necessary for consistency with the new TMDL. The revised monitoring program must: Use <i>E. coli</i> as the indicator parameter. Provide information on discharges from all portions of the MS4 assigned a Waste Load Allocation (WLA) under the TMDL. The monitoring program may be a cooperative effort with other MS4 operators affected by the TMDL, may sample a portion of the system each year, and may include in-stream measurements as a component of the monitoring effort. The monitoring program must provide information on the entire system over the term of the permit sufficient to determine compliance with applicable WLAs and consistency with TMDL assumptions. Should the EPA-approved TMDL assign a WLA to the MS4 on a system-wide or area basis, the monitoring program may adopt a method for dividing the total WLA into an approximate partial allocation for comparison with data from the portion of the system being monitored (e.g. percent of total WLA compared to percentage of total area in the drainage being monitored). Submit certification of completion of review and revisions. 	Albuquerque AMAFCA NMDOT UNM	Within three (3) months of permit effective date
C. Implementation of Revised Monitoring Program Commence monitoring under the replacement <i>E. coli</i> TMDL monitoring program.	Albuquerque AMAFCA NMDOT UNM	Upon approval by EPA

TABLE III: Compliance with Water Quality Standards Requirement – Dissolved Oxygen

Activity	Responsible Permittee(s)	Compliance Due Date
A. Develop and implement a strategy to reduce the discharge of pollutants entering the receiving waters of the Rio Grande that cause or contribute to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. Ensure the strategy complies with requirements in Part I.C.1.d .	Albuquerque AMAFCA	Initiate within two (2) months of effective date of permit
 B. Submit schedule for the following activities: Identification of pollutants contributing to DO reductions in the receiving waters of the Rio Grande (and its tributaries within the City of Albuquerque) utilizing existing data and/or additional monitoring. Development and implementation of controls to eliminate the discharge of pollutants entering the receiving waters of the Rio Grande (and its tributaries within the City of Albuquerque) that cause or contribute to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. 	Albuquerque AMAFCA	Within two (2) months of effective date of permit
 C. Provide status reports to EPA. 1) Initial report to include; i. Findings regarding MS4 conveyed discharge contribution to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. ii. Conclusions drawn, including support for any determination. iii. Activities undertaken to eliminate MS4 conveyed discharge contribution to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. iv. Plan for stakeholder involvement. 		
 2) Subsequent progress reports to include; i. Adherence to schedule. ii. Activities undertaken to identify MS4 discharge contribution to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. iii. Conclusions drawn, including support for any determinations. iv. Activities undertaken to eliminate MS4 discharge contribution to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. v. Activities undertaken to eliminate MS4 discharge contribution to exceedances of State and Tribal dissolved oxygen water quality standards in waters of the United States. v. Accounting of stakeholder involvement. 	Albuquerque AMAFCA	With Second year and subsequent Annual Reports
D. Provide support for toxicity study as determined by co-permittees.	UNM NMDOT	As needed

TABLE IV: Compliance with Water Quality Standards – Investigation and Reduction of PCBs in the San Jose Drain and North Diversion Channel ⁵

Activity	Responsible Permittee(s)	Compliance Due Date
 A. Address concerns regarding PCBs in North Diversion Channel conveyed discharges by performing activities to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States. 1) For the initial progress report, permittees shall: i. Conduct an evaluation regarding controllable sources of PCBs in the North Diversion Channel. 	Albuquerque AMAFCA	Within three (3) months of permit effective date
ii. Design and implement a monitoring study to evaluate presence and magnitude of PCB levels in stormwater discharges to and within the North Diversion Channel.	Albuquerque AMAFCA	Within six (6) months of permit effective date
 Report on results of the confirmation study to EPA, NMED, and the Pueblos of Isleta and Sandia. Should results of the confirmation study confirm levels of PCBs in North Diversion Channel discharges contain levels of PCBs that would cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States, commence activities to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of States. 	Albuquerque AMAFCA	Within one (1) year of permit effective date
 Initial progress report shall include: Findings regarding controllable sources of PCBs in the North Diversion Channel drainage area that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States via the discharge of municipal stormwater. Conclusions drawn, including support for any determinations. Activities undertaken to eliminate controllable sources of PCBs in the North Diversion Channel drainage areas that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States via the discharge areas that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States via the discharge of municipal stormwater including activities that extend beyond the five (5) year permit term. Account of stakeholder involvement in the process. 	Albuquerque AMAFCA	With First year Annual Report
 B. Address concerns regarding San Jose Drain conveyed discharges by performing activities to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States. 1) Initial progress report shall include: i. Findings regarding controllable sources of PCBs in the San Jose Drain drainage area that cause or contribute to exceedances of State or Tribal water quality standards in waters of municipal stormwater. ii. Conclusions drawn, including support for any determinations. iii. Activities undertaken to eliminate controllable sources of PCBs in the San Jose Drain drainage areas that cause or contribute to exceedances of state or Tribal water quality standards in waters of the United States via the discharge of municipal stormwater. iii. Activities undertaken to eliminate controllable sources of PCBs in the San Jose Drain drainage areas that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States via the discharge of municipal stormwater. iii. Activities undertaken to eliminate controllable sources of PCBs in the San Jose Drain drainage areas that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States via the discharge of municipal stormwater including activities that extend beyond the five (5) year permit term. iv. Account of stakeholder involvement in the process. 	Albuquerque AMAFCA	With First year Annual Report
 C. Subsequent progress reports to include: Activities undertaken to identify controllable sources of PCBs in San Jose Drain and North Diversion Channel drainage discharges that cause or contribute to exceedances of State and Tribal water quality standards in waters of the United States via discharge of municipal stormwater. 	Albuquerque AMAFCA	With Second year and subsequent Annual Reports

 ii. Conclusions drawn, including support for any determinations.
 iii. Activities undertaken to eliminate controllable sources of PCBs in the San Jose Drain and North Diversion Channel drainage areas that cause or contribute to exceedances of State or Tribal water quality standards in waters of the United States.
 iv. Accounting of stakeholder involvement.

⁵ By letter dated April 20, 2010, NMED notified EPA that pursuant to Section 401 of the Clean Water Act, the use of EPA Method 1668: Chlorinated Biphenyl Congeners in Water, Soil, Sediment and Tissue by HRGC/HRMS for PCB monitoring under this permit will be a condition for certification of the permit. Permittee PCB monitoring detection levels shall be consistent with those used in the NMED/DOE Oversight Bureau PCB study.

TABLE V: Compliance with Water Quality Standards Requirement – Temperature

Activity	Responsible Permittee(s)	Compliance Due Date
A. Develop and implement a strategy to reduce the effects of MS4 discharges on the temperature of receiving waters of the Rio Grande that cause or contribute to exceedances of State and Tribal temperature water quality standards in waters of the United States. Ensure the strategy complies with requirements in Part I.C.1.d .	Albuquerque AMAFCA	Initiate within two (2) months of effective date of permit
 B. Submit schedule for the following activities: Identification of potential for MS4 discharges to contribute to raised temperatures in the receiving waters of the Rio Grande utilizing existing data and/or additional monitoring. Development and implementation of controls to reduce the effects of MS4 discharges on the temperature of receiving waters of the Rio Grande that cause or contribute to exceedances of State and Tribal temperature water quality standards in waters of the United States. 	Albuquerque AMAFCA	Within two (2) months of effective date of permit
 C. Provide status reports to EPA. 1) Initial report to include; v. Findings regarding Rio Grande conveyed discharge contribution to exceedances of State and Tribal temperature water quality standards in waters of the United States. vi. Conclusions drawn, including support for any determination. vii. Activities undertaken to reduce MS4 discharges contribution to exceedances of State and Tribal temperature water quality standards in waters of the United States. viii. Activities undertaken to reduce MS4 discharges contribution to exceedances of State and Tribal temperature water quality standards in waters of the United States. viii. Plan for stakeholder involvement. 		
 2) Subsequent progress reports to include; vi. Adherence to schedule. vii. Activities undertaken to identify MS4 discharge contribution to exceedances of State and Tribal temperature water quality standards in waters of the United States. viii. Conclusions drawn, including support for any determinations. ix. Activities undertaken to reduce MS4 discharge contribution to exceedances of State and Tribal temperature water quality standards in waters of the United States. x. Activities undertaken to reduce MS4 discharge contribution to exceedances of State and Tribal temperature water quality standards in waters of the United States. x. Activities undertaken to reduce model. 	Albuquerque AMAFCA	With Second year and subsequent Annual Reports

TABLE VI: Toxicity Monitoring to Protect Listed Threatened and Endangered (T&E) Species – Implementation of 4-Year Toxicity Testing

Activity	Responsible Permittee(s)	Compliance Due Date
A. Toxicity monitoring shall be conducted to protect T&E species. Ensure that the monitoring program complies with requirements in Part III.D .	Albuquerque AMAFCA	Annually, upon
 B. Sampling Locations 1) Collect stormwater at North Diversion Channel where it enters the main channel of the Rio Grande. 2) Use laboratory synthetic water for the test controls. 		effective date of permit
C. Sampling Frequency1) At least one (1) storm event per year throughout the term of the permit.		
 D. Sample Size 1) Sample volumes will be approximately ten (10) gallons. Verify with NELAC certified laboratory performing sample analysis of the appropriate volume prior to implementation of Toxicity Testing. 		
E. Sample Analysis1) Perform chemical analysis of stormwater and river water samples.		
 F. Toxicity Testing Collected samples shall be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory. Samples shall be analyzed for the Acute 24-hour LC50 test and follow guidelines as defined in the <i>Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms</i> (Fifth Edition, October 2002). Stormwater sample dilutions: 0%, 12.5%, 25%, 50%, 75%, 100% Samples shall be checked for chlorine and ammonia prior to toxicity testing. If chlorine is detected, adjust with thiosulfate. Utilize fathead minnow (<i>Pimephales promalas</i>) and <i>Daphnia pulex</i> species for toxicity testing. 	Albuquerque	Annually, upon effective date of permit
 G. Reporting 1) Provide annual testing results and sample analysis on DMR forms and in each annual report as required in Part III.H. 	Albuquerque AMAFCA	With First Year and subsequent Annual Reports
 Notify EPA immediately (addresses provided in Part III.G) upon detection of any toxicity. Toxicity is defined as an LC50 of <100 percent effluent. 	Albuquerque AMAFCA	As necessary
 3) Compile a final report to be submitted to EPA. Include: All toxicity testing results, An evaluation of toxicants (if any), and Any actions taken to eliminate toxicity, including activities ongoing during the permit term and any needed activities that would extend beyond the five year permit term. 	Albuquerque AMAFCA	Four (4) years and six (6) months from permit effective date
H. Provide support for toxicity study as determined by co-permittees.	UNM NMDOT	As needed

TABLE VII: Wet Weather Screening of MS4

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part III.E, the wet weather screening program shall: screen one-third (1/3) of the drainage area of MS4 within three (3) years of the effective date of this permit and complete screening 100 percent of the MS4 within five (5) years; include sufficient screening points to adequately assess pollutant levels from all areas of the MS4 and at least five (5) screening points along each major drainage channel that drains 20 percent or more of the land area within the City of Albuquerque; screen for BOD₅, sediment or a parameter addressing sediment (e.g., TSS or turbidity), <i>E. coli</i>, Oil and Grease, nutrients, and any pollutant that has been identified as a cause of impairment of a waterbody receiving discharges from that portion of the MS4; specify the sampling and non-sampling techniques to be used for initial screening and follow-up purposes; assess wet weather screening results (including data from the previous permit term) and benchmark against national stormwater databases and data collected for the representative monitoring program; and, record any observed erosion of stream banks, scouring or sedimentation in streams, such as sand bars or deltas. 	Albuquerque AMAFCA NMDOT UNM	During the permit term

TABLE VIII: Dry Weather Discharge Screening of MS4

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part III.F, the dry weather screening program shall: screen one-third (1/3) of the drainage area of MS4 within three (3) years of the effective date of this permit and complete screening 100 percent of the MS4 within five (5) years; include sufficient screening points to adequately assess pollutant levels from all areas of the MS4 and at least five (5) screening points along each major drainage channel that drains 20 percent or more of the land area within the City of Albuquerque; screen for, at a minimum, BOD₅, sediment or a parameter addressing sediment (e.g., TSS or turbidity), <i>E. coli</i>, Oil and Grease, nutrients, and any pollutant that has been identified as a cause of impairment of a waterbody receiving discharges from that portion of the MS4; specify the sampling and non-sampling techniques to be used for initial screening and follow-up purposes. 	Albuquerque AMAFCA NMDOT UNM	During the permit term

TABLE IX: Impaired Receiving Waters Wet Weather Assessment of Potential Water Quality Impacts

Activity	Responsible Permittee(s)	Compliance Due Date
 A. As described in Part III.G, the receiving water assessment program shall: perform in-stream wet weather monitoring at all locations tributary to impaired waters listed under CWA §303(d), plus one (1) location located upstream of the MS4; perform annual in-stream wet weather monitoring for the impaired water pollutant(s) of concern at one (1) location upstream of the MS4 and one (1) downstream of the last MS4 drainage area entering the impaired water; perform wet weather monitoring for the impaired water pollutant(s) of concern at 100 percent of the MS4 drainage areas tributary to the impaired waterbody within five (5) years from the effective date and for at least one-third (1/3) of those MS4 areas within three (3) years; specify the sampling and non-sampling techniques to be used for initial screening and follow-up purposes; assess wet weather screening results (including data from the previous permit term) and benchmark against national stormwater databases and data collected for the representative monitoring program; and, record any observed erosion of stream banks, scouring or sedimentation in streams, such as sand bars or deltas. 	Albuquerque AMAFCA NMDOT UNM	During the permit term

PARAMETERS ⁸	REPORT FOR EACH MONITORING PERIOD (each sample type)		SAMPL	E TYPE(S)	MONITORING FREQUENCY	
	Minimum	Average	Maximum	Grab	Composite	
1. Dissolved Oxygen (DO) (mg/l)	Yes	Yes		Yes ¹¹		2 events/ wet season;1 event/ dry season ⁶
2. Biochemical Oxygen Demand (BOD ₅) (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
3. Chemical Oxygen Demand (COD) (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
4. Total Suspended Solids (TSS) (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
5. Total Dissolved Solids (TDS) (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
6. Total Nitrogen (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
7. Total Kjeldahl Nitrogen (TKN) (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
8. Total Phosphorus (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
9. Dissolved Phosphorus (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
10. Total Cadmium (μg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
11. Dissolved Cadmium (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
12. Total Copper (μg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
13. Dissolved Copper (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
14. Total Lead (μg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
15. Dissolved Lead (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
16. Total Zinc (μg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
17. Dissolved Zinc (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
18. Mercury (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
19. Chromium III (µg/I)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
20. Chromium VI (μg/I)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
21. Arsenic (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶

TABLE X.A - Representative Monitoring Annual Requirements: Monitoring Locations ML1 - ML5⁷

PARAMETERS ⁸	REPORT FOR EACH MONITORING PERIOD (each sample type)		REPORT FOR EACH MONITORING PERIOD (each sample type)		E TYPE(S)	MONITORING FREQUENCY
	Minimum	Average	Maximum	Grab	Composite	
22. Thallium (µg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
23. Chlorides (as Cl) (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
24. Nitrate (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
25. pH (S.U.)	Yes		Yes	Yes ¹¹		2 events/ wet season;1 event/ dry season ⁶
26. Sulfates (mg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
27. Conductivity (micromho/cm)		Yes	Yes	Yes ¹¹		2 events/ wet season;1 event/ dry season ⁶
29. <i>E coli</i> ⁹		Yes	Yes	Yes ¹⁰		4 events/ wet season ⁶ ; minimum of 2 events/ quarter during dry season
30. Oil and Grease (mg/l)		Yes	Yes	Yes		2 events/ wet season;1 event/ dry season ⁶
31. Total Phenols (μg/l)		Yes	Yes		Yes	2 events/ wet season;1 event/ dry season ⁶
32. Hardness (as CaCO ₃) (mg/l)	Yes	Yes	Yes	Yes		2 events/ wet season; 1 event/ dry season ⁶
33. Temperature (°C)	Yes	Yes	Yes	Yes ¹¹		2 events/ wet season;1 event/ dry season ⁶

⁶ Seasonal monitoring periods are: Wet Season: June 1 through September 30; Dry Season: October 1 through May 31.

⁷ Monitoring frequency for each year for Monitoring Locations ML1-5. Monitoring for Monitoring Locations ML1-ML5 is to commence on the effective date of this permit.

⁸ If any individual analytical test result is less than the minimum quantification level (MQL) listed for that parameter, then a value of zero (0) may be used for that test result for the discharge monitoring report (DMR) calculations and reporting requirements. The annual report shall include the actual value obtained, if test result is less than the MQL.

⁹ Monitoring results for bacteria shall also be submitted with the Annual TMDL Progress Report required in Tables II.A and II.C. Bacteria Loadings for each monitoring location shall be estimated and reported in the Annual TMDL Progress Report.

¹⁰ May consist of multiple grab samples weighted for an event mean concentration.

¹¹ Parameters shall be analyzed in the field within fifteen (15) minutes of sample collection.

TABLE X.B – Representative Monitoring Bi-Annual Requirements: Monitoring Locations ML1 – ML5¹²

The following Minimum Quantification Levels (MQL's) are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

POLLUTANTS MQL µg/l		POLLUTANTS	MQL µg/l						
METALS, RADIOACTIVITY, CYANIDE and CHLORINE									
Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Lead Mercury ¹³	2.5 60 0.5 100 0.5 100 1 10 50 0.5 0.5 0.0005 0.005	Molybdenum Nickel Selenium Silver Thalllium Uranium Vanadium Zinc Cyanide Cyanide, weak acid dissociable Total Residual Chlorine	10 0.5 5 0.5 0.5 0.1 50 20 10 10 33						
	DIOX	(IN							
2,3,7,8-TCDD	0.00001								
	VOLATILE CO	OMPOUNDS							
Acrolein Acrylonitrile Benzene Bromoform Carbon Tetrachloride Chlorobenzene Clorodibromomethane Chloroform Dichlorobromomethane 1,2-Dichloroethane 1,2-Dichloroethylene 1,2-Dichloropropane	50 20 10 10 2 10 10 50 10 10 10 10	1,3-Dichloropropylene Ethylbenzene Methyl Bromide Methylene Chloride 1,1,2,2-Tetrachloroethane Tetrachloroethylene Toluene 1,2-trans-Dichloroethylene 1,1,2-Trichloroethane Trichloroethylene Vinyl Chloride	10 50 20 10 10 10 10 10 10 10						
	ACID COM	POUNDS							
2-Chlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 4,6-Dinitro-o-Cresol	10 10 10 50	2,4-Dinitrophenol Pentachlorophenol Phenol 2,4,6-Trichlorophenol	50 5 10 10						

POLLUTANTS	MQL µg/l		POLLUTANTS	MQL µg/l	
		BASE/NE	UTRAL		
Acenaphthene	10		Dimethyl Phthalate	10	
Anthracene	10		Di-n-Butyl Phthalate	10	
Benzidine	50		2,4-Dinitrotoluene	10	
Benzo(a)anthracene	5		1,2-Diphenylhydrazine	20	
Benzo(a)pyrene	5		Fluoranthene	10	
3,4-Benzofluoranthene	10		Fluorene	10	
Benzo(k)fluoranthene	5		Hexachlorobenzene	5	
Bis(2-chloroethyl)Ether	10		Hexachlorobutadiene	10	
Bis(2-chloroisopropyl)Ether	10		Hexachlorocyclopentadiene	10	
Bis(2-ethylhexyl)Phthalate	10		Hexachloroethane	20	
Butyl Benzyl Phthalate	10		Indeno(1,2,3-cd)Pyrene	5	
2-Chloronapthalene	10		Isophorone	10	
Chrysene	5		Nitrobenzene	10	
Dibenzo(a,h)anthracene	5		n-Nitrosodimethylamine	50	
1,2-Dichlorobenzene	10		n-Nitrosodi-n-Propylamine	20	
1,3-Dichlorobenzene	10		n-Nitrosodiphenylamine	20	
1,4-Dichlorobenzene	10		Pyrene	10	
3,3'-Dichlorobenzidine	5		1,2,4-Trichlorobenzene	10	
Diethyl Phthalate	10				
PESTICIDES AND PCBS					
Aldrin	0.01		Beta-Endosulfan	0.02	
Alpha-BHC	0.05		Endosulfan sulfate	0.02	
Beta-BHC	0.05		Endrin	0.02	
Gamma-BHC	0.05		Endrin Aldehyde	0.1	
Chlordane	0.2		Heptachlor	0.01	
4,4'-DDT and derivatives	0.02		Heptachlor Epoxide	0.01	
Dieldrin	0.02		PCBs⁵	-	
Alpha-Endosulfan	0.01		Toxaphene	0.3	

(MQL's Revised November 1, 2007)

¹² Parameters included in Table X.B are to be monitored biannually (every other year). Seasonal monitoring periods are: Wet Season: June 1 thru September 30; Dry Season: October 1 through May 31. Monitoring Frequency: two (2) events/wet season and one (1) event/dry season, using composite sampling. Average and maximum values are reported each monitoring period. Monitoring requirements commence on the effective date of permit and shall continue on the every other year schedule established by prior permit.

If any individual analytical test result is less than the minimum quantification level (MQL) listed for that parameter, a value of zero (0) may be used for that test result for the discharge monitoring report (DMR) calculations and reporting requirements.

¹³ Default MQL for Mercury is 0.005 unless Part I of your permit requires the more sensitive Method 1631 (Oxidation / Purge and Trap / Cold vapor Atomic Fluorescence Spectrometry), then the MQL shall be 0.0005.

MONITORING LOCATIONS	SITE NO.	LOCATION	DESCRIPTION	RESPONSIBLE PERMITTEE
ML1	9900	North Floodway Channel near Alameda (USGS Station No. 08329900)	Station located on concrete lined channel. Drains approximately 92 sq.mi. Land use is: 41% residential; 36% agricultural; 15% commercial; 4% industrial; 4% open space	Albuquerque/ AMAFCA
ML2	200	South Diversion Channel above Tijeras Arroyo near Albuquerque (USGS Station No. 08330775)	Station located on natural unlined channel. Drains approximately 11 sq.mi. Land use is: 30% agricultural; 28% commercial 21% industrial; 13% residential; 8% open space	Albuquerque/ AMAFCA
ML3	500	San Jose Drain at Woodward Road at Albuquerque (USGS Station No. 08330200)	Station located on concrete lined channel. Drains approximately 2 sq.mi. Land use is: 41% residential; 30% commercial; 18% agricultural; 9% industrial; 2% open space	Albuquerque/ AMAFCA
ML4	400B	City of Albuquerque Lift Station #32 (Barelas) at Albuquerque (USGS Station No. 08330075)	Stations located at stormwater pumping stations. Combined drainage of 4 sq.mi. Land use is: 35% residential; 34% commercial; 12% open space; 10% industrial; 9% agricultural	Albuquerque/ AMAFCA
ML5	300A	Mariposa Diversion of San Antonio Arroyo at Albuquerque (USGS Station No. 083299375)	Station located on natural unlined channel. Drains approximately 31 sq.mi Land use is: 73% agricultural; 14% industrial; 11% residential; 1% commercial; 1% open space	Albuquerque/ AMAFCA

TABLE X.C - Representative Monitoring Site Descriptions

PART VII. DEFINITIONS

All definition contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified, additional definitions of words or phrases used in this permit are as follows:

- (1) **Bioretention** means the water quality and water quantity stormwater management practice using the chemical, biological and physical properties of plants, microbes and soils for the removal of pollution from stormwater runoff.
- (2) **Canopy Interception** means the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.
- (3) Controls or Control Measures or Measures means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or control the pollution of waters of the United States. Controls also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- (4) CWA or The Act means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
- (5) **Co-permittee** means a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.
- (6) Core Municipality means, for the purpose of this permit, the municipality whose corporate boundary (unincorporated area for counties and parishes) defines the municipal separate storm sewer system. (ex. City of Dallas for the Dallas Municipal Separate Storm Sewer System, Harris County for unincorporated Harris County).
- (7) Direct Connected Impervious Area (DCIA) means the portion of impervious area with a direct hydraulic connection to the permitee's municipal separate storm sewer system or a waterbody via continuous paved surfaces, gutters, pipes, and other impervious features. Direct connected impervious area typically does not include isolated impervious areas with an indirect hydraulic connection to the municipal separate storm sewer system (e.g, swale or detention basin) or that otherwise drain to a pervious area.
- (8) Director means the Regional Administrator or an authorized representative.
- (9) **Discharge** for the purpose of this permit, unless indicated otherwise, means discharges from the municipal separate storm sewer system.
- (10)**Engineered Infiltration** means an underground device or system designed to accept stormwater and slowly exfiltrates it into the underlying soil. This device or system is designed based on soil tests that define the exfiltration rate.
- (11) Evaporation means rainfall that is changed or converted into a vapor.
- (12)**Evapotranspiration** means the sum of evaporation and transpiration of water from the earth's surface to the atmosphere. It includes evaporation of liquid or solid water plus the transpiration of plants.
- (13)**Extended Filtration** means a structural stormwater practice which filters stormwater runoff through vegetation and engineered soil media. A portion of the stormwater runoff drains into an underdrain system which slowly releases it after the storm is over.
- (14)**Flood Control Projects** mean major drainage projects developed to control water quantity rather than quality, including channelization and detention.

- (15)**Flow-weighted composite sample** means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.
- (16) **Green Infrastructure** means an array of products, technologies, and practices that use natural systems or engineered systems that mimic natural processes to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspirate, and/or recycle stormwater runoff. When used as components of a stormwater management system, Green Infrastructure practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits.
- (17)Hydromodification means the alteration of the natural flow of water through a landscape, and often takes the form of channel straightening, widening, deepening, or relocating existing, natural stream channels. It also can involve excavation of borrow pits or canals, building of levees, streambank erosion, or other conditions or practices that change the depth, width or location of waterways. Hydromodification usually results in water quality and habitat impacts.
- (18)**Illicit connection** means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
- (19)**Illicit discharge** means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.
- (20)**Impervious Area (IA)** means conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops.
- (21)**Individual Residence** means, for the purposes of this permit, single or multi-family residences. (e.g. single family homes and duplexes, town homes, apartments, etc.)
- (22)Infiltration means the process by which stormwater penetrates the soil.
- (23)Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.
- (24)**Landfill** means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.
- (25)Land Use means the way in which land is used, especially in farming and municipal planning.
- (26) Large or medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendix F of 40 CFR §122); or (ii) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR §122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.
- (27)**Municipal Separate Storm Sewer (MS4)** means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems pursuant to paragraphs 40 CFR §122.26(b)(4), (b)(7), and (b)(16), or designated under paragraph 40 CFR §122.26(a)(1)(v).
- (28)**Outfall** means a *point source* as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which

connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

- (29)**Permittee** refers to any person (defined below) authorized by this NPDES permit to discharge to Waters of the United States.
- (30)**Person** means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.
- (31)**Point Source** means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.
- (32)**Rainfall and Rainwater Harvesting** means the collection, conveyance, and storage of rainwater. The scope, method, technologies, system complexity, purpose, and end uses vary from rain barrels for garden irrigation in urban areas, to large-scale collection of rainwater for all domestic uses.
- (33)**Soil amendment** means adding components to in-situ or native soils to increase the spacing between soil particles so that the soil can absorb and hold more moisture. The amendment of soils changes various other physical, chemical and biological characteristics so that the soils become more effective in maintaining water quality.
- (34)**Storm drainage projects** include stormwater inlets, culverts, minor conveyances and a host of other structures or devices.
- (35) Storm sewer, unless otherwise indicated, means a municipal separate storm sewer.
- (36) Stormwater means stormwater runoff, snow melt runoff, and surface runoff and drainage.
- (37)**Stormwater Discharge Associated with Industrial Activity** means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant (See 40 CFR §122.26(b)(14) for specifics of this definition).
- (38)**Stormwater Management Program (SWMP)** means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system. For the purposes of this permit, the Stormwater Management Program is considered a single document, but may actually consist of separate programs (e.g. "chapters") for each permittee.
- (39)**Time-weighted composite** means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.
- (40)Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. A TMDL is the sum of individual wasteload allocations for point sources (WLA), load allocations for non-point sources and natural background (LA), and must consider seasonal variation and include a margin of safety. The TMDL comes in the form of a technical document or plan.
- (41)**Toxicity** means an LC50 of <100% effluent.
- (42) Waste load allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.
- (43)**Wetlands** means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
- (44) Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

Appendix D

Cultural Resources

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DEPARTMENT OF THE ARMY ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS 4101 JEFFERSON PLAZA NE ALBUQUERQUE NM 87109-3435

February 25, 2010

Planning, Project and Program Management Division Planning Branch, Environmental Resources Section

Ms. Jan Biella Interim State Historic Preservation Officer New Mexico Department of Cultural Affairs Historic Preservation Division Bataan Memorial Building 407 Galisteo Street, Suite 236 Santa Fe, New Mexico 87501

Dear Ms. Biella:

Pursuant to 36 CFR Part 800, the U.S. Army Corps of Engineers (Corps), Albuquerque District, is seeking your concurrence in our determination of "No Adverse Effect to Historic Properties" for a proposed Bernalillo County (County) South Valley Water System Expansion Project (SVWSEP). The Corps in cooperation with and at the request of the Albuquerque Metro Area Flood Control Association (AMAFCA) and Bernalillo County, New Mexico, is planning a project that would improve storm water drainage and reduce the potential for flooding within the Southwest Valley project area, which is located in the southwest corner of Albuquerque and Bernalillo County. The runoff from the West Mesa is largely controlled by a series of dams, detention basins, and diversion channels constructed by AMAFCA, Bernalillo County, and the City of Albuquerque. The proposed plan calls for utilizing existing easements, widening existing drains, constructing a large storm water detention ponding area, and constructing two new channels, all to be built in four phases. Given the amount of development in the project area, the most feasible flood control strategy is to use the existing Isleta, Armijo, and Los Padillas Drains as linear detention facilities. New construction is required to connect several drains and to provide an outlet to the Rio Grande. New construction is also required for two ponds.

In 2003, the Office of Contract Archeology, University of New Mexico (OCA) archaeologists conducted an intensive archaeological survey of the approximately 231.2-acre project area, as detailed in the survey report, <u>Southwest Valley Flood Damage Feasibility Study</u> <u>Cultural Resources Inventory</u>, prepared by Mr. David Vaughan and Dr. Richard C. Chapman in February 2004 (NMCRIS 86147). Note that this project has been on hold, and that the survey was conducted prior to the new state regulations on archaeological survey report

LLundquist:jav:02-25-10:505-342-3671:P\PMLEALL\Lundquist\593 South Valley Water\SHPO 02-25-10.doc production. OCA documented two archaeological sites (LA 142019 and LA 142020), 16 isolated occurrences of artifacts, and one modern barn. Both sites were described as low-density artifact scatters.

LA 142019 has been largely destroyed by previous construction. OCA describes the site as a 5 x 5-m artifact scatter containing five prehistoric ceramic sherds and two pieces of lithic debitage on the surface. Three shovel test pits were excavated; two were sterile, while the third contained two lithic artifacts, but below the artifacts a corroded oil can lid was found. OCA estimates that 25 percent of the site is intact, with the area having been heavily disturbed due to road and other construction. The Corps finds this site to not retain significant information potential, and determines that it is <u>not eligible</u> for listing on the National Register of Historic Places (NRHP). We seek your concurrence in this determination. This site will be avoided with the current alignment of the project.

LA 142020 was located by OCA in a plowed field and was originally defined on the basis of four prehistoric artifacts (two pieces of pottery and two pieces of chipped stone). On May 4, 2009, Corps archaeologists revisited LA 142020, and were not able to locate any prehistoric artifacts. It is the Corps' assessment that LA 142020 is not an archaeological site, and instead represents an isolated occurrence of four artifacts. A detention pond is planned for the area containing LA 142020.

The 16 IOs (17 if you include LA 142020) were sufficiently recorded during survey, and the Corps finds that none are eligible for inclusion in the NRHP. We seek your concurrence in this determination.

The barn described by OCA may be historic. OCA did not have a qualified architectural historian look at the building, although it appears relatively modern and is in disrepair (portions of the roof are obviously missing). At this point, it is unclear that the project will affect this building, as final drawings for Phase 4 have not been completed. If it is determined that this building is in the APE for construction, the Corps will conduct necessary work to determine the buildings significance to the NRHP and will consult with your office and any other consulting party prior to any action that could affect this building. Concurrence on other aspects of this project will not be taken as concurrence regarding removal or any damage to this building.
In addition to the OCA survey, on May 4, 2009 Corps archaeologists surveyed a 1.69-acre re-alignment on Rio Grande High School property. On February 8, 2010, Corps archaeologists surveyed a 5.81-acre re-alignment for the proposed Los Padillas Outfall, as well as potential staging areas. No artifacts or cultural materials were located by either survey. A report of this activity is documented in the enclosed addendum report titled Addendum 1 to Southwest Valley Flood Damage Feasibility Study Cultural Resources Inventory (NMCRIS 86147), by Lance Lundquist and John Schelberg, NMCRIS No. 116759. As other phases are more clearly defined relative to constraints such as acquiring real estate, additional addendum reports may be required. In other words, any concurrence from your office for Phases 2-4 will be dependent on no change in the survey area as presented in this letter. Any such changes will require an addendum report and further consultation with your office.

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, and based on the State of New Mexico Indian Affairs Department's Native American Consultations List, tribes with an interest in Bernalillo County have been contacted and provided an opportunity to consult on this project. To date, the Corps has received no indication of tribal concerns that would impact this project.

Pursuant to 36 CFR 800.13, should previously unknown artifacts or cultural resource manifestations be encountered during construction, work would cease in the immediate vicinity of the resource. A determination of significance would be made, and consultation would take place with your office and with American Indian Tribes that have cultural concerns in the area to determine the best course of action.

If you have questions or require additional information regarding the South Valley Water System Expansion Project, please contact Mr. John Schelberg, Archaeologist, at (505) 342-3359 or me at (505) 342-3375.

Sincerely,

John Schelberg for Julie Alcon Chief, Environmental Resources

Section

Enclosures



DEPARTMENT OF THE ARMY ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS 4101 JEFFERSON PLAZA NE ALBUQUERQUE NM 87109-3435

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John Schelberg Julie Alcon

February 17, 2010

Planning, Project and Program Management Division Planning Branch, Environmental Resources Section

Honorable Joe Shirley President, Navajo Nation P.O. Box 9000 Window Rock, Arizona 86515

Dear President Shirley:

The United States Army Corps of Engineers (Corps), Albuquerque District, in cooperation with and at the request of the Albuquerque Metro Area Flood Control Association (AMAFCA) and Bernalillo County, New Mexico, is planning a project that would improve storm water drainage and reduce the potential for flooding within the Southwest Valley project area, which is located in the southwest corner of Albuquerque and Bernalillo County in Enclosure 1. The proposed plan calls for utilizing existing easements, widening existing drains, constructing a large storm water detention ponding area, and constructing two new channels, all to be built in four phases. A map showing the project area is included in Enclosure 1.

In 2003, the University of New Mexico's Office of Contract Archaeology (OCA), on behalf of the Corps, conducted an intensive archaeological survey of 526 acres within the project's area of potential effect, and documented two archaeological sites (LA 142019 and LA 142020), 16 isolated occurrences of artifacts, and one modern barn. Both sites were described as low-density artifact scatters.

LA 142019 has been largely destroyed by previous construction. This site will be avoided with the current alignment of the project.

LA 142020 was located in a plowed field and was originally defined on the basis of four prehistoric artifacts (two pieces of pottery and two pieces of chipped stone). On April 16, 2009, Corps archaeologists revisited LA 142020, and were not able to locate any prehistoric artifacts. It is the Corps' assessment that LA 142020 is not an archaeological site, and instead represents an isolated occurrence of four artifacts. A detention pond is planned for the area containing LA 142020. On February 8, 2010, Corps archaeologists surveyed a minor re-alignment for the proposed Los Padillas Outfall, as well as potential staging areas. No artifacts or cultural materials were discovered during this survey.

The purpose of this scoping letter is to inform you about this project, and to give you the opportunity to provide any concerns or comments you may have regarding this project.

If you have any questions, please contact Dr. John Schelberg, Archaeologist, at (505) 342-3671, Ms. Sarah Beck, Biologist, at 342-3333 or me at (505) 342-3281. You may also provide comments to the above address.

Sincerely,

Julie Alcon Chief, Environmental Resources Section

Enclosure

Copy Furnished: Alan Downer, Tribal Historic Preservation Officer Navajo Nation P.O. Box 4950 Window Rock, Arizona 86515

Ron Maldonado Navajo Nation Historic Preservation Department P.O. Box 4950 Window Rock, Arizona 86515

Tony H. Joe, Jr. Navajo Nation HPD, Traditional Cultural Program P.O. Box 4950 Window Rock, Arizona 86515



Enclosure 1. Map of proposed project area in Albuquerque's Southwest Valley.

Honorable Joe Shirley

President, Navajo Nation P.O. Box 9000

Window Rock, Arizona 86515

Honorable Marcelino Aguino Governor, Ohkay Owingeh P.O. Box 1099 San Juan Pueblo, New Mexico 87566 Honorable John Antonio, Sr. Governor, Pueblo of Laguna P.O. Box 194 Laguna, New Mexico 87026

Honorable Levi Pesata President, Jicarilla Apache Nation P.O. Box 507 Dulce, New Mexico 87528

Honorable Ronnie Lupe Chairman, White Mountain Apache Tribal Council P.O. Box 700 Whiteriver, Arizona 85941

Honorable Robert Benavides Governor, Pueblo of Isleta P.O. Box 1270 Isleta Pueblo, New Mexico 87022

Mr. Alan Downer Navajo Nation Tribal Historic Preservation Officer P.O. Box 4950 Window Rock, Arizona 86515 Honorable Frank Paiz Governor, Ysleta del Sur Pueblo 117 S. Old Pueblo Road El Paso, Texas 79907

Honorable Joe M. Lujan Governor, Pueblo of Sandia 481 Sandia Loop Bernalillo, New Mexico 87004

Mr. Henry Walt Pueblo of Isleta Cibola Research Consultants 508 Hermosa SE Albuquerque, New Mexico 87108 Mr. Henry Walt Pueblo of Sandia Cibola Research Consultants 508 Hermosa SE Albuquerque, New Mexico 87108

Mr. Mark Altaha White Mountain Apache Tribal Council Tribal Historic Preservation Officer P.O. Box 700 Whiteriver, Arizona 85941

Mr. Ron Maldonado Navajo Nation Historic Preservation Department PO Box 4950 Window Rock, Arizona 86515

Mr. Tony H. Joe, Jr. Navajo Nation HPD, Tradional Cultural Program P.O. Box 4950 Window Rock, Arizona 86515

Ms. Lorene Willis Jicarilla Apache Nation Office of Cultural Affairs P.O. Box 507 Dulce, New Mexico 87528 Mr. Herman Agoyo Ohkay Owingeh NAGPRA Representative P.O. Box 1532 San Juan Pueblo, New Mexico 87566

Mr. Rick Quezada Ysleta del Sur Pueblo NAGPRA Representative P.O. Box 17579, Ysleta Station El Paso, Texas 79917

Mr. Sam Montoya Pueblo of Sandia NAGPRA Representative P.O. Box 6008 Bernalillo, New Mexico 87004

Mr. Victor Sarracino Pueblo of Laguna NAGPRA Committee Chairman P.O. Box 194 Laguna, New Mexico 87026

Southwest Valley Flood Damage Feasibility Study Cultural Resources Inventory



David Vaughan and Richard C. Chapman

Office of Contract Archeology University of New Mexico



1. NMCRIS Activity No.: 2a. Lead (Sponsoring) Agency: 2b. Other Permitting Agency(ies): 3. Lead Agency Report No.: 86147 USACE, Albuquerque District Agency(ies): 3. Lead Agency Report No.: 86147 USACE, Albuquerque District 5. Type of Report Iventory Iventory Iventory 5. Type of Report Author(s) David Vaughan and Richard C. Chapman Iventory Iventory Iventory Research Design Survey/Inventory Test Excavation Excavation Collections/Non-Field Study Overview/Lit Review Monitoring Ethnographic study Site specific visit Other 7. Description of Undertaking (what does the project entail?): The Corps, in cooperation with and at the request of the Albuquerque Metro Area Flood Control Association and Bernalillo County, New Mexico, is planning a project that would improve storm water drainage and reduce the potential for looding within the Southwest Valley project area. 8. Dates of Investigation: (from: 10/1/2003 to: 12/2003) 10. Performing Agency/Consultant: UNM OCA Principal Investigator: Richard Chapman Field Supervisor: David Vaughan, Robert Estes Field Personnel Names: 11. Performing Agency/Consultant Report No.: OCA 185- 734 13. Client/Customer (project proponent): USACE, Albuquerque District Contact: John Schelberg Address: 14. Client/Customer Project No.: N/A 13. Client/Customer (proje				
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District Contact: John Schelberg Address: U.S. Army Corps of Engineers, Albuquerque District				
Contact: John Schelberg Address: U.S. Army Corps of Engineers, Albuquerque District				
Address: U.S. Army Corps of Engineers, Albuquerque District				
U.S. Army Corps of Engineers, Albuquerque District				
4101 Jetterson Plaza, NE				
Albuquerque, NM 87109				
Phone: ((505)) 342-3359				
15. Land Ownership Status (<u>Must</u> be indicated on project map):				
Land Owner Acres Surveyed Acres in APE				
Middle Rio Grande Conservancy District21.2721.27				
Albuquerque Board of Education 3.88				
Bernalillo County 19.11 19.11				
Private Individuals 186.94 186.94				
TOTALS 231.2 231.2				
16 Records Search(es):				
Date(s) of ARMS File Review prior to survey Name of Reviewer(s) Jeanne Schutt				
Date(s) of NR/SR File Review prior to survey Name of Reviewer(s) Jeanne Schutt				
Date(s) of Other Agency File Review Name of Reviewer(s) Agency				
17. Survey Data:				
a. Source Graphics 🛛 NAD 27 🗍 NAD 83				
a. Source Graphics \square NAD 21 \square NAD 03 \square USGS 7.5' (1:24.000) tono man \square Other tono man Social				
\square USUS 7.5 (1:24,000) topo map \square Utner topo map, Scale:				
\square GPS Unit Accuracy $\square < 1.0m$ \square 10-100m $\square > 100m$				
\square GPS Unit Accuracy \square <1.0m \square 1-10m \square 10-100m \square >100m				
B GPS Unit Accuracy □<1.0m □ 10-100m □>100m b. USGS 7.5' Topographic Map Name USGS Quad Code				
b. USGS 7.5' Topographic Map Name USGS Quad Code Albuquerque West 35106-A6				
☐ 0505 7.5 (1.24,000) topo map ☐ Other topo map, scale: ☐ GPS Unit Accuracy □<1.0m				

17. Survey Data (o	continued):					
d. Nearest City or	Town: Albuquerque	•				
e. Legal Descrip	tion:					
	Township (NIC)		0-4		47 47	
	Township (N/S)	Range (E/W)	Section	<u> </u>	<u> </u>	
Projected legal de	escription? Yes [], I	No[] Ui	platted [X]	I	<u>, , , , , , , , , , , , , , , , , , , </u>	•
f. Other Descriptic Pajarito Land Gra west, and Don Fe	on (e.g. well pad foot nts. Generally boun lipe to the south.	ages, mile mar ded by streets (ters, plats, land gr Central Avenue to t	ant name, etc.) the north, isleta	: Located in Town of a Bivd to the east, Co	Atrisco and ors Blvd to the
18. Survey Field I Intensity: 🔀 100	Methods: % coverage	0% coverage	, , , , , , , , , , , , , , , , , , ,		·	
Configuration:	block survey units	🛛 linear survey	units (I x w): range	d from 80' to 12	20' to 150' 🛛 🗌 othe	er survey units
(specify):					* .	
Scope: 🔀 non-sel	ective (all sites record	ed) 🔲 selectiv	e/thematic (selecte	d sites recorded	I) `	
Coverage Method	: 🔀 systematic pede	strian coverage	🔲 other method (describe)	1 6 .	
Survey Interval (m	a): 15 Crew Size: 2	Fieldwork Dat	es: October-Dece	mber, 2003		
Survey Person Ho	ours: unknown Red	cording Person	Hours: unknown	Total Hours: u	Inknown	
Additional Narrati	ve: See page 1 and p	bage 21 for deta	ils on survey area	5.		
19. Environmenta of the Rio Grande physiographic Pro (open space field,	I Setting (NRCS soil Valley within the All ovince. Elevations ra Albuquerque Public	designation; ve ouquerque Basi nge from 4880 : School baseba	getative communi n, a part of the Me o 4890 feet. The p II and football fiel	ty; elevation; et xican Highland roject areas we ds).	tc.): The project is in is Section of the Bas are either farmland o	the floodplain in and Range r developed
20.a. Percent Gro develope	und Visibility: 75+ b. d, and existing drain	Condition of Su s with maitena	irvey Area (grazed ace roads	, bladed, undis	turbed, etc.): mix of	farmland,
21. CULTURAL RI	ESOURCE FINDINGS	🛛 Yes, See F	age 3 📃 N	o, Discuss Why	/:	
22. Required Atta USGS 7.5 Topo Copy of NMCR LA Site Forms LA Site Forms Historic Cultur List and Descr	chments (check all a ographic Map with si IS Mapserver Map C - new sites (<u>with sket</u> (update) - previously al Property Inventor iption of isolates, if a ption of Collections,	ppropriate boxe tes, isolates, ar heck <u>ch map & topogra</u> y recorded & ur y Forms applicable if applicable	es): (d survey area clea <u>phic map)</u> -relọcated sites (<u>fi</u>	urly drawn rst 2 pages minin	23. Other At Photogra Other Att <i>(Describe</i>)	tachments: phs and Log achments):
24. I certify the in	formation provided	above is correc	and accurate and	meets all appl	icable agency stand	ards.
Principal Investig	ator/Responsible Are	chaeologist: Ri	chard Chapman			
Signature			Date	Titl	e (if not Pl):	
25. Reviewing Ag Reviewer's Name Accepted (X)	jency: USACE, Albu /Date کی کی کی کی جوابین Rejected ()	iquerque ilbery vj3010f	26. SHPO Reviewer's Name/ HPD Log #:	Date:		
Tribal Consultatio	on (if applicable): 🛛	Yes 🗍 No	Date sent to ARM	S:	5 	

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CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.:	2. Lead (Sponsoring) Agency:	3. Lead Agency Report No.:				
86147	USACE, Albuquerque District					
SURVEY RESULTS:						
Sites discovered and reg	istered: 2					
Sites discovered and NO	T registered: 0					
Previously recorded sites	s revisited (site update form required): 0					
Previously recorded sites	s not relocated (site update form required): 1					
TOTAL SITES VISITED: 0						
Total isolates recorded:	otal isolates recorded: 16 Non-selective isolate recording?					
Total structures recorded	${f a}$ (new and previously recorded, including acequias): ${f 0}$					

MANAGEMENT SUMMARY: Note - this form was filled out by the Corps in 2010 based on information contained in the report. Some information is missing, and the report was written before the current standards were adopted.

The Corps, in cooperation with and at the request of the Albuquerque Metro Area Flood Control Association (AMAFCA) and Bernalillo County, New Mexico, is planning a project that would improve storm water drainage and reduce the potential for flooding within the Southwest Valley project area, which is located in the southwest corner of Albuquerque and Bernalillo County. The runoff from the West Mesa is largely controlled by a series of dams, detention basins, and diversion channels constructed by AMAFCA, Bernalillo County, and the City of Albuquerque. The proposed plan calls for utilizing existing easements, widening existing drains, constructing a large storm water detention ponding area, and constructing two new channels, all to be built in four phases. Given the amount of development in the project area, the most feasible flood control strategy is to use the existing Isleta, Armijo, and Los Padillas Drains as linear detention facilities. New construction is also required for two ponds.

In 2003, the Office of Contract Archeology, University of New Mexico (OCA) archaeologists conducted an intensive archaeological survey of the approximately 231.2-acre project area, as detailed in the survey report, Southwest Valley Flood Damage Feasibility Study Cultural Resources Inventory, prepared by Mr. David Vaughan and Dr. Richard C. Chapman in February 2004 (NMCRIS 86147). OCA mistakenly calculated the project as 526 acres; by Corps' calculation OCA surveyed 231.2 acres. OCA documented two archaeological sites (LA 142019 and LA 142020), 16 isolated occurrences of artifacts, and one modern barn. Both sites were described as low-density artifact scatters.

LA 142019 has been largely destroyed by previous construction. OCA describes the site as a 5 x 5-m artifact scatter containing five prehistoric ceramic sherds and two pieces of lithic debitage on the surface. Three shovel test pits were excavated; two were sterile, while the third contained two lithic artifacts, but below the artifacts a corroded oil can lid was found. OCA estimates that 25 percent of the site is intact, with the area having been heavily disturbed due to road and other construction. The Corps finds this site to not retain significant information potential, and determines that it is not eligible for listing on the National Register of Historic Places (NRHP). This site will be avoided with the current alignment of the project.

LA 142020 was located by OCA in a plowed field and was originally defined on the basis of four prehistoric artifacts (two pieces of pottery and two pieces of chipped stone). On May 4, 2009, Corps archaeologists revisited LA 142020, and were not able to locate any prehistoric artifacts. It is the Corps' assessment that LA 142020 is not an archaeological site, and instead represents an isolated occurrence of four artifacts. A detention pond is planned for the area containing LA 142020.

The 16 IOs (17 if you include LA 142020) were sufficiently recorded during survey, and the Corps finds that none are eligible for inclusion in the NRHP.

The barn described by OCA may be historic. OCA did not have a qualified architectural historian look at the building, although it appears relatively modern and is in disrepair (portions of the roof are obviously missing). At this point, it is unclear that the project will affect this building, as final drawings for Phase 4 have not been completed. If it is determined that this building is in the APE for construction, the Corps will conduct necessary work to determine the buildings significance to the NRHP and will consult with your office and any other consulting party prior to any action that could affect this building. Concurrence on other aspects of this

project will not be taken as concurrence regarding removal or any damage to this building.LA 142020 was located by OCA in a plowed field and was originally defined on the basis of four prehistoric artifacts (two pieces of pottery and two pieces of chipped stone). On May 4, 2009, Corps archaeologists revisited LA 142020, and were not able to locate any prehistoric artifacts. It is the Corps' assessment that LA 142020 is not an archaeological site, and instead represents an isolated occurrence of four artifacts. A detention pond is planned for the area containing LA 142020.

On May 4, 2009 Corps archaeologists surveyed a 1.69-acre re-alignment on Rio Grande High School property. On February 8, 2010, Corps archaeologists surveyed a 5.81-acre re-alignment for the proposed Los Padillas Outfall, as well as potential staging areas. No artifacts or cultural materials were located by either survey. A report of this activity is documented in NMCRIS 116759. As other phases are more clearly defined relative to constraints such as acquiring real estate, additional addendum reports may be required.

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, and based on the State of New Mexico Indian Affairs Department's Native American Consultations List, tribes with an interest in Bernalillo County have been contacted and provided an opportunity to consult on this project. To date, the Corps has received no indication of tribal concerns that would impact this project.

Pursuant to 36 CFR 800.13, should previously unknown artifacts or cultural resource manifestations be encountered during construction, work would cease in the immediate vicinity of the resource. A determination of significance would be made, and consultation would take place with the New Mexico Historic Preservation Office and with American Indian Tribes that have cultural concerns in the area to determine the best course of action.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Sites Discovered:

LA No.	Field/Agency No. Eligible? (Y/N, applicable criteria)
142019	Y (OCA)/ N (Corps)
142020	? (OCA/ N (Corps Recommendation)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Southwest Valley Flood Damage Feasibility Study Cultural Resources Inventory

by

David Vaughan and Richard C. Chapman with Contributions by J. Robert Estes and William H. Doleman

> Maps and Illustrations by Ronald L. Stauber

Report Production by Donna Kay Lasusky

Prepared for U.S. Army Corps of Engineers, Albuquerque District Delivery Order 0010, Contract No. DACW47-99-D-0023

NMCRIS Project Activity No. 86147

Submitted by Richard C. Chapman Principal Investigator Office of Contract Archeology, University of New Mexico

> OCA/UNM Report No. 185-734 February 6, 2004

Corrections made by USACE February 24, 2010

ABSTRACT

This report describes an archaeological survey of approximately 231.2 noncontiguous acres of public and private land in the Southwest Valley, Bernalillo County, New Mexico. The University of New Mexico Office of Contract Archeology (OCA) conducted the field survey over a period of 10 days in October, November and December 2003. The survey was carried out pursuant to a U.S. Army Corps of Engineers, Albuquerque District (CoE) Order for Supplies or Services, Delivery Order 0010, DACW47-99-D-0023 (OCA/UNM Project No. 185-734; NMCRIS Project Activity No. 86147). The records review and field survey documented in this report is part of an on-going study of flooding in the project area. The goal of the survey was to obtain information on cultural resources that the CoE could use in selecting several flood control alternatives from among a combination of existing options.

The feasibility study project area is bounded by Central Avenue on the north, Don Felipe Road on the south, Coors Road on the west and the Rio Grande on the east. A records search was made of the New Mexico Cultural Resources Information System files, and other files managed by the New Mexico Historic Preservation Division to identify all previously documented archeological sites, buildings, and features within this larger project area that might merit consideration for protection as the construction plans move forward. Field pedestrian archeological surveys were conducted within 120 ft (37 m) wide corridors centered upon the existing Isleta, Armijo and Los Padillas Drains; within 150 ft (46 m) wide corridors for the proposed new construction areas for the Los Padillas Extension and the Los Padillas Outfall; and within 80 ft (24 m) wide corridors for the proposed New Channel in IS10, and the proposed New Channel in L-11B. Two new 'Pond' areas encompassing 36 acres were also surveyed. In all, 231 acres were inspected, including property owned or managed by the Middle Rio Grande Conservancy District (21.27 acres), the Albuquergue Board of Education (3.88 acres), Bernalillo County (19.11 acres) and private individuals (186.94 acres). The field survey resulted in identification of two previously unrecorded prehistoric archeological sites (LA 142019 and LA 142020) and 16 Isolated Occurrences. In addition, OCA completed a Historic Cultural Properties Inventory for a standing barn structure located within the proposed New Channel in the IS10 area. The records review resulted in identification of 27 previously recorded prehistoric and historical archeological sites, and two structures currently listed on the New Mexico State Register of Cultural Properties, SR 852 (the Old Armijo School), and SR 1452 (the Mushroom Store). No sites or structures currently listed on the National Register of Historic Places were identified, but several of the archeological sites are considered eligible for such listing.

ACKNOWLEDGMENTS

Background information for the project was compiled by Office of Contract Archeology (OCA) staff Jeanne Schutt (Senior Archeologist) and Ronald Stauber (GIS Specialist), while the field survey itself was done by David Vaughan and Robert Estes (Field Supervisors). Richard Chapman served as Principal Investigator. John Schelberg managed the project for the U.S. Army Corps of Engineers, Albuquerque District (CoE), and Steve Boberg (CoE) and Dave Bishop (Bernalillo County) provided GIS support. Fieldwork was coordinated with Ray Gomez (Middle Rio Grande Conservancy District) and Sue Burgess (Bernalillo County). Ms Burgess accompanied the archeologists in the field during survey of private lands portions of the project. Report production was undertaken by Donna Kay Lasusky (Administrative Assistant) with Ronald Stauber providing the all maps and graphics. Our thanks to all for their help.

NOTE: OCA in the original version of this report calculated 526 acres surveyed. The Corps in 2010 calculated 231.2 acres. The acreage in this report was changed to reflect this amount, and Figure 1 was replaced with a public version. The original OCA Figure 1 can be found in the appendix in non-public versions of the report. Lance Lundquist, USACE, 2/24/2010.

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INTRODUCTION

This report describes the results of a cultural resources background study including a records review for the Southwest Valley Flood Damage Feasibility Study area, and an archaeological survey of project alternatives involving approximately 231 noncontiguous acres of public and private land in the Southwest Valley of Albuquerque, Bernalillo County, New Mexico. The study was performed by The University of New Mexico Office of Contract Archeology (OCA) pursuant to a U.S. Army Corps of Engineers, Albuquerque District (CoE) Order for Supplies or Services, Delivery Order 0010, DACW47-99-D-0023 (OCA/UNM Project No. 185-734; NMCRIS Project Activity No. 86147).

The CoE commissioned the cultural resources inventory as part of an on-going study of flooding in the project area. The goal of the cultural resources research was to obtain information concerning the presence of archeological and historical sites, buildings or features within the project area that might merit consideration for protection when construction plans move forward.

The Southwest Valley Flood Damage Feasibility Study project area is bounded by Central Avenue on the north, Don Felipe Road on the south, Coors Road on the west and the Rio Grande on the east. With the project area, a pedestrian archeological survey was undertaken for selected drain alignments and detention pond locales on 10 days during the months of October, November and December, 2003. Archeological survey was conducted within 120 ft (37 m) wide corridors centered upon the existing Isleta, Armijo and Los Padillas Drains; within 150 ft (46 m) wide corridors for the proposed new construction areas for the Los Padillas Extension and the Los Padillas Outfall; and within 80 ft (24 m) wide corridors for the proposed New Channel in IS10, and the proposed New Channel in L-11B. Two new 'Pond' areas encompassing 36 acres were also surveyed (Figure 1). In all, 231 acres were inspected, including property owned or managed by the Middle Rio Grande Conservancy District (21.27 acres), the Albuquerque Board of Education (3.88 acres), Bernalillo County (19.11 acres) and private individuals (481.80 acres). The field survey resulted in identification of two prehistoric archeological sites and 16 Isolated Occurrences. In addition, OCA completed a Historic Cultural Properties Inventory form for a standing barn structure located within the proposed New Channel in the IS10 area.

Background information for the project resulted in identification of 27 previously documented archeological sites and two historical structures that are still in use. Data for the records search were compiled by Jeanne Schutt (Senior Archeologist) and Ronald Stauber (GIS Specialist), while the field survey itself was done by David Vaughan and Robert Estes (Field Supervisors). Richard Chapman served as Principal Investigator for OCA. John Schelberg managed the project for the CoE, and Steve Boberg (CoE) and Dave Bishop (Bernalillo County) provided GIS support. Archeological fieldwork was coordinated with Ray Gomez (Middle Rio Grande Conservancy District) and Sue Burgess (Bernalillo County). Ms Burgess accompanied the archeologists in the field during survey of private lands portions of the project.

Under separate cover, OCA submitted two preliminary draft reports of the survey results. The first, dated October 15, 2003, concerned the Isleta and Armijo Drains, and the other (dated October 17, 2003) concerned the existing Los Padillas Drain.



Figure 1 Project Location, Southwest Valley Flood Damage Assessment Survey Public Version. Created by USACE, Lance Lundquist, 2/24/2010. Original 2003 OCA version included in Confidential Appendix.

ENVIRONMENTAL SETTING

(from Estes and Doleman 2003:4-5)

The project area lies on the floodplain of the Rio Grande Valley within the Albuquerque Basin, a distinct part of the Mexican Highlands Section of the Basin and Range physiographic Province (Hawley 1986; Kelley 1977). The elevation in the project area ranges from 4880 feet to 4890 feet (1486m–1490m). The Albuquerque Basin is the central feature of the Rio Grande Valley rift system (Kelley 1977), and is the product of block-fault tectonic movements that began in middle Tertiary times and created the region's distinctive topography. Down-dropping of one block created the offset between the Rio Grande Valley and West Mesa (Llano de Albuquerque) to the west, while uplift created the Sandia and Manzano Mountains to the east. The Rio Grande Valley is filled with Tertiary alluvium and bordered by terrace suites that reflect the basin's complex tectonic and geomorphic history. The lots surveyed in this project are all located within the floodplain of the Rio Grande Valley on the following soil types: Agua loamy soil (Hacker 1977), on slightly saline Gila loam (Pease 1975) and on the Brazito sandy loam soil (Pease 1975). As Sargeant (1985) points out, the valley and bordering uplands provided the area's prehistoric and historic occupants with a suite of resources conducive to a variety of subsistence economies.

Prior to 1957, when the Rio Grande was confined to its present channel by levees, the river was a meandering, braided stream subject to periodic floods—of varying intensity—that posed a severe, if only occasional hazard to the area's occupants (Sargeant 1985:2.2). Such floods were the dominant forces controlling the deposition and erosion of floodplain sediments and hence the preservation of any associated archeological remains. The local effects of floods were affected by channel locations, which can change gradually through migration or drastically, if infrequently, as the result of major flood events. The present-day channel lies within the project vicinity and has probably been in place for 1000–2000 years (Martinez et al. 1985:4.32). Although floods can remove floodplain sediments, most of the floodplain has been aggrading for at least hundreds of years (Martinez et al. 1985:4.15), suggesting that the potential for buried archeological materials in the area is considerable (see also Campbell 2001:23).

The Rio Grande Valley is characterized by a semi-arid continental climate with a Summer-dominant rainfall regime ranging from 7 to 10 inches of precipitation per year (Sargeant 1985:2.5).

Given the valley's long history of occupation, together with centuries of cultivation and subsequent urbanization, the present-day vegetation and wildlife are a far cry from that of prehistoric times, or even that of Spanish Colonial and later pre-urban historic times. In addition, channelization of the River and control of its flow by an upstream dam (Cochiti), has resulted in lowering of the water table and desiccation of the remnants of native vegetation (Sargeant 1985:2.13). Two kinds of vegetation were probably present. The first consisted of thick riparian woodland—called bosque by the Spanish dominated by cottonwood trees and willow (with Russian olive and salt cedar being added historically), that followed the main river channel. The remainder of the floodplain probably supported vegetation of the Plains and Great Basin Grassland biome (Brown and Lowe 1994). The combination of riparian and grassland habitats undoubtedly supported a considerable variety of wildlife, as well (see Sargeant 1985:2.14–2.18 for a discussion). In the past, the river terraces above the floodplain were dominated by mesa dropseed (Sporobolus spp.), blue grama (Bouteloua gracilis), and Indian ricegrass (Orvzopsis hymenoides). However, the area has been affected by overgrazing and the project site is now dominated by sand sage (Artemisia filifoilia, plains prickly pear (Opuntia spp.), with smaller occurrences of Russian thistle (Salsola kali).

PROJECT AREA HISTORY

(from Estes and Doleman 2003:5-9)

A useful summary of the prehistory and history of the project area is provided in the cultural resources background prepared for the Rio Grande Valley Utilities Project (Campbell 2001). In addition, Cordell's (1979) overview of the middle Rio Grande Valley is probably the most complete review of regional archeology and is directly relevant to understanding cultural resources in the project area (see also Schutt (1992). The following summary of the area's history is based largely on Campbell (2001) and the reader is referred to that document as well as others cited above for further information.

The archeology of the Rio Grande Valley in the vicinity of Albuquerque is incompletely known due to two factors: (a) a long history of agricultural use on the valley floor, and (b) development of the metropolitan area (most of it on private lands) prior to the existence of cultural resource legislation and a general public concern with historic preservation. This is especially the case for the South Valley, because development projects subject to cultural resource legislation have been concentrated in the North Valley. Furthermore, historical records dating from Spanish Colonial times to the present emphasize protohistoric and historic settlement in the North valley, between Albuquerque and Bernalillo (Campbell 2001; Sargeant 1985). On the other hand, urban expansion on the western margin of the Rio Grande Valley is a more recent development. Consequently, archaeological work on the West Mesa has contributed a great deal of the information about the regional prehistory (Judge n.d.; Schmader 1991, 1994).

Four generally recognized cultural-temporal periods apply in the Albuquerque area: the *Paleoindian*, the *Archaic*, the *Pueblo*, and the *Historic*. With the exception of the latest Pueblo, the first three periods are known only from archeological data, involve only the New World's aboriginal occupants, and span a time period from ca. 12,000 years ago (BP) to the appearance of European explorers in the 1500s (AD 1539 in New Mexico). Not surprisingly, the older archeological periods are less well known owing to a more poorly preserved physical record. The Historic period post-dates European contact and is known from written records as well as from archeological materials.

Briefly, the Paleoindian period (ca. 9500–5000 BC) is identified on the basis of distinctive projectile points and other tools and is thought to have been characterized by a highly mobile adaptation focused on the hunting of large late-Pleistocene fauna such as bison (Judge n.d.). In the Albuquerque area, this period is best represented by remains found on the West Mesa (Judge n.d.). The ensuing Archaic period (5000 BC–AD 500) was characterized by a mobile, hunting and gathering adaptation that saw a gradually increasing emphasis on the use of a broad spectrum of plant and animal resources, with domesticated plants making a late but incidental appearance and shallow pithouse habitations becoming common (Cordell 1979). In the Albuquerque region, the Archaic period falls under Irwin-Williams' Oshara Tradition (1973), which is divided into several phases that reflect these subsistence changes. The sites of this period are best known from upland locations adjacent to the valley floor (Campbell 2001:4).

The prehistoric Pueblo period in central New Mexico is further divided into Basketmaker III-Pueblo I, and Pueblo II, III, and IV periods (Campbell 2001:1). The onset of the Pueblo period was characterized by the appearance of cultigens in the diet (principally the familiar triumvirate of corn, beans and squash), more sedentary settlement patterns, and the use of pottery. Subdivisions of the period are based on archeologically-documented changes in subsistence, settlement patterns, architecture, and material culture—particularly ceramics. Overall, a gradual increase in the importance of agriculture in the economy is reflected in larger and more permanent settlements and changes in ground stone technology. These ancient farmers are generally thought to represent the prehistoric ancestors of modern-day Pueblo peoples, and the ceramic period includes later Basketmaker and Pueblo subdivisions that span the period from roughly AD 1 to the Pueblo revolt of 1680 (see Cordell 1979 for a discussion of Basketmaker-Pueblo terminology).

The Basketmaker III-Pueblo I period (AD 400/500–900) saw the appearance of the region's first aboveground structures. These features generally accompanied a subterranean dwelling (pithouse) and were used primarily for storage, reflecting an increase in the role of cultigens in the diet. This change in economic emphasis was also reflected in greater settlement density on or near the floodplains of major drainages such as the Rio Grande. The Pueblo II period (AD 900–1150) was marked by true surface habitation structures, although pithouses remained common in the Albuquerque region, and an even greater settlement focus on the margins of major river valleys such as the Rio Grande. The Pueblo III period (AD 1150–1300) saw a significant population increase as the great Chacoan and Mesa Verde culture of the San Juan Basin to the northwest declined and the regions were abandoned. The valley focus in settlement patterns continued and residential sites became larger and more complex, with both pithouses and multiple roomblocks being common. Evidence of the three early Pueblo periods is rare from the Rio Grande Valley floodplain.

During the Pueblo IV period (AD 1300–1650), however, settlement patterns expanded fully onto the valley floor, with archeological evidence indicating full reliance on intensive agriculture by the occupants of large, nucleated, pueblos that were located on the floodplain and often surrounded by smaller sites. Although the Pueblo IV period ostensibly ended with Spanish contact, which first occurred ca. AD 1540, it was not until the middle and late 1600s that substantial numbers of Spanish settled the valley in the project area. At about the time of the Spanish *Entrada*, Athabaskan-speaking Navajos and Apaches appeared in the region, beginning a long and generally antagonistic relationship with the Pueblos and Spanish.

The subsequent historic period is better documented than the prehistoric ones. The Puebloan occupation of the region during historic times is designated Pueblo V. The valley floor remained the focus of occupation and agricultural subsistence. Isleta Pueblo and its predecessors in the neighboring valley represent the principal Pueblo V occupation in the project area. Excellent histories of Isleta Pueblo are given by Ellis (1979) and Fisher (1981). Although the antiquity of the present Isleta Pueblo is uncertain, the early Spanish explorers reported Isleta Pueblo in the sixteenth century. The Isletans themselves believe that they arrived in the area as a result of migrations from both northern and southern areas, and that the site of *Pure Tuay* (LA 489), located on Black Mesa about two and a half miles northwest of Isleta, is an ancestral village. Moreover, Bandelier (1890-1892, Vol. 2:233) reported the ruins of six villages in the vicinity of the present day location of Isleta. While the origins of Isleta Pueblo remain unclear, Ellis (1979:351) argues that "Isleta itself quite certainly grew from an amalgamation of several related early villages".

Ellis (1979) summarized the land-use patterns, religion, and other aspects of Isleta Pueblo, which may be of relevance to the project area. Beginning with a 109,362-acre grant issued in 1689, the reservation has grown to 210,948 acres, which is composed of 102,073 acres of grazing and timber land, 5,000 acres of irrigable farmland, and the rest residential and "other", including a 20-acre recreation area at Isleta Lakes. The irrigated farmlands belong to the Pueblo as a whole, with land assigned by the Governor to individuals for their use. Land outside of the irrigated valley can be used by all for the gathering of wood, edible wild plants, dyes, and medicinal herbs. Livestock include horses, sheep, goats, and cattle. Hunting occurs in the valley around Isleta Lakes, on the mesa and piedmont to the east, and in the Manzano Mountains.

Spanish visits to Isleta began with Coronado's expedition in 1540-41, but it was not until 1611 or slightly later that a mission was built at Isleta and called San Antonio de Isleta. By 1626 Isleta was a parish, with a permanent Spanish settlement containing a school, shops, a blacksmith, and so forth. Despite the fact that the pueblo did not participate in the Pueblo Revolt of 1680, life in Isleta was disrupted when the Spanish refugees from settlements north of Isleta forced some of Isleta's population to migrate to El Paso del Norte while others members of the pueblo took refuge with the Hopis (Ellis 1979:354-5). After the Spanish Reconquest in 1692, Isleta received an additional land grant of 109,000 acres.

Early Spanish settlements consisted of *ranchos* and *haciendas* whose locations were tied to fields, ditches, and the entrances to major side valleys where livestock were grazed.

Spanish agriculture was based increasingly on irrigation water derived from the Rio Grande and brought to the fields by a system of ditches or *acequias* that was begun in the early 1600s but not well-developed until the 1700s. The Albuquerque *acequia madre* was constructed at the founding of the villa of the same name in 1706, later becoming the Albuquerque Main Canal.

Population growth and settlement expansion was sporadic and unpatterned. Plazas were often constructed at the centers of settlements as an aid in defending against raids by Native American groups. These plazas became the centers of defined settlements, of which six were listed in the Spanish census of 1790 for the area north of the Villa of Albuquerque (the north valley): San Jose de los Duranes, Candelarias, Nuestra Señora del Guadalupe de los Griegos, Señor de los Gallegos, San Antonio de los Poblanos, and San Jose de los Ranchos. Settlement between Albuquerque and Isleta Pueblo was apparently limited to an estancia owned by Pedro Duran y Chavez, and the Estancia Varela, the namesake of Barrio Barela located south of downtown Albuquerque (Campbell 2001; Sargeant 1985). By the late 1700s, much of the valley was settled and under cultivation. Few of these settlements' structural features remain intact today, having been destroyed by subsequent development. Many of the acequias, however, remain on or near their original alignments (Marshall and Marshall 1990).

The annexation of New Mexico by the United States in 1848, increasing use of the Santa Fe Trail, and the subsequent advent of the railroad in 1881 led to considerable change in the area's population, economy, settlement and culture, with Euro-American influence from the east gradually supplanting the connections with Mexico to the south. By the late 1800s, military campaigns had created a forced peace with Comanches, Apaches and Navajos. With the Civil War over and Native American raids no longer a threat, the strong influences of an increased Euro-American presence brought in on the Santa Fe Trail, along with the technologies of the industrial revolution led to a gradual expansion of industrial aspects of the economy. At the same time, subsistence farming and herding in the valley began to give way to commercial agriculture, with traditional food crops such as corn and beans being replaced in some fields by feed crops such as alfalfa and sorghum.

Throughout the late 19th century, Albuquerque proper remained limited to the three square miles of the original settlement. The local population continued to increase as a result of both local growth and immigration of Anglos and other Europeans from the East. This led to a demand for more housing, and a "new town" where most immigrants took up residence, arose to the east of the original settlement in the east valley margin sand hills.

Although the fertility of Rio Grande Valley soils had long been legendary, 300 years of farming, combined with flooding and a rising water table in places led to a marked decline in agricultural productivity, with the area of arable land having been halved by 1917. In 1925, the Middle Rio Grande Conservancy District (MRGCD) was formed to organize and improve flood control, drainage and the patchwork system of acequias that had evolved in the valley (see Marshall and Marshall 1990 for detailed listings of the present day valley ditches). Some old ditches were abandoned or remodeled, while new ones were constructed, with the result that thousands of acres of formerly non-irrigable land were opened to cultivation.

In the early 20 th century, and continuing after World War II, ongoing population increases tied to Albuquerque's development as a regional center for tourism, transportation and trade led to even greater demand for housing. With the onset of changes in governmental policy and improved agricultural technologies that favored large-scale farming, valley agriculture began to give way to increased use of the land for housing.

RECORDS REVIEW

Existing records and literature concerning archeological sites and historical structures previously documented within the Southwest Valley Flood Damage Feasibility Study area were reviewed and compiled, and the results plotted on the appropriate USGS quadrangle map before commencement of the survey. Primary sources of information were the New Mexico Cultural Resource Information System files managed by the Archaeological Records Management Section of the New Mexico Historic Preservation Division (for archeological sites), and files concerning National Register and State Register properties housed in the New Mexico Historic Preservation Division offices. These results are summarized in Table 1 and their locations are depicted on Figure 1. Twenty-seven prehistoric and historical archeological sites previously documented and assigned Laboratory of Anthropology (LA) site number designations, and two historical properties listed on the New Mexico State Register of Cultural Properties, were identified through this search. No sites or properties currently listed on the National Register of Historic Places are present in the study area.

SITE SURVEY

Survey Methods

Prior to the start of the survey, the project rights-of-way and pond areas were marked on a portion of the appropriate USGS quadrangle map and on several aerial photographs. The USGS map also showed the plotted locations of known archaeological sites in the project area. The survey consisted of a pedestrian examination of the designated rights-of-way and the pond areas. For the existing Isleta, Armijo and Los Padillas drains, the right-of-way is generally bounded on the margins by two fences, one running along each margin. In all cases, an unimproved road runs along both sides of the drain, between the fence and the drain. Inspection of these rights-of-way was accomplished by one person walking a zig-zag transect along these unimproved roadways. Both sides of the right-of-way for each drain were inspected in this fashion, with the archaeologist walking down one side and up the other. For the two New Channels, the Los Padillas Extension, the Los Padillas Outfall and the Pond areas, the examination was accomplished by two persons walking a series of parallel transects spaced 15–20 meters apart.

All designated areas were examined but ground visibility was poor in many areas. In most instances, the roadways alongside the drains are constructed from sediments dredged from the drains and then leveled to form the roadways running along both sides of the drains. The survey examined the surface of these roadways but it is possible that undetected sites lie buried beneath these deposits. In most cases, the sides of the drains were obscured by vegetation and could not be examined. Moreover, the outer edges of many rights-of-way were overgrown with trees and other vegetation. Consequently, the ground surface in these area also could not be seen adequately.

In many instances the rights-of-way extend through urban and suburban residential neighborhoods where the ground surface is replete with modern trash and debris, often to the point where the roadway is literally paved with broken glass and other trash including construction materials, yard and animal waste, garbage, etc. This made identifying significant cultural material in these areas difficult and occasionally impossible. In other areas, particularly portions of the Armijo drain, surface sediments are composed of windblown sands. It is possible that there are buried sites in these areas that could not be detected on the surface.

Table 1Previously documented archeological and historical sites in the Southwest Valley Flood
Damage Feasibility Study Area

Site Number	Site Name	Site Type	Site Description	Comments	NRHP Eligibility	NMCRIS Activity Number
LA 66		Prehistoric P-II/P-III	Adobe roomblock	Heavily disturbed by plowing	Not determined	608
LA 194		Prehistoric P-II/P-III	Ceramic Scatter	Covers 2 acres	Not determined	608
LA 577	Hubbles Lake Site	Prehistoric PII/PIII	Non-structural	Prehistoric ceramics	Not determined	608
LA 582	Foothill Road Site	Prehistoric PII/PIII, Historic/ Anglo- Euro American	Adobe roomblock, house and outbuildings	50 by 50 m ceramic scatter, White Mountain red-wares PIII white wares; Glaze A; destroyed by development	Not determined	608
LA 584	Leo Road Pueblo	Prehistoric PIII/PIV	Adobe roomblock, House	50 by 50 m scatter, Glaze A – Glaze C ceramics, heavily disturbed by development	Not determined	28206
LA 585		Prehistoric PII-PIV, Historic/ Hispanic	Ceramic Scatter, Historic House	PIV white wares – Glaze A-Glaze B, heavily disturbed by development.	Not determined	39568
LA 719	Pueblo Amalia	Prehistoric PIII-IV	Roomblock, house	Late PIII ceramics, Glaze A	Not determined	28206
LA 720	Shipman Pueblo	Prehistoric PIII/PIV	Two Adobe roomblocks	90 by 60 m ceramic scatter, PIII White wares, White Mountain redwares, Glaze A- Glaze B	Not determined	28206
LA 722	Gun Club Site	Prehistoric/ P1-PIII	Adobe Roomblock	None	Not determined	608
LA 3122	Sedillo Site/LA 718	Prehistoric PII, Historic/ Hispanic	Multiple residence, Historic artifact scatter	304 by 230 m , Prehistoric Pithouses, mound, depressions, bin, midden deposits, pits, burial, fcr concentration	Not determined	51285
LA 6859	Atrisco	Historic/ Hispanic	Spanish colonial settlement	Heavily impacted by urban development	Not determined	608
LA 37533	Arenal	Historic/ Hispanic	Spanish colonial settlement	Heavily impacted by urban development	Not determined	608
LA 74749	Lower Sedillo Component	Prehistoric PII	Multi residence pithouse settlement	45 by 15m , PII whitewares, eastern portion destroyed by canal construction	Not determined	32685
LA 74750	Blake Site	Prehistoric PII-PIII	Pithouse	50 by 20m intact, eastern portion destroyed by canal construction	Not determined	32685
LA 74751	Sunset Road Site	Prehistoric PIII	Pithouse, mound	20 by 50 m, East portion destroyed by canal construction	Not determined	32685
LA 74752	East Tahoe Component	Prehistoric PII/PIII	Artifact scatter	20 by 50m, PII-PIII white wares	Not determined	32685
LA 78946	Sunset Rd . Site	Prehistoric PIV	Artifact scatter	150 by 75m, Glaze A Glaze B, heavily disturbed by plowing	Not determined	32685
LA 103979	Pajarito Lateral	Historic	Irrigation ditch	4 m wide by 1.5 m	Eligible/ Criteria A	45190

Site Number	Site Name	Site Type	Site Description	Comments	NRHP Eligibility	NMCRIS Activity Number
		Hispanic		deep, currently in use; is a segment of LA 120401		
LA 120401	Pajarito Lateral	Historic Hispanic	Irrigation ditch	4 m wide by 1.5 m deep, currently in use; is a segment of LA 103979	Eligible/ Criteria A	58872
LA 105812		Prehistoric PIII	Artifact scatter	74 by 68m scatter, located on LA 119959	Not eligible	46632
LA 117691	Rancho de Atrisco Drain	Historic Anglo- American	Unlined drainage ditch	100' wide by 30' deep; currently in use	Eligible/ Criteria D	56875
LA 117692 LA 120376	Atrisco Riverside Drain	Historic Anglo- American	Unlined drainage ditch	164' wide by 50' deep; currently in use	Eligible/ Criteria D	56875
LA 119959	Carlos Sanchez Farmstead	Historic Hispanic	Ranch/ agricultural	One Territorial period house, one recent house, pitched roof barn, stone structure foundation, irrigation system (Rancho de Atrisco ditch, Rodgers lateral) with berms and wooden gates/culverts.	Eligible/ Criteria D	58681
LA 119960	MRGCD levee	Historic Anglo-Euro- American	Water control feature	Post 1930	Not determined	58681
LA 120397	Atrisco Lateral	Historic Anglo- Euro-American	Irrigation lateral	7m wide by 1.4 m deep.	Not determined	58872
LA 120398	Pajarito Lateral Wasteway	Historic Anglo- Euro-American	Water control feature	Currently in use	Not determined	58872
SR 852	Armijo School, 1021 Isleta Blvd. SE. Albuqueque NM. 87105	Historic	School building	Constructed in 1914	Eligible	None
SR 1452	Mushroom Store, 2455 Isleta Blvd, Albuquerque, NM. 87105	Historic Commercial	Old Route 66 Gas station	Constructed of terron in 1910	Eligible	None

Most of the southern 'Pond' area consists of fields currently used as pasture. Cropped grasses and other vegetation almost completely obscure the ground surface in these areas. No artifacts were found in these fields. Two of the fields were plowed, however, and one site and a separate isolated occurrence were found in both these plowed fields, suggesting that there could be sites in the other fields which remain obscured by the vegetation. In addition, most of the northern 'Pond' area behind the Rio Grande High School is choked with small-diameter trees that appear to have been cut down but left where they fell. This rendered the area essentially impassable but an effort was made to examine it as thoroughly as possible. No cultural material was identified in this area.

The proposed Los Padillas Drain Extension runs through several agricultural fields. Although the vegetation in these fields appeared to have been mowed recently, the ground surface was still obscured at the time of the survey. The ground surface along proposed Los Padillas Outfall from the Los Padillas drain to the Pajarito Ditch also was hidden by grass and other vegetation. Moreover, the right-of-way extending east from the Parjarito Ditch to the Rio Grande is dense, felled and unfelled bosque vegetation (e.g., willow, tamarisk and thorny trees). Again, these conditions made efforts to survey these areas extremely difficult if not fruitless.

Material evidence of past human behaviors discovered during the survey were classified as either *sites* or *isolated occurrences*. Archaeological sites are defined as spatially clustered concentrations of features (such as hearths or structures) and/or artifacts reflecting performance of two or more kinds of activities within a definable spatial local. Manifestations defined as sites located during the survey were recorded on Laboratory of Anthropology Site Record forms. Sites were also photographed, described, sampled for artifact content, sketch mapped, and located using a GPS unit. Site markers were installed and labeled. All cultural materials were recorded on an OCA Artifact Recording Form and plotted on the USGS quadrangle map. *Isolated occurrences*, defined as single undateable features or artifacts, or small numbers of artifacts reflecting only one or two kinds of activity performance, were described and located using the GPS, but were not recorded on Laboratory of Anthropology Site Record forms. The same artifact variables were recorded for both site artifacts and isolated occurrences.

Survey Results

In total, two prehistoric archeological sites and sixteen (16) isolated occurrences were documented during the survey. The location of these cultural resources is shown in Figure 1. UTM coordinates of beginning and end points of drain segments are provided in Appendix 1.

LA 142019

This is site is located on the east side of Foothills Drive, immediately south of 1230 Foothills Drive. The site lies within the western termination of the proposed New Cannel in area L-11B. Surface deposits in the area are characterized by alluvial and aeolian sand sheet deposits. The area has been disturbed by water erosion, road construction, ditch and canal construction, agricultural terracing and housing development construction (Figure 2). It is estimated that one to 25 percent of the site remains intact.





The site is artifact scatter, measuring approximately 5 m by 5 m. It is located on a slope just below the terrace and above the flood plain and valley bottom, in the spoil from construction of a culvert under Foothills Drive. The artifact assemblage is concentrated around the culvert ditch and currently includes five ceramic sherds including one Puerco B/W, one Gallup B/W, one possible Socorro B/W sherd, one unidentified Cibola Grayware and one unidentified Cibola Whiteware (Figure 3). One lithic flake was found on the surface. No features were identified.

Three shovel test pits were excavated to evaluate the possibility of subsurface deposits (Figure 4). The first test pit was dug in spoil on the south side of the culvert to a depth of 60 cm below modern surface. No artifacts were encountered. A second shovel test pit was excavated to a depth of about 55 cm approximately five meters south of the first test pit on a slightly eroded surface that appeared to be less disturbed than the spoil heap. Again, no artifacts were encountered. The third shovel pit was excavated to a depth of 50 cm in the bottom of the culvert ditch. Two lithic flakes were encountered, one at 30 to 40 cm below the bottom of the ditch, and the other at 40–50 cm below the bottom of the ditch. However, a corroded oil can lid also was found at 50 cm below the ditch bottom, at which depth the test pit was terminated. The estimated depth of the deposits (from modern ground surface) is 1.25 to 1.5 meters. Following specifications in the Scope of Services, none of the artifacts were collected.



Figure 3 Artifact concentration at LA 142019, view to Northwest.

At the scale of assemblage, these cultural remains suggest an Anasazi cultural affiliation and PII-PIII occupation of the site. Given the amount of terrain modification in the vicinity of these cultural remains, the fact that a localized concentration of artifacts representing performance of a number of different activities in the past can be taken to indicate the possibility that intact cultural deposits or features still exist in the immediate vicinity. This site potentially holds information that would qualify it for inclusion on the National Register of Historic Places under criterion "d" of 36CFR60.4.

LA 142020

This site is located in the southern Pond area in a plowed field approximately 300 meters south of the intersection of Don Andres and the Arenal Ditch, on the west side of a north-south trending fence that constitutes the center paling for four fenced fields (Figure 1, Figure 5). The alluvial deposits characteristic of the surrounding area appear to have been disturbed by leveling. An estimated one to 25 percent of the site may be intact.

The site is described as a very low density artifact scatter extending over an area estimated to measure 30 meters by 20 meters (Figure 6). The site may extend several meters farther east into the adjacent unplowed pasture where vegetation obscures the ground surface and defeats a more accurate assessment of the site boundaries.





Plan View of LA 142019

No features were identified at the site. However, two ceramic sherds (one Los Lunas Brown sherd and one Socorro B/W sherd) and three lithic artifacts of different materials were found in the plow zone. Modern glass, saw-cut bone, and an iron bar were also found. The depth of the deposits is unknown and no shovel test pits were excavated.



Figure 5

Overview of LA 142020, looking Northwest.

These cultural remains suggest a PII-PIII occupation of the site which involved a variety of possible residential activities. Because the site area is presently an agricultural field, subsurface testing to evaluate whether intact cultural features such as pithouses may exist below the plow zone would have entailed work effort beyond that projected for the discovery survey. Given the diversity of artifact types represented however, the possibility that such features might still exist in the immediate vicinity should be entertained. It is recommended that if construction related to the Flood Damage project is projected for this area, either a program of prior testing to identify the presence or absence of cultural features beneath the plow zone, or a program of monitoring during initial stages of construction, should be undertaken.

Isolated Occurrences

Sixteen isolated occurrences were documented. These items are described in Table 2 and their locations are depicted in Figure 1.



Figure 6 Plan View of LA 142020.

IO #	Description
1	A small, irregular, chalcedony core fragment (?) measuring approximately 2.75 cm (L) by 2.75 cm (W) by 0.5 cm (T).
2	Small piece of chalcedony, possibly raw material.
3	Small piece of translucent, whitish chalcedony, possibly raw material.
4	Small, complete chalcedony flake (?) measuring approximately 2.75 cm (L) by 2.3 cm (W) by 0.3 cm (T).
5	Fragment of porcelain vessel with blue-on-white transfer print design of Chinese scene; one proximal basalt flake with cortical platform measuring approximately 1.5 cm (W) by 5 cm (T); one complete flake made of chalcedony with red inclusions measuring approximately 3.0 cm (L) by 3.3 cm (W) by 1.5 cm (T).
6	A small, irregular, reddish-brown, translucent chalcedony core fragment (?) measuring approximately 3.9 cm (L) by 3.0 cm (W) by 0.4 cm (T).
7	One Los Lunas Smudged jar fragment; one small rim fragment of unknown ware.
8	One complete white chalcedony flake measuring approximately 3.1 cm (L) by 2.2 cm (W) by 0.4 cm (T); one chalcedony-with-red-inclusions, proximal flake measuring approximately 2.0 cm (L) by 1.1 cm (W) by 0.2 cm (T); one unknown ware fragment, possibly modern flower pot (?).
9	One unidentified Black/Brown ware fragment, possibly Los Lunas Smudged.
10	Later determined to be fragment of cement.
11.	Two small core fragments (?) of translucent, brownish chalcedony; one distal flake (?) on quartzite.
12	One complete, utilized flake on medium-coarse quartzite.
13	One Micaceous Black Utility sherd.
14	One Unknown Historical ware fragment.
15	One Unidentified Black/Brown ware fragment; one Socorro B/W sherd; one utilized, lateral flake on medium-coarse quartzite measuring approximately 4.2 cm (L) by 3.0 cm (W) by 8.0 cm (T).
16	One Unidentified Hatched Cibola White Ware bowl sherd.

Table 2Isolated Occurrence Descriptions

Historical Structures

An historical barn and stable are located in path of the proposed New Channel in area IS10 at 1815 Atrisco Drive (Figure 1). The barn is a two-story structure with a corrugated metal gable roof and horizontal wooden siding (Figure 7). Small corrals extend west from the west end of the barn and east from the east end of the barn. A partial canopy extending from the barn into the eastern corral shelters a small area in that corral. The barn is not internally divided and we detected no evidence that the barn ever had a second story floor or loft. The widths of the wooden planks used for siding vary, but some are quite wide, measuring approximately 16 inches or more. There is no interior 'siding' or finishing deliberate spacing of the siding allows air and light directly into the barn.

Attached to the north side of the barn is a single-story, wooden shed with a metal corrugated roof. The shed extends the entire length of the north side of the barn and appears to have been a stable. A small pen extends from the north side of the shed and runs along its entire length. The siding in the shed is narrower than that in the barn. Some boards appear to have been salvaged from wooden pallets. While the barn is unpainted, portions of the shed are painted red. We believe the shed may be a somewhat later construction than the barn.



Figure 7 Historic Barn HPCI-1, view to Southwest.

Doors in the barn and shed are 3-leaf, vertical plank, wooden doors. The stable also has a single 1-leaf wooden Dutch door in the center of the north wall. Only the western corral appears to be in use at this time, however. The barn is empty and a dismantled vehicle currently blocks the eastern entrance to the shed.

There also are a number of other structures at this address, including a small adobe or stucco house and garage, two small, portable buildings, and a mobile home. Wooden and wire fences enclose the property and interconnect with other fences to divide the property into several activity areas. There is an enclosed horse pasture located north of the northern net wire fence surrounding the rest of the property. In addition, an alfalfa field extends west beyond the western corral and west behind the western boundary of the pasture.

Concentrations of Vesicular Basalt

The survey also identified three concentrations of vesicular basalt boulders and cobbles, lithic material that is not generally considered common out in the Rio Grande flood plain. The concentrations each contain 20-50 rocks. Two of these concentrations (one at the intersection of the Isleta Drain and Felictas Road and the other at the Los Padillas Drain and Gun Club Road) are directly associated with drain culverts running under roads, although some rock in the latter concentration are imbedded in the roadway in a more or less linear arrangement. Both concentrations are currently thought to be related to construction of the culverts and roads, although IO # 11 is associated with the latter concentration. The third concentration is located at the intersection of the Armijo Drain and the Pajarito Lateral. The reason for this concentration is unclear.

Currently, there are no roads or culverts in the immediate area but there is some evidence of a former irrigation gate and culvert leading from the Pajarito Lateral into the west side wall of the Armijo Drain, in the direction of the basalt concentration located on the east side of the Drain. While no corresponding culvert was located on the east side of the Drain, culvert construction may account for the presence of basalt at this location.

MANAGEMENT RECOMMENDATIONS

The first site recorded during the survey, LA 142019, may contain subsurface cultural deposits in areas and at depths not impacted by the culvert ditch and other disturbances in the surrounding area. Information derived from these deposits concerning the PII to PIII Period could supplement or illuminate knowledge gained from the other sites similarly situated along the base of West Mesa escarpment (e.g., LA 577, LA 74751, LA 74752, and LA 74750). Thus, the site may be eligible for nomination to the National Register criterion "d" of 36 CFR 60.4.

The second site, LA 142020, is located well into the Rio Grande floodplain, quite some distance from the base of the West Mesa escarpment, and it is almost unique in this respect. While it currently appears as a very limited artifact scatter with no evidence of subsurface deposits in the plowed field where artifacts were discovered, there is a reasonable possibility that most, or at least more, of the site exists immediately east of the scatter in the unplowed field, an area that could not be adequately examined during the present survey due to dense vegetation cover. It is also possible that intact cultural features or deposits may exist below the plow zone in the field itself. While we cannot be sure of the site's information potential at this time, a program of pre-construction test excavations or monitoring during initial stages of construction is recommended for LA 142020.

Construction of the proposed New Channel in area IS10 will probably destroy the historic barn and shed discussed above. While only specialists in historic properties are qualified to assess the historical value of these structures, we note that these buildings are located in what appears to be a former agricultural area that is becoming increasingly suburban over time. For this reason, these structures may be evidence of a rapidly disappearing rural lifestyle and agricultural economy in the South Valley and for this reason, worthy of preservation. We recommend further evaluation of these structures by a qualified individual.

The isolated occurrences have limited information potential and that potential has been largely exhausted by the recording procedures employed during the survey. Consequently, no further study of these artifacts or protective action seems warranted.

As discussed, ground visibility in specific areas of the survey was poor. It is possible that additional sites or information will be uncovered during construction in these areas. Thus, it is strongly recommended that an archaeologist be present to monitor any construction in the Pond areas, the Los Padillas Extension and Outfall, and the New Channel in area IS10.

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Appendix 1

Beginning and Ending UTM Coordinates for Drain Segments (Zone 13, NAD 27)

Name	Name Beginning Coordinate		Ending Coordinates	
	Easting	Northing	Easting	Northing
Armijo Drain	344159	3877355	346408	3880371
Isleta Drain	343831	3875977	346119	3883156
Los Padillas Drain	344926	3874637	345600	3875969
Los Padillas Drain Extension	343834	3875986	345141	3875973
Los Padillas Outfall to River	344958	3874646	346301	3874633
New Channel	344575	3880089	345286	3879895
Storm sewer L-11-B	345090	3881038	345734	3880895
Storm sewer N-11-A (1)	343780	3877671	343868	3877671
Storm sewer N-11-A (2)	343894	3877818	344201	3877560
Storm sewer N-11-E	344731	3878980	345193	3878911
Storm sewer N-11-G	344273	3878173	344923	3877963
Storm sewer P-11-F	345352	3878158	345466	3877339
NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)			
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1. NMCRIS Activity	2a. Lead (Sponsoring)	2b. O	ther Permitting		
No.:	Agency:	Agen	cy(ies):		3. Lead Agency Report No.:
116759	USACE, Albuquerque D	District		USACE-ABQ-2010-001	
4. Title of Report: Addendum 1 to Southwest Valley Flood Damage Feasibility Study			5. Type of Report		
Cultural Resources Inve	entory (NMCRIS 86147)				🛛 Negative 🗌 Positive
Author(s) Lance Lun	dguist and John Schelber	g			
6. Investigation Type		-	_	_	
Research Design	Survey/Inventory	Test Excavation	n Excavation		ctions/Non-Field Study
Overview/Lit Review	Monitoring	Ethnographic st	udy 🗌 Site specific vis	sit 🗌]Other
7. Description of Underta	king (what does the project e	entail?): The	8. Dates of Investig	ation: (from: 5/4/2009 to: 2/8/2010)
Corps, in cooperation w	Ith and at the request of the Elood Control Association	he and			
Bernalillo County. New I	Mexico, is planning a proi	ect that would	9. Report Date: 2/23	3/2010	
improve storm water dra	ainage and reduce the pot	ential for			
flooding within the Sout	hwest Valley project area.	This report			
is an addendum to NMC	RIS 86147 to account for a	alignment			
10 Performing Agency	Consultant: USACE Albo		11 Performing Age		sultant Report No · USACE-
District Principal Investiga	tor: Lance Lundquist	lueique	ABQ-2010-001	1109/001	
Field Supervisor: L	ance Lundquist		12. Applicable Cultu	ural Res	ource Permit No(s):
Field Personnel Na	mes: John Schelberg		NM-09-193 and NM-	10-193	
13. Client/Customer (pr District	oject proponent): USACE	, Albuquerque	14. Client/Customer	r Projec	t No.: N/A
Contact: Lance Lui	ndquist				
Address:		_			
U.S. Army Corps of Eng	ineers, Albuquerque Distr	ict			
Albuquerque NM 87109					
Phone: ((505)) 342	2-3671				
15. Land Ownership St	atus (Must be indicated on p	roiect map):			
Land Owner		- 	Acres Surveyed	Acres i	n APE
Albuquerque Boa	rd of Education		1.69	1.69	
Albuquerque Ope	en Space		2.04	2.04	
Bernalillo County			3.77	3.77	
		TOTAL	S 7.5	7.5	
16 Records Search(es)):				
Date(s) of ARMS File F	eview 5/3/2009 and	Name of Revie	ewer(s) Jon Van		
2/7/2010		Hoose and La	nce Lundquist		
Date(s) of NR/SR File F	Review 5/3/2009 and	Name of Revie	ewer(s) Jon Van		
2/7/2010	ny Filo Boyiow 5/2/2000	Hoose and La	nce Lundquist	A	
and 2/7/2010 Hoose and Land		nce I undquist	Dist	rict	
		10000 4114 24		2.01	
17. Survey Data:					
a. Source Graphics	🖂 NAD 27 🛛 NAD 83				
•	── ── USGS 7.5' (1:24,000) to	po map	Other topo map, S	cale:	
	GPS Unit Accura	cy ⊠<1.0m	□ 1-10m □ 10-10	0m ∏]>100m
				-	
b.USGS 7.5' Topograph	ic Map Name USC	GS Quad Code	Г		
Albuquerque West	Albuquerque West 35106-A6				
c. County(ies): Bernalil	lo				

17. Survey Data (continued):				
d. Nearest City or Town: Albuquerque				
e. Legal Description:				
Township (N/S) Rar	ige (E/W)	Section	1/4 1/4	1/.
			, ,	, ,
Projected legal description? Yes [] , No []	Unpla	itted [X]		
f. Other Description (e.g. well pad footages, Pajarito Land Grants. Generally bounded b west, and Don Felipe to the south.	mile markers y streets Cen	s, plats, land grant nam tral Avenue to the nortl	ie, etc.): Loca h, Isleta Blvd	ted in Town of Atrisco and to the east, Coors Blvd to the
18. Survey Field Methods: Intensity: ⊠ 100% coverage □ <100% co	verage		•	
Configuration: 🗌 block survey units 🛛 🖾 line	ear survey unit	s (l x w): 930' x 80', 680'	' x 150, ~1000	' x 175' 🗌 other survey
units (specify):				,
Scope: 🛛 non-selective (all sites recorded)	selective/th	ematic (selected sites re	ecorded)	
Coverage Method: Systematic pedestrian	coverage	other method (describe)	
Survey Person Hours: 7 Recording Person	lwork Dates:	5/4/2009, 2/8/2010		
Additional Narrative: Survey at Albuquerque	Public Scho	ola nours. o ols was 930' x 80' for t	he I os Padilli	A Outfield the western area
was surveyed at 680' x 150', the eastern are	a including th	ne staging area and a p	otential swal	e measured approximately
250' x 400', and the area near the river was r	not surveyed	because it in the active	river channe	I
19. Environmental Setting (NRCS soil design of the Rio Grande Valley within the Albuque physiographic Province. Elevations range fr (open space field, Albuquerque Public Scho	nation; vegeta rque Basin, a om 4880 to 44 ol baseball a	ative community; elevat part of the Mexican Hig 890 feet. The project ar nd football fields).	tion; etc.): Th ghlands Secti eas were eith	e project is in the floodplain on of the Basin and Range er farmland or developed
20.a. Percent Ground Visibility: 75+ b. Condi grass, 50 percent freshly plowed fie	tion of Surve Ids.	y Area (grazed, bladed,	undisturbed	etc.): About 50 percent
21. CULTURAL RESOURCE FINDINGS Y and developed nature of area.	es, See Page		ee Why: Smal	size of survey and disturbed
22. Required Attachments (check all approp			ss wily. Olla	size of survey and disturbed
	riate boxes):		SS WIIY. SINAI	
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 ☑ USGS 7.5 Topographic Map with sites, is ☑ Copy of NMCRIS Mapserver Map Check ☑ LA Site Forms - new sites (<i>with sketch map</i>) 	riate boxes): olates, and su	ישאַעאָע, Discus מרעפע area clearly draw מרעפע מרפי מושע מרעש מייניייייייייייייייייייייייייייייייייי	n .	23. Other Attachments: Photographs and Log Other Attachments
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CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 116759	2. Lead (Sponsoring) Agency: USACE, Albuquerque District			
SURVEY RESULTS:				
Sites discovered and registered: 0				

3. Lead Agency Report No.: USACE-ABQ-2010-001

Sites discovered and registered: 0 Sites discovered and NOT registered: 0 Previously recorded sites revisited (site update form required): 0 Previously recorded sites not relocated (site update form required): 1 TOTAL SITES VISITED: 0 Total isolates recorded: 0 Non-selective isolate recording? Total structures recorded (new and previously recorded, including acequias): 0

MANAGEMENT SUMMARY: The Corps, in cooperation with and at the request of the Albuquerque Metro Area Flood Control Association (AMAFCA) and Bernalillo County, New Mexico, is planning a project that would improve storm water drainage and reduce the potential for flooding within the Southwest Valley project area, which is located in the southwest corner of Albuquerque and Bernalillo County. The runoff from the West Mesa is largely controlled by a series of dams, detention basins, and diversion channels constructed by AMAFCA, Bernalillo County, and the City of Albuquerque. The proposed plan calls for utilizing existing easements, widening existing drains, constructing a large storm water detention ponding area, and constructing two new channels, all to be built in four phases. Given the amount of development in the project area, the most feasible flood control strategy is to use the existing Isleta, Armijo, and Los Padillas Drains as linear detention facilities. New construction is required to connect several drains and to provide an outlet to the Rio Grande. New construction is also required for two ponds.

In 2003, the Office of Contract Archeology, University of New Mexico (OCA) archaeologists conducted an intensive archaeological survey of the approximately 231.2-acre project area, as detailed in the survey report, Southwest Valley Flood Damage Feasibility Study Cultural Resources Inventory, prepared by Mr. David Vaughan and Dr. Richard C. Chapman in February 2004 (NMCRIS 86147). LA 142020 was located by OCA in a plowed field and was originally defined on the basis of four prehistoric artifacts (two pieces of pottery and two pieces of chipped stone). On May 4, 2009, Corps archaeologists revisited LA 142020, and were not able to locate any prehistoric artifacts. It is the Corps' assessment that LA 142020 is not an archaeological site, and instead represents an isolated occurrence of four artifacts. A detention pond is planned for the area containing LA 142020.

On May 4, 2009 Corps archaeologists surveyed a 1.69-acre re-alignment on Rio Grande High School property. On February 8, 2010, Corps archaeologists surveyed a 5.81-acre re-alignment for the proposed Los Padillas Outfall, as well as potential staging areas. No artifacts or cultural materials were located by either survey. A report of this activity is documented in this addendum report. As other phases are more clearly defined relative to constraints such as acquiring real estate, additional addendum reports may be required.

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, and based on the State of New Mexico Indian Affairs Department's Native American Consultations List, tribes with an interest in Bernalillo County have been contacted and provided an opportunity to consult on this project. To date, the Corps has received no indication of tribal concerns that would impact this project.

Pursuant to 36 CFR 800.13, should previously unknown artifacts or cultural resource manifestations be encountered during construction, work would cease in the immediate vicinity of the resource. A determination of significance would be made, and consultation would take place with the New Mexico Historic Preservation Office and with American Indian Tribes that have cultural concerns in the area to determine the best course of action.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Previously recorded revisited sites:

LA No.Field/Agency No. Eligible? (Y/N, applicable criteria)142020N

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Appendix E

EDR Datamap Corridor Study and Map

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Southwest Valley Flood Damage Reduction Project

Albuquerque, NM 87105

Inquiry Number: 02730506.1r March 30, 2010

EDR DataMap[™] Corridor Study



440 Wheelers Farms Road Milford, CT 06461 Toll Free: 800.352.0050 www.edrnet.com *Thank you for your business.* Please contact EDR at 1-800-352-0050 with any questions or comments.

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TARGET PROPERTY INFORMATION

ADDRESS

ALBUQUERQUE, NM 87105 ALBUQUERQUE, NM 87105

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Treatment, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	Clandestine Drug Labs
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
	Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
PCB TRANSFORMER	PCB Transformer Registration Database

COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US HIST CDL	National Clandestine Laboratory Register
FEDERAL FACILITY	Federal Facility Site Information listing
COAL ASH DOE	Sleam-Electric Plan Operation Data
FEMA UST	Underground Storage Tank Listing

STATE AND LOCAL RECORDS

This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal
NPL list.
Recycling Facility Listing
Leaking Aboveground Storage Tank Sites
Spill Data
Sites with Institutional Controls
Voluntary Remediation Program Sites
Drycleaner Facility Listing
Clandestine Drug Laboratory Listing
List of Discharge Permits
List of Asbestos Demolition and Renovations Jobs

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land
INDIAN VCP	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 06/30/2009 has revealed that there is 1

CERCLIS site within the searched area.

Site	Address	Map ID	Page
USGS WELL, ISLETA AT BARCELONA	2550 ISLETA BLVD.	16	21

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 06/23/2009 has revealed that there is 1 CERC-NFRAP site within the searched area.

Site	Address	Map ID	Page
PRONTO SERVICE	BRIDGE & SO COOR RD	4	4

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 01/13/2010 has revealed that there are 4 RCRA-CESQG sites within the searched area.

Site	Address	Map ID	Page
SOUTH COORS TRUCK SALVAGE	1125 OLD COORS RD SW	6	9
WESSKOTE INC	1504 COORS BLVD SW	9	13
AUTOMOTIVE PERFORMANCE ENGINEE	2804 ARENAL SW	10	16
PERFECTION AUTO & TRUCK CENTER	4301 COORS BLVD SW	29	29

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 01/13/2010 has revealed that there is 1 RCRA-NonGen site within the searched area.

Site	Address	Map ID	Page
PRONTO SERVICE	BRIDGE & SO COOR RD	4	4

MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the MINES list, as provided by EDR, and dated 11/17/2009 has revealed that there is 1 MINES site within the searched area.

Site	Address	Map ID	Page
VALLEY CONCRETE COMPANY		23	25

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 10/19/2009 has revealed that there are 6 FINDS sites within the searched area.

Site	Address	Map ID	Page
PRONTO SERVICE	BRIDGE & SO COOR RD	4	4
SOUTH COORS TRUCK SALVAGE	1125 OLD COORS RD SW	6	9
WESSKOTE INC	1504 COORS BLVD SW	9	13
USGS WELL, ISLETA AT BARCELONA	2550 ISLETA BLVD.	16	21
BARCELONA ELEMENTARY	2311 BARCELONA RD SW	22	25
CHRISTINE DUNCAN COM	3011 BARCELONA RD SW	23	26

RAATS: The RCRA Administration Action Tracking System contains records based on enforcement actions issued under RCRA and pertaining to major violators. It includes administrative and civil actions brought by the United States Environmental Protection Agency. The source of this database is the U.S. EPA.

A review of the RAATS list, as provided by EDR, and dated 04/17/1995 has revealed that there is 1 RAATS site within the searched area.

Site	Address	Map ID	Page
PRONTO SERVICE	BRIDGE & SO COOR RD	4	4

STATE AND LOCAL RECORDS

SCS: State cleanup sites that fall under the state's Water Quality Control Commission Regulations.

A review of the SCS list, as provided by EDR, and dated 06/26/2009 has revealed that there are 4 SCS sites within the searched area.

Site	Address	Map ID	Page
PRONTO SERVICE CO.	1107 COORS SW	5	8
GINO'S RESTAURANT & LOUNGE	1401 COORS SW	8	11
ATEX LUST	3501 ISLETA	27	27
RUBI'S METALS, INC.	2227 MAYFLOWER RD	32	33

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the New Mexico Environmental Department's Solid Waste Facilities List.

A review of the SWF/LF list, as provided by EDR, and dated 08/31/2009 has revealed that there is 1 SWF/LF site within the searched area.

Site	Address	Map ID	Page
VALLEY EXCAVATION & TRENCHING	2814 SAN YGNACIO, SW, A	7	11

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the New Mexico Environmental Department's List of Past & Current Leak Sites by Location.

A review of the LUST list, as provided by EDR, and dated 08/01/2006 has revealed that there are 17 LUST sites within the searched area.

Site	Address	Map ID	Page
ROBERTS OIL-CENTRAL Facility Status: Aggr Cleanup Comple	4617 CENTRAL NW eted, Resp Party	1	3
PLATEAU 112 Facility Status: No Further Action Red	4711 CENTRAL NW quired	2	3
WHITE STORE #145 Facility Status: No Further Action Red	5201 CENTRAL AVENUE NW quired	3	4
CIGARETTE SHOP THE Facility Status: Investigation, Respon	2401 ISLETA SW sible Party	14	19
ATEX/T-GAS 1315 Facility Status: Aggr Cleanup Comple	2448 ISLETA BLVD eted, Resp Party	15	20
ALLSUP 152 Facility Status: Cleanup, Responsible	2801 COORS SW Party	17	22
RODGERS DRILLING Facility Status: Cleanup, Responsible	2615 ISLETA BLVD SW Party	18	23
SPARKLE CAR WSH Facility Status: Aggr Cleanup Comple	2611 ISLETA BLVD SW eted, Resp Party	18	23
CLIMATE ROOFING INC Facility Status: Aggr Cleanup Comple	2700 ISLETA SW eted, Resp Party	19	23
CIRCLE K 589 Facility Status: No Further Action Rev	3041 ISLETA SW quired	20	24
LEE AND BLAKELY FEED STORE Facility Status: Monitoring, Responsil	3031 ISLETA BLVD SW ble Party	20	24
THRIFTWAY ISLET Facility Status: Aggr Cleanup Comple	3339 ISLETA BLVD SW eted, Resp Party	24	26

Site	Address	Map ID	Page
CHEVRON ISLETA Facility Status: Aggr Cleanup	3401 ISLETA SW o Completed, St Lead, CAF	26	27
ATEX 213 Facility Status: Aggr Cleanup	3501 ISLETA BLVD SW Completed, St Lead, CAF	27	27
BASS SITE Facility Status: Aggr Cleanup	4257 ISLETA BLVD SW Completed, St Lead, CAF	28	28
CIRCLE K #610 Facility Status: No Further A	4400 COORS SW ction Required	30	31
ATEX/T-GAS 380 Facility Status: Investigation,	2990 GUN CLUB RD Responsible Party	31	32

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the New Mexico Environmental Department's Listing of Underground Storage Tanks.

A review of the UST list, as provided by EDR, and dated 08/01/2006 has revealed that there are 15 UST sites within the searched area.

Address	Map ID	Page
4711 CENTRAL NW	2	3
1524 COORS BLVD	9	12
1504 COORS SW	9	15
1500 COORS BLVD SW	9	15
1897 COORS BLVD SW	11	18
2518 COORS SW	13	19
2508 COORS SW	13	19
2401 ISLETA SW	14	19
2801 COORS SW	17	22
2700 ISLETA SW	19	23
1700 BARCELONA RD SW	21	25
3305 S COORS	25	26
4321 COORS SW	29	28
4400 COORS SW	30	31
2990 GUN CLUB RD	31	32
	Address 4711 CENTRAL NW 1524 COORS BLVD 1504 COORS BLVD SW 1500 COORS BLVD SW 1897 COORS BLVD SW 2518 COORS SW 2508 COORS SW 2401 ISLETA SW 2801 COORS SW 2700 ISLETA SW 1700 BARCELONA RD SW 3305 S COORS 4321 COORS SW 4400 COORS SW 2990 GUN CLUB RD	Address Map ID 4711 CENTRAL NW 2 1524 COORS BLVD 9 1504 COORS SW 9 1500 COORS BLVD SW 9 1897 COORS BLVD SW 11 2518 COORS SW 13 2608 COORS SW 13 2401 ISLETA SW 14 2801 COORS SW 17 2700 ISLETA SW 19 1700 BARCELONA RD SW 21 3305 S COORS 25 4321 COORS SW 29 4400 COORS SW 30 2990 GUN CLUB RD 31

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the New Mexico Environmental Department's Listing of Aboveground Storage Tanks.

A review of the AST list, as provided by EDR, and dated 08/01/2006 has revealed that there is 1 AST site within the searched area.

Site	Address	Map ID	Page
COYOTE GRAVEL PRODUCTS INC	2124 COORS SW	12	18

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

	Database	Total Plotted
FEDERAL RECORDS		
FEDERAL RECORDS	NPL Proposed NPL Delisted NPL NPL LIENS CERCLIS CERCLIS CERC-NFRAP LIENS 2 CORRACTS RCRA-TSDF RCRA-LQG RCRA-SQG RCRA-CESQG RCRA-CESQG RCRA-NonGen US ENG CONTROLS US INST CONTROL ERNS HMIRS DOT OPS US CDL US BROWNFIELDS DOD FUDS LUCIS CONSENT ROD UMTRA ODI DEBRIS REGION 9 MINES TRIS TSCA FTTS HIST FTTS SSTS ICIS PADS MLTS RADINFO EINDS	
	RAATS PCB TRANSFORMER COAL ASH EPA SCRD DRYCLEANERS US HIST CDL FEDERAL FACILITY COAL ASH DOE	1 0 0 0 0 0 0
	FEIVIA USI	U

STATE AND LOCAL RECORDS

SHWS

N/A

MAP FINDINGS SUMMARY

	Database	Total Plotted
	SCS SWF/LF SWRCY LUST UST LAST AST SPILLS INST CONTROL VCP DRYCLEANERS CDL NPDES ASBESTOS	4 1 0 17 15 0 1 0 0 0 0 0 0 0 0 0
TRIBAL RECORDS		
	INDIAN RESERV INDIAN ODI INDIAN LUST INDIAN UST INDIAN VCP	0 0 0 0 0
EDR PROPRIETARY REC	ORDS	
	Manufactured Gas Plants	0

NOTES:

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Database(s) **EPA ID Number**

LUST 1000959762 N/A

ROBERTS OIL-CENTRAL 4617 CENTRAL NW ALBUQUERQUE, NM 87108

LUST: Facility ID: Status: Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rank: Project Manager:

1741 Aggr Cleanup Completed, Resp Party 07/01/2004 2792 11/17/1995 Not reported Not reported Not reported Thomas Leck

2

1

PLATEAU 112 **4711 CENTRAL NW** ALBUQUERQUE, NM 87105

LUST:

Facility ID: 1656 Status: **No Further Action Required** Status Date: 11/15/1999 Release ID: 3305 Date Release Reported: 11/07/1997 Priority Rank: Not reported Mitigating Factor Score: Not reported Not reported Total Score To Assign Relative Rank: Project Manager: Thomas Leck

UST:

Facility ID: 1656 Secondary Address: Not reported Owner ID: 364 THRIFTWAY MARKETING CORPORATION Owner Name: Owner Address: 501 AIRPORT DRIVE Owner Address 2: SUITE 100 FARMINGTON, NM 87401 Owner City, St, Zip: Owner Telephone: 505-327-4965

Tank ID: Tank Status:

18826

Tank Type: Tank Capacity: Tank Substance:

REMOVED Underground 10000 EMPTY

Tank ID: Tank Status: Tank Type: Tank Capacity: Tank Substance:

18827 REMOVED Underground 3000 EMPTY

Tank ID: Tank Status: Tank Type: Tank Capacity: Tank Substance:

18828 REMOVED Underground 6000 EMPTY

LUST U003189774 UST N/A

	MAP FINDINGS				
ection tance					EDR ID Number
ance (ft.	.)Site			Database(s)	EPA ID Number
	PLATEAU 112 (Continu	ied)			U003189774
	Tank ID: Tank Status: Tank Type: Tank Capacity: Tank Substance:	18829 REMOVED Underground 3000 EMPTY			
	WHITE STORE #145 5201 CENTRAL AVENU ALBUQUERQUE, NM 8	E NW 7105		LUST	S102642258 N/A
	LUST: Facility ID: Status: Status Date: Release ID: Date Release Repo Priority Rank: Mitigating Factor So Total Score To Assi Project Manager:	rted: core: ign Relative Rank:	31619 No Further Action Required 01/11/1990 1124 11/15/1989 Not reported Not reported Not reported UNKNOWN		
	PRONTO SERVICE BRIDGE & SO COOR RI ALBUQUERQUE, NM 8	D 7105		CERC-NFRAP RCRA-NonGen FINDS RAATS	1000322478 NMD000332916
	CERC-NFRAP: Site ID: Federal Facility: NPL Status: Non NPL Status:	0600786 Not a Federa Not on the N NFRAP	l Facility PL		
	CERCLIS-NFRAP Site Contact Title: Contact Name: Contact Tel:	e Contact Name(s): Not reported Carlene Cha (214) 665-67	mbers 20		
	Contact Title: Contact Name: Contact Tel:	Not reported Philip Ofosu (214) 665-31	78		
	Contact Title: Contact Name: Contact Tel:	Not reported Ladonna Wa (214) 665-66	lker 66		
	CERCLIS-NFRAP Site Alias Name: Alias Address:	Alias Name(s): PRONTO SE Not reported NM	RVICES		
	CERCLIS-NFRAP Ass Action: Date Started: Date Completed: Priority Level:	sessment History: DISCOVERY Not reported 04/01/1983 Not reported			

Database(s) EPA ID Number

RONTO SERVICE (Contin	nued)	1000322478
Action:	PH	
Date Started:	Not reported	
Date Completed:	07/15/1983	
Priority Level:	Not reported	
Action:	AM	
Date Started:	Not reported	
Date Completed:	09/08/1983	
Priority Level:	Not reported	
Action:	REMOVAL	
Date Started:	09/12/1983	
Date Completed:	09/18/1983	
Priority Level:	Cleaned up	
Action:	RJ	
Date Started:	Not reported	
Date Completed:	10/05/1983	
Priority Level:	Not reported	
Action:	PRELIMINARY ASSESSMENT	
Date Started:	01/01/1984	
Date Completed:	01/01/1984	
Priority Level:	Low priority for further assessment	
Action:	PE	
Date Started:	Not reported	
Date Completed:	08/01/1984	
Priority Level:	Not reported	
Action:	SECTION 106 LITIGATION	
Date Started:	07/15/1983	
Date Completed:	08/16/1984	
Priority Level:	Not reported	
Action:	WD	
Date Started:	Not reported	
Date Completed:	08/16/1984	
Priority Level:	Not reported	
Action:	FU	
Date Started:	Not reported	
Date Completed:	08/16/1984	
Priority Level:	Not reported	
Action:	SITE INSPECTION	
Date Started:	03/01/1987	
Date Completed:	03/01/1987	
Priority Level:	NFRAP: No further Remedial Action planned	
Action:	DD	
Date Started:	Not reported	
Date Completed:	10/16/1989	
Priority Level:	Not reported	
Action:	SH	
Date Started:	Not reported	

Database(s) EPA ID Number

1000322478

PRONTO SERVICE (Continued)	
Date Completed:	09/14/1995
Priority Level:	NFRAP: No further Remedial Action planned
Action:	ARCHIVE SITE
Date Started:	Not reported
Date Completed:	09/29/1995
Priority Level:	Not reported
Action:	DD
Date Started:	Not reported
Date Completed:	03/29/1996
Priority Level:	Not reported
RCRA-NonGen:	
Date form received by agency Facility name: Facility address: EPA ID: Mailing address: Contact: Contact address: Contact country: Contact telephone: Contact telephone: Contact telephone: Contact email: EPA Region: Land type: Classification: Description:	y: 06/17/2003 PRONTO SERVICE BRIDGE & SO COOR RD ALBUQUERQUE, NM 87105 NMD000332916 DENNISON S W ALBUQUERQUE, NM 87105 CHARLES GUTIERREZ 1588 DENNISON S W ALBUQUERQUE, NM 87105 US (505) 842-8015 Not reported 06 Private Non-Generator Handler: Non-Generators do not presently generate hazardous waste
Owner/Operator Summary:	PRONTO SVC
Owner/Operator name:	UNKNOWN
Owner/Operator address:	UNKNOWN, NM 00000
Owner/Operator country:	Not reported
Owner/Operator telephone:	(000) 000-0000
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/0001
Owner/Operator name:	Not reported
Owner/Operator name:	MILT ARMS INC
Owner/Operator address:	UNKNOWN
Owner/Operator country:	UNKNOWN, NM 00000
Owner/Operator telephone:	Not reported
Legal status:	(000) 000-0000
Owner/Operator Type:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/0001
Owner/Op end date:	Not reported
Handler Activities Summary:	

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No

EDR ID Number

Database(s) EPA ID Number

.

Recycler of bazardous waste:	No
Transporter of bazardous waste.	
Tractor storer or disposer of h	
Linderground injection activity	No. No
On-site burner exemption:	No
Furnace exemption:	No
Lised oil fuel burner:	No
Lised oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burn	ar No
Used oil Specification markete	r No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown
Historical Generators:	
Date form received by agency	
Facility name:	PRONTO SERVICE
Classification:	Not a generator, verified
Facility Has Received Notices of	Violations:
Regulation violated:	Not reported
Area of violation:	Generators - General
Date violation determined:	01/15/1983
Date achieved compliance:	07/30/1984
Violation lead agency:	EPA
Enforcement action:	INITIAL 3008(A) COMPLIANCE
Enforcement action date:	04/15/1983
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	EPA
Proposed penalty amount:	25000
Final penalty amount:	Not reported
Paid penalty amount:	Not reported
Regulation violated:	Not reported
Area of violation:	Generators - General
Date violation determined:	01/15/1983
Date achieved compliance:	07/30/1984
Violation lead agency:	
Enforcement action:	FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date:	0//30/1984
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	
Proposed penalty amount:	25000 Net reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported
Evaluation Action Summary:	
-	01/15/1983
Evaluation date:	
Evaluation date: Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation date: Evaluation: Area of violation:	COMPLIANCE EVALUATION INSPECTION ON-SITE Generators - General
Evaluation date: Evaluation: Area of violation: Date achieved compliance:	COMPLIANCE EVALUATION INSPECTION ON-SITE Generators - General 07/30/1984

Database(s) E

EPA ID Number

1000322478

PRONTO SERVICE (Continued)

FINDS:

Registry ID: 110007973693

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

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PRONTO SERVICE CO. 1107 COORS SW ALBQ., NM

SCS:

Latitude: Not reported Longitude: Not reported Size(Acres): Not reported Contaminate Of Concern: Not reported Depth To Water(Ft): Not reported Not reported Flow Direction: Media Impacted: Not reported **Regulatory Status:** Not reported Not reported Assessment Or Abatement Option: Not reported Comments: Event: PCB oils contaminated soil Discharge Date: Not reported Actions Taken: soil excavation and GW monitoring **GWWB Status:** closed Closed Date: 6/5/1905

SCS S109096257 N/A

TC02730506.1r Page 8 of 33

Database(s) EPA ID Number

6	SOUTH COORS TRUCK SALVAGI 1125 OLD COORS RD SW ALBUQUERQUE, NM 87121	E RCRA-CESQG FINDS	1006809869 NMR000008011
	RCRA-CESOG		
	Date form received by agency	12/01/2004	
	Eacility name:	SOLITH COORS TRUCK SALVAGE	
	Facility address:	1125 OLD COORS RD SW	
	r donity dddroso.	ALBUQUERQUE, NM 87121	
	FPA ID [.]	NMR000008011	
	Mailing address:	OLD COORS RD SW	
		ALBUQUERQUE. NM 87121	
	Contact:	STEVE SILLIMAN	
	Contact address:	OLD COORS RD SW	
		ALBUQUERQUE, NM 87121	
	Contact country:	US	
	Contact telephone:	(505) 242-1144	
	Contact email:	Not reported	
	EPA Region:	06	
	Land type:	Private	
	Classification:	Conditionally Exempt Small Quantity Generator	
	Description:	Handler: generates 100 kg or less of hazardous waste per calendar	
		month, and accumulates 1000 kg or less of hazardous waste at any time;	
		or generates 1 kg or less of acutely hazardous waste per calendar	
		month, and accumulates at any time: 1 kg or less of acutely hazardous	
		waste; or 100 kg or less of any residue or contaminated soil, waste or	
		other debris resulting from the cleanup of a spill, into or on any	
		land or water, of acutely hazardous waste; or generates 100 kg or less	
		of any residue or contaminated soil, waste or other debris resulting	
		from the cleanup of a spill, into or on any land or water, of acutely	
		time: 1 kg or less of equitally becorde up wester or 100 kg or less of	
		time. T kg of less of acutely hazardous waste, of 100 kg of less of	
		the cleanup of a spill into or on any land or water of acutely	
		hazardous waste	
	Owner/Operator Summany:		
	Owner/operator name:	SOLITH COORS TRUCK SALVAGE	
	Owner/operator address:	OLD COORS RD SW	
	Owner/operator address.	ALBUQUERQUE NM 87121	
	Owner/operator country:	US	
	Owner/operator telephone:	(505) 242-1144	
	Legal status:	Private	
	Owner/Operator Type:	Owner	
	Owner/Op start date:	01/15/1973	
	Owner/Op end date:	Not reported	
	Owner/operator name:	SOUTH COORS TRUCK SALVAGE	
	Owner/operator address:	OLD COORS RD SW	
	- <i>i</i>	ALBUQUERQUE, NM 87121	
	Owner/operator country:	US	
	Owner/operator telephone:	(505) 242-1144	
	Legal status:	Private	
	Owner/Operator Type:	Operator	
	Owner/Op start date:	01/15/19/3 Nation and a	
	Owner/Op end date:	ινοι reported	

Handler Activities Summary:

Direction					EDR ID Number
Distance Distance (ft)Site			Database(s)	EPA ID Number
	SOUTH COORS TRUCK SALVAG	SE (Co	ontinued)		1006809869
	U.S. importer of hazardous w	aste:	No		
	Mixed waste (haz. and radioa	active):	No		
	Recycler of hazardous waste	:	No		
	Transporter of hazardous wa	ste:	No		
	Treater, storer or disposer of	HW:	No		
	Underground injection activity	/:	No		
	On-site burner exemption:		No		
	Furnace exemption:		No		
	Used oil fuel burner:		No		
	Used oil processor:		No		
	User oil refiner:		No		
	Used oil fuel marketer to bur	ner:	No		
	Used oil Specification market	er:	No		
	Used oil transfer facility:		NO		
	Osed oil transporter:		NO Commercial status unknown		
	OII-Sile waste receiver.				
	Historical Generators:				
	Date form received by agenc	y:01/29	9/2003		
	Facility name:	SOU	TH COORS TRUCK SALVAGE		
	Classification:	Cond	ditionally Exempt Small Quantity Generator		
	Hazardous Waste Summary:				
	Waste code:	D001	l		
	Waste name:	IGNI	TABLE HAZARDOUS WASTES ARE THOSE WAST	ES WHICH HAV	/E A FLASHPOINT OF
		LESS	S THAN 140 DEGREES FAHRENHEIT AS DETERM	INED BY A PEN	ISKY-MARTENS
		CLO	SED CUP FLASH POINT TESTER. ANOTHER MET	HOD OF DETE	RMINING THE
		FLAS	SH POINT OF A WASTE IS TO REVIEW THE MATE	RIAL SAFETY [DATA SHEET,
		WHI	CH CAN BE OBTAINED FROM THE MANUFACTUR	ER OR DISTRI	BUTOR OF THE
		MAI	ERIAL. LACQUER THINNER IS AN EXAMPLE OF A		
			CH WOULD BE CONSIDERED AS IGNITABLE HAZI		L.
	Waste code:	D002	2		
	Waste name:	A W/	ASTE WHICH HAS A PH OF LESS THAN 2 OR GRE	ATER THAN 12	2.5 IS
		CON	SIDERED TO BE A CORROSIVE HAZARDOUS WA	STE. SODIUM	HYDROXIDE, A
		CAU	STIC SOLUTION WITH A HIGH PH, IS OFTEN USE		IES TO CLEAN
			DEGREASE PARTS. HYDROCHLORIC ACID, A SOL D BY MANY INDUSTRIES TO CLEAN METAL DADT		AINTING WHEN
		THE	SE CALISTIC OR ACID SOLUTIONS BECOME CON	TAMINATED A	ND MUST BE
		DISF	POSED, THE WASTE WOULD BE A CORROSIVE H.	AZARDOUS WA	ASTE.
	Waste code:	D039)		
	Waste name:	TET	RACHLOROETHYLENE		
	Waste code:	D040)		
	Waste name:	TRIC	CHLOROETHYLENE		
	Violation Status:	No v	iolations found		
	Evaluation Action Summary:				
	Evaluation date:	01/1	7/2003		
	Evaluation:	CON	IPLIANCE ASSISTANCE VISIT		
	Area of violation:	Not r	eported		
	Date achieved compliance:	Not r	eported		
	Evaluation lead agency:	State)		

Map ID

EDR ID Number

1006809869

Database(s) EPA ID Number

SOUTH COORS TRUCK SALVAGE (Continued)

FINDS:

Registry ID: 110014356614

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

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VALLEY EXCAVATION & TRENCHING INC. 2814 SAN YGNACIO, SW, ALBUQUERQUE, ALBUQUERQUE, NM 87105

SWF/LF:

VI/LI.	
Facility Status:	OPEN
Facility Type:	Commercial Hauler
Facility Phone:	5054598970
Owner Name:	Victor Baca
Owner Contact:	Dominic Baca
Owner Address:	2814 San Ygnacio
Owner City,St,Zip:	Albuquerque, NM 87105
Owner Phone:	5054598971
Facility Mailing Addre	s2814 San Ygnacio, SW
Physical Location:	2814 San Ygnacio, SW, Albuquerque, New Mexico 87105

8 GINO'S RESTAURANT & LOUNGE 1401 COORS SW ALBUQUERQUE, NM

SCS:

S:Not rLatitude:Not rLongitude:Not rSize(Acres):Not rContaminate Of Concern:Not rDepth To Water(Ft):Not rFlow Direction:Not rMedia Impacted:Not rRegulatory Status:Not rAssessment Or Abatement Option:Not rComments:Not rEvent:SampDischarge Date:Not rActions Taken:Not rGWWB Status:inactClosed Date:6/14/

Not reported Sampling, nitrate Not reported Not reported inactive 6/14/1905 SWF/LF S109821320 N/A

> SCS S108954229 N/A

Database(s) EPA ID Number

9	AMIGO MART 840 1524 COORS BLVD		UST	U003667375 N/A
	ALBUQUERQUE, NM 87	121		
	UST:	04054		
	Facility ID:	31051 Net reported		
	Secondary Address:	Not reported		
	Owner ID:			
	Owner Name:			
	Owner Address:	DO DOX 02025		
	Owner Address 2:			
	Owner Telephone:	505-242-6597		
	Tank ID:	31467		
	Tank Status:	REMOVED		
	Tank Type:	Underground		
	Tank Capacity:	8000		
	Tank Substance:	GASOLINE UNKNOWN TYPE		
	Tank ID:	31468		
	Tank Status:	REMOVED		
	Tank Type:	Underground		
	Tank Capacity:	8000		
	Tank Substance:	GASOLINE UNKNOWN TYPE		
	Tank ID:	31469		
	Tank Status:	REMOVED		
	Tank Type:	Underground		
	Tank Capacity:	8000		
	Tank Substance:	GASOLINE UNKNOWN TYPE		
	Tank ID:	31470		
	Tank Status:	REMOVED		
	Tank Type:	Underground		
	Tank Capacity:	550		
	Tank Substance:	USED OIL		
	Tank ID:	31471		
	Tank Status:	CURRENTLY IN USE		
	Tank Type:	Underground		
	Tank Capacity:	10000		
	Tank Substance:	UNLEADED PLUS		
	Tank ID:	31472		
	Tank Status:	CURRENTLY IN USE		
	Tank Type:	Underground		
	Tank Capacity:	10000		
	Tank Substance:	SUPER UNLEADED		
	Tank ID:	31473		
	Tank Status:	CURRENTLY IN USE		
	Tank Type:	Underground		

9

EDR ID Number

Database(s) EPA ID Number

AMIGO MART 840 (Continued) U003667375 Tank Capacity: 10000 UNLEADED GASOLINE Tank Substance: Tank ID: 31474 Tank Status: **CURRENTLY IN USE** Tank Type: Underground Tank Capacity: 12000 Tank Substance: UNLEADED GASOLINE RCRA-CESQG WESSKOTE INC 1005905628 1504 COORS BLVD SW FINDS NMR000007278 ALBUQUERQUE, NM 87121 RCRA-CESQG: Date form received by agency: 08/09/2002 Facility name: WESSKOTE INC Facility address: 1504 COORS BLVD SW ALBUQUERQUE, NM 87121 EPA ID: NMR000007278 COORS BLVD SW Mailing address: ALBUQUERQUE, NM 87121 Contact: LUIS SALCIDO 1504 COORS BLVD SW Contact address: ALBUQUERQUE, NM 87121 Contact country: US Contact telephone: OWNER Contact email: Not reported 06 EPA Region: Land type: Private Classification: Conditionally Exempt Small Quantity Generator Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste Owner/Operator Summary: LUIS SALCIDO Owner/operator name: Owner/operator address: 1504 COORS BLVD SW ALBUQUERQUE, NM 87121 Owner/operator country: Not reported Owner/operator telephone: (505) 873-8300 Legal status: Private Owner/Operator Type: Owner Owner/Op start date: 01/01/0001 Owner/Op end date: Not reported

EDR ID Number

Database(s)

EPA ID Number

ESSKOTE INC (Continued)	1005905628
Handler Activities Summary:	
U.S. importer of hazardous w	vaste: No
Mixed waste (haz, and radio	active): Unknown
Recycler of hazardous waste	x: No
Transporter of hazardous wa	ste: No
Treater, storer or disposer of	HW: No
Underground injection activit	y: No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burn	ner: No
Used oil Specification marke	ier: No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Verified to be non-commercial
Hazardous Waste Summary:	
Waste code:	D001
Waste name:	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF
	LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS
	CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE
	FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET,
	WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE
	MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT
	WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Waste code:	F003
Waste name:	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL
	ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL
	ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT
	MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT
	NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS
	CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED
	SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR
	NORE OF THOSE SOLVENTS LISTED IN FOUT, FOUZ, FOU4, AND FOUS, AND STILL
	MIXTURES
Waste code:	F005
Waste name:	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL
	KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,
	2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS
	CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF
	ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS
	LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Violation Status:	No violations found
Evaluation Action Summary	
Evaluation date:	08/08/2002
Evaluation:	COMPLIANCE ASSISTANCE VISIT
Area of violation:	Not reported
Date achieved compliance:	Not reported
	•

EDR ID Number

Database(s)

EPA ID Number WESSKOTE INC (Continued) 1005905628 Evaluation lead agency: State FINDS: Registry ID: 110013291400 Environmental Interest/Information System RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. JACKS TREE SERVICE UST U003189508 9 1504 COORS SW N/A ALBUQUERQUE, NM 87105 UST: Facility ID: 28709 Secondary Address: Not reported Owner ID: 15343 Owner Name: JACKS TREE SERVICE 1504 COORS SW Owner Address: Owner Address 2: Not reported Owner City, St, Zip: ALBUQUERQUE, NM 87105 Owner Telephone: 505-877-0540 Tank ID: 26190 Tank Status: REMOVED Tank Type: Underground Tank Capacity: 6000 UNLEADED GASOLINE Tank Substance: Tank ID: 26191 REMOVED Tank Status: Tank Type: Underground Tank Capacity: 6000 Tank Substance: UNLEADED GASOLINE OLD TIMBERMAN TRAILER MANUFACTURING UST U003189733 9 1500 COORS BLVD SW N/A ALBUQUERQUE, NM 87121 UST: Facility ID: 29776 Secondary Address: Not reported Owner ID: 340 NEW MEXICO (STATE OF) NMSHD DISTRICT III **Owner Name:** Owner Address: 7500 PAN AMERICAN FREEWAY Owner Address 2: PO BOX 91750 Owner City, St, Zip: ALBUQUERQUE, NM 87199 Owner Telephone: 505-841-2700 Tank ID: 28445

TC02730506.1r Page 15 of 33

EDR ID Number

Database(s) **EPA ID Number**

U003189733

OLD TIMBERMAN TRAILER MANUFACTURING (Continued)

Tank Status: REMOVED Tank Type: Underground Tank Capacity: 3000 Tank Substance: UNLEADED GASOLINE

Tank ID: 28446 Tank Status: REMOVED Tank Type: Underground Tank Capacity: 5000 Tank Substance: DIESEL

AUTOMOTIVE PERFORMANCE ENGINEERING 10 2804 ARENAL SW ALBUQUERQUE, NM 87105

RCRA-CESQG:

EPA ID:

Contact:

Facility name:

Facility address:

Mailing address:

Contact address:

Contact country:

EPA Region:

Classification:

Description:

Land type:

Contact telephone: Contact email:

RCRA-CESQG 1010324808 NMR000011437

Date form received by agency: 06/21/2006 AUTOMOTIVE PERFORMANCE ENGINEERING 2804 ARENAL SW ALBUQUERQUE, NM 87105 NMR000011437 ARENAL SW ALBUQUERQUE, NM 87105 MARIO FERNANDEZ ARENAL SW ALBUQUERQUE, NM 87105 Not reported 505-873-2828 Not reported 06 Private Conditionally Exempt Small Quantity Generator Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

0		
Owner/Operator Summary:		
Owner/operator name:	MARIO FERNANDEZ	
Owner/operator address:	ARENAL SW	
	ALBEQUERQUE, NM 87105	
Owner/operator country:	US	
Owner/operator telephone:	Not reported	
Legal status:	Private	
Owner/Operator Type:	Owner	
Owner/Op start date:	01/03/1999	

EDR ID Number

Database(s) EPA ID Number

1010324808

AUTOMOTIVE PERFORMANCE ENGINEERING	(Continued)
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Owner/Op end date:	Not reported
Owner/operator name:	MARIO FERNANDEZ
Owner/operator address:	ARENAL SW
	ALBEQUERQUE, NM 87105
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/03/1999
Owner/Op end date:	Not reported

Handler Activities Summary:

andici Activitico Oummary.	
U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Hazardous Waste Summary:

Waste code: Waste name:	D002 A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Waste code: Waste name:	D008 LEAD
Violation Status:	No violations found
Evaluation Action Summary: Evaluation date: Evaluation: Area of violation: Date achieved compliance: Evaluation lead agency:	04/13/2006 COMPLIANCE ASSISTANCE VISIT Not reported Not reported State

Database(s) EPA ID Number

UST U001891501

N/A

11 GIANT SERVICE STATION 626 1897 COORS BLVD SW ALBUQUERQUE, NM 87105

UST:

Facility ID:	1347
Secondary Address:	Not reported
Owner ID:	354
Owner Name:	GIANT INDUSTRIES ARIZONA INC
Owner Address:	7324 4TH ST NW
Owner Address 2:	Not reported
Owner City,St,Zip:	ALBUQUERQUE, NM 87107
Owner Telephone:	480-502-6172

Tank ID:	18076
Tank Status:	CURRENTLY IN USE
Tank Type:	Underground
Tank Capacity:	12000
Tank Substance:	UNLEADED GASOLINE

Tank ID:	18077
Tank Status:	CURRENTLY IN USE
Tank Type:	Underground
Tank Capacity:	12000
Tank Substance:	UNLEADED GASOLINE

Tank ID:18078Tank Status:CURRENTLY IN USETank Type:UndergroundTank Capacity:12000Tank Substance:UNLEADED GASOLINE

12 COYOTE GRAVEL PRODUCTS INC 2124 COORS SW ALBUQUERQUE, NM 87195

AST:

Facility ID:	51153
Facility Addr 2:	Not reported
Tank ID:	34273
Capacity:	Not reported
Tank Status:	CURRENTLY IN USE
Substance:	Not reported
Tank Type:	Aboveground
Owner ID:	45531
Owner Name:	VALLEJOS ANTHONY
Owner Addr:	PO BOX 12275
Owner Addr2:	Not reported
Owner City,St,Zip:	ALBUQUERQUE, NM 87195
Owner Phone:	505-877-3830

AST U003868763 N/A

Database(s) EPA ID Number

UST U003189337

N/A

13 COYOTE CONCRETE PRODUCTS 2518 COORS SW ALBUQUERQUE, NM 87105

UST:

Facility ID:27554Secondary Address:Not reportedOwner ID:15142Owner Name:COYOTE CONCRETE PRODUCTS VILLEGAS RALPHOwner Address:2518 COORS SWOwner Address 2:Not reportedOwner City,St,Zip:ALBUQUERQUE, NM 87105Owner Telephone:505-263-2837

Tank ID:23347Tank Status:REMOVEDTank Type:UndergroundTank Capacity:6000Tank Substance:DIESEL

Tank ID:23348Tank Status:REMOVEDTank Type:UndergroundTank Capacity:2000Tank Substance:DIESEL

QUALITY LATH AND PLASTER 2508 COORS SW ALBUQUERQUE, NM 87121

UST:

13

14

Facility ID:	30081
Secondary Address:	Not reported
Owner ID:	16394
Owner Name:	GROSSETETE RICHARD
Owner Address:	2501 COORS SW
Owner Address 2:	Not reported
Owner City,St,Zip:	ALBUQUERQUE, NM 87105
Owner Telephone:	505-877-5295

Tank ID:	29181
Tank Status:	REMOVED
Tank Type:	Underground
Tank Capacity:	1000
Tank Substance:	GASOLINE UNKNOWN TYPE

CIGARETTE SHOP THE 2401 ISLETA SW ALBUQUERQUE, NM 87105

LUST: Facility ID: Status: Status Date: Release ID: Date Release Reported: Priority Rank:

27363 Investigation, Responsible Party 03/10/1994 2175 01/20/1994 326 UST U003189797 N/A

LUST U003189280 UST N/A

EDR ID Number

Database(s) EPA ID Number

U003189280

CIGARETTE SHOP THE (Continued)

Mitigating Factor Score:	3
Total Score To Assign Relative Rank:	610
Project Manager:	Thomas Leck

UST:

Facility ID:	27363
Secondary Address:	Not reported
Owner ID:	16805
Owner Name:	MONTOYA TONY CIGARETTE SHOP THE
Owner Address:	2401 ISLETTA SW
Owner Address 2:	Not reported
Owner City,St,Zip:	ALBUQUERQUE, NM 87105
Owner Telephone:	505-873-8551

Tank ID:22Tank Status:RETank Type:UnTank Capacity:55Tank Substance:GA

22877 REMOVED Underground 550 GASOLINE UNKNOWN TYPE

Tank ID:	22878
Tank Status:	REMOVED
Tank Type:	Underground
Tank Capacity:	1000
Tank Substance:	GASOLINE UNKNOWN TYPE

Tank ID:	22879
Tank Status:	REMOVED
Tank Type:	Underground
Tank Capacity:	1000
Tank Substance:	GASOLINE UNKNOWN TYPE

Tank ID:	22880		
Tank Status:	REMOVED		
Tank Type:	Underground		
Tank Capacity:	750		
Tank Substance:	GASOLINE UNKNOWN TYPE		

ATEX/T-GAS 1315 2448 ISLETA BLVD ALBUQUERQUE, NM 87105

LUST:

15

Facility ID: **Status:** Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rank: Project Manager: 26706 **Aggr Cleanup Completed, Resp Party** 11/01/2005 1170 03/27/1992 94 2 2863 Thomas Leck LUST S101568507 N/A

Database(s)

EPA ID Number

16	USGS WELL, ISLETA AT B 2550 ISLETA BLVD. ALBUQUERQUE, NM 8710	ARCELONA 5	CERCLIS 1001009965 FINDS NM0001119098		
	CERCLIS:				
	Site ID:	0605001			
	Federal Facility:	Not a Federal Facility			
	NPL Status:	Not on the NPL			
	Non NPL Status:	NFRAP			
	CERCLIS Site Contact Na	me(s):			
	Contact Name:	Not reported			
	Contact Tel:	Not reported			
	Contact Title:	62700			
	Contact Name:	Not reported			
	Contact Tel:	Not reported			
	Contact Title:	62701			
	Site Description: THE USG WEL	USGS WELL AT ISLETA & BARCELONA IS A SHALLOW M S AS PART OF THE NATIONAL WATER QUALITY ASSES L LOCATION WAS CHOSEN BY COMPUTER.	NONITOR WELL INSTALLED BY THE SMENT PROGRAM (NAWGQ). THE		
	CERCLIS Assessment History:				
	Action:	DISCOVERY			
	Date Started:	Not reported			
	Date Completed:	6/19/1995 0:00:00			
	Priority Level:	Not reported			
	Action:	PRELIMINARY ASSESSMENT			
	Date Started:	Not reported			
	Date Completed:	10/17/1995 0:00:00			
	Priority Level:	Higher priority for further assessment			
	Action:	SITE INSPECTION			
	Date Started:	Not reported			
	Date Completed:	1/22/1999 0:00:00			
	Priority Level:	NFRAP: No further Remedial Action planned			
	FINDS:				
	Registry ID:	110009262118			
	Environmental Interest/ CER Liabi to su syste inclu	Information System CLIS (Comprehensive Environmental Response, Compensat lity Information System) is the Superfund database that is us pport management in all phases of the Superfund program. T m contains information on all aspects of hazardous waste sit ding an inventory of sites, planned and actual site activities.	tion, and ed The tes,		

and financial information.

TC02730506.1r Page 21 of 33
Map ID Direction Distance Distance ([ft.)Site	MAP FINDINGS	Database(s)	EDR ID Number EPA ID Number
17	ALLSUP 152 2801 COORS SW ALBUQUERQUE, NM 87105		LUST	S103490409 N/A
	LUST: Facility ID: Status: Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rank: Project Manager:	26498 Cleanup, Responsible Party 07/29/2002 2631 05/03/1995 415 3 440 Michael Leger		
17	ALLSUPS - NO152 2801 COORS SW ALBUQUERQUE, NM 87105		UST	U003157547 N/A
	UST: Facility ID: 26498 Secondary Address: Not reported			

ALLSUPS CONVENIENCE STORES INC

Owner ID:

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank Status:

Tank Type:

Tank Status:

Tank Capacity:

Tank Substance:

Tank Type:

Tank Status:

Tank Substance:

Tank Type: Tank Capacity:

Tank Status:

Tank Capacity:

Tank Substance:

Tank Type:

Tank Status: Tank Type:

Tank Capacity:

Tank Substance:

Owner Name:

Owner Address: Owner Address 2:

Owner City,St,Zip: Owner Telephone: 16400

20803 REMOVED

10000

20804

10000

20805 REMOVED

6000

20806

10000

20807

REMOVED

Underground

Underground

Underground

Underground

UNLEADED GASOLINE

CURRENTLY IN USE

UNLEADED GASOLINE

CURRENTLY IN USE

PO BOX 1907

Not reported CLOVIS, NM 88101

505-769-2311

Underground

GASOLINE UNKNOWN TYPE

GASOLINE UNKNOWN TYPE

EDR ID Number Database(s) **EPA ID Number** ALLSUPS - NO152 (Continued) U003157547 Tank Capacity: 10000 SUPER UNLEADED Tank Substance: **RODGERS DRILLING** LUST S102641776 18 2615 ISLETA BLVD SW N/A ALBUQUERQUE, NM 87105 LUST: Facility ID: 30287 Status: Cleanup, Responsible Party Status Date: 10/01/2005 407 Release ID: 01/01/1990 Date Release Reported: Priority Rank: 208 Mitigating Factor Score: 3 Total Score To Assign Relative Rank: 1227 Project Manager: Thomas Leck SPARKLE CAR WSH LUST S103924515 18 2611 ISLETA BLVD SW N/A ALBUQUERQUE, NM 87105 LUST: Facility ID: 30714 Status: Aggr Cleanup Completed, Resp Party 09/01/2005 Status Date: Release ID: 10 Date Release Reported: 01/04/1989 Priority Rank: 250 Mitigating Factor Score: 3 Total Score To Assign Relative Rank: 788 Project Manager: Thomas Leck U003189315 **CLIMATE ROOFING INC** LUST 19 2700 ISLETA SW UST N/A ALBUQUERQUE, NM 87105 LUST: Facility ID: 27427 Status: Aggr Cleanup Completed, Resp Party Status Date: 06/01/1999 1028 Release ID: Date Release Reported: 01/02/1990 219 Priority Rank: Mitigating Factor Score: 3 Total Score To Assign Relative Rank: 1045 Project Manager: Thomas Leck UST: Facility ID: 27427

Secondary Address: Not reported Owner ID: 17355 BERNALILLO COUNTY ENV HEALTH DEP **Owner Name:** Owner Address: 600 2ND ST STE 500

Status: Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rank: Project Manager:	No Further Action Required 10/01/1999 1962 07/23/1993 Not reported Not reported Not reported Thomas Leck		
LEE AND BLAKELY FEED STORE 3031 ISLETA BLVD SW ALBUQUERQUE, NM 87105 LUST: Facility ID: Status: Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rank: Project Manager:	29071 Monitoring, Responsible Party 04/20/2001 3380 03/27/1998 217 3 1047 Thomas Leck	LUST	U00371 N/A

CIRCLE K 589 3041 ISLETA SW ALBUQUERQUE, NM 87105

Tank Substance:

LUST: Facility ID: Status: Status D Release Date Rel Priority R Mitigating Total Sco Project N

28105

23036 REMOVED 3000

Underground

Tank ID: Tank Status: Tank Type: Tank Capacity:

Owner Address 2: ATTN DAVID NELSON ALBUQUERQUE, NM 87102 Owner City,St,Zip: Owner Telephone:

CLIMATE ROOFING INC (Continued)

505-924-3650

KEROSENE

Tank Substance: UNLEADED GASOLINE

Tank ID: 23037 Tank Status: REMOVED Tank Type: Underground Tank Capacity: 2500

MAP FINDINGS

EDR ID Number

Database(s) **EPA ID Number**

U003189315

LUST S102873367 N/A

1580

20

20

Map ID Direction

Distance Distance (ft.)Site

Entity name:

Status date: Operation Class:

State FIPS code:

County FIPS code:

Number of shops:

Number of plants:

Company:

Status:

Latitude: Longitude: VALLEY PIT + PLANT

non-Coal Mining

106 42 10

35

001

4 19791010

0

0 35 01 48

VALLEY CONCRETE COMPANY

EDR ID Number

Database(s) EPA ID Number

ALBUQUERQUE SOL	ITHWEST	UST	U003189140
1700 BARCELONA R	87105		N/A
ALDOQUERQUE, NIM	0/105		
USI: Facility ID:			
Secondary Addre	ess: Not reported		
Owner ID:	14976		
Owner Name:	QWEST COMMUNICATION		
Owner Address:	3640 E INDIAN SCHOOL RD NO - 330		
Owner Address 2	2: Not reported		
Owner City,St,Zip	p: PHOENIX, AZ 85018		
Owner Telephone	e: 602-952-1403		
Tank ID:	20727		
Tank Status:	REMOVED		
Tank Type:	Underground		
Tank Capacity:			
Tank Substance.	DIEGEE		
BARCELONA ELEME	NTARY	FINDS	100972618
2311 BARCELONA R	D SW		N/A
ALBUQUERQUE, NM	87105		
FINDS:			
Registry ID:	110026266010		
Environmental In			
	US Geographic Names Information System (GNIS) is the official vehicle		
	for geographic names used by the federal government and the source for		
	applying geographic names to federal maps and other printed and		
	electronic documents.		
	NCES (National Center for Education Statistics) is the primary federal		
	entity for collecting and analyzing data related to education in the		
	United States and other nations and the institute of education		
	sciences.		
VALLEY CONCRETE	COMPANY	MINES	101119204
BERNALILLO (County). NM			N/A
MINES:	•		
Mine ID:	2900500		

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Direction					EDR ID Number	
Distance (ft	.)Site			Database(s)	EPA ID Number	
23	CHRISTINE DUNCAN COM 3011 BARCELONA RD SW ALBUQUERQUE, NM 87105			FINDS	1011459961 N/A	
	FINDS:					
	Registry ID:	110036081325				
	Environmental Intere Ni er Ui sc	st/Information System CES (National Center for Educa tity for collecting and analyzing nited States and other nations a iences.	tion Statistics) is the primary federal data related to education in the nd the institute of education			
24	THRIFTWAY ISLET 3339 ISLETA BLVD SW ALBUQUERQUE, NM 87	105		LUST	S105588464 N/A	
	LUST: Facility ID: Status: Status Date: Release ID: Date Release Repor Priority Rank: Mitigating Factor Sco Total Score To Assig Project Manager:	1923 Aggr 05/30 1244 ted: 12/09 Not re pre: Not re In Relative Rank: Not re Patric	Cleanup Completed, Resp Party /2004 /1991 eported eported eported sported k De Gruyter			
25	WOODARD EXPLOSIVE 3305 S COORS ALBUQUERQUE, NM 87	5 INC 105		UST	U003190008 N/A	
	UST: Facility ID: Secondary Address: Owner ID: Owner Name: Owner Address: Owner Address 2: Owner City,St,Zip: Owner Telephone: Tank ID: Tank Status: Tank Type: Tank Capacity: Tank Substance:	31660 Not reported 14197 WOODARD EXPLOSIVES INC 3305 SOUTH COORS Not reported ALBUQUERQUE, NM 87105 505-842-8444 32869 REMOVED Underground 4000 DIESEL	;			
	Tank ID: Tank Status: Tank Type: Tank Capacity: Tank Substance:	32870 REMOVED Underground 2000 UNLEADED GASOLINE				

Map ID	L			
Direction				EDR ID Number
Distance (f	t.)Site		Database(s)	EPA ID Number
26	CHEVRON ISLETA 3401 ISLETA SW ALBUQUERQUE, NM 87105		LUST	S102641858 N/A
	LUST: Facility ID: Status: Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rand Project Manager:	30681 Aggr Cleanup Completed, St Lead, 05/30/2004 314 10/26/1990 387 3 x: 490 Patrick De Gruyter	CAF	
27	ATEX 213 3501 ISLETA BLVD SW ALBUQUERQUE, NM 87105		LUST	U002223102 N/A
	LUST: Facility ID: Status: Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rand Project Manager:	31815 Aggr Cleanup Completed, St Lead, 04/01/2005 28 10/01/1981 42 2 3203 Thomas Leck	CAF	
27	ATEX LUST 3501 ISLETA ALBUQUERQUE, NM		scs	S108954242 N/A
	SCS: Latitude: Longitude: Size(Acres): Contaminate Of Concern: Depth To Water(Ft): Flow Direction: Media Impacted: Regulatory Status: Assessment Or Abatement Option: Comments: Event: Discharge Date: Actions Taken: GWWB Status: Closed Date:	Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported LUST 6/5/1905 referred to PSTB referred 6/5/1905		

EDR ID Number

Database(s) EPA ID Number

LUST S103062211 N/A

28 BASS SITE 4257 ISLETA BLVD SW ALBUQUERQUE, NM 87105

LUST:

Facility ID: **Status:** Status Date: Release ID: Date Release Reported: Priority Rank: Mitigating Factor Score: Total Score To Assign Relative Rank: Project Manager: 26861 Aggr Cleanup Completed, St Lead, CAF 02/27/1999 79 07/01/1987 205 3 1361 Thomas Leck

29

PHILLIPS 66 4321 COORS SW ALBUQUERQUE, NM 87105

UST:

51.	
Facility ID:	1688
Secondary Address:	Not reported
Owner ID:	366
Owner Name:	ROBERTS OIL CO INC
Owner Address:	408 ARIZONA SE
Owner Address 2:	ATTN SHEILA SANCHEZ
Owner City,St,Zip:	ALBUQUERQUE, NM 87198
Owner Telephone:	505-262-1607
Tank ID:	18908

Talik ID.	10300
Tank Status:	CURRENTLY IN USE
Tank Type:	Underground
Tank Capacity:	12000
Tank Substance:	UNLEADED GASOLINE

Tank ID:	18909
Tank Status:	CURRENTLY IN USE
Tank Type:	Underground
Tank Capacity:	12000
Tank Substance:	UNLEADED GASOLINE

Tank ID: Tank Status:	18910 CURRENTLY IN USE
Tank Type:	Underground
Tank Capacity:	12000
Tank Substance:	DIESEL

UST U003543353 N/A

EDR ID Number

Database(s) EPA ID Number

29	PERFECTION AUTO & TRUCK CE 4301 COORS BLVD SW ALBUQUERQUE, NM 87121	NTER RCRA-CESQG	1012184545 NMR000014019
	RCRA-CESQG:		
	Date form received by agency:	11/23/2008	
	Facility name:	PERFECTION AUTO & TRUCK CENTER	
	Facility address:	4301 COORS BLVD SW	
		ALBUQUERQUE, NM 87121	
	EPA ID. Mailing address:		
	Mailing address.		
	Contact:	GEORGE L TORREZ	
	Contact address:	COORS BLVD SW	
		ALBUQUERQUE, NM 87121	
	Contact country:	US	
	Contact telephone:	505-877-0229	
	Contact email:	PERFECTION_AUTO@COMCAST.NET	
	EPA Region:	06	
	Land type:	Private	
	Classification:	Conditionally Exempt Small Quantity Generator	
	Description:	Handler: generates 100 kg or less of hazardous waste per calendar	
		month, and accumulates 1000 kg or less of nazardous waste at any time;	
		month and accumulates at any time: 1 kg or less of acutely hazardous	
		waste: or 100 kg or less of any residue or contaminated soil waste or	
		other debris resulting from the cleanup of a spill, into or on any	
		land or water, of acutely hazardous waste; or generates 100 kg or less	
		of any residue or contaminated soil, waste or other debris resulting	
		from the cleanup of a spill, into or on any land or water, of acutely	
		hazardous waste during any calendar month, and accumulates at any	
		time: 1 kg or less of acutely hazardous waste; or 100 kg or less of	
		any residue or contaminated soil, waste or other debris resulting from	
		the cleanup of a spill, into or on any land or water, of acutely	
		hazardous waste	
	Owner/Operator Summary:		
	Owner/operator name:	GEORGE L. TORREZ	
	Owner/operator address:	COORS BLVD SW	
		SANTA FE, NM 87121	
	Owner/operator country:	US	
	Owner/operator telephone:	505-877-0229	
	Legal status:	Private	
	Owner/Operator Type:	Operator	
	Owner/Op start date:	01/01/2004	
	Owner/Op end date:	Not reported	
	Owner/operator name:	GEORGE L. TORREZ	
	Owner/operator address:	SEFTON RD SW	
		SANTA FE, NM 87121	
	Owner/operator country:	US	
	Owner/operator telephone:	505-877-0229	
	Legal status:	Private	
	Owner/Operator Type:	Owner	
	Owner/Op start date:	U1/U1/2004	
	Owner/Op end date:	ινοι ιεροπεά	
	Handler Activities Summarv:		

					1			
Map ID	L		MAP FIN	NDINGS				
Direction Distance								EDR ID Number
Distance (ft.)Site						I	Database(s)	EPA ID Number
PERFECTION	AUTO & TRUCK C	ENTER	(Continued)					1012184545
U.S. impo	orter of hazardous w	vaste:	No					
Mixed wa	ste (haz. and radioa	active):	No					
Recycler	of hazardous waste): ;	No					
Transport	er of hazardous wa	iste:	No					
Treater, s	torer or disposer of	HW:	No					
Undergro	und injection activity	y:	No					
On-site bu	urner exemption:		No					
Furnace	exemption:		No					
Used oil f	uel burner:		No					
Used oil p	ofocessor:		NO					
	uol markatar ta burr	nor:	No					
	Specification market	tor	No					
Used oil t	ransfer facility:		No					
Used oil t	ransporter:		No					
Off-site w	aste receiver:		Commercial sta	atus unknown				
Universal Wa	aste Summarv:							
Waste tvo	be:	Batte	ies					
Accumula	ted waste on-site:	No						
Generate	d waste on-site:	Not re	ported					
Waste typ	be:	Lamp	S					
Accumula	ited waste on-site:	NO	un a ut a al					
Generate	d waste on-site:	NOT I	portea					
Waste typ	be:	Pesti	ides					
Accumula	ted waste on-site:	No						
Generate	d waste on-site:	Not re	ported					
Waste typ	be:	Therr	nostats					
Accumula	ted waste on-site:	No						
Generate	d waste on-site:	Not re	ported					
Hazardous V	Vaste Summary:							
Waste co	de:	D001						
Waste na	me:	IGNIT LESS CLOS FLAS WHIC MATE WHIC	ABLE HAZARD THAN 140 DEC ED CUP FLASH H POINT OF A H CAN BE OBT RIAL. LACQUE H WOULD BE (OUS WASTES A GREES FAHREN H POINT TESTEF WASTE IS TO RE TAINED FROM TH ER THINNER IS A CONSIDERED AS	RE THOSE HEIT AS DE R. ANOTHE EVIEW THE HE MANUF/ AN EXAMPL S IGNITABL	WASTES TERMIN R METH MATERI ACTURES E OF A C E HAZAF	S WHICH HAN ED BY A PEN OD OF DETE AL SAFETY E R OR DISTRIE COMMONLY RDOUS WAST	/E A FLASHPOINT OF ISKY-MARTENS RMINING THE DATA SHEET, BUTOR OF THE USED SOLVENT TE.
Violation	Status:	No vi	plations found					
Evaluation A Evaluation Evaluation Area of vi Date achi Evaluation	action Summary: n date: n: olation: eved compliance: n lead agency:	11/18 COM Not re Not re State	/2008 PLIANCE ASSIS ported ported	STANCE VISIT				

Status Date:

Release ID:

Priority Rank:

Date Release Reported:

Mitigating Factor Score:

EDR ID Number

Database(s) EPA ID Number

30	CIRCLE K 610 4400 COORS SW ALBUQUERQUE, NM 87	105	UST	U001891281 N/A
	UST:			
	Facility ID:	1104		
	Secondary Address:	Not reported		
	Owner ID:	353		
	Owner Name:	CIRCLE K STORES INC		
	Owner Address:	495 E RINCON ST, SUITE 150		
	Owner Address 2:	Not reported		
	Owner City,St,Zip:	CORONA, CA 92879		
	Owner Telephone:	602-728-3593		
	Tank ID:	17423		
	Tank Status:	REMOVED		
	Tank Type:	Underground		
	Tank Capacity:	8000		
	Tank Substance:	GASOLINE UNKNOWN TYPE		
	Tank ID:	17424		
	Tank Status:	REMOVED		
	Tank Type ⁻			
	Tank Capacity:	8000		
	Tank Substance:	GASOLINE UNKNOWN TYPE		
	Took ID:	17495		
	Tank ID.			
	Tank Type:			
	Tank Capacity:	10000		
	Tank Substance			
	Tank ID:	17426		
	Tank Status:	CURRENTLY IN USE		
	Tank Type:	Underground		
	Tank Capacity:	10000		
	Tank Substance:	UNLEADED PLUS		
	Tank ID:	17427		
	Tank Status:	CURRENTLY IN USE		
	Tank Type:	Underground		
	Tank Capacity:	10000		
	Tank Substance:	SUPER UNLEADED		
30	CIRCLE K #610 4400 COORS SW ALBUQUERQUE, NM 87	105	LUST	S102828715 N/A
	LUST:			
	Facility ID:	1104		
	Status:	No Further Action Required		

12/03/1996

01/24/1996

Not reported

Not reported

2885

MAP FINDINGS

EDR ID Number Database(s) **EPA ID Number** CIRCLE K #610 (Continued) S102828715 Total Score To Assign Relative Rank: Not reported UNKNOWN Project Manager: 31 ATEX/T-GAS 380 LUST S105426733 2990 GUN CLUB RD N/A ALBUQUERQUE, NM 87105 LUST: Facility ID: 1919 Status: Investigation, Responsible Party Status Date: 06/21/1994 Release ID: 677 03/29/1991 Date Release Reported: Priority Rank: 231 Mitigating Factor Score: 3 Total Score To Assign Relative Rank: 900 Project Manager: James Mullany **THRIFTWAY 548** UST U003543375 31 2990 GUN CLUB RD N/A ALBUQUERQUE, NM 87105 UST: Facility ID: 1919 Secondary Address: Not reported Owner ID: 354 GIANT INDUSTRIES ARIZONA INC Owner Name: 7324 4TH ST NW Owner Address: Owner Address 2: Not reported Owner City, St, Zip: ALBUQUERQUE, NM 87107 Owner Telephone: 480-502-6172 Tank ID: 19509 Tank Status: REMOVED Tank Type: Underground 10000 Tank Capacity: GASOLINE UNKNOWN TYPE Tank Substance: Tank ID: 19510 Tank Status: REMOVED Tank Type: Underground Tank Capacity: 10000 Tank Substance: GASOLINE UNKNOWN TYPE Tank ID: 19511 Tank Status: REMOVED Tank Type: Underground Tank Capacity: 10000 Tank Substance: GASOLINE UNKNOWN TYPE

S109096261 32 RUBI'S METALS, INC. SCS 2227 MAYFLOWER RD N/A ALBQ., NM SCS: Latitude: Not reported Longitude: Not reported Size(Acres): Not reported Contaminate Of Concern: Not reported Depth To Water(Ft): Not reported Flow Direction: Not reported Media Impacted: Not reported Not reported **Regulatory Status:** Assessment Or Abatement Option: . Not reported Comments: Not reported Event: high Pb in shop and concern over employee exposure. 40ft well on-site showed 6.41 ppb Pb. Not reported Discharge Date: Actions Taken: testing of blood. **GWWB Status:** inactive

6/4/1905

Closed Date:

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ALBUQUERQUE	S106770102	PRICE'S VALLEY GOLD, SOUTH DAIRY, ALBUQU	S 2ND	87105	LAST
ALBUQUERQUE	1004754483		3616 HWY 528		RCRA-CESQG, FINDS
ALBUQUERQUE	S109596257	ABCWUA SOILS AMENDMENT FACILITY	7401 ACCESS RD NW	87105	SWF/LF
ALBUQUERQUE	1004754148		ALBUQUERQUE INTL AIRPORT		RCRA-CESQG, FINDS
ALBUQUERQUE	1012184626	ALBUQUERQUE PUBLIC SCHOOLS RIO GRANDE HI	2300 ARENAL RD SW	87105	RCRA-LQG
ALBUQUERQUE	S109228971	BARELA LANDSCAPING MATERIALS, INC.	7713 BATES RD SE	87105	SWF/LF
ALBUQUERQUE	1010030938	BEAR CANYON RECHARGE DEMONSTRATION PROJ	BEAR CANYON ARROYO BETWEEN WYO BLVD		FINDS
ALBUQUERQUE	1011598104	SOUTH VALLEY ACADEMY CHARTER SCHOOL	3426 BLAKE RD SW	87105	ICIS
ALBUQUERQUE	1007990457		1500 BRIDGE ST	87105	RCRA-CESQG
ALBUQUERQUE	S109467433	ALBUQUERQUE LOCOMOTIVE SHOPS (FORMERLY E	2ND & BRIDGE STS		VCP
ALBUQUERQUE	1012184635	SOUTHWEST TRACTOR PARTS AND SERVICE	3403 BROADWAY BLVD SE	87105	RCRA-CESQG
ALBUQUERQUE	1011615638	SOUTH VALLEY	BROADWAY & WOODWARD	87105	ICIS
ALBUQUERQUE	1011602184	SOUTHWEST ABATEMENT	4200 BROADWAY BLVD SE	87105	ICIS
ALBUQUERQUE	1004754194		3400 CALLE CUERYO NW	87104	RCRA-NonGen, FINDS
ALBUQUERQUE	1012184546	H & D TIRE SHOP & TIRE DISPOSAL	6430 CENTRAL AVE NW	87105	RCRA-CESQG
ALBUQUERQUE	1012184549	PRO'S COLLISION	6115 CENTRAL AVE NW	87105	RCRA-CESQG
ALBUQUERQUE	1012184553	JUNIOR'S MECHANICAL & WELDING	5035 CENTRAL AVE NW	87105	RCRA-CESQG
ALBUQUERQUE	1012184558	FAMILIA AUTO & TIRE REPAIR	6111 CENTRAL AVE NW	87105	RCRA-CESQG
ALBUQUERQUE	1012184584	NEW MEXICO RIDES & WHEELS	7601 CENTRAL AVE NW	87121	RCRA-CESQG
ALBUQUERQUE	1012184608	C AND L TRANSMISSIONS	6120 CENTRAL AVE NW	87105	RCRA-CESQG
ALBUQUERQUE	1004754208		18000 CERRO COLORADO	87121	RCRA-CESQG, FINDS, AST
ALBUQUERQUE	S106105631	CERRO COLORADO LANDFILL	18 000 CERRO COLORADO SW	87121	SWF/LF
ALBUQUERQUE	S108954106	SPARTON TECHNOLOGIES	7701 COORS RD NW		SCS
ALBUQUERQUE	S108954114	BARCELONA SUBDIVISION NO3	COORS		SCS
ALBUQUERQUE	U003973651	COORS CONOCO	1610 COORS RD NW	87105	UST
ALBUQUERQUE	1008374303		2510 COORS SOUTH W	87121	RCRA-CESQG
ALBUQUERQUE	U003189934	TIW FABRICATION AND MACHINING INC	1255 COORS DR SW	87105	UST
ALBUQUERQUE	S109146052	BARCELONA MOBILE HOME PARK	COORS 34		SCS
ALBUQUERQUE	1012184542	BERNALILLO MOTORS LLC	2720 COORS BLVD SW	87121	RCRA-CESQG
ALBUQUERQUE	S109229017	KEERS ASBESTOS LANDFILL	CORD BO29 MOUNTAINAIR		SWF/LF
ALBUQUERQUE	1011524967	ALBUQUERQUE SOUTH VALLEY FAC	105 DALE AVE SE	87105	ICIS
ALBUQUERQUE	1012184636	JC MOTORS	5700 DESERT RD	87105	RCRA-CESQG
ALBUQUERQUE	1012184639	RACEWAY AUTO PARTS	5704 DESERT RD	87105	RCRA-CESQG
ALBUQUERQUE	1012184644	CAPO'S TRUCK AND AUTO PARTS LLC	5701 DESERT RD	87105	RCRA-CESQG
ALBUQUERQUE	1012184651	ALL MINI TRUCKS	5500 DESERT RD	87105	RCRA-CESQG
ALBUQUERQUE	1012203970	1413 SOUTHWEST EL ORIENTE ROAD	1413 SW EL ORIENTE RD		US CDL
ALBUQUERQUE	S106105553	ALBUQUERQUE ACRES DUMP LANDFILL	ENVIRONMENTAL HEALTH DEPARTMEN		SWF/LF
ALBUQUERQUE	S105421248	MESA DEL SOL LANDFILL	ENVIRONMENTAL HEALTH DEPARTMEN		SWF/LF
ALBUQUERQUE	U001387554	CIRCLE K 686	10000 GIBSON SW	87105	UST
ALBUQUERQUE	S108954226	BELL GAS	2200 ISLETA NE		SCS
ALBUQUERQUE	S109229026	SOUTHWEST ABATEMENT, INC.(KINNEY ST.)	4609 KINNEY ST SE	87105	SWF/LF
ALBUQUERQUE	1012203971	1037 SOUTHWEST LOS PUENTES DRIVE	1037 SW LOS PUENTES DR		US CDL
ALBUQUERQUE	1012184607	STAR PAVING CO	3109 LOVE RD SW	87121	RCRA-CESQG

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ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ALBUQUERQUE	S109229176	SEAY BROTHERS C & D LANDFILL	2 MILES N OF RIO BRAVO ON COORS		SWF/LF
ALBUQUERQUE	1011450497	ALBUQUERQUE LARGE SCALE RECHARGE DEMONSTRATION PROJECT	NW OF THE INTERSECTION OF CHAPPEL DR		FINDS
ALBUQUERQUE	U003989465	TRACT 159 AKA TRACT 220	W OF WESTLAND ATRISCO GRANT	87105	UST
ALBUQUERQUE	S106227819	997 OLD COORS ROAD	997 OLD COORS RD		VCP
ALBUQUERQUE	1012184591	EAGLE ONE AUTOMOTIVE	932 OLD COORS DR SW	87121	RCRA-CESQG
ALBUQUERQUE	S109096169	CARNUEL NO3	OLD RT 66 CARNUEL NM		SCS
ALBUQUERQUE	1007571015		PAJARITO RD SW	87105	RCRA-CESQG
ALBUQUERQUE	A100268355	DOUBLE EAGLE 2 AIRPORT SERVICE	7401 PASEO DEL VOLCAN	87121	AST
ALBUQUERQUE	S108954107	LOS ANGELES LANDFILL/CITY ALBQ.	PASEO DEL NORTE		SCS
ALBUQUERQUE	1006809840		7401 PASEO DEL VOLCAN		RCRA-CESQG, FINDS
ALBUQUERQUE	1007490818		PROSPERITY & BROADWAY OIL SPILL		CERCLIS
ALBUQUERQUE	1012184631	ORTIZ RENT & SALES	700 RIO BRAVO BLVD SW	87105	RCRA-CESQG
ALBUQUERQUE	S109821321	H & D TIRE CENTER (HAULER)	SAME	87105	SWF/LF
ALBUQUERQUE	1006809852		2916 SAN YGNACIO SW	87121	RCRA-SQG, FINDS
ALBUQUERQUE	1003873614		SAN MATEO BT ALAMEDA & S DIEGO		CERC-NFRAP
ALBUQUERQUE	S109229142	CITY OF ALBUQUERQUER/PUBLIC WORKS DEPT	SANDOVAL LANDFILL RIORANCHO CORD		SWF/LF
ALBUQUERQUE	1012086568	SOUTHWEST HIGH SCHOOL	10800 S SIDE OF DENNIS CHAVEZ BLVD	87121	FINDS
ALBUQUERQUE	S109229025	SOUTHWEST ABATEMENT, INC.(BROADWAY)	SMALL TS 5502	87105	SWF/LF
ALBUQUERQUE	1009426458	PRICE S VALLEY GOLD, SOUTH DAIRY	7851 2ND ST	87105	FINDS
ALBUQUERQUE	S108954078	CONOCOPHILLIPS SOUTH (FORMERLY PHILLIPS	6356 STATE RD47		SCS
ALBUQUERQUE	1011504705	J.R. HALE CONTRACTING CO., INC. / N.	STREET		ICIS
		VALLEY AREA D VACCUM SE			
ALBUQUERQUE	S105421246	LOS ANGELES LANDFILL	STREET		SWF/LF
ALBUQUERQUE	S106105556	PLAINS ELECTRIC ESCALANTE LANDFILL	STREET		SWF/LF
ALBUQUERQUE	1009420620	SOUTHWEST AIRLINES	2200 SUNPORT AVE		FINDS
ALBUQUERQUE	1009312329	SOUTHWEST AIRLINES COMPANY	2200 SUNPORT BLVD		RCRA-SQG
ALBUQUERQUE	1003873611		SUNSET GARDENS & CORREGIDOR NW	87105	CERC-NFRAP
BERNALILLO	S106105651	SOUTHWEST LANDFILL LLC	ABQ, BERNALILLO, COORS AND PAJARITO	87121	SWF/LF
BERNALILLO COUNTY	M300006245	SOUTHWEST VERMICULITE CO INC	SOUTHWEST VERMICULITE CO NM PLANT		MINES

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/01/2009 Date Data Arrived at EDR: 01/14/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 35 Source: EPA Telephone: N/A Last EDR Contact: 03/03/2010 Next Scheduled EDR Contact: 04/26/2010 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/01/2009 Date Data Arrived at EDR: 01/14/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 35 Source: EPA Telephone: N/A Last EDR Contact: 03/03/2010 Next Scheduled EDR Contact: 04/26/2010 Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/01/2009SouDate Data Arrived at EDR: 01/14/2010TeleDate Made Active in Reports: 02/18/2010LastNumber of Days to Update: 35Nex

Source: EPA Telephone: N/A Last EDR Contact: 03/03/2010 Next Scheduled EDR Contact: 04/26/2010 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 03/01/2010
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/31/2010
	Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/30/2009 Date Data Arrived at EDR: 08/11/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 41 Source: EPA Telephone: 703-412-9810 Last EDR Contact: 02/09/2010 Next Scheduled EDR Contact: 04/12/2010 Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009 Date Data Arrived at EDR: 09/02/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 19 Source: EPA Telephone: 703-412-9810 Last EDR Contact: 03/11/2010 Next Scheduled EDR Contact: 06/14/2010 Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 11/03/2009SourdDate Data Arrived at EDR: 11/05/2009TelepDate Made Active in Reports: 12/16/2009LastNumber of Days to Update: 41Next

Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: EPA Telephone: 800-424-9346 Last EDR Contact: 02/15/2010 Next Scheduled EDR Contact: 05/31/2010 Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 01/13/2010 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 34 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 02/19/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 01/13/2010 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 34 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 02/19/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 01/13/2010 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 34 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 02/19/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 01/13/2010 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 34 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 02/19/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Varies

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 01/13/2010 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 34 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 02/19/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. Date of Government Version: 10/01/2009 Source: Environmental Protection Agency Date Data Arrived at EDR: 10/09/2009 Telephone: 703-603-0695 Date Made Active in Reports: 11/09/2009 Last EDR Contact: 03/15/2010 Number of Days to Update: 31 Next Scheduled EDR Contact: 06/28/2010 Data Release Frequency: Varies US INST CONTROL: Sites with Institutional Controls A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. Source: Environmental Protection Agency Date of Government Version: 10/01/2009 Date Data Arrived at EDR: 10/09/2009 Telephone: 703-603-0695 Date Made Active in Reports: 11/09/2009 Last EDR Contact: 03/15/2010 Number of Days to Update: 31 Next Scheduled EDR Contact: 06/28/2010 Data Release Frequency: Varies ERNS: Emergency Response Notification System Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances. Source: National Response Center, United States Coast Guard Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 01/22/2010 Telephone: 202-267-2180 Date Made Active in Reports: 02/11/2010 Last EDR Contact: 01/15/2010 Next Scheduled EDR Contact: 04/19/2010 Number of Days to Update: 20 Data Release Frequency: Annually HMIRS: Hazardous Materials Information Reporting System Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT. Date of Government Version: 12/31/2009 Source: U.S. Department of Transportation Date Data Arrived at EDR: 01/06/2010 Telephone: 202-366-4555 Date Made Active in Reports: 02/10/2010 Last EDR Contact: 01/06/2010 Number of Days to Update: 35 Next Scheduled EDR Contact: 04/12/2010 Data Release Frequency: Annually DOT OPS: Incident and Accident Data Department of Transporation, Office of Pipeline Safety Incident and Accident data. Date of Government Version: 10/13/2009 Source: Department of Transporation, Office of Pipeline Safety Date Data Arrived at EDR: 11/10/2009 Telephone: 202-366-4595 Date Made Active in Reports: 12/16/2009 Last EDR Contact: 02/09/2010 Number of Days to Update: 36 Next Scheduled EDR Contact: 05/24/2010

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Data Release Frequency: Varies

Date of Government Version: 08/19/2009 Date Data Arrived at EDR: 12/29/2009 Date Made Active in Reports: 02/10/2010 Number of Days to Update: 43 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 12/14/2009 Next Scheduled EDR Contact: 03/22/2010 Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2009 Date Data Arrived at EDR: 11/04/2009 Date Made Active in Reports: 12/16/2009 Number of Days to Update: 42 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 03/23/2010 Next Scheduled EDR Contact: 07/12/2010 Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 62 Source: USGS Telephone: 703-692-8801 Last EDR Contact: 01/19/2010 Next Scheduled EDR Contact: 05/03/2010 Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 09/30/2009 Date Made Active in Reports: 12/01/2009 Number of Days to Update: 62 Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 03/18/2010 Next Scheduled EDR Contact: 06/28/2010 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005 Date Data Arrived at EDR: 12/11/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 31 Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 03/17/2010 Next Scheduled EDR Contact: 06/07/2010 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

	Date of Government Version: 08/03/2009 Date Data Arrived at EDR: 10/27/2009 Date Made Active in Reports: 11/09/2009 Number of Days to Update: 13	Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 01/05/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Varies
ROE	D: Records Of Decision Record of Decision. ROD documents mandate and health information to aid in the cleanup.	a permanent remedy at an NPL (Superfund) site containing technical
	Date of Government Version: 12/01/2009 Date Data Arrived at EDR: 12/15/2009 Date Made Active in Reports: 01/19/2010 Number of Days to Update: 35	Source: EPA Telephone: 703-416-0223 Last EDR Contact: 03/17/2010 Next Scheduled EDR Contact: 06/28/2010 Data Release Frequency: Annually
UMT	TRA: Uranium Mill Tailings Sites Uranium ore was mined by private companies shut down, large piles of the sand-like material the ore. Levels of human exposure to radioact were used as construction materials before the	for federal government use in national defense programs. When the mills (mill tailings) remain after uranium has been extracted from ive materials from the piles are low; however, in some cases tailings potential health hazards of the tailings were recognized.
	Date of Government Version: 01/05/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 05/08/2009 Number of Days to Update: 1	Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 01/21/2010 Next Scheduled EDR Contact: 06/14/2010 Data Release Frequency: Varies
ODI	: Open Dump Inventory An open dump is defined as a disposal facility Subtitle D Criteria.	that does not comply with one or more of the Part 257 or Part 258
	Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39	Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
DEB	RIS REGION 9: Torres Martinez Reservation II A listing of illegal dump sites location on the To County and northern Imperial County, Californi	legal Dump Site Locations rrres Martinez Indian Reservation located in eastern Riverside a.
	Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137	Source: EPA, Region 9 Telephone: 415-972-3336 Last EDR Contact: 03/22/2010 Next Scheduled EDR Contact: 06/21/2010 Data Release Frequency: Varies
MIN	ES: Mines Master Index File Contains all mine identification numbers issued violation information.	for mines active or opened since 1971. The data also includes
	Date of Government Version: 11/17/2009 Date Data Arrived at EDR: 12/08/2009 Date Made Active in Reports: 01/19/2010 Number of Days to Update: 42	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 03/10/2010 Next Scheduled EDR Contact: 06/21/2010 Data Release Frequency: Semi-Annually
TRIS	S: Toxic Chemical Release Inventory System	

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 01/13/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 36 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 03/02/2010 Next Scheduled EDR Contact: 06/14/2010 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002 Date Data Arrived at EDR: 04/14/2006 Date Made Active in Reports: 05/30/2006 Number of Days to Update: 46 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 01/20/2010 Next Scheduled EDR Contact: 04/12/2010 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 03/01/2010
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/14/2010
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009 Number of Days to Update: 25 Source: EPA Telephone: 202-566-1667 Last EDR Contact: 03/01/2010 Next Scheduled EDR Contact: 06/14/2010 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2007 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 01/06/2010 Date Made Active in Reports: 02/10/2010 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4203 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/10/2009 Date Data Arrived at EDR: 11/18/2009 Date Made Active in Reports: 01/19/2010 Number of Days to Update: 62 Source: Environmental Protection Agency Telephone: 202-564-5088 Last EDR Contact: 03/29/2010 Next Scheduled EDR Contact: 07/12/2010 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/01/2009 Date Data Arrived at EDR: 10/21/2009 Date Made Active in Reports: 12/01/2009 Number of Days to Update: 41 Source: EPA Telephone: 202-566-0500 Last EDR Contact: 02/16/2010 Next Scheduled EDR Contact: 05/03/2010 Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/24/2009 Date Data Arrived at EDR: 12/31/2009 Date Made Active in Reports: 02/10/2010 Number of Days to Update: 41 Source: Nuclear Regulatory Commission Telephone: 301-415-7169 Last EDR Contact: 03/15/2010 Next Scheduled EDR Contact: 06/28/2010 Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/12/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/13/2010	Telephone: 202-343-9775
Date Made Active in Reports: 02/10/2010	Last EDR Contact: 01/13/2010
Number of Days to Update: 28	Next Scheduled EDR Contact: 04/26/2010
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/19/2009 Date Data Arrived at EDR: 10/22/2009 Date Made Active in Reports: 12/01/2009 Number of Days to Update: 40 Source: EPA Telephone: (214) 665-2200 Last EDR Contact: 03/15/2010 Next Scheduled EDR Contact: 06/28/2010 Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007	Source: EPA/NTIS
Date Data Arrived at EDR: 02/19/2009	Telephone: 800-424-9346
Date Made Active in Reports: 05/22/2009	Last EDR Contact: 02/25/2010
Number of Days to Update: 92	Next Scheduled EDR Contact: 06/07/2010
	Data Release Frequency: Biennially

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/01/2009	Source: FEMA
Date Data Arrived at EDR: 10/29/2009	Telephone: 202-646-5797
Date Made Active in Reports: 12/16/2009	Last EDR Contact: 01/18/2010
Number of Days to Update: 48	Next Scheduled EDR Contact: 05/03/2010
	Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 01/27/2010 Next Scheduled EDR Contact: 05/03/2010 Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of NPL and Base Realighnment & Closure sites found in the CERCLIS database where FERRO is involved in cleanup projects.

Date of Government Version: 06/23/2009 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/10/2010 Number of Days to Update: 26 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 01/15/2010 Next Scheduled EDR Contact: 04/26/2010 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/18/2009	Telephone: N/A
Date Made Active in Reports: 02/10/2010	Last EDR Contact: 03/16/2010
Number of Days to Update: 54	Next Scheduled EDR Contact: 06/28/2010
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/18/2009	Telephone: 202-566-0517
Date Made Active in Reports: 05/29/2009	Last EDR Contact: 02/24/2010
Number of Days to Update: 100	Next Scheduled EDR Contact: 05/17/2010
	Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/19/2008	Telephone: 202-307-1000
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 131	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 11/16/2009 Date Data Arrived at EDR: 11/16/2009 Date Made Active in Reports: 01/19/2010 Number of Days to Update: 64 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 02/08/2010 Next Scheduled EDR Contact: 05/10/2010 Data Release Frequency: Varies

STATE AND LOCAL RECORDS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list. State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: Department of the Environment Telephone: 505-827-2918 Last EDR Contact: 01/05/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: N/A

SCS: State Cleanup Site State cleanup sites	es Listing that fall under the state's W	ater Quality Control Commission Regulations.	
Date of Governmer Date Data Arrived a Date Made Active i Number of Days to	nt Version: 06/26/2009 at EDR: 07/21/2009 n Reports: 08/13/2009 Update: 23	Source: Environment Department Telephone: 505-827-2855 Last EDR Contact: 01/15/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Varies	
SWF/LF: Solid Waste Facilities Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.			
Date of Governmer Date Data Arrived a Date Made Active i Number of Days to	nt Version: 08/31/2009 at EDR: 08/31/2009 n Reports: 09/16/2009 Update: 16	Source: New Mexico Environment Department Telephone: 505-827-0347 Last EDR Contact: 02/15/2010 Next Scheduled EDR Contact: 05/31/2010 Data Release Frequency: Semi-Annually	
SWRCY: Recycling Fac A listing of recycling	ility Listing g facility locations.		
Date of Governmer Date Data Arrived a Date Made Active i Number of Days to	nt Version: 08/31/2009 at EDR: 08/31/2009 n Reports: 09/16/2009 Update: 16	Source: Environment Department Telephone: 505-827-0197 Last EDR Contact: 02/15/2010 Next Scheduled EDR Contact: 05/31/2010 Data Release Frequency: Varies	
LUST: Leaking Underground Storage Tank Priorization Database Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.			
Date of Governmer Date Data Arrived a Date Made Active i Number of Days to	nt Version: 08/01/2006 at EDR: 10/06/2006 n Reports: 11/08/2006 Update: 33	Source: New Mexico Environment Department Telephone: 505-476-4397 Last EDR Contact: 01/11/2010 Next Scheduled EDR Contact: 04/26/2010 Data Release Frequency: Varies	
UST: Listing of Underground Storage Tanks Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.			
Date of Governmer Date Data Arrived a Date Made Active i Number of Days to	nt Version: 08/01/2006 at EDR: 09/27/2006 n Reports: 10/23/2006 Update: 26	Source: New Mexico Environment Department Telephone: 505-476-4397 Last EDR Contact: 03/08/2010 Next Scheduled EDR Contact: 06/21/2010 Data Release Frequency: Varies	
LAST: Leaking Abovegr A listing of leaking	ound Storage Tank Sites aboveground storage tank s	ites.	
Date of Governmer Date Data Arrived a Date Made Active i Number of Days to	nt Version: 05/01/2006 at EDR: 05/01/2006 n Reports: 06/05/2006 Update: 35	Source: Environment Department Telephone: 505-476-4397 Last EDR Contact: 01/11/2010 Next Scheduled EDR Contact: 04/26/2010	

Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks List Aboveground tanks that have been inspected by the State Fire Marshal.		
	Date of Government Version: 08/01/2006 Date Data Arrived at EDR: 09/27/2006 Date Made Active in Reports: 10/20/2006 Number of Days to Update: 23	Source: Environment Department Telephone: 505-476-4397 Last EDR Contact: 03/08/2010 Next Scheduled EDR Contact: 06/21/2010 Data Release Frequency: Varies
SPIL	LS: Spill Data Hazardous materials spills data.	
	Date of Government Version: 01/12/2006 Date Data Arrived at EDR: 01/23/2006 Date Made Active in Reports: 02/27/2006 Number of Days to Update: 35	Source: Environment Department Telephone: 505-827-0166 Last EDR Contact: 01/05/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Varies
INST	CONTROL: Sites with Institutional Controls Sites included in the Voluntary Cleanup listing t	hat have Institutional Controls in place.
	Date of Government Version: 09/30/2009 Date Data Arrived at EDR: 10/28/2009 Date Made Active in Reports: 11/20/2009 Number of Days to Update: 23	Source: Environment Department Telephone: 505-827-2754 Last EDR Contact: 02/03/2010 Next Scheduled EDR Contact: 05/10/2010 Data Release Frequency: Varies
VCP:	Voluntary Remediation Program Sites Sites involved in the Voluntary Remediation Pro	ogram.
	Date of Government Version: 09/30/2009 Date Data Arrived at EDR: 10/28/2009 Date Made Active in Reports: 11/20/2009 Number of Days to Update: 23	Source: Environment Department Telephone: 505-827-2754 Last EDR Contact: 02/03/2010 Next Scheduled EDR Contact: 05/10/2010 Data Release Frequency: Varies
DRY	CLEANERS: Drycleaner Facility Listing A listing of drycleaner facility locations. The listi different management.	ng may contain facilities that are no longer there, or under
	Date of Government Version: 01/06/2010 Date Data Arrived at EDR: 01/07/2010 Date Made Active in Reports: 02/04/2010 Number of Days to Update: 28	Source: Environment Department Telephone: 505-222-9507 Last EDR Contact: 01/05/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: No Update Planned
CDL:	Clandestine Drug Laboratory Listing A listing of clandestine drug labs, such as illega	I methamphetamine labs.
	Date of Government Version: 01/27/2010 Date Data Arrived at EDR: 01/29/2010 Date Made Active in Reports: 02/04/2010 Number of Days to Update: 6	Source: Environment Department Telephone: 505-476-6000 Last EDR Contact: 01/29/2010 Next Scheduled EDR Contact: 05/10/2010 Data Release Frequency: Varies
NPD	ES: List of Discharge Permits General information regarding NPDES (Nationa	al Pollutant Discharge Elimination System) permits.
	Date of Government Version: 10/02/2009 Date Data Arrived at EDR: 10/28/2009 Date Made Active in Reports: 11/20/2009 Number of Days to Update: 23	Source: Environment Department Telephone: 505-827-2918 Last EDR Contact: 02/03/2010 Next Scheduled EDR Contact: 05/10/2010 Data Release Frequency: Semi-Annually

ASBESTOS: List of Asbestos Demolition and Renovations Jobs

Asbestos is a common fibrous rock found worldwide which has been used in various products for over 4500 years. It has been used in over 3000 different products such as textiles, paper, ropes, wicks, stoves, filters, floor tiles, roofing shingles, clutch facings, water pipe, cements, fillers, felt, fireproof clothing, gaskets, battery boxes, clapboard, wallboard, fire doors, fire curtains, insulation, brake linings, etc.

Date of Government Version: 04/01/2007 Source: New Mexico Environment Department Date Data Arrived at EDR: 05/09/2007 Telephone: 505-827-1494 Last EDR Contact: 02/02/2010 Date Made Active in Reports: 05/30/2007 Number of Days to Update: 21 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 34

Source: USGS Telephone: 202-208-3710 Last EDR Contact: 01/19/2010 Next Scheduled EDR Contact: 05/03/2010 Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52

Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 02/08/2010 Next Scheduled EDR Contact: 05/24/2010 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 12/07/2009	
Date Data Arrived at EDR: 12/09/2009	
Date Made Active in Reports: 12/16/2009	
Number of Days to Update: 7	

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/12/2009	
Date Data Arrived at EDR: 11/12/2009	
Date Made Active in Reports: 12/16/2009	
Number of Days to Update: 34	

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 12/01/2009	Source: EPA Region 8
Date Data Arrived at EDR: 12/01/2009	Telephone: 303-312-6271
Date Made Active in Reports: 12/16/2009	Last EDR Contact: 02/01/2010
Number of Days to Update: 15	Next Scheduled EDR Contact: 05/17/2010
	Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage LUSTs on Indian land in Alaska, Idaho, Oregor	Tanks on Indian Land n and Washington.
Date of Government Version: 02/02/2010 Date Data Arrived at EDR: 02/03/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 15	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Quarterly
INDIAN LUST R7: Leaking Underground Storage Ta LUSTs on Indian land in Iowa, Kansas, and Ne	anks on Indian Land ebraska
Date of Government Version: 03/24/2009 Date Data Arrived at EDR: 05/20/2009 Date Made Active in Reports: 06/17/2009 Number of Days to Update: 28	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies
INDIAN LUST R9: Leaking Underground Storage Ta LUSTs on Indian land in Arizona, California, Na	anks on Indian Land ew Mexico and Nevada
Date of Government Version: 11/24/2009 Date Data Arrived at EDR: 11/25/2009 Date Made Active in Reports: 12/16/2009 Number of Days to Update: 21	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Quarterly
INDIAN LUST R1: Leaking Underground Storage Ta A listing of leaking underground storage tank lo	anks on Indian Land ocations on Indian Land.
Date of Government Version: 02/19/2009 Date Data Arrived at EDR: 02/19/2009 Date Made Active in Reports: 03/16/2009 Number of Days to Update: 25	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 03/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies
INDIAN UST R9: Underground Storage Tanks on In The Indian Underground Storage Tank (UST) of Iand in EPA Region 9 (Arizona, California, Hav	idian Land database provides information about underground storage tanks on Indian vaii, Nevada, the Pacific Islands, and Tribal Nations).
Date of Government Version: 11/12/2009 Date Data Arrived at EDR: 11/20/2009 Date Made Active in Reports: 12/16/2009 Number of Days to Update: 26	Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Quarterly
INDIAN UST R8: Underground Storage Tanks on In The Indian Underground Storage Tank (UST) of Iand in EPA Region 8 (Colorado, Montana, No	idian Land database provides information about underground storage tanks on Indian rth Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).
Date of Government Version: 12/01/2009 Date Data Arrived at EDR: 12/01/2009 Date Made Active in Reports: 12/16/2009 Number of Days to Update: 15	Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Quarterly
INDIAN UST R1: Underground Storage Tanks on In	idian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009		
Date Data Arrived at EDR: 02/19/2009		
Date Made Active in Reports: 03/16/2009		
Number of Days to Update: 25		

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 03/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008	Source: EPA R
Date Data Arrived at EDR: 12/30/2008	Telephone: 913
Date Made Active in Reports: 03/16/2009	Last EDR Conta
Number of Days to Update: 76	Next Scheduled
	Data Dalaasa D

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2009	Source: EPA Region 5
Date Data Arrived at EDR: 11/05/2009	Telephone: 312-886-6136
Date Made Active in Reports: 12/16/2009	Last EDR Contact: 02/01/2010
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/17/2010
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/02/2010 Date Data Arrived at EDR: 02/03/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 15 Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 02/17/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 12/07/2009 Date Data Arrived at EDR: 12/09/2009 Date Made Active in Reports: 12/16/2009 Number of Days to Update: 7

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Semi-Annually

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 02/08/2010 Date Data Arrived at EDR: 02/09/2010 Date Made Active in Reports: 02/18/2010 Number of Days to Update: 9 Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 02/01/2010 Next Scheduled EDR Contact: 05/17/2010 Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008 Number of Days to Update: 27 Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 01/05/2010 Next Scheduled EDR Contact: 04/19/2010 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	
Date Data Arrived at EDR: 04/22/2008	
Date Made Active in Reports: 05/19/2008	
Number of Days to Update: 27	

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009 Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/04/2010 Date Data Arrived at EDR: 02/11/2010 Date Made Active in Reports: 03/17/2010 Number of Days to Update: 34

WI MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 07/17/2009 Date Made Active in Reports: 08/10/2009 Number of Days to Update: 24

Source: Department of Environmental Conservation Telephone: 518-402-8651 Last EDR Contact: 02/11/2010 Next Scheduled EDR Contact: 05/24/2010 Data Release Frequency: Annually

Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 03/22/2010 Next Scheduled EDR Contact: 07/05/2010 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals. Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical

database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Day Care Providers

Source: Office of Child Development

Telephone: 505-827-7946

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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EDR DataMap® - Corridor Study



Southwest Valley Flood Damage Reduction Project

Albuquerque, NM



Appendix F

Coordination with Cooperating Agencies

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DEPARTMENT OF THE ARMY ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS 4101 JEFFERSON PLAZA NE ALBUQUERQUE NM 87109-3435

January 20, 2010

Planning, Project, and Program Management Division Planning Branch Environmental Resources Section

Robert Maxwell U.S. Bureau of Reclamation 555 Broadway Blvd NE, Suite 100 Albuquerque, NM 87102

Dear Mr. Maxwell,

The U.S. Army Corps of Engineers, Albuquerque District (Corps), invites the Bureau of Reclamation to participate as a cooperating agency in the preparation of a Supplement to the Environmental Assessment (SEA) for the Southwest Valley Flood Damage Reduction Project.

The Corps plans to move forward with a project to improve stormwater drainage and reduce the potential for flooding within the Southwest Valley project area, which is located in the southwest corner of Albuquerque and Bernalillo County. In April 2004, the Corps completed a Final Feasibility Report and Environmental Assessment for the Southwest Valley Flood Damage Reduction Project, Albuquerque, Bernalillo County, New Mexico. Please refer to the Corps website for that document (http://www.spa.usace.army.mil/fonsi/).

The SEA will update information from the 2004 Feasibility Report and Environmental Assessment, disclose the potential environmental effects of the Project, and identify options to mitigate for any adverse impacts. The Corps anticipates that cooperating agency involvement will include providing background information, assisting with alternatives development, identifying potential effects of the alternatives from your entity's perspective, participating in key meetings, and reviewing the draft and final SEA.

If you have any questions about the Project, please contact Ms. Ondrea Hummel, of my staff, at 505-342-3375. We would appreciate receiving a written response to this request by January 29, 2010, to indicate your interest in becoming a cooperating agency.

Sincerely,

Julie Alcon, Chief Environmental Resources Section

Enclosure

Enclosure 1: Invited Cooperating Agencies.

Robert Maxwell U.S. Bureau of Reclamation 555 Broadway Blvd NE, Suite 100 Albuquerque, NM 87102

Jerry Lovato Albuquerque Metropolitan Arroyo Flood Control Authority 2600 Prospect Avenue NE Albuquerque, NM 87107

Roger Paul Technical Services, Bernalillo County 2400 Broadway SE, Building N Albuquerque, NM 87102

Subhas Shah Middle Rio Grande Conservancy District P.O. Box 581 Albuquerque, NM 87103
From:	<u>Alcon, Julie A SPA</u>
To:	Beck, Sarah E SPA
Cc:	Hummel, Ondrea C SPA
Subject:	FW: Participation as Cooperating Agency on Stormwater SEA
Date:	Monday, February 08, 2010 4:03:58 PM

FYI and project records.

-----Original Message-----From: Croft, Lisa K [mailto:lcroft@usbr.gov] Sent: Monday, February 08, 2010 2:49 PM To: Alcon, Julie A SPA Cc: Valverde, Arthur R (Art); Easterday, Gwendolyn R (Gwen); Wilber, James P; Dean, Gary L Subject: Participation as Cooperating Agency on Stormwater SEA

Julie- this is to inform you that the Bureau of Reclamation would like to participate as a Cooperating Agency. We will be informing you officially in a follow up letter identifying resources who will be assigned to this project.

Please feel free to give me a call if you have any questions or concerns.

Thank you for the opportunity to participate.

Lisa

Lisa K. Croft

Acting Area Manager

Albuquerque Area Office

Bureau of Reclamation

555 Broadway Blvd. NE

Albuquerque, NM 87102

office (505) 462-3541

Blackberry (505) 250-3216

lcroft@usbr.gov

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Middle Rio Grande Conservancy District General Office 1931 Second Street SW Albuquerque, NM 87102-4515



Phone: 505-247-0234 Fax: 505-243-7308

To: MS. JULIE ALCON, USACE From: SUBHAS K. SHAH		N, USACE Fax:		505-342-3668	2010	
		Dat	Date: February 8,			
Re:	Re: PARTICIPATION LETTER		R Pag	ges:	2 (INCLUDING COVER PAGE)	
CC:						
	Urgent	🗆 For Review	Please Comment		Please Reply	Please Recycle

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P. 01



February 8, 2010

VIA FACSIMILE 505-342-3668

Ms. Julie Alcon Chief, Environmental Resources Section Department of the Army Albuquerque District, Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, NM 87109-3435

Dear Ms. Alcon:

In response to your faxed letter dated February 3, 2010 regarding the Middle Rio Grande Conservancy District (MRGCD) participating as a cooperating agency in the preparation of a Supplement to the Environmental Assessment (SEA) for the Southwest Valley Flood Damage Reduction Project in Bernalillo County, NM.

Please accept this letter as agreement for the MRGCD to participate in the above named project.

We will look forward to receiving additional information when it is available.

Sincerely,

/ Subhas K. Shah Chief Engineer/CEO

SKS/eb

P.O. Box 581

87103-0581

1931 Second St. SW

Albuquerque, NM

87102-4515

505-247-0234

Fax # 505-243-7308

Appendix G

Endangered Species Act Consultation

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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

July 28, 2010

Cons. #22420-2010-I-0075

Julie Alcon, Chief, Environmental Resources Section U.S. Army Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, New Mexico 87109-3435

This responds to your letter dated July 19, 2010 transmitting a revised biological assessment (BA) of the Southwest Valley Flood Damage Reduction Project (Project), Albuquerque and Bernalillo County, New Mexico to comply with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1534 et seq.). The U.S. Army Corps of Engineers (Corps) is proposing to construct the Project (proposed action) and then convey operation and maintenance responsibilities to the non-federal Project sponsors, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) and Bernalillo County. The Corps has determined that the proposed action may affect, but will not adversely affect the endangered Rio Grande silvery minnow (*Hybognathus amarus*) (silvery minnow) or the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) (flycatcher). The Corps has also determined that the proposed action may affect, but will not adversely affect designated critical habitat of the silvery minnow. The flycatcher does not have designated critical habitat within the action area.

The Corps was authorized to conduct a study and, in April 2004, the Corps completed a feasibility report that addressed five objectives:

- Reduces the flood hazard that exists within the Southwest Valley floodplains within Albuquerque and Bernalillo County in order to preserve human life and reduce damages to existing property;
- Contributes to the preservation and enhancement of natural and beneficial values of fish and wildlife resources, wetlands, and aesthetic qualities;
- To the extent possible, avoids or minimizes, adverse impacts to the environment and cultural resources of the study area, and compensates for any unavoidable adverse effects caused by project implementation;
- Maintains water quality conditions within the study area; and
- Maintains existing open spaces to maximize public recreational opportunities.

The Project was authorized for construction by Congress in 2007. The proposed action would improve stormwater drainage in the Southwest Valley of Albuquerque and Bernalillo County by enlarging and linking existing agricultural drains, and excavating a new channel and spillway to the Rio Grande in order to evacuate stormwater from the project area. The project area is bounded by Central Avenue to the north, the Rio Grande to the east, Don Felipe Road to the south, and Coors Boulevard to the west.

On April 7, 2010, the Corps submitted a BA and requested formal consultation anticipating that proposed in-river construction work may affect individual silvery minnow. After coordination with biologists at the U.S. Fish and Wildlife Service New Mexico Ecological Services Field Office (Service) and revisiting proposed action plans, the Corps modified the Project to ensure all construction would be conducted in the dry. On May 17, 2010, the Corps submitted a revised BA and requested informal consultation. The Service reviewed the BA and submitted comments to the Corps on June 3, 2010. Corps responses to Service comments were received on July 6, 2010. The Service and the Corps continued consultation through meetings, email, and telephone calls on July 7, July 8, July 19 and July 26.

The Service concurs with the Corps' determinations that the proposed action "<u>may affect, not</u> <u>likely to adversely affect</u>" the flycatcher, the silvery minnow or its designated critical habitat. Our concurrence is based on the following understanding of the proposed Project:

- The nearest known breeding flycatchers occur along the Rio Grande at Isleta Pueblo, more than 4 miles south of the Los Padillas Spillway Diversion site. Currently, there is no suitable flycatcher habitat in or adjacent to the proposed Project area.
- The Rio Grande in the action area is occupied by silvery minnow but all work will be conducted in the dry. The proposed Los Padillas Spillway would be constructed directly within silvery minnow designated critical habitat. However, that particular site is not within the active floodplain and receives no river flow even at discharges of approximately 6,500 cfs. Being dry, the site does not currently support any of the critical habitat primary constituent elements. If the river were to migrate in the future, it is possible that the location could develop primary constituent elements. The proposed action is designed to not preclude those natural processes.
- The proposed action has the potential to benefit silvery minnow and its critical habitat by lowering a portion of the currently isolated terrace to construct the Los Padillas Spillway. When wetted, the inundated area will support additional habitat types that may be used by silvery minnow.
- The Los Padillas Spillway Diversion channel was originally designed to be constructed of articulated concrete block with wire-wrapped rip-rap sides. That design has been changed to an earthen bottomed channel with 12 inch rip-rap (not wire-rapped) sides with shallower slopes.

- All best management practices (BMPs) identified on page 11 of the revised BA dated July 19, 2010 will be implemented.
- AMAFCA and Bernalillo County will develop and implement BMPs to safeguard water quality during operation and maintenance of the proposed Project.
- Prior to using the Project as part of the Albuquerque Municipal Storm Sewer System (MS4), AMAFCA and Bernalillo County will obtain and comply with a National Pollution Discharge Elimination System (NPDES) permit from the U.S. Environmental Protection Agency (EPA).
- AMAFCA and Bernalillo County will develop a Storm Water Management Plan in accordance with their respective NPDES permits that will be reviewed and approved by EPA prior to implementation.

The proposed action will include the following conservation measures:

1) Construction of the Los Padillas Spillway Diversion will take place during winter low flow periods and all construction equipment will remain at least 75 feet from the active edge of the river channel.

2) A Corps' biologist will monitor the project during construction at the bank of the river in order to ensure excavation takes place at least 75 feet from the active edge of the river channel.

3) Fueling of vehicles will not take place in the Bosque.

4) Cleaning of all equipment is required prior to entering the site.

5) Construction activities will take place in designated areas only, avoiding any unnecessary damage to the riparian area.

6) Work within the Bosque will only occur between November 1 and May 1 in order to avoid nesting season.

7) Mature cottonwoods removed from the proposed Project Area will be replaced with sapling cottonwoods at a ratio of 10 saplings per each mature tree.

8) A wetland (approximately 0.57 acre in size) will be constructed at Durand Open Space in order to mitigate for the loss of land currently planted with wildlife forage crops.

Other conservation measures that will be implemented include:

9) AMAFCA will pursue becoming a signatory to the Middle Rio Grande Endangered Species Act Collaborative Program. This affiliation would foster consultation between the nonfederal agencies involved in the Project and the USFWS.

10) An Operation and Maintenance (O&M) manual will be developed by the Corps prior to turning the Project over to AMAFCA and Bernalillo County.

11) The Service may contribute to the development of the O&M manual, may add conditions to it, and will be provided the final O&M manual.

- 12) The O&M Manual will include the following:
 - a. The Non-Federal Project sponsors will not, at any time, take action to prevent the Rio Grande from migrating west. Regular O&M activities will be limited to the project footprint and not within the Rio Grande itself. Maintenance will be limited to only maintaining the bottom elevation of the Los Padillas Spillway Diversion and removing accumulated sediment at the flood gates and box culvert. Any other maintenance the Non-Federal Project sponsors determine necessary (e.g. rip rap or access road) would be coordinated with Reclamation.
 - b. The Non-Federal Project sponsors will monitor stormwater quality, including dissolved oxygen content, in the Los Padillas Spillway Diversion as well as in the Rio Grande both upstream and downstream. Stormwater quality monitoring is also a requirement of the NPDES MS4 permit issued by EPA and potential sample sites have been identified.
 - c. The Non-Federal Project sponsors will provide the USFWS with copies of all stormwater quality monitoring reports as well as the Stormwater Management Plan. Additionally, the Service will be invited to join Reclamation, the Corps, and EPA during 5-year joint inspections of the proposed Project.
 - d. The Non-Federal Project sponsors will conduct periodic visual observations in the Los Padillas Spillway Diversion as well as the main Rio Grande channel in the vicinity for stressed or dead fish. This may be combined with monthly inspections required by Reclamation.
 - e. Should the Non-Federal Project sponsors encounter stressed or dead fish of any species, they will immediately contact the Service and work collaboratively to determine the stressor and implement corrective action as appropriate.

- f. The Los Padillas Spillway Diversion will include an approximately 7.5-acre biofiltration swale that would extend from the Los Padillas Drain to Isleta Boulevard. The biofiltration swale would be planted with alfalfa. The Non-Federal Project sponsors will ensure that this is maintained as designed.
- g. The Non-Federal Project sponsors will employ a multi-step treatment train of stormwater pollution prevention features and BMPs to treat stormwater and safeguard Rio Grande water quality. These include but are not limited to educating the public, retaining sediment and floatables at drop inlets with snouts and sumps, water quality manholes, trash racks, spill kits, and biofiltration.
- h. The Non-Federal Project sponsors will comply with all the terms of NPDES MS4 permit, including the development and adherence to a Stormwater Management Plan.
- i. In coordination with the Service, a protocol to monitor presence/absence of silvery minnows in the Spillway Diversion following high flows, and to determine if changes to Spillway Diversion maintenance are warranted, will be developed.

Please contact the Service to verify the above determination and concurrence are still valid if: 1) future surveys detect listed, proposed or candidate species in habitats where they have not been previously observed; 2) the project is changed or new information reveals effects of the action to the listed species or their habitats to an extent not considered in these evaluations; or 3) a new species is listed that may be affected by this Project.

This concludes section 7 consultation on the proposed Southwest Valley Flood Damage Reduction Project. The Service appreciates the work undertaken by the Corps to incorporate modifications to the proposed action in order to minimize or avoid effects to endangered species and provide benefits to endangered species habitats when possible. The Service also commends the Corps for coordinating with the non-federal Project sponsors to ensure that future operations and maintenance of the Project will be protective of endangered species. In future communications regarding this memorandum or the proposed project please refer to Consultation #22420-2010-I-0075. If you have any questions concerning this memorandum, please contact Lori Robertson of my staff at (505) 761-4710.

Sincerely,

Wally Murphy Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

BIOLOGICAL ASSESSMENT

for the

SOUTHWEST VALLEY FLOOD DAMAGE REDUCTION PROJECT

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO



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

> Revised July 19, 2010

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BIOLOGICAL ASSESSMENT for the ALBUQUERQUE SOUTHWEST VALLEY FLOOD DAMAGE REDUCTION PROJECT, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

1.0 Introduction

The U.S. Army Corps of Engineers (Corps), Albuquerque District, in cooperation with and at the request of the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) and Bernalillo County, New Mexico, is planning the Southwest Valley Flood Damage Reduction Project, Albuquerque and Bernalillo County, New Mexico. This proposed Project would improve stormwater drainage and reduce the potential for flooding in the southwest corner of Albuquerque and Bernalillo County (Figure 1). The Corps is responsible only for construction of this Project; all operation and maintenance activities would be undertaken by AMAFCA and Bernalillo County, the Non-Federal sponsors of this project.

1.1 Background and Location

This Biological Assessment (BA) was prepared by the Corps pursuant to Section 7(a)(2) and Section 7(c) of the Endangered Species Act of 1973, as amended (Act) and its implementing regulations (50 CFR, Part 402, "Interagency Cooperation"). The purpose of this BA is to evaluate potential effects of the proposed Project (construction of the Southwest Valley Flood Damage Reduction Project) on Federally listed species and designated critical habitat. This BA is based on the best scientific and commercial data available and includes all information necessary and available to initiate informal consultation and determine the potential effects of the proposed Project on listed species and proposed critical habitat in the Project Area. If information is developed by the Corps during ongoing planning and design studies that would add to a further understanding of project effects it would be provided to USFWS during informal consultation.

The species considered in this document are:

Threatened, Endangered, Proposed Threatened or Proposed Endangered Species

Rio Grande silvery minnow (*Hybognathus amarus*) Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

The Southwest Valley Flood Damage Reduction Project was authorized by Section 1001(35) of the Water Resources Development Act of 2007.

Sec. 1001. PROJECT AUTHORIZATIONS.

Except as otherwise provided in this section, the following projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, described in the respective reports designated in this section:

(35) SOUTHWEST VALLEY, BERNALILLO COUNTY, NEW MEXICO. --The Project for flood damage reduction, Southwest Valley, Bernalillo County, New Mexico: Report of the Chief of Engineers dated November 29, 2004, at a total cost of \$24,840,000, with an estimated Federal Cost of \$16,150,000 and an estimated non-Federal cost of \$8,690,000.

In April 2004, the Corps completed a Final Feasibility Report and Environmental Assessment for the Southwest Valley Flood Damage Reduction Project, Albuquerque, Bernalillo County, New Mexico (2004 FFR/EA). The Finding of No Significant Impact (FONSI) was signed 20 April 2004. This document is available on the Corps' website at <u>http://www.spa.usace.army.mil/fonsi/</u>. Five specific objectives were identified for the study:

1. Reduces the flood hazard that exists within the Southwest Valley floodplains within Albuquerque and Bernalillo County in order to preserve human life and reduce damages to existing property;

2. Contributes to the preservation and enhancement of natural and beneficial values of fish and wildlife resources, wetlands, and aesthetic qualities;

3. To the extent possible, avoids or minimizes, adverse impacts to the environment and cultural resources of the study area, and compensates for any unavoidable adverse effects caused by project implementation;

- 4. Maintains water quality conditions within the study area; and
- 5. Maintains existing open spaces to maximize public recreational opportunities.

A Draft Supplemental Environmental Assessment (DSEA) was prepared in 2010 to reflect changes to the 2004 FFR/EA. The public review period for this DSEA is expected in May 2010. Although there are several project features that have changed, only two features may affect Threatened or Endangered Species. These two project features are stormwater pollution control features, including the Los Padillas biofilter swale and the Los Padillas Spillway Diversion structure at the Rio Grande.

The Southwest Valley Project Area (Project Area) is located in the south valley of Albuquerque and Bernalillo County. It is bounded by Central Avenue to the north, the Rio Grande to the east, Don Felipe Road to the south, and Coors Boulevard to the west (Figure 1). The Project is proposed to be completed in four separate phases as funding becomes available. The duration of the proposed first phase of construction would be approximately 12 months and is proposed to start in summer 2010.



Figure 1. Overview of proposed Project Area including proposed project location in the Rio Grande Bosque.

1.2 Purpose and Need

Portions of the Project Area are subject to flooding from a variety of sources. A large portion of the Mesa runoff is uncontrolled and flows directly into the Project Area. The runoff consists of high peak and low volume discharges that, given the steep slopes, typically transport large quantities of sediment. Because of the nature of the floodplain in the Project Area, much of the damaging flood flows are in the form of sheet flow and are intercepted by the existing irrigation facilities and overflowing and breaching canals and drains. Slopes in the Project Area are relatively flat and most of the irrigation canals and drains have associated embankments one to three feet high. These embankments and raised roadways divide the Project Area into many small sub-areas. Some sub-areas discharge into the agricultural drains where confining embankments are low or do not exist. Other floodwater discharges into these sub-areas and ponds on-site, inundating residential, commercial, or agricultural land. This results in damage to property and threat to human life.

2.0 Proposed Project

The preferred alternative in the 2004 FFR/EA calls for the construction of a new flood flow channel (Los Padillas Spillway Diversion; Figure 2) from the Los Padillas Drain to the Rio Grande approximately 675 feet south of the intersection of Metzgar Road and Isleta Boulevard). The alignment has changed from what was originally identified in the 2004 FFR/EA because the Corps and the project sponsors are limited to existing easements and rights-of-way, without using eminent domain.

Los Padillas Spillway Diversion with Biofiltration Swale

From the Los Padillas Drain to just upstream of the Isleta Boulevard Crossing to the east, the Spillway Diversion would be comprised of an approximately 7.5 acre biofiltration swale. This area is currently an irrigated agricultural field. Biofiltration swales are a type of green infrastructure that treat stormwater by filtering pollutants (King County Department of Natural Resources and Parks 2009). A gently sloping, vegetated area slows water velocities causing sediment and attached pollutants (e.g. heavy metals, total dissolved solids, fecal coliform) to drop out. The Los Padillas biofiltration swale would measure approximately 2,500 feet long by approximately 300 feet wide at the west end and approximately 75 feet wide at the east end. Public scoping done for the 2004 FFR/EA indicated that residents of the project area would prefer conserving agricultural areas where possible so the Los Padillas biofiltration swale would be planted with alfalfa and irrigated during the growing season. An orifice control plate would be located on the Los Padillas Drain at the Los Padillas Spillway Diversion. The orifice control plate would allow only 25 cubic feet per second (cfs) to continue down the Los Padillas Drain, during precipitation events any discharge above that amount would spill into the Spillway Diversion and biofiltration swale.

At just upstream of the Isleta Boulevard Crossing, the Los Padillas Spillway Diversion will transition from a biofiltration swale to a trapezoidal culvert section under Isleta Boulevard and then to a concrete-lined section from the east side of Isleta Boulevard to the Rio Grande levee. Flood gates and three box culverts (each 4 ft tall by 8 ft wide) will be built under the Rio Grande levee. The gates on either end will be manually operated and in the closed position until it is

necessary to evacuate stormwater. The center gate will be a flap gate that remains open until water in the Rio Grande begins to backfill in the Spillway Diversion. At that time it will close to prevent flooding. Because slopes from the Project Area to the Rio Grande are so flat (less than 1%), flood gates are necessary to keep the Rio Grande from backing into the Los Padillas Spillway Diversion during high flows.

After coordination with the US Fish and Wildlife Service and the US Bureau of Reclamation (Reclamation), the Corps and the project co-sponsors have changed the Spillway Diversion from that described in previous editions of this BA. The Spillway Diversion was initially to be constructed with an articulated concrete block substrate with wire-wrapped rip-rap (WRRR) sides. The new design consists of an earthen channel with 12-inch rip-rap (not wire-wrapped) sides. A 5-10-foot section of rip- rap (not wire-wrapped) will transition from the concrete apron at the levee to the earthen portion of the channel. This change was made because it was determined that the previous design was more protective than hydraulically necessary and not conduce to creating wildlife habitat. The Spillway Diversion will continue from the levee for approximately 200 feet through the Bosque to the Rio Grande (Figure 3, although this drawing does not reflect the design changes described. Changes will be made as modifications to the contract). This portion of the Spillway Diversion will feature a 1:4 side slope with an access road on the upstream side and a 1:3 side slope on the downstream side.

During a 1% annual exceedance event (also known as a 100-year flood event) the Spillway Diversion is expected to flow at a maximum of 328 cubic feet per second (cfs) with a velocity of 1.62 feet per second (fps). Hydraulic analysis for the 2004 FFR/EA modeled other precipitation events (Table 1). All design elements are being completed by the Corps except as noted below.

Annual Exceedance (%)	Frequency Return Rate (years)	Precipitation in 24 hours (inches)	Approximate projected discharge in Los Padillas Spillway Diversion (cfs)	Approximate projected velocity in Los Padillas Spillway Diversion (fps)
1	100	2.66	328	1.62
4	25	2.13	323	1.61
10	10	1.77	311	1.59
20	5	1.51	200	1.34
50	2	1.15	100	1.02

Table 1. Modeled percent annual exceedance storm events, precipitation depths, and discharge in the Los Padillas Spillway Diversion.



Figure 2. Proposed alignment of Los Padillas Spillway Diversion.



Figure 3. Detail of proposed alignment of Los Padillas Spillway Diversion through Rio Grande Bosque, including cross section.

Because of concerns raised by the USFWS during the scoping process for the 2004 FFR/EA as well as the 2010 DSEA, the Spillway Diversion design has been modified several times to enhance wildlife habitat. Rather than constructing a straight-line channel from the levee to the Rio Grande, a downstream-curving channel with shallower slopes would be created (Figure 3). The substrate will be earthen rather than articulated concrete block. The Corps explored the possibility of discharging floodwater directly into the Bosque and then allowing it to spread out before reaching the river. Evaluation of this alternative by the Corps determined that the elevation at the levee is lower than the Rio Grande channel. Without an engineered channel, floodwaters from the Spillway Diversion would pool in the Bosque and potentially compromise the integrity of the levee system either by erosion, saturation, or a combination of both. This alternative could cause a levee breech. This problem is exacerbated by the very close proximity of the levee to the active channel. There is very little floodplain available at this location for the water to spread across before reaching the Rio Grande. Because existing easements and rightsof-way need to be used for this project without using eminent domain, a larger area of the floodplain could not be utilized. With regular maintenance by the project sponsor, the slope of the Diversion through the Bosque would eliminate the threat of ponding of floodwaters.

Durand Wildlife Area

The Durand Open Space is located at 4736 Isleta Boulevard SW and the ten-acre parcel of land was purchased by Bernalillo County in 1999 from the Durand family. Management agreements stated that at least 25% of crops planted remain unharvested for use by wildlife. Currently, citizen farmers are planting 100% of the crops for the benefit of wildlife. They grow wild grasses including alfalfa, vetch, millet, triticale, black-eyed peas, wheat, and sorghum. These native grasses attract numerous bird species including songbirds, predatory birds, cranes, geese and even pheasants. Additionally, the citizen famers planted 133 native trees and bushes including serviceberry, plum and cottonwoods that are used by wildlife. A perimeter walking trail with picnic tables and benches are available at the property for resource-based recreation including bird watching. The proposed Los Padillas Spillway Diversion across the northern edge of Durand Open Space would make approximately 0.57 acres inaccessible to visitors and wildlife and therefore a 0.57-acre wetland is also proposed. This wildlife area would be hydrologically separate from the Los Padillas Spillway Diversion and unlike the biofiltration swale, would not treat stormwater. Design and construction would be included in the Corps design of the Spillway Diversion to the Rio Grande. This depression would be ephemerally wet when ground water is high (spring run-off period and monsoon periods), but would be drier during low ground water times (fall and winter). Additionally, it would function as a water harvesting feature during major precipitation events. This would increase the water budget for the moist soil areas, enabling moisture loving plants such as reeds, rushes and willows to thrive. Moist soil areas are key for catalyzing some of the native revegetation processes of the Bosque and improving the overall habitat in the reach (Crawford et al, 1993).On the edge of the depression, thick stands of coyote willows, peachleaf willow, and other Bosque endemic shrubs would form with an occasional cottonwood creating diversity in height and structure, providing habitat for wildlife. These species would be planted after construction of the Durand wildlife area.

2.1 Woody Vegetation

Much of the proposed Project Area has been cleared of non-native woody vegetation in recent years by the City of Albuquerque Parks and Recreation Open Space Division (AOSD). However, if non-native woody vegetation is encountered in the proposed Project Area, it would be removed using manual or mechanical methods, or a combination of both during construction.

In addition, two cottonwoods would be removed from Isleta Boulevard to facilitate the Spillway Diversion crossing there. In accordance with recommendations from the 2004 Coordination Act Report prepared for this project, mature cottonwoods would be replaced at a rate of 10 saplings for each single tree. These plantings would be coordinated with the Middle Rio Grande Bosque Initiative.

2.2 Jetty Jacks

Under the proposed Project, construction of the Los Padillas Spillway Diversion structure through the Bosque entails the removal of approximately 800 cubic yards of soil from the west side of the river. Between three and four Kellner jetty jacks would be removed from the Bosque in accordance with the 2009 Jetty Jack Removal Agreement signed by representatives from Reclamation, the Middle Rio Grande Conservancy District (MRGCD), and the Corps. The remaining jack lines would be re-anchored. It would be necessary to remove approximately ten mature cottonwood trees from the Bosque in order to construct the Los Padillas Spillway Diversion structure.

2.3 Stormwater Quality

The proposed plan calls for stormwater to be detained in the widened drainage system and conveyed within 96 hours to the Rio Grande at no more than 328 cfs (the projected maximum discharge during a 1% annual exceedance interval with fully-developed conditions in the valley). At this discharge, stormwater would enter the Rio Grande at a maximum velocity of 1.62 fps. Refer to Table 1 for projected water velocities at additional exceedance intervals. These are within permissible maximum mean channel velocities for both sand and silty sand and are therefore non-erosive flows (EM 1110-2-1601, Corps 1994). Pertinent reports prepared for the City of Albuquerque (Parsons 2000 and Metric 1993) regarding stormwater conveyances in the Rio Grande indicate that there are no direct effects from suspended sediment as levels in stormwater runoff are not significantly above those occurring naturally in the Rio Grande. Additionally, the reports state that stormwater discharges evaluated under previous biological assessments did not exceed any applicable surface water quality standards, and are therefore protective of aquatic-dependent species such as the Rio Grande silvery minnow. It should also be noted that all stormwater conveyed to the river as a result of this project is water that would have eventually returned to the river downstream, through Isleta Pueblo, after flood damages occurred.

Because of the lack of a known source, and the intended use of the project, the Corps has determined that for this project, PCBs and pharmaceuticals would not impact the water quality of the Rio Grande or silvery minnows. Pharmaceuticals (veterinary and human antibiotics, human

drugs, sex and steroidal hormones) and personal care products have been identified as target compounds for national reconnaissance in U.S. streams. Identified sources of pharmaceuticals include municipal landfills, animal feeding operations (http://toxics.usgs.gov/bib/bib-ecsource.html) and treated waste water discharges (USGS 2010). These sources are not in the Project area (Corps 2010a, Appendix E). The long-term effects of low-level exposure to complex mixtures of pharmaceuticals on stream biota are poorly understood, although a variety of potential adverse effects have been documented at these low levels, including acute and chronic damage to biota, accumulation in tissues, reproductive damage, inhibition of cell proliferation, and behavioral changes (USGS 2010). Continued research to identify and quantify pharmaceuticals in susceptible environment settings and to identify potential effects on the ecology in those settings is essential for the future protection of water quality and ecological health (USGS 2010). Pharmaceuticals are not expected to be discharged from the Project area or to have an adverse effect on water quality because of the proposed Project.

At this time the Corps does not anticipate that the outflow of the proposed Project would contain pharmaceuticals due to its intended use of conveying storm water to the Middle Rio Grande. Currently the draft Municipal Separate Storm Sewer Systems (MS4) National Pollution Discharge Elimination System (NPDES) issued by the Environmental Protection Agency (EPA) permit does not require the permittees to test for pharmaceuticals. If EPA determines that the permittees shall test for pharmaceuticals in the future, the permittees would incorporate these analytes into its sampling and monitoring program.

A DataMap Corridor Study dated March 30, 2010 was purchased by the Corps from Environmental Data Resources (EDR) to determine if any known records of environmental concern (REC) have been documented within the Project area that could potentially provide a source of contaminants into the Project and subsequently be discharged into the Rio Grande. The Corps then analyzed this report to determine if any REC would impact the Project, as documented in Section 3.13 of the Supplemental Environmental Assessment (SEA), dated May 2010. The Corps provided the DataMap Corridor Study Report for public review and comment as appendix F of the SEA. This report queried federal, tribal, state, and local records which include EPA's PADS (PCB Activity Database System, which identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the EPA of such activities) and the database of PCB transformers (that includes all PCB registration submittals). Zero PADS or PCB transformer registrations were identified in this report. As a result, the Corps anticipates that PCBs would not be encountered during construction or within the Project area. As per their NDPES permit, AMAFCA will monitor stormwater quality and if PCBs are identified above regulatory standards, then EPA will require investigations of a source and PCB reductions. EPA has outlined an investigation of PCBs in the San Jose Drain and North Diversion Channel that the permittees must submit to EPA (draft MS4 permit table IV, 2010). If EPA determines that PCBs are a human health and/or ecological concern at additional areas, EPA can require additional investigations and additional BMP's. In conclusion, the Corps believes there would be not effect to the silvery minnow and its critical habitat due to changes in water quality i.e. pharmaceuticals or PCBs over the life of the project.

Best Management Practices

To protect surface waters and other environmentally sensitive areas, construction activities would be accomplished applying standard Corps' BMPs. Construction access would be from existing surface streets, ditch maintenance roads, power line maintenance roads, and agricultural roads. All staging, including the stockpiling of construction materials, and equipment parking for vehicle and equipment not in operation, will be included in the project storm water pollution prevention plan. Fuel, oil, hydraulic fluids and other similar substances would be appropriately stored and would have a secondary containment system to prevent spills if the primary storage container leaks. Appropriate erosion control measures would be utilized to prevent surface water drainage and erosion material from leaving the project site. Water dispersal equipment would be used to minimize dust during construction activities. Compliance would be required for all appropriate laws regarding the treatment and disposal of waste material. All waste material would be disposed properly at designated areas on the plan set or at an approved or commercial disposal area or a landfill. Activities would be limited to the designated or otherwise approved areas and would be shown on the construction drawings for construction areas, staging, access, and borrow use. The Corps' Project Engineer on site would coordinate with the Corps Environmental Resources Section, and Bernalillo County Public Works, to approve any changes in access routes, non-commercial borrow sites, staging areas, and other high-use areas.

Prior to the onset of construction activities, all environmental protection measures as expressed by contract clauses, contract drawings or other means would be reviewed with the contractor at the pre-construction conference. The construction contractor would be required to submit an Environmental Protection Plan acknowledging and incorporating these protection measures during construction of the project. The Corps, or their representatives, would monitor and inspect any contractor's compliance with project specifications regarding the conditions set forth under the CWA permits and any best management practices employed to conform to those permit conditions.

Stormwater Pollution Removal Features

The project co-sponsors are responsible for developing and implementing BMPs to safeguard water quality during operation and maintenance of the proposed Project. AMAFCA and Bernalillo County are participants in the multi-agency Middle Rio Grande Stormwater Quality Team (www.keeptheriogrand.org). Both already have a stormwater quality management plan in place designed to reduce pollutant loading into receiving waters. This plan contains the following six elements: 1) Public Outreach, 2) Public Involvement, 3) Illicit Discharge Detection and Elimination, 4) Construction Site Runoff Control, 5) Post-construction Runoff Control, and 6) Pollution Prevention and Good Housekeeping. In addition to these elements, storm water in the Project Area would be subject to structural BMPs which create a "treatment train" that would use state of the art water quality structures installed throughout the storm sewer system.

At the top of each tributary storm drain system, the storm drain inlets would be modified to include sumps and snouts for sediment and floatable control. This type of system, although simple, is extremely effective in capturing floating debris and reducing sediment transport in the system. Upstream of the point of discharge to the drains, storm water quality manholes would be installed. These manholes are modified to have a larger sump volume for sediment storage, and internal baffles that capture and store gross pollutants, oil and grease (Figure 4, Figure 5). The

pipe and manhole systems would be maintained by Bernalillo County with vacuum trucks. Bernalillo County has two of these in their fleet and AMAFCA has contracted with a private company to clean similar systems that are in the AMAFCA inventory.

Within the drains, naturally occurring vegetation would increase the dissolved oxygen content of the drain flows. The proposed Project calls for modifying the drains by deepening and widening the drain system. This modification would increase the capacity of the drains, increase the surface area for plants to grow and filter out pollutants and would allow for easier maintenance of the drain system.



Figure 4. Water quality manhole in an active home-building area. Photo show manhole one year after installation, before clean-out.

Storm water would then trickle back into the drains and run downstream to a side weir diversion structure, where excess flows are diverted to the Los Padillas Spillway Diversion or to the detention pond proposed at the Black Mesa Pump station. These structures would be similar to the one built in 1996 on the Corrales Main Canal that diverts storm water flows into the Calabacillas Arroyo and then the Rio Grande.

In addition, the project would include a de-sedimentation area and biofilter swale that would reduce pollutant loads before the stormwater enters the Rio Grande. This BMP would be located between the Los Padillas Drain and the Rio Grande. This type of BMP has been shown to reduce fecal coliform by 65%, total dissolved solids by 80%, nitrates by 50%, ammonia by 70% and phosphorus by 50% (J. Lovato, personal communication, Table 2.) A trash rack would also be constructed on the west side of Isleta Boulevard to collect floatable debris.



Figure 5. Standard detail for a water quality manhole.

Table 2. BMP pollutant reduction efficacy, comparing the Adobe Acres Sewer Outfall (no biofiltration swale) to the Sanchez Farms Sewer Outfall (biofiltration swale). Data collected by AMAFCA.

Pollutant	Adobe Acres **	Sanchez Farm **	% Reduction
Fecal Coliform Lo*	558 MPN/100mL	149 MPN/100mL	73%
Fecal Coliform Hi*	37,951 MPN/100mL	15,229 MPN/100mL	60%
TSS	794 mg/L	146 mg/L	81%
COD	265 mg/L	131 mg/L	51%
Nitrate	1.0 mg/L	0.44 mg/L	56%
Ammonia	0.68 mg/L	0.18 mg/L	73%
Phosphorus	0.93 mg/L	0.45 mg/L	52%
Lead	38.3 μg/L	19.6 μg/L	49%

Fecal Coliform Lo – Low flow background conditions; Fecal Coliform Hi – High flow storm conditions.
All other parameters measured in high flow storm conditions.

** Values show average pollutant concentrations 2004-2008. Adobe Acres discharge is untreated, Sanchez Farms discharge is clarified and filtered through wetlands.

Presently there is vegetation growing in existing drains and this vegetation is typically removed during dredging activities by MRGCD for agricultural purposes and then returns on its own. This is required by MRGCD and not expected to change. Water quality treatment in the drains will occur with or without vegetation on the banks. Sediment and particulates will settle out due to the low velocity of the flows in the drains.

The vegetation in the Los Padillas alfalfa biofilter swale would remain in perpetuity. Stormwater both entering and exiting the alfalfa biofilter swale would be monitored upstream and downstream to confirm the reduction in contaminants. If after a period of 2-5 years the alfalfa biofilter swale is determined to not be effective at reducing total suspended solids and contaminants, then AMAFCA would modify the biofilter plantings as necessary to improve contaminant reduction. Such modifications could include but are not limited to structural changes within the biofilter swale, changes to plant species, or other modifications as appropriate. Assuming that the alfalfa is effective, the biofilter. The alfalfa would be irrigated and harvested multiple times each growing season. When sediment accumulation reaches a point where the biofiltration swale no longer functions, then the swale would be dredged, regraded, and replanted with alfalfa. Dredging, regrading, and replanting would not occur during periods when the swale is inundated. If the biofiltration swale is planted with any other plants, then operation and maintenance (O&M) activities would be changed accordingly. AMAFCA will be required to do this under the Corps' O&M manual.

The possibility for illicit discharges from industrial facilities into the Albuquerque MS4 does exist and AMAFCA's protocol once notified is to initiate a spill response plan. Flood gates located at the levee would be closed to contain the spill and prevent any discharge from entering the Rio Grande. There would also be spill kits located at the junction of the Isleta Drain and the Los Padillas Extension, at the junction of the Los Padillas Drain and the Los Padillas Spillway Diversion, and at the Los Padillas Spillway Diversion at the Isleta Boulevard Crossing. Spill kits would contain absorbent materials, containment booms, and commercially available absorbents containing microbes that break down petrochemicals. Bernalillo County's and AMAFCA's detection plan for illicit discharges uses the general public to observe and report discharges. The project once completed is designed to allow pedestrian access to the facilities, which will allow for observation of illicit discharges.

Currently, AMAFCA relies on physical inspections and reports from concerned citizens to detect illicit discharges in their facilities although they recognize that a more rigorous spill response plan is needed (J. Lovato, personal communication). Such a plan would be developed as part of the O&M manual for the Project. The O&M manual would include but is not limited to extensive water quality monitoring, streamlined reporting and communications procedures (both among agencies as well as with local industries), and gates and spill kits at culverts.

Although the Project Area is mostly unincorporated Bernalillo County and not City of Albuquerque, the City's 311 Citizen Contact Center received at least 13 calls with reports of spills or dumping in the area in the last three years (S. Gordon, personal communication; actual number of calls likely to be higher but thorough analysis of that data is not complete at this time). This suggests that while public detection alone is not suitable for detecting illicit discharges, it does play an important role. AMAFCA would post signs along the Project channels with appropriate phone numbers for citizens to call should they see a suspected illicit discharge.

Future conditions include monitoring by AMAFCA and Bernalillo County contractors (per meeting with AMAFCA, Bernalillo County, BOR, Corps on 18 June 2010). A protocol will be developed for the contractors to observe for any illicit discharges. Additional discharges will not be allowed into the storm system until the source is found. There will be gates at culverts to stop flow of stormwater from moving down the system. Flood gates at levees will be closed until the source of contamination is found and cleanup performed. The response to illicit discharges will be improved over current conditions. Currently, there is no control, no monitoring, no communication, no BMPs and no cleanup in the project area by AMAFCA. With the actions to be taken, illicit discharge detection and cleanup will improve.

It is not known for certain how often spills go unreported and it is not known what, if any, water quality degradation results from these spills.

The Spillway Diversion through the Bosque has been redesigned in order to be more conducive to creating wildlife habitat. See Figure 3 for plan and cross-section views. The trapezoidal open channel has been reconfigured with shallower slopes so to provide better opportunities for native plants to establish along the banks. The shallower slopes would also allow for gradual increases in water depth which would translate to more habitat variability for fish during periods of inundation.

2.4 Operation and Maintenance

Per the Project Cooperative Agreement (PCA; Article II, Paragraphs C and D) between the Non-Federal sponsors (AMAFCA and Bernalillo County) and the Corps, ownership of the Los Padillas Spillway Diversion would be turned over from the Corps to AMAFCA. Upon notification from the District Engineer, the non-Federal Sponsor shall operate, maintain, repair, rehabilitate, and replace the Project as required by the O&M Manual approved by the Corps.

The intent of the Project is to enhance existing facilities so that they would function as both irrigation conveyances as well as evacuate flood water. Detailed operation and maintenance descriptions would be available in the Corps O&M Manual for this Project and the Storm Water Management Plan (SWMP) that AMAFCA and Bernalillo County would produce in accordance with the terms of their respective MS4 NPDES permits. The SWMP would be reviewed and approved by EPA prior to implementation. An O&M manual will be developed by the Corps prior to turning the Project over to the local co-sponsors. FWS may contribute to the development of this manual and add conditions to it.

Maintenance activities in the existing and widened drains are expected to entail mowing banklines and if needed to ensure hydraulic efficiency dredging the earthen channels (twice a year, once before and once after the flood season). Once each year, all sediment in the 100-200-ft section immediately upstream of the diversion structure at the intersection of the Isleta Drain and the Los Padillas Extension and the section 100-200-ft upstream of the diversion structure at the intersection of the Los Padillas Drain and the Los Padillas Diversion Spillway would be entirely removed. Because the channel makes a 90-degree bend at these two intersections, it is expected that most sediment would drop out at these points. All erosion control activities would occur in the winter when the drains are dry. Presently there is vegetation growing in existing drains and this vegetation is typically removed during maintenance activities by MRGCD for agricultural purposes and then returns on its own. This is not expected to change. Future effects from O&M activities will remain the same as today.

Stormwater both entering and exiting the Los Padillas Spillway Diversion alfalfa biofilter swale would be monitored to confirm the reduction in contaminants. See Enclosure 2 for specific monitoring locations. If after a period of 2-5 years (depending on storm flows in the proposed Project) the alfalfa biofilter swale is determined to not be effective at reducing total suspended solids and contaminants, then AMAFCA would modify the biofilter plantings to improve contaminant reduction, as required in the O&M Manual. Such modifications could include but are not limited to structural changes within the biofilter swale, changes to plant species, or other modifications as appropriate. Assuming that the alfalfa is effective, the biofilter. The alfalfa would be irrigated and harvested multiple times each growing season. When sediment accumulation reaches a point where the biofiltration swale no longer functions, then the swale would be dredged, regraded, and replanted with alfalfa. Dredging, regrading, and replanting would not occur during periods when the swale is inundated. If the biofiltration swale is planted with any other plants, then O&M activities would be changed accordingly. Future effects from O&M in biofiltration swale will be beneficial to water quality over the life of the project.

Sediment in the Spillway Diversion between the levee and the Rio Grande would be removed only as necessary in order to maintain the engineered elevation of the diversion channel and hydraulic integrity of the channel. These excavation activities would occur only during periods when the side channel of the Rio Grande is dry and maintenance equipment would not come in contact with mainstem Rio Grande water. This proposed maintenance will prevent isolated pools from developing and ensure that silvery minnows do not become entrapped after high flows recede. In the event of an emergency excavation when the channel is wet, AMAFCA will coordinate with the Corps and ultimately the USFWS to limit the effects to the silvery minnow as a result of any emergency action.

The efficiency of the proposed Project will not change should the Rio Grande channel migrate west and shorten the Los Padillas Spillway Diversion. The Non-Federal project sponsors do not have the authority to perform maintenance activities in the main channel of the Rio Grande. Should the Rio Grande migrate west, toward the proposed Project, and a threat is perceived, the Non-Federal sponsors would not take any protective action. Instead, they would consult with either Reclamation or the Corps. This would trigger a Federal Action and Endangered Species Act compliance activities would be initiated.

2.5 Future Federal Involvement in the Proposed Project

The Corps does not have the authority to retain responsibility for the Project once it is completed, the Non-Federal sponsors would assume all responsibility. In order for the Non-Federal sponsors (AMAFCA and Bernalillo County) to use the Project as part of the Albuquerque Municipal Storm Sewer System (MS4), they would need to obtain and comply with a NPDES permit from the USEPA. Permit application and renewal would trigger a federal action and therefore reinitiate consultation with the USFWS.

Additionally, AMAFCA is currently pursuing becoming a signatory to the Middle Rio Grande Endangered Species Act Collaborative Program. This affiliation would foster consultation between the non-federal agencies involved in the Project and the USFWS.

The Corps' Inspection of Completed Works Program (ICW) would ensure that non-Federal owners of Federally-built critical infrastructure perform essential maintenance in accordance with the project O&M manuals. Compliance inspections would be performed bi-annually to identify maintenance deficiencies and operational problems and discuss corrective actions. Through these compliance inspections, the Corps ensures that the project would operate and function as designed.

New Mexico is one of four states for which the Environmental Protection Agency (EPA) is the permitting authority on point-source discharges. The Project Area is served by a Municipal Separate Storm Sewer System (MS4) which ultimately discharges to the Rio Grande. EPA has issued a draft MS4 National Discharge Elimination System (NPDES; permit number NMS000101) for discharges from this MS4 made directly or indirectly into the Middle Rio Grande Basin. This permit is available for public comment and review until July 28, 2010 (Enclosure 3). The Corps understands that EPA is in the final stage of preparing a Biological Evaluation to determine the effects of the discharge on listed species and habitat. One requirement of the NPDES permit is regular stormwater quality monitoring and the development and utilization of a comprehensive Storm Water Management Plan (SWMP). The permit requires that the permittees collect and analyze water, soil, and sediment using EPA methods. The project co-sponsors will develop the SWMP once the NPDES permit becomes final. The required monitoring by the EPA and Corps will determine any changes in stormwater quality over the life of the project. Analysis of water quality results will determine subsequent actions, in the form of additional Best Management Practices (BMP's), to be taken to improve treated stormwater

discharged into the Rio Grande. The NPDES Permit requires monitoring upstream and downstream of the biofiltration swale for oil and grease, chemical oxygen demand (COD); pH, biochemical oxygen demand; five-day (BOD5), total suspended solids (TSS); total phosphorous; total Kjeldahl nitrogen (TKN); nitrate plus nitrite nitrogen; any discharge information required under 40 CFR §122.21(g)(7)(iii) and (iv); total cadmium; total chromium; total copper; total lead; total nickel; total silver; total zinc; and PCBs. Sampling will occur during a storm event and at a minimum of once per year.

Over the life of the Project, if EPA determines that discharge from the MS4 causes or contributes to an exceedance of applicable surface water quality standards, EPA would then notify the permittees of such an exceedance. The permittees shall, within sixty (60) days of notification, submit to EPA, NMED, Pueblo of Isleta and Pueblo of Sandia, a report that describes controls that are currently being implemented and additional controls that would be implemented to prevent pollutants sufficient to ensure that the discharge would no longer cause or contribute to an exceedance of applicable surface water quality standards. The permittees shall implement such additional controls upon notification by EPA and shall incorporate such measures into their SWMP as described in Part I.D of the draft MS4 permit. NMED or the affected Tribe may provide information documenting exceedance of water quality standards caused or contributed to by the discharges authorized by this permit to EPA Region 6 and request EPA take action under the draft MS4 permit.

An additional requirement of the MS4 permit requires the permittee to perform a 24 hour acute toxicity test using water collected during at least one storm event per year to protect listed threatened and endangered species. The permittees must provide EPA with monitoring data in accordance with the annual monitoring requirements. A map of proposed sample locations in the Project area is attached as Enclosure 2. It should be noted that EPA requires sampling from different locations within the MS4 over the life of the permit. These monitoring activities would assess changes in storm water contamination in the future.

3.0 Construction Sequence

The proposed Project elements described in this document are part of Phase 1 of the Southwest Valley Flood Damage Reduction Project. Sequencing of the construction of the Los Padillas Spillway Diversion is proposed to reduce the amount of potential sediment moving into the river and reduce impacts to the river bank edge. The Bosque between the levee and the river, vegetated swale at Durand Open Space, and the Spillway Diversion itself would be thinned first in order to remove any non-native woody vegetation (Removal Features).

Construction of the Los Padillas Spillway Diversion is proposed to occur during winter when flows in the river are anticipated to be about 600-700 cfs. During this period, the high flow channel along the west bank of the Rio Grande will be dry and all construction equipment will maintain a distance of at least 75 feet from the active edge of water. There will be no contact between any construction equipment or soil and the Rio Grande water. There will be no effect on water quality to waters of the U.S., including the Rio Grande, during construction.

All other construction for the proposed Project will be scheduled from November 1 to May 1 in order to comply with the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703, *et seq.*)

3.1 Removal/Disposal of Vegetation

There are a number of methods for reducing fuel loads and treating non-native vegetation that have been and are being utilized in the Middle Rio Grande and throughout the Southwest. These methods include both manual and mechanical treatment methods, which are described below.

<u>Manual treatment</u>: Using this method, dead material would be piled up and/or processed by cutting into smaller bolts using a chain saw. Large material would be hauled off. Some would be bucked up for use as fire wood. Smaller material would be chipped using a chipper on site. Chips would spread out on site or hauled off depending on the density. No more than 2 inches of chipped material would be left on site.

<u>Mechanical treatment</u>: Mechanical control entails the removal of aerial portions of the tree (trunk and stems) by large machinery such as a tree shear or large mulching equipment. Both dead material and live trees would be treated mechanically. If the tree removed is non-native, the remaining stump would be treated immediately with herbicide. Material would be processed as stated above – large material would be hauled off and smaller material would be chipped. This method would be used in open areas of the Bosque that have already been initially 'treated' by the AOSD and also in areas of monotypic stands of non-native vegetation.

<u>Combination treatment</u>: The most efficient methodology for treatment of dead material and nonnative vegetation is usually a combination of manual treatment, mechanical treatment and use of herbicide. Some areas may be very thick, and the use of manual methods allows them to be opened up for machinery access. Then mechanical equipment can take over while hand crews can move ahead of machinery to keep areas open enough to work in without damaging native vegetation. The methodology to be implemented at each location would be evaluated on a siteby-site basis, and adaptively managed.

Overall, a combination treatment would be utilized to remove vegetation from the proposed Project Area. Manual treatment would be utilized to thin additional non-native vegetation and fuel wood along the banks of the hi-flow channels.

3.2 Access and Staging

The proposed Project Area is located between Isleta Boulevard and the Rio Grande. Approximately 0.5 acres on the northwest corner of the Durand Open Space has been designated as a staging area (Figure 2). The Los Padillas Feeder and the Atrisco Riverside Drain will be routed underneath the Los Padillas Spillway Diversion in reinforced concrete arch pipe in this area Access from the levee through the riparian forest to the river edge would be created with the removal of jetty jacks and construction of the Los Padillas Spillway Diversion structure. The design of the Spillway Diversion structure from the levee to the Rio Grande incorporates a maintenance road along the upstream side of the Spillway Diversion. The staging areas would be reseeded once the project is complete. Staging would not take place in the Bosque.

4.0 Species Information

4.1 Southwestern Willow Flycatcher

The Southwestern Willow Flycatcher (flycatcher) is found in the U.S. from May until September. It winters in southern Mexico, Central America, and northern South America (Unitt, 1987). In New Mexico, the Southwestern Willow Flycatcher is distributed in nine drainages (Gila, Rio Grande, Rio Chama, Coyote Creek, Nutria Creek, Rio Grande de Ranchos, Zuni, Bluewater Creek, and San Francisco). The flycatcher is an endangered species on the U.S. Fish and Wildlife Service Endangered Species List and critical habitat has been designated in the Middle Rio Grande, though not in the proposed Project Area. As of 1996, it was estimated that there were only about 400 Southwestern Willow Flycatchers in New Mexico, representing about 42% of the total population of the subspecies (Southwestern Willow Flycatcher Recovery Team, 2002). Southwestern Willow Flycatchers occur in riparian habitats along rivers, streams, or other wetlands, where dense growth of willows (Salix spp.), Baccharis, arrowweed (Pluchea sp.), saltcedar or other plants are present, often with a scattered overstory of cottonwood (Unitt 1987; Sogge et al., 1997; Finch and Stoleson, 2000). These riparian communities provide nesting and foraging habitat. Throughout the range of Southwestern Willow Flycatcher, these riparian habitats tend to be rare, widely separated, small and often linear locales, separated by vast expanses of arid lands. The Southwestern Willow Flycatcher is endangered by extensive loss and modification of suitable riparian habitat and other factors, including brood parasitism by the Brown-Headed Cowbird (Molothrus ater; Unitt, 1987).

The Southwestern Willow Flycatcher is an obligate riparian species and nests in thickets associated with streams and other wetlands where dense growth of willow, Russian olive, saltcedar, or other shrubs are present. Nests are frequently associated with an overstory of scattered cottonwood. Southwestern Willow Flycatchers nest in thickets of trees and shrubs approximately 6 to 23 feet in height or taller, with a densely vegetated understory approximately 12 feet or more in height. Surface water or saturated soil is usually present beneath or next to occupied thickets (Muiznieks et al. 1994). At some nest sites, surface water may be present early in the breeding season with only damp soil present by late June or early July (Muiznieks et al. 1994). Habitats not selected for nesting include narrow (less than 30 feet wide) riparian strips, small willow patches, and stands with low stem density. Suitable habitat adjacent to high gradient streams does not appear to be used for nesting. Areas not utilized for nesting may still be used during migration.

Breeding pairs have been found within the Middle Rio Grande from Elephant Butte Reservoir upstream to the vicinity of Española. Southwestern Willow Flycatchers begin arriving in New Mexico in early May. Breeding activity begins immediately and young may fledge as soon as late June. Late nests and re-nesting attempts may not fledge young until late summer (Sogge et al. 1997).

Occupied and potential Southwestern Willow Flycatcher nesting habitat occurs within the Middle Rio Grande valley. Occupied and potential habitat is primarily composed of riparian shrubs and trees, chiefly Goodding's willow and peachleaf willow, Rio Grande cottonwood,

coyote willow, and saltcedar. The nearest known breeding Southwestern Willow Flycatchers from the project area occurs along the Rio Grande at Isleta Pueblo. There is not currently any potential flycatcher habitat in or adjacent to the proposed Project Area.

4.2 Rio Grande silvery minnow

Rio Grande silvery minnow (*Hybognathus amarus*) historically occurred in the Rio Grande drainage in New Mexico and Texas (Lee et al., 1980; Propst, 1999) and was one of the most abundant and widespread fishes (Bestgen and Platania, 1991). In New Mexico, historic range of the species included the Rio Chama from Abiquiu to the Rio Grande confluence, the main stem of the Rio Grande from Velarde downstream to the New Mexico-Texas state line, and the Pecos River downstream from Santa Rosa (Sublette et al., 1990). Rio Grande silvery minnow was extirpated from the Rio Grande downstream of the Pecos River by 1961 and Pecos River proper by the mid-1970s. The species was also extirpated from the Rio Grande silvery minnow is present only in the Rio Grande between Cochiti Reservoir. Currently, Rio Grande silvery minnow is present only in the Rio Grande between 5 and 10% of its historic distribution (Bestgen and Platania, 1991; Propst, 1999). Critical habitat has been designated for the Rio Grande silvery minnow and is within the proposed Project Area.

Rio Grande silvery minnow is a pelagic-broadcast spawner, producing nonadhesive, semibuoyant eggs (Platania and Altenbach, 1998). Spawning is initiated by elevated stream discharge and occurs primarily in the late spring and early summer, when water temperatures are 68°F to 75°F (Propst, 1999). Females may produce three to 18 clutches of eggs, each clutch numbering from 200 to 300 eggs. Growth to maturation occurs in about two months. Habitat used by adult Rio Grande silvery minnow is characterized by silty to sandy substrate, depths of 8 inches to 2.6 feet, and slow to moderate current velocity, 0 ft/sec to 0.98 ft/sec; (Dudley and Platania, 1997). Habitats with slow current velocity and associated cover are used in winter. Rio Grande silvery minnow feeds on algae and detritus (Propst, 1999; USFWS, 1999). Major threats to persistence of Rio Grande silvery minnow include diminution of river flows and dewatering by surface water diversions and dam regulation, modification of aquatic habitats that result in faster current velocities and narrower channels, and introduction of nonnative fishes (USFWS, 1999). Recovery of Rio Grande silvery minnow requires stabilizing the population in the Middle Rio Grande and reestablishing the species in suitable habitats within its historic range (USFWS, 1999). Over the 2004 and 2005 monitoring season, a large population of Rio Grande silvery minnow was found in the Albuquerque Reach of the Middle Rio Grande.

Dudley and Platania (1997) documented habitat preferences of Rio Grande silvery minnow. They found that individuals were most commonly collected in shallow water (<40 centimeters [cm]) with low water velocities (<10 cm/second [cm/s]) and small substrate size, primarily silt and sand. Low-velocity habitats, such as backwaters and embayments, provide nursery areas for larvae (Dudley and Platania 1997, Massong et al. 2004), which grow rapidly in these areas. Restoration efforts that increase the availability of these habitat conditions would benefit Rio Grande silvery minnow. In addition to the quantity of preferred habitat and food availability may be influenced directly by river restoration activities. Rio Grande silvery minnow are herbivores that eat primarily diatoms, cyanobacteria, and green algae associated with sand or silt substrates in shallow areas of the river channel (Shirey 2004).

Recent research (Pease et al 2006; Porter and Massong 2004, 2006; Bureau of Reclamation 2007; SWCA 2007) indicates nursery habitat on inundated pointbars, islands, and the floodplain provide essential conditions for spawning, with survival of silvery minnow eggs and larvae. Increased recruitment during average spring flow result in increased fall populations (Corps 2007), supporting the value of habitat restoration and hydrograph management for producing silvery minnow in the river.

Currently, silvery minnow is the only remaining endemic minnow with semi-buoyant eggs in the Middle Rio Grande. The peglagic spawning speckled chub (*Extrarius aestivalus*), Rio Grande shiner (*Notropis jemezanus*), phantom shiner (*Notropis orca*), and bluntnose shiner (*Notropis simus simus*) are either extinct or have been extirpated from the Middle Rio Grande (Bestgen and Platania 1991).

The remaining population of the silvery minnow is restricted to approximately 5-10% of its historic range. Every year since 1996 (with the exception of 2008), there has been at least one drying event in the river that has negatively affected the silvery minnow population. The population is unable to expand its distribution because poor habitat quality and Cochiti Dam prevent upstream movement and Elephant Butte Reservoir blocks downstream movement (USFWS, 1999). Augmentation of silvery minnows with captive-reared fish would continue, however, continued monitoring and evaluation of these fish is necessary to obtain information regarding the survival and movement of individuals.

Several habitat restoration projects have been completed in the Albuquerque reach through the Collaborative Program. These projects include two woody debris installation projects to encourage the development of pools and wintering habitat, and a river bar modification project south of the I-40 Bridge designed to create side and backwater channels on an existing bar as well as modify the top surface of the bar to create habitat over a range of flows. Additionally, in 2005, the New Mexico Interstate Stream Commission (ISC) started a multi-year habitat restoration program that implements several island, bar, and bank line modification techniques throughout the Albuquerque Reach. Approximately 24 acres of habitat were restored in the Phase I. Phase II began in winter 2007. The ISC has modified both the bankline and an island near the proposed Project Area. In April 2008, the Corps completed the Rio Grande Nature Center Habitat Restoration Project reconnecting an ephemeral side channel to the river for silvery minnow habitat.

Various conservation efforts have also been undertaken in the past and others are currently being carried out in the Middle Rio Grande. Silvery minnow abundance has increased since 2003 population levels as a result of several years with average spring flows. The increased abundance of silvery minnow from 2004-2007 is a positive sign.
4.3 Silvery Minnow Critical Habitat

In 2003 critical habitat was designated for the silvery minnow (68 FR 8087- 8135, February 19, 2003) extending from Cochiti Dam downstream to the utility line crossing the Rio Grande, a permanent landmark in Socorro County. Critical habitat includes the lateral extend bounded by the levees where present, and where levees do not exist 300 feet of riparian area extending outward from the bankfull width. Four primary constituent elements (PCE) were identified in the 2003 ruling and include 1) a hydrologic regime capable of forming and maintaining a diversity of aquatic habitats necessary for different life stages of the silvery minnow; 2) the presence of eddies and other refugial habitats; 3) substrates of predominately sand and silt; and 4) "water of sufficient quality to maintain natural, daily, and seasonally variable water temperatures in the approximate range of greater than 1 °C (35 °F) and less than 30 °C (85°F) and reduce degraded conditions (e.g., decreased dissolved oxygen, increased pH)" (68 FR 8087- 8135, February 19, 2003).

While the proposed Project Area is within critical habitat for Rio Grande silvery minnows, none of the four PCEs currently exist in that area. Specifically, the proposed project area lacks the first PCE: "a hydrologic regime that provides sufficient flowing water..." (68 FR 8087-8135, February 19, 2003). Figure 6 shows inundation of proposed Project area during 2005 runoff. During this event, discharge in Albuquerque peaked at approximately 6,500 cfs which corresponded to a 2-5 year flow event on the Rio Grande. From a geomorphic perspective, an active floodplain inundates every 1-2 years (Dunne and Leopold 1978); therefore the proposed Project area might develop PCEs in the future and therefore the proposed Project is designed to not preclude this.

5.0 Analysis of the Effects of the Project

5.1 Southwestern Willow Flycatcher

There is no suitable flycatcher habitat in the proposed Project Area. Other projects in the area, such as the Albuquerque Biological Park Wetland Restoration Project and the islands and bars modified by the ISC, have created additional potential habitat for the flycatcher. This project would also create habitat that would potentially benefit the Southwestern Willow Flycatcher in the Durand Open Space wetland.

5.2 Rio Grande Silvery Minnow

Rio Grande silvery minnow occurs in the Rio Grande in the proposed Project Area. Fish obtained from both salvage operations conducted during river drying events and captive propagation have been stocked in the Albuquerque area in an attempt to restore the population in that reach. Releases of captive-reared Rio Grande silvery minnow have been made at Alameda Bridge, north of the project area.



Figure 6. Inundation during 2005 spring runoff, a 2-5 year high flow event on the Rio Grande.

A major concern of this project is the effect of stormwater quality on Rio Grande silvery minnow. Previous studies have shown that fathead minnow (*Pimephales promelas*) may be used as a surrogate for silvery minnow in toxicity testing (USGS 2002.) Stormwater collected during a June 30, 2010, storm event in Albuquerque used in a 48-hr acute toxicity test showed 100% survival of larval fathead minnows at all stormwater concentrations (12.5, 25, 50, 75, and 100%; Bio-Aquatic 2010). As part of the requirements for the MS4 permit, the Non-Federal project sponsors will be required to conduct regular stormwater quality monitoring. When new information becomes available regarding the effects of specific contaminants on the silvery minnow, the Non-Federal project sponsors will work with USFWS to ensure that the proposed Project is protective of silvery minnow.

Regular operation and maintenance activities will be conducted when the Spillway Diversion and the adjacent Rio Grande side channel are both dry and therefore when no silvery minnows are present.

5.3 Silvery Minnow Critical Habitat

The proposed Project includes an element constructed within Rio Grande silvery minnow critical habitat. One flood gate would be installed at the end of the box culverts that would convey the Los Padillas Spillway Diversion (Diversion) through the Rio Grande levees. The only modification to critical habitat would be the Diversion from the levee to the river with a footprint of approximately 0.5 acres. The Corps and the Project co-sponsors investigated a number of different alternatives before reaching the present Diversion design. Because the Project is limited to the current alignment through a very narrow section of the Bosque, it was necessary to include a number of structural measures to safeguard the levee. However, recent meetings with Reclamation have lead to improved design changes. While previous editions of this BA described an articulated-block substrate in the Diversion, the Project design has been modified so that the channel bottom is earthen. A 5-10-foot long section of rip rap transitioning from the concrete apron at the levee and the earthen portion of the Diversion will provide protection to the flood gate.

The Project co-sponsors are exploring the possibility of including habitat restoration features to the Project for the silvery minnow and Southwestern Willow Flycatcher. The DSEA states that mature cottonwoods removed from the Bosque would be replaced at a rate of 10 saplings for each tree removed. Additional restoration measures under consideration by AMAFCA include lowering banklines, creating high-flow channels, and/or removing non-native vegetation on nearby bank-attached bars.

The specific effects of the proposed Project to the four PCEs of Rio Grande silvery minnow critical habitat are as follows.

1. *Hydrologic regime*: Depending on rainfall in the Project area, water would be periodically added to the Rio Grande. During the 5-yr flood event this effectively increases the amount of water in the river by approximately 300 acre-feet (200 cfs over 20 hours) and during a 100-yr flood event, by approximately 500 acre-feet. These calculations assume a fully developed south valley.

- 2. *Refugial habitat*: The earthen Spillway Diversion channel will backfill with water from the Rio Grande, essentially acting as an embayment, during periods of higher flow and create refugial, off-channel, zero-velocity water for silvery minnows.
- 3. *Sand and silt substrates*: High river flows will also transport and deposit sand and silt in the Spillway Diversion channel. Because the bottom of the channel is no longer articulated concrete block, the addition of sand and silt will improve the habitat for the silvery minnow.
- 4. *Water quality*: The Corps and the Project co-sponsors believe that the Project would also partially meet the fourth PCE. The thermal effects of stormwater runoff are currently being researched in other geographic areas, but little is known about these impacts on the Rio Grande. Because central New Mexico experiences the majority of precipitation during summer months, it is expected that winter stormwater temperatures would not be a concern. It is expected that stormwater traveling through the Project would warm via solar radiation, but the exact extent of this is unknown. Recent data collected in the mainstem Rio Grande at the Rio Bravo bridge using a continuously-monitoring temperature logger from 1 July 2008 through 30 September 2008 indicate that temperatures ranged from 13.8 to 33.1°C with a mean temperature of 24.6°C (D. Van Horn, personal communication). There is not presently temperature data on stormwater returned to the Rio Grande. Because the proposed Project will function as a series of detention areas linked by agricultural drains, there may be some comparison to irrigation water returned to the Rio Grande. Hourly temperature data (collected from 10 July 2008 through 30 September 2008) of irrigation water returned to the Rio Grande via the Peralta Wasteway ranged from 17.4 to 31.4°C with a mean of 23.9°C (E. Gonzales, personal communication). The alfalfa biofilter swale and the BMPs discussed in detail in Section 2.0-2.3 are expected to remove gross debris and sediment as well as filter pollutants of stormwater returning to the Rio Grande. The biofilter swale is also expected to improve oxygenation of stormwater. Temperature and other stormwater quality parameters would be monitored and this is discussed in more detail in Section 7.0.

During construction of the proposed Los Padillas Spillway Diversion, work would not take place in the main channel but it would take place in the Bosque. Because contractors will remain at least 75 feet from the Rio Grande's active edge, it will not result in erosion or other inputs into the water. When work is to occur close to the bank of the river, Best Management Practices listed in Section 7.0 would be enforced to help prevent erosional inputs into the Rio Grande channel.

Neither the Corps nor the Non-Federal Project sponsors would take any actions to prevent any future migration of the Rio Grande westward toward the Los Padillas Spillway Diversion or the levee. If reparative actions to the rip rap bounding the downstream side of the Los Padillas Spillway Diversion or to the gravel maintenance road on the upstream side are deemed necessary, then the Non-Federal Project sponsors will coordinate with Reclamation. Westward migration of the Rio Grande would not impair the effectiveness of the Los Padillas Spillway Diversion.

6.0 Effects Determination

6.1 Southwestern Willow Flycatcher

No suitable breeding habitat occurs within the project area, although the wetland at Durand Open Space combined with ISC habitat restoration efforts in the area may create potential habitat. The Corps has determined that the proposed Project will not negatively affect the Southwestern Willow Flycatcher. Designated critical habitat was determined for flycatcher in November 2005 but is not in the project area. There would be a net beneficial effect with project implementation through increasing the suitability of or otherwise protecting Southwestern Willow Flycatcher potentially suitable habitat.

6.2 Rio Grande Silvery Minnow

Silvery minnows are present in the Albuquerque Reach (Dudley et al. 2006) and are expected to be present in the Rio Grande adjacent to the proposed Project area. Timing of construction activities, BMPs, stormwater pollution prevention features, and AMAFCA's operation and maintenance of the Los Padillas Spillway Diversion are designed to prevent adverse effects to the silvery minnow– directly, indirectly and beneficially as described below.

<u>Direct Effects</u>: The proposed Project is unlikely to have direct short-term adverse effects on silvery minnows because construction activities will be timed such that the portion of the river adjacent to the Spillway Diversion will be dry. Construction equipment will remain at least 75 feet from the active edge of Rio Grande water and therefore at least 75 feet from any potentially occurring silvery minnows.

<u>Indirect Effects</u>: The proposed Project will treat stormwater before returning it to the Rio Grande. Currently stormwater falling in the Project Area either ponds on-site or overwhelms existing irrigation infrastructure and is returned, untreated, to the Rio Grande south of Isleta Pueblo. The Los Padillas Spillway Diversion biofiltration swale will reduce sediment and stormwater pollutants entering the Rio Grande. The proposed Project would also return water to the Rio Grande that currently ponds and then either evaporates or infiltrates to groundwater, benefitting the silvery minnow. It is expected that the water entering the river at the Spillway Diversion will be cleaner and better oxygenated. The projected velocities of water flowing form the Spillway Diversion are within Corps' regulation non-erosive flows. Therefore, the proposed Project is expected to have minimal and potentially beneficial indirect effects on silvery minnow.

<u>Beneficial Effects</u>: The proposed Project is expected to return treated, oxygenated water to the Rio Grande during precipitation events. It is also expected to establish a backwater embayment that might serve as nursery habitat for the silvery minnow. Such habitat benefits the species through improved egg and larval retention, increased recruitment rates, and increased survival of both young of year and adult minnows. In the long term, the project is anticipated to have a beneficial effect on the silvery minnow and its habitat, contributing to the improvement of the status of silvery minnow into the future.

Based on the potential effects described above the Corps has determined that the proposed Project is not likely to adversely affect the endangered silvery minnow during construction.

6.3 Silvery Minnow Critical Habitat

When considered over space and time, the proposed Project is expected to have insignificant effects to Rio Grande silvery minnow critical habitat. Therefore, the proposed Project may affect, but is not likely to adversely affect silvery minnow critical habitat.

<u>Direct Effects</u>: The proposed Project will lower what is presently an isolated terrace of Rio Grande Bosque to the same elevation as the Rio Grande main channel. No PCEs of silvery minnow critical habitat currently exist in this area; however, actions of the proposed Project may encourage their development. The proposed Project will not preclude the formation of PCEs caused by westward river migration. Water quality is not expected to be significantly negatively affected by the proposed Project. Because of the small footprint of the proposed Project (approximately 0.5 acres), direct effects are likely to be insignificant.

<u>Beneficial Effects</u>: There may be positive, long-term impact on three of the four primary constituent elements of critical habitat for the silvery minnow. These include backwaters, shallow side channels, pools, and runs of varying depth and velocity; substrates of primarily sand and silt; and the presence of eddies created by debris piles, pools or backwaters, or other refuge habitat within unimpounded stretches of flowing water of sufficient length (i.e., river miles) that provide a variation of habitats with a wide range of depth and velocities. The proposed Project would create a backwater embayment that would have some water in it during high flows, would discharge during monsoon events in the summer, and would back-fill from the main channel during spring runoff. These habitats provide critical nursery habitat for silvery minnow eggs and larvae and enhance opportunities for silvery minnow recruitment. The proposed Project will return treated stormwater at non-erosive flows to silvery minnow critical habitat in the Rio Grande. Construction will be timed such that the river adjacent to the work area will be dry.

7.0 Conservation Measures

These items will be included in the Operation and Maintenance manual created for the proposed Project. This O&M manual will be provided to the USFWS.

1) The Non-Federal Project sponsors will not, at any time, take action to prevent the Rio Grande from migrating west. Regular O&M activities will be limited to the project footprint and not within the Rio Grande itself. Maintenance will be limited to only maintaining the bottom elevation of the Los Padillas Spillway Diversion and removing accumulated sediment at the flood gates and box culvert. Any other maintenance the Non-Federal Project sponsors determine necessary (e.g. rip rap or access road) would be coordinated with Reclamation.

2) The Non-Federal Project sponsors will monitor stormwater quality, including dissolved oxygen content, in the Los Padillas Spillway Diversion as well as in the Rio Grande both upstream and downstream. Stormwater quality monitoring is also a requirement of the NPDES MS4 permit issued by EPA and potential sample sites have been identified (Figure 7).



Figure 7. Proposed stormwater quality monitoring locations in compliance with NPDES permit and USFWS Endangered Species Consultation.

3) The Non-Federal Project sponsors will provide the USFWS with copies of all stormwater quality monitoring reports as well as the Stormwater Management Plan. Additionally, the USFWS will be invited to join Reclamation, the Corps, and EPA during 5-yr joint inspections of the proposed Project.

4) The Non-Federal Project sponsors will conduct periodic visual observations in the Los Padillas Spillway Diversion as well as the main Rio Grande channel in the vicinity for stressed or dead fish. This may be combined with monthly inspections required by Reclamation.

5) Should the Non-Federal Project sponsors encounter stressed or dead fish of any species, they will immediately contact USFWS and work collaboratively to determine the stressor and implement corrective action as appropriate.

6) The Los Padillas Spillway Diversion would include an approximately 7.5-acre biofiltration swale that would extend from the Los Padillas Drain to Isleta Boulevard. The biofiltration swale would be planted with alfalfa. The Non-Federal Project sponsors will ensure that this is maintained as designed.

7) The Non-Federal Project sponsors will employ a multi-step treatment train of stormwater pollution prevention features and BMPs to treat stormwater and safeguard Rio Grande water quality. These include but are not limited to educating the public, retaining sediment and floatables at drop inlets with snouts and sumps, water quality manholes, trash racks, spill kits, and biofiltration.

8) The Non-Federal Project sponsors will comply with all the terms of NPDES MS4 permit, including the development and adherence to a Stormwater Management Plan.

In coordination with the USFWS, a protocol to monitor presence/absence of silvery minnows in the Spillway Diversion following high flows, and to determine if changes to Spillway Diversion maintenance are warranted, would be developed.

The following are additional conservation measures that won't necessarily be in the Operation and Maintenance manual.

9) AMAFCA will pursue becoming a signatory to the Middle Rio Grande Endangered Species Act Collaborative Program. This affiliation would foster consultation between the nonfederal agencies involved in the Project and the USFWS.

10) Construction of the Los Padillas Spillway Diversion would take place during winter low flow periods and all construction equipment would remain at least 75 feet from the active edge of the river channel.

11) Fueling of vehicles would not take place in the Bosque.

12) Cleaning of all equipment is required prior to entering the site.

13) A Corps' Biologist would monitor the project during construction at the bank of the river in order to ensure excavation takes place at least 75 feet from the active edge of the river channel.

14) Construction activities would take place in designated areas only, avoiding any unnecessary damage to the riparian area.

15) Work within the Bosque would only occur between November 1 and May 1 in order to avoid nesting season.

16) Mature cottonwoods removed from the proposed Project Area would be replaced with sapling cottonwoods at a ratio of 10 saplings per each mature tree.

17) A wetland would be constructed at Durand Open Space in order to mitigate for the loss of land currently planted with wildlife forage crops.

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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

July 28, 2010

Cons. #22420-2010-I-0075

Julie Alcon, Chief, Environmental Resources Section U.S. Army Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, New Mexico 87109-3435

This responds to your letter dated July 19, 2010 transmitting a revised biological assessment (BA) of the Southwest Valley Flood Damage Reduction Project (Project), Albuquerque and Bernalillo County, New Mexico to comply with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1534 et seq.). The U.S. Army Corps of Engineers (Corps) is proposing to construct the Project (proposed action) and then convey operation and maintenance responsibilities to the non-federal Project sponsors, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) and Bernalillo County. The Corps has determined that the proposed action may affect, but will not adversely affect the endangered Rio Grande silvery minnow (*Hybognathus amarus*) (silvery minnow) or the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) (flycatcher). The Corps has also determined that the proposed action may affect, but will not adversely affect designated critical habitat of the silvery minnow. The flycatcher does not have designated critical habitat within the action area.

The Corps was authorized to conduct a study and, in April 2004, the Corps completed a feasibility report that addressed five objectives:

- Reduces the flood hazard that exists within the Southwest Valley floodplains within Albuquerque and Bernalillo County in order to preserve human life and reduce damages to existing property;
- Contributes to the preservation and enhancement of natural and beneficial values of fish and wildlife resources, wetlands, and aesthetic qualities;
- To the extent possible, avoids or minimizes, adverse impacts to the environment and cultural resources of the study area, and compensates for any unavoidable adverse effects caused by project implementation;
- Maintains water quality conditions within the study area; and
- Maintains existing open spaces to maximize public recreational opportunities.

The Project was authorized for construction by Congress in 2007. The proposed action would improve stormwater drainage in the Southwest Valley of Albuquerque and Bernalillo County by enlarging and linking existing agricultural drains, and excavating a new channel and spillway to the Rio Grande in order to evacuate stormwater from the project area. The project area is bounded by Central Avenue to the north, the Rio Grande to the east, Don Felipe Road to the south, and Coors Boulevard to the west.

On April 7, 2010, the Corps submitted a BA and requested formal consultation anticipating that proposed in-river construction work may affect individual silvery minnow. After coordination with biologists at the U.S. Fish and Wildlife Service New Mexico Ecological Services Field Office (Service) and revisiting proposed action plans, the Corps modified the Project to ensure all construction would be conducted in the dry. On May 17, 2010, the Corps submitted a revised BA and requested informal consultation. The Service reviewed the BA and submitted comments to the Corps on June 3, 2010. Corps responses to Service comments were received on July 6, 2010. The Service and the Corps continued consultation through meetings, email, and telephone calls on July 7, July 8, July 19 and July 26.

The Service concurs with the Corps' determinations that the proposed action "<u>may affect, not</u> <u>likely to adversely affect</u>" the flycatcher, the silvery minnow or its designated critical habitat. Our concurrence is based on the following understanding of the proposed Project:

- The nearest known breeding flycatchers occur along the Rio Grande at Isleta Pueblo, more than 4 miles south of the Los Padillas Spillway Diversion site. Currently, there is no suitable flycatcher habitat in or adjacent to the proposed Project area.
- The Rio Grande in the action area is occupied by silvery minnow but all work will be conducted in the dry. The proposed Los Padillas Spillway would be constructed directly within silvery minnow designated critical habitat. However, that particular site is not within the active floodplain and receives no river flow even at discharges of approximately 6,500 cfs. Being dry, the site does not currently support any of the critical habitat primary constituent elements. If the river were to migrate in the future, it is possible that the location could develop primary constituent elements. The proposed action is designed to not preclude those natural processes.
- The proposed action has the potential to benefit silvery minnow and its critical habitat by lowering a portion of the currently isolated terrace to construct the Los Padillas Spillway. When wetted, the inundated area will support additional habitat types that may be used by silvery minnow.
- The Los Padillas Spillway Diversion channel was originally designed to be constructed of articulated concrete block with wire-wrapped rip-rap sides. That design has been changed to an earthen bottomed channel with 12 inch rip-rap (not wire-rapped) sides with shallower slopes.

- All best management practices (BMPs) identified on page 11 of the revised BA dated July 19, 2010 will be implemented.
- AMAFCA and Bernalillo County will develop and implement BMPs to safeguard water quality during operation and maintenance of the proposed Project.
- Prior to using the Project as part of the Albuquerque Municipal Storm Sewer System (MS4), AMAFCA and Bernalillo County will obtain and comply with a National Pollution Discharge Elimination System (NPDES) permit from the U.S. Environmental Protection Agency (EPA).
- AMAFCA and Bernalillo County will develop a Storm Water Management Plan in accordance with their respective NPDES permits that will be reviewed and approved by EPA prior to implementation.

The proposed action will include the following conservation measures:

1) Construction of the Los Padillas Spillway Diversion will take place during winter low flow periods and all construction equipment will remain at least 75 feet from the active edge of the river channel.

2) A Corps' biologist will monitor the project during construction at the bank of the river in order to ensure excavation takes place at least 75 feet from the active edge of the river channel.

3) Fueling of vehicles will not take place in the Bosque.

4) Cleaning of all equipment is required prior to entering the site.

5) Construction activities will take place in designated areas only, avoiding any unnecessary damage to the riparian area.

6) Work within the Bosque will only occur between November 1 and May 1 in order to avoid nesting season.

7) Mature cottonwoods removed from the proposed Project Area will be replaced with sapling cottonwoods at a ratio of 10 saplings per each mature tree.

8) A wetland (approximately 0.57 acre in size) will be constructed at Durand Open Space in order to mitigate for the loss of land currently planted with wildlife forage crops.

Other conservation measures that will be implemented include:

9) AMAFCA will pursue becoming a signatory to the Middle Rio Grande Endangered Species Act Collaborative Program. This affiliation would foster consultation between the nonfederal agencies involved in the Project and the USFWS.

10) An Operation and Maintenance (O&M) manual will be developed by the Corps prior to turning the Project over to AMAFCA and Bernalillo County.

11) The Service may contribute to the development of the O&M manual, may add conditions to it, and will be provided the final O&M manual.

- 12) The O&M Manual will include the following:
 - a. The Non-Federal Project sponsors will not, at any time, take action to prevent the Rio Grande from migrating west. Regular O&M activities will be limited to the project footprint and not within the Rio Grande itself. Maintenance will be limited to only maintaining the bottom elevation of the Los Padillas Spillway Diversion and removing accumulated sediment at the flood gates and box culvert. Any other maintenance the Non-Federal Project sponsors determine necessary (e.g. rip rap or access road) would be coordinated with Reclamation.
 - b. The Non-Federal Project sponsors will monitor stormwater quality, including dissolved oxygen content, in the Los Padillas Spillway Diversion as well as in the Rio Grande both upstream and downstream. Stormwater quality monitoring is also a requirement of the NPDES MS4 permit issued by EPA and potential sample sites have been identified.
 - c. The Non-Federal Project sponsors will provide the USFWS with copies of all stormwater quality monitoring reports as well as the Stormwater Management Plan. Additionally, the Service will be invited to join Reclamation, the Corps, and EPA during 5-year joint inspections of the proposed Project.
 - d. The Non-Federal Project sponsors will conduct periodic visual observations in the Los Padillas Spillway Diversion as well as the main Rio Grande channel in the vicinity for stressed or dead fish. This may be combined with monthly inspections required by Reclamation.
 - e. Should the Non-Federal Project sponsors encounter stressed or dead fish of any species, they will immediately contact the Service and work collaboratively to determine the stressor and implement corrective action as appropriate.

- f. The Los Padillas Spillway Diversion will include an approximately 7.5-acre biofiltration swale that would extend from the Los Padillas Drain to Isleta Boulevard. The biofiltration swale would be planted with alfalfa. The Non-Federal Project sponsors will ensure that this is maintained as designed.
- g. The Non-Federal Project sponsors will employ a multi-step treatment train of stormwater pollution prevention features and BMPs to treat stormwater and safeguard Rio Grande water quality. These include but are not limited to educating the public, retaining sediment and floatables at drop inlets with snouts and sumps, water quality manholes, trash racks, spill kits, and biofiltration.
- h. The Non-Federal Project sponsors will comply with all the terms of NPDES MS4 permit, including the development and adherence to a Stormwater Management Plan.
- i. In coordination with the Service, a protocol to monitor presence/absence of silvery minnows in the Spillway Diversion following high flows, and to determine if changes to Spillway Diversion maintenance are warranted, will be developed.

Please contact the Service to verify the above determination and concurrence are still valid if: 1) future surveys detect listed, proposed or candidate species in habitats where they have not been previously observed; 2) the project is changed or new information reveals effects of the action to the listed species or their habitats to an extent not considered in these evaluations; or 3) a new species is listed that may be affected by this Project.

This concludes section 7 consultation on the proposed Southwest Valley Flood Damage Reduction Project. The Service appreciates the work undertaken by the Corps to incorporate modifications to the proposed action in order to minimize or avoid effects to endangered species and provide benefits to endangered species habitats when possible. The Service also commends the Corps for coordinating with the non-federal Project sponsors to ensure that future operations and maintenance of the Project will be protective of endangered species. In future communications regarding this memorandum or the proposed project please refer to Consultation #22420-2010-I-0075. If you have any questions concerning this memorandum, please contact Lori Robertson of my staff at (505) 761-4710.

Sincerely,

Wally Murphy Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

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Appendix H

Public Review Comments

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GOVERNOR Bill Richardson



DIRECTOR AND SECRETARY TO THE COMMISSION Tod Stevenson

Robert S. Jenks, Deputy Director

STATE OF NEW MEXICO DEPARTMENT OF GAME & FISH

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M.H. "DUTCH" SALMON, Commissioner Silver City, NM

THOMAS "DICK" SALOPEK, Commissione Las Cruces, NM

May 24, 2010

Att: Ms. Sarah Beck, Environmental Resources Section Department of the Army Albuquerque District, Corps or Engineers 4101 Jefferson Plaza NE Albuquerque, NM 87109-3435

Re: Storm water drainage improvements; NMDGF No. 13352

Dear Ms. Beck,

In response to your letter dated May 17, 2010, regarding the above referenced project the Department of Game and Fish (Department) does not anticipate significant impacts to wildlife or sensitive habitats with the exception of the Rio Grande silvery minnow which was mentioned in the letter. The Department recommends you contact our Endangered Fish Biologist (Dr. David Propst at 505.476.8103) and the US Fish and Wildlife Service (USFWS) regarding the silvery minnow. For your information, we have enclosed a list of sensitive, threatened and endangered species that occur in Bernalillo County.

For more information on listed and other species of concern, contact the following sources:

- 1. BISON-M Species Accounts, Searches, and County lists: http://www.bison-m.org
- 2. Habitat Handbook Project Guidelines: http://wildlife.state.nm.us/conservation/habitat handbook/index.htm
- 3. For custom, site-specific database searches on plants and wildlife, go to <u>http://nhnm.unm.edu</u>, then go to Data, then to Free On-Line Data, and follow the directions
- New Mexico State Forestry Division (505-476-3334) or <u>http://nmrareplants.unm.edu/index.html</u> for statelisted plants
- 5. For the most current listing of federally listed species **always** check the U.S. Fish and Wildlife Service at (505-346-2525) or <u>http://www.fws.gov/southwest/es/NewMexico/SBC.cfm</u>.

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Ross Morgan, Northwest Area Public Information Office at (505) 222-4707 or <u>ross.morgan@state.nm.us</u>.

Sincerely,

Jullat

Terra Manasco Assistant Chief, Conservation Services Division Technical Guidance Section

TLM/rm

xc: Wally Murphy, Ecological Services Field Supervisor, USFWS Brian Gleadle, NW Area Operations Chief, NMDGF

NEW MEXICO WILDLIFE OF CONCERN BERNALILLO COUNTY

For complete up-dated information on federal-listed species, including plants, see the US Fish & Wildlife Service NM Ecological Services Field Office website at http://www.fws.gov/ifw2es/NewMexico/SBC.cfm. For information on state-listed plants, contact the NM Energy, Minerals and Natural Resources Department, Division of Forestry, or go to http://nmrareplants.unm.edu/. If your project is on Bureau of Land Management, contact the local BLM Field Office for information on species of particular concern. If your project is on a National Forest, contact the Forest Supervisor's office for species information.

				<u>critical</u>
<u>Common Name</u>	<u>Scientific Name</u>	<u>NMGF</u>	<u>US FWS</u>	<u>habitat</u>
Rio Grande Chub	Gila pandora	S		
Rio Grande Silvery Minnow	Hybognathus amarus	E	E	Y
Brown Pelican	Pelecanus occidentalis	E		
Neotropic Cormorant	Phalacrocorax brasilianus	Т		
Bald Eagle	Haliaeetus leucocephalus	Т	Т	
Northern Goshawk	Accipiter gentilis	S	SOC	
Common Black-Hawk	Buteogallus anthracinus	т	SOC	
Aplomado Falcon	Falco femoralis	Е	Exp	
Peregrine Falcon	Falco peregrinus	т	SOC	
Mountain Plover	Charadrius montanus	s	SOC	
Black Tern	Chlidonias niger surinamensis		SOC	
Yellow-billed Cuckoo	Coccyzus americanus	S	С	
Mexican Spotted Owl	Strix occidentalis lucida	S	T	Y
Burrowing Owl	Athene cunicularia		SOC	
Black Swift	Cypseloides niger	s		
Broad-billed Hummingbird	Cvnanthus latirostris	Ť		
White-eared Hummingbird	Hvlocharis leucotis	Ť		
Southwestern Willow Flycatcher	Empidonax traillii extimus	Ē	Е	Y
Loggerhead Shrike	Lanius Iudovicianus	s	_	•
Bell's Vireo	Vireo bellii	Ť	SOC	
Grav Vireo	Vireo vicinior	Ť	000	
Baird's Sparrow	Ammodramus bairdii	Ť	SOC	
Western Small-footed Myotis Bat	Mvotis ciliolabrum melanorhinus	s		
Yuma Mvotis Bat	Mvotis vumanensis vumanensis	s		
Occult Little Brown Myotis Bat	Myotis lucifuaus occultus	s		
Long-legged Myotis Bat	Myotis volans interior	S		
Fringed Myotis Bat	Myotis thysanodes thysanodes	s		
Spotted Bat	Euderma maculatum	T		
Pale Townsend's Big-eared Bat	Corvnorhinus townsendii pallescens	s	SOC	
Big Free-tailed Bat	Nyctinomops macrotis	s		
Gunnison's Prairie Dog	Cynomys gunnisoni	S		
New Mexican Jumping Mouse	Zapus hudsonius luteus	F	SOC	
Red Fox	Vulnes vulnes	9	000	
Bingtail	Bassariscus astutus	9		
Black-footed Ferret	Mustela nigrines	5	F	
Western Spotted Skunk	Spilogale gracilis	9	-	
Socorro Mountainspail	Oreobelix neomexicana	3		
Slate Millinede	Comanchelus chibuanus	3	SOC	
olate Millipede	Contanoneius chinuanus		000	



Chair Trudy E. Jones City of Albuquerque Councilor, District 8

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Ex-Officio Member Pablo R. Rael Village of Los Ranchos Board Trustee

Executive Director Mark S. Sanchez

Website www.abcwua.org June 1, 2010

Ms. Sarah Beck Environmental Resources Section Albuquerque District U.S. Army Corps of Engineers 4101 Jefferson Plaza, N.E. Albuquerque, NM 87109

Re: Subject: Southwest Valley Flood Damage Reduction Draft Supplemental Environmental Assessment (EA)

Dear Ms. Beck:

The Albuquerque Bernalillo County Water Utility Authority (Water Authority) has reviewed the above-subject document. This letter provides our review comments.

The Water Authority supports improvements to reduce damage due to floods, which could potentially include damage to our potable water and sanitary sewer systems. A review of the selected flood damage reduction project facilities indicates that the Water Authority's existing infrastructure will be impacted at several locations by the Project's construction.

Exhibit 1 attached to this letter is a revised version of Figure 1 from the Draft Supplemental EA. It indicates numerous locations where the new, enlarged flood control drains will cross large existing sanitary sewer pipelines. The Water Authority anticipates having to redesign and reconstruct these pipelines at each of these locations. There are numerous other smaller sanitary sewer lines that will be impacted and require relocation that are not depicted on Exhibit 1.

A specific location where Water Authority facilities will be impacted is the existing sanitary sewer collection system along Isleta Boulevard. The Phase 1 construction of the Los Padillas Outfall will require that a 6-inch force main and an 8-inch vacuum sewer main be lowered at this crossing. The design of the vacuum collection system does not allow for large abrupt vertical changes in direction. Therefore, the Water Authority may have to construct a new vacuum pumping station to accommodate this change and/or redesign and construct a long (i.e., 400 feet) section of this line.

Exhibit 2 shows the locations where the new, enlarged flood control drains will cross large existing potable water pipelines. These crossings will also require design and reconstruction of these pipelines at each of these locations. There are also

numerous other smaller potable water lines that will be impacted and require reconstruction that are not depicted on Exhibit 2.

The Water Authority requests that the Corps identify each of the locations where the flood damage reduction project will impact sanitary sewer and potable water infrastructure. In addition, the Water Authority requests that the costs for redesigning and reconstructing these facilities be included as part of the project budget. The Water Authority understands that the cost sharing for the project is being done as 65 percent Federal and 35 percent non-Federal. We understand that part of the project costs are for rehabilitating and/or enlarging existing road-crossing to facilitate the proposed improvements and additions to the drainage system. The Water Authority feels that this work should include redesign and reconstruction of existing sanitary sewer and potable water infrastructure impacted by the project.

Sincerely,

John M. Stomp III, P(E

Chief Operating Officer

Enclosures



EXHIBIT 1: PROJECT IMPACTS TO EXISTING SANITARY SEWER FACILITIES NOTE: Not All Sewer Mains are Shown



EXHIBIT 2: PROJECT IMPACTS TO EXISTING POTABLE WATER FACILITIES NOTE: Not All Water Mains are Shown



NEW MEXICO ENVIRONMENT DEPARTMENT

Office of the Secretary



RON CURRY

Secretary

Sarah Cottrell

Deputy Secretary

BILL RICHARDSON Governor Harold Runnels Building 1190 Saint Francis Drive (87505) PO Box 5469, Santa Fe, NM 87502-5469 Phone (505) 827-2855 Fax (505) 827-2836 www.nmeny.state.nm.us

May 13, 2010

Julie Alcon, Chief Environmental Resources Section Department of the Army Albuquerque District, Corps of Engineers 4101 Jefferson Plaza, NE Albuquerque, NM 87109-3435

RE: Proposed Southwest Valley Flood Damage Reduction Project, Albuquerque

Dear Ms. Alcon:

Your letter regarding the above named project was received in the New Mexico Environment Department (NMED) and was sent to various Bureaus for review and comment. Comments were provided by the Ground Water Quality and Surface Water Quality Bureaus and are as follows.

Ground Water Quality Bureau

The Ground Water Quality Bureau (GWQB) staff reviewed the above-referenced letter as requested, focusing specifically on the potential effect to ground water resources in the area of the proposed project.

The letter states that the USACE is planning to implement the Southwest Valley Flood Damage Reduction Project in Albuquerque. The planned actions include: widening existing drains; constructing two new stormwater detention ponds; construction of new channels for the discharge of stormwater to the Rio Grande; and construction of a vegetated stormwater swale. The stormwater discharges associated with the Southwest Valley Flood Damage Reduction Project are exempt from the discharge permitting requirements of the Water Quality Control Commission Regulations in accordance with 20.6.2.3105.G NMAC. However, infiltration of stormwater contained in the detention ponds could result in the transport of water contaminants to ground water. If relatively shallow ground water conditions are anticipated to exist in the project area, the USACE may wish to consider the use of engineering controls (e.g., oil/water separators; synthetic liners) to minimize the potential for ground water quality impacts from the planned stormwater detention ponds.

Implementation of the flood damage reduction project will likely involve the use of heavy

equipment, thereby leading to a possibility of contaminant releases (e.g., fuel, hydraulic fluid, etc.) associated with equipment malfunctions. The GWQB advises all parties involved in the project to be aware of notification requirements for accidental discharges contained in 20.6.2.1203 NMAC. Compliance with the notification and response requirements will further ensure the protection of ground water quality in the vicinity of the project.

Surface Water Quality Bureau

The proposal calls for utilizing existing easements, widening existing drains, constructing two stormwater detention ponding areas, tie together two stormwater channels, and constructing a vegetated stormwater swale. The project is divided into four phases, each phase providing new construction to control and mitigate stormwater discharges from the City of Albuquerque and Bernalillo County into the Rio Grande River.

Overall, potential impacts on environmental resources are anticipated to be minimal under the proposed guidelines.

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I hope this information is helpful to you.

Sincerely,

Lagra Cleverler

Georgia Cleverley Environmental Impact Review Coordinator NMED File #3232