



STATE OF NEW MEXICO

OFFICE OF THE STATE ENGINEER

Santa Fe

John R. D'Antonio Jr., P.E.
State Engineer

BATAAN MEMORIAL BUILDING, ROOM 102
SANTA FE, NEW MEXICO 87504-5102
(505) 827-6120
FAX: (505) 827-6682

November 1, 2006

City of Santa Fe
P.O. Box 909
Santa Fe, NM 87504-0909
Attention: Galen Buller, Director, Sangre de Cristo Water Division

CERTIFIED MAIL
(70993400002010652408;
(70993400002010652392)

County of Santa Fe
205 Montezuma
Santa Fe, NM 87505
Attention: Stephen Wust, Director, Santa Fe County Utilities

Re: Permit No. SP 4842

Greetings:

Enclosed is your copy of the above referenced Permit to Divert San Juan-Chama Project which is approved **subject to compliance with all Conditions of Approval included in the attachment to the permit.**

If you are aggrieved by this decision you should advise this office in writing before the expiration of thirty (30) days after receipt of this letter and request that the previous action of the State Engineer be set aside and that a date for hearing be set by the State Engineer. Requests for hearing may be filed by facsimile, provided the original request is mailed and postmarked within 24 hours of the facsimile. The applicant must indicate the date and time of transmission of the facsimile and also provide a cover letter confirming that the original will be mailed within 24 hours.

Please contact me if you have any questions regarding this matter.

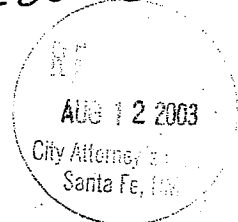
Sincerely,


Mary Young
Water Rights Division

Encl

SP 4842
TRN # 286022

**Application for Permit to Divert
San Juan-Chama Project Water in the State of New Mexico**



1. Co-Applicants

City of Santa Fe (City)
P. O. Box 909
Santa Fe, New Mexico 87504-0909
Attention: Galen Buller, Director, Sangre de Cristo Water Division, (505) 955-4200

County of Santa Fe (County)
605 Letrado
Santa Fe, New Mexico 87505
Attention: Gary Roybal, Director, Santa Fe County Utilities Department (505) 986-6210

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2. Quantity

Diversion Amount: 5,492.9 afy (5,605 afy minus 2% conveyance loss) ACS

Consumptive Use: 5,492.9 afy (5,605 afy minus 2% conveyance loss) ACS

3. Period of Annual Use

Continuous year-round diversion and use.

4. Point of Diversion

URV 00 X = 525,982 Y = 1,759,620

A. Physical Location: The new diversion intake structure will be located along the southeast river bank of the Rio Grande, approximately 3.3 miles downstream from the Highway 502 (Otowí) bridge, New Mexico State Plane Coordinates N1759663.52, E1666570.44, NAD 83. The location of the new diversion structure and associated facilities is illustrated in Attachment A.

B. Ownership of Property: The diversion will be constructed on lands owned by the United States Forest Service (USFS), subject to its approval. This approval is being sought concurrently through a process that includes the USFS preparation of an Environmental Impact Statement for the diversion structure and directly related water treatment and conveyance facilities.

C. Source of surface water supply: San Juan-Chama Project (SJCP) water.

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5. Purpose of Use

The purpose of use is to furnish a municipal water supply for the City and County of Santa Fe, New Mexico.

6. Place of Use

The City and County of Santa Fe.

7. Diversion Structure

The diversion structure is a screened pump intake that is conceptually illustrated in Attachment B and Attachment C. The diversion structure does not involve a dam or other flow barrier constructed across the river.

8. Hydraulic Properties of Main Canal or Pipeline

The water will be conveyed from the proposed diversion structure to a sediment removal facility and from there to a potable water treatment facility. See Attachment A for the general configuration and location of facilities related to this permit application.

9. Hydraulic Properties of Storage Dam

Not applicable.

10. Additional Statements or Explanations

The Co-Applicants have an urgent need to fully utilize their San Juan-Chama Project (SJCP) water by the direct diversion of this water from the Rio Grande in order to provide a reliable supply to the current and near term demands of their customers through 2010. All of the City's water currently is obtained from the Santa Fe River, a well field located within the City of Santa Fe, and the Buckman well field. Water provided to the County's water utility is primarily supplied by the City and the sources previously described. The combined current capacity of these three sources of supply is inadequate to provide a reliable supply to meet the current demands of the current customers of the City of Santa Fe municipal water system under existing adverse water supply conditions, which are expected to continue into the future. In addition to the current customer's demands, the Co-Applicants' ability to directly divert their SJCP allocation is a crucial component of their long-term regional water planning strategy to provide a reliable water supply to these customers.

This permit application seeks to obtain Office of the State Engineer (OSE) authorization to directly divert SJCP water from the Rio Grande in order to beneficially use this water more effectively. Although an existing OSE permit authorizes the use of the Co-Applicants' SJCP water, the City and County cannot fully access this water due to

the lack of an adequate physical means of diversion. As described more thoroughly herein, the current use of this SJCP water, which is used in part to offset Rio Grande depletions caused by pumping the Buckman well field, has not performed as originally intended due to groundwater flow constraints between the Rio Grande and the local aquifer.

This permit application thus seeks the direct diversion of all of the SJCP water contracted to the City and County in their 1976 Contract for Furnishing a Municipal Water Supply for the City and County of Santa Fe, New Mexico with Department of the Interior, Bureau of Reclamation. The diversion and consumptive use quantity for which OSE authorization is sought in this application is equal to 5,605 acre-feet per year, less an ^{ACE} 2% loss from the point of delivery at the outlet of Heron Dam to the Otowi stream gage. ^{ACE} The 2% loss factor is the adopted figure of the Rio Grande Compact Commission for the calculation of the amount of SJCP water released from Heron reservoir that is available at the Otowi stream gage. Losses downstream from the Otowi gage to the proposed diversion location are considered negligible due to the 3.3 mile distance and the nature of the river between these locations.

appropriate conveyance
the Co-Applicants acknowledge that a
ACE

The Co-Applicants request that the State Engineer give separate consideration to this permit application although it will likely be related to an anticipated application by Las Campanas. Former State Engineer Thomas C. Turney in 2001 directed the City, the County and Las Campanas to share a single Rio Grande surface water diversion structure. Similarly, the USFS, which owns the land on which the proposed new diversion structure will be located, is requiring these entities to share a single diversion structure and has denied further consideration of allowing each entity to build its own, separate diversion facility. Therefore, all three entities plan to divert water from the same structure, with separate metering and methods for water rights accounting. The Co-Applicants anticipate that Las Campanas will submit its own separate permit application for State Engineer consideration.

As authorized by OSE permit RG-20516, et. al., the City originally planned to access a portion of the SJCP water by diverting groundwater from the Buckman well field which is located in close proximity to the Rio Grande. Because the Rio Grande is fully appropriated, the City currently uses a portion of the SJCP water to offset depletions of the Rio Grande caused by the Buckman well field operations, thereby keeping the Rio Grande whole and impairing no user of Rio Grande water. These groundwater withdrawals, after a short transient period of withdrawal of groundwater stored in the aquifer, were expected to induce recharge of the aquifer from the Rio Grande, thus replenishing the aquifer and replacing the City's groundwater withdrawals.

Unfortunately, the system has not performed as expected due to groundwater flow constraints between the bed of the Rio Grande and the local aquifer. The result is that the Buckman well field is not capable of sustained production of groundwater in a manner that will preserve the long-term use of the aquifer while providing for the full use of SJCP water.

Thus, direct diversion and treatment for potable water supply is required in order for the City and County to fully place their SJCP water to beneficial use. Therefore, the City and County seek a point of direct diversion for what has already been authorized by the State Engineer; the diversion and consumptive use of the Co-Applicants' San Juan-Chama Project water.

ACS
The Co-Applicants seek the State Engineer's expedited approval of this application to directly divert and place to beneficial use their SJCP water in order to prevent water supply shortage through 2010 and in order to implement this critical component of the long-term regional water management strategy. The Co-Applicants also plan to seek State Engineer approval of additional permit applications or amendments after approval of this application to implement one or more of the following, but as yet insufficiently developed, concepts; return flow credits, aquifer storage and recovery of treated wastewater or other waters, and optimized conjunctive use management of water supply sources, and other projects. These and other long-term options and alternatives are being evaluated through the City and County long-term regional water management strategy. The long-term water management strategy is in initial preparation and the City and County intend to complete the strategy in 2004 and subsequently seek the necessary federal, state, and local approvals for its implementation. The time frame for identification, planning, obtaining the various required agency approvals, and construction of the projects required to meet the Co-Applicants' longer-term water supply needs necessitates an expedited approval of this permit.

ACS
The Co-Applicants further request that operational flexibility be authorized by the OSE in its approval of this application. Specifically, the Co-Applicants request authorization to divert only their SJCP water in a calendar year up to amounts twenty-five percent greater than the ~~5,492.9~~^{5,605} afy (referenced in item No. 2, above), provided that the five-year moving average of the annual diversion is not greater than ~~5,492.9~~^{5,605} afy. The Co-Applicants further propose that this moving average would be calculated as the total diversions for the most recent year, plus the previous four years, divided by five. ACS

The Co-Applicants acknowledge the appropriateness of permit conditions that will limit their diversions to the amount of SJCP water that is available for release from upstream storage reservoirs, reduced by conveyance losses to the point of diversion. The Co-Applicants also recognize that cooperation with federal and state entities will be required in order to arrange for releases of SJCP water from storage reservoirs for delivery to the direct diversion location. The City further acknowledges that it has other water needs that may need to be met with SJCP water. These may include the City's continuing obligation to offset the Rio Grande depletions caused by the Buckman Well Field and the potential need to store SJCP water by exchange in Nichols and McClure reservoirs when native water cannot be stored in those reservoirs due to Rio Grande Compact constraints.

Granting the Co-Applicants' application will not impair the water rights of other water rights owners. The water that the Co-Applicants seek a permit to divert and beneficially use is a portion of New Mexico's apportionment of the Colorado River

system that has been imported from the San Juan River tributary of the Colorado River to the Rio Grande basin through the San Juan-Chama Diversion Project. Because this water is not native to the Rio Grande system and because it is and has been dedicated to the City and County of Santa Fe for the purpose of furnishing a municipal water supply, no other entity can be impaired by the City and County's use of the SJCP water. This water may be completely and consumptively used by the City and County, including wastewater reuse.

Granting the Co-Applicants' application is not contrary to conservation of water within the State of New Mexico. Water conservation advocates frequently cite Santa Fe's per capita water use as a benchmark that other municipal water purveyors should strive to attain. The Co-Applicants are committed to making water conservation one of its highest permanent priorities and making sure that water conservation measures continue to be successful. Therefore, the diversion and use of this water is not contrary to the conservation of the public waters of New Mexico.

Granting this permit application will benefit and help protect the public welfare of the State of New Mexico. By approving the Co-Applicants' application the public welfare of the State will be benefited and protected because their application will enable the City and County to avoid the negative impact associated with water shortage and the inability to provide for their respective customers' short and longer-term water needs. This diversion permit application seeks to provide an additional diversion location for the Co-Applicants' San Juan-Chama Diversion Project water in order to avoid this adverse outcome.

NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO ADD A NEW POINT OF DIVERSION FOR
SAN JUAN-CHAMA PROJECT WATER IN THE STATE OF NEW MEXICO

ACKNOWLEDGEMENT FOR NATURAL PERSONS

I, Jan Romero affirm that the foregoing statements are true to the best of my knowledge and belief.

CITY OF SANTA FE

ATTEST:

By: [Signature]

By: Maria Chkey

I, Gerald Gonzalez affirm that the foregoing statements are true to the best of my knowledge and belief.

COUNTY OF SANTA FE

ATTEST:

By: [Signature]

By: [Signature]

ACTION OF STATE ENGINEER

This application is approved/denied/partially approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare; and further subject to the following conditions:

SEE ATTACHED CONDITIONS OF APPROVAL

Witness my hand and seal this 1st day of November, 2006

JOHN R. D'ANTONIO, JR., State Engineer

By: [Signature]
Mary Young
Water Rights Division

SP 4842
TR #
286022

CONDITIONS OF APPROVAL

Permittees: City of Santa Fe
Santa Fe County

OSE File No.: SP 4842

Date of Application: Application filed September 11, and October 28, 2003

Point of Diversion: New surface water point of diversion, known as the Buckman Direct Diversion (BDD), located on the Rio Grande within a 500 foot radius of a point where X=525,982 feet and Y=1,759,620 feet, NMCS, Central Zone, NAD 27, approximately 3.3 miles downstream from the Highway 502 (Otowi) Bridge.

Source of Water: Colorado River water apportioned to New Mexico for beneficial consumptive use by the Colorado Compact, 45 Stat. 1057, 1064 (1928) and the upper Colorado River Basin Compact 63 Stat. 31 (1949) and allocated to the City of Santa Fe, Santa Fe County, and Public Service Company of New Mexico by contract no. 7-07-50-X0879 (or any successor contracts as they may be numbered) between the United States Department of Interior, Bureau of Reclamation and the City of Santa Fe, Santa Fe County, and Public Service Company of New Mexico, dated November 23, 1976, and Amendment No. 1, dated August 3, 1979 (SJCP water).

Approval of this permit specifically excludes diversion by the permittee of any San Juan-Chama Project water owned by the City of Albuquerque and delivered to the City of Albuquerque by U.S. Bureau of Reclamation Contract No. 14-06-500-810 and Amendment No. 1, and permitted to the City of Albuquerque by State Engineer Permit 4830 and does not include up to 1,600 afy of SJC Project water leased in a term contract to Las Campanas.

Amount of Water: **Diversion**—Up to 5,492.9 afy of San Juan-Chama Project water, measured at the above described point of diversion.

Consumptive Use—Up to 5,492.9 afy of San Juan-Chama Project water, measured at the above described point of diversion.

Purpose of Use: Municipal water supply for the City and County of Santa Fe

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Place of Use: Within Santa Fe County

CONDITIONS OF APPROVAL

1. Permit No. 4842 shall not be exercised to the detriment of valid existing water rights or in a manner that is contrary to the conservation of water within the state or detrimental to the public welfare of the State of New Mexico.
2. The total annual diversion of San Juan-Chama Project surface water from the permitted point of diversion under this permit shall not exceed 5,492.9 afy. This amount is equal to the total San Juan-Chama Project water contract amount of 5,605 afy, less conveyance losses calculated as 2% of this total annual contract amount. Further provided that the maximum annual diversion amount may be adjusted as described by Condition No. 3.
3. The maximum annual diversion of San Juan-Chama Project Water under this permit may be increased by an amount up to 25% greater than 5,605 afy, provided the permittees, prior to the first day of the calendar year in which such increased diversion is desired, make formal written request for an increased diversion, and provide to the OSE/Water Rights Division written documentation satisfactory to the State Engineer that adequate stored water is available for release to allow for the increased diversion. All diversions under this permit, whether limited by Condition No. 2 or Condition No. 3, shall be subject to adjustment to account for conveyance loss as determined by the State Engineer.
4. The State Engineer expressly reserves the right to adjust the conveyance loss rate described in Condition Number 2 in accordance with the Rio Grande Compact Commission approved loss rate for conveyance of San Juan-Chama Project water between Heron Reservoir and the Otowi gage or as new information becomes available from any future carriage loss studies accepted by the State Engineer.
5. Prior to initial diversion of surface water from the Rio Grande at the Buckman Direct Diversion, and at any other times as required by the State Engineer, the permittees shall demonstrate to the satisfaction of the State Engineer that they have a sufficient supply of San Juan-Chama Project water immediately available for release, or in upstream storage, or other Rio Grande offsetting water rights acceptable to the State Engineer, available and reserved for offsetting residual and ongoing effects to the Rio Grande as a result of groundwater diversions under RG-20516 et al.
6. The permittees shall submit to the State Engineer/Water Rights Division, by the first day of each of the bi-monthly periods: January—February, March—April, May—June, July—August, September—October, and November—December, or such other time period as may be determined acceptable by the State Engineer, information concerning the upcoming

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period sufficient to determine that the amount of San Juan-Chama Project water the permittees have in storage or otherwise available is adequate to meet offset requirements and anticipated BDD diversions, including the following: (a) projected average daily total surface water diversions from the BDD and projected total ground water diversions from the Buckman well field; (b) projected deliveries of the permittees' San Juan-Chama Project water; and (c) the amount of San Juan-Chama project water the permittees have in storage and available to meet projected obligations, including offsets for residual and ongoing effects under Permit RG-20516 et al., and projected diversion under this permit.

7. If the information provided pursuant to Conditions of Approval 5 & 6 does not adequately establish that sufficient San Juan-Chama Project water, or other acceptable offsetting contract water, or retired Rio Grande water rights is available, the State Engineer may take such action as he deems necessary, including but not limited to, ordering the permittees to suspend diversion of surface water under this permit.
8. The maximum amount of San Juan-Chama Project water diverted in any day under this permit shall not exceed the amount of the permittees' San Juan-Chama water calculated to be in the Rio Grande at the BDD on that same day. The amount of the permittees' SJCP water available for diversion at the BDD on a particular day shall be calculated as the amount of water released from either Heron or El Vado Reservoir two days prior to diversion at the BDD, less a 2% conveyance loss or the amount of water released from Abiquiu Reservoir one day prior to diversion at the BDD less a 0.9% conveyance loss. The State Engineer expressly reserves the right to adjust the travel time periods as better information becomes available or based on river channel conditions. The permittees shall notify the State Engineer at the time releases of SJC water are ordered to be released or are ordered to be discontinued.
9. The permittees' maximum peak daily surface water diversion rate shall not exceed 32.0 cfs. The State Engineer recognizes that other external factors may further limit the actual diversion rate.
10. By March 1st of each year, the permittees shall, as separate entities, submit to the State Engineer a report of their per capita water usage for the prior calendar year, computed in accordance with protocols and methodology prescribed by and acceptable to the State Engineer's Water Use and Conservation Bureau.
11. Santa Fe County shall submit a formal Water Conservation Plan for approval by the State Engineer on or before two years from the date of approval of this permit.
12. The permittees shall, as separate entities, submit progress reports on their 40-Year Plan(s) and Water Conservation Plan(s) on or before January 10, 2010, and every 5 years thereafter, demonstrating the permittees are diligently pursuing reconciliation of projected water use demand with actual available sources of supply. Any water use calculations must be

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completed with appropriate protocols and methodology prescribed by and acceptable to the State Engineer's Water Use and Conservation Bureau.

13. All diversion of surface water under this permit shall be measured with totalizing meters. The permittees shall submit a measurement and metering plan, showing: 1) proposed totalizing meter locations, 2) make, model, serial number, number of dials, multipliers, and units of measure and 3) any other measurement or calibration information determined necessary, for State Engineer approval prior to installation of any meters, and prior to any diversion of water. All meters shall be equipped with continuous data recorders. The release and diversion data shall be made available to the public and the State Engineer on a real-time basis at intervals acceptable to the State Engineer. All meters and gages shall be calibrated in accordance with industry standards annually and the results shall be submitted to the Office of the State Engineer.
14. The permittees shall submit final plans for construction of the BDD diversion works and impoundment structures to the State Engineer for approval, prior to construction. In the event that the diversion works under this permit results in construction of a jurisdictional dam, then compliance under 19.25.12 NMAC shall be required. Prior to any diversion of surface water from the Rio Grande under this permit, the permittees must arrange for the State Engineer's inspection and approval of the diversion works, impoundment structures, and the meters and recorders required pursuant to Condition of Approval 13.
15. On or before the 10th day of each month, or such other times as may be determined acceptable by the State Engineer, the permittees shall submit to the Office of the State Engineer, a comprehensive report, both in writing and electronically, which includes the following data concerning the preceding monthly period: 1) the total amount of San Juan-Chama Project water released from Heron, El Vado, and/or Abiquiu reservoir(s) a) for direct diversion under this permit, b) for offset of depletion on the Rio Grande caused by the exercise of permit RG-20516, and c) released in exchange for post-Compact storage in the Santa Fe Canyon reservoirs; 2) the total amount of water diverted from all sources (i.e., the BDD and under Permit No. RG-20516 et al), and 3) the timing of releases of SJC Project water and the corresponding diversions.
16. Proof of Completion of Works shall be filed within four (4) years from the date of approval of this permit.
17. All diversion of water under this permit shall terminate upon the expiration of Bureau of Reclamation contract no. 7-07-50-X0879 on or before December 31, 2016. Further provided that the diversion of water under this permit shall not terminate on December 31, 2016, if a successor contract containing no expiration date is executed between the permittees and the Bureau of Reclamation. The permittees shall provide the Office of the State Engineer with a copy of any successor contract between the permittees and the Bureau of Reclamation.

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18. The State Engineer shall retain jurisdiction over this permit for the purpose of ensuring that exercise of the permit does not violate the forgoing Conditions of Approval, does not impair existing water rights, is not contrary to the conservation of water within the State and is not detrimental to the public welfare of the State of New Mexico.
19. The State Engineer recognizes the permittees (i.e., City of Santa Fe, Santa Fe County) are separate water supplying entities. As such, the State Engineer specifically reserves the authority to administer this permit and enforce the above Conditions of Approval accordingly.

Witness my hand and seal this 1st day of November 2006

JOHN R. D'ANTONIO, JR., P.E.
NEW MEXICO STATE ENGINEER

By: 
Mary Young
Water Rights Division

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'A' BDD Permit

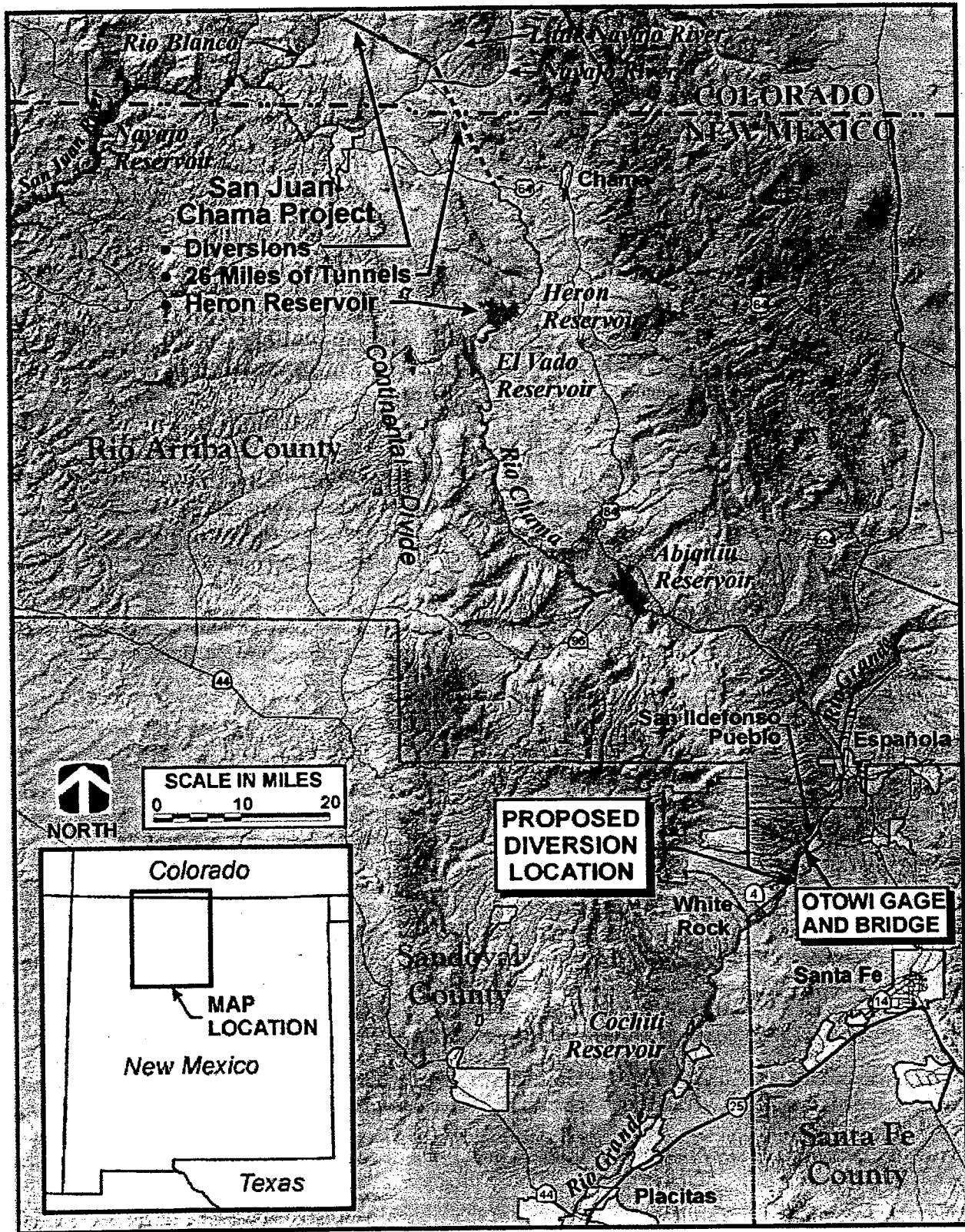


Figure 1.1-1. Vicinity Map

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'B' 800 Feet

1
2

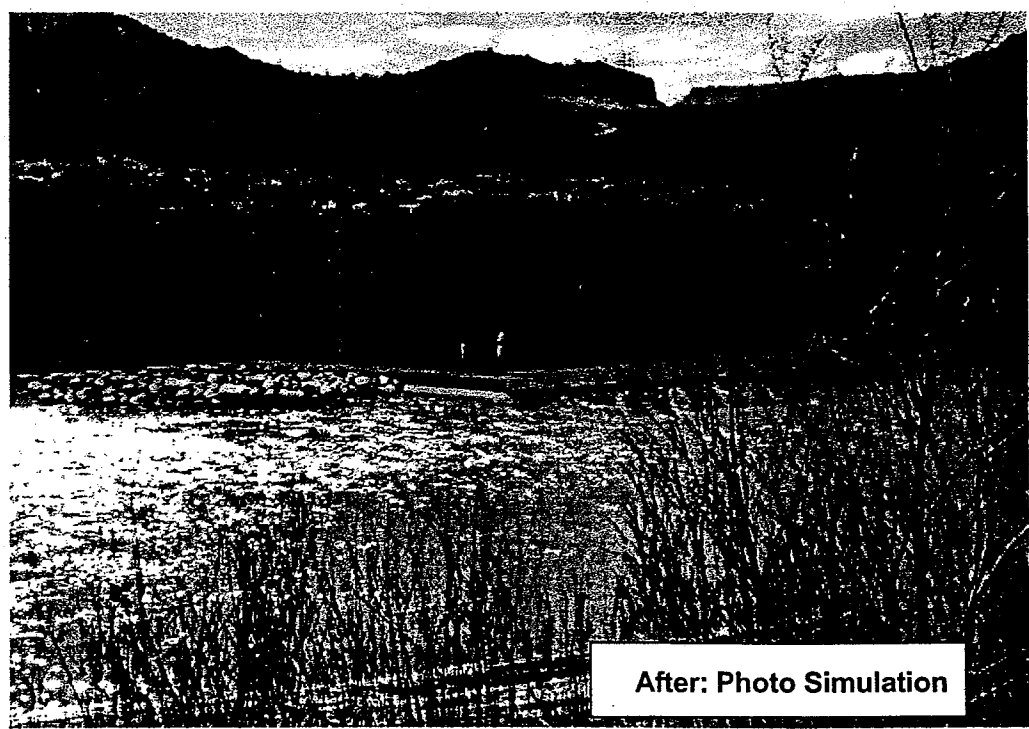
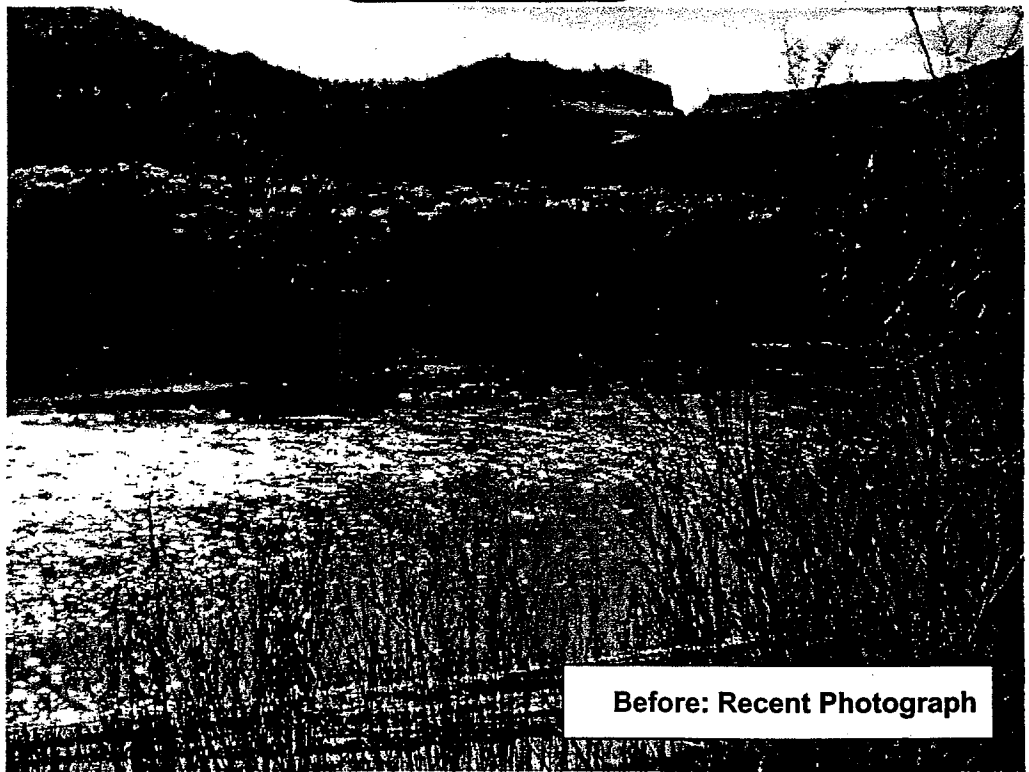


Figure 2.3-1. Photographic Simulation of the Project Site Showing Conditions Before and After Construction of the Diversion Structure, View from the Opposite River Bank.

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1
2
4' BDD Permit

1
2

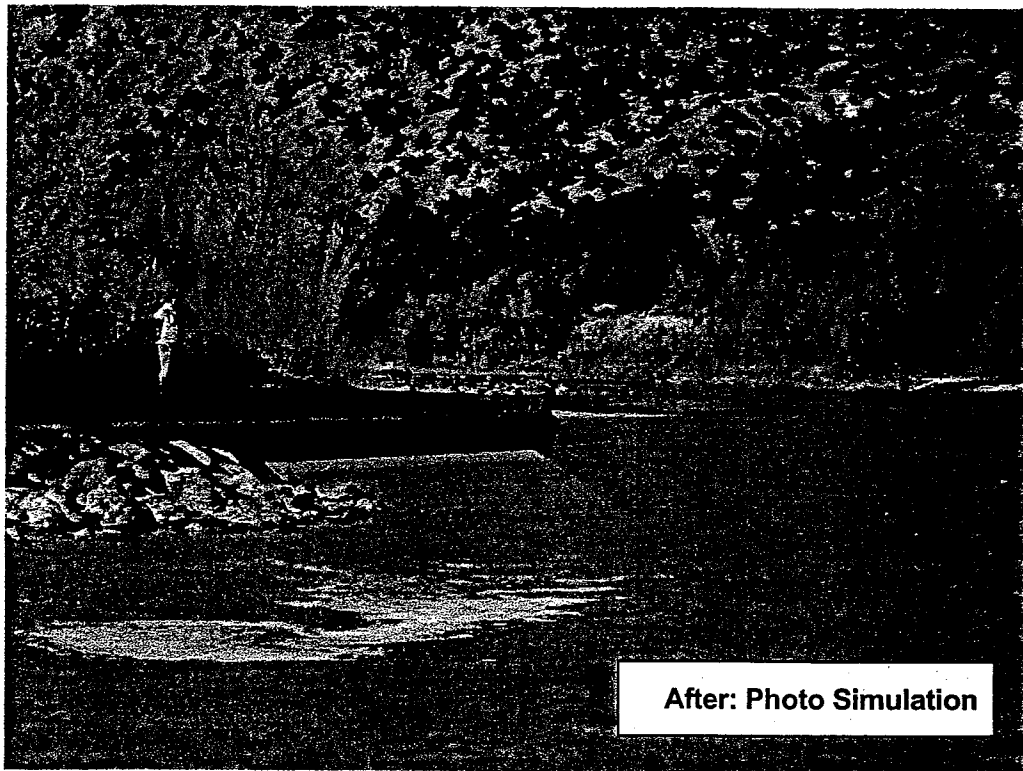
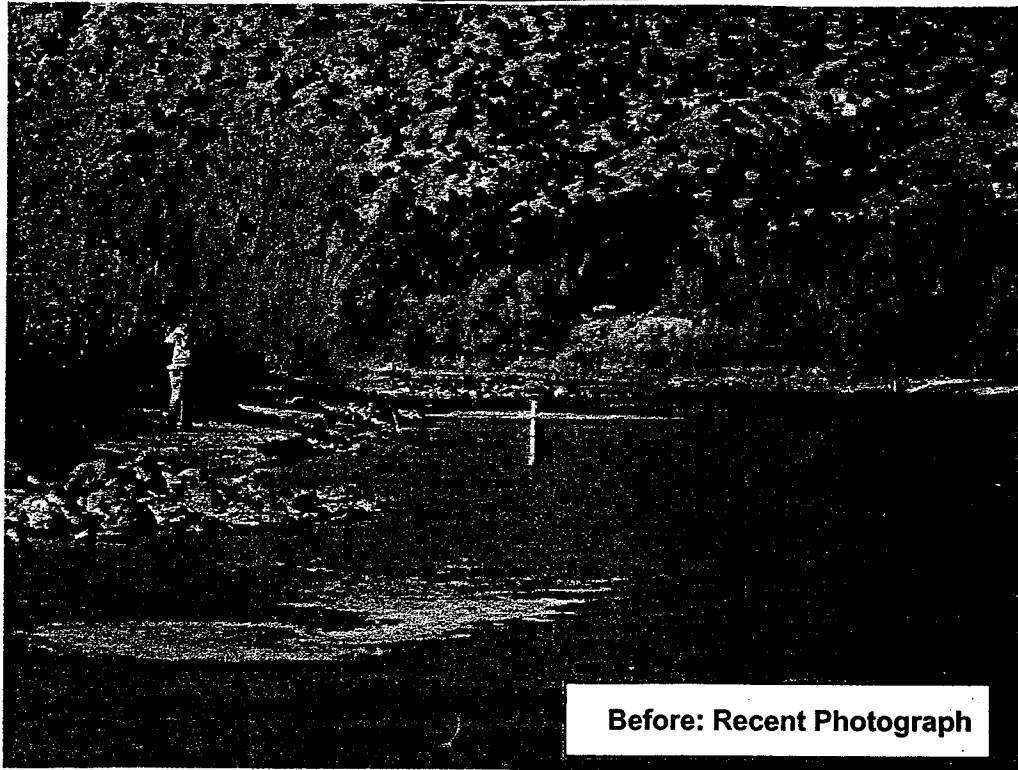


Figure 2.3-2. Photographic Simulation of the Project Site Showing Conditions Before and After Construction of the Diversion Structure, View Looking Downstream.

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