NPDES PERMIT NO. NM0027863
FACT SHEET

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT

Sandia Peak Ski & Tramway
10 Tramway Loop N.E.
Albuquerque, NM 87122

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY

Jim Afghani
Environmental Engineer
NPDES Permits & TMDLS Branch (6WQ-P)
Water Division
VOICE: 214-665-6615
FAX: 214-665-2191
EMAIL: afghani.jim@epa.gov

DATE PREPARED

July 20, 2015

PERMIT ACTION

Proposed reissuance of the current NPDES permit issued August 16, 2010, with an effective date of October 1, 2010, and an expiration date of September 30, 2015.

RECEIVING WATER – BASIN

Cañon de Domingo Baca – Rio Grande Basin

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
F&WS	United States Fish and Wildlife Service
mg/l	Milligrams per liter (one part per million)
ug/l	Micrograms per litter (one part per billion)
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
UV	Ultraviolet light
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Service
WLA	Wasteload allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued August 16, 2010, with an effective date of October 1, 2010, and an expiration date of September 30, 2015, are:

a. BOD5 and TSS percent removal limits have been added, in accordance with secondary treatment requirements at 40 CFR 133.102.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located 13 miles northwest of San Antonito, Bernalillo County, New Mexico.

Under the Standard Industrial Classification Code 7999, the applicant operates an aerial tramway including upper and lower terminal buildings and a restaurant.

Wastewater from the top terminal building and restaurant flows by gravity to the WWTP located 200 yards downhill. The flow enters a wet well housing a submersible pump. Liquid sensors in the wet well activate the pump which lifts wastewater to the aeration basin. The treatment is an aerated Sequencing Batch Reactor (SBR). The SBR runs off an automated timer that discharges approximately every 12 hours. Mixed liquor suspended solids are maintained at 3500 to 4000 mg/l. The SBR cycles include filling, aeration, settling and decant. Water decanted from the SBR enters a UV disinfection system. The bulbs and sleeves are changed annually. From the UV system, the effluent travels to the outfall. The design flow for the facility is 0.0075 MGD. Sludge is pumped from the aeration basin to an aerated sludge digester. Approximately twice a year the sludge is hauled by truck and taken to the Albuquerque Southside Water Reclamation Plant.

The discharge from the WWTP is to an unclassified reach of Cañon de Domingo Baca, thence to Arroyo de Domingo Baca thence to a classified reach of the Rio Grande in Segment 20.6.4.105 NMAC of the Rio Grande Basin. The discharge is located at Latitude 35° 11' 43" North, Longitude 106° 25' 59" West. A map of the facility is provided in **Figure 1** below.

III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2E received June 16, 2015, are presented below:

POLLUTANT TABLE - 1

Parameter	Max	Avg
	(mg/l unless noted)	
Flow, million gallons/day (MGD)	0.0049	0.00155
pH, minimum, standard units (SU)	6.9	7.42
pH, maximum, standard units (SU)	7.83	7.42
Biochemical Oxygen Demand, (BOD)	3.3	2.3
Fecal Coliform (bacteria/100 ml)	1011	1.95
Total Suspended Solids (TSS)	27	8

A summary of the last five years of pollutant data taken from DMRs indicates one exceedance of 30-day average of E. coli on March 31, 2014.

IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"; more commonly known as the "swimmable, fishable" goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The previous permit expired February 28, 2010. The application was received on January 22, 2010. The existing permit is administratively continued until this permit is issued.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 require that NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit. Technology-based effluent limitations are established in the proposed draft permit for TSS and BOD_5. Water quality-based effluent limitations are established in the proposed draft permit for E. coli bacteria and pH.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

The facility is a private WWTP treating sanitary and restaurant wastewater. The SBR technology is identical to POTW's that have technology-based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation. Based on the BPJ of the permit drafter, application of these technology-based limits represents BAT for the activity described. Pollutants with ELG's established in this Chapter are BOD, TSS and pH. BOD limits of 30 mg/l for the 30-day average and 45 mg/l for the 7-day average are found at 40 CFR §133.102(a). TSS limits; also 30 mg/l for the 30-day average and 45 mg/l for the 7-day average, are found at 40 CFR §133.102(b). ELG's for pH are between 6-9 s.u. and are found at 40 CFR §133.102(c). Regulations at 40 CFR §122.45(f)(1) require all pollutants limited in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTW's, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

Loading in lbs/day = pollutant concentration in mg/l * 8.345 lbs/gal * design flow in MGD
30-day average BOD/TSS loading = 30 mg/l * 8.345 lbs/gal * 0.0075 MGD
30-day average BOD/TSS loading = 1.88 lbs

A summary of the technology-based limits for the facility is:

Final Effluent Limits - 0.0075 MGD design flow.

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			
	lbs/Day		mg/l (unless noted)	
Parameter	30-Day Avg.	7-Day Avg.	30-Day Avg.	7-Day Avg.
Flow	N/A	N/A	Measure MGD	Measure MGD
BOD_5	1.88	2.82	30	45
TSS	1.88	2.82	30	45
pH	N/A	N/A	6.0 – 9.0 standard units	

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b) (1) (C) of the CWA, discharges are subject to effluent limitations based on

federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, effective June 5, 2013). The facility discharges into an unclassified reach of Cañon de Domingo Baca, thence to Arroyo de Domingo Baca thence to a classified reach of the Rio Grande in Segment 20.6.4.105 of the Rio Grande Basin. The segment closest to the discharge point is the Rio Grande in Segment 20.6.4.105. The description of this segment is "[T]he main stem of the Rio Grande from the headwaters of Elephant Butte reservoir upstream to Alameda Bridge and intermittent water below the perennial reaches of the Rio Puerco that enters the main stem of the Rio Grande." Cañon de Domingo Baca is an unclassified water and designated standards must be applied consistent with the CWA.

The CWA sections 101(a) (2) and 303(c) require water quality standards to provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, wildlife, and recreation in and on the water, functions commonly referred to as "fishable/swimmable" uses. EPA's current water quality regulation effectively establishes a rebuttable presumption that "fishable/swimmable" uses are attainable and therefore should apply to a water body unless it can be demonstrated that such uses are not attainable. EPA does not expect the State to adopt uses for ephemeral waters that cannot be attained, but in those instances, the State must submit a UAA to support an aquatic life designation that does not meet the CWA §101(a) (2) objective as required by 40 CFR 131.10(j) (1).

The known uses of Cañon de Domingo Baca are not those contained for Segment No.20.6.4.105, but based on the above, are for aquatic life, livestock watering, wildlife habitat and primary contact. The determination of coldwater or warmwater aquatic uses is based on the first downstream designation from the stream segment. The Rio Grande is the first designated stream, and it is designated as a warmwater aquatic use and based on this rationale Cañon de Domingo Baca will be evaluated for warmwater aquatic use.

4. Permit Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). State WQS that are more stringent than effluent limitation guidelines are as follows:

a. BACTERIA

Previous permits had effluent limitations for fecal coliform based on the pre-2005 WQS and those limitations became invalid after EPA approved the 2005 WQS. The draft permit proposes not to include a monitoring requirement and effluent limitation for fecal coliform because the WQS for fecal coliform was replaced with E. coli in the EPA approved NMWQS. The draft permit applies site-specific E. coli TMDL assigned to the facility- the daily limitation of 410 cfu/100 ml and 30-day average of 47 cfu/100 ml at the point of discharge.

b. pH

Stream segment specific (20.6.4.105 NMAC) WQS for pH range of 6.6 - 9.0 s.u., is more restrictive than the technology-based pH range, so WQ-based pH applies.

c. DO

Stream segment specific (20.6.4.105 NMAC) WQS for dissolved oxygen requires 5.0 mg/l or more. A steady state model (LA-QUAL) was used to evaluate the biochemical oxygen demand of the discharge. A complete characterization of the receiving water was not available. The evaluation demonstrated that the discharge would not cause an excursion of the in-stream standard of 5 mg/L.

d. TOXICS

i. General Comments

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criteria, the permit must contain an effluent limit for that pollutant.

All applicable facilities are required to fill out appropriate sections of the Form 2A, 2S or 2E, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to POTWs, but also to facilities that are similar to POTWs, but which do not meet the regulatory definition of "publicly owned treatment works" (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to "make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities," per the summary statement

in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL. The facility is designated as a minor, and does not need to fill out the expanded pollutant testing section Part D of Form 2A. There are no toxics that need to be placed in the draft permit except for those presented below.

ii. TRC

The facility uses UV to control bacteria. The previous permit maintained an 11 ug/l TRC limit in the event chlorine is used as treatment chemical for process equipment sanitization, bacteria backup control and/or filamentaceous algae control. This requirement will be maintained in the draft permit.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i) (1). Sample frequency is based on the NMIP. Technology based pollutants; BOD and TSS are proposed to be monitored once per month. Flow is proposed to be monitored continuously by totalizing meter. These frequencies are the same as the current permit. Sample type for BOD and TSS are grab which is consistent with the previous permit.

Water quality-based pollutant monitoring frequency for E. coli shall be once per month by grab sample which is the same as the previous permit. The pollutant pH shall be monitored daily, which is greater than the previous permit but is consistent with similar sized facilities, using instantaneous grab samples. When chlorine is used to disinfect treatment equipment and/or treat filamentaceous algae, TRC shall be sampled daily using instantaneous grab samples. Regulations at 40 CFR §136 define instantaneous grab as being analyzed within 15-minutes of collection.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP, March 2012. Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges. The Cañon de Domingo Baca is described as being an ephemeral waterbody; flowing only under periods of rapid snowmelt or when rainfall of long enough duration and/or intensity occur. Discharges into ephemeral streams for a minor WWTP require a one-time acute test at a 100% CD. The test species shall be *Daphnia pulex*. Testing shall be performed during the first year after the permit effective date and samples shall be taken during the period November 1 and April 30.

EFFLUENT CHARACTERISTIC	DISCHARGE MONITORING	
	30-DAY AVG MINIMUM	48-HOUR MINIMUM
Whole Effluent Toxicity Testing (48-Hour Static Renewal)		
Daphnia pulex	REPORT	REPORT

EFFLUENT CHARACTERISTIC	MONITORING REQUIREMENTS FREQUENCY	TYPE
Whole Effluent Toxicity Testing (48-Hour Static Renewal)		
Daphnia pulex	1/Permit Term	24-Hr. Composite

VI. FACILITY OPERATIONAL PRACTICES

A. SEWAGE SLUDGE

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in 40 CFR Part 503 "Standards for the Use or Disposal of Sewage Sludge." EPA may at a later date issue a sludge-only permit. Until such future issuance of a sludge-only permit, sludge management and disposal at the facility will be subject to Part 503 sewage sludge requirements. Part 503 regulations are self-implementing, which means that facilities must comply with them whether or not a sludge-only permit has been issued. Part IV of the draft permit contains sewage sludge permit requirements.

B. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The treatment plant has no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). The EPA has tentatively determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been required. The facility is required to report to EPA, in terms of character and volume of pollutants any significant indirect dischargers into the POTW subject to pretreatment standards under §307(b) of the CWA and 40 CFR Part 403.

D. OPERATION AND REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

VII. 303(d) LIST

The Cañon de Domingo Baca and the Arroyo de Domingo Baca are not listed on the 2008-2010 State of New Mexico CWA §303(d)/§305(b) Integrated Report. Additional permit conditions are not needed at this time to address impaired water issues. The standard reopener language in the permit allows additional permit conditions if warranted by future changes.

VIII. ANTIDEGRADATION

The NMAC, Section 20.6.4.8 "Antidegradation Policy and Implementation Plan" sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l) (i) (A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the mass loading requirements of the previous permit for BOD and TSS. The pollutant pH has been made stricter and E. coli bacteria have been made more stringent than the previously used fecal coliform. The change from fecal coliform bacteria to E. coli does not constitute antibacksliding since only the indicator bacteria have changed.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US FWS, Southwest Region 2 website, http://ecos.fws.gov/tess_public/reports/species-by-current-range-county?fips=35001, six species in Bernalillo County are listed as endangered or threatened. The Southwestern willow flycatcher (*Empidonax traillii extimus*), Rio Grande Silver Minnow (Hybognathus amarus) and New Mexico meadow jumping mouse (Zapus hudsonius luteus) are listed as endangered. The Yellow-billed Cuckoo (Coccyzus americanus) and Mexican spotted owl (*Strix occidentalis lucida*) are listed as threatened.

The American bald eagle (*Haliaeetus leucocephalus*) was previously listed as endangered; however, the USFWS removed the American bald eagle in the lower 48 states from the Federal List of Endangered and Threatened Wildlife Federal Register, July 9, 2007, (Volume 72, Number 130).

In accordance with requirements under section 7(a) (2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. After review, EPA has determined that the reissuance of this permit will have "*no effect*" on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

1. Consultation #2-22-01-I-101 with the USFWS, February 2, 2001, concurred with EPA's "no effect" determination regarding the discharge from the facility on threatened and endangered species and their habitat.

2. No additions have been made to the USFWS list of threatened and endangered species and critical habitat designation in the area of the discharge since prior issuance of the permit.

3. EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations.

4. EPA determines that items 1 thru 3 result in no change to the environmental baseline established by the previous permit, therefore, EPA concludes that reissuance of this permit will have "no effect" on listed species and designated critical habitat.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if State Water Quality Standards are promulgated or revised. In addition, if the State amends a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL. Modification of the permit is subject to the provisions of 40 CFR §124.5.

XIII. VARIANCE REQUESTS

No variance requests have been received.

XIV. CERTIFICATION

The permit is in the process of certification by the State Agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XV. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XVI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Form 2E received June 16, 2015.

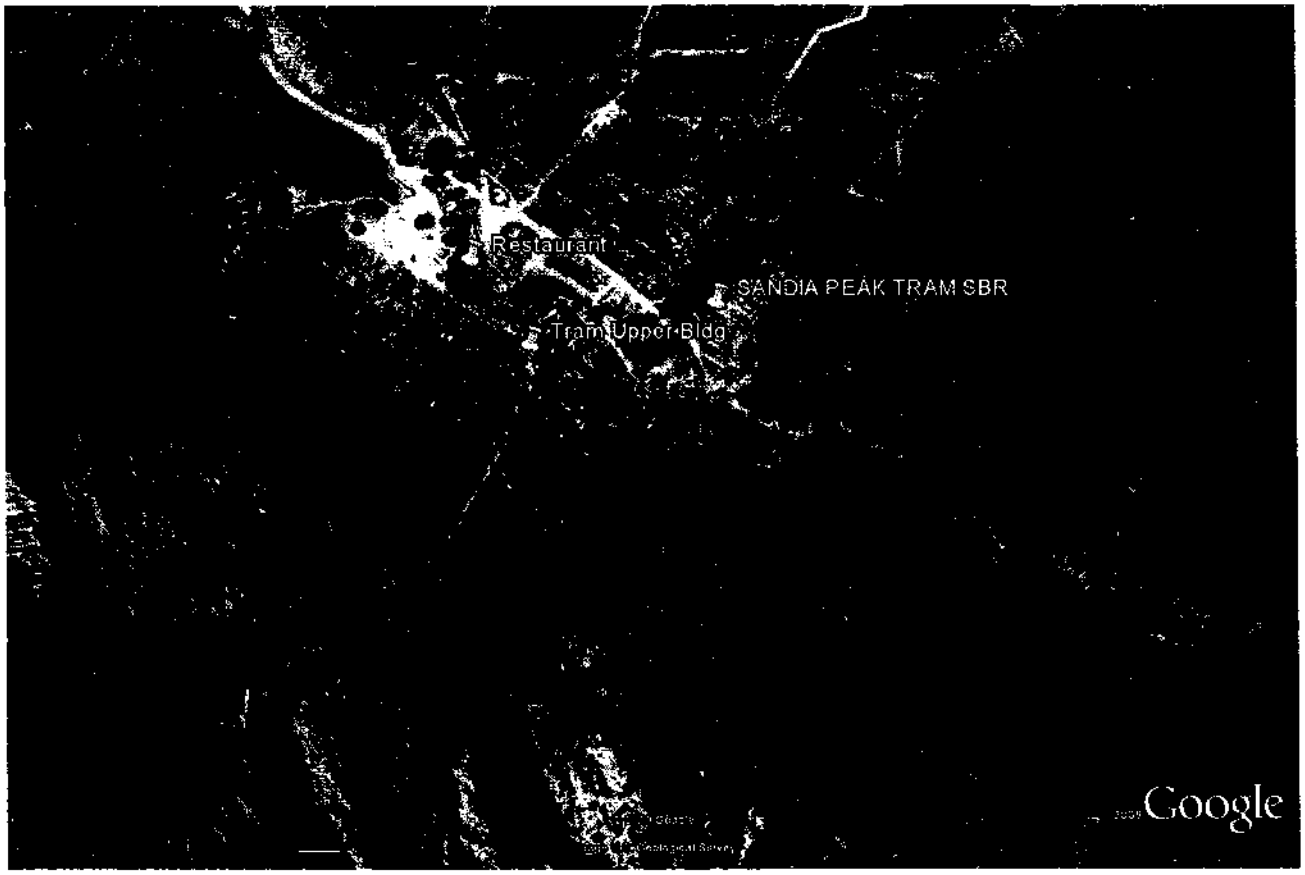
B. 40 CFR CITATIONS

Citations to 40 CFR are as of January 20, 2010.
Sections 122, 124, 125, 133, 136

C. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as effective through June 5, 2013.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 15, 2012.

Statewide Water Quality Management Plan, December 17, 2002.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2008 - 2010.