NPDES PERMIT NO. NM0029891
FACT SHEET

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

APPLICANTS

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ISSUING OFFICE

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PREPARED BY

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DATE PREPARED

April 05, 2021

PERMIT ACTION

EPA is proposing reissuance of the current permit issued July 28, 2016, with an effective date of September 1, 2016 and an expiration date of August 31, 2021.

RECEIVING WATER- BASIN

An ephemeral reach of Raton Creek, thence to the classified, perennial reach of Raton Creek, thence to Chicorica Creek, thence to the Canadian River.

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
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
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
ng/l	Nanograms per liter (one part per trillion)
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
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 to the permit previously issued on July 28, 2016, with an effective date of September 1, 2016 and an expiration date of August 31, 2021 include

- WET testing (48-Hour Acute) replacing WET testing (7-Day Chronic) monitoring has been added; and,
- Sewage Sludge Requirements (Part IV of the permit) have been removed.

II. APPLICANT LOCATION AND ACTIVITY

Under Standard Industrial Classification (SIC) Code 4941, the applicant currently operates a surface water treatment plant. This plant intakes and treats about 4 MGD of Lake Maloya surface water using coagulation, flocculation, sedimentation, filtration, and disinfection processes. Filter backwash water and filter-to-waste water flow to a reclaimed tank and an evaporating basin. The facility is designed for total reuse of wastewater and has not discharged since 2001. However, this permit is issued for the unlikely event that a discharge may occur when the system cannot reclaim all backwash water. The design flow rate, as reported in the permit application, is 0.08 MGD.

Filter backwash sludge is managed by sending all plant discharged flows from the backwash system into a settling basin. The sludge is periodically removed from the settling basin and may be further dewatered in sludge drying beds prior to transfer of the alum sludge solid to a city owned land-application site.

Appendix 1 shows an aerial view of the plant and schematic of the facility.

The facility is located at 1350 North First Street, Raton, New Mexico. According to NMED, the effluent from the site is discharged into an ephemeral Arroyo, thence to Raton Creek, thence to Chicorica Creek, thence to the Canadian River in Segment 20.6.4.305. The discharge is located on that water at Latitude 36º 55’ 6.27” North and Longitude 104º 26’ 1.95” West, in Colfax County, New Mexico.

III. EFFLUENT CHARACTERISTICS

The facility did not submit any effluent data with its March 24, 2021 application since the facility has not discharged since 2001.

IV. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

The proposed effluent limitations for those pollutants proposed to be limited are based on regulations promulgated at 40 CFR 122.44. The draft permit limits are based on either technology-based effluent limit pursuant to 40 CFR 122.44(a), on BPJ in the absence of guidelines, NM WQS and/or requirements pursuant to 40 CFR 122.44(d), whichever are more stringent.

A. Technology-Based Versus Water Quality Standards-Based Effluent Limitations and Conditions

Following regulations promulgated at 40 CFR 122.44, the draft permit limits are based on either technology-based effluent limit pursuant to 40 CFR 122.44(a) or on State WQS and requirements pursuant to 40 CFR 122.44(d), whichever are more stringent.

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 effluent limitations guidelines where applicable, on BPJ in the absence of guidelines, or on a combination of the two.

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 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.

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC effective September 12, 2018). According to NMED, the facility discharges into an ephemeral Arroyo, thence to Raton Creek, thence to Chicorica Creek, thence to the Canadian River in segment 20.6.4.305 of the Canadian River Basin according to the State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC. The description of this segment is “[T]he

main stem of the Canadian river from the headwaters of Conchas reservoir upstream to the New Mexico-Colorado line, perennial reaches of the Conchas River, the Mora river downstream from the USGS gaging station near Shoemaker, the Vermejo River downstream from Rail Canyon and perennial reaches of Raton, Chicorica and Uña de Gato creeks." Raton Creek's designated standards must be applied consistent with the CWA. This segment includes the designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

4. Permit Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR 122.44(d) require water quality-based, where appropriate, limits in addition to, or more stringent than effluent limitation guidelines (technology based). NM WQS that are applicable for this discharge are based on 20.6.4 NMAC.

For water segment 20.6.4.305 NMAC, there is a specific WQS range for pH, so a pH range of 6.6 – 9.0 is established based on the water segment-specific criteria. The facility has not discharged since 2001. The requirements for monitoring and an effluent limitation for TRC in the previous permit remain in the draft permit. Grab sampling once a week, when discharging, is continued from the previous permit.

The permittee uses aluminum sulfate in its water treatment process. The reasonable potential presented by the submitted data indicates the aluminum concentration in the evaporation pond reclaim water exceeds the water quality standards. The facility has not discharged since 2001. Due to the infrequent nature of the discharge, no aluminum limits will be in the proposed permit. However, the proposed permit requires the permittee to monitor its effluent, when discharging, at a frequency of once a week using grab sampling.

The applicant did not submit data for Total Gross alpha and Tritium, which have been determined by New Mexico as livestock watering criteria. EPA proposes effluent limitations for these pollutants at 15 pCi/l and 20,000 pCi/l respectively. During the period of public notice, if the permittee provides two sets of data for each pollutant, EPA can calculate reasonable potential for these parameters and determine if the limits are still needed in the final permit. The proposed permit requires the permittee to monitor its effluent, when discharging, at a frequency of once per permit cycle using grab sampling.

Parameter	Issue	EPA MQL	Daily Max	Concern
Gross Alpha	No Data	N/A	15 pCi/l	Livestock Watering
Tritium	No Data	N/A	20,000 pCi/l	Livestock Watering

5. Monitoring Frequency for Parameters

Due to the infrequent nature of the discharge, the previous permit required the permittee to monitor its effluent for Aluminum, when discharging, at a frequency of once/week using grab sampling. Total Gross alpha and tritium shall be monitored as report only once per permit term by grab sample, when discharging. The Gross alpha and tritium monitoring requirements in the previous permit remain in the proposed permit.

6. Whole Effluent Toxicity Requirements

The facility discharges to an ephemeral Arroyo with some flow after some storm events during the year. According to NMED, this waterbody is an ephemeral reach of Raton Creek and the segment closest to the discharge point is the Canadian River in Segment 20.6.4.305. The 4Q3 for the receiving water is zero (0) cfs. Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP. Table 11 (page 42) of the NMIP outlines the type of WET testing for different types of discharges. Based on the nature of the discharge, a minor industrial, the design flow of 0.08 MGD, and the nature of the receiving water, ephemeral with the critical dilution of 100%, the NMIP directs the WET test to be a 48-hour acute test using Daphnia pulex at once every 5 years. Since there was no discharge during the existing permit term, data is not available to determine RP.

The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical low-flow dilution) is defined as 100% effluent. Discharges shall be limited and monitored by the permittee as specified in Table 3.

During the period beginning the effective date of the permit and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 - the discharge to ephemeral reach of Raton Creek of the treatment system aeration basin. Discharges shall be monitored by the permittee as specified below:

Table 3:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
WET Testing (48hr Static Renewal)[1]	30-day Avg Min	48hr Minimum	Frequency	Type
Daphnia pulex	Report	Report	Once/ 5 years[2]	Grab

[1] Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

[2] The test shall take place between November 1 and April 30. 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 failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

7. SEWAGE SLUDGE

40 CFR Part 503 "Standards for the Use or Disposal of Sewage Sludge" regulate sewage sludge that is applied to land, fired in a sewage sludge incinerator and/or placed on a surface disposal site. It includes pollutant limits, requirements for pathogen and vector attraction reduction, management practices, monitoring, recordkeeping, and reporting among other requirements. 40 CFR Part 503 applies to any person or wastewater treatment works that prepares sewage sludge, applies sewage sludge to the land, fires sewage sludge in an incinerator, and the owners and operators of surface disposal sites. Raton Water Filtration Facility is a drinking water plant that does not treat domestic sewages. The requirements established in 40 CFR 503 do not apply to drinking water facilities. EPA proposes to remove Sewage Sludge Requirements (Part IV) in the draft permit.

V. 303(d) LIST

The receiving waterbody is listed on the current "2018 - 2020 State of New Mexico 303(d) List for Assessed River/Stream Reaches for not meeting the marginal warmwater aquatic life attributed to nutrients for which the suspected sources are animal feeding operations, flow alterations from water diversions, and rangeland grazing. A TMDL has been developed and approved by EPA. The facility has not discharged since 2001. No plant nutrient data from DMR are available for this facility. The Raton WFF is not expected to cause or contribute to the plant nutrient impairment, therefore the TMDL did not assign any WLA to the facility.

VI. 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.

VII. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet the Antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR 122.44(1)(2)(i)(B), which state in part, that the interim or final effluent limitations must be as stringent as those in the previous permit, unless information is available which was not available at the time of permit issuance. The proposed permit does not relax any effluent limitations.

VIII. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS) species report database for Colfax County, NM, website http://ecos.fws.gov/tess_public/reports/species-by-current-range-county?fips=35007, seven species in Colfax County are listed as endangered (E) and threatened (T):
They are the Yellow-billed Cuckoo (T) (*Coccyzus americanus*), the Southwestern willow flycatcher (E) (*Empidonax traillii extimus*), the Mexican spotted owl (T) (*Strix occidentalis lucida*), Piping Plover (*Charadrius melodus*) (T), Black-footed ferret (Mustela nigripes) (E), New Mexico meadow jumping mouse (E) (*Zapus hudsonius luteus*), and Canada Lynx (T) (*Lynx Canadensis*).

In 2001, EPA issued this permit with a "no effect" determination after evaluating the likely effect of this discharge on listed threatened and endangered species. EPA is unaware of any new information, to include comments received during the 2001, 2005,2010, and 2016 permit public comment period that would change EPA's determination of "no effect" of the discharge to listed species and designated critical habitat. As the discharge volume is unchanged, EPA has determined that a re-issuance of this permit will have "no effect" on listed threatened and endangered species and will not adversely modify designated critical habitat.

IX. 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.

X. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if State/Tribal Water Quality Standards are promulgated or revised. In addition, if either the State and/or Tribe develops 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.

XI. VARIANCE REQUESTS

No variance requests have been received.

XII. 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.

XIII. FINAL DETERMINATION

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

XIV. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. Application(s)

Application received March 24, 2021.

B. 40 CFR Citations

§§ 122, 124

B. State of New Mexico References

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, effective September 12, 2018.

2018-2020 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report.

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

US EPA Approved Total Maximum Daily Load (TMDL) for the Canadian River Watershed, September 18, 2019.

Narrative Toxics Implementation Guidance – Whole Effluent Toxicity, December 16, 2005.

APPENDIX 1

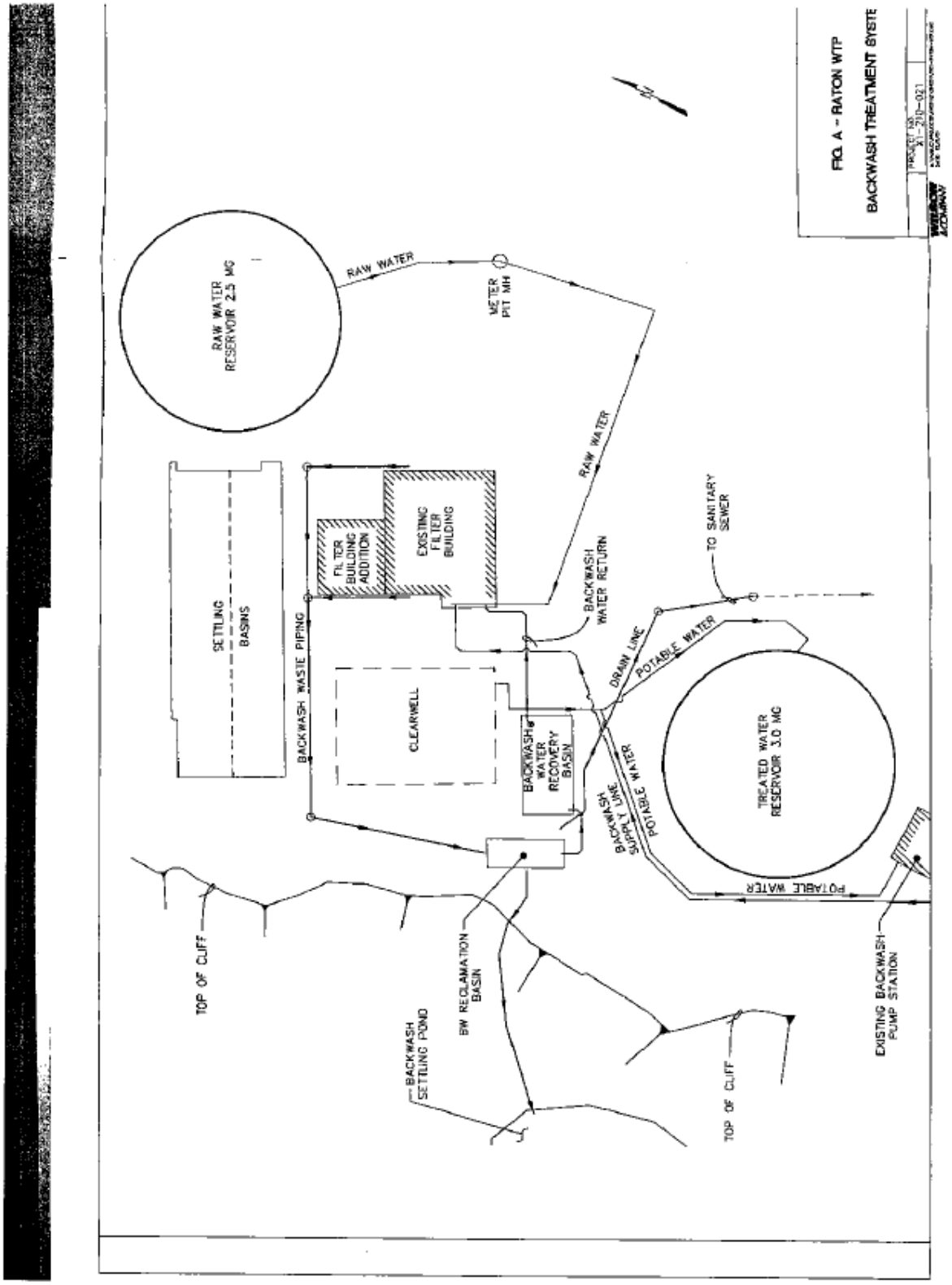
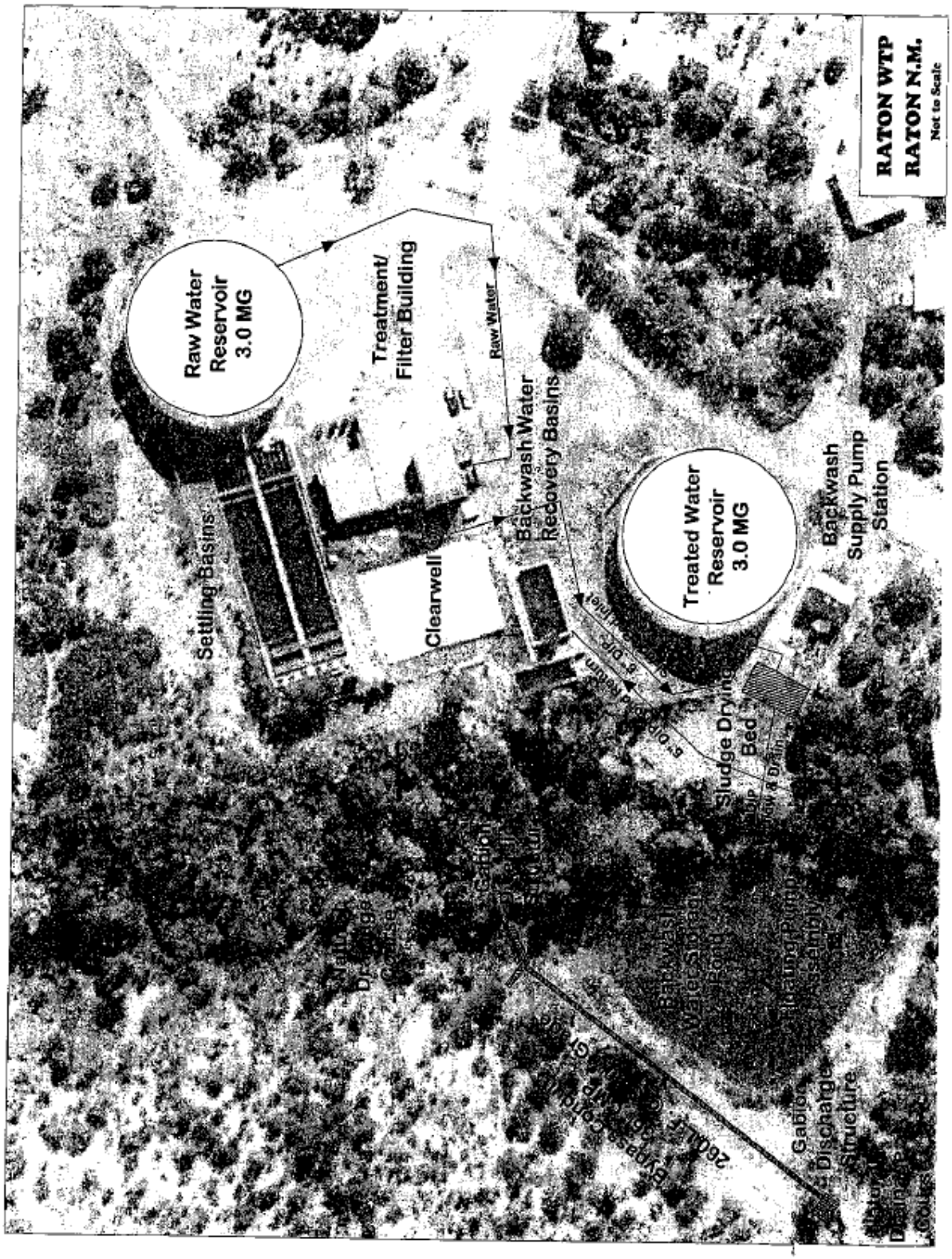


FIG. A - RATON WTP
BACKWASH TREATMENT SYSTE
RAW WATER RESERVOIR 2.5 MG
RAW WATER
METER PIT MH
RAW WATER
SETTLING BASINS
FILTER BUILDING ADDITION
EXISTING FILTER BUILDING
TO SANITARY SEWER
BACKWASH WATER RETURN
DRAIN LINE
POTABLE WATER
BACKWASH WASTE PIPING
CLEARWELL
BACKWASH WATER RECOVERY BASIN
BACKWASH SUPPLY LINE
POTABLE WATER
TREATED WATER RESERVOIR 3.0 MG
POTABLE WATER
TOP OF CLIFF
BW RECLAMATION BASIN
BACKWASH SETTLING POND
TOP OF CLIFF
EXISTING BACKWASH PUMP STATION


RATON WTP
RATON N.M.
Not to Scale
Raw Water Reservoir 3.0 MG
Treatment/ Filter Building
Raw Water
Settling Basins
Clearwell
Backwash Water Recovery Basins
Treated Water Reservoir 3.0 MG
Backwash Supply Pump Station
Sludge Drying Bed
Gabion Discharge Structure