

# STATE OF COLORADO

Bill Owens, Governor  
Dennis E. Ellis, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.      Laboratory Services Division  
Denver, Colorado 80246-1530      8100 Lowry Blvd.  
Phone (303) 692-2000      Denver, Colorado 80230-6928  
TDD Line (303) 691-7700      (303) 692-3090  
Located in Glendale, Colorado

<http://www.cdphe.state.co.us>



Colorado Department  
of Public Health  
and Environment

January 9, 2006

Randy Crittenden, Coordinator  
City Of Boulder,  
1094 Betasso Road  
Boulder, CO 80302

**Re: Permit Conversion**  
**Permit Number: COG-641064 (formerly COG-640064)**

Dear Mr. Crittenden:

The Division has determined that this operation should be covered under a **General Permit for Domestic Wastewater Treatment Facilities**. Your new permit number will be COG-641000, your new facility number will be COG-641064. All future correspondence should reference your facility number.

Enclosed please find a copy of your certification and permit which was issued under the Colorado Water Quality Control Act. This permit requires that specific actions be performed at designated times. You are legally obligated to comply with all terms and conditions of the permit. It is especially important to note the effective date, which can be found on page one of the Certification. It is illegal to discharge per the conditions of this permit until that date.

Please read the permit and if you have any questions contact this office at (303) 692-3590.

Sincerely,

Debbie Jessop, Administrative Assistant  
Water Quality Protection Section  
WATER QUALITY CONTROL DIVISION

Enclosure

xc: Regional Council of Government  
Boulder County Local Health Department  
Cary Pilon, D.E., Technical Services Unit, WQCD  
Permit File  
Permit Fees

/lh

conv

**CERTIFICATION**  
**AUTHORIZATION TO DISCHARGE UNDER THE**  
**CDPS INDUSTRIAL GENERAL WATER TREATMENT PLANT PERMIT**  
**NOT DISCHARGING TO WATERS THAT ARE DESIGNATED**  
**AS THREATENED AND ENDANGERED HABITAT**  
 Category 07, Sub-category 6 - General Permits,  
 Annual fee \$340/year per (intermittent discharge)  
 SIC Code 4941

This certification specifically authorizes: **City of Boulder**  
 Randy Crittenden, Water Treatment Coordinator  
 1094 Betasso Road  
 Boulder, CO 80302  
 (303) 441-3245 x3211 Fax (303) 441-4474

with the facility contact of: **Same as above**

to discharge from the facility identified as the **Betasso Water Treatment Plant**, located in the NW ¼ of Section 34, T1N, R71W (Latitude 40° 00' 42" Longitude 105° 20' 04"), 1094 Betasso Road, in the City and County of Boulder, Colorado (80302); from Outfalls 002A-004A, as shown in Figures 1-2 of the permit and further identified and described in this table.

Outfall	Description	Estimated Flow Rate
002A	Discharge from sludge filtration tank, sludge lagoon, drying beds, clearwells, pump house basin, and spent backwash equalization tank prior to entering Middle Boulder Creek.	Max = 1.80 MGD
003A	Discharge from vault drains prior to entering Middle Boulder Creek.	Max = 0.20 MGD
004A	Discharge from floor drains from hydro facility, building drains, raw water overflows, filter wash recovery tank, and stormwater drains prior to entering Middle Boulder Creek.	Max = 1.75 MGD

The discharges go to Middle Boulder Creek, Segment 3 of the Boulder Creek Sub-basin, South Platte River Basin, found in the *Classifications and Numeric Standards for the South Platte River Basin* (5 CCR 1002-38); last update effective January 20, 2005. Segment 3 is classified for the following uses: Recreation, Class 1a; Aquatic Life, Class 1 (Cold); Water Supply; Agriculture.

Applicable limitations and monitoring requirements are listed the following table.

Parameter	Discharge Limitations Maximum Concentrations			Measurement Frequency	Sample Type
	30-Day Avg	7-Day Average	Daily Max.		
Flow, MGD	Report	NA	Report	Weekly	Instantaneous
Total Suspended Solids, mg/l	30	45	NA	Monthly	Grab
Oil and Grease, mg/l	NA	NA	10	Weekly	Visual
pH, s.u. (Minimum-Maximum)	NA	NA	6.5-9.0	Weekly	In-situ
Total Fluoride, mg/l	Report	NA	Report	Monthly	Grab
Total Residual Chlorine, mg/l	0.011	NA	0.019	Weekly	Grab

Salinity (TDS) monitoring of the discharge will not be required.

Phosphorus monitoring of the discharge will not be required.

Antidegradation is not applicable because the impact from the discharge is temporary, resulting in no significant impact to the receiving stream; therefore, no further review is necessary.

**Chemicals Used:** As part of its permit application signed November 15, 2004, the permittee indicated that the following chemicals are used in the treatment process, also included were the material safety data sheets ("MSDS") for these chemicals:

Chemical	Purpose
Liquid Alum (Al <sub>2</sub> SO <sub>4</sub> )	Coagulant
Suma Clear 820B	Coagulant
Calcium Hydroxide (Ca(OH) <sub>2</sub> )	Corrosion Control
Sodium Hypochlorite (NaOCl)	Disinfection
Hydrofluorosilicic Acid	Fluoridation
Activated Carbon	Taste and Odor Control

Until approved, use of any chemical in waters that may be discharged could result in a discharge of pollutants not authorized under the permit. However, the permittee may be allowed to use a different vendor for the same compound.

The permittee is encouraged to read the general rationale for an understanding of how this permit was developed and to read the permit to see what requirements exist.

All correspondence relative to this facility should reference the specific facility number, COG-641064.

Christopher L. Gates  
 January 9, 2006

**ISSUED JANUARY 9, 2006 EFFECTIVE FEBRUARY 1, 2006 EXPIRATION DATE OCTOBER 31, 2010**

# 9. Location Maps

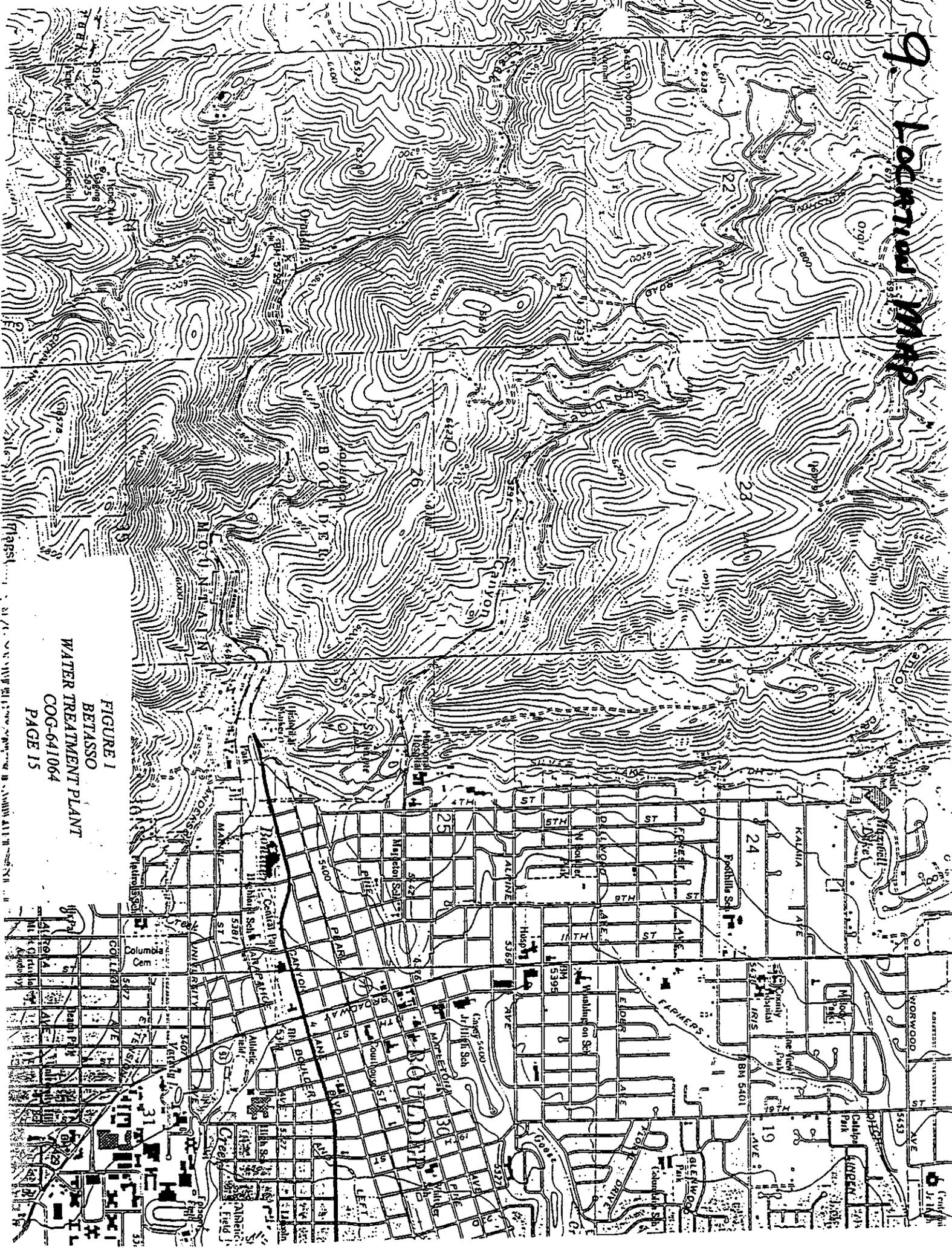


FIGURE 1  
BETASSO  
WATER TREATMENT PLANT  
COG-641064  
PAGE 15

U.S. GEOLOGICAL SURVEY

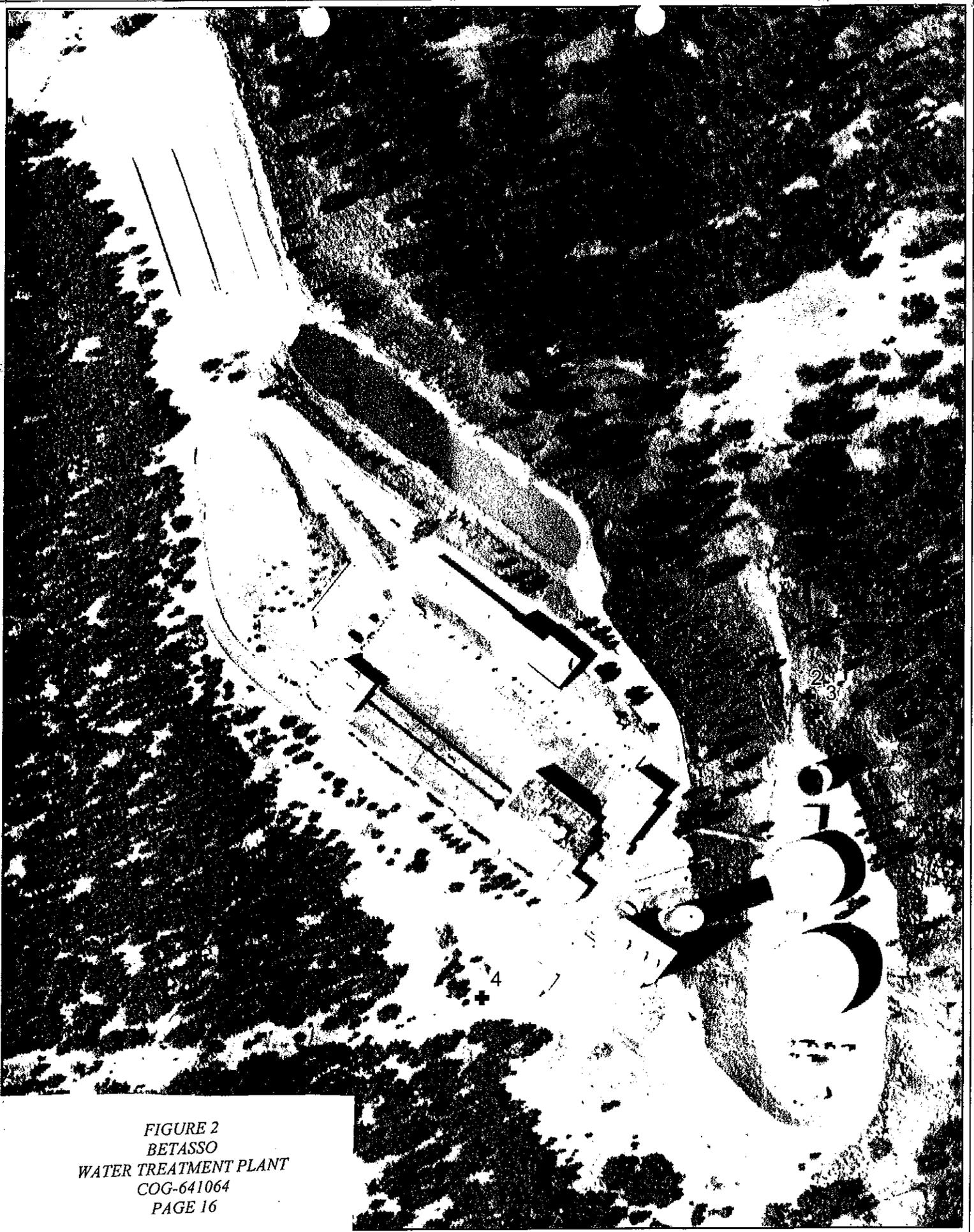


FIGURE 2  
BETASSO  
WATER TREATMENT PLANT  
COG-641064  
PAGE 16

Betasso Water  
Treatment Facility

0 125 250 500 Feet

Emergency Discharge



Betasso Nov 2004

WATER QUALITY CONTROL DIVISION  
 COLORADO DISCHARGE PERMIT SYSTEM APPLICATION  
**WATER TREATMENT PLANT  
 WASTEWATER APPLICATION**

This application is for use by all water treatment plant **wastewater** dischargers. It is applicable for coverage under a general permit or an individual permit. The Division has industry specific permits for construction dewatering, gasoline clean up sites, hardrock mining, coal mining, non-metallic metals mining and placer mining along with several for storm water only discharges. If the facility falls under one of these activities, please contact the Division for the appropriate application. This form may be reproduced. For information on electronic copies, please contact the Permits and Enforcement Section at (303)+692-3590.

#### WATER RIGHTS

The State Engineers Office (SEO) has indicated that any discharge that does not return water directly to surface waters (i.e. land application, rapid infiltration basins, etc.) has the potential for material injury to a water right. As a result, the SEO needs to determine that material injury to a water right will not occur from such activities. To make this judgement, the SEO requests that a copy of all documentation demonstrating that the requirements of Colorado water law have been met, be submitted to their office for review. The submittal should be made as soon as possible to the following address:

Colorado Division of Water Resources  
 1313 Sherman St. Rm 818  
 Denver, Colorado 80203

Should there be any questions on the issue of water rights, the SEO can be contacted at (303) 866-3581. It is important to understand that any CDPS permit issued by the Division **does not constitute a water right**. **Issuance of a CDPS permit does not negate the need to also have the necessary water rights in place**. It is also important to understand that even if the activity has an existing CDPS permit, there is no guarantee that the proper water rights are in place.

#### GENERAL INSTRUCTIONS

**Application Due Dates:** At least **one hundred and eighty (180) days** prior to the anticipated date of discharge for new facilities or the expiration date of an existing permit, the owner (or operator if the owner does not operate the facility) of the facility shall submit an application as provided by the Water Quality Control Division (the "Division").

**Permit Fee:** Annual permit fees set by state statute and are collected by the Division. Do not send any payment with this application. You will be billed once you are covered under a permit.

**Application Completeness:** All items of the application must be completed accurately and in their entirety or the application will be deemed incomplete, and processing of the permit will not begin until all information is received. If you have questions on completing this application, you may contact the Division at (303)+692-3590. **Two copies** of the completed application shall be submitted, only to:

**Colorado Department of Public Health and Environment  
 WQCD-PE-B2  
 4300 Cherry Creek Drive South  
 Denver, Colorado 80246-1530**

#### SPECIFIC INSTRUCTIONS - Use additional pages whenever necessary.

- Item 1 - List here the names(s) of the person, company, corporation, etc who will be responsible for the permit.
- Item 2 - List here the owner of the property if it is different than that listed in item 1.
- Item 3 - Self explanatory.
- Item 4 - The SIC code may assist in determining effluent limitations. Please list the four most common ones.
- Item 5, 6 - Self explanatory.
- Item 7 - A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for maintenance, process change or similar shutdown. A discharge is seasonal if it occurs only during certain parts of the year.

- Item 8 - Mark which of the other permits/programs the facility has obtained or is in the process of obtaining or is subject to regulation under. Under item 8.g., mark "yes" if the facility has any of the following permits:
- a.) Prevention of Significant Deterioration (PSD) program under the Clean Air Act;
  - b.) Nonattainment Program under the Clean Air Act; or
  - c.) National Emission Standards for Hazardous Pollutants (NESHAPS) under the Clean Air Act.
- Item 9 - This map is intended to serve as an area map attachment to the permit. A legible submittal is required.
- Item 10 - This is a facility sketch for inclusion in the permit. A legible submittal is required.
- Item 11 - The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas. The water balance should show average flows and all significant losses of water to products, the atmosphere, dust control and discharge. Use actual measurement whenever possible, otherwise use your best estimate.
- Item 12 - Self explanatory.
- Item 13 - List here those chemicals used in the **treatment** of the wastewaters.
- Item 14 - List those toxic products that are used in the manufacturing process or are produced by the manufacturing process. Do not include those substances listed in item 13.
- Item 15 - Self explanatory.
- Item 16 - List any improvements to the wastewater system which are required or which are being undertaken to ensure future compliance with environmental regulations. The Division may request additional information concerning these changes during the application review process.
- Item 17 - If land application, defined as any discharge being applied to the land for treatment purposes, is practiced or proposed the Division needs appropriate information to understand the operation and make a judgement as to possible impact on ground or surface waters. If not identified elsewhere, identify the nearest surface waters or dry stream bed. A separate permit may be necessary for discharges to groundwater. Please contact the Division's Groundwater Unit on this at (303) 692-3584.
- Item 18 - List the outfall number discharge point. List all sources of wastewater for each outfall and give the 30 day average flow, design flow and daily maximum flow. You may estimate the flow contributed by each source if no data is available, and for stormwater, you may use any reasonable measure of duration, volume or frequency. Describe each treatment unit. Indicate its design capacity and retention time, as well as the design basis or limiting factors. If your flows vary significantly or if you anticipate significant changes in flows during the next 5 years, specify which flows will change and explain why they will change. Describe the ultimate disposal of any solid or liquid waste not discharged. Use additional pages as necessary.
- Item 19 - List the outfall, latitude and longitude for each outfall location and the receiving waters. A best guess on the latitude and longitude is all that is necessary. This can be obtained from various sources such as a USGS map.
- Item 20 - Self explanatory.
- Item 21 - Self explanatory.
- Item 22 - This item requires monitoring for various pollutants. In item 22, analysis for the indicated parameters shall be performed on each outfall and receiving waters immediately upstream of the outfall. If more than one outfall is to a common body of water, only one analysis of the receiving water upstream of the upper-most outfall will be required. If the receiving stream is dry during portions of the year, so indicate. In the case of sedimentation ponds for stormwater runoff, one outfall can be sampled if it can reasonably be assumed to be representative of all sedimentation pond outfalls.

The effluent sample for analysis shall be a composite sample and proportioned according to flow. Temperature, pH, D.O., oil and grease, total residual chlorine and all in-stream samples should be grab samples. For all other pollutants, 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. For discharges other than stormwater discharges, the Division may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four (4) grab samples will be a representative sample of the effluent being discharged. Include the sampling date and the name of the laboratory performing the analyses. When quantitative data for a pollutant are required, the applicant must collect a sample of

effluent and analyze it for the pollutant in accordance with analytical methods approved under 40 C.F.R. Part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. The Division may allow or establish appropriate site-specific sampling procedures or requirements, including sampling locations, the season in which the sampling takes place, protocols for collecting samples and additional time for submitting data on a case-by-case basis.

**IT IS RECOMMENDED THAT YOU CONTACT AN ANALYTICAL LABORATORY PRIOR TO SAMPLING AND ANALYSIS SO THAT PROPER PROCEDURES ARE FOLLOWED.**

If there is no water to analyze at this time so indicate.

Item 23 - The applicant must review Appendices A and B and must indicate whether it knows or has reason to believe that any of the pollutants listed are present in its discharge. The Division may waive the reporting requirements for individual point sources if the applicant has demonstrated that such a waiver is appropriate because information adequate to support issuance of a permit can be obtained with less stringent requirements. Each applicant must report quantitative data for each outfall containing process wastewater with the following exceptions:

a.) For every pollutant discharged which is not so limited in an effluent limitations guideline, the applicant must either report quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

b.) For every pollutant expected to be discharged in concentrations of 10 µg/ℓ or greater the applicant must report quantitative data. For acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, where any of these four pollutants are expected to be discharged in concentrations of 100 µg/ℓ or greater the applicant must report qualitative data. For every pollutant expected to be discharged in concentrations less than 10 µg/ℓ, or in the case of acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, in concentrations less than 100 µg/ℓ, the applicant must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

c.) The applicant need not provide quantitative data if the pollutant is present in the discharge solely as the result of its presence in intake water. However, the applicant must report such pollutant as present.

Item 24, 25 - Self Explanatory.

Item 26 - Describe those measures taken to control pollutants from entering wastewater streams. Do not include items which are detailed in the facility's Stormwater Management Plan.

Item 27 - Self explanatory.

Item 28 - The application shall be signed as follows:

a.) In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the over-all operation of the facility from which the discharge described in the application originates.

b.) In the case of a partnership, by a general partner.

c.) In the case of a sole proprietorship, by the proprietor.

d.) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Applications must have original signatures to be processed.



**CITY  
OF  
BOULDER**

Department of Public Works  
**BETASSO WATER TREATMENT PLANT**  
1094 Betasso Road  
Boulder, Colorado 80302-9663  
(303) 441-3245 Fax (303) 441-4474

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November 15, 2004

Colorado Dept. of Public Health and Environment  
WQCD-PE-B2  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

Dear Sir or Madam:

Enclosed are 2 renewal applications for the City of Boulder CDPS Permit for Betasso COG-640064. We currently made two changes to our previous discharge permit.

- 1) Discharge Point Outfall 001 has been eliminated. This was accomplished by filling the pipe line up with concrete and covering it with a steel plug.
- 2) Discharge Point Outfall 004 has been replaced with an oil/water separator and water is now pumped to residual beds and the lagoon instead of being discharged. Storm water could still pass though this point, as could any major facility upsets.

If you have any questions please feel free to call me at (303) 441-3245 ext 3211.

Sincerely,

Randy Crittenden  
Water Treatment Coordinator

**WATER TREATMENT PLANT  
DISCHARGES FROM WASTEWATER FACILITIES**

FOR AGENCY USE ONLY

PERMIT NUMBER

C	O	G	-						
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DATE RECEIVED

YEAR

MONTH

DAY

Please print or type. Do not attempt to complete this form before reading the instructions.

New  or Renewal  If renewal, existing permit number: CO-00 COG-64006-

1. Name and address of permit applicant: City of Boulder

Company Name: \_\_\_\_\_

Federal Taxpayer (or Employer) ID#: 846000566

Mailing Address : 1094 Betasso Rd

City, State and Zip Code : Boulder, CO 80302

Phone Number : ( 303 ) 441-3245 Who is applying for the permit?  Owner  Operator

Local Contact (familiar with facility):

Title: Randy Crittenden Phone Number: ( 303 ) 41-3245 ext3211 Fax No.: (303 )441-4474

2. Name and address of property owner :

Name: City of Boulder

Mailing Address : 1094 Betasso Rd

City, State and Zip Code : Boulder, CO 80302

Phone Number : ( 303 ) 441-3245 Fax No.: ( 303 ) 441-4474

3. Location of the facility:

Street Address: 1094 Betasso Rd

City, State and Zip Code: Boulder, CO 80302

County: Boulder Name of facility : Betasso Water Treatment Facility

Legal Location (Township, Range, section, 1/4 section): NW1/4, Sec 34, T1N, R71W

Latitude and Longitude: Latitude= 40° 00' 42" Longitude = 105° 20' 4"

4. Standard Industrial Classification (SIC) Code(s) for this facility.

a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_

5. **Industrial activity:** Describe the primary industrial activities which take place on site. Include the type of facility (reverse osmosis plant, filtration, etc.) plus brief description of the processes used. (The applicant may want to submit a process flow sheet.) If this is a seasonal operation, list the months of operation.

Conventional Drinking Water Treatment including: coagulation, sedimentation, filtration, disinfection, fluoridation and corrosion control

6. **Production:** What is the current and maximum raw water production rate and what is the design maximum? What is the source of the raw water?

Current Maximum Production (2003) = 6.398 mg daily average (2003) = 17.72 mg design maximum = 50 mg Silverlake Watershed: Silver Lake pipeline, Lakewood pipeline and North Boulder Creek, Lakewood pipeline. Barker Watershed: Barker Reservoir/Barker pipeline

7. **Intermittent discharges:** Except for storm runoff, are any of the discharges described in item 18 or 19 intermittent or seasonal?

No  Yes  Describe the frequency, duration and flow rate of each discharge occurrence.

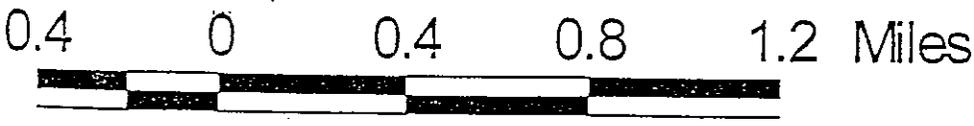
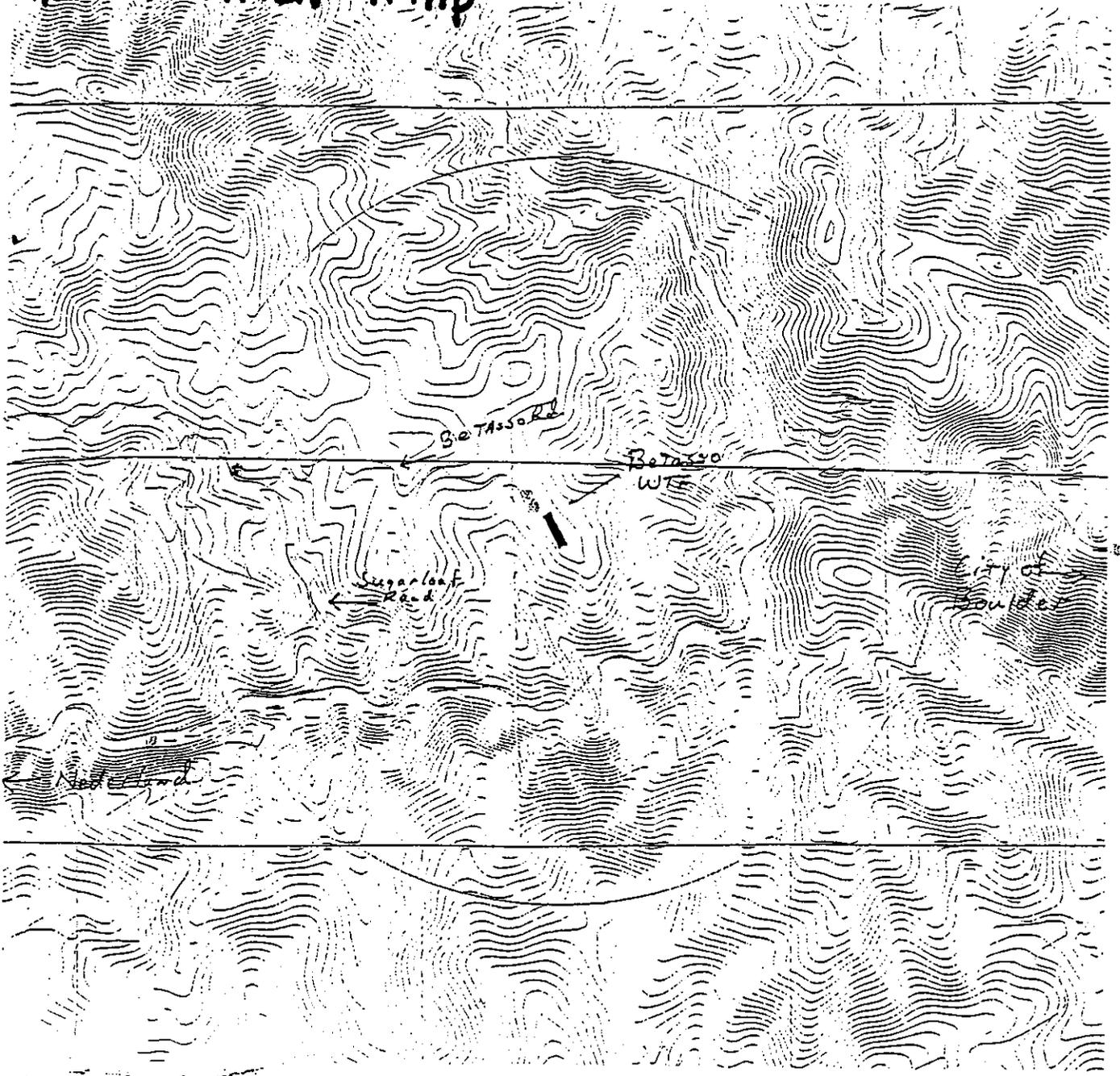
Infrequent discharges for brief periods of time due to maintenance operations or facility upsets

8. **Other Environmental Permits:** Does this facility currently have any environmental permits, or is it subject to regulation, under any of the following programs?

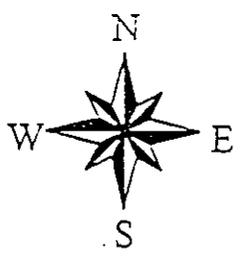
Permit Name	Yes	No	Date Applied For	Permit No.
a.) Colorado Division of Minerals and Geology (formerly MLRD)		X		
b.) Underground Injection Control		X		
c.) Dredge or fill permit under Section 404 of the Clean Water Act (CWA) (Army Corps of Engineers)		X		
e.) Resource Conservation and Recovery Act (RCRA)		X		
f.) CDPS Stormwater	X		General State	Permit
g.) Colorado State Air Pollution Program		X		
h.) Other Risk Management Program		X		

9. **Location map:** A location map designating the facility property, intake points, discharge points, each of its hazardous waste treatment storage or disposal facilities, each well where fluids from the facility are injected underground, those wells, springs, other surface water bodies and drinking water wells listed in public records or otherwise known to the applicant and the receiving waters shall be submitted. The map shall extend one mile beyond the property boundaries. The map shall be from a 7½ or 15 minute USGS quad sheet, or a map of comparable scale. A north arrow shall be shown. **The map must be on paper 8.5 x 11 inches.**
10. **Site sketch:** A legible general sketch of the site shall be submitted, showing appurtenant facilities (buildings, ponds, diversion ditches, stockpiles, etc.), stream location, numbered discharge points, sampling and flow monitoring points. **The sketch shall be on paper 8.5 X 11 inches. The outfalls shall be labeled to correspond with the numbers listed in item 18.**
11. **Water Balance:** Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in item 18. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

# 9. LOCATION MAP

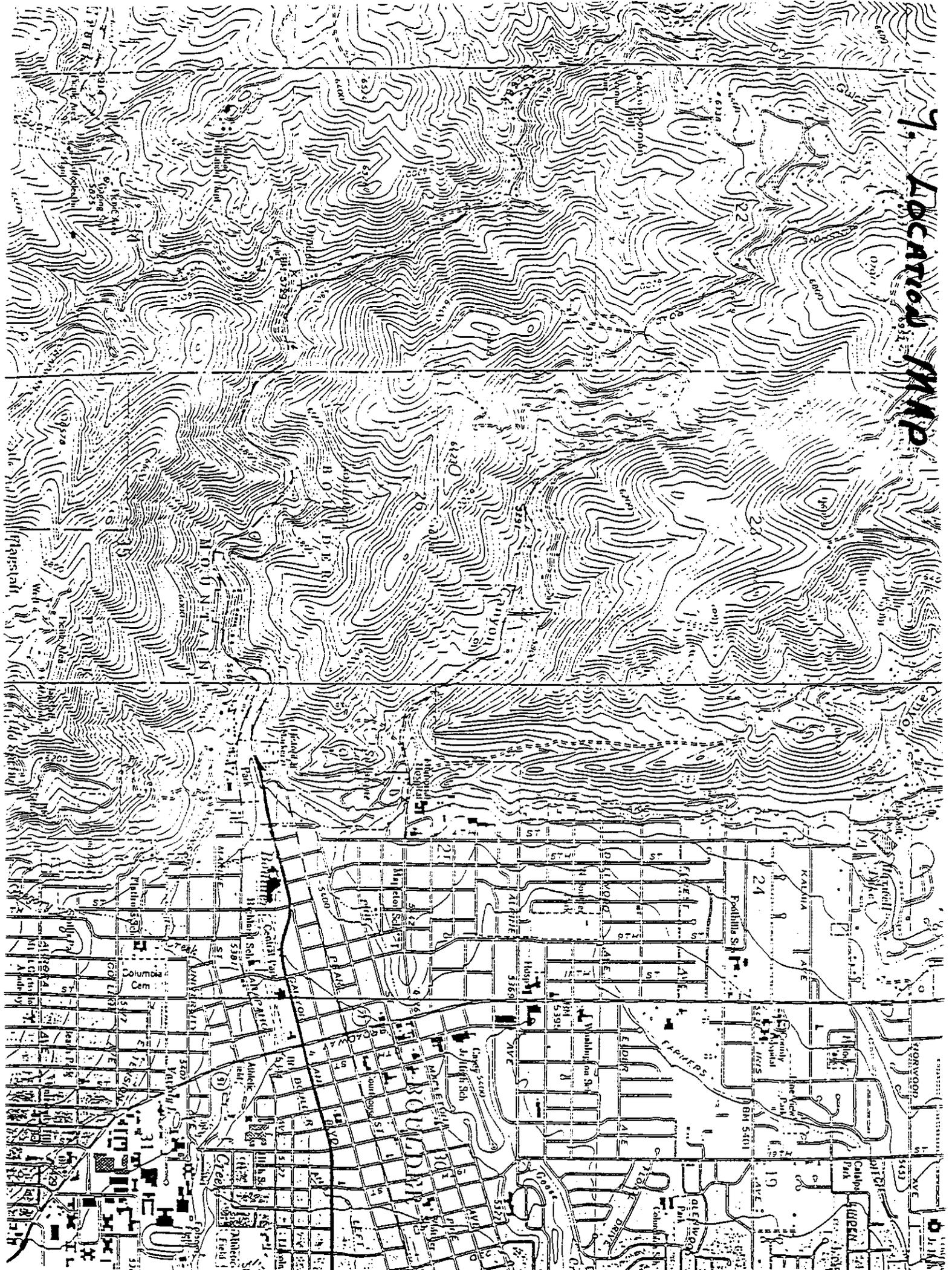


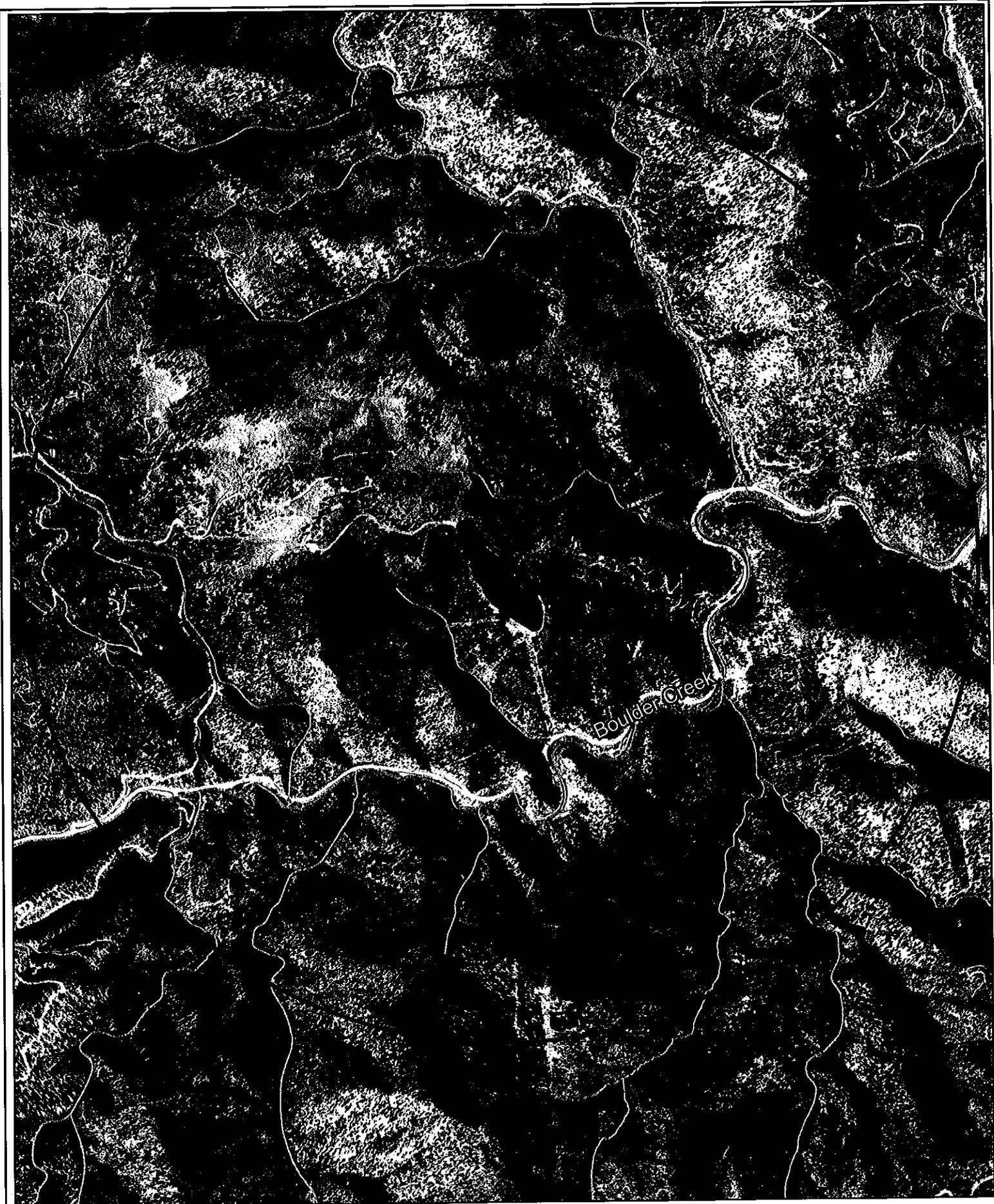
Contour Interval: 40 feet



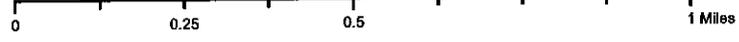
## Betasso Contour Map

# 7. Localized MRP



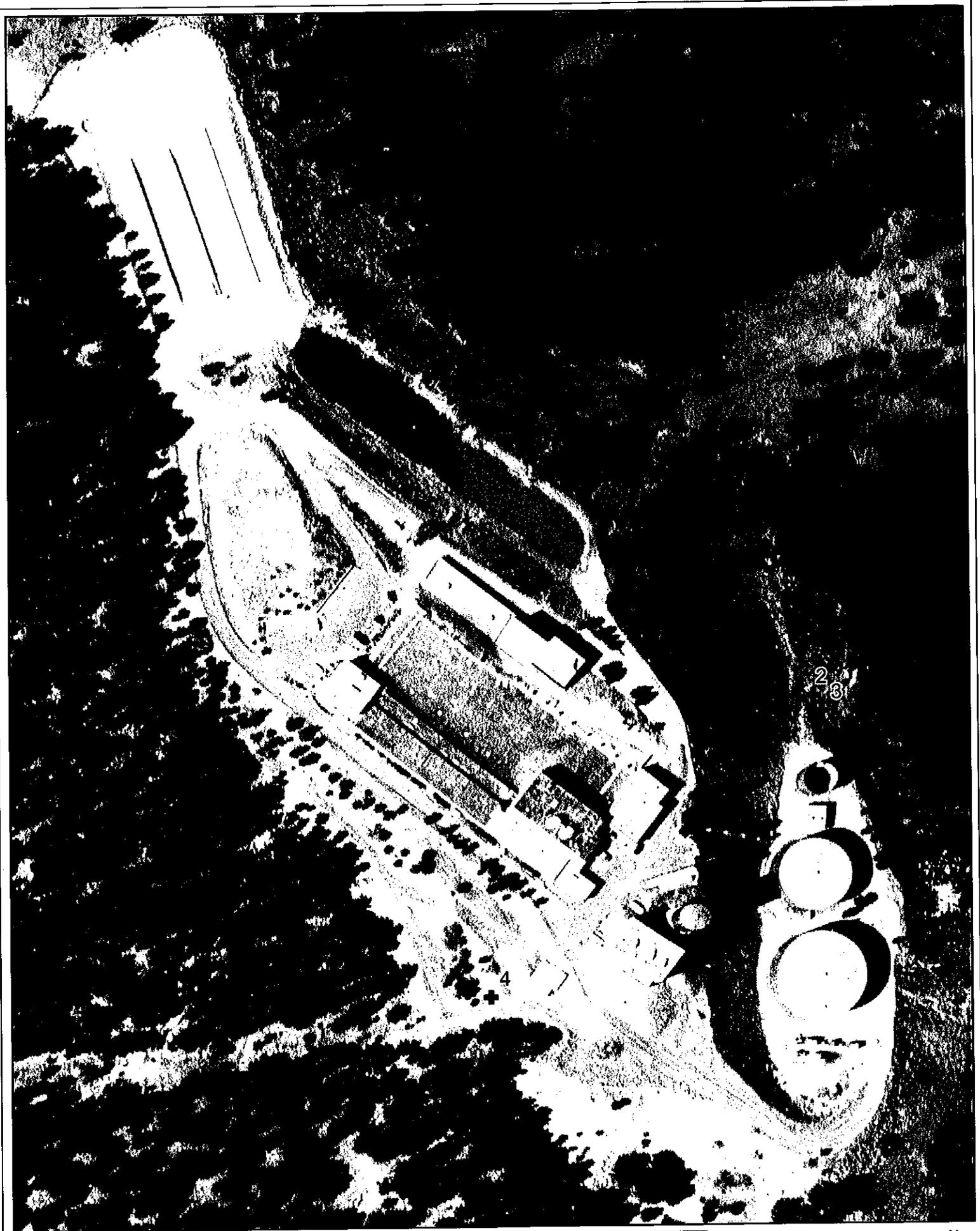


Betasso Water  
Treatment Facility  
105° 20' 6.96" W  
40° 0' 43.73" N



	Emergency Discharge
	Creek-Ditch
	BetassoWTF





Betasso Water Treatment Facility

0 125 250 500 Feet



Emergency Discharge

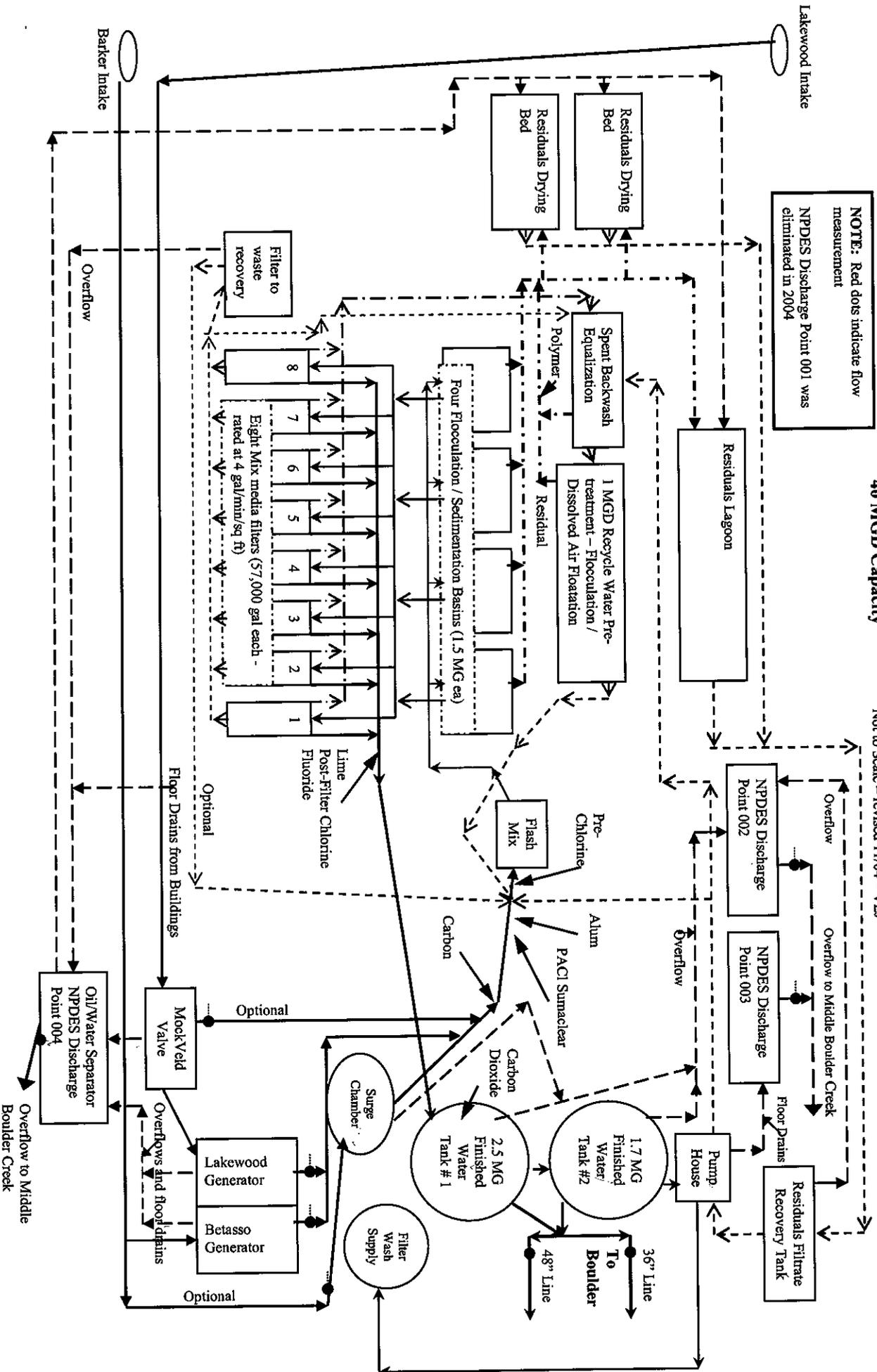


# City of Boulder's Betasso Water Treatment Plant Processes

40 MGD Capacity

Not to Scale - revised 11/04 - VLI

**NOTE:** Red dots indicate flow measurement  
 NPDES Discharge Point 001 was eliminated in 2004





12. Site-specific conditions:

a) Does this facility have bulk storage of diesel fuel, gasoline, solvents, fertilizers, or other hazardous materials on site?

No  Yes

b) Is this operation located within one mile of a landfill, or any mine or mill tailings?

No  Yes

—However, Sweeney mine on Sugarloaf drains into Bummers gulch which is 1.5 miles West of facility

If YES for any of these, please show location of the landfill, tailings or possible groundwater contamination on the location map in item 9 or in the general sketch in item 10. Please explain the location, extent of contamination and possible effect on the discharges from this facility.

13. Chemical treatment: Will any flocculants (settling agents or chemical additives) be used to treat water which could be in the discharge?

No  Yes If YES, list here and include the Material Safety Data Sheet (MSDS) with the application.

Chemical Name *	Manufacturer	Purpose	In Which Waste Stream?
Aluminum Sulfate	General Chemical	Coagulant	002, 004
Aluminum Chlorohydrate/Polyquaternary Amine Soln.	(Sumaclear 820B) Summit Research Labs	Coagulant	002, 004
Calcium Hydroxide	Mississippi Lime	Corrosion Control	002
Sodium Hypochlorite, 10%	DPC Industries, Inc	Disinfection	002, 003, 004
Hydrofluorosilicic Acid	Lucier Chemical Industries, Ltd	Fluoridation	002
Activated Carbon	Calgon Carbon Corp	Taste and Odor	002, 004

\* If the chemical formula is unknown or confidential, provide the manufacturer's name, contact person, address and phone number or a copy of the manufacturer's brochure, product label information or materials handling data sheet for each product used. Please list the major constituents or active ingredient(s), if known.

14. Used or manufactured toxics: The applicant must provide a list of any toxic products which the applicant currently uses or manufactures as an intermediate or final product or by product.

None

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15. Flow measurement: What method of flow measurement will be used for each discharge point (e.g., v notch weir, pump capacity, parshall flume, etc.)? Designate whether currently installed or proposed. Identify the minimum and maximum flow measurement capability.

Flow measurement is done by volumetric measurement

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16. **Improvements:** Please provide a description of any abatement requirement, abatement project and projected final compliance dates if subject to any present requirements or compliance schedules for construction, upgrading or operation of waste treatment equipment. Also indicate any improvements since the previous permit application.

- 1) Discharge Point Outfall 001 has been eliminated. This was accomplished by filling the pipe line up with concrete and covering it with a steel plug.
  - 2) Discharge Point Outfall 004 has been replaced with an oil/water separator and water is now pumped to residual beds and the lagoon instead of being discharged. Storm water could still pass through this point, as could any major facility upsets.
- 

17. Is or will land application of any wastewater be practiced?    No  Yes  Briefly describe the process:

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18. Average flows and treatment: Please provide a narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent for each outfall including process wastewater, cooling waters, domestic wastewater and storm-water runoff; the average, maximum and design flow which each process contributes; and a description of the treatment the wastewater receives including the ultimate disposal of any solid or fluid wastes other than by discharge. Processes, operations or production areas may be described in general terms. The average flow of point sources composed of storm water may be estimated. The basis for the rainfall event and the method of estimation must be indicated.

Use additional pages as needed.

OUTFALL NUMBER	WASTEWATER SOURCE	TREATMENT USED	AVG FLOW, MGD*	DESIGN** FLOW, MGD	DAILY MAX FLOW, MGD
001	Discharge was eliminated	None	0	0	0
002	Discharge from sludge filter tank, sludge lagoon, drying beds, clearwells, pump house basin, spend backwash equalization tank	None	0	1.80	1.80
003	Pump house vault drains	None	0	0.20	0.20
004	Floor drains for hydro facility, building drains, raw water overflows, filter wash recovery tank, storm water drains	Oil water separator	0	1.75	1.75

\*MGD - Million gallons/day

\*\*If sediment pond, indicate approximate volume of water.

19. For each outfall provide the latitude, longitude and receiving water.

OUTFALL	LATITUDE			LONGITUDE			RECEIVING WATERS
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS	
001 (eliminated)	40	00	42	105	20	4	Middle Boulder Creek
002	40	00	42	105	20	4	Middle Boulder Creek
003	40	00	42	105	20	4	Middle Boulder Creek
004	40	00	42	105	20	4	Middle Boulder Creek

20. Are the receiving waters, indicated in item 19, a ditch or storm sewer?  No ~ Yes

If YES, submit documentation that the owner of the ditch or storm sewer allows this discharge. No permit will be processed unless documentation of approval is received.

21. Do you have a certified operator? No  Yes  If yes, please list name(s), certification number(s) and certification level(s).

see attachment

22. **Discharge Quality:** Analytical data for the following parameters, unless waived by the Division, shall be submitted from at least one grab sampling of each discharge point. If no effluent is available for analysis, so indicate. The Division may request analysis of other parameters once the application has been reviewed. Such a request will be based, in part, on the classification of the receiving waters. See instructions. *No effluent available for analysis*

PARAMETER	DETECTION LEVEL	PARAMETER	DETECTION LEVEL
Total Dissolved Solids, mg/P	10	Dissolved Aluminum, mg/P	0.05
Flow, MGD	NA	Total Residual Chlorine, mg/P	0.05
pH, s.u.	NA	Total Suspended Solids, mg/P	0.00025
Oil and Grease, mg/P	5	Alkalinity, mg/P	0.05
Hardness, mg/P	10	Temperature, °C Winter	NA
Temperature, °C Summer	NA		

23. **Additional monitoring:** All applicants must review the parameters listed in Appendix A and Appendix B to this application, and indicate whether it knows or has reason to believe that these pollutants are present. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any quantitative data it has for any pollutant.

As the discharges are from a drinking water facility these substances are not present to best of our knowledge

**CITY OF BOULDER  
WATER TREATMENT PLANT  
INDUSTRIAL WASTEWATER DISCHARGE APPLICATION**

Certified Operators as of November 2, 2004

Name	Position	Certification	
		Number	Level
Randy Crittenden	Coordinator	1376	A
Terry Reichenberger	Supervisor of Operations	1188	A
Gary Gillen	Supervisor of Operations	1610	A
Randy Bass	Operator	11308	A
Steve Folle	Operator	11410	A
Steve Houck	Operator	1622	A
Bob Luna	Operator	1078	A
Phillip St Pe'	Operator	14374	C
Stephen Pavlik	Operator	1916	A
Ron Samuelson	Operator	1076	A
Craig Sheard	Operator	1859	A
Matt Swadener	Operator	10994	A
Jon Stoddard	Operator	13889	C
Doug Yohn	Operator	14354	A

24. **Additional WET Testing:** All applicants must identify any biological toxicity tests which have been performed within the last 3 years on any of the discharges or the receiving water in relation to a discharge from this facility.

None

25. **Activity duration:** When did the activity commence? 1965 What is the estimated life of the activity from which the discharge(s) identified in item 13 originate? 50 years.

26. **Pollution Prevention Plans:** Please describe any pollution prevent or best management plans currently in place which could result in the improvement of water quality. These could include solvent recycling programs, material containment procedures, education, etc.

Discharge Point Outfall 004 has been replaced with an oil/water separator and water is now pumped to residual beds and the lagoon instead of being discharged.

27. Please include any other information which you feel the Division should be aware of in drafting this permit.

- 1) Discharge Point Outfall 001 has been eliminated. This was accomplished by filling the pipe line up with concrete and covering it with a steel plug.
- 2) Discharge Point Outfall 004 has been replaced with an oil/water separator and water is now pumped to residual beds and the lagoon instead of being discharged. Storm water could still pass though this point, as could any major facility upsets.

28. **Signature of Applicant**

"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 gathered and evaluated 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."

*Randy Crittenden*

*1/15/2004*

Signature of Owner

Date Signed

Randy Crittenden

Water Treatment Coordinator

Name (printed)

Title

Signature of Operator

Date Signed

Name (printed)

Title

## Appendix A - Priority Pollutants

Organic Toxic Pollutants in Each of Three Fractions in Analysis by Gas Chromatography/Mass Spectroscopy(GC/MS).

Volatiles	Base/Neutral	Acid
Acrolein	Acenaphthene	2-Chlorophenol
Acrylonitrile	Acenaphthylene	2,4-Dichlorophenol
Benzene	Anthracene	2,4-Dimethylphenol
Bromoform	Benzidine	4,6-Dinitro-o-cresol
Carbon Tetrachloride	Benzo(a)anthracene	2,4-Dinitrophenol
Chlorobenzene	Benzo(a)pyrene	2-Nitrophenol
Chlorodibromomethane	3,4-Benzofluoranthene	4-Nitrophenol
Chloroethane	Benzo(ghi)perylene	P-chloro-m-cresol
2-Chloroethylvinyl Ether	Benzo(k)fluoranthene	Pentachlorophenol
Chloroform	Bis(2-chloroethoxy)methane	Phenol
Dichlorobromomethane	Bis(2-chloroethyl) ether	2,4,6-Trichlorophenol
1,1-Dichloroethane	Bis(2-chloroisopropyl) ether	
1,2-Dichloroethane	Bis(2-ethylhexyl)phthalate	
1,1-Dichloroethylene	4-Bromophenyl phenyl ether	
1,2-Dichloropropane	Butylbenzyl phthalate	
1,3-Dichloropropylene	2-Chloronaphthalene	
Ethylbenzene	4-Chlorophenyl phenyl ether	
Methyl Bromide	Chrysene	
Methyl Chloride	Dibenzo (a,h) anthracene	
Methylene Chloride	1,2-Dichlorobenzene	
1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	
Tetrachloroethylene	1,4-Dichlorobenzene	
Toluene	3,3-Dichlorobenzidine	
1,2-Trans-dichloroethylene	Diethyl phthalate	
1,1,1-Trichloroethane	Dimethyl phthalate	
1,1,2-Trichloroethane	Di-n-butyl phthalate	
Trichloroethylene	2,4-Dinitrotoluene	
Vinyl Chloride	2,6-Dinitrotoluene	
	Di-n-octyl phthalate	
	1,2-Diphenylhydrazine (as azobenzene)	
	Fluorene	
	Fluoroanthene	
	Hexachlorobenzene	
	Hexachlorobutadiene	
	Hexachlorocyclopentadiene	
	Hexachloroethane	
	Indeno(1,2,3-cd) pyrene	
	Naphthalene	
	Nitrobenzene	
	N-Nitrosodimethylamine	
	N-Nitrosodi-n-propylamine	
	N-Nitrosodiphenylamine	
	Phenanthrene	
	Pyrene	
	1,2,4-Trichlorobenzene)	

## Appendix A (Continued)

### Pesticides

Aldrin	Endosulfan Sulfate
Alpha-BHC	Endrin
Beta-BHC	Endrin Aldehyde
Gamma-BHC	Heptachlor
Delta-BHC	Heptachlor Epoxide
Chlordane	PCB-1242
4,4'-DDT	PCB-1254
4,4'-DDE	PCB-1221
4,4'-DDD	PCB-1232
Dieldrin	PCB-1248
Alpha-Endosulfan	PCB-1260
Beta-Endosulfan	PCB-1016
	Toxaphene

### Metals, Cyanide, and Total Phenols

Total Recoverable Antimony, mg/P  
Total Recoverable Beryllium, mg/P  
Total Recoverable Thallium, mg/P  
Bromide, mg/P  
Color  
Sulfite, mg/P  
Surfactants,  
Total Magnesium, mg/P  
Total Molybdenum, mg/P  
Total Tin, mg/P  
Total Titanium, mg/P

## Appendix B - Toxic Pollutants and Hazardous Substances

### Toxic Pollutants

Asbestos

### Hazardous Substances

Acetaldehyde	Kelthane
Allyl alcohol	Kepone
Allyl chloride	Malathion
Amyl acetate	Mercaptodimethur
Aniline	Methoxychlor
Benzonitrile	Methyl mercaptan
Benzyl chloride	Methyl methacrylate
Butyl acetate	Methyl parathion
Butylamine	Mevinphos
Captan	Mexacarbate
Carbaryl	Monoethyl amine
Carbofuran	Monomethyl amine
Carbon disulfide	Naled
Chlorpyrifos	Naphthenic acid
Coumaphos	Nitrotoluene
Cresol	Parathion
Crotonaldehyde	Phenolsulfonate
Cyclohexane	Phosgene
2,4-D (2,4-Dichlorophenoxy acetic acid)	Propargite
Diazinon	Propylene oxide
Dicamba	Pyrethrins
Dichlobenil	Quinoline
Dichlone	Resorcinol
2,2-Dichloropropionic acid	Strontium
Dichlorvos	Strychnine
Diethyl amine	Styrene
Dimethyl amine	2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
Dinitrobenzene	TDE (Tetrachlorodiphenyl ethane)
Diquat	2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Disulfoton	Trichlorofan
Diuron	Triethanolamine dodecylbenzenesulfonate
Epichlorohydrin	Triethylamine
Ethion	Trimethylamine
Ethylene diamine	Uranium
Ethylene dibromide	Vanadium
Formaldehyde	Vinyl acetate
Furural	Xylene
Guthion	Xylenol
Isoprene	Zirconium
Isopropanolamine dodecylbenzenesulfonate	