TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Ave., 11th Floor, Nashville, TN 37243
1-888-891-8332 (TDEC)

Notice of Intent (NOI) - General Permit for Dischargers from Water Treatment Plants

Type of application (NOI): ☐ New ☒ Reissuance ☐ Modification

(If this NOI is Reissuance or Modification provide the existing permit tracking number: ~~TNR05~~ TN0074004)

Facility Name: Clarksville Water Treatment Plant	County: Montgomery	
Street Address or Location: 1040 Pumping Station Rd Clarksville TN. 37040	Latitude: (DD.DDD)	36.4971
	Longitude: (-DD.DDD)	87.3344
Attach a copy of a topo map, a city map, or a county map, identifying the location of this facility and each outfall	■ Map Attached	

Owner or Operator: (the person or legal entity which controls facility's operation; this may or may not be the same as the facility name or the official contact name):
The City of Clarksville, Gas & Water Department

1	Official Contact Person Name: (individual responsible for a facility) Phillip Whittinghill	Title or Position: Water Plant Manager		
	Mailing Address: 2215 Madison St	City: Clarksville	State: TN	Zip: 37040
	Phone: ( ) 931-553-2440	E-mail: phil.whittinghill@cityofclarksville.com		

2	Local Contact Person Name: (if appropriate, write "same as #1") same as #1	Title or Position:		
	Facility Address: (may or may not be the same as street address)	Facility City:	State: TN	Zip:
	Phone: ( )	E-mail:		

Write in the box (to the right) or circle the number (above) to indicate where to send correspondence: 1

PROCESS DESCRIPTION (Reply on a separate page, if necessary)

Name of surface waters receiving the discharge: (and the mileage point, if available)
Cumberland River Mileage Point 132.9

A description of the source of the raw water; if surface water is used, include the distance the plant is located from the intake point; if the source is groundwater, include the number and depth of wells.
Barkley Reservoir (Cumberland River) Distance from intake to WTP approximately 500 linear ft.

Submit the original completed and signed form to the above address or a scanned PDF copy to Water.Permits@tn.gov

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A description of the plant, i.e. iron removal, manganese and/or turbidity removal, and a list of any additives used in the water treatment process, such as coagulant, oxidizing enhancers, etc.
TURBIDITY REMOVAL. CONVENTIONAL TREATMENT W/ MEMBRANE FILTRATION

Design capacity of treatment plant in millions of gallons per day (MGD): 28
Number and volume of sedimentation basins: 6 - 470,000 GALLONS EACH.
Average flow of finished water production in MGD over 12 months prior to submission of the NOI:
17.54 MGD

Filter backwashing. Number of filters backwashed: * Frequency for each filter: * times per week. Amount of water used to backwash: * for each filter. Frequency sedimentation basin is washed out: * times per year. Amount of water used to wash out the largest sedimentation basin: * gallons. Describe type of treatment provided for backwash and sedimentation basin washwaters and the design capacity of the treatment system:
* DESCRIPTION ATTACHED.

Water is released from the backwash settling basin * times per week for * hours per release and a volume of * gallons per release. For existing facility, give averages from last 12 months of operation. For new facilities, indicate "not available." Describe more fully, if necessary.
* DESCRIPTION ATTACHED

A description of how sludge from the settling processes are disposed, for example, landfill, land applied, etc. SLUDGE IS PUMPED TO THE SANITARY SEWER

CERTIFICATION AND SIGNATURE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Phillip Whittinghill	WTP MANAGER		9/11/20
Printed Name	**Official Title**	**Signature**	**Date**

STATE USE ONLY

Received Date	*Domestic Water Supply Use*	*Protective for Lead Conc.*	*Tracking No.*	*EFO*
Unavailable Conditions	*Exceptional TN Waters*	*T & E Aquatic Fauna*	*NOC Date*	*Reviewer*

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Clarksville WTP Filter Backwash Process/Basin Washdown

Clarksville WTP's filtration system is comprised of 848 Pall low pressure microfiltration modules. The modules are divided equally into 8 racks (106 each). The individual racks backwash on a volumetric counter of 63,000 gallons of water filtered. The backwash pumps deliver approximately 900 gpm for 30 seconds. During normal operational conditions we recycle the backwash water to the head of the treatment process at the flash mix. Under normal conditions basin flush and washdown water flows to a 610,000 gallon solids holding tank with a floating decant system. There are two solids lift pumps that pump from the solids holding tank to the City's wastewater collection system to the wastewater plant. If the water treatment plant chooses to send the backwash water as well as the solids to the wastewater collection system it has the ability to release filter backwash to the solids holding tank where it would be pumped thru the collections system to the wastewater plant.

If the need arises through an unforeseen situation, the water treatment plant has the ability to release the filter backwash water and/or the basin washdown water to the receiving stream via the solids holding tank. The water with solids can be sent to the solids holding tank where it is allowed to settle then the supernate is then drawn off the top thru a pontoon decant system, metered and released. The solids can then be collected and land applied.

LIST OF TREATMENT CHEMICALS USED BY THE CLARKSVILLE WTP

1) POLYALUMINUM HYDROXYCHLORIDE (COAGULANT)
2) SODIUM PERMANGANATE (OXIDIZER)
3) LIQUID BLENDED PHOSPHATE (CORROSION INHIBITOR)
4) HYDROFLUORISILIC ACID (DENTAL HEALTH)
5) 12.5% SODIUM HYPOCHLORITE (DISINFECTION)
6) CITRIC ACID 50% (MEMBRANE FIBER CLEANING)
7) SODIUM HYDROXIDE (MEMBRANE FIBER CLEANING)
8) CALCIUM THIOSULFATE (DECHLORINATION)

380
385
400
410
415
405
420
425
430
435
440
445
450
460
455
465
470
480
475
395 390 385
380
495
485
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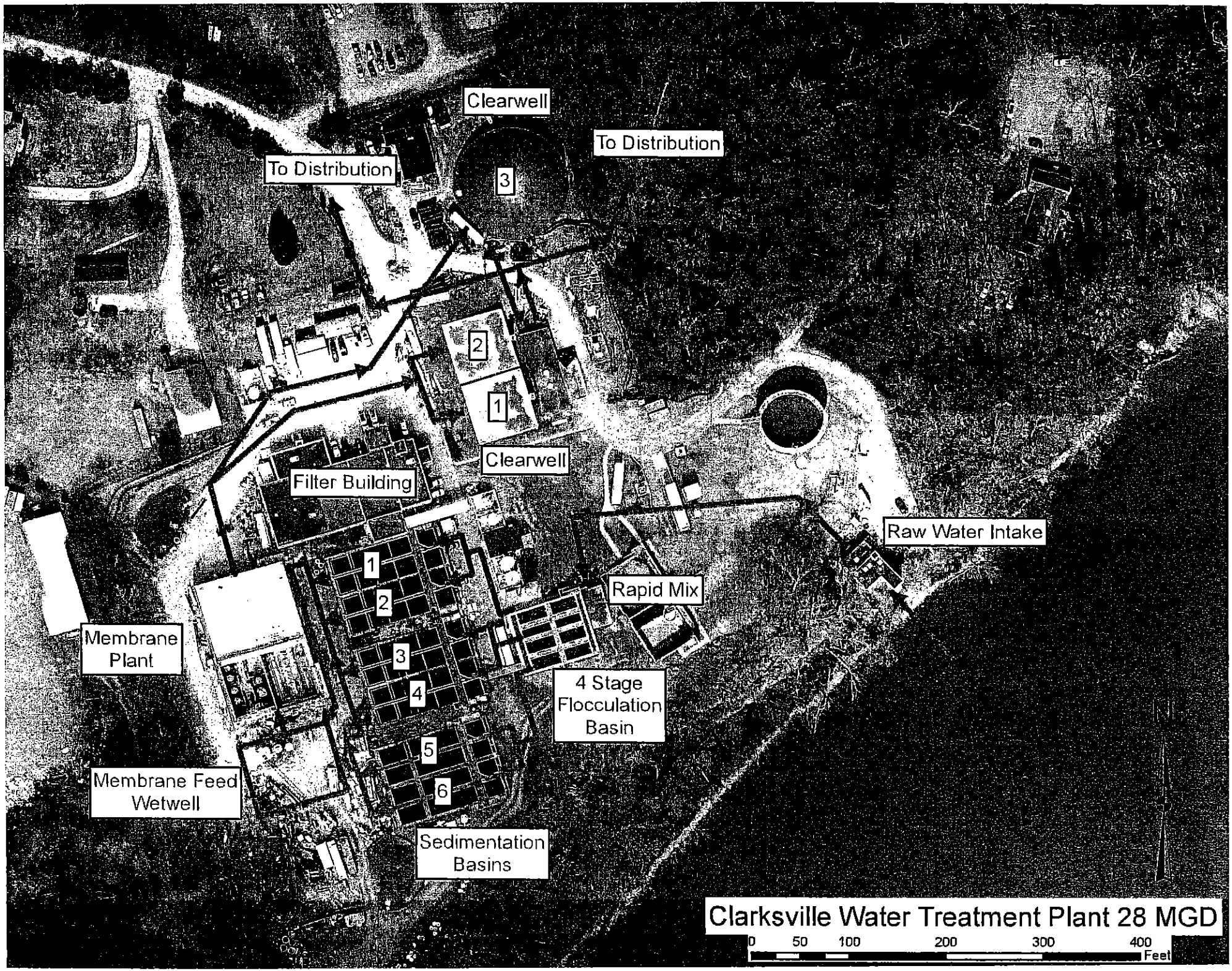
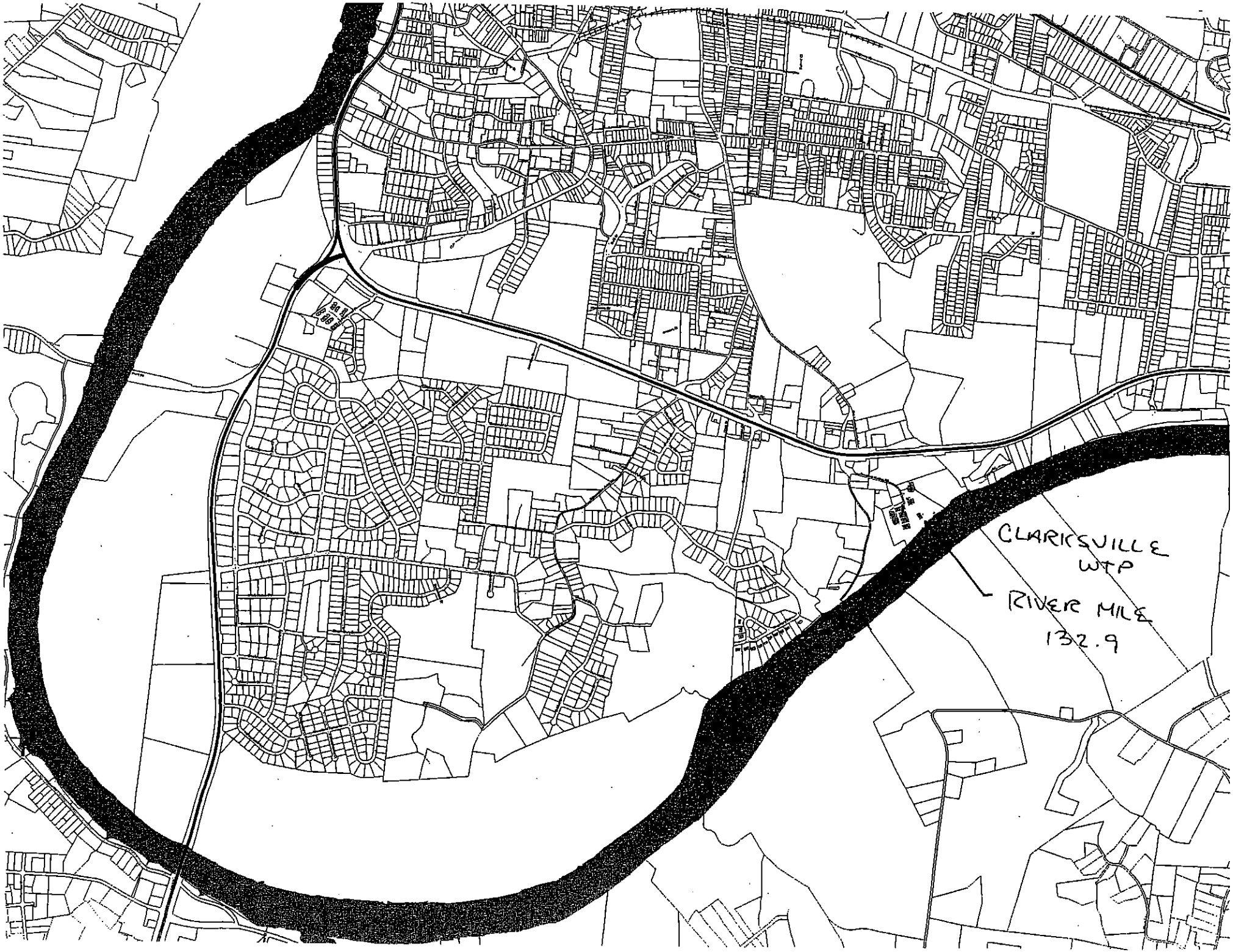

Clearwell
To Distribution
To Distribution
3
2
1
Clearwell
Filter Building
Raw Water Intake
Rapid Mix
1
2
3
4
5
6
Membrane Plant
4 Stage Flocculation Basin
Membrane Feed Wetwell
Sedimentation Basins
Clarksville Water Treatment Plant 28 MGD
0 50 100 200 300 400
Feet


CLARKSVILLE
WTP
RIVER MILE
132.9