

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***RESEARCH AND DEVELOPMENT  
DEPARTMENT***

*REPORT NO. 03-3-A*

*SENSITIVE AREA CONSIDERATIONS FOR  
OUTFALLS DESIGNATED IN NPDES PERMITS FOR THE CALUMET,  
NORTH SIDE AND STICKNEY WATER RECLAMATION PLANTS*

*IL0028061 - Calumet Water Reclamation Plant  
IL0028088 - North Side Water Reclamation Plant  
IL0028053 - Stickney Water Reclamation Plant*

*VOLUME 1*

*February 2003*

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**VOLUME 1**

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## SUMMARY AND CONCLUSIONS

Special Condition 10.7 of the NPDES Permits for the Metropolitan Water Reclamation District of Greater Chicago's (District) Calumet, North Side and Stickney Water Reclamation Plants (WRPs) requires the submittal of documentation to demonstrate that certain combined sewer overflow (CSO) outfalls do not discharge to sensitive areas. A total of 19 outfalls are included in the 3 permits and the required documentation includes "...information regarding the use of the receiving water for primary contact activities (swimming, water skiing, etc.)." These 19 outfalls were selected by the Illinois Environmental Protection Agency (IEPA) because they discharge to General Use waters as designated by the Illinois Pollution Control Board. General Use waters are protected for primary contact activities, which would likely result in full body contact or complete body immersion and the potential to ingest significant quantities of water. Sensitive areas are also defined by the United States Environmental Protection Agency (USEPA), but more broadly than the IEPA, and include several protected classes of waters as well as those designated for primary contact recreation. According to the permit, the IEPA will make a determination if the outfall discharges to a sensitive area based on the information submitted by the District.

In response to this permit requirement, the District submitted requests to several federal, state and local authorities to gather information and conducted field surveys of the aquatic and riparian habitat for the receiving waters in proximity of each outfall. The available information and field data were reviewed with respect to the definition of sensitive areas used by both the USEPA and IEPA, and were also reviewed with respect to the District's interpretation of the IEPA definitions. As a result, it was found that:

- None of the 19 outfalls discharge to a receiving water that falls within one of the protected classes of waters; namely, Outstanding National Resource Waters, National Marine Sanctuaries, Outstanding Resource Waters, Waters with threatened or endangered species and their habitat, Shellfish beds, or Public drinking water intakes or their designated protection areas.
- Seven outfalls discharge to a receiving water with adequate depth for swimming, but where swimming is prohibited by ordinance of the Forest Preserve District of Cook County.
- Four outfalls discharge to a receiving water with inadequate depth for full body immersion.
- Seven outfalls discharge to a receiving water with excessively deep water considered to be a hazard for drowning.
- None of the 19 outfalls discharge to a receiving water that is controlled by a proper authority for swimming and provides appropriate life-safety personnel and equipment for swimmer protection.

- Eleven outfalls discharge to a receiving water with inadequate depth for water skiing.
- All but two outfalls discharge to a receiving water with a channel too narrow or too non-straight for safe water skiing.
- Two outfalls discharge to a receiving water with adequate conditions for water skiing, but where such activity may be hazardous due to the presence of commercial shipping.
- Eight outfalls discharge to a receiving water where the access is restricted by industrial land use, steel or concrete channel walls, fences or steep and wooded channel banks.
- Six outfalls will have their future discharges eliminated or significantly reduced upon completion of current construction contracts for TARP tunnels.
- All outfalls will have their future discharges eliminated or significantly reduced upon completion of TARP reservoirs currently being designed by the U.S. Army Corps of Engineers and scheduled for completion of construction by 2015.

It is concluded that none of the 19 outfalls currently discharges to a receiving water that meets the definition of a sensitive area.

## INTRODUCTION

Special Condition 10.7 of the NPDES Permits for the Metropolitan Water Reclamation District of Greater Chicago's (District's) Calumet, North Side and Stickney Water Reclamation Plants (WRPs) requires the submittal of documentation to demonstrate that certain outfalls do not discharge to sensitive areas. The permits were issued by the Illinois Environmental Protection Agency (IEPA) on January 22, 2002, and became effective on March 1, 2002. The submittal is to be made within one year of the effective date.

A total of 19 outfalls are included in the 3 permits, 6 in each permit for the Calumet and North Side WRPs and 7 in the permit for the Stickney WRP. It should be noted that the outfalls are identified in the permits by number, being referred to as Discharge Number. The documentation required in the permit includes "...information regarding the use or potential use of the receiving water for primary contact activities (swimming, water skiing, etc.)."

The permit language goes on to require that if the District "...believes that it is not possible for primary recreation to occur in the vicinity of..." the outfall, "...then justification as to why primary contact..." recreation "...is not possible shall be submitted." The permit language specifies which justification is to be provided. This "...includes, but is not limited to (1) inadequate water depth; (2) presence of physical obstacles sufficient to prevent access or primary contact activities; and (3) uses of adjacent land sufficient to discourage primary..." contact "...activities."

From the information submitted by the District, the permit language indicates further that IEPA will make a determination if the outfall discharges to a sensitive area. If the determination is affirmative, then the permit may be reopened and modified with additional requirements imposed on the District for removal or relocation of the outfall or treatment of discharges from the outfall to the sensitive area.

### Sensitive Area Defined

For purposes of the permit, IEPA selected these outfalls because they discharge to General Use waters as designated by the Illinois Pollution Control Board (IPCB). General Use waters have standards established by the IPCB to protect for primary contact recreation activities; namely, swimming and water skiing, etc. These activities would likely result in full body contact or immersion and the potential to ingest significant quantities of water. Because of this, General Use waters include standards for bacteria and discharges to General Use waters require disinfection.

In addition, the United States Environmental Protection Agency (USEPA) 1994 Combined Sewer Overflow (CSO) Policy identifies sensitive areas as those areas designated as:

- Outstanding National Resource Waters
- National Marine Sanctuaries

- Outstanding Resource Waters
- Waters with threatened or endangered species and their habitat
- Shellfish beds
- Waters with primary contact recreation
- Public drinking water intakes or their designated protection areas

The CSO Policy sets forth control measures for CSO discharges to sensitive areas, which include a prohibition on new or additional overflow, elimination or relocation of the outfall or treatment of overflow to meet water quality standards. These additional requirements can be avoided if it can be shown that the overflow does not discharge to a sensitive area.

### Sensitive Area Methodology

Because sensitive areas are described broadly and could result from different USEPA and IEPA criteria, the District sought to meet this permit requirement using two approaches. First, letters were sent to several federal, state and local governmental organizations seeking information which might identify the discharge location as a sensitive area. A typical letter requesting such information is shown in Appendix I, the organizations and addressee name to which the letters were sent are shown in Table 1 and organizations sent letters for each outfall are shown in Table 2. Responses received are tabulated in Table AI-1 in Appendix I. Copies of the responses received are shown in the separate appendices for each outfall. For a few outfalls this effort to gather information from a variety of sources brought out several perspectives on the use of the channel or river in the proximity of the outfall. Generally, however, little new information was discovered.

It should be noted that although a separate letter was sent to the USEPA Region V office for each discharge number, the USEPA responded only once with a general letter dated May 28, 2002. In their response, USEPA referred to other sources for each of the six types of sensitive area classifications. This response is found in Appendix II. In addition, some responses addressed more than one discharge number and in these cases the responses are replicated in the pertinent appendices.

The second information gathering effort consisted of a field survey of the receiving stream in the area of the outfall. The survey was intended to gather the information identified in Title 35 Illinois Administrative Code Part 375.203, Phase II, Preliminary Stream Inspection, see Appendix III. One of the field survey elements is the average 7-day low flow which occurs once in 10 years (7Q10). This information was obtained from the Illinois State Water Survey Contract Report 545 (1993) and is shown for all locations in Table 3. The 7Q10 flow rate is also included in the field survey narrative. The field survey provides the necessary information to reach a determination whether or not the discharge is to a sensitive area.

The information for each outfall is summarized in this report in the following sections and includes appropriate commentary as required in the permit. Information for each outfall is contained in separate appendices.

Metropolitan Water Reclamation District of Greater Chicago

TABLE 1

SENSITIVE AREA INQUIRY CONTACT LIST

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Acronym	Name of Organization and Addressee
USEPA	U.S. Environmental Protection Agency Region V (Traub)
USF&WS	U.S. Fish and Wildlife Service (Rogner)
IDNR, DOF	Illinois Department of Natural Resources, Division of Fisheries (Conlin)
IDNR, NHS	Illinois Department of Natural Resources, Natural History Survey (Thomas)
IDNR, RRC	Illinois Department of Natural Resources, Division of Resource Review and Coordination (Branham)
IDPH, DOEH	Illinois Department of Public Health, Division of Environmental Health (Metz)
IEPA, BOW	Illinois EPA, Bureau of Water (Willhite)
CCFPD	Cook County Forest Preserve District (Nevius)
CDOE	City of Chicago, Department of Environment (Jimenez)
CDOW	City of Chicago, Department of Water (Rice)
CPD	Chicago Park District (Doig)
Blue Island	City of Blue Island (Peloquin, Mayor)
Wilmette	Village of Wilmette (Canafax, Mayor)
Evanston	City of Evanston (Morton, Mayor)
Skokie	Village of Skokie (Van Dusen, President)
Des Plaines	City of Des Plaines (Arredia, Mayor)
Park Ridge	City of Park Ridge, (Wietecha, Mayor)
Westchester	City of Westchester (Sinde, Mayor)
Elmwood Park	City of Elmwood Park (Silvestri, President)
River Forest	Village of River Forest (Paris, President)
Maywood	Village of Maywood (Conner, Mayor)
Broadview	Village of Broadview (Vicenik, Mayor)
Rosemont	Village of Rosemont (Stephens, President)
Schiller Park	Village of Schiller Park (Montana, President)
Forest Park	Village of Forest Park (Calderone, Mayor)

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Metropolitan Water Reclamation District of Greater Chicago  
Research and Development Department

TABLE 3

SENSITIVE AREA FLOW QUANTITIES

Discharge Number	7Q10 Flow Rate	Receiving Water
101, 102, 103, 104 and 110	0.14 cfs	North Shore Channel
109	55.4 cfs	Des Plaines River
131	55.6 cfs	Des Plaines River
132	95.5 cfs	Des Plaines River
133	95.5 cfs	Des Plaines River
134	95.8 cfs	Des Plaines River
135	96.0 cfs	Des Plaines River
136	96.8 cfs	Des Plaines River
150	2.4 cfs	Addison Creek
151 and 152	12.0 cfs	Calumet River
165, 166 and 167	0.6 cfs	Calumet Slough
168	0.6 cfs	Calumet Slough

cfs = cubic feet per second

Notes:

1. The North Shore Channel upstream of the North Side Water Reclamation Plant is subject to prolonged periods of zero or near-zero flow, usually during cooler months of November through May, when there is no discretionary diversion being drawn from Lake Michigan at the Wilmette Pumping Station. During dry weather, there is no other inflow to this reach to generate low flow.
2. Low flows in the Des Plaines River derive primarily from the treated effluent discharged from numerous municipal sewage treatment plants in Cook and Lake Counties.
3. Addison Creek receives the discharge from the Village of Bensenville sewage treatment plant.
4. The Calumet River, lake ward of the O'Brien Lock and Dam (OL&D) is subject to periods of near-zero flow, usually during cooler months of November through April when no discretionary diversion is being drawn from Lake Michigan at the OL&D. In addition, during these months navigation traffic through the OL&D is reduced, therefore requiring less flow to pass traffic through the lock. There are several industries along this reach of river which cause a net withdrawal of water for cooling or industrial process purposes. This reach of river, open to Lake Michigan at Calumet Harbor, responds hydraulically to the vagaries of the level of the lake. Northerly winds will cause the southern end of Lake Michigan to rise, and flow will enter the Calumet River, until some stability is reached.

Metropolitan Water Reclamation District of Greater Chicago  
Research and Development Department

TABLE 3 (Continued)

SENSITIVE AREA FLOW QUANTITIES

Conversely, southerly winds will produce the opposite effect. Thus, the vagaries of lake level produce a flushing effect, which may be as strong, if not stronger than the flow taken through the OL&D.

5. Calumet Slough is the extension of Midlothian Creek, which discharges eastward from Kedzie Avenue to the Little Calumet River. The slough discharges at the westernmost point on the river where the river makes a sharp, nearly 180-degree bend. At Kedzie Avenue, a large highway drainage conduit diverts high flows to the north along Kedzie Avenue to the Calumet-Sag Channel. Low flows in Midlothian Creek and Calumet Slough derive from groundwater base flow from the Tinley and Valparaiso Moraines.

Reference: Illinois State Water Survey Contract Report 545 (1993)  
7-Day 10-Year Low Flows; Northeastern Illinois Streams  
Vern Knapp, ISWS, Urbana, 217-333-4423

### Outfall Locations

The IEPA determined that all discharges to General Use waters, as designated by the IPCB, have the potential to be considered as discharges to sensitive areas. Thus, the IEPA included this information gathering requirement in the permits so that the IEPA would have adequate information to make a determination whether or not the outfall discharges to a sensitive area. The outfalls as indicated by discharge number, the receiving waters and the outfall locations are shown in Table 4.

Metropolitan Water Reclamation District of Greater Chicago

TABLE 4

DISCHARGE NUMBER, RECEIVING WATER AND LOCATION OF  
COMBINED SEWER OUTFALLS FOR SENSITIVE AREA CONSIDERATION

Discharge Number	Receiving Water	Location
Calumet WRP		
151	Calumet River	94 <sup>th</sup> Place, Howard Slip
152	Calumet River	122 <sup>nd</sup> Street
165	Midlothian Creek*	Western Avenue
166	Midlothian Creek*	Campbell Street, South Bank
167	Midlothian Creek*	Campbell Street, North Bank
168	Midlothian Creek*	Chatham Street
North Side WRP		
101	North Shore Channel	Sheridan Road
102	North Shore Channel	Green Bay Road
103	North Shore Channel	Emerson Street
104	North Shore Channel	Lake Street
109	Des Plaines River	Rand Road
110	North Shore Channel	Oakton Street
Stickney WRP		
131	Des Plaines River	Devon Avenue
132	Des Plaines River	Northwest Toll Road
133	Des Plaines River	Foster Avenue
134	Des Plaines River	North Avenue
135	Des Plaines River	Chicago Avenue
136	Des Plaines River	Roosevelt Road
150	Addison Creek	Gardner Road

\* Calumet Slough is the extension of Midlothian Creek, which discharges eastward from Kedzie Avenue to the Little Calumet River. The slough discharges at the westernmost point on the river where the river makes a sharp, nearly 180-degree bend. At Kedzie Avenue, a large highway drainage conduit diverts high flows to the north along Kedzie Avenue to the Calumet-Sag Channel.

## CALUMET RIVER AT DISCHARGE NUMBER 151

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Calumet Intercepting Sewer system via pumping of excess flow at the 95<sup>th</sup> Street Pumping Station to the Calumet River at Howard Slip. See [Figure 1](#). It is required in the NPDES permit effective March 1, 2002, that frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

### Discharge 151 Combined Sewer Overflow for March through September 2002

Month	Date	Duration Hours	Volume MG	Loading in pounds	
				BOD	SS
March	-	0	0	0	0
April	-	0	0	0	0
May	12	4.4	6.5	10,300	52,100
June	-	0	0	0	0
July	-	0	0	0	0
August	22	2	55.9	24,700	108,159
September	-	0	0	0	0

The report of the field survey of aquatic and riparian habitat, conducted on May 9, 2002, is found in [Appendix IV](#). Based on the survey, there is no opportunity for primary contact recreation in the proximity of the outfall due to the surrounding urban commercial and industrial land use, vertical river walls and great depth of water. The depths range from 17 feet along the river walls to 30 feet in the center of the river. Primary contact recreation is possible only if practiced from watercraft transiting the Calumet River. Swimming would be hazardous due to the use of this channel for commercial and recreational navigation. Swimming is also hazardous due to the lack of ladders or other devices for exit from the water next to the high and vertical river walls.

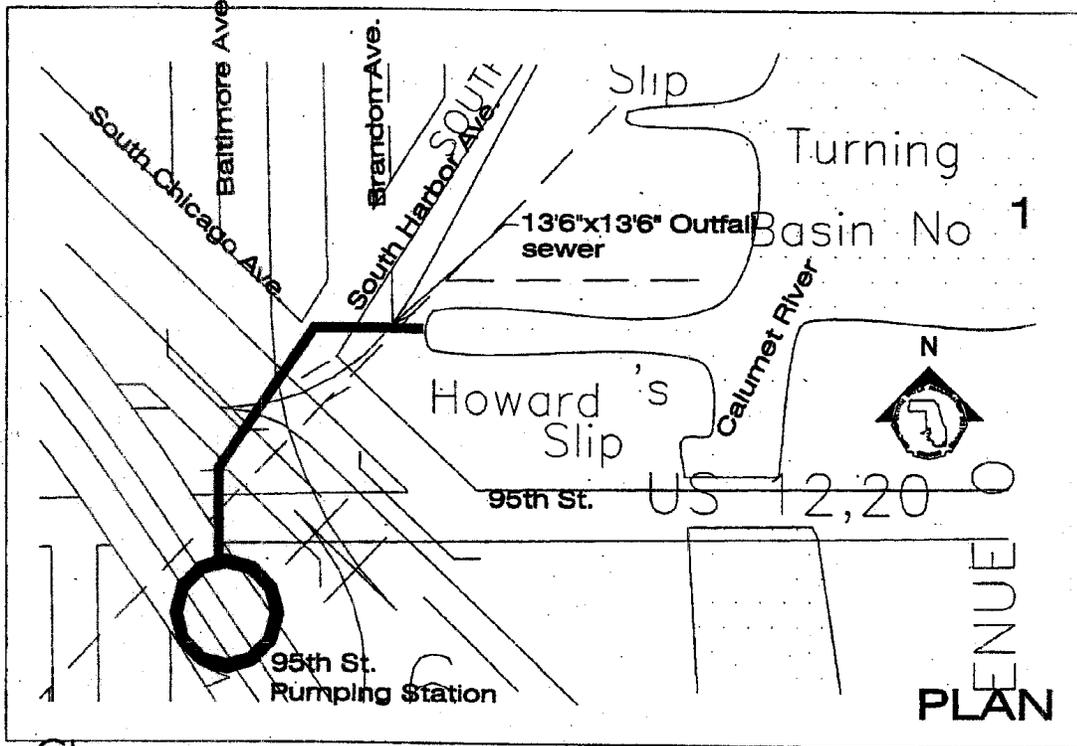
[Appendix IV](#) also contains the responses received from the letters of inquiry found in [Appendix I](#). The letter from the City of Chicago, Department of Water (Chicago Water) dated April 22, 2002, expresses the belief that the outfall is within the drinking water intake protection area of the South Water Purification Plant. However, this conflicts with the statement made in the response from the IEPA, which indicates that the only drinking water intakes are in Lake Michigan, a direct indication that there are no drinking water intakes on the Calumet River and that the Calumet River is not considered a drinking water protection area.

Further, the Chicago Water letter states that the intake is two miles from the outfall. This is a straight-line distance and not the distance that a water molecule would have to travel from the outfall to the intake. The travel distance is actually 4.5 miles as scaled from the map supplied by the City. Discharges from the outfall would be subject to significant dilution in the volume of water in the river and dispersion in Calumet Harbor and Lake Michigan before reaching the intake. Further, the normal flow of the Calumet River is away from the lake, making it unlikely for any short-term discharge and river flow reversal to even reach the harbor, let alone the intake.

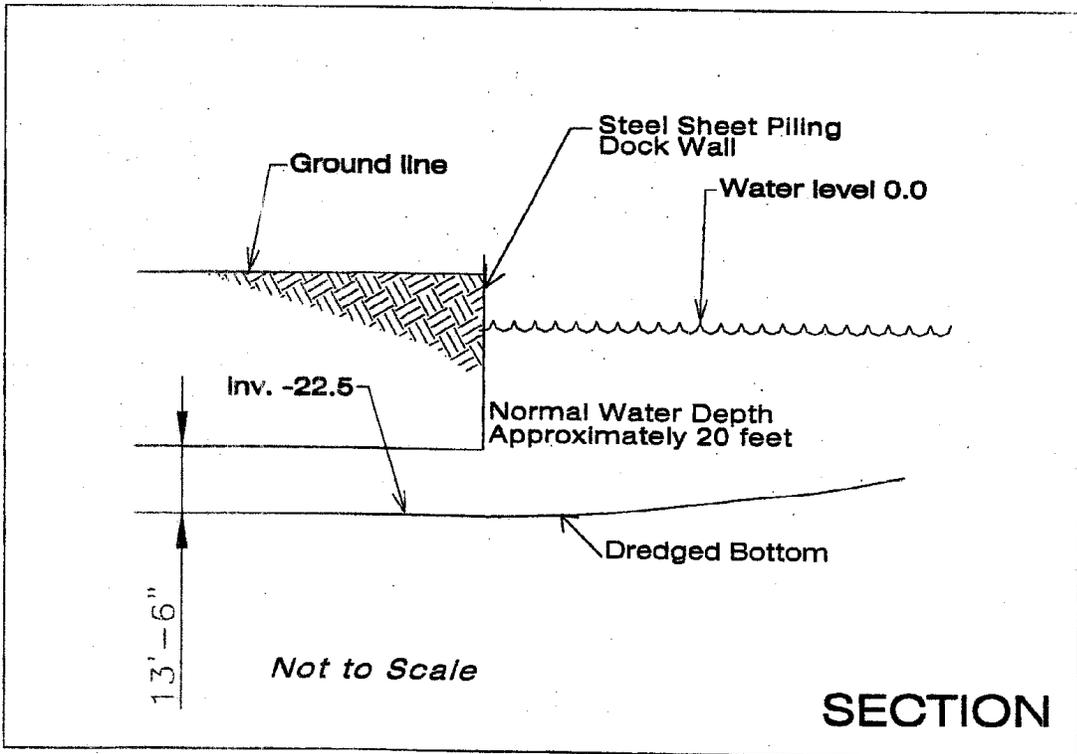
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 1

DISCHARGE NUMBER 151



Chicago



Hyde Park Township, Cook County, Illinois, T37N, R15E, Section 5

The City Water letter makes reference to periods of heavy rainfall and high winds impacting intake water quality. Such conditions would also cause stirring up bottom sediments in the lake, runoff from land areas in Illinois and Indiana and increased discharge from other tributaries to Lake Michigan. As a result, it would be very difficult to separate the impacts of a discharge from this outfall from the impacts of these other discharges and conditions. It is noted that the Chicago Water letter offers no data to document the alleged impacts of CSOs from this outfall.

The letter dated April 25, 2002, from the Chicago Park District (Park District) makes reference to potential impacts on nearby bathing beaches on Lake Michigan. However, as in the case of the drinking water intake, the distance that a water molecule would have to travel from the outfall to the beaches is on the order of several miles. The same issues regarding dilution, dispersion, river flow and the impact of other tributary flows mentioned above would apply here as well. It is noted that the Park District letter offers no data to document the alleged impacts of CSOs from this outfall.

The responses from the U.S. Fish and Wildlife Service, Illinois Department of Public Health, Illinois Department of Natural Resources and IEPA do not offer any information indicating that this outfall discharges to a sensitive area.

Finally, it should be noted that upon completion of the District's Contract No. 75-208-2H, anticipated by June 30, 2003, the discharge from this outfall will be captured and diverted to the Torrence Avenue Tunnel portion of the Calumet Tunnel and Reservoir Plan (TARP) System. This will reduce the frequency and volume of discharges from this outfall.

CALUMET RIVER AT DISCHARGE NUMBER 152

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Calumet Intercepting Sewer system via pumping of excess flow at the 122nd Street Pumping Station to the Calumet River. See Figure 2. It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

**Discharge 152 Combined Sewer Overflow for March through September 2002**

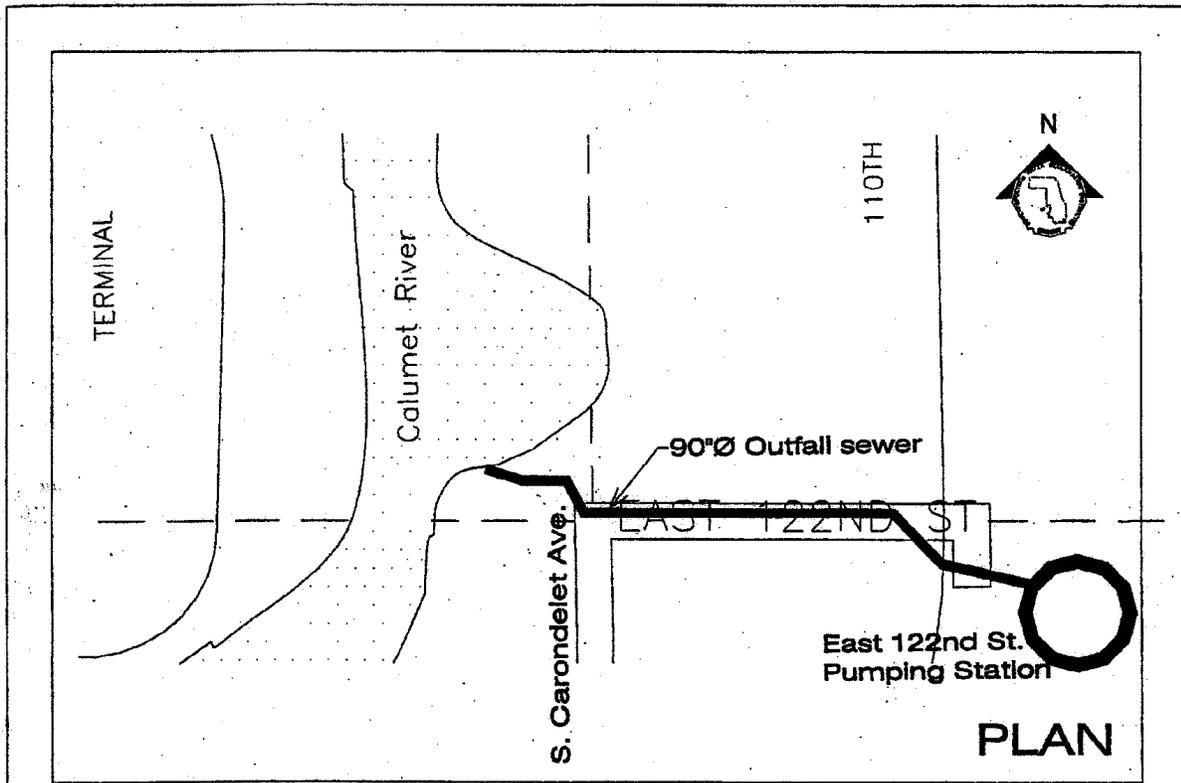
Month	Date	Duration Hours	Volume MG	Loading in pounds	
				BOD	SS
March	-	0	0	0	0
April	-	0	0	0	0
May	-	0	0	0	0
June	-	0	0	0	0
July	-	0	0	0	0
August	-	0	0	0	0
September	-	0	0	0	0

The report of the field survey of aquatic and riparian habitat, conducted on May 9, 2002, is found in Appendix V. Based on the survey, there is no opportunity for primary contact recreation in the proximity of the outfall due to the surrounding urban commercial and industrial land use, vertical river walls and great depth of water. The depths range from 12 feet along the river walls to 28 feet in the center of the river. Primary contact recreation is possible only if practiced from watercraft transiting the Calumet River. Swimming would be hazardous in this shipping channel.

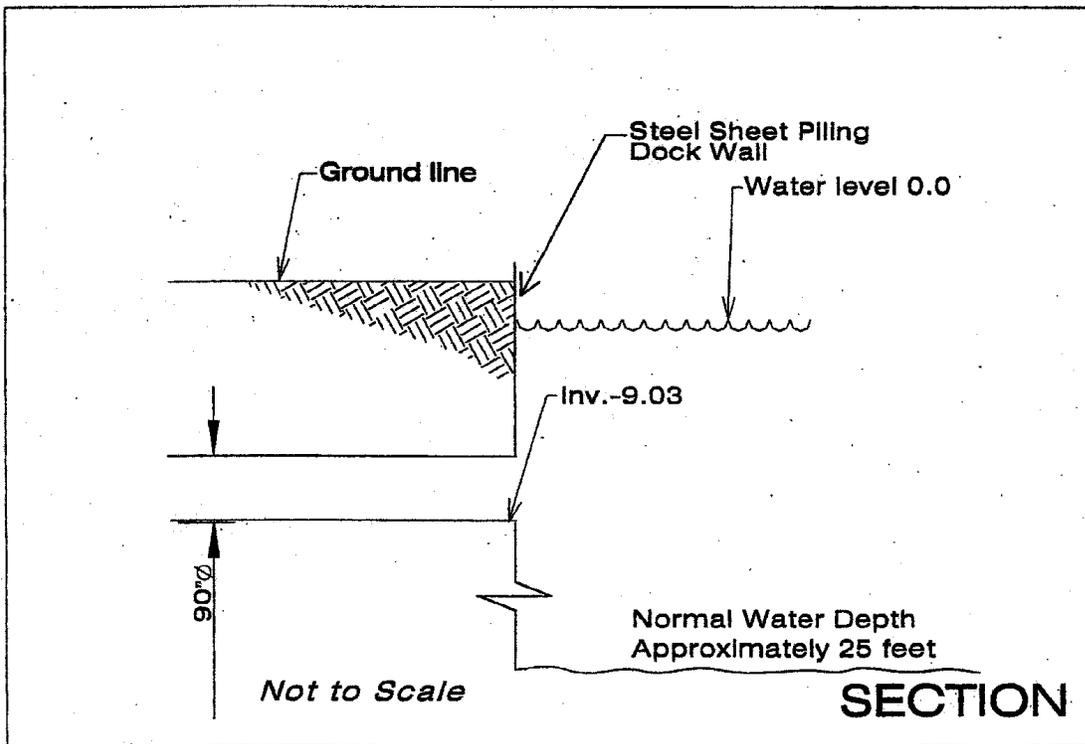
Appendix V also contains the responses received from the letters of inquiry found in Appendix I. The letter from the Illinois Natural History Survey received on April 5, 2002, indicates only a few tolerant mussel species in the area. The few sensitive fish species collected in the area are thought to be strays, not that this area is critical habitat. The Illinois Department of Natural Resources, Division of Resource Review and Coordination's response dated May 23, 2002, referred to numerous state-listed species in Lake Calumet and concluded no impact because the lake is upstream of the outfall. Actually, the lake is downstream of the outfall, but the lake is off-channel, so that no flow to the lake will occur from the Calumet River. A second response from the same office dated June 4, 2002, reiterated a similar response. The April 30, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated May 8, 2002 indicates that there are no federally endangered or threatened species in the vicinity of the outfall.

FIGURE 2

DISCHARGE NUMBER 152



Chicago



In the letter dated May 10, 2002, Commissioner Jimenez of the City of Chicago Department of Environment reiterates a number of positive steps being taken by city departments to reduce polluted discharges. The letter goes on to state, incorrectly, that the Calumet River flows into Lake Michigan and that the river feeds important wetlands. Actually, the river flows away from Lake Michigan most of the time and the wetlands drain to the river. There is no disagreement that the river is a popular place for boating and fishing. However, none of the information offered indicates that the river in the vicinity of the outfall is used for primary contact recreation.

## MIDLOTHIAN CREEK AT DISCHARGE NUMBER 165

This outfall is part of intercepting sewer Calumet 19, Extension A, located in Blue Island, Illinois, and discharges to Midlothian Creek (Calumet Slough) at Western Avenue. See Figure 3. The intercepting sewer served a large food processing plant, which has been closed for several years, and now serves only commercial facilities and residences. It is believed that the outfall has not discharged any CSO in years.

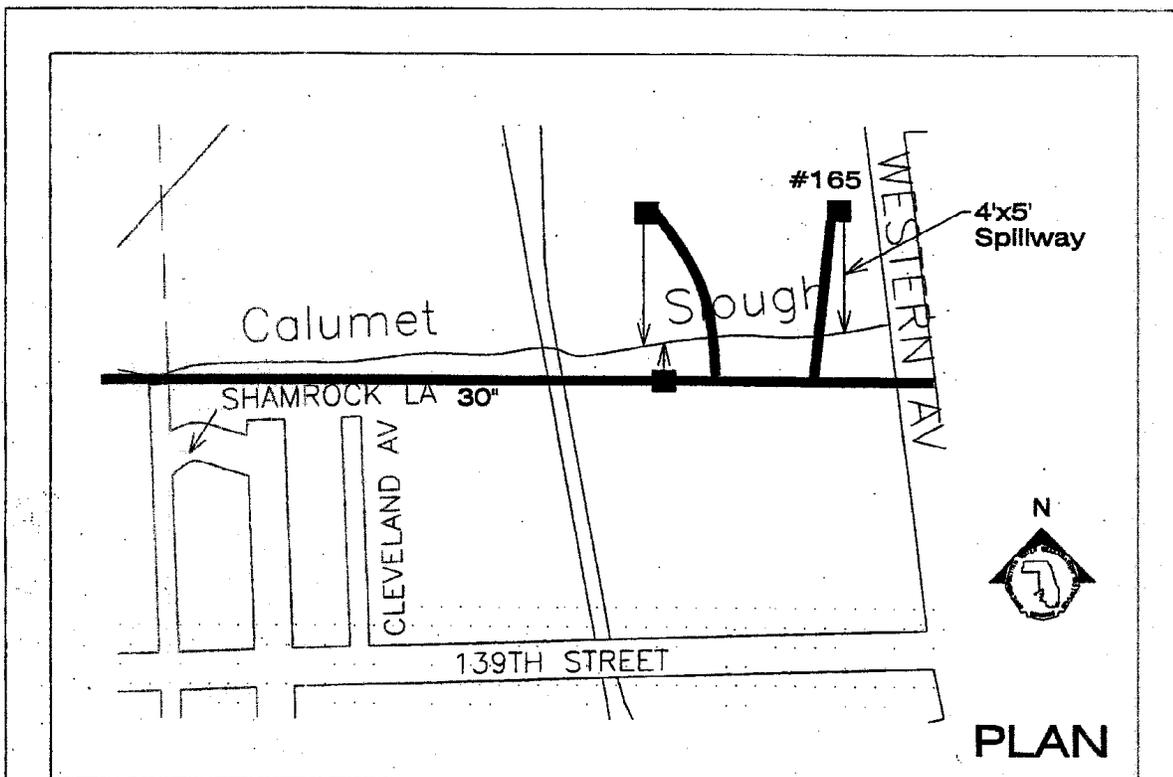
The report of the field survey of aquatic and riparian habitat, conducted on May 9, 2002, is found in Appendix VI. Based on the survey, there is little or no opportunity for primary contact recreation in the proximity of the outfall due to shallow water depths. Direct access to the stream is possible.

Appendix VI also contains the responses received from the letters of inquiry found in Appendix I. The letters from the Illinois Department of Natural Resources dated June 4, 2002, and the Illinois Department of Public Health dated April 30, 2002, make no reference to this outfall. The letter from the U.S. Fish and Wildlife Service dated May 8, 2002, indicates their belief that there are no federally endangered or threatened species in the vicinity of the outfall. The response from the Illinois Natural History Survey indicates that they have no data specific to the area near the outfall.

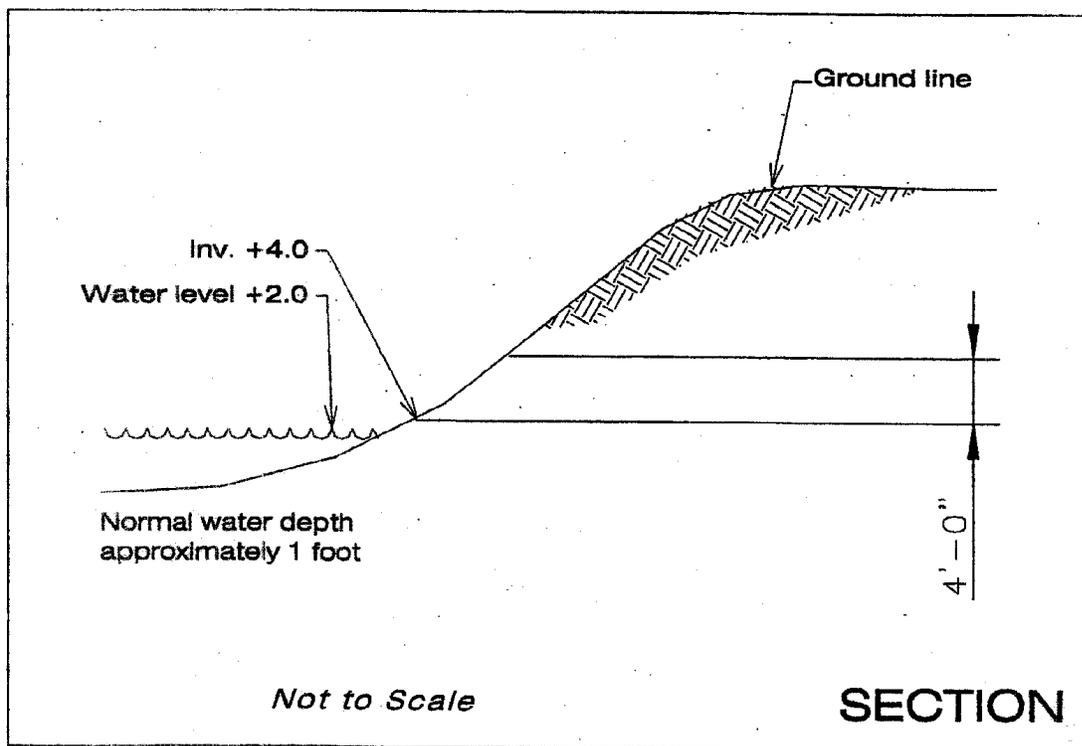
Last, it should be noted that the District is constructing the TARP Calumet Tunnel System Little Calumet River Leg under Contract 75-213-2H. This tunnel will capture CSO at this outfall and eliminate CSOs when the construction is completed. The outfall will also be bulkheaded. Construction is expected to be complete by March 2006.

FIGURE 3

DISCHARGE NUMBER 165



Blue Island



Bremen Township, Cook County, Illinois, T36N, R13E, Section 1

## MIDLOTHIAN CREEK AT DISCHARGE NUMBERS 166 AND 167

These two outfalls are located on opposite sides of Midlothian Creek (Calumet Slough) at Campbell Avenue and are part of intercepting sewer Calumet 19, Extension A, located in Blue Island, Illinois. See Figure 4. It is believed that neither one of these outfalls have discharged any CSO in years because of the reduction in flow due to the closing several years ago of a large food processing plant in the vicinity.

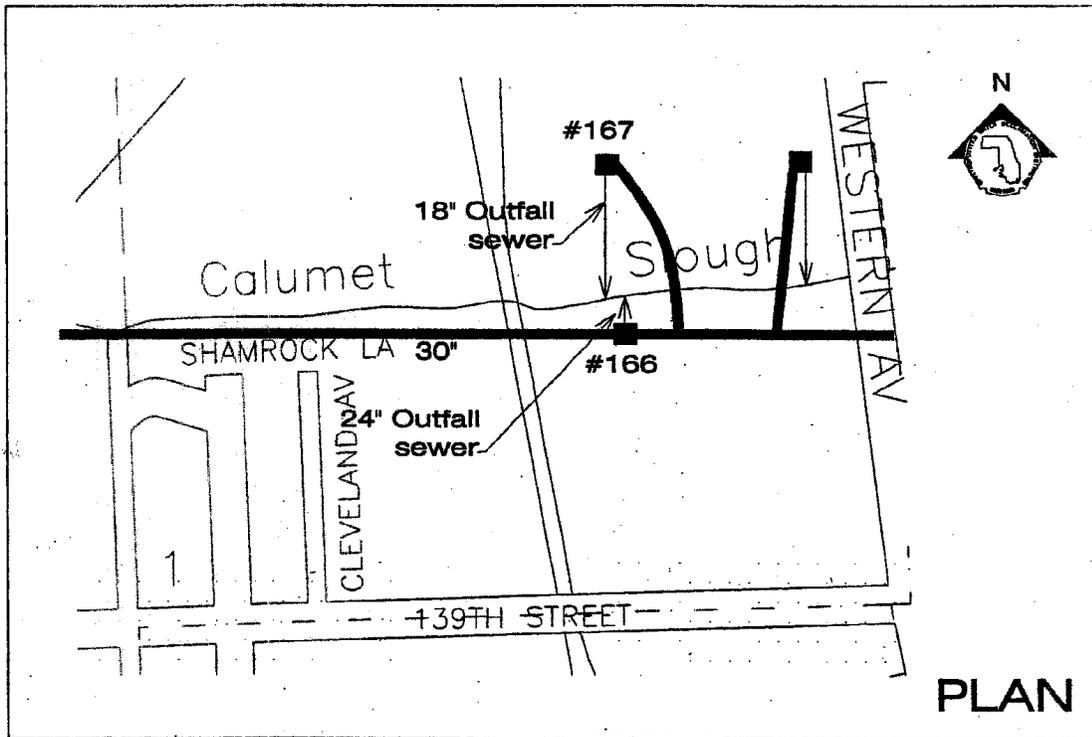
The report of the field survey of aquatic and riparian habitat, conducted on May 9, 2002, is found in Appendix VII. Based on the survey, there is little or no opportunity for primary contact recreation in the proximity of the outfall due to shallow water depths. Direct access to the stream is possible.

Appendix VII also contains the responses received from the letters of inquiry found in Appendix I. The responses from the Illinois Department of Natural Resources dated June 4, 2002, and the Illinois Department of Public Health dated April 30, 2002, contain no information that would define this outfall as discharging to a sensitive area. The letter from the U.S. Fish and Wildlife Service dated May 8, 2002, indicates their belief that there are no federally endangered or threatened species in the vicinity of the outfall. The undated responses from the IEPA and the City of Blue Island indicate that an examination of their records reveals no information that would lead them to determine that the discharge from these outfalls does not fall into one of the sensitive area categories.

Last, it should be noted that the District is constructing the TARP Calumet Tunnel System Little Calumet River Leg under Contract 75-213-2H. This tunnel will capture CSO at this outfall and eliminate CSOs when the construction is completed. The outfall will also be bulkheaded. Construction is expected to be complete by March 2006.

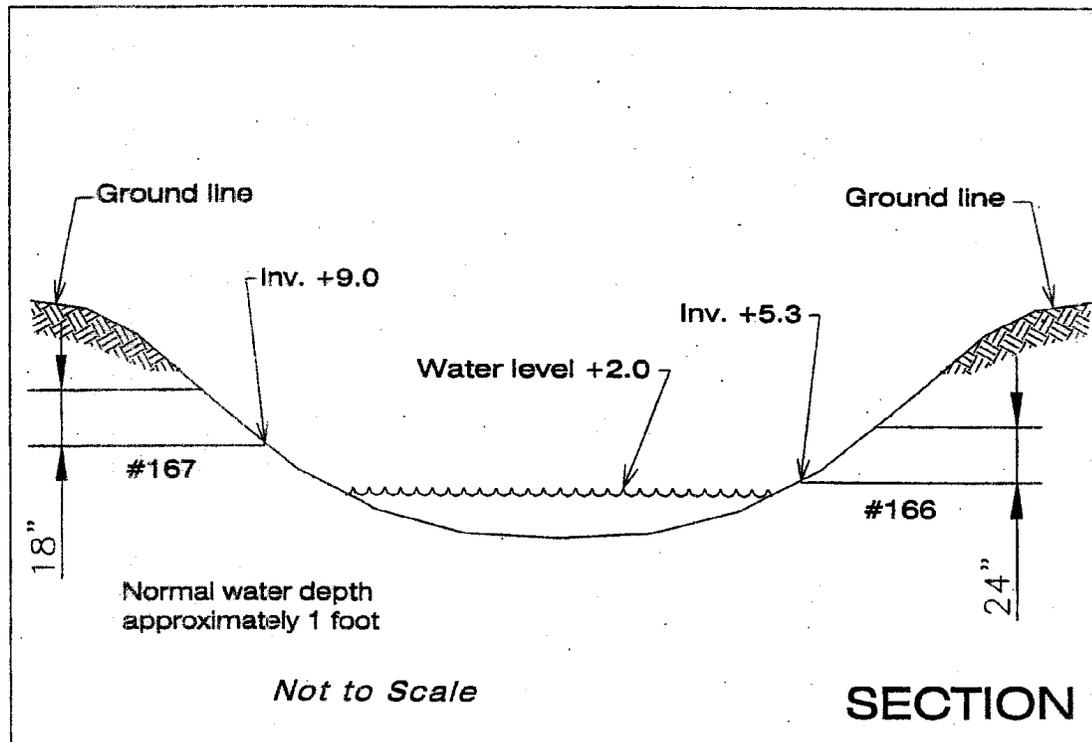
FIGURE 4

DISCHARGE NUMBER 166, 167



PLAN

Blue Island



SECTION

Bremen Township, Cook County, Illinois, T36N, R13E, Section 1

## MIDLOTHIAN CREEK AT DISCHARGE NUMBER 168

This outfall is located on Midlothian Creek (Calumet Slough) at Chatham Street and is part of intercepting sewer Calumet 19, Extension A, located in Blue Island, Illinois. See Figure 5. It is believed that this outfall has not discharged any CSO in years because of the reduction in flow due to the closing several years ago of a large food processing plant in the vicinity.

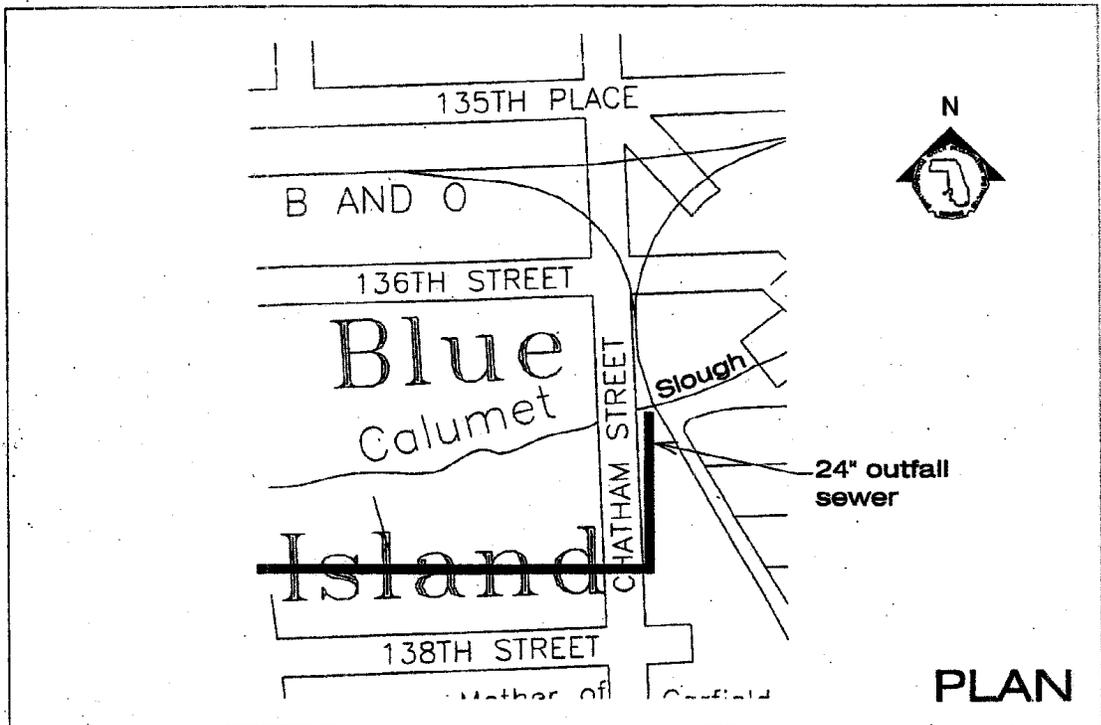
The report of the field survey of aquatic and riparian habitat, conducted on May 9, 2002, is found in Appendix VIII. Based on the survey, there is little or no opportunity for primary contact recreation in the proximity of the outfall due to shallow water depths. Direct access to the stream is possible.

Appendix VIII also contains the responses received from the letters of inquiry found in Appendix I. The responses from the Illinois Department of Natural Resources dated June 4, 2002, and the Illinois Department of Public Health dated April 30, 2002, contain no information that would define this outfall as discharging to a sensitive area. The letter from the U.S. Fish and Wildlife Service dated May 31, 2002, indicates their belief that there are no federally endangered or threatened species in the vicinity of the outfall. The undated responses from the IEPA, the Illinois Natural History Survey and the City of Blue Island indicate that an examination of their records reveals no information that would lead them to determine that the discharge from these outfalls does not fall into one of the sensitive area categories.

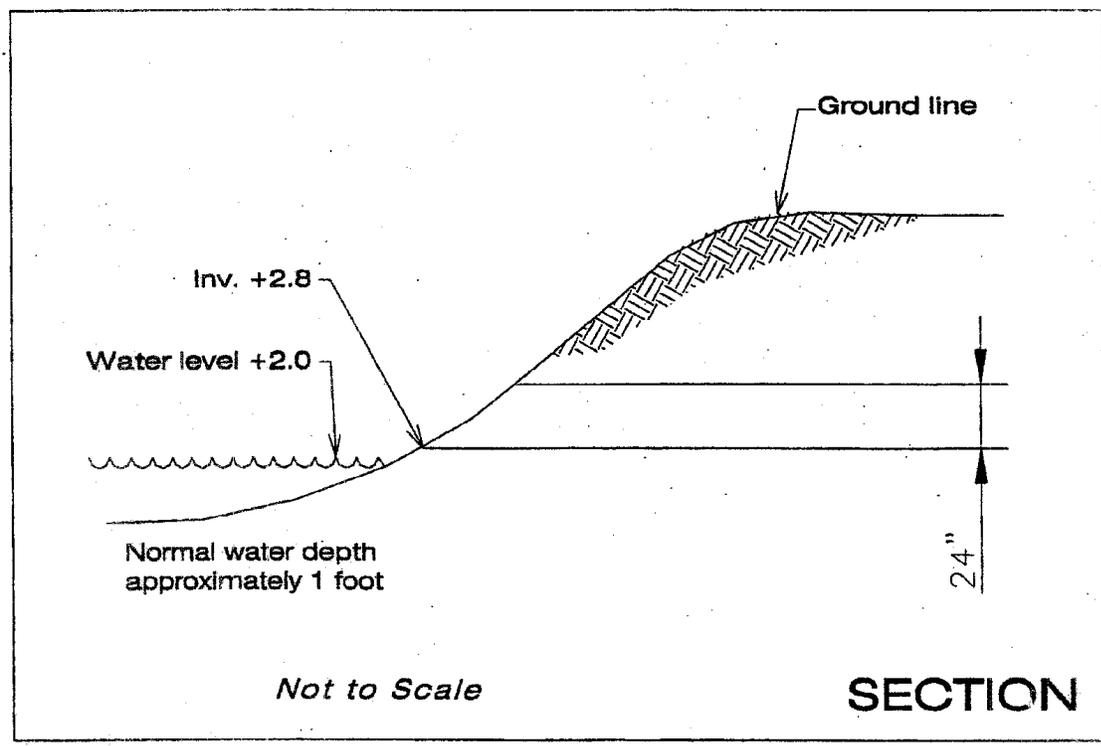
Last, it should be noted that the District is constructing the TARP Calumet Tunnel System Little Calumet River Leg under Contract 75-213-2H. This tunnel will capture CSO at this outfall and eliminate CSOs when the construction is completed. The outfall will also be bulkheaded. Construction is expected to be complete by March 2006.

FIGURE 5

DISCHARGE NUMBER 168



Blue Island



## NORTH SHORE CHANNEL AT DISCHARGE NUMBER 101

This outfall provides for relief of excessive combined storm runoff and sewage flows in the North Shore Intercepting Sewer No. 1 system via gravity discharge of excess flow to the North Shore Channel west of Sheridan Road in Wilmette, Illinois. See [Figure 6](#). It is required in the NPDES permit effective March 1, 2002, that in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

### Discharge 101 Combined Sewer Overflow for March through September 2002

Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	9	1.6	9.3	5,200	31,000
April	-	0	0	0	0
May	1,2,11,12,16	27.0	67.4	37,000	220,000
June	3,4	10.8	55.3	31,000	180,000
July	9	1.1	8.3	4,600	27,000
August	13,21,22	21.6	247.	132,000	780,000
September	-	0	0	0	0

The report of the field survey of aquatic and riparian habitat, conducted on May 23, 2002, is found in [Appendix IX](#). Based on the survey, opportunity for primary contact recreation is limited by restricted access to the water. Barriers exist in the form of fences and steep and wooded channel banks. Access to the water from boats is possible, but boat access to the North Shore Channel is limited. The bottom sediments are soft in the shallow areas along the channel banks and the water is too deep for safe swimming in the center of the channel.

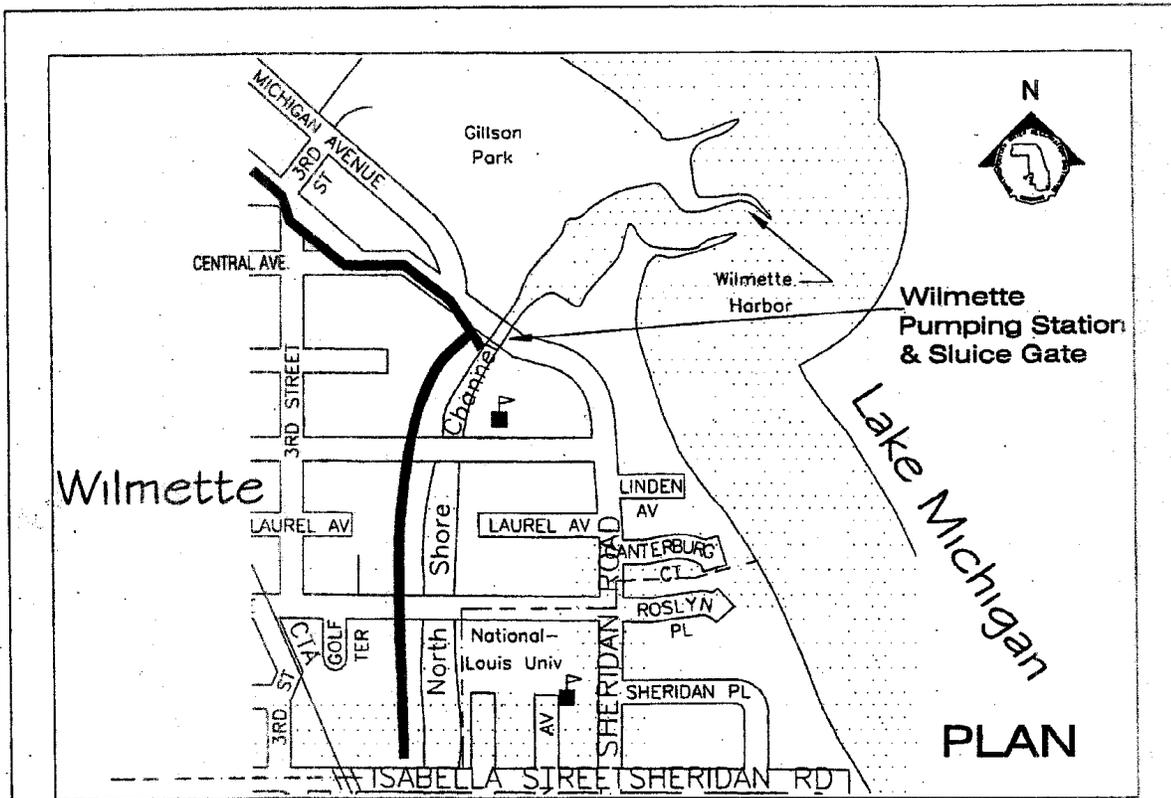
[Appendix IX](#) also contains the responses received from the letters of inquiry found in [Appendix I](#). The June 10, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. The response dated June 3, 2002, from the Illinois Department of Natural Resources, Division of Resource Review and Coordination indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated June 10, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

In an undated response from the IEPA, reference is made to Lake Michigan being a designated public water supply. Although true, this is irrelevant because the outfall does not discharge to Lake Michigan. The outfall discharges to the North Shore Channel downstream of the Wilmette Pumping Station, the control structure separating Lake Michigan and the North Shore Channel.

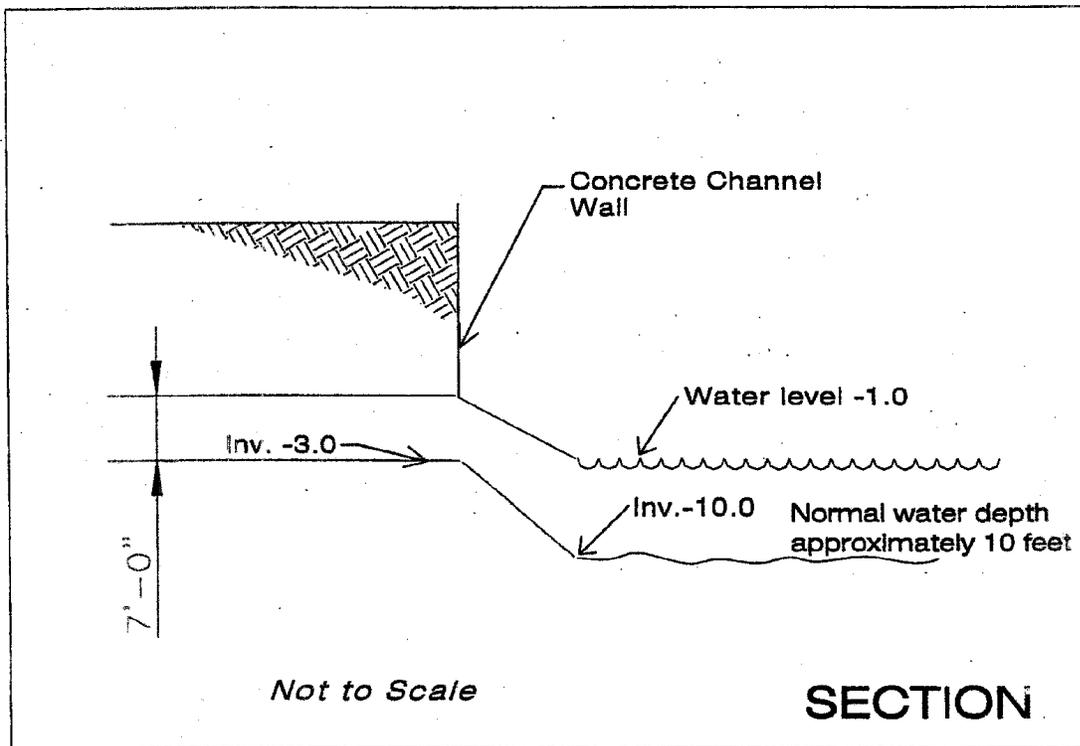
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 6

DISCHARGE NUMBER 101



Evanston



New Trier Township, Cook County, Illinois, T42N, R13E, Section 35

Two responses are received from local municipalities, the City of Evanston and the Village of Wilmette. In both cases, they indicate that none of the six federal sensitive area categories apply to the vicinity of the outfall. In addition, they raise no other concerns bearing on the matter of primary contact recreation.

## NORTH SHORE CHANNEL AT DISCHARGE NUMBER 102

This outfall provides for relief of excessive combined storm runoff and sewage flows in the North Shore Intercepting Sewer No. 6 system via gravity discharge of excess flow to the North Shore Channel west of Green Bay Road in Evanston, Illinois. See [Figure 7](#). It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

### Discharge 102 Combined Sewer Overflow for March through September 2002

Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	8,9	12.8	58.3	32,000	190,000
April	8,9,10	42.2	95.3	52,000	310,000
May	2,11,12,16	24.7	174.	94,000	560,000
June	3,4,5,10	29.7	382.	200,000	1,200,000
July	9	2.4	39.3	22,000	130,000
August	13,21,22	47.6	944.	450,000	2,600,000
September	2	3.8	63.4	35,000	210,000

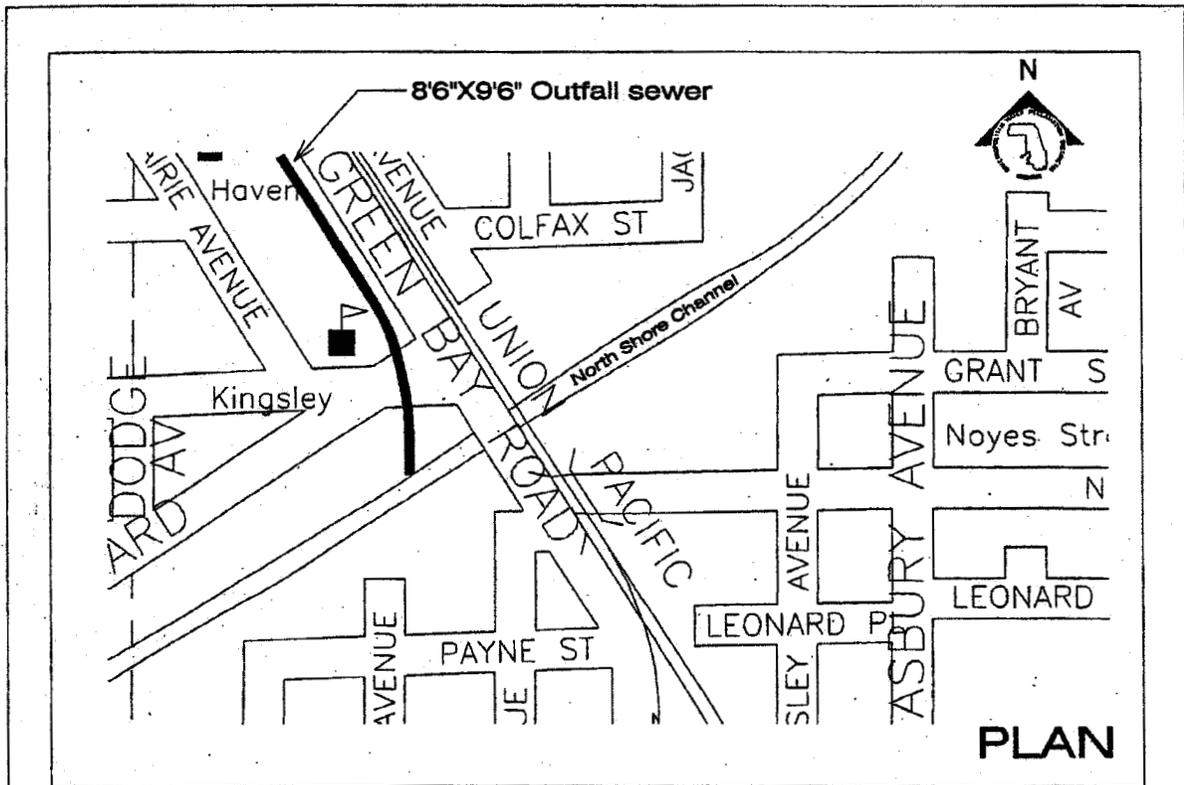
The report of the field survey of aquatic and riparian habitat, conducted on May 23, 2002, is found in [Appendix X](#). Based on the survey, opportunity for primary contact recreation is limited by restricted access to the water. Barriers exist in the form of fences near the top of the slope on each bank and steep and wooded channel banks. Access to the water from boats is possible, but boat access to the North Shore Channel is limited. The bottom sediments are soft in the shallow areas along the channel banks and in the center of the channel.

[Appendix X](#) also contains the responses received from the letters of inquiry found in [Appendix I](#). The June 10, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. The response dated June 5, 2002, from the Illinois Department of Natural Resources, Division of Resource Review and Coordination indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated June 10, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

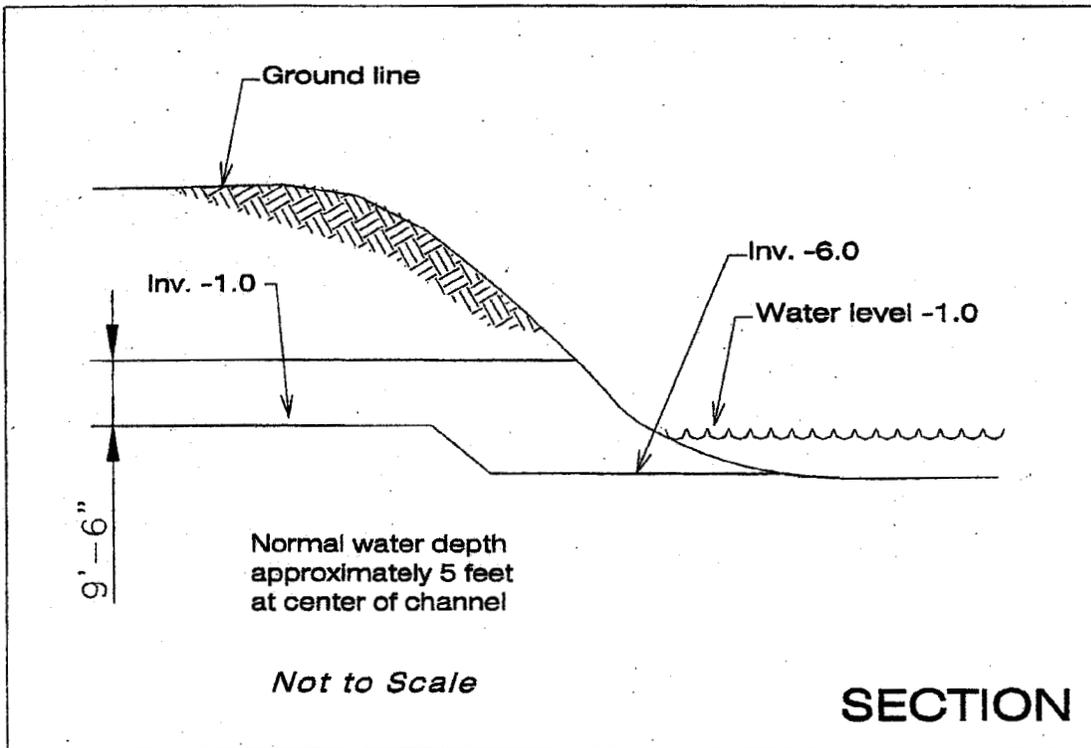
In an undated response, the IEPA indicates that based on an examination of their records, this outfall does not fall within three of the sensitive area categories. The response from the City of Evanston indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall. In addition, Evanston raises no other concerns bearing on the matter of primary contact recreation.

FIGURE 7

DISCHARGE NUMBER 102



Evanston



Evanston Township, Cook County, Illinois, T41N, R13E, Section 12

## NORTH SHORE CHANNEL AT DISCHARGE NUMBER 103

This outfall provides for relief of excessive combined storm runoff and sewage flow in the Evanston Sewer via gravity discharge of excess flow to the North Shore Channel south of Emerson Street in Evanston, Illinois. See Figure 8. The frequency, duration and volume of recent discharges are not known because this outfall contains no sensors and remote reporting of backwater gate position.

The report of the field survey of aquatic and riparian habitat, conducted on May 23, 2002, is found in Appendix XI. Based on the survey, opportunity for primary contact recreation is limited by restricted access to the water. Barriers exist in the form of fences and steep and wooded channel banks. Access to the water from boats is possible, but boat access to the North Shore Channel is limited. The bottom sediments are soft in the shallow areas along the channel banks and the water is too deep for safe swimming in the center of the channel.

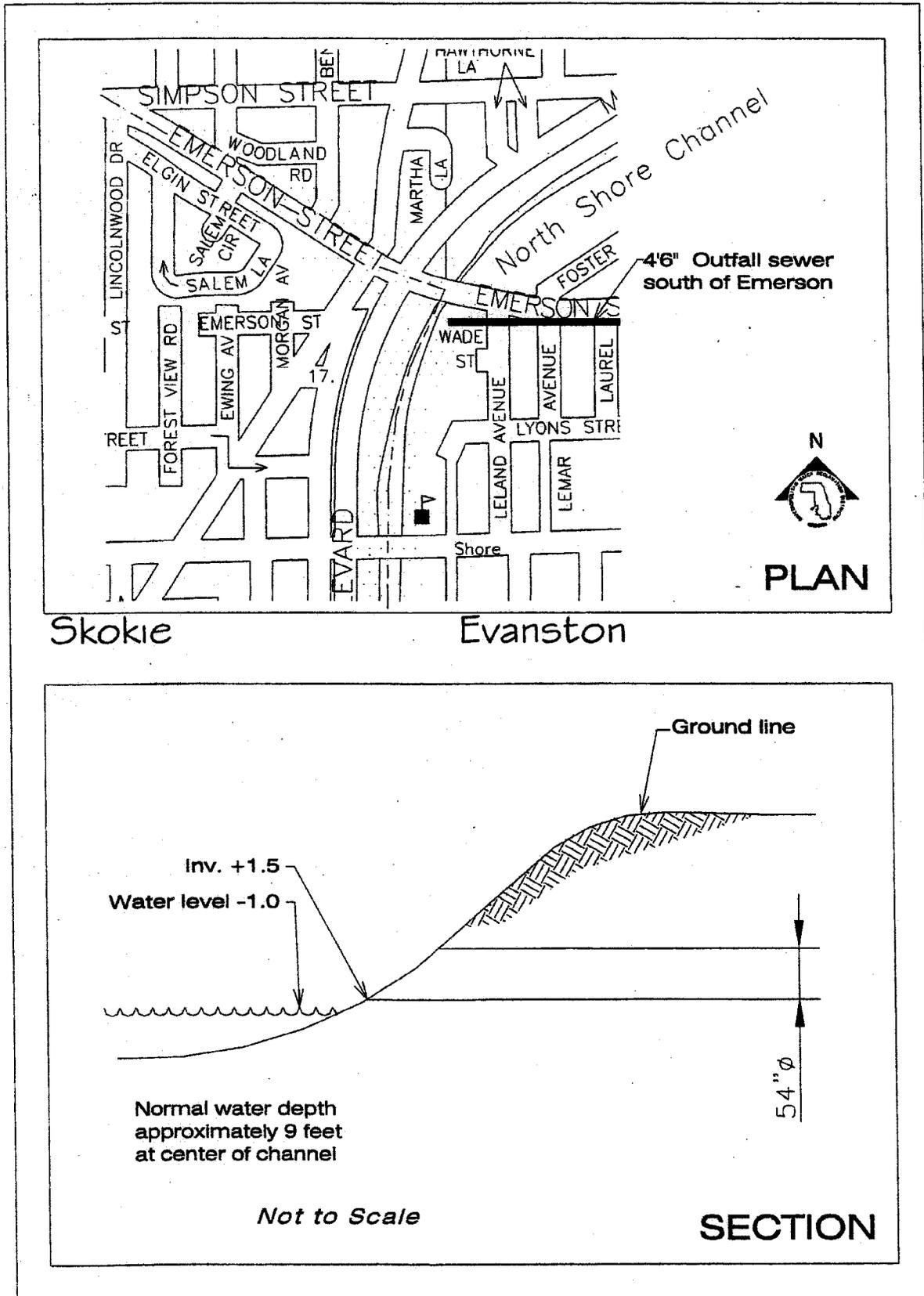
Appendix XI also contains the responses received from the letters of inquiry found in Appendix I. The June 10, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. The response dated June 5, 2002, from the Illinois Department of Natural Resources, Division of Resource Review and Coordination indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated June 24, 2002, indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

In an undated response from the IEPA, reference is made to Lake Michigan being a designated public water supply. Although true, this is irrelevant because the outfall does not discharge to Lake Michigan. The outfall discharges to the North Shore Channel downstream of the Wilmette Pumping Station, the control structure separating Lake Michigan and the North Shore Channel.

The response from the City of Evanston indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall. In addition, no other concern bearing on the matter of primary contact recreation is raised by the City of Evanston.

FIGURE 8

DISCHARGE NUMBER 103



Evanston Township, Cook County, Illinois, T41N, R13E, Section 13

## NORTH SHORE CHANNEL AT DISCHARGE NUMBER 104

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Evanston Intercepting Sewer via gravity discharge of excess flow to the North Shore Channel at Lake Street in Evanston, Illinois. See [Figure 9](#). It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

### Discharge 104 Combined Sewer Overflow for March through September 2002

Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	9	1.5	39.0	22,000	129,000
April	-	0	0	0	0
May	-	0	0	0	0
June	-	0	0	0	0
July	-	0	0	0	0
August	-	0	0	0	0
September	-	0	0	0	0

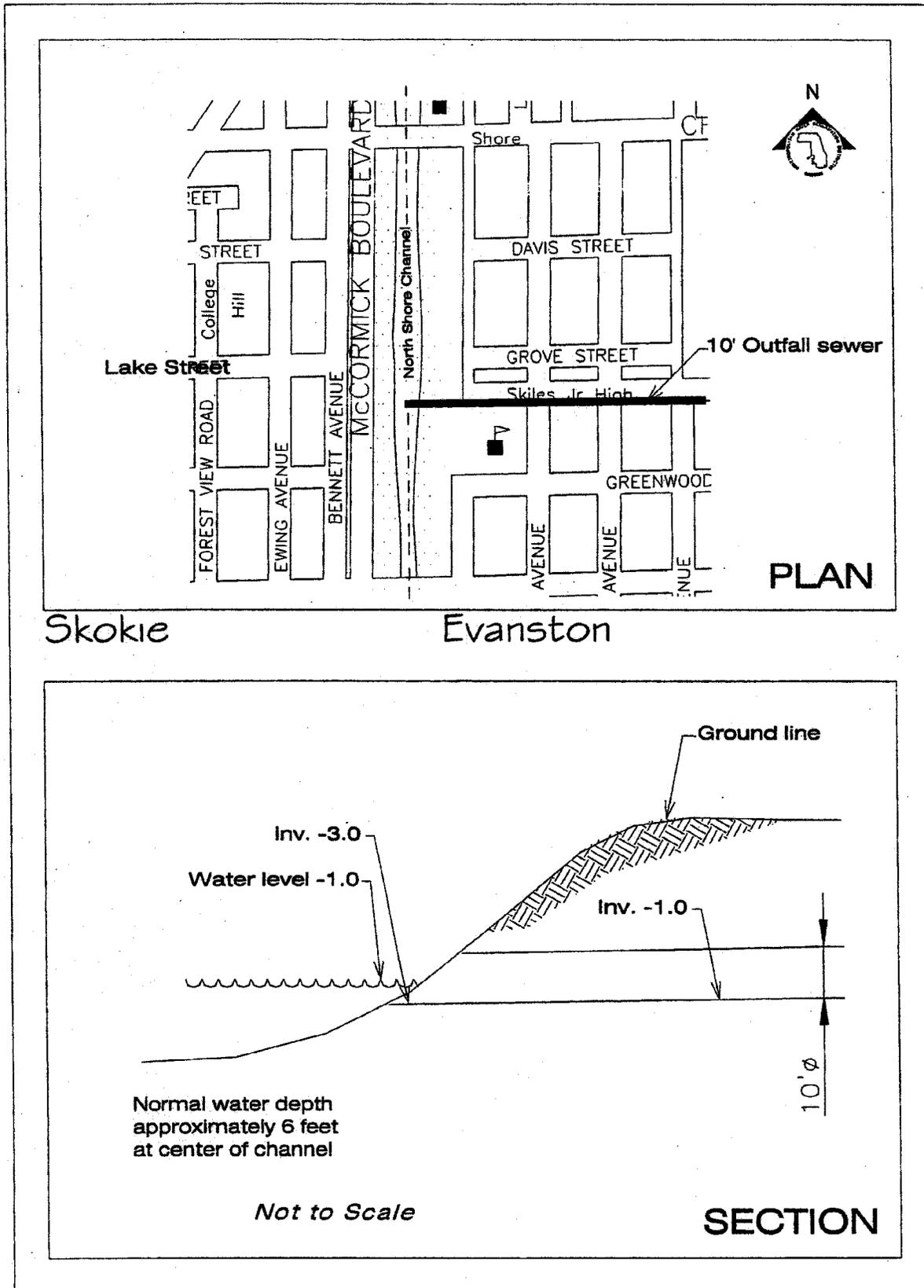
The report of the field survey of aquatic and riparian habitat, conducted on May 17, 2002, is found in [Appendix XII](#). Based on the survey, opportunity for primary contact recreation is limited by restricted access to the water. Barriers exist in the form of fences near the top of the slope on each bank and steep and wooded channel banks. Access to the water from boats is possible, but there is no boat access to the North Shore Channel within one mile. The bottom sediments are soft in the shallow areas along the channel banks and in the center of the channel. The depth of water in the center of the channel would be unsafe for swimming.

[Appendix XII](#) also contains the responses received from the letters of inquiry found in [Appendix I](#). The June 10, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated July 8, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated June 24, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

The response from the City of Evanston received on June 11, 2002, indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall. In addition, Evanston raises no other concerns bearing on the matter of primary contact recreation.

FIGURE 9

DISCHARGE NUMBER 104



Evanston Township, Cook County, Illinois, T41N, R13E, Section 13

## DES PLAINES RIVER AT DISCHARGE NUMBER 109

This outfall provides for relief of excessive combined storm runoff and sewage flow in the Upper Des Plaines Intercepting Sewer No. 11A via gravity discharge of CSO to the Des Plaines River at Ballard Road in Des Plaines, Illinois. See Figure 10. The frequency, duration and volume of recent discharges are not known because this outfall contains no sensors and remote reporting of backwater gate position and reporting is not required in the NPDES permit.

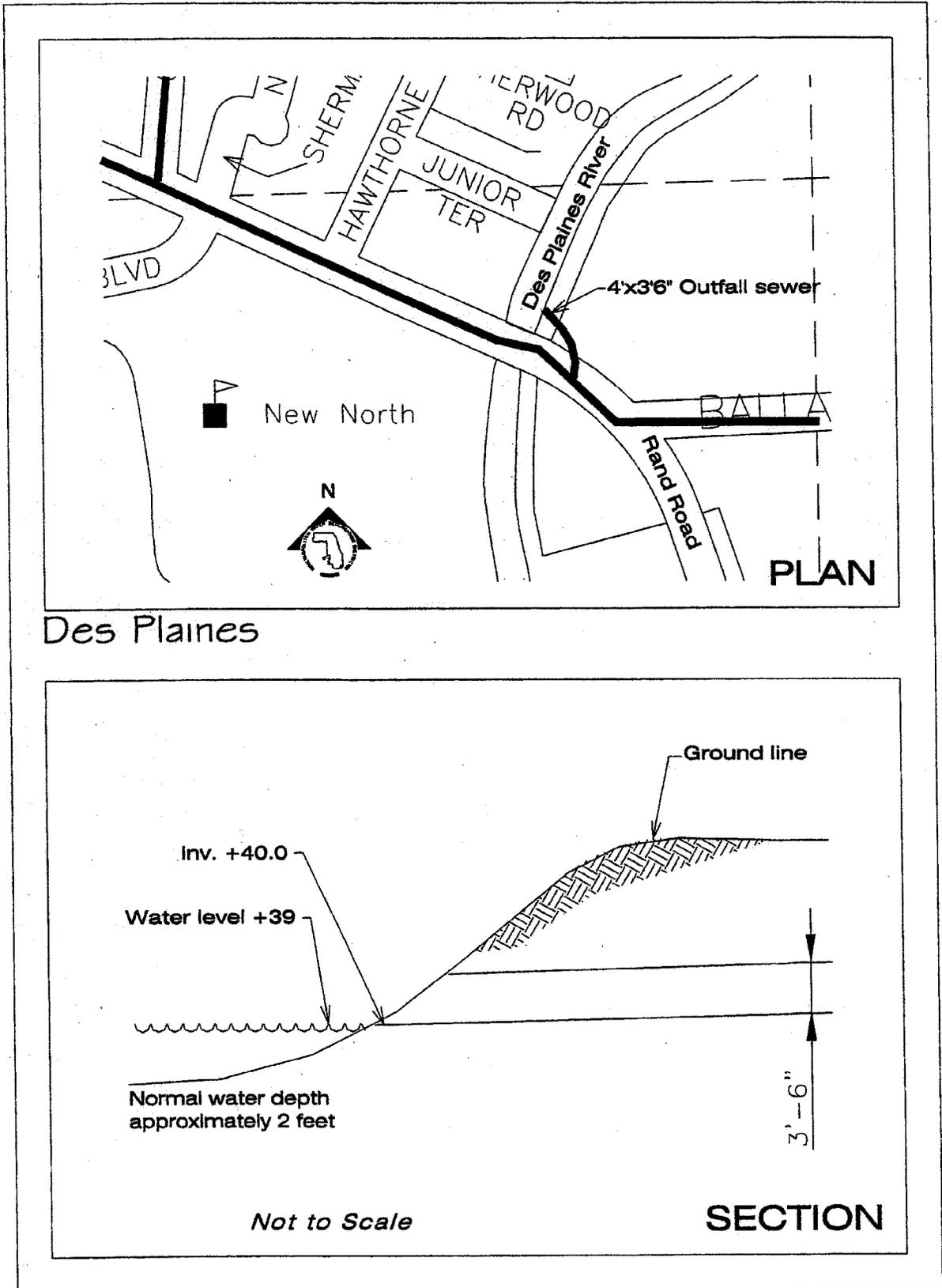
The report of the field survey of aquatic and riparian habitat, conducted on May 28, 2002, is found in Appendix XIII. Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County (FPDCC). Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in Appendix XIII.

Appendix XIII also contains the responses received from the letters of inquiry found in Appendix I. The June 10, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 21, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated July 9, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

In an undated response from the IEPA, reference is made to their April 5, 2002 letter, which does not indicate any specific reasons for this reach of the Des Plaines River to be considered a sensitive area. An undated response from the City of Des Plaines received on June 21, 2002, indicates that the city does not believe or have records to consider this reach of the Des Plaines River to be a sensitive area.

FIGURE 10

DISCHARGE NUMBER 109



Maine Township, Cook County, Illinois, T41N, R12E, Section 16

## NORTH SHORE CHANNEL AT DISCHARGE NUMBER 110

This outfall provides for relief of excessive combined storm runoff and sewage flow in the Niles Center Outlet Sewer via gravity discharge of CSO to the North Shore Channel at Oakton Street in Skokie, Illinois. See Figure 11. The frequency, duration and volume of recent discharges are not known because this outfall contains no sensors and remote reporting of backwater gate position and reporting is not required in the NPDES permit.

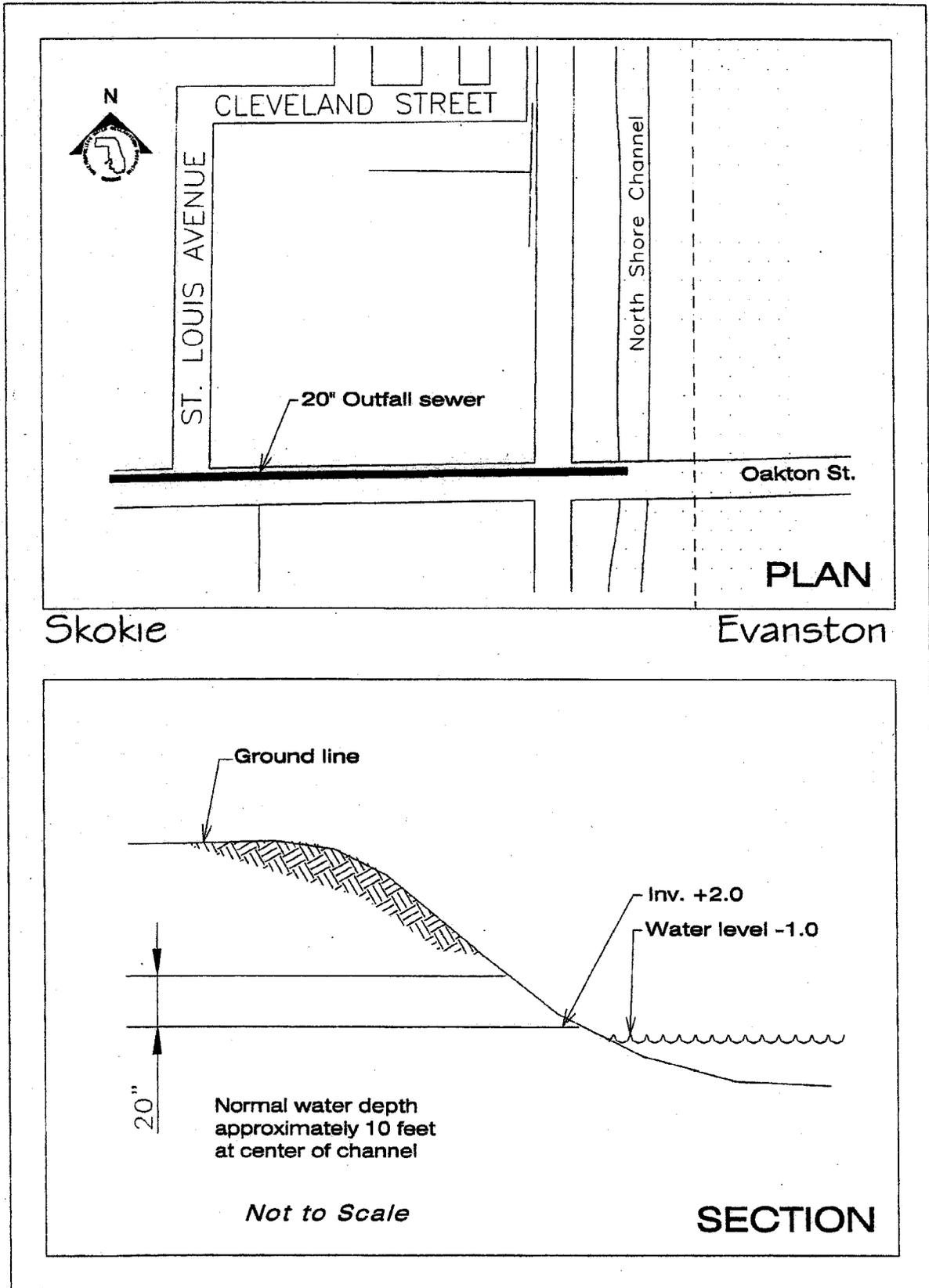
The report of the field survey of aquatic and riparian habitat, conducted on May 17, 2002, is found in Appendix XIV. Based on the survey, opportunity for primary contact recreation is limited by restricted access to the water. Barriers exist in the form of fences and steep and wooded channel banks. Access to the water from boats is possible and there is nearby boat access to the North Shore Channel on the east bank, north of Oakton Street, at the Skokie Park District Rowing Center. The bottom sediments in the North Shore Channel are soft in the shallow areas along the channel banks and the water is too deep for safe swimming in the center of the channel.

Appendix XIV also contains the responses received from the letters of inquiry found in Appendix I. The June 10, 2002 response from the Illinois Department of Public Health does not express any concern for discharges from this outfall. The response dated October 21, 2002, from the Illinois Department of Natural Resources, Division of Resource Review and Coordination indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated July 9, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

In an undated response from the IEPA, reference is made to Lake Michigan being a designated public water supply. Although true, this is irrelevant because the outfall does not discharge to Lake Michigan. The outfall discharges to the North Shore Channel several miles downstream of the Wilmette Pumping Station, the control structure separating Lake Michigan and the North Shore Channel.

FIGURE 11

DISCHARGE NUMBER 110



Niles Township, Cook County, Illinois, T41N, R13E, Section 23

## DES PLAINES RIVER AT DISCHARGE NUMBER 131

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Park Ridge Outfall Sewer via gravity discharge of excess flow to the Des Plaines River south of Devon Avenue in Park Ridge, Illinois. See [Figure 12](#). It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

### Discharge 131 Combined Sewer Overflow for March through September 2002

Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	29	0.1	0.2	110	670
April	8,24,27	0.1	1.6	890	5,300
May	2,11,12,16	7.7	195	110,000	630,000
June	4,10,14	4.9	91.8	50,000	11,000
July	9	0.1	0.4	220	1,300
August	4,13,22	5.8	400	210,000	1,200,000
September	2,18	0.1	1.2	670	4,000

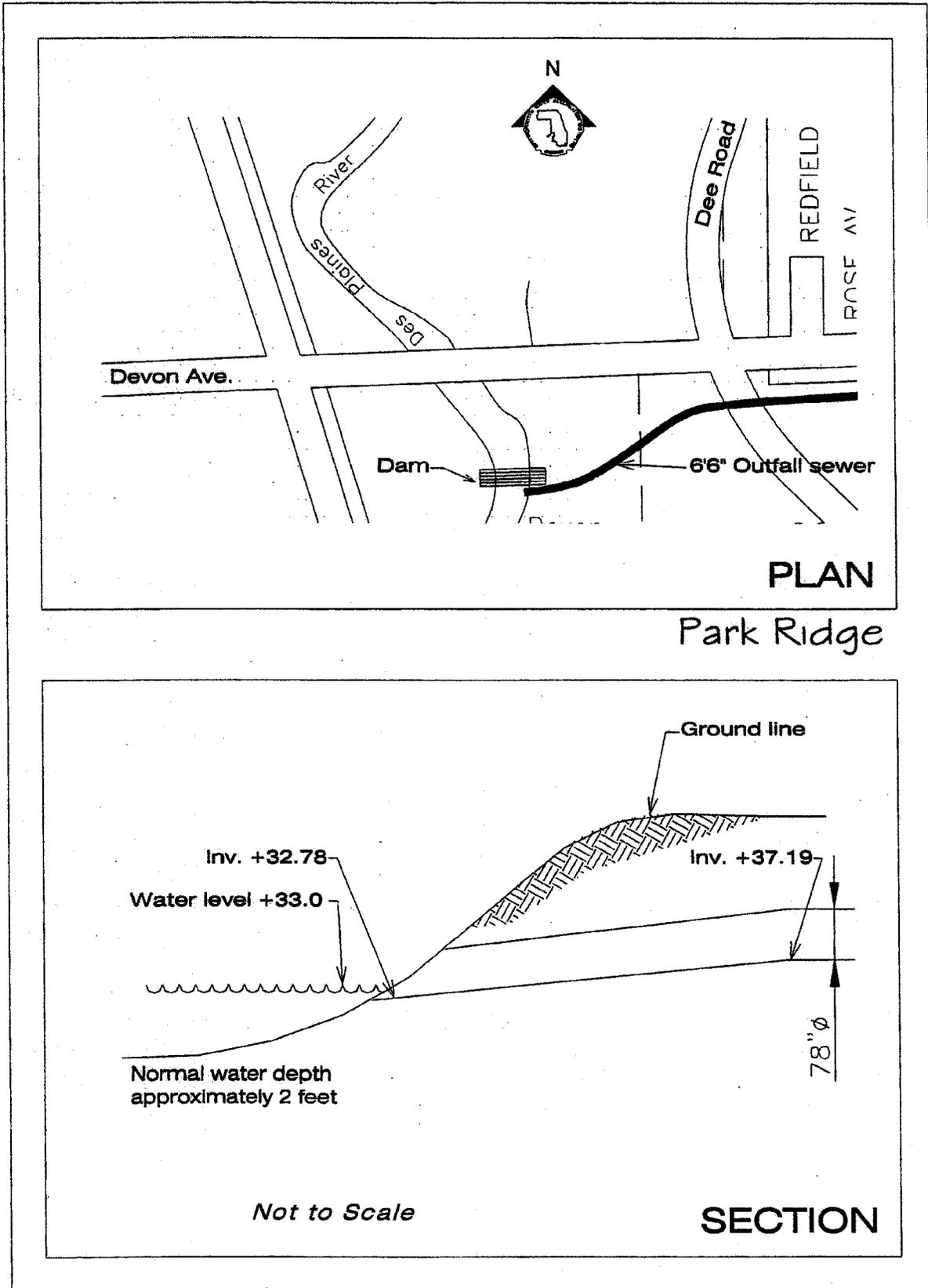
The report of the field survey of aquatic and riparian habitat, conducted on May 28, 2002, is found in [Appendix XV](#). Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County. Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in [Appendix XIII](#).

[Appendix XV](#) also contains the responses received from the letters of inquiry found in [Appendix I](#). The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 22, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated July 24, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

In an undated response, the IEPA indicates that based on an examination of their records, this outfall does not fall within three of the sensitive area categories. The response from the City of Park Ridge dated June 25, 2002 indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall.

FIGURE 12

DISCHARGE NUMBER 131



Leyden Township, Cook County, Illinois, T40N, R12E, Section 3

DES PLAINES RIVER AT DISCHARGE NUMBER 132

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Upper Des Plaines Intercepting Sewer No. 12C system via gravity discharge of excess flow to the Des Plaines River north of the Interstate Route 90 crossing in Rosemont, Illinois. See Figure 13. It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

**Discharge 132 Combined Sewer Overflow for March through September 2002**

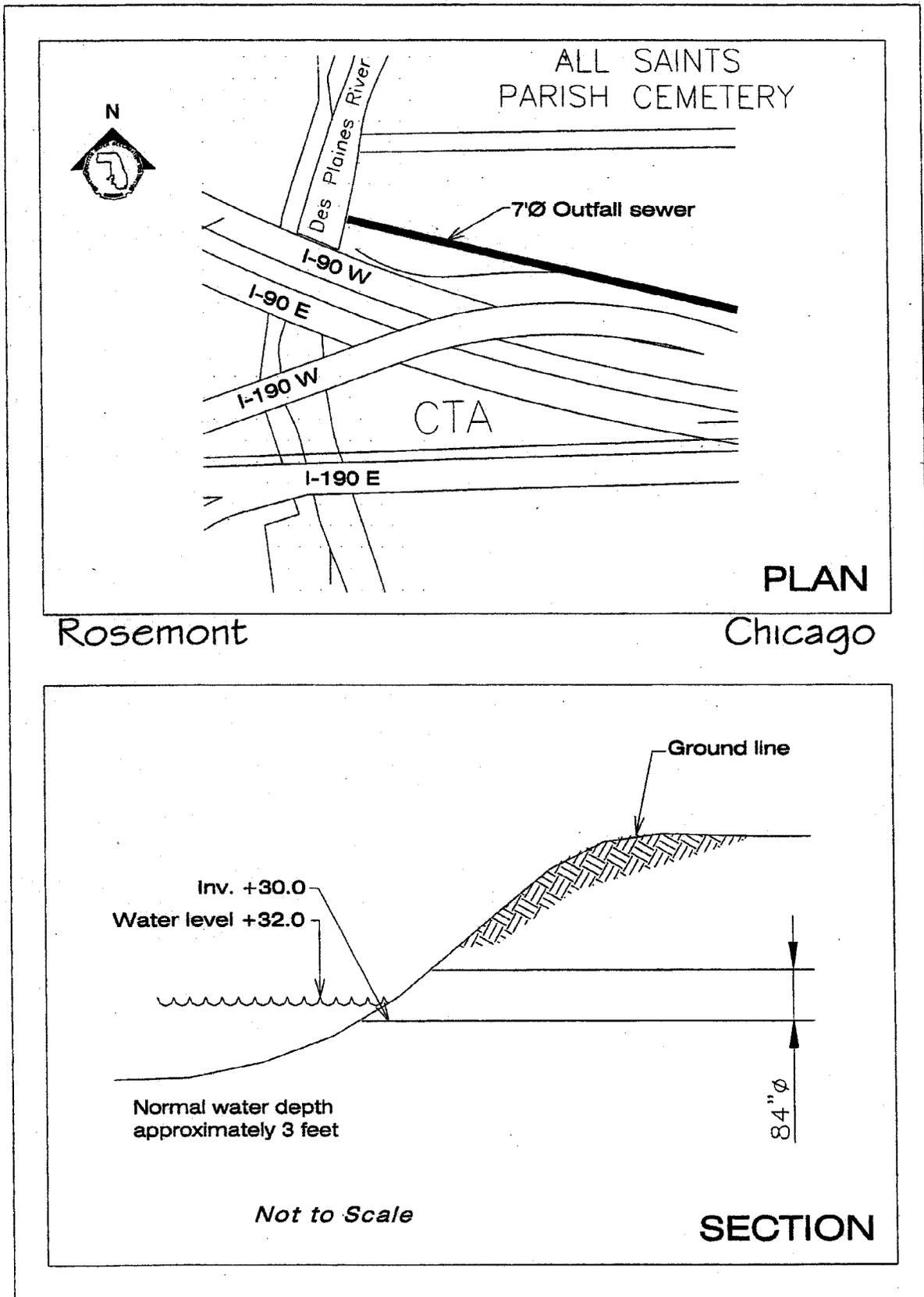
Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	-	0	0	0	0
April	-	0	0	0	0
May	-	0	0	0	0
June	5,10	34.7	13.9	7,700	46,000
July	9	1.3	75.9	42,000	250,000
August	13,22,23	55.6	751	190,000	1,100,000
September		0	0	0	0

The report of the field survey of aquatic and riparian habitat, conducted on May 28, 2002, is found in Appendix XVI. Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County. Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in Appendix XIII.

Appendix XVI also contains the responses received from the letters of inquiry found in Appendix I. The response dated October 22, 2002, from the Illinois Department of Natural Resources, Division of Resource Review and Coordination indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. The response from the Village of Rosemont dated June 22, 2002, indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall.

FIGURE 13

DISCHARGE NUMBER 132



Leyden Township, Cook County, Illinois, T40N, R12E, Section 3

DES PLAINES RIVER AT DISCHARGE NUMBER 133

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Upper Des Plaines Intercepting Sewer No. 5A system via gravity discharge of excess flow to the Des Plaines River south of Foster Avenue extended near Schiller Park, Illinois. See [Figure 14](#). It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

**Discharge 133 Combined Sewer Overflow for March through September 2002**

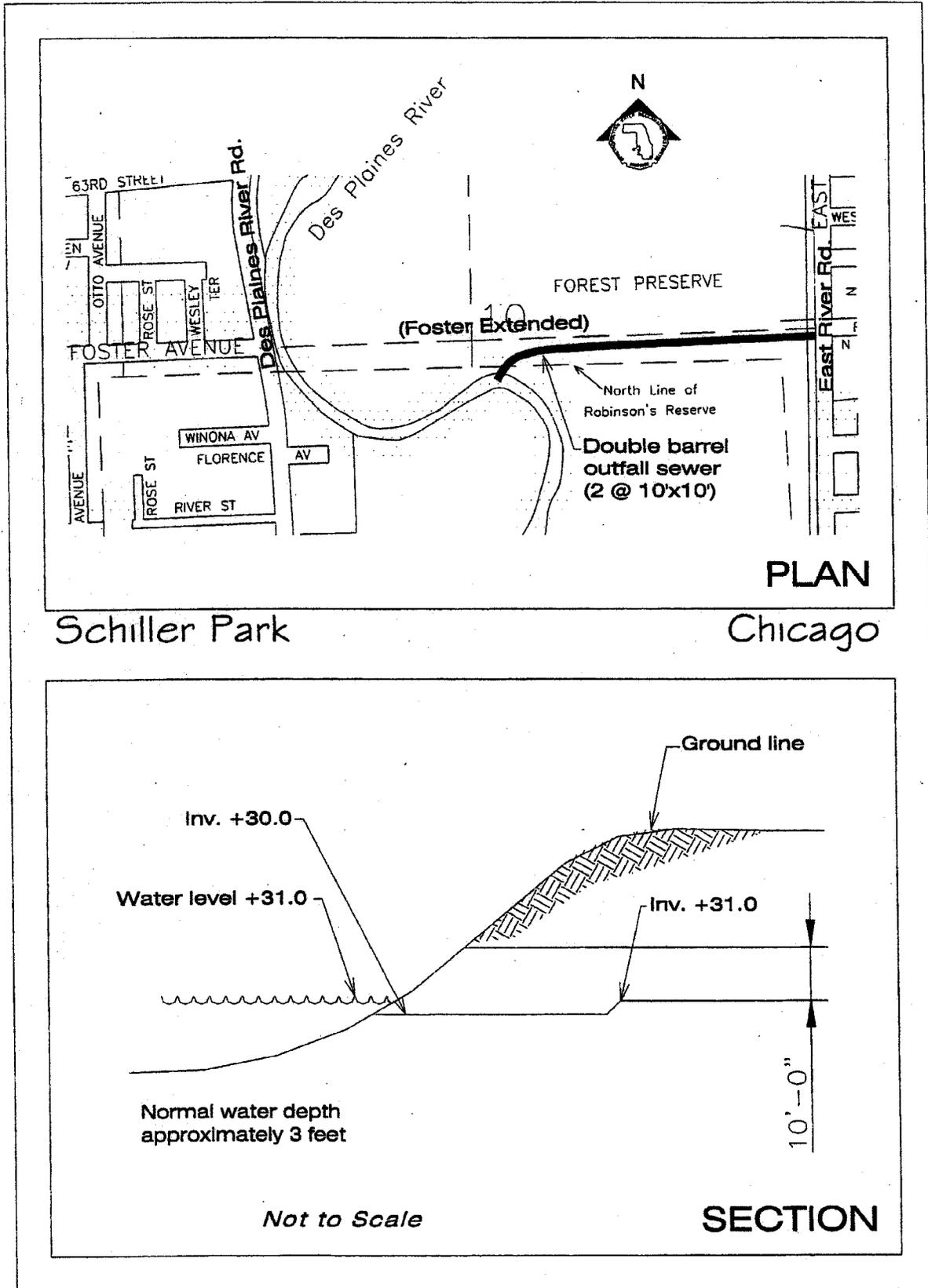
Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	-	0	0	0	0
April	-	0	0	0	0
May	11,12	3.0	32.7	18,000	110,000
June	4	0.1	0.8	400	2,700
July	-	0	0	0	0
August	-	0	0	0	0
September	-	0	0	0	0

The report of the field survey of aquatic and riparian habitat, conducted on May 29, 2002, is found in [Appendix XVII](#). Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County. Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in [Appendix XIII](#).

[Appendix XVII](#) also contains the responses received from the letters of inquiry found in [Appendix I](#). The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 22, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. The IEPA response dated July 23, 2002, indicates that based on an examination of the site, the Des Plaines River in the vicinity of this outfall is accessible to the public and the depth in the river would allow for full body immersion. The response from the City of Park Ridge dated June 28, 2002 indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall.

FIGURE 14

DISCHARGE NUMBER 133



Leyden Township, Cook County, Illinois, T40N, R12E, Section 10

DES PLAINES RIVER AT DISCHARGE NUMBER 134

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Elmwood Park Outlet Sewer system via gravity discharge of excess flow to the Des Plaines River south of North Avenue in River Forest, Illinois. See Figure 15. It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

**Discharge 134 Combined Sewer Overflow for March through September 2002**

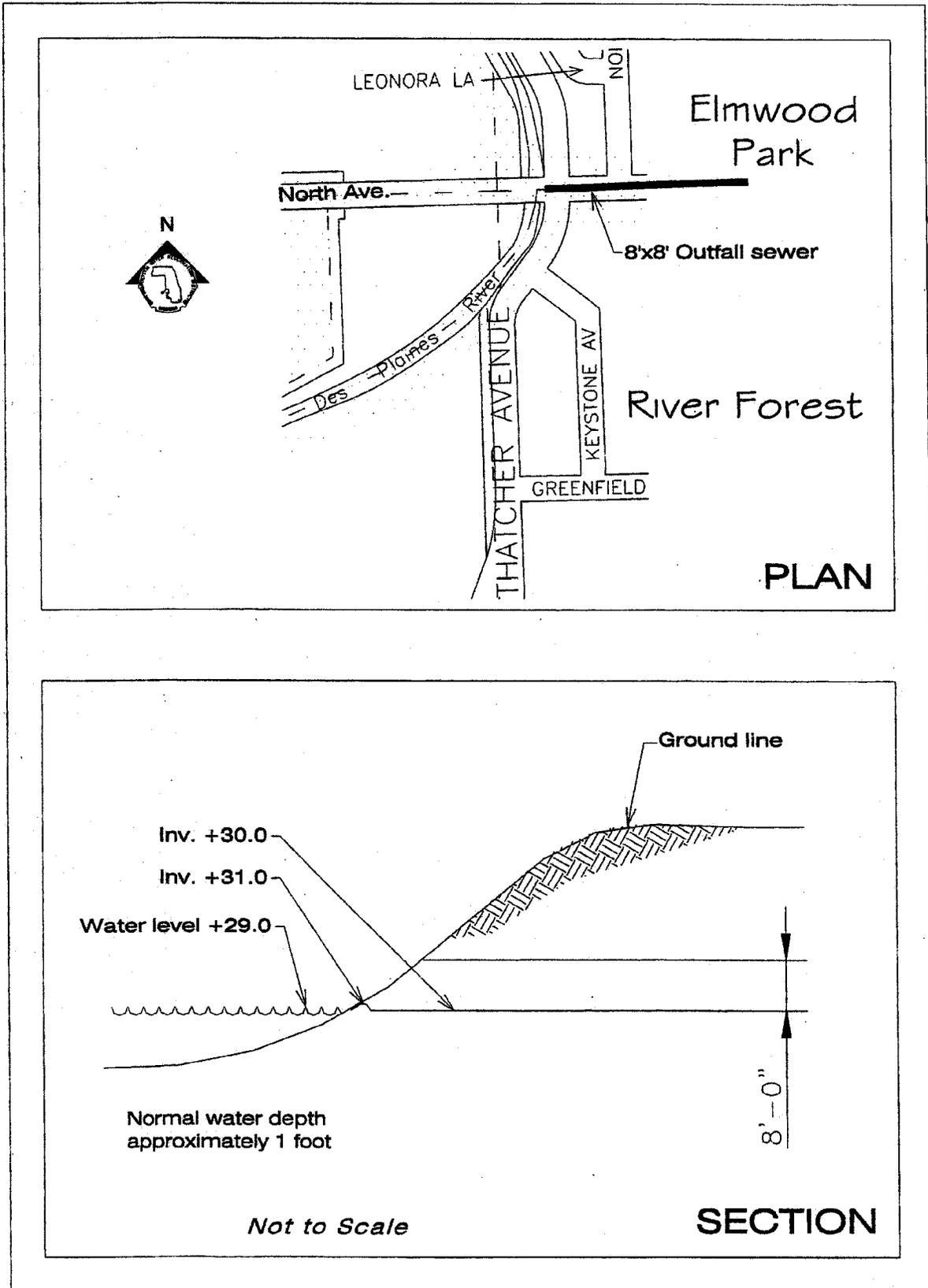
Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	-	0	0	0	0
April	-	0	0	0	0
May	8,11,12,16	5.0	88.4	49,000	290,000
June	4,10,14	0.1	1.7	900	5,700
July	9	0.1	2.7	1,500	9,000
August	13,22	5.7	250	130,000	790,000
September	2	0.1	1.8	1,000	6,000

The report of the field survey of aquatic and riparian habitat, conducted on May 28, 2002, is found in Appendix XVIII. Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County. Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in Appendix XIII.

Appendix XVIII also contains the responses received from the letters of inquiry found in Appendix I. The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 22, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated August 6, 2002, indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall. In an undated response, the IEPA indicates that based on an examination of their records, this outfall does not fall within three of the sensitive area categories.

FIGURE 15

DISCHARGE NUMBER 134



Leyden Township, Cook County, Illinois, T40N, R12E, Section 36

## DES PLAINES RIVER AT DISCHARGE NUMBER 135

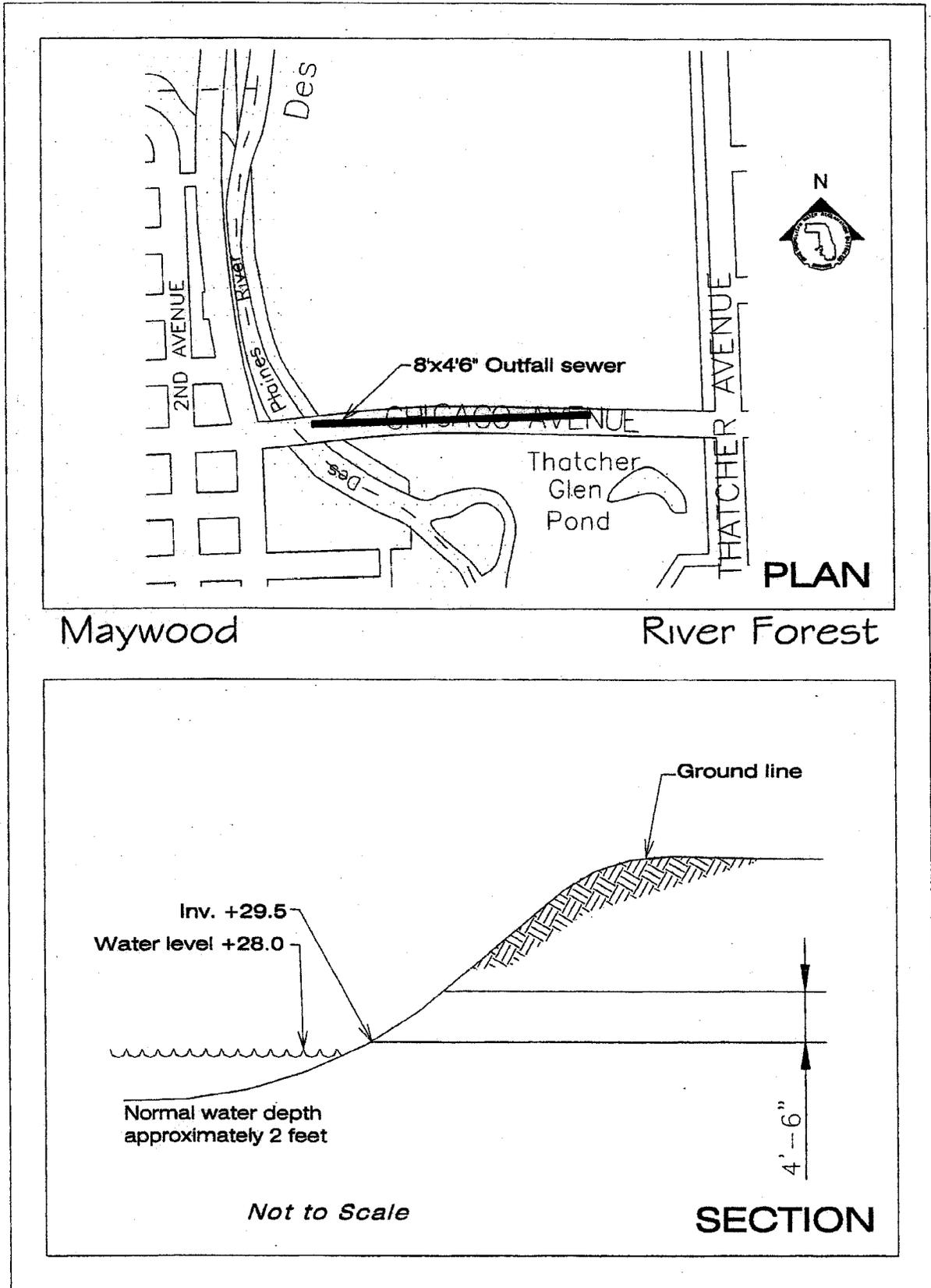
This outfall provides for relief of excessive combined storm runoff and sewage flow in the Des Plaines River Intercepting Sewer via gravity discharge of CSO to the Des Plaines River at Chicago Avenue in River Forest, Illinois. See Figure 16. The frequency, duration and volume of recent discharges are not known because this outfall contains no sensors and remote reporting of backwater gate position and reporting is not required under the NPDES permit.

The report of the field survey of aquatic and riparian habitat, conducted on June 27, 2002, is found in Appendix XIX. Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County. Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in Appendix XIII.

Appendix XIX also contains the responses received from the letters of inquiry found in Appendix I. The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 22, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated August 30, 2002, indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall. In the response from the IEPA received on July 22, 2002, reference is made to their April 5, 2002 letter, which does not indicate any specific reasons for this reach of the Des Plaines River to be considered a sensitive area.

FIGURE 16

DISCHARGE NUMBER 135



River Forest Township, Cook County, Illinois, T39N, R12E, Section 2

DES PLAINES RIVER AT DISCHARGE NUMBER 136

This outfall provides for relief of excessive combined storm runoff and sewage flows in the Broadview - Bellwood Sewer system via gravity discharge of excess flow to the Des Plaines River at Roosevelt Road in Maywood, Illinois. See Figure 17. It is required in the NPDES permit effective March 1, 2002, that the frequency, duration and volume of discharges be reported and relevant data is shown in the following table.

**Discharge 136 Combined Sewer Overflow for March through September 2002**

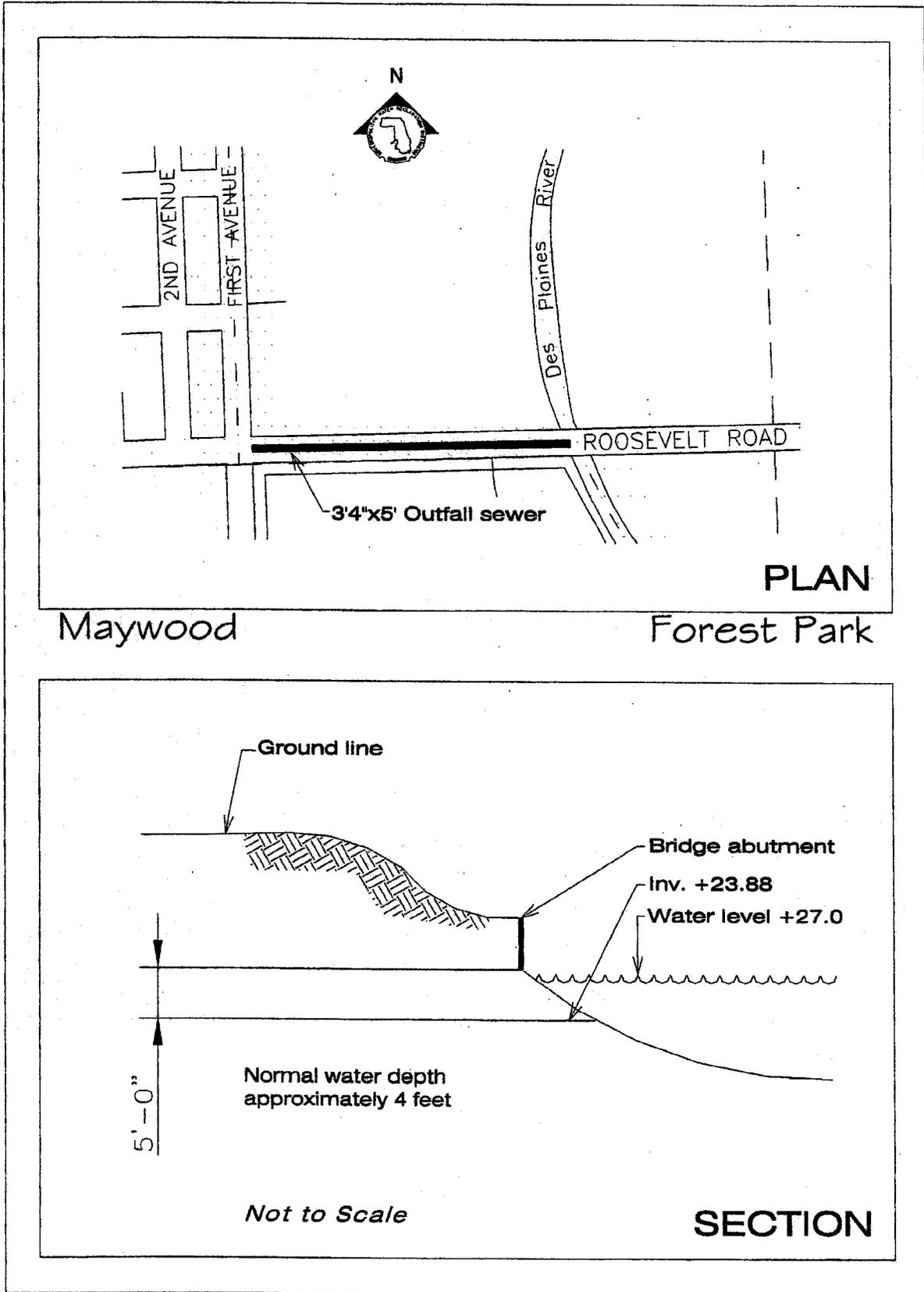
Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
March	-	0	0	0	0
April	-	0	0	0	0
May	11	0.1	0.4	220	1,300
June	-	0	0	0	0
July	9	0.1	0.1	60	330
August	13,22	4.7	285	150,000	900,000
September	2	0.1	0.7	390	2,300

The report of the field survey of aquatic and riparian habitat, conducted on June 27, 2002, is found in Appendix XX. Based on the survey, opportunity for primary contact recreation is not limited by restricted access to the water, by excessive depths or soft sediments. However, the land beneath the Des Plaines River and the adjoining riverbanks are owned by the Forest Preserve District of Cook County. Swimming in waters on FPDCC property is prohibited by ordinance of the FPDCC. A copy of the relevant code is found in Appendix XIII.

Appendix XX also contains the responses received from the letters of inquiry found in Appendix I. The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 22, 2002, indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated August 30, 2002, indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall. The IEPA response received on July 26, 2002 indicates that based on an examination of their records, this outfall does not fall within three of the sensitive area categories. The response from the Village of Forest Park dated August 26, 2002 indicates that none of the six federal sensitive area categories apply to the vicinity of the outfall.

FIGURE 17

DISCHARGE NUMBER 136



Proviso Township, Cook County, Illinois, T39N, R12E, Section 14

## ADDISON CREEK AT DISCHARGE NUMBER 150

This outfall provides for relief of excessive combined storm runoff and sewage flows in local combined sewer systems via pumped discharge of excess flow at the Westchester Pumping Station to Addison Creek at Gardner Road in Westchester, Illinois. See Figure 18. Reporting the frequency, duration and volume of discharge is not required in the NPDES permit; however, dates and duration of pumping are available from records kept by the District's Maintenance and Operations Department. These data and estimates of discharge volume and loading are shown in the following table.

### Discharge 150 Combined Sewer Overflow for January through December 2002

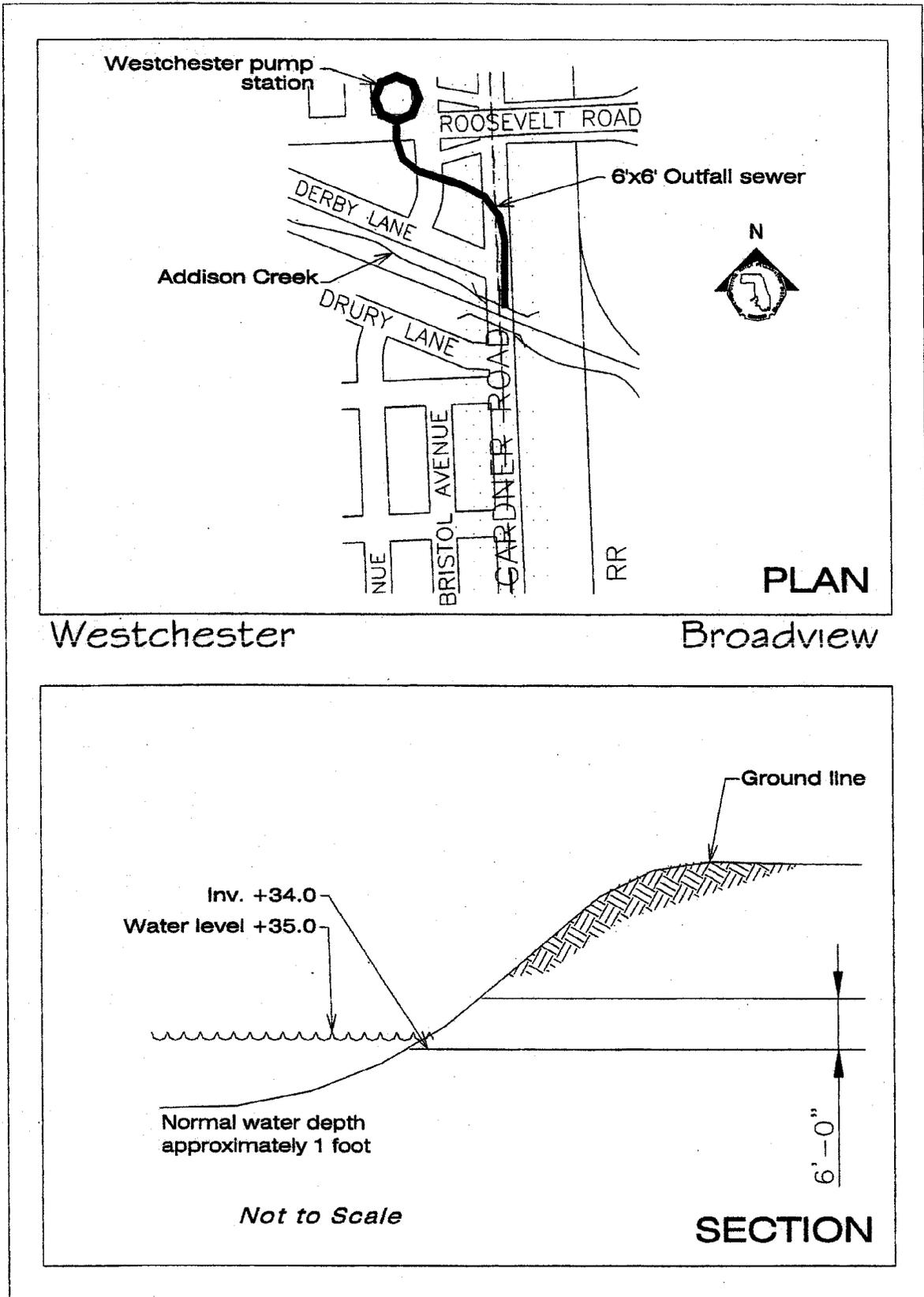
Month	Date(s)	Duration Hours	Volume MG	Loading BOD Pounds	Loading SS Pounds
January	-	0	0	0	0
February	-	0	0	0	0
March	-	0	0	0	0
April	8	9	0.024	14	80
May	9,11,12	26	0.18	99	590
June	3	8	0.008	4	30
July	9	6	0.118	60	350
August	22	13	0.61	340	2,000
September	1	4	0.065	36	220
October	-	0	0	0	0
November	-	0	0	0	0
December	-	0	0	0	0

The report of the field survey of aquatic and riparian habitat, conducted on May 22, 2002, is found in Appendix XXI. Based on the survey, opportunity for primary contact recreation is limited by restricted and safe access to the water. Barriers exist in the form of steep and paved channel banks, by roadways above and adjoining the creek and by private property adjoining the creek. The bottom sediments are soft in the shallow areas along the channel banks and the water is too shallow for full body immersion in the channel.

Appendix XXI also contains the responses received from the letters of inquiry found in Appendix I. The Illinois Department of Natural Resources, Division of Resource Review and Coordination response dated October 22, 2002 indicates that there are no endangered species or Natural Areas in the vicinity of this outfall. Similarly, the letter from the U.S. Fish and Wildlife Service dated August 30, 2002 indicates that based on a review of their records, they do not believe that there are any federally endangered or threatened species in the vicinity of the outfall.

FIGURE 18

DISCHARGE NUMBER 150



Proviso Township, Cook County, Illinois, T39N, R12E, Section 21

## DISCUSSION

The IEPA presents three criteria for defining areas that are not sensitive areas in the NPDES permits:

1. Inadequate water depth.
2. Presence of physical obstacles sufficient to prevent access or primary contact activities.
3. Uses of adjacent land sufficient to discourage primary activities.

Primary contact activities specifically mentions swimming and water skiing in the definitions adopted by the IPCB. As a result, the three criteria above are somewhat limited when reaching a determination if a receiving water is to be considered a sensitive area. Water depth must consider depths that are too shallow for full body immersion and depths that are excessive, posing a drowning hazard if lifeguards and life-safety equipment are not available. For purposes of this discussion, a depth of less than two feet is considered inadequate and a depth more than five feet is considered excessive. Although the IEPA may not consider the hazard of drowning or the lack of adequate life-safety personnel and equipment as essential for primary contact activities, it must be recognized because municipalities would otherwise incur significant and burdensome liability if primary contact activities by the public are not adequately controlled and protected. It is also essential that swimming in a receiving water be permissible by law.

Water skiing also requires adequate water depth and lack of submerged objects and shoals for the safe operation of motor-powered watercraft. Adequate channel widths are also required for maneuverability. For purposes of this discussion, adequate conditions for water skiing are depths of more than 4 feet, channel widths of at least 200 feet and straight channel reaches. Safe water skiing should also be performed where traffic conditions in the channel are controlled. However, there are currently no controls on motor-powered watercraft traffic and assessment for this condition is beyond the scope of this report. It should be noted that at the time of preparation of this report, the U.S. Coast Guard is discussing with the City of Chicago the need for "zoning" of the Chicago River and its branches for the control of motor-powered and paddle-powered watercraft.

The receiving water in the proximity of the outfall for each Discharge Number is assessed for the above considerations and shown in Table 5. As can be seen, none of the receiving waters at these locations meets the criteria for a sensitive area.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 5

ASSESSMENT OF SENSITIVE AREA CONDITIONS

Discharge Number	Swimming				Water Skiing						Land Use	
	Water Depth			Swimming Prohibited	Water Depth		Channel Width		Channel Alignment		Access Unrestricted	Access Restricted
	Inadequate < 2 feet	Adequate 2 to 5 feet	Excessive > 5 feet		Too Shallow < 4 feet	Adequate > 4 feet	Too narrow < 200 feet	Adequate > 200 feet	Straight	Curved		
151			X			X		X	X			X
152			X			X		X	X			X
165	X				X		X		X		X	
166&167	X				X		X		X		X	
168	X				X		X		X		X	
101			X			X	X			X		X
102			X			X	X		X			X
103			X			X	X			X		X
104			X			X	X		X			X
109		X		X	X		X			X	X	
110			X			X	X		X			X
131		X		X	X		X			X	X	
132		X		X	X		X			X	X	
133		X		X	X		X			X	X	
134		X		X	X		X			X	X	
135		X		X	X		X			X	X	
136		X		X	X		X			X	X	
150	X				X		X			X		X

## ACKNOWLEDGEMENTS

Preparation of this report would not be possible without the valuable assistance of personnel in many departments and sections of the District. Their cooperation is much appreciated.

The Engineering Department's Infrastructure Division for preparing the figures of each out-fall.

Maintenance and Operations Department's General Division Technical Projects Section for CSO discharge data.

Research and Development Department's (R&D's) Administrative Division for assistance with figure preparation.

R&D's Aquatic Ecology and Water Quality Section for performing the field and riparian surveys and preparing survey reports.

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