STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

Maine Correctional Center
Attn: Scott Burnheimer, Superintendent
P.O. Box 260
South Windham, Maine 04062

January 5, 2005

RE: Maine Pollutant Discharge Elimination System (MEPDES) # Permit ME0101729
Maine Waste Discharge License (WDL) Application # W000716-5B-B-R
Final Permit / License

Dear Mr. Burnheimer:

Enclosed please find a copy of your final MEPDES/Maine WDL which was approved by the Department of Environmental Protection. Please read the permit and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "Appealing a Commissioner's Licensing Decision."

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) may not reflect the revisions in this permitting action for several months however, you are required to report applicable test results for parameters required by this permitting action that do not appear on the DMR. Please see the attached April 2003 O&M Newsletter article regarding this matter. If you have any questions regarding the matter, please feel free to call me at 287-7658.

Sincerely,

David Silver
Division of Water Quality Management
Bureau of Land and Water Quality

Enc. Stuart Rose, DEP/SMRO
[redacted]
Scott Firmin, PWD
Calvin Simpson, MCC, 17 Mallison Falls Road, Windham, ME 04062

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: 764-1507

web site: www.maine.gov/dep

DMR Lag

(reprinted from April 2003 O&M Newsletter)

When the Department renews discharge permits, the parameter limits may change or parameters may be added or deleted. In some cases, it is merely the replacement of the federally issued NPDES permit with a state-issued MEPDES permit that results in different limits. When the new permit is finalized, a copy of the permit is passed to our data entry staff for coding into EPA's Permits Compliance System (PCS) database. PCS was developed in the 1970's and is not user-friendly. Entering or changing parameters can take weeks or even months. This can create a lag between the time your new permit becomes effective and the new permit limits appearing on your DMRs. If you are faced with this, it can create three different situations that have to be dealt with in different ways.

1. If the parameter was included on previous DMRs, but only the limit was changed, there will be a space for the data. Please go ahead and enter it. When the changes are made to PCS, the program will have the data and compare it to the new limit.

2. When a parameter is eliminated from monitoring in your new permit, but there is a delay in changing the DMR, you will have a space on the DMR that needs to be filled. For a parameter that has been eliminated, please enter the space on the DMR for that parameter only with "NODI-9" (No Discharge Indicator Code #9). This code means monitoring is conditional or not required this monitoring period.

3. When your new permit includes parameters for which monitoring was not previously required, and coding has not caught up on the DMRs, there will not be any space on the DMR identified for those parameters. In that case, please fill out an extra sheet of paper with the facility name and permit number, along with all of the information normally required for each parameter (parameter code, data, frequency of analysis, sample type, and number of exceedances). Each data point should be identified as monthly average, weekly average, daily max, etc. and the units of measurement such as mg/L or lb/day. Staple the extra sheet to the DMR so that the extra data stays with the DMR form. Our data entry staff cannot enter the data for the new parameters until the PCS coding catches up. When the PCS coding does catch up, our data entry staff will have the data right at hand to do the entry without having to take the extra time to seek it from your inspector or from you.

EPA is planning significant improvements for the PCS system that will be implemented in the next few years. These improvements should allow us to issue modified permits and DMRs concurrently. Until then we appreciate your assistance and patience in this effort.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

STATE OF MAINE	)	MAINE POLLUTANT DISCHARGE
MAINE CORRECTIONAL CENTER	)	ELIMINATION SYSTEM PERMIT
OVERBOARD DISCHARGE	)	AND
WINDHAM, CUMBERLAND COUNTY	)	WASTE DISCHARGE LICENSE
#ME0101729	)	
#W000716-5B-B-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, §1251, *et seq.*, and Maine law, 38 M.R.S.A., §414-A *et seq.*, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of the STATE OF MAINE, MAINE CORRECTIONAL CENTER (MCC), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The MCC has applied to the Department for renewal of Waste Discharge License (WDL) #W000716-58-A-R, which was issued on March 24, 1992 and expired on March 24, 1997. The WDL authorized the daily maximum, year-round discharge of up to 77,000 gallons per day (GPD) of secondary treated sanitary wastewater from a State Correctional Facility to the Presumpscot River in Windham, Class B, in Windham, Maine.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0101729 (same as NPDES permit number) will be utilized as the primary reference number.

PERMIT SUMMARY

This permitting action is similar to the 3/24/92 licensing action in that it is:

1. Carrying forward authorization to discharge up to 77,000 GPD of treated wastewater on a year-round basis (but establishing the flow limit as a monthly average rather than a daily maximum);
2. Carrying forward the monthly average and daily maximum concentration limits for biochemical oxygen demand (BOD), total suspended solids (TSS), and Escherichia Coliform (E. Coli) bacteria;
3. Carrying forward the daily maximum concentration limits for Total Residual Chlorine (TRC), and settleable solids; and,
4. Carrying forward the minimum monitoring frequency requirement for all monitored parameters.

This permitting action is different from the 3/24/92 licensing action in that it is:

1. Establishing monthly average, weekly average, and daily maximum BOD and TSS mass limitations based on the previously established flow and concentrations limitations;
2. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD and TSS;
3. Revising the pH range limitation from 6.0 – 8.5 to 6.0 – 9.0 standard units and eliminating the monthly average concentration limitation of 0.1 ml/L for settleable solids; and,
4. Requiring the submission of a revised Operation and Maintenance (O&M) plan, and a Wet Weather Management Plan, for Department review and approval.
5. Requiring the submittal of an evaluation for the elimination of the discharge to surface waters with a subsequent application for renewal or transfer of the permit.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 23, 2005, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with State law.
3. The provisions of the State's antidegradation policy, 38 M.R.S.A. §464(4)(F), will be met, in that:
   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
   (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
   (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
   (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
   (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A., §414-A(1)(D).
5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.
6. The Department does not have information indicating that a subsurface wastewater disposal system could be installed in compliance with the Maine Subsurface Waste Water Disposal Rules or alternative method of waste water disposal without the surface water discharge to the Presumpscot River at the time the renewal application was accepted by the Department.
7. A publicly owned sewer line is not located on or abutting land owned or controlled by the permittee or is not available for the permittee's use.
8. The discharge is not located within the boundaries of a sanitary district or sewer district.

ACTION

THEREFORE, the Department APPROVES the above noted application of the STATE OF MAINE, to discharge a monthly average flow of up to 77,000 GPD of secondary treated sanitary wastewater from the MAINE CORRECTIONAL CENTER to the Presumpscot River, Class B, in Windham, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to all Permits," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. The expiration date of this permit is five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 6TH DAY OF JANUARY, 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for
DAVID P. LITTELL, Acting Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 13, 1999
Date of application acceptance: September 1, 1999

FILED
JAN 9 2006
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection: _____.

This Order prepared by David Silver, BUREAU OF LAND & WATER QUALITY
#ME0101729 / #W000716-5B-B-R January 4, 2006

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge **secondary treated sanitary wastewater from Outfall #001A** to the Presumpscot River. Such discharges shall be limited and monitored by the permittee as specified below[(1)]:

Effluent Characteristic	Discharge Limitations			Minimum Monitoring Requirements				
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	77,000 GPD *[07]*	--	Report, GPD *[07]*	--	--	--	Continuous *[99/99]*	Metered *[MT]*
BOD_5 *[00310]*	20 lbs./day *[26]*	29 lbs./day *[26]*	32 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	8-Hour Composite[(2)] *[08]*
BOD_5 Percent Removal[(3)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]*	20 lbs./day *[26]*	29 lbs./day *[26]*	32 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	8-Hour Composite[(2)] *[08]*
TSS Percent Removal[(3)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	--	--	--	--	--	0.3 ml/L *[25]*	1/Day *[01/01]*	Grab *[GR]*
E. Coli Bacteria[(4)] *[31633] Seasonal* *May 15th- Sep 30th*	--	--	--	64/100 ml[(5)] *[13]*	--	427/100 ml *[13]*	1/Week *[01/07]*	Grab *[GR]*
Total Residual Chlorine[(6)] *[50060]*	--	--	--	---	--	1.0 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH *[00400]*	--	--	--	--	--	6.0 – 9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Page 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES:

1. **Influent and Effluent Monitoring** – Influent monitoring shall be conducted at the **effluent side of the influent grinder**. Effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. The Department has determined that the **effluent end of the chlorine contact chamber** is the appropriate and representative location from which to collect effluent samples on a year-round basis.

   Any change in sampling location must be approved by the Department in writing. Sampling and analysis must be conducted in accordance with: a) methods approved by 40 Code of Federal Regulations (CFR) Part 136; b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136; or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

2. **BOD_5 and TSS Sample Type** – Eight-hour composite samples for BOD_5 and TSS typically shall consist of a minimum of four flow-proportioned grab samples collected at equally spaced intervals over an eight-hour period which are combined prior to analysis. Other composite aliquots may be acceptable with written Department approval.

3. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS for all flows receiving secondary treatment. The percent removal shall be calculated based on influent and effluent concentration values. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L, and the permittee shall report **"NODI-9"** for this parameter on the monthly Discharge Monitoring Report (DMR).

4. **Bacteria Limits** – Escherichia coliform (*E. coli*) bacteria limits and monitoring requirements are in effect on a **seasonal basis (May 15th to September 30th).** The Department reserves the right to require disinfection on a year-round basis to protect the health, safety and welfare of the public.

5. **Bacteria Reporting** – The monthly average *E. coli* bacteria limitation is a geometric mean limitation and sample results shall be reported as such.

6. **TRC Monitoring** – Monitoring for TRC is required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility shall report **"NODI-9"** for this parameter on the monthly DMR.

SPECIAL CONDITIONS

B. ANNUAL DISCHARGE FEES

Pursuant to Maine law, 38 M.R.S.A.§353-B, the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the anniversary date of a license/permit is sufficient grounds for revocation of the license/permit or privilege under Maine law, 38 M.R.S.A. §341-D, subsection 3.

C. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

D. DISINFECTION

If chlorination is used as the means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized followed by a dechlorination system if the imposed total residual chlorine (TRC) limit cannot be achieved by dissipation in the detention tank. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall provide a TRC concentration that will effectively reduce *E. coli* bacteria levels to or below those specified in Special Condition A, "*Effluent Limitation and Monitoring Requirements*," above.

E. TREATMENT PLANT OPERATOR

The waste water treatment facility must be operated under the direction of a person holding a minimum of a **Grade II** certificate [or Maine Registered Professional Engineer (PE)] pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

SPECIAL CONDITIONS

F. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted, unless otherwise specified, to the Department assigned compliance inspector at the following address:

Maine Department of Environmental Protection
Bureau of Land & Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

G. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following.

Any substantial change or proposed change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

(a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and

(b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

H. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall #001A. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

Discharges of a volume or quantity of wastewater that were not licensed as of June 1, 1987 are prohibited by this permit. Maine law, 38 M.R.S.A. §464(4) specifies the general provisions for the issuance of Waste Discharge Licenses. Increases in the volume or quantity of wastewater discharged are not authorized by this permit.

SPECIAL CONDITIONS

I. CONNECTION TO MUNICIPAL SEWER

All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system within 180 days of the system becoming available, unless this time is extended by the Department in writing.

J. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS

Prior to permit transfer or **transfer of the property** occupying the permitted overboard discharge system **or renewal of this permit**, a site evaluation must be performed by a licensed site evaluator, professional engineer, or other qualified professional with experience in designing appropriate waste water disposal systems for the replacement or removal of overboard discharge systems (i.e., for the removal of the surface water discharge, with a land application-spray irrigation, drip-irrigation or other mechanism, etc.). The Department may not grant approval for permit transfer or renewal if the site evaluation concludes that a non-discharging wastewater disposal system designed in compliance with the Maine Subsurface Waste Water Disposal Rules administered by the Maine Department of Health and Human Services, Division of Environmental Health can be installed as a replacement system for the overboard discharge.

K. EMERGENCY BACK-UP POWER

During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

SPECIAL CONDITIONS

L. OPERATION & MAINTENANCE (O&M) PLAN

On or before March 1, 2006, the permittee shall submit to the Department, for review and approval, a current written comprehensive Operation & Maintenance (O&M) Plan ***[PCS Code 09699]***. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan
shall be kept on-site at all times and made available to Department and USEPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

M. WET WEATHER FLOW MANAGEMENT PLAN

On or before March 1, 2006, the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan ***[PCS Code 06799]*** that conforms to Department guidelines for such plans. The revised plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

The treatment facility staff shall develop and maintain a Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall.

The permittee shall review the plan at least annually and record any necessary changes to keep the plan up to date. Any changes to the plans must be submitted to the Department for review and approval.

SPECIAL CONDITIONS

N. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional effluent or ambient water quality monitoring if results on file are inconclusive; (3) change monitoring requirements or limitations based on new information, or (4) to impose a schedule for the termination of the discharge pursuant to Special Condition I above.

O. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

Date: **November 23, 2005**

MEPDES PERMIT: **#ME0101729**
WASTE DISCHARGE LICENSE: **#W000716-5B-B-R**

NAME AND ADDRESS OF APPLICANT:

State of Maine
Department of Corrections
Maine Corrections Center
17 Mallison Falls Road
South Windham, Maine 04062

COUNTY: **Cumberland**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Maine Corrections Center
17 Mallison Falls Road
South Windham, Maine 04062

RECEIVING WATER / CLASSIFICATION: **Presumpscot River / Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Scott Burnheimer, Superintendent**
(207) 893-7000

1. APPLICATION SUMMARY

Application: The State of Maine Department of Corrections, Maine Correctional Center (MCC) has applied to the Department of Environmental Protection (Department) for renewal of Waste Discharge License (WDL) #W000716-58-A-R, which was issued on March 24, 1992 and expired on March 24, 1997. The 1992 WDL authorized the daily maximum discharge of up 77,000 gallons per day (GPD) of secondary treated sanitary wastewater from the MCC to the Presumpscot River, Class B, in Windham, Maine.

2. PERMIT SUMMARY

a. Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0101729 (same as NPDES permit number) will be utilized as the primary reference number for the MCC's MEPDES permit.

b. Terms and Conditions:

This permitting action is similar to the 3/24/92 licensing action in that it is:

1. Carrying forward authorization to discharge up to 77,000 GPD of treated wastewater on a year-round basis;
2. Carrying forward the monthly average and daily maximum concentration limits for biochemical oxygen demand (BOD), total suspended solids (TSS), and Escherichia Coliform (E. Coli) bacteria;
3. Carrying forward the daily maximum concentration limits for Total Residual Chlorine (TRC), and settleable solids; and,
4. Carrying forward the minimum monitoring frequency requirement for all monitored parameters.

This permitting action is different from the 3/24/92 licensing action in that it is:

1. Establishing monthly average, weekly average (concentrations and mass), and daily maximum BOD and TSS mass limitations based on the previously established flow and concentrations limitations;
2. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD and TSS;
3. Revising the pH range limitation from 6.0 – 8.5 to 6.0 – 9.0 standard units and eliminating the monthly average concentration limitation of 0.1 ml/L for settleable solids; and,
4. Requiring the submission of a revised Operation and Maintenance (O&M) plan, and a Wet Weather Management Plan for Department review and approval.
5. Requiring the submittial of an evaluation for the elimination of the discharge to surface waters with a subsequent application for renewal or transfer of the permit.

2. PERMIT SUMMARY (cont'd)

c. Facility History: This section provides a summary of significant licensing/permitting actions, as well as other significant milestones that have been completed for the MCC.

May 21, 1975 – The Department issued Waste Discharge License (WDL) # 716 for the discharge of 48,000 gallons per day of treated sanitary waste water to Colley Wright Brook in South Windham, Maine. Colley Wright Brook is a tributary of the Presumpscot River in Windham.

June 19, 1975 – The USEPA issued NPDES permit #ME0101729 to the State of Maine, Men's Correctional Center (now MCC) for the monthly average discharge of up to 40,000 GPD of treated sanitary wastewater in South Windham, Maine.

May 20, 1980 – The Department issued a renewal of WDL #716 for the discharge of up to 40,000 gallons of secondary treated waste water. WDL #716 expired on May 20, 1985.

December 1983-March 1985 – MCC submitted information to the Department to support an increase of discharges of treated effluent and modify the location of the discharge outfall to the River.

March 24, 1992 – The Department renewed WDL #716 with the issuance of WDL #W000716-58-A-R. The March 24, 1992 WDL authorized the discharge of up to 77,000 gallons per day of secondary treated waste water to the Presumpscot River.

August 13, 1999 – MCC submitted an application to the Department for renewal of the previously existing Waste Discharge License.

December 2005 – The Portland Water District (PWD) is in the design phase for an interceptor sewer that will extend from South Windham to Westbrook that will be located near the MCC facility. PWD is sizing this sewer to accommodate the volume of waste water generated by MCC.

d. Source Description: The State of Maine Department of Corrections owns and operates the Maine Correctional Center and it's associated overboard discharge (OBD) wastewater treatment system. The correctional center is located on Mallison Road in South Windham. MCC's treatment system receives sanitary wastewater generated by approximately 600 inmates and 250 employees of the correctional facility. There are no combined sewer overflow (CSO) points and no industrial users associated with the collection system, and the facility is not required to implement a formal pretreatment program nor is authorized to receive septage wastes.

The MCC's sewer collection system consists of gravity sewer lines to the treatment facility. A map showing the location of the MCC treatment facility and the approximately location of the existing outfall (#001A) associated with the wastewater treatment system is included as a Fact Sheet Attachment.

2. PERMIT SUMMARY (cont'd)

e. Wastewater Treatment: The MCC provides a secondary level of wastewater treatment. The plant utilizes a manual bar rack and mechanical screen for preliminary treatment. Flow is then directed to an oxidation ditch, where it is aerated utilizing two rotary paddles mounted in the channel and a continuous speed rotary positive displacement blower supplying air to the diffusers mounted in the channel. The blower is used only during the summer months. From the oxidation ditch, flow is directed to a 20-foot diameter secondary clarifier and a chlorine contact tank for disinfection. The effluent from the chlorine contact tank is measured via a V-notched weir at the end of the tank prior to discharge to a pump station, which pumps the effluent to the Presumpscot River. The oxidation ditch is a racetrack shape oval that measures four (4') feet deep, 100' long, with a 10' width that has an outside radius of 17' and an inside radius of 7'. A schematic of the wastewater treatment process is included as a Fact Sheet Attachment.

3. CONDITIONS OF PERMIT

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program,* require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A. §467(9)(A)(3) classifies the Presumpscot River, main stem, lying between the boundaries of U.S. Route 202 (in Windham) and Sacarappa Falls (in Westbrook), which includes the point of discharge, as Class B waters. Maine law, 38 M.R.S.A. §465(3) describes the standards for Class B waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2004 Integrated Water Quality Monitoring and Assessment Report, prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists Presumpscot River (Waterbody Segment ID# 608R01) as, *"Category 4-C: Rivers and Streams with Impairment not Caused by a Pollutant."* "Impairment not Caused by a Pollutant " in this context refers to the impoundments or dams along the river segment that have modified the natural environment for aquatic life. These impoundments or dams have been established in their current location for decades. The Department finds that compliance with the secondary waste water treatment limits established in this permitting action for the discharge from MCC will not cause or contribute to the failure of the receiving waters to meet the standards of its designated classification.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: The previous licensing action established a daily maximum discharge flow limitation of 77,000 GPD based on the dry weather design capacity of the treatment system. For consistency with the limits established in permits for other sanitary wastewater treatment facilities, this permitting action is establishing the discharge flow limit of 77,000 GPD as a monthly average rather than a daily maximum limitation. This permitting action is establishing a daily maximum discharge flow reporting requirement to assist in compliance evaluations and system performance evaluations. This permitting action is specifying that effluent flow shall be measured continuously to ensure that representative discharge flow data are obtained.

b. Dilution Factors: : The Department has made the determination that the dilution factors shall be calculated in accordance with freshwater protocols established in Department Regulation Chapter 530, *Surface Water Toxics Control Program*, effective date October 2005. With a monthly average flow limitation of 0.077 MGD, the dilution factors for the waste waters discharged from the MCC waste water treatment facility can be calculated as follows:

$$\text{Dilution Factor} = \frac{(\text{River Flow in cfs})(\text{Conversion Factor}) + \text{Plant Flow in MGD}}{\text{Plant Flow in MGD}}$$

$$\text{Acute Dilution}^{(1)} = \frac{(265\ \text{cfs})(0.6464) + (0.077\ \text{MGD})}{(0.077\ \text{MGD})} = 2{,}225 : 1$$

$$\text{Chronic Dilution} = \frac{(265\ \text{cfs})(0.6464) + (0.077\ \text{MGD})}{(0.077\ \text{MGD})} = 2{,}225 : 1$$

$$\text{Harmonic Dilution} = \frac{(568\ \text{cfs})(0.6464) + (0.077\ \text{MGD})}{(0.077\ \text{MGD})} = 4{,}769 : 1$$

Footnote:

(1)-Chapter 530 states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream flow, up to including all of it. MCC has provided the Department with information as to the true mixing characteristics of the discharge, therefore the Department is utilizing the full 1Q10 pursuant to Chapter 530 in acute evaluations. Department rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, establishes the procedures for establishing dilution factors. The Department has established dilution factors based on the flow limitation previously established and the receiving water flow that provides dilution. Therefore, dilution factors associated with the discharge from the MCC are as follows:

Acute: 2,225 : 1 Chronic: 2,225 : 1 Harmonic Mean: 4,769 : 1

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

It is noted that the acute and chronic dilution factors are the same as this segment of the river has impoundment dams upstream and downstream of the discharge location that controls water flowage.

Under conditions when Sebago Lake (upgradient from the MCC facility) are within the established target ranges, the upgradient dam will pass minimum generating flows of 333 cfs from Sebago Lake. When lake levels are below the target levels during drought conditions, the upgradient dam will pass at least 250 cfs from the lake. As a result, the 7Q10 low flow from the lake has been determined to be 250 cfs.

The MCC facility is approximately 8 miles downstream of the dam. With a minimum flow of 250 cfs from the dam and the additional flow contribution of 15 cfs from the drainage area between the dam and the mill, the resultant 1Q10 and 7Q10 flow at the MCC discharge is 265 cfs.

c. Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS): The previous licensing action established monthly average concentration limit of 30 mg/L for BOD and TSS, which were based on secondary treatment requirements of the Clean Water Act (CWA) of 1977 §301(b)(1)(B), as defined in 40 CFR 133.102, and Department rule, 06-096 CMR Chapter 525(3)(III). The previous licensing action also established daily maximum BOD and TSS concentration limits of 50 mg/L based on a Department best professional judgement (BPJ) of best practicable treatment (BPT).

This permitting action is carrying forward these concentration limits for TSS and BOD, and is establishing weekly average concentration limits of 45 mg/L, which are based on the secondary treatment requirements of the CWA and Department Rules as indicated above.

Department rule 06-096 CMR Chapter 523(6)(f) states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. With a monthly average discharge flow limit of 77,000 GPD (0.077 million gallons per day, MGD), this permitting action is establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD and TSS, which were derived as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.077 MGD) = 20 lbs./day
Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.077 MGD) = 29 lbs./day
Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.077 MGD) = 32 lbs./day

This permitting action is also establishing a new requirement for a minimum of 85% removal of BOD and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules.

The previous licensing action established a "8-hour composite" sample type for BOD and TSS. This permitting action is carrying forward the sample type to ensure representative sampling, that results are comparable with results from other sanitary wastewater treatment facilities, and for consistency with Department guidance for overboard discharge facilities licensed to discharge between 50,000 and 100,000 GPD. Composite samples shall consist of four flow-proportioned grab samples collected at equally spaced internals over an eight-hour period which are combined prior to analysis. The previous licensing action established a minimum monitoring frequency requirement of once per week that is being carried forward in this permitting action.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

d. Settleable Solids: The previous licensing action established monthly average and daily maximum technology-based concentration limits of 0.1 ml/L and 0.3 ml/L, respectively, for settleable solids. The Department has since reconsidered the limits for settleable solids and has concluded that a daily maximum concentration limit of 0.3 ml/L provides sufficient information to assess whether the treatment facility is providing BPT. Therefore, this permitting action is eliminating the monthly average concentration limit of 0.1 ml/L and is carrying forward the daily maximum limit of 0.3 ml/L. This permitting action is maintaining the minimum monitoring frequency requirement of once per day (1/Day).

e. Escherichia Coliform Bacteria: The previous licensing action established a year-round monthly average concentration limit of 64 colonies per 100 ml and 427 colonies per 100 ml on a daily maximum basis. In this permitting action, the Department is carrying forward these concentration limits in accordance with 38 M.R.S.A. §465(3)(B) on a seasonal basis between May 15th and September 30th of each year. The Department reserves the right, at any time, to require year-round disinfection to protect the health, safety and welfare of the public. This permitting action is carrying forward the minimum monitoring frequency of once per week (1/Week).

f. Total Residual Chlorine (TRC): The previous licensing action established a technology-based daily maximum concentration limit of 1.0 mg/L for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined in Section 6(b) of this Fact Sheet, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

			Calculated	
Acute (A) Criterion	Chronic (C) Criterion	Modified A & C Dilution Factors	Acute Threshold	Chronic Threshold
0.019 mg/L	0.0011 mg/L	2,225:1 (A) 2,225:1 (C)	42.2 mg/L	2.4 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The MCC currently does not dechlorinate the effluent prior to discharge.

The calculated acute and chronic water quality-based thresholds of 42.2 mg/L and 2.4 mg/L, respectively, are less stringent than the technology-based standards and therefore the technology based limit of 1.0 mg/L is being established in this permitting action. This permitting action is carrying forward the minimum monitoring frequency of once per day (1/Day) based on Department guidance for overboard discharge facilities licensed to discharge between 50,000 and 100,000 GPD.

TRC monitoring is required any time chlorine-based compounds are in use for effluent disinfection. For instances when the permittee has not utilized chlorine-based compounds for effluent disinfection for an entire reporting period, the permittee shall report "NODI-9" for this parameter on the monthly discharge monitoring report (DMR).

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

g. pH: The previous licensing action established a pH range limit of 6.0 – 8.5 standard units (SU), considered by the Department at the time as BPT for secondary treated wastewater and a minimum monitoring frequency requirement of once per day. Pursuant to a Department rule found at Chapter 525(3)(III)(c), the pH range limitation is being revised to 6.0 – 9.0 SU, which is now considered BPT for secondary treated wastewater. This permitting action is carrying forward the minimum monitoring frequency requirement of once per day (1/Day).

h. Whole Effluent Toxicity (WET) & Chemical Specific Testing: Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

Chapter 530 provides criteria for exemption of certain municipal discharges, including, but not limited to, discharges from publicly owned treatment works which are not classified by USEPA as major and which discharge to receiving waters with a dilution ratio of at least 50:1, and with a discharge flow of less than 50,000 gpd, provided that the POTW receives no process wastes from sources for which pretreatment standards have been promulgated by the USEPA, or discharges from residential overboard discharges. This permitting action authorizes the MCC to discharge a monthly average of up to 77,000 gallons per day into receiving waters with a dilution factor of 2,225 : 1, and is from an overboard discharge with residential like wastewater sources, therefore, the MCC qualifies for exemption from toxics testing pursuant to the Department's rules. Thus, this permitting action is not establishing a requirement to conduct WET or chemical-specific testing at this time. The Department reserves the right to reopen this permit in accordance with Special Condition N to require WET or chemical-specific testing if the Department determines that toxicity of effluents may cause or have a reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected, and that the discharge as permitted will not cause or contribute to the failure of the water body to meet standards for Class B waters.

8. PUBLIC COMMENTS

Public notice of this application was made in a newspaper with a circulation in the vicinity of the facility on or about August 13, 1999. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

David Silver
Division of Water Resource Regulation
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7658

10. RESPONSE TO COMMENTS

During the period of November 23, 2005 through final permit issuance, the Department solicited comments on the proposed draft Maine Correctional Center permit to be issued for the proposed discharge. The Department did not receive significant comments from the permittee, state or federal agencies or interested parties that resulted in substantive changes in the terms and conditions of the permit. Therefore, a Response to Comments section has not been prepared.

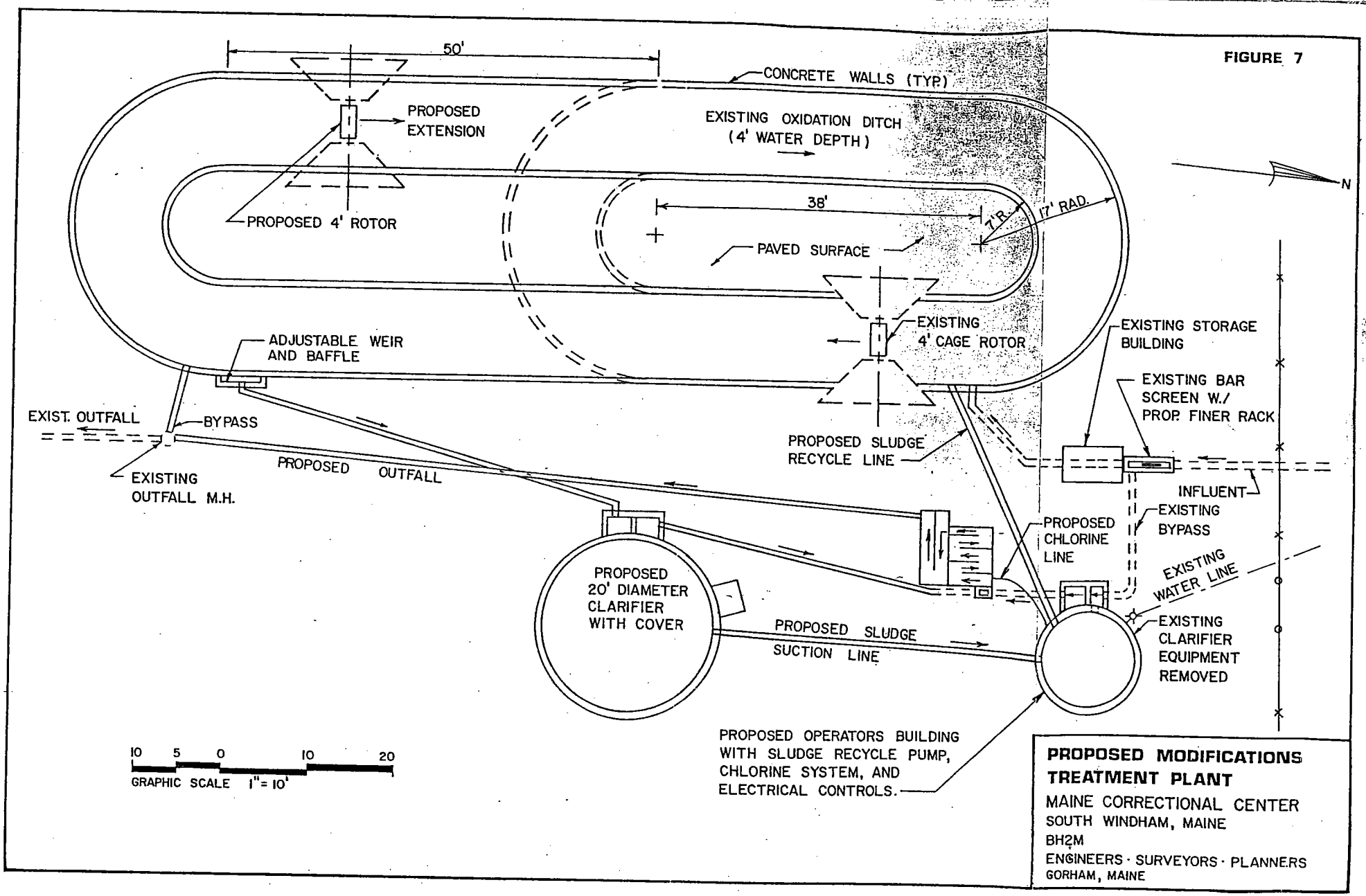
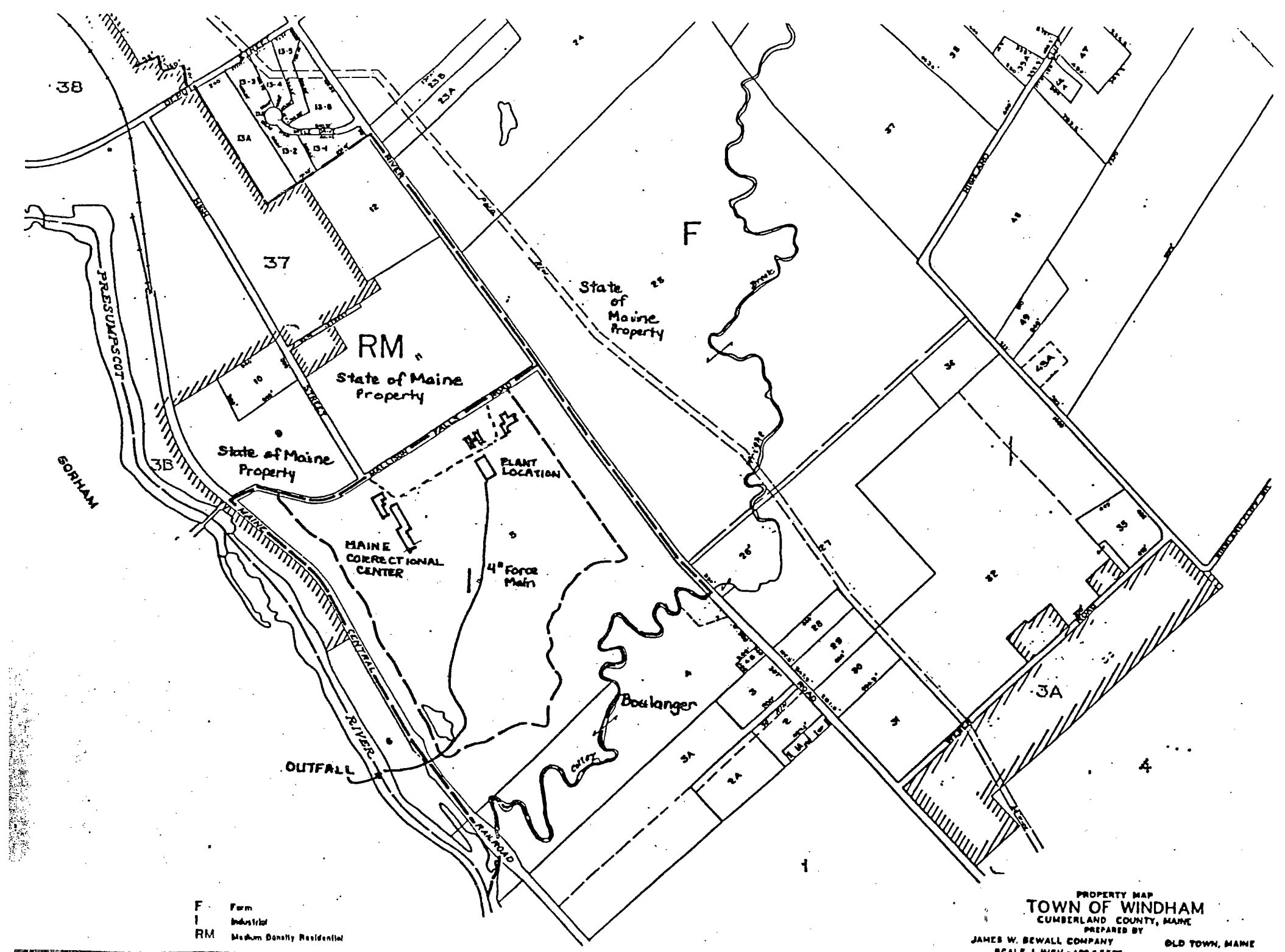
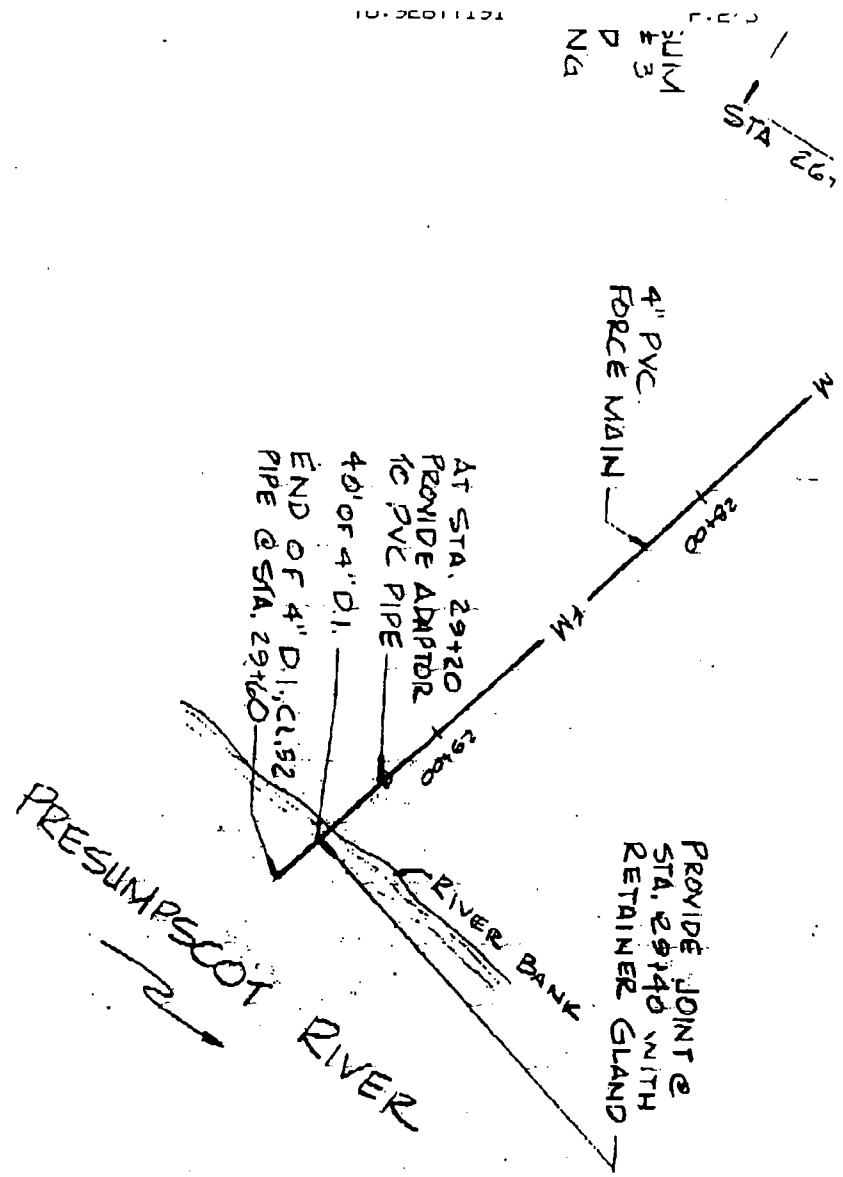


FIGURE 7
50'
CONCRETE WALLS (TYP.)
PROPOSED EXTENSION
EXISTING OXIDATION DITCH (4' WATER DEPTH)
N
38'
7' R.
17' RAD.
PROPOSED 4' ROTOR
PAVED SURFACE
EXISTING 4' CAGE ROTOR
EXISTING STORAGE BUILDING
ADJUSTABLE WEIR AND BAFFLE
EXISTING BAR SCREEN W./ PROP. FINER RACK
EXIST. OUTFALL
BYPASS
PROPOSED SLUDGE RECYCLE LINE
PROPOSED OUTFALL
EXISTING OUTFALL M.H.
INFLUENT
EXISTING BYPASS
PROPOSED CHLORINE LINE
EXISTING WATER LINE
PROPOSED 20' DIAMETER CLARIFIER WITH COVER
PROPOSED SLUDGE SUCTION LINE
EXISTING CLARIFIER EQUIPMENT REMOVED
PROPOSED OPERATORS BUILDING WITH SLUDGE RECYCLE PUMP, CHLORINE SYSTEM, AND ELECTRICAL CONTROLS.
10 5 0 10 20
GRAPHIC SCALE 1" = 10'
PROPOSED MODIFICATIONS
TREATMENT PLANT
MAINE CORRECTIONAL CENTER
SOUTH WINDHAM, MAINE
BH2M
ENGINEERS · SURVEYORS · PLANNERS
GORHAM, MAINE


38
23A
23B
RIVER
PRESUMPSCOT
37
RM
State of Maine Property
F
State of Maine Property
State of Maine Property
PLANT LOCATION
MAINE CORRECTIONAL CENTER
4" Force Main
3B
GORHAM
CENTRAL MAINE
RIVER
OUTFALL
Boulanger
CREEK
RAILROAD
3A
2A
1
4
F Farm
I Industrial
RM Medium Density Residential
PROPERTY MAP
TOWN OF WINDHAM
CUMBERLAND COUNTY, MAINE
PREPARED BY
JAMES W. BEWALL COMPANY
OLD TOWN, MAINE
SCALE 1 INCH = 600 FEET

A 26+98

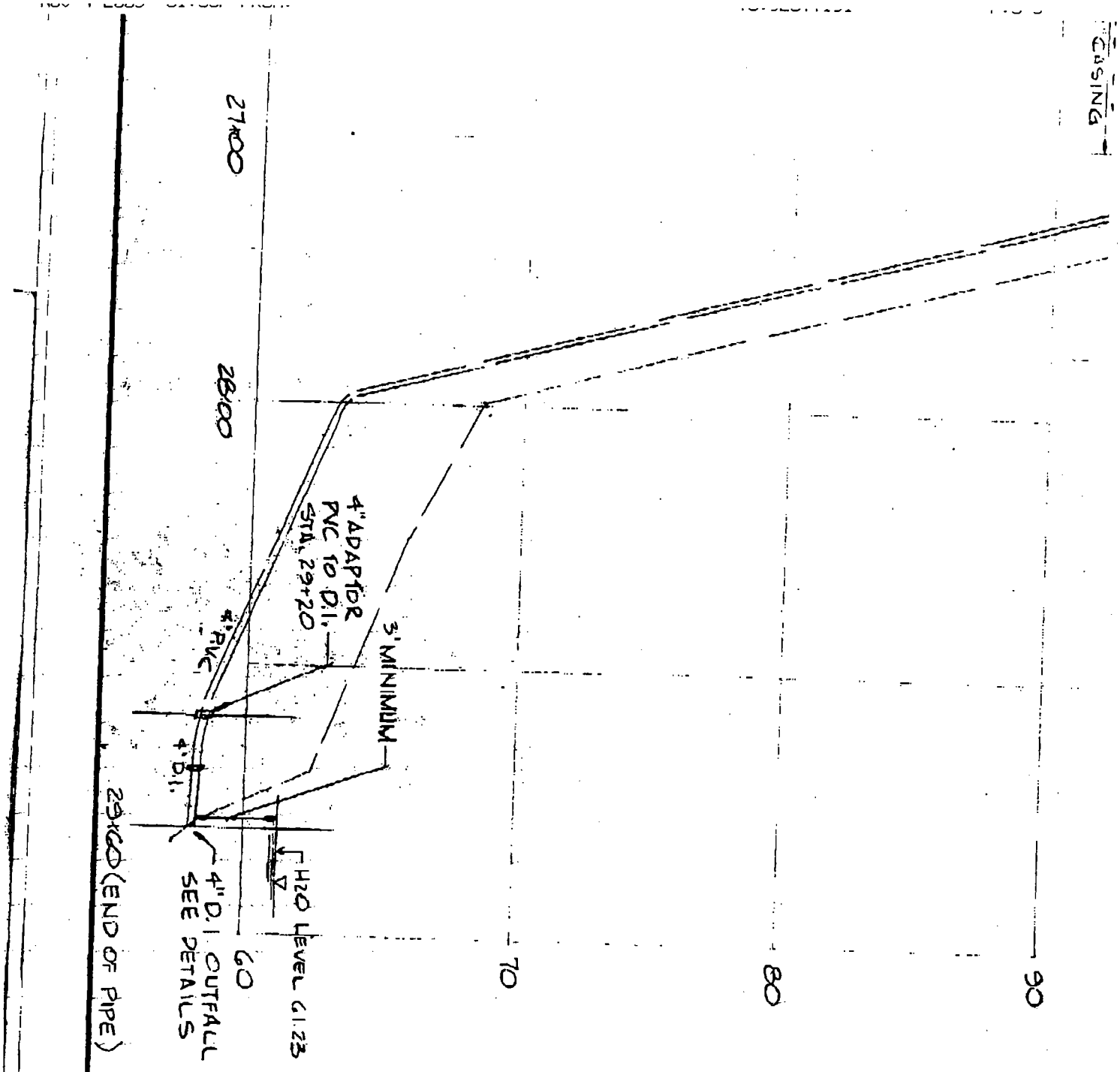


NO.	DESIGNED BY			REVIS
83-046	JRM			
E	DRAWN BY			
MAY 1985	BT			
LE	CHECKED BY			
1"=50'	LSB			

Windham Correctional Center

W0000716-5B-B-R
ME0101729

Outfall Plan View



BH2M

BERRY · HUFF · McDONALD · MILLIGAN · INC.
ENGINEERS · SURVEYORS · PLANNERS

28 STATE STREET
GORHAM, MAINE 04038

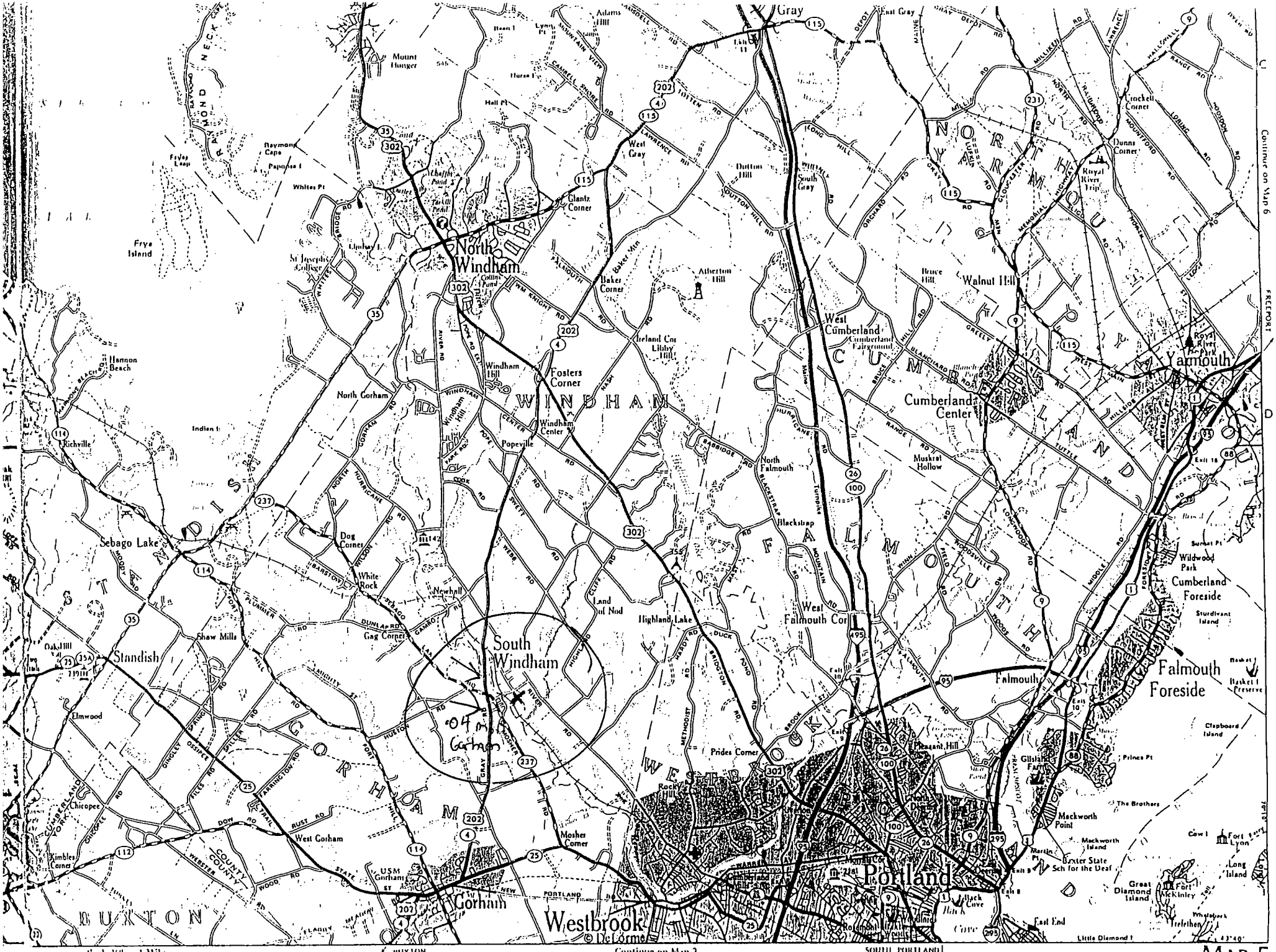
SHEET NO. 13 OF 15

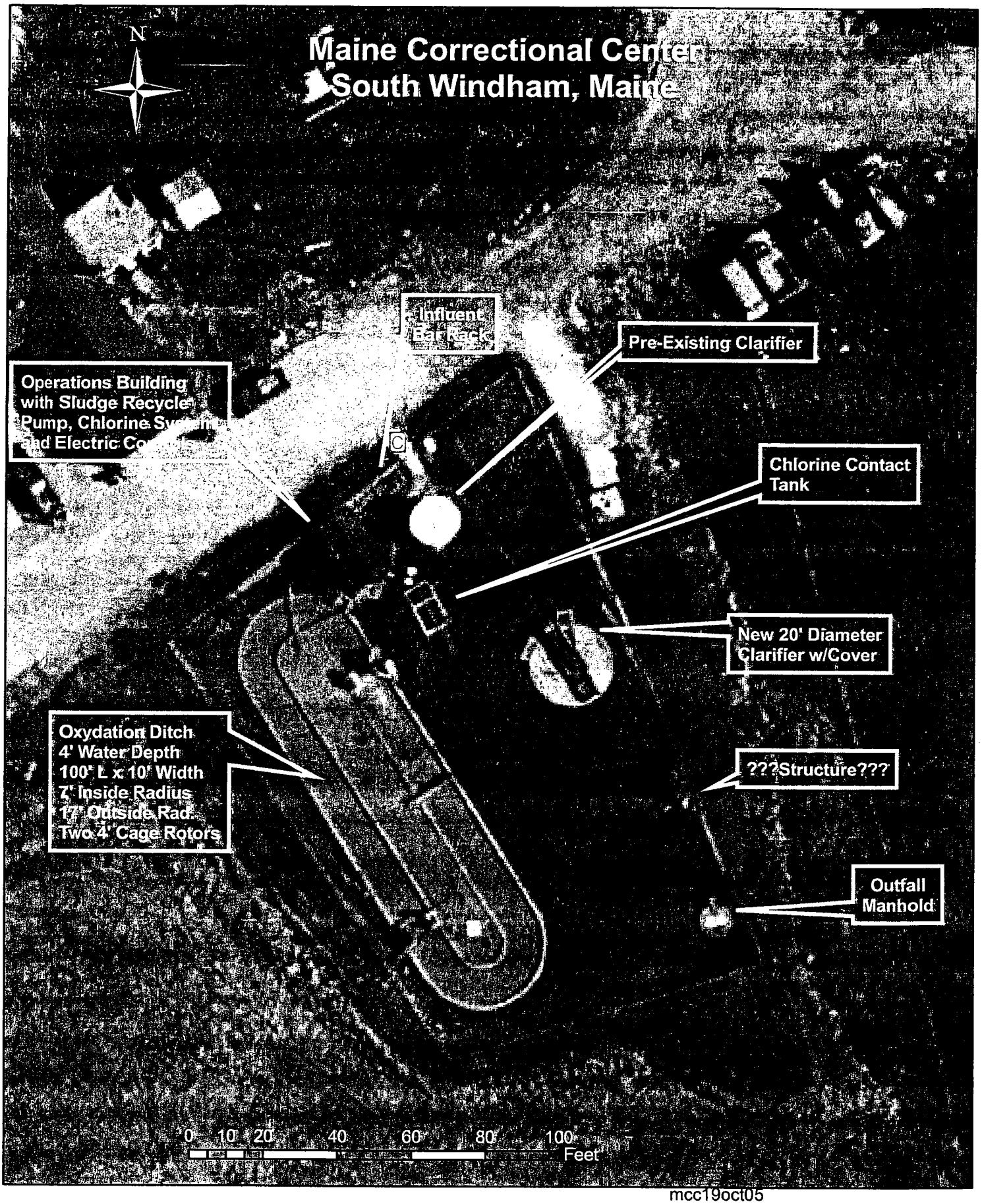
PROPOSE
SEWAGE
PLANT E

MAINE CO
SOUTH WI
FORCE M
STA. 15+

WINDHAM CORRECTIONAL CENTER
OUTFALL Profile View

W000716-5B-B-R
ME0101729


Gray
Mount Hunger
Hall Pt
Raymond Cape
Frye Island
Whites Pt
Clanlz Corner
North Windham
St Joseph's College
Baker Corner
Atherton Hill
Bruce Hill
Walnut Hill
West Cumberland
Cumberland Fairground
Ireland Cor
Libby Hill
Windham Hill
Fosters Corner
Windham Center
North Gorham
Hannon Beach
Richville
Popeville
North Falmouth
Muskrat Hollow
Cumberland Center
Yarmouth
Sebago Lake
Dog Corner
White Rock
Newhall
Land of Nod
Highland Lake
West Falmouth Cor
Blackstrap
Standish
Shaw Mills
Gag Corner
South Windham
Falmouth
Falmouth Foreside
Cumberland Foreside
Wildwood Park
Elmwood
Pride's Corner
Pleasant Hill
Prince Pt
Mackworth Point
The Brothers
Chicopee
West Gorham
Mosher Corner
Gorham
Westbrook
Portland
Baxter State Sch for the Deaf
Great Diamond Island
Fort McKinley
Long Island
Little Diamond I
Cow I
Fort Lyon
Clapboard Island
Basket I
Preserve
Crockett Corner
Dunns Corner
Royal River Trip
Royal River Park
Cumberland
Windham
Gorham
Standish
Falmouth
Portland
Westbrook
Yarmouth
Freeport
Buxton
South Portland
Continue on Map 6
Continue on Map 3
Scale ½" = 1 Mile
© DeLorme
MAP 5


N
Maine Correctional Center
South Windham, Maine
Influent Bar Rack
Pre-Existing Clarifier
Operations Building with Sludge Recycle Pump, Chlorine System and Electric Co
Chlorine Contact Tank
New 20' Diameter Clarifier w/Cover
Oxydation Ditch
4' Water Depth
100' L x 10' Width
7' Inside Radius
17' Outside Rad.
Two 4' Cage Rotors
???Structure???
Outfall Manhold
0 10 20 40 60 80 100
Feet

mcc19oct05


N
W
E
S
MAINE CORRECTIONAL CENTER
0
500
1,000
2,000
Feet