

INFRASTRUCTURE COMMITTEE
Tuesday, May 26, 2015 at 5:15 p.m.
City Hall Council Chambers

Agenda

1. **Update: Bangor Water District Improvement Projects**
(Provided by Cathy Moriarty)

2. **WWTP: Adjustments to the Industrial Pretreatment Program**
(Provided by Superintendent Brad Moore. Memo and Response Plan Attached)

3. **Update: Clinton Street One Way**
(Provided by City Engineer John Theriault)

4. **Update: Broadway Corridor**
(Provided by TYLIN & Memo Provided by City Engineer John Theriault)



BANGOR WATER DISTRICT

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Kathy Moriarty
General Manager

To: Infrastructure Committee
From: Bangor Water Trustees and Kathy Moriarty General Manager
Date: May 21, 2015

RE: May 26, 2015 Infrastructure Committee Meeting: Update of Bangor Water’s Projects for 2015

2015 planned pipe replacement projects

Aging infrastructure continues to be a priority for the District. We choose projects from year to year based on a number of factors. Bangor Water meets monthly with City Engineering and Public Works staff to coordinate and collaborate whenever possible to save total project costs and minimize impacts to traffic. 2015 infrastructure projects include:

Union Street Bridge



Bangor Water crews install piping



Pipe installed hanging under Union St. Bridge

Project started 2014. BWD’s portion of the work will be completed May 2015.

Project coordinated with the DOT.

Install 640 feet of 16-inch water main.

Estimated cost: \$296,000

First Street and Davis Street

Replace existing 4-inch and 6-inch pipe (installed early 1900’s) with 1,240 feet of 8-inch pipe.

Project coordinated in conjunction with City of Bangor revitalization project

Construction dates: to be determined

Estimated cost: \$420,000

20” main between Garland St. and Mt. Hope



Reconfiguring piping to discontinue a 20-inch redundant main that has failed twice resulting in catastrophic property damage

Construction: late summer – early fall

Will not result in any traffic / water service disruptions.

Estimated cost: \$150,000

Union Street from Main Street to Hammond St.



Replace existing 6-inch, 8-inch and 12-inch pipe (installed early 1900's) with 1,650 feet of 12-inch and 16-inch pipe.

Project coordinated in conjunction with City of Bangor / DOT road reconstruction project

Construction: May 19th to July 24th Estimated cost: \$577,250

Main line valve, hydrant, service line valve repairs

Bangor Water crews will be focusing this year on the maintenance of our system fixing valves, hydrants and services to ensure their operability.

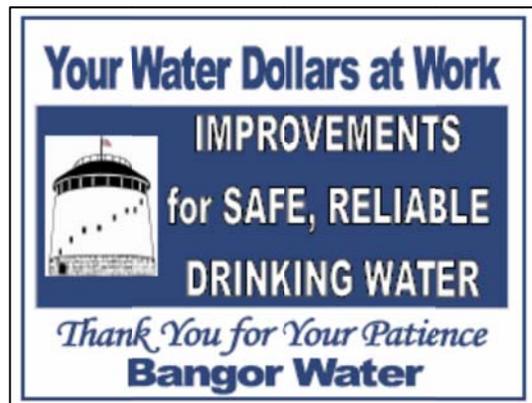
Summary

Project	Miles of Pipe	Cost Estimate
Union Street	0.31	\$ 577,250
20" Main between Mt. Hope & Garland	0.47	\$ 150,000
First & Davis Streets	0.24	\$ 420,000
Total	1.03	\$ 1,147,250

This year's project will replace 1 mile of pipe at a cost of \$1.1 million dollars.

Project Sign

New sign will be posted at piping project locations during construction.



May 7, 2015

MEMO

To: Infrastructure Committee
John Theriault
Fr: Brad Moore

Re: Adjustments to the Industrial Pretreatment Program

The Maine DEP recently audited our Industrial Pretreatment Program. One suggested change to our current program was made and staff concur with the recommendation. It is a minor change in the enforcement response plan that allows for a letter of warning to be issued to sewer users who have violated the pretreatment program. This provides an opportunity for formal communication that does not include a notice of violation. In other words, this change gives staff the opportunity of a less onerous option to notify users who have violated the pretreatment program.

We have highlighted the changes in the two documents that have been affected by the suggested changes. Staff will be available to answer the committees questions.

City of Bangor WWTP Enforcement Response Plan

1. **PURPOSE:**

The purpose of this plan is to define the sequence of steps to be taken by the City following identification of Users that are out of compliance with the City of Bangor's Pretreatment Program and/or Sewer Use Ordinance (Chapter 252 City Code). The descriptions of formal enforcement actions enumerated below are designed to clarify the consequences of one-time, repeated or continuing non-compliance and are intended to ensure equitable treatment of all Users.

U.S Environmental Protection Agency (EPA) regulations require the City to take specific enforcement action against Users found to be in Significant Non-Compliance with the Pretreatment Ordinance. This Enforcement Response Plan defines the conditions under which the City must cite a User for Significant Non-Compliance and lists appropriate enforcement measures to remedy such situations.

EPA guidelines require that the selected enforcement response be appropriate to the extent of the Pretreatment Program violation. This Enforcement Response Plan based on EPA guidelines, will consider the following criteria when assessing the appropriateness of a particular enforcement response:

- A). Magnitude of the violation;
- B). Duration of the violation;
- C). Effect of the violation on the receiving water;
- D). Effect of the violation on the Treatment Plant
- E). Compliance history of the Industrial User;
- F). Good faith efforts on the part of the Industrial User; and
- G). Degree of the Industrial User's responsibility for the violation.

2. **SIGNIFICANT NON-COMPLIANCE:**

Federal regulations define Significant Non-Compliance as violations which meet at least one of the following criteria:

- (1). **Chronic Violations of wastewater discharge limits**- defined here as those violations in which 66% or more of all the measurements taken for the same pollutant parameter during a six month period exceed (by any magnitude) a numeric pretreatment standard or requirement, including instantaneous limits as defined in Ch. 252-3;
- (2). **Technical Review Criteria (TRC) Violations**- defined here as those in which 33% or more of wastewater measurements taken for each pollutant parameter during a six-month period equals or exceeds the product of the numeric pretreatment standard or requirement, including instantaneous limit, as defined in

City of Bangor WWTP Enforcement Response Plan

Ch. 252-3, multiplied by the applicable criteria 1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except pH;

- (3). Any other violation of a Pretreatment Standard or Requirement as defined by Ch. 252-3 (Daily Maximum, long-term average, Instantaneous Limit, or narrative standard) that the Superintendent or Pretreatment Coordinator determines has caused, alone or in combination with other discharges, interference or pass-through, including endangering the health of POTW personnel or the general public as defined by Ch. 252-3;
- (4). Any discharge of a pollutant that has caused imminent danger to human health, including the health of the City's POTW personnel, or to the environment or has required an exercise of the City's emergency authority to halt the discharge under 40 CFR 403.8(f)(2)(vi)(B);
- (5). Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an individual wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;
- (6). Failure to provide within thirty (30) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical Pretreatment Standard deadlines, periodic self-monitoring reports, and reports on compliance schedules;
- (7). Failure to accurately report any non-compliance with permit requirements; and/or
- (8). Any other violation or group of violations, which may include a violation of Best Management Practices, which the Superintendent determines will adversely affect the operation or implementation of the City's pretreatment program.

3. SELECTION OF ENFORCEMENT RESPONSES:

Table 1 represents an Enforcement Response Guide based on EPA recommended response measures for varying degrees of permit violations. The Guide will be used by the City to determine appropriate measures in the event of a violation of the City's Pretreatment Program and/or Sewer Use Ordinance. Selection of appropriate enforcement response will be based on the following steps:

- A). The City will locate the type of non-compliance in the first column (1) of the Response Guide.
- B). Using column two (2), the City will identify the most accurate description of the nature of the violation.

City of Bangor WWTP Enforcement Response Plan

C). The City will assess the appropriateness of the recommended responses in column three (3). First time offenders, or those demonstrating “good faith” progress **may** merit a more lenient response. Similarly, repeat or frequent offenders or those demonstrating negligence or intentional non-compliance may require a more stringent response. The City will evaluate the nature of the violation(s) by the following seven (7) criteria:

- (1). **Magnitude-** Generally, an isolated instance of non-compliance can be addressed with an informal response, Letter of Warning (LOW), or Notice of Violation (NOV). However, since even an isolated violation could threaten human health and/or the environment, the Treatment Plant, damage public and private property, or threaten the integrity of Bangor’s Pretreatment Program (i.e., falsifying a self-monitoring report) all instances of Significant Violation will be responded to with an Administrative Order (AO) which requires a return to compliance by a specific deadline.
- (2). **Duration-** Violations, regardless of severity, which continue over prolonged periods of time will subject the violator to escalated enforcement actions. Minor violations which are chronic in nature are one form of Significant Non-Compliance and will be dealt with through the use of AOs.
- (3). **Effects to the Receiving Water-** Any violation which causes environmental harm will be met at a minimum with an AO and a fine. Environmental harm will be presumed whenever a discharge:
 - a). Passes through the Treatment Plant;
 - b). Is directly responsible for causing a violation of the City of Bangor’s MEPDES permit, including its’ water quality standards;
or
 - c). Has a toxic effect upon the receiving waters, such as fish kill.

In addition, the response will be designed to recover any MEPDES fines paid by the City, which are the result of the User’s discharge violation.

- (4). **Effects on the POTW-** Any violation having a negative impact on the Treatment Plant **and/or** Collection System (such as increased treatment costs, harm to personnel or equipment, pipe corrosion, occlusion of sewer lines etc.), which hinders the operation of the Treatment Plant or Collections System; **and/or** which contaminates the Treatment Plant’s sludge, thereby reducing sludge disposal options, will be met with a fine

City of Bangor WWTP Enforcement Response Plan

and/or civil penalty as well as the recovery of additional costs and expenses involved.

- (5) **Compliance History of the User-** A pattern of recurring violations of any program requirements may indicate either that the User's treatment system is inadequate or that operation and maintenance of its' treatment system is deficient. These indications should alert the City to the likelihood of future Significant Non-Compliance. Accordingly, stronger enforcement responses should be applied against users exhibiting consistent compliance problems than against those with only an occasional problem.
- (6) **"Good Faith" of the User-** Generally, a users' demonstrated willingness to comply should predispose the City to select one of the less stringent enforcement actions specified, **provided** the violation has not caused serious Treatment Plant upset or resulted in environmental damage. However, good faith does not eliminate the necessity of enforcement action, and compliance with previous enforcement orders should not necessarily be considered indication of good faith.
- (7). **Responsibility of the User-** Although Users should always be held accountable for their violations, some consideration should be given to whether the violation was the result of negligence, intentional non-compliance, was preventable or was the result of an unforeseeable event.

- D). Column four (4) designates personnel responsible for the action.
- E). The City will document, in writing to the User, the rationale for selecting the particular enforcement response applied.
- F). The City will apply the enforcement response to the violator. The City will specify the corrective action or other response required by the User, including response time limits.
- G). The City will document any Users' responses and the resolution of non-compliance.
- H). The City will follow up with escalated enforcement action if a Users' response is not received within thirty (30) days or sooner if appropriate or severe violations continue.
- I). The City normally will issue an LOW or NOV to the violator as a first step in enforcement proceedings. However, The City may elect to by-pass this procedure in favor of an AO when it appears that the violation requires immediate remedial action.

DEFINITIONS

AO	Administrative Order
Civil litigation	Civil litigation against the User, seeking equitable relief, monetary penalties, and actual damages.
Criminal prosecution	Pursuing punitive measures against an individual and/or organization through a court of law.
Fine	Monetary penalty assessed by the City.
LOW	Letter of Warning
Meeting	Informal meeting with the User to resolve non-compliance.
MEPDES	Maine Pollutant Discharge System
NOV	Notice of Violation of the City of Bangor's Industrial Pretreatment Program and/or the Sewer Use Ordinance.
PC	Pretreatment Coordinator for the City of Bangor.
POTW	Publicly Owned Treatment Works
S	Superintendent for the City of Bangor WWTP.
Show Cause Hearing	Formal meeting requiring the User to attend and demonstrate why the City should not take proposed enforcement action. The meeting may also serve as a forum to discuss corrective actions and corrective actions.
SV	Significant Violation of the City of Bangor's' Pretreatment Program and/or Sewer Use Ordinance.
User	Any User of the POTW including Industrial User as defined in Ch. 252-3

<u>NON-COMPLIANCE</u>	<u>NATURE OF VIOLATION</u>	<u>INITIAL RESPONSE; FOLLOW UP</u>	<u>PERSONNEL</u>
<u>A. ILLEGAL DISCHARGE</u>			
1) Unpermitted discharge (no permit)	Discharger unaware of permit requirement; no harm to POTW or to the environment.	LOW or NOV and application, or AO issued within 14 days identifying the violation; requires a permit application within 30 days and the results of wastewater analysis within 60 days; proposed fine of \$300-\$500.	PC
	Results in violation of POTW NPDES permit, or dangerous situation- SNC	AO issued as soon as possible, but in any case within 5 days to immediately halt discharge. Fine or civil litigation seeking penalties of \$1000 to \$2500 per day. Terminate service.	PC S
2) Non-permitted discharge (expired permit)	Failure to apply for permit renewal. No damage to POTW or environment.	Telephone call and NOV should be made within 5 days of detection.	PC
	Results in violation of POTW NPDES permit, or dangerous situation- SNC	AO issued as soon as possible, but in any case within 5 days to immediately halt discharge. Fine or civil litigation seeking penalties of \$1000 to \$2500 per day. Terminate service.	PC S
<u>B. DISCHARGE PERMIT VIOLATIONS</u>			
1) Exceedance of discharge limits (local or categorical)	Isolated, non-significant	Telephone call and NOV issued within 5 days of receipt of laboratory results requiring written report with corrective and preventative action taken to prevent recurrence. (1st/2nd offense)	PC
	Frequent, non-significant (repeated offense)	Meeting with violator or show cause hearing requested within 14 days of detection of violation. Meeting will be held within 30 days of detection of the violation. Proposed fine of \$300-\$500.	PC
	SNC	AO issued within 5 days with compliance schedule; fine of \$1000 per day of violation, or civil litigation seeking penalties of \$1000 to \$2500 per day.	PC S

<u>NON-COMPLIANCE</u>	<u>NATURE OF VIOLATION</u>	<u>INITIAL RESPONSE; FOLLOW UP</u>	<u>PERSONNEL</u>
	Caused known damage to POTW or environment, or worker health hazard	AO issued within 5 days to immediately halt discharge; fine, civil litigation, or criminal prosecution.	PC S
2) Slug load discharge	Isolated without known damage.	LOW or NOV; AO issued within 14 days to develop a Spill Control Plan within 30 days.	PC
	Isolated with known damage, interference, pass-through. SNC	Fine or civil litigation seeking penalties of \$500 to \$700 per day and recovery of costs. Terminate service.	PC S
	Recurring SNC.	Fine or civil litigation seeking penalties of \$1000 to \$2500 per day and recovery of costs. Terminate service.	PC S

C. SAMPLING, MONITORING, AND REPORTING VIOLATIONS

1) Minor sampling, monitoring or reporting deficiencies	Isolated or infrequent (1st/2nd offense)	Telephone call and LOW or NOV issued within 14 days of detection.	PC
	Frequent or continuous	NOV issued within 5 days; proposed fine \$100-\$300.	PC
2) Major sampling, monitoring or reporting deficiencies.	Isolated or infrequent (1st /2nd offense)	NOV issued within 5 days of detection; meeting with violator requested within 14 days. Proposed fines of \$300 to \$500.	PC
	Frequent or continuous; SNC	Meeting with Show Cause Hearing requested within 14 days of detection. Fine or civil litigation seeking penalties of \$500.	PC S
3) Complete failure to sample, monitor, or report is more than 30 days late.	SNC	AO with compliance schedule issued within 5 days of detection; civil litigation and/or criminal prosecution seeking penalties of \$1000-\$2500 per day. Terminate service.	PC S
4) Failure to submit schedule of compliance.	Violation of AO.	Fine; civil litigation and/or criminal prosecution seeking penalties of \$1000-\$2500 per day until schedule is filed.	S

<u>NON-COMPLIANCE</u>	<u>NATURE OF VIOLATION</u>	<u>INITIAL RESPONSE; FOLLOW UP</u>	<u>PERSONNEL</u>
5) Failure to notify of discharge limit violation or slug discharge.	Isolated or infrequent, no known effects.	NOV; AO issued within 14 days of detection.	PC
	Frequent or continued violation- SNC	Show Cause Hearing requested within 14 days; AO issued within 5 days of detection; civil litigation seeking penalties of \$1000 per day per violation; criminal prosecution.	PC S
6) Failure to install monitoring equipment.	Continued SNC	AO issued within 5 days of detection; temporarily suspend service if agreed upon compliance date is exceeded by 30 days.	PC S

D. COMPLIANCE SCHEDULE VIOLATIONS

1) Missed milestone date	Will not effect other milestone dates, or final date.	Telephone call and LOW or NOV issued within 5 days of milestone date passage.	PC
	Will effect other milestones or final date.	Meeting requested within 14 days or prior to next milestone date; AO issued within 5 days of missed milestone date.	PC S
	Will effect other milestones or final date. Violation not for good cause.	Show Cause Hearing requested within 14 days or prior to next milestone date; fine or seek civil penalties of \$500-\$2500 per day of violation.	PC S
2) Failure to meet compliance schedule reporting requirements.	Did not submit report, but did complete milestone.	Telephone call and LOW or NOV issued within 14 days of detection.	PC
	Did not submit report or complete milestone.	NOV; AO issued within 5 days of missed milestone date; proposed fines of \$300-\$500.	PC S
3) Missed final date	Good cause	Telephone call and NOV issued within 5 days of missed date.	PC

<u>NON-COMPLIANCE</u>	<u>NATURE OF VIOLATION</u>	<u>INITIAL RESPONSE; FOLLOW UP</u>	<u>PERSONNEL</u>
	30 days or more outstanding; failure or refusal to comply without good cause.	Show Cause Hearing requested within 14 days of detection; AO with fines; judicial action.	PC S
4) Reporting false information	Any instance SNC.	Referral to prosecutor for criminal investigation; civil litigation and/or criminal prosecution seeking maximum penalties allowed by State law (at least \$1000 per day per violation); Termination of service.	S

E. SPILL INCIDENTS

1) Spill incident	Reported and investigated	LOW or NOV issued at time of inspection; meeting requested within 14 days of detection; AO	PC
	Failure to report spill	NOV; meeting within 14 days of detection; AO with proposed fines of \$300-\$500.	PC
2) Repeated spills	Failure to develop or upgrade Spill Prevention Plan.	NOV; AO with fines; Show Cause Hearing to be held within 30 days of notification.	PC
	Failure to act on a decision of compliance meeting and results in known damage to POTW or environment.	Judicial action; terminate service.	

F. VIOLATIONS DETECTED DURING FIELD INSPECTIONS/INVESTIGATIONS

1) Minor violation of analytical procedures	Any instances	Telephone call and NOV issued within 14 days of receipt of monitoring results.	PC
2) Major violation of analytical procedures	No evidence of negligence or intent.	NOV; meeting to be held within 30 days of notification. AO issued within 14 days of receipt of monitoring results.	PC
	Evidence of negligence or intent-SNC	AO or civil action and penalty; possible criminal prosecution.	PC S
3) Minor violation of permit condition	No evidence of negligence or intent	LOW or NOV; AO for immediate corrective action required.	PC

<u>NON-COMPLIANCE</u>	<u>NATURE OF VIOLATION</u>	<u>INITIAL RESPONSE; FOLLOW UP</u>	<u>PERSONNEL</u>
	Evidence of negligence or intent	AO or civil litigation and penalties; possible criminal prosecution. Terminate service.	PC S
4) Major violation of permit condition	Evidence of negligence or intent-SNC	AO or civil litigation and penalties; possible criminal prosecution. Terminate service.	S

G. OTHER PERMIT VIOLATIONS

1) Wastestreams are diluted in lieu of treatment	Initial violation	AO with fines	PC
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H. VIOLATIONS ASSOCIATED WITH GREASE CONTROL DEVICES

1) Failure to adequately maintain system	No evidence of intent, no known damage	LOW or NOV; submit proof of maintenance and plan within 30	PC
	No evidence of intent, known damage	AO for immediate corrective action; submit proof of maintenance and plan within 30 days, possible fines	PC
	Evidence of intent or neglect, no known damage	AO; submit proof of maintenance and plan within 30 days; proposed fine of \$500-\$1,000	PC
	Evidence of intent or neglect, known damage	AO for immediate corrective action required; fines possible civil action	PC S
2) System inadequately sized	No evidence of intent, no known damage	LOW or NOV; compliance schedule	PC
	No evidence of intent, known damage	AO for immediate corrective action required; compliance schedule	PC
	Evidence of intent, no known damage	AO; compliance schedule; proposed fine of \$1,000-\$1,500, possible civil prosecution	PC S
	Evidence of intent, known damage	AO for immediate corrective action; fines; possible civil action. Terminate service	PC S

<u>NON-COMPLIANCE</u>	<u>NATURE OF VIOLATION</u>	<u>INITIAL RESPONSE; FOLLOW UP</u>	<u>PERSONNEL</u>
3) No system in place	No evidence of intent, no known damage	NOV or AO; compliance shedule	PC
	No evidence of intent, known damage	AO for immediate corrective action required; compliance schedule; possible fines	PC S
	Evidence of intent, no known damage	AO; compliance schedule; proposed fine of \$1,000-\$2,500; possible civil action	PC S
	Evidence of intent, known damage	AO for immediate corrective action required; compliance schedule; proposed fines of \$2,000-\$2500; possible civil action. Terminate service.	
4) Withholding or reporting false information	No evidence of intent, no known damage	AO; compliance schedule	PC
	No evidence of intent, known damage	AO for immediate corrective action required; compliance schedule; possible fines	PC/S
	Evidence of intent, no known damage	AO; compliance schedule; proposed fines of \$1,000-\$2,500; possible civil/criminal action	PC/S
	Evidence of intent; known damage	AO for immediate action required; compliance schedule; proposed fines of \$2,000- \$2,500, possible civil/criminal action. Terminate service.	PC/S

To: Infrastructure Committee
From: Engineering Department
Date: May 20, 2015
Re: Broadway Corridor Study

Tom Errico PE, PTOE of TYLIN and Mitchell Rasor of MRLD will provide a review of the recommendations developed from the Broadway Corridor Study.

The Study is funded through the Bangor Area Comprehensive Transportation System (BACTS) and has evaluated the Broadway Corridor from the I-95 Ramps to Grandview Avenue. The intent of this study is to investigate methods to reduce congestion and improve safety along this busy corridor for motorists, pedestrians, and bicyclist.

The study included an Advisory Committee that helped provide local knowledge of the corridor to the engineering team and was made up of Bangor residents and business owners, and Staff from the City of Bangor, Maine Department of Transportation, and BACTS.

The study process has included to date three meetings of the Broadway Advisory Committee, a meeting with local business owners, and two public hearings to review the study process and preliminary results. Following the Infrastructure Committee meeting, a final Advisory Committee meeting will be held to discuss comments and concerns raised during the Infrastructure Committee meeting before the final study will be submitted in draft format.