

# Phase III Combined Sewer Overflow Long Term Control Plan

## Bond Brook Collection System

Greater Augusta Utility District

Public Informational Meeting

September 22, 2010



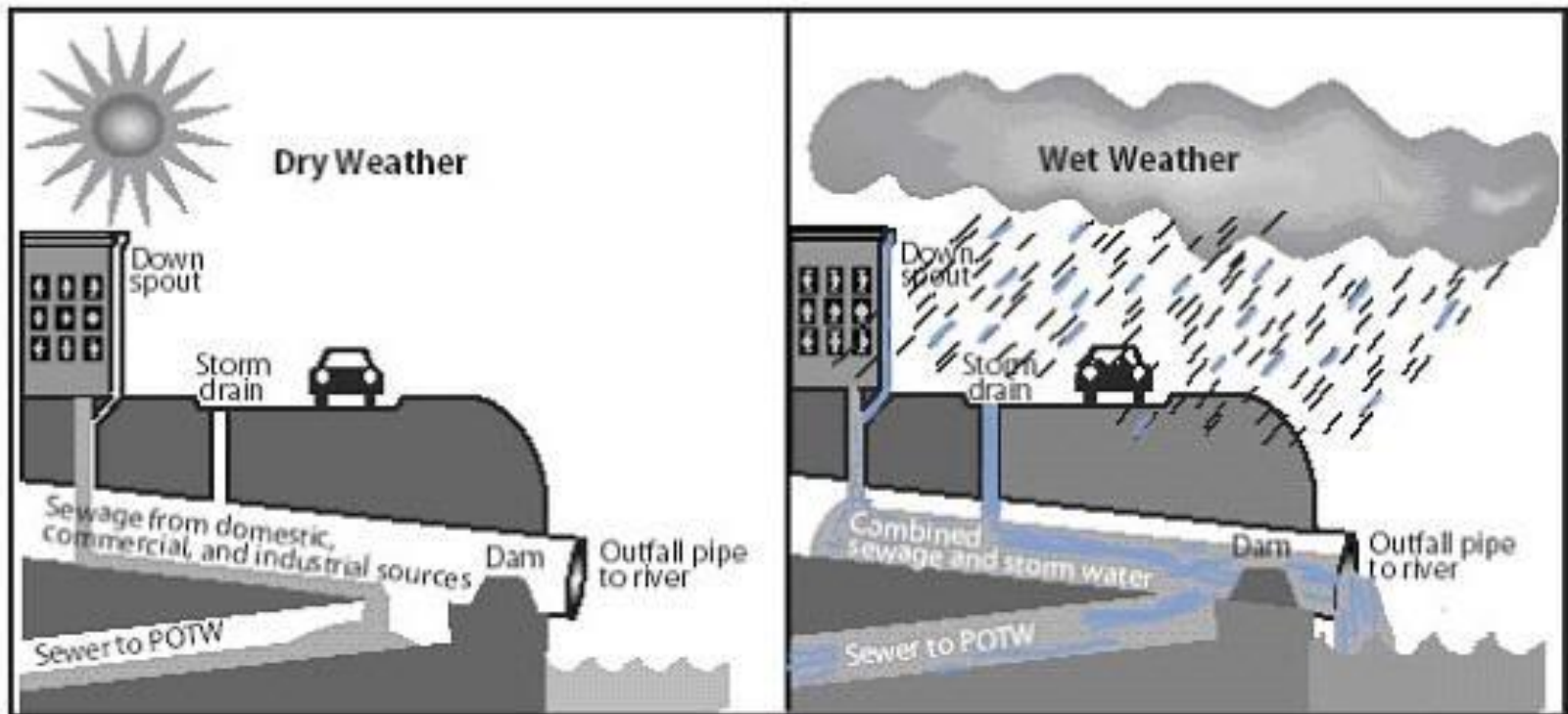
# Acronyms Used

GAUD	Greater Augusta Utility District
CSO	Combined Sewer Overflow
LTCP	Long Term Control Plan
DEP	Department of Environmental Protection
EPA	Environmental Protection Agency
VRAP	Voluntary Response Action Program
MGP	Manufactured Gas Product
NRPA	Natural Resources Protection Act
NOAA	National Oceanic and Atmospheric Admin.
SRF	State Revolving Fund
CDBG	Community Development Block Grant



# Project Overview

# What is a Combined Sewer Overflow?



# Long Term Control Plan Definition

A phased approach for control of combined sewer overflows that requires the permittee (GAUD) to develop and submit an approvable plan that will ultimately result in compliance with the EPA water quality standards and Clean Water Act requirements.

# Purpose and Need

- GAUD's LTCP was approved by Maine DEP in September 2007
- Key drivers:
  1. Clean Water Act drives wastewater projects
  2. Clean Water Act protects Bond Brook and Kennebec River water quality
  3. This in turn improves public health and safety.

# The Plan

- Eliminate CSO discharges equal to and less than 1-year 2-hour wet weather events to Kennebec River
- Eliminate four CSO discharges into Bond Brook.

# Project Description

- Replace the Mt. Vernon Avenue “Interceptor” pipe
- Install a new 10’ x 10’ pipe in Mill Park to store stormwater
- Replace 2 pump stations with one and replace an existing discharge pipe
- Central Maine Power VRAP Coordination

# Mt. Vernon Ave Interceptor Replacement

- Pipe is between Bond Brook and Mt. Vernon Avenue
- Approximately 4,400 linear feet
- 24-inch diameter pipe
- Eliminates Pump Station #1 at the Mt Vernon Ave softball field
- Pump Station #2 (Rockingham) is replaced

# Mt. Vernon Ave Interceptor Replacement (continued)

- Can't reroute to Mt Vernon Ave; all sewer services go downhill toward Bond Brook
- Eliminates raw water sewers into Bond Brook which is more sensitive than Kennebec River
- Replaces a pump station with a gravity pipe
- Received \$500k CDBG from the City

# In-Line Storage / Conveyance Conduit

- Mill Park and adjacent to lower Bond Brook
- Approximately 1,400 linear feet
- 10 ft x 10 ft precast concrete structure
- Approximately one million gallons storage
- Equal to 1-year 2-hour wet weather event

# Pump Station and Force Main

- Replacing Pump Station #2
- Mt Vernon Avenue adjacent to Rockingham Electric
- Capacity of 2.5 million gallons per day
- Approximately 2,500 linear feet of force main
- 16-inch diameter pipe
- In and adjacent to Bond, Water, and Commercial Streets

# Central Maine Power VRAP Coordination

- Manufactured gas plant (MGP)
  - Former Augusta Gas Works site
  - Rockingham Electric
- Environmental remediation activities
- MGP contamination
- West bank of lower Bond Brook
- Maine DEP VRAP

# Other project benefits

- Eliminates thousands of feet of hard to find pressurized sewers
- Elevates PS 2 out of a flood zone
- Provides emergency power for pump station 2
- Removes PS 1 as a point of failure and an ongoing maintenance cost

# Project Schedule

Advertisement of Project	December 2010
Bid Opening	January 2011
Contract Award	February 2011
Substantial Completion	April 2013
Final Completion	June 2013

# Public Outreach

- City Council Workshops
- NRPA Permit Application Submission
  - Notice to Abutters
  - Notice in Kennebec Journal
- GAUD Project Website Page
  - <http://www.augustawater.org/cso3.html>
  - CSO Education
  - Project Description and Layout

# Review Agency Coordination

- Natural Resources Council of Maine
- U.S. Fish & Wildlife
- Maine Natural Areas Program
- Historic Preservation Commission
- Maine Department of Inland Fisheries & Wildlife
- Maine Department of Environmental Protection
- Maine Emergency Management Agency
- Maine Department of Economic & Community Development
- Maine Department of Transportation, Region 2
- Maine State Planning Office, Flood Insurance Coordinator
- Kennebec Valley Council of Governments
- Maine Department of Marine Resources
- Native American Tribes
- Maine Submerged Lands Program
- NOAA Fisheries
- Army Corps of Engineers



# Impacts on the Environment

# Water Quality And Quantity

- Impact
  - Temporary short-term construction activities in and adjacent to Bond Brook and Kennebec River
  - Long-term positive impact on Bond Brook and Kennebec River.
    - Eliminate four CSO discharges into Bond Brook.
    - Eliminate CSO discharges equal to and less than 1-year 2-hour wet weather events to Kennebec River
- Mitigation
  - Construction activities: Best Management Practices
  - Maine DEP Natural Resources Protection Act Permit
  - Army Corps of Engineers Permit

# Environmental Sensitive Areas

- Impact
  - Five stream crossings (three tidal influences)
  - Two freshwater forested wetland crossings
  - Temporary short-term construction activities in and adjacent to Bond Brook and Kennebec River
  - Long-term positive impact on Bond Brook and Kennebec River.
- Mitigation
  - Construction activities: Best Management Practices
  - In-stream work period restricted
  - Maine DEP NRPA Permit
  - Army Corps of Engineers Permit

# Air Quality

- Impact
  - Construction vehicles exhaust emissions
  - Construction activities increase sound levels (i.e., sheeting operations, etc.)
- Mitigation
  - Exhaust emissions: site specific and short-term
  - Increased sound levels: site specific and short-term

# Socio-Economic Conditions

## Impact

- Conceptual project cost of \$15-million not including CMP VRAP
- Financing through SRF Loan Program approx 1.2% interest rate for 20 year debt service
- \$831,000 (estimated) principal forgiveness
- \$500,000 CDBG
- User rate increase
- Increase wastewater capacity for Northwest Quadrant including proposed Maine General Hospital project

# Socio-Economic Conditions (continued)

## Mitigation

- Storage approach will help address additional costs associated with stormwater regulation in near future

# Historical / Archaeological Sites

- Impact
  - Completed Phase I Archaeological Survey
  - No prehistoric, historical, or archaeological sites Identified
- Mitigation
  - n/a

# Endangered Species

- Impact
  - Temporary short-term construction activities in and adjacent to Bond Brook and Kennebec River
  - Potential habitat for endangered Atlantic salmon, endangered shortnose sturgeon, and "Species of Concern" Atlantic sturgeon
  - Long-term positive impact on Bond Brook and Kennebec River
- Mitigation
  - Construction activities: Best Management Practices
  - In-stream work period restricted
  - Maine DEP NRPA Permit
  - Army Corps of Engineers Permit

# Coastal Waters

- Impact
  - Temporary short-term construction activities adjacent to coastal waters
  - No impact on groundwater quality & drinking water supplies
  - Long-term positive impact on Bond Brook and Kennebec River.
- Mitigation
  - Construction activities: Best Management Practices
  - Maine DEP NRPA Permit
  - Army Corps of Engineers Permit

# Wild and Scenic Rivers

- Impact
  - Project is not located in any wild and scenic rivers
- Mitigation
  - n/a

# Land Use

- Impact
  - Eliminate CSO exposure points in residential / business areas along Bond Brook
  - Increase wastewater capacity to Northwest Quadrant, an area of promising economic growth
  - Facilitate development of the Maine General Inpatient Regional Hospital campus
- Mitigation
  - n/a

A scenic landscape featuring a calm pond in the foreground, surrounded by tall reeds and grasses. The water reflects the sky and the surrounding greenery. In the background, a dense forest of tall, thin trees, possibly birches, stands against a clear blue sky with a few wispy clouds. The overall scene is peaceful and natural.

# Questions