

## **SUMMER RESIDENTS ADVISORY COMMITTEE**

**AUGUST 2, 2021**

### **CHATHAM'S COMPREHENSIVE WASTERWATER MANAGEMENT PLAN**

The Summer Residents Advisory Committee was established to provide the Chatham Board of Selectmen with a vehicle for dialogue with Chatham's non-resident taxpayers, who pay more than 2/3<sup>rd</sup> of the real estate taxes collected by the Town, on critical issues facing the community.

Chatham's saltwater embayments and fresh water ponds are among its most important assets and are in serious decline. That decline can be seen by a loss of eelgrass beds and shellfish flats, and in the increase in algae in our saltwater embayments and in noxious weeds chocking our fresh water ponds.

Under a Consent Order with Massachusetts Environmental Protection Agency Chatham was obligated to develop a plan to reduce nitrogen loading in the Town's embayments. Stearns & Wheler, Environmental Engineers and Scientists, were retained by the Town to develop a comprehensive wastewater management plan.

To dimension the problem, a Massachusetts Estuaries Project was conducted by the Massachusetts Environmental Protection Agency ("MEPA") in Chatham from 2001 to 2003. Sites included in the study were:

Taylor Pond/Mill Pond/Red River

Bucks Creek/Cockle Cove Creek

Stage Harbor Area

Bassing Harbour (Crow's Pond and Ryder's Cove)

Muddy Creek System

The Study concluded that nitrogen loading was 90% to 30% above a healthy level in the embayments and that septic discharge accounts for 80% to 90% of the input.

MEPA also studied the Pleasant Bay system. That study was completed in April of 2006. The areas studied of interest to Chatham included Pleasant Bay, Bassing Harbor-Ryder's Cove, Frost Fish Creek, Crow's Pond, Muddy Creek-upper, Muddy Creek-lower and Chatham Harbor. That study concluded that restoration of the Pleasant Bay estuary system required reduction of present nitrogen inputs, again finding that they were principally from septic discharge.

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No specific study of Chatham's many fresh water ponds was made. Fresh water ponds were and still are undergoing significant eutrophication from phosphorus loading from soaps and detergents from septic discharge.

Restoring the embayments and ponds before they reached a non-recoverable condition by expanding the current sewer system in Chatham to cover all homes, public buildings and businesses has been a priority of the Summer Residents Advisory Committee ("Committee") from its inception in 1996. At the 2006 Summer Town Meeting hosted by the Committee, it presented its recommendations for the Comprehensive Wastewater Management Plan.

"The Plan's Goal should be to clean up all of Chatham's waters, saltwater embayments and ponds, by providing sewer connection to all Chatham households and businesses. This 100% solution is the only way to be fair to all Chatham taxpayers.

"Contract to complete the project in 8 to 10 years. Prolonging the project delays improvements, will make the project more expensive in the long run and threatens completion.

"Undertake a feasibility study of the benefits and costs of distributing effluent for use in irrigation, prior to the final design of the system. Such distribution has the potential of reducing consumption of town water, reducing the amount of effluent flowing into Cockle Cove watershed, and generating revenues to offset the cost of the system.

"Finance the project through a combination of the tax rate and betterments and the real estate transfer tax."

At the meeting the Committee asked the attendees to complete a questionnaire on the Committee's recommendations for the Comprehensive Wastewater Management Plan. Forty-three attendees took the time to complete the questionnaire and indicated overwhelming support for the Committee's recommendations. Thirty-eight of the respondents favored sewerage all of Chatham and wanted the project completed in 8 to 10 years. A nearly equal number supported the Committee's call for a feasibility study on recycling the effluent and to pay for the system through the combination of tax rate and betterments.

Following the Summer Town Meeting, the Committee submitted its recommendations to the Select Board on August 24, 2006.

### 3.

In April of 2008 the Town of Chatham announced that its plan was nearing completion. In a communication sent out to the community the Town announced the details of the Recommended Plan (*Chatham's Comprehensive Wastewater Management Plan Nears Completion, April 8, 2008*).

The Plan included the following components:

Phase upgrade and expansion of the Chatham Wastewater Treatment Facility to treat the wastewater. This will be done in a modular approach (2 phases) to keep costs manageable and efficiently treat the variable (seasonal) wastewater flows;

Expansion of the sewer system over a 30-year time period (20 years for Phase I area to meet the nitrogen TMDL (Total Maximum Daily Load) limits, with an additional 10 years to extend sewers to the remaining portions of the town;

Continued work to investigate nitrogen management alternatives in the Muddy Creek watershed;

Continued storm water management to deal with road contaminants and sediments; and

Education on proper fertilizer application and management to prevent overuse of fertilizers.

The Final Plan was completed in 2009. It added one additional component:

Continued discussion with Harwich about the feasibility of the Chatham Waste Water Treatment Plant providing service as a regional facility. (*Chatham Comprehensive Wastewater Management Planning Project, May 2009*)

The Final Plan did not adopt the Committee's timeline preference of 8 to 10 years. In the Summary of Recommended Plan, the rejection of the Committee's timeline was explained as follows:

"Several alternative timelines were considered for the extension of the future collection system. The summer Residents Advisory Committee, a Town advocacy group comprised of residents that own summer homes in Chatham, but maintain year-around residency outside of Chatham (and

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therefore cannot vote in Chatham Town Meetings), expressed the view that they would like to see the entire Town served by a modern wastewater collection and treatment system in a period of 8 to 10 years to deal conclusively with these wastewater and nitrogen problems. Subsequent evaluations by Stearns & Wheler and the Town's Wastewater Planning Technical Advisory Group indicated that the implementation of sewers at this pace would cause major disruptions in Town to traffic, business, etc. during the 8- to 10-year period and could damage the summer-time vacation economy. After review with the Citizens' Advisory Committee and the Board of Selectmen, general consensus indicated that a 20-year implementation was the most practical and feasible for the treatment plant expansion/upgrade and sewer expansion to those portions of Town with critical wastewater nitrogen management needs (i.e., to the areas affected by nitrogen TMDLs). This 20-year period would be called Phase 1 implementation and would be followed by a 10-year Phase 2 implementation to further expand the treatment facility and extend the sewers to the remaining portions of Town. (*Town Chatham, Massachusetts Final CWMP/FEIR Chapter 11, page 11-6.*)

Nor did the Plan commit to undertaking a feasibility study of the benefits and cost of distribution of effluent for use in irrigation, prior to the final design of the system.

Because Chatham's tax rate was low relative to other communities and the total value of properties in Chatham high, the Select Board chose to pay for the project's costs entirely through property taxes, which reduced the cost to the average taxpayer, as no project betterment costs to the average taxpayer would be assessed.

Since the plan proposes to connect all Chatham properties to a Town sewer over 20-30 years, each property owner would also incur a one-time connection cost estimated to average between \$3000-10,000, depending upon the distance of their home/business from the street. The Town advised that this connection cost could be borrowed for up to 20 years from the Barnstable County Community Septic Management Program at a subsidized interest rate.

At the Annual Town Meeting in May 2009 the Comprehensive Wastewater Management Plan was approved with preliminary funding of \$59,508,000. The funds were for preparation of detailed design plans for the Phase 1A upgrade/expansion of the Wastewater Treatment Facility and permitting and construction of extensions to the wastewater collection system, including 7 pump stations along a significant portion of Route 28 and Barn Hill Road. Construction

of these extensions to provide the backbone for future extensions into residential neighborhoods north and south of 28.

Approval and implementation of the Comprehensive Wastewater Management Plan continued to be a top priority of the Committee in 2009. The Committee submitted written testimony urging approval of the Plan to the Massachusetts Environmental Protection Agency for inclusion in the Record of its June 30, 2009 Public Hearing on the Plan. (Town of Chatham Annual Reports 2009, p.202)

The Final Plan was approved by the Massachusetts Secretary of Energy and Environmental Affairs, Ian Bowles, on July 17, 2009. On October 29, 2009, the Cape Cod Commission voted unanimously to approve the Development of Regional Impact application of Chatham for the Final Comprehensive Wastewater Management Plan.

## **IMPLEMENTATION**

Implementation of the plan began in earnest in 2010 and as Phase 1 A of the plan was completed, subsequent Annual Town Meetings authorized additional borrowing for continuation of implementation of Phase I of the Plan.

In 2013 \$5,000,000 was authorized to complete Phase 1B including:

rehabilitation of the Stage Harbor Pumping Station to increase its capacity;

sewer extensions for Stage Harbor Road between Cedar/Cross streets and Cedar Swamp Road and Hardings Lane;

and Cedar Street between Stage Harbor Road and Capri Lane.

And \$10,000,000 in initial funding for Phase 1C, a three year plan for:

The Oyster Pond Watershed and

Areas of Little Mill Pond

An additional \$17,500,000 was authorized for the completion of Phase 1C at the Annual Town Meeting in 2014. These loans, as were those authorized at the

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2013 Annual Town Meeting, were eligible for the zero percent interest rate loans under the Massachusetts Clean Water State Revolving Fund at zero percent interest.

Construction of Phases 1A, 1B, 1C-1 were completed by the Annual Town Meeting in 2017. Phases 1C-2-5 were scheduled to begin in the fall of 2017 with completion anticipated in 2019.

\$31,000,000 was authorized at the 2017 Town Meeting to implement Phase 1D, which included areas around Route 137 and Morton Road and replacement of a portion of the original 1969-1970 main along Main Street. Choice of these areas were based on environmental sensitivity of receiving water bodies, proximity of existing infrastructure and other planned town projects (the New Treatment Plant and associated water main upgrade/replacement, road projects and the Inter-municipal Agreement with Harwich to take certain amounts of flow over the next 50 years.)

Phase 1D was to take two years and was not anticipated to begin until 2019.

At the Annual Town Meeting in 2019, \$7,150,000 was approved for the next phase (Phase 1E). Work was planned for three areas: sections of George Ryder Toad South/Market Place/Rumson Way/Harold Lane/ Stephen Drive as well as a section of Stony Hill Road and a lower section of Stage Harbor Road and Bridge Street, west of the Bridge.

Voters were advised that construction phases 1A, 1B, 1C-1 and 1C-2 had been completed and construction of Phase 1C-3/4 had been bid and the contract awarded. Construction of Phase 1D, coordinated with Harwich, was expected to bid in late spring or summer of 2019. Phase 1D-2 was expected to bid in winter 2020 with construction completed over 2 years. Phase 1-E being smaller in magnitude and coordinated with other projects was expected to bid in summer or fall 2019 with construction thereafter.

Phase 1E was listed on the State Revolving Fund for 0% interest funding.

Most recently, borrowing of \$7,000,000 was approved at the 2021 Town Meeting for a Chatham Queen Anne Pump Station Upgrade, including complete reconstruction of the existing Pumping Station, electrical systems, emergency generator and SCADA communication. The funds would also be available for potential construction of additional wastewater pumping stations of sewer expansions. Additional pumping stations are contemplated for the Ellis/Smith Street, Independence Lane, Pond View Lane/Wood Carver Knoll neighborhoods.

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Borrowing totaling \$137,158,000 has been authorized for the Plan's implementation. Of that amount, \$68,126,088 has been borrowed. \$942,275 of the debt has been paid down and \$20,446,939 has been received in grants. Currently, outstanding indebtedness for the project is \$47,642,697.

August 2, 2021

## **APPENDIX**

Plan Pictorial (*Chatham Comprehensive Wastewater  
Management Planning Initial Implementation Area  
Figure ES-4*)