

COMPREHENSIVE WASTEWATER MANAGEMENT PLAN

REVIEW COMMITTEE

DRAFT, OCTOBER 12, 2010 (Revised 10/13/10)

ACTION PLAN: 2011-2014

RECOMMENDATIONS TO THE BOARD OF SELECTMEN

A. CWMP Administration and Outreach

1. Revise the draft “Comprehensive Wastewater Management Plan” to fully reflect the findings of the Review Committee.
2. Conduct public discourse about new standing committee, including duties, composition and responsibilities.
3. Extend the contract with Consensus Building Institute, Inc. as a very effective public education and outreach support tool for the town.
4. Develop outreach plan to inform abutters/neighbors of all potential wastewater discharge site locations being considered, following approval of the CWMP.
5. Establish town department team (e.g.: assessors; accounting; tax collector; IT; GIS; health; building; DPW) to identify and develop wastewater project management tools.
6. Invite Barnstable County Water Protection Collaborative consulting services to review CWMP documents and Review Committee work.

B. Design/Technical Elements

1. Develop an administrative, technical and financing plan for implementation of future actions:

- a. Solicit proposal/engage SMAST to conduct additional modeling that satisfies TMDL for each estuary, yet serves to minimize sewerage peninsulas.
 - b. Explore permitting and design considerations for widening Bourne's Pond inlet, Little Pond inlet, dredging Perch Pond.
 - c. Study hydrological and water quality impacts and permitting potentials for ocean outfall discharge at Nobska.
 - d. Verify and refine estimates for discharge locations, capacities and costs proposed in Technical Memo 7.
 - e. Examine and pursue opportunities for other demonstration projects. The implementation of such projects should measure the impact on water quality of the estuaries over an 8-10 year duration.
2. Develop a parcel by parcel, street by street map defining the anticipated westerly limit of sewer construction, especially in Falmouth Heights and Davis Straits.
 3. Conduct feasibility study to consider instituting on site nitrogen removal or cluster systems as the wastewater solution in sewershed F (Waquoit East watershed).
 4. Implement baseline monitoring program of current nitrogen discharge mass loading at key locations in proposed Phase I and II areas.
 5. Incorporate into the design for the West Falmouth treatment plant upgrade that the vent odor problems in Service Road and at Shiverick's Pond will be fixed.
 6. Consider Oyster Pond Environmental Trust request for assistance in its nitrogen mitigation goal in the development of remaining MEP water quality studies. Identify funding source for this initiative.
 7. Develop and implement program of mandatory lawn fertilizer restriction.

C. Financial Initiatives

1. Direct the Town Manager to integrate the financial plan proposed by the committee into the town's five year capital plan, in consultation with the Finance Committee.
2. Conclude negotiations to acquire the 7.4 acre parcel from 22 Acres Realty Trust, north of Thomas Landers Road, with option to purchase additional acreage as possible, for inclusion in the CWMP.
3. Convene study group with appropriate expertise to examine the methodology for assessing betterments, options for assessment criteria and overall equitability of a proposed betterment assessment program, with deadline for task completion, including action plan, in six months.
4. Request the Board of Assessors to propose updated betterment assessment and abatement procedures.
5. Develop budget plan for \$15M debt exclusion appropriation request, spring 2011 Town Meeting, to include permitting and design, sewer system repair/improvement and demonstration or pilot projects. (see pg. 4)
6. Continue survey of additional potential effluent discharge sites for acquisition/development.

COMPREHENSIVE WASTEWATER MANAGEMENT PLAN
REVIEW COMMITTEE
PROPOSED \$15M BUDGET, SPRING 2011 TOWN MEETING

CWMP system preliminary design:	\$ 1,000,000
Construction design, SRF stage 1:	\$10,000,000
Repair force main, Surf Dr.:	\$ 1,000,000
Vent odor control (Service Rd.)	\$ 500,000
SUBTOTAL:	\$12,500,000
Bourne's Pond demonstration projects:	
Permit/EIR and inlet design (widen to 100 ft.):	\$ 500,000
Oyster bed program (to 15.01 acres):	\$ 200,000
Carter Conservation area, 1500 ft. PRB*:	\$ 1,100,000
SUBTOTAL:	\$ 1,800,000
Oyster Pond Trust program:	\$ 200,000
SUBTOTAL:	\$ 200,000
TOTAL:	\$14,500,000
Reserve/contingency:	\$ 500,000
FINAL TOTAL:	\$15,000,000

* Permeable reactive barrier

ALTERNATE A
COMPREHENSIVE WASTEWATER MANAGEMENT PLAN
REVIEW COMMITTEE

PROPOSED \$15M BUDGET, SPRING 2011 TOWN MEETING

CWMP system preliminary design:	\$ 1,000,000
Construction design, SRF stage 1:	\$ 9,000,000
Repair force main, Surf Dr.:	\$ 1,000,000
Vent odor control (Service Rd.)	\$ 500,000
SUBTOTAL:	\$11,500,000
Bourne's Pond demonstration projects:	
Permit/EIR and inlet design (widen to 100 ft.):	\$ 500,000
Oyster bed program (to 15.01 acres):	\$ 200,000
Carter Conservation area, 1500 ft. PRB*:	\$ 1,100,000
Unallocated demonstration fund:	\$ 1,000,000
SUBTOTAL:	\$ 2,800,000
Oyster Pond Trust program:	\$ 200,000
SUBTOTAL:	\$ 200,000
TOTAL:	\$14,500,000
Reserve/contingency:	\$ 500,000
FINAL TOTAL:	\$15,000,000

* Permeable reactive barrier

ALTERNATE B

COMPREHENSIVE WASTEWATER MANAGEMENT PLAN

REVIEW COMMITTEE

PROPOSED \$15M BUDGET, SPRING 2011 TOWN MEETING

Engineering and design related costs:	\$11,200,000
Alternative/Innovative projects:	\$ 1,800,000
Wastewater system repair/maintenance:	\$ 1,500,000
Contingency:	\$ 500,000
TOTAL COST:	\$15,000,000

ALTERNATE C

**COMPREHENSIVE WASTEWATER MANAGEMENT PLAN
REVIEW COMMITTEE
PROPOSED \$6M BUDGET, SPRING 2011 TOWN MEETING**

CWMP system preliminary design:	\$ 1,000,000
Repair force main, Surf Dr.:	\$ 1,000,000
Vent odor control (Service Rd.)	\$ 500,000

SUBTOTAL: \$2,500,000

Bourne's Pond demonstration projects:

Permit/EIR and inlet design (widen to 100 ft.):	\$ 500,000
Oyster bed program (to 15.01 acres):	\$ 200,000
Carter Conservation area, 1500 ft. PRB*:	\$ 1,100,000
Unallocated demonstration fund:	\$ 1,000,000

SUBTOTAL: \$ 2,800,000

Oyster Pond Trust program: \$ 200,000

SUBTOTAL: \$ 200,000

TOTAL: \$ 5,500,000

Reserve/contingency: \$ 500,000

FINAL TOTAL: \$ 6,000,000

* Permeable reactive barrier

PROPOSED \$9M BUDGET, SPRING 2013 TOWN MEETING

Construction design, SRF stage 1: \$ 9,000,000

GRAND TOTAL TWO TOWN MEETINGS: \$15,000,000

PROPOSED \$15M TOWN MEETING ARTICLE, APRIL, 2011

BUDGET NOTES

1. These recommendations and budget include a concept not previously discussed by the CWMPRC. The proposed \$15M now includes the idea of incorporating three projects beyond design or demonstration. These three are the repair of the failing force main on Surf Drive, the control of odors at the transmission vent at the high point of Service Road leading to the West Falmouth treatment plant and the contribution of funds to the Oyster Pond Environmental Trust program. Adding these projects broadens the coalition of interests for the passage of this appropriation request. A second reason for incorporating the repair into this article is to reduce the number of Prop 2 ½ exclusion ballot questions, which are likely to compete for approval in May, 2011.
2. The demonstration suggestions focus on Bourne's Pond. There are a number of implications contained within this strategy.
 - A. First and foremost is the hope that these demonstration projects will lead to water quality improvement meeting TMDL requirements, without the necessity of building a centralized sewer system for the watershed. (Widening Little Pond inlet, for example, would likely lead to reducing but not eliminating sewers in that watershed.)
 - B. The combination of demonstrations concentrates the effort on one pond, to increase the chances of measureable impact.

C. Potential impact on discharge capacity into open sand filtration beds located at the Deignan parcel to the north must be evaluated.

D. These demonstration projects build upon the work presented to the committee by Brian Howes, Ron Zweig and Lombardo Associates.

E. Clearly the demonstrations will allow for results to be measured over time, as any sewer construction work would not occur in this watershed before 2026, at the earliest.

F. These demonstrations each require overcoming substantial regulatory hurdles, but it may be easier to gain approval given this coordinated approach.

G. Town meeting will receive an understandable plan with a clear goal.

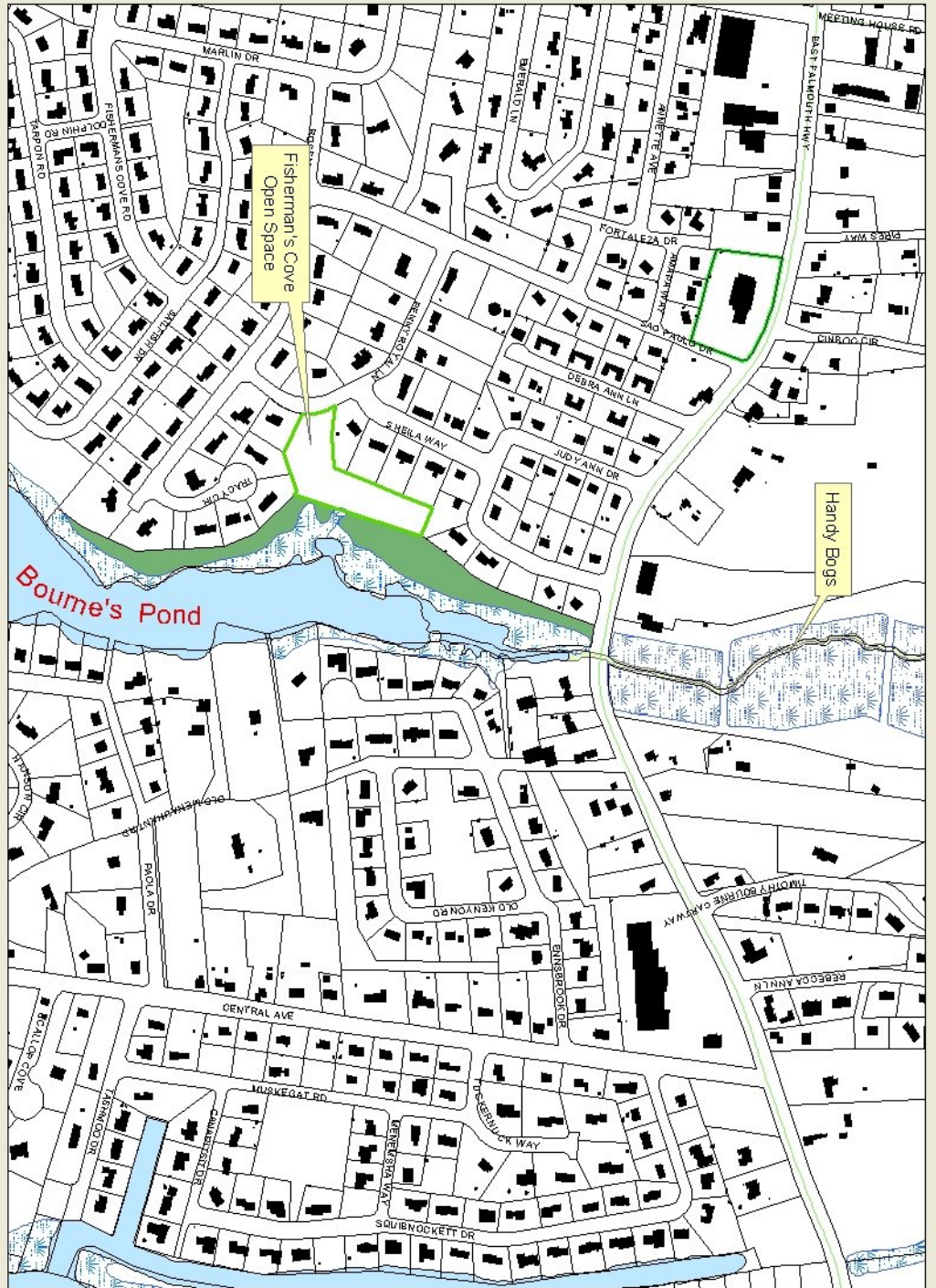
H. Future additional initiatives in the Bourne's Pond watershed might be proposed, depending on funding availability and community acceptance.

I. All properties involved in these demonstrations fall under the town's jurisdiction in one way or another.

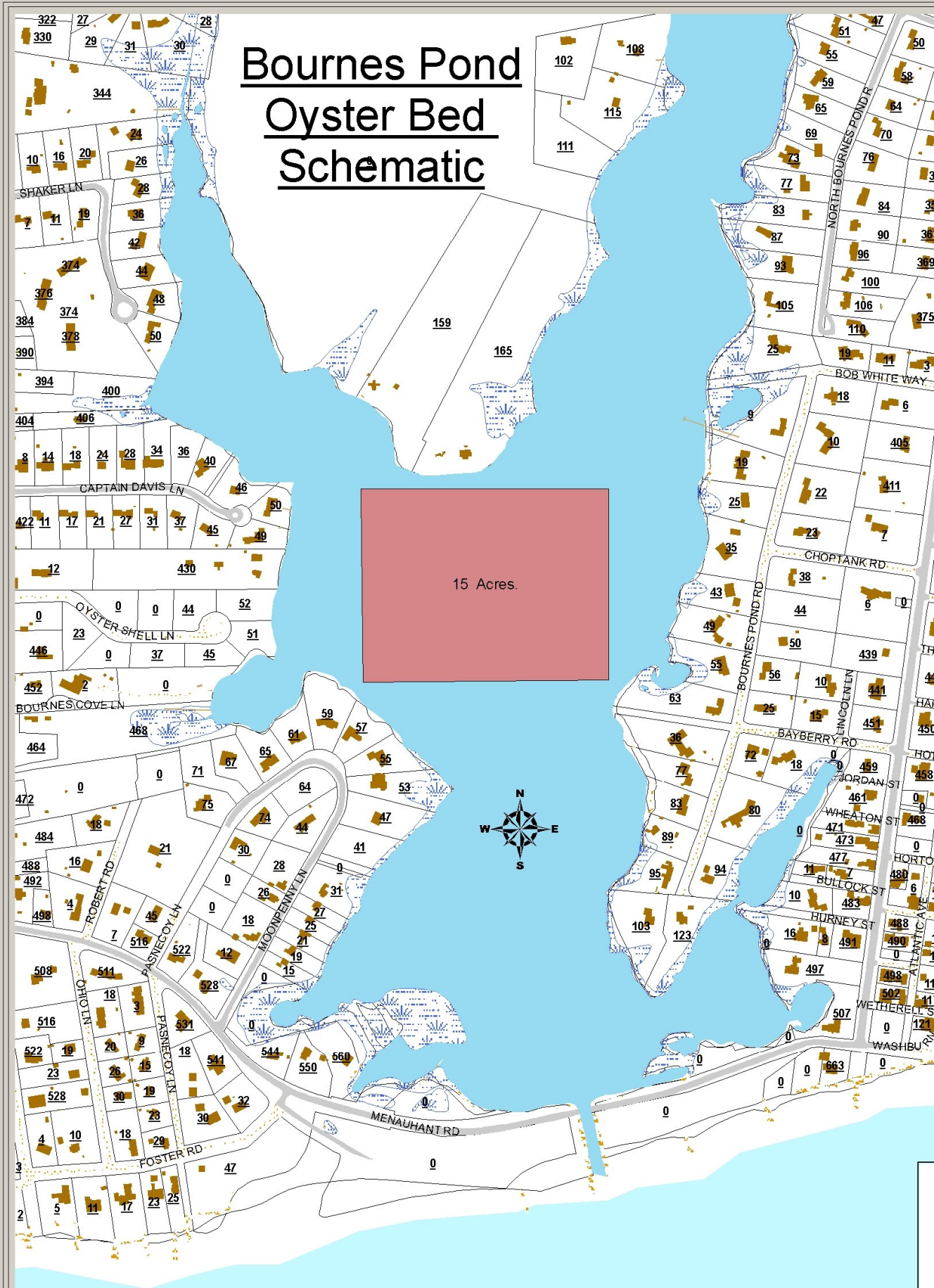
3. The Board of Selectmen, Finance Committee and Town Manager are provided a useful and understandable outline of activities through this budget.

Carter's Conservation Area

1 inch = 400 feet



Bournes Pond Oyster Bed Schematic



15 Acres.