TOWN OF SANDWICH OLDEST TOWN ON CAPE COD

DEPARTMENT OF PUBLIC WORKS



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April 29, 2014

Glenda Velez - CIP U.S. Environmental Protection Agency - Region 1 5 Post Office Square – OEP06-01 Boston, MA 02109-3912

Fred Civian
Massachusetts Department of Environmental Protection
One Winter Street - 5th Floor
Boston, MA 02108

Subject: Annual Update - NPDES Phase II General Permit
Town of Sandwich Stormwater Management Plan: Year 11 Update

Dear U.S. EPA and MaDEP:

As required under the NPDES Stormwater General Permit, the Town of Sandwich hereby submits this annual update of the Town's Stormwater Management Plan (SMP). This report is a continuation of the original 5-year permit issued for the Town of Sandwich. During the eleventh year, the Town continued many efforts implemented in the initial permit and strove to meet goals that were planned but not met within the first five years. An update of Year 11 accomplishments are listed below and shown in the attached tables.

Year 11 Update

The Town of Sandwich continues to be very proactive in the field of stormwater management and has successfully fulfilled nearly all of its goals established in its Stormwater Management Plan over the 11-year period.

This Annual Update provides a look at major accomplishments, new programs and goals and the status of goals that have not been met as scheduled. Below is a summary of Year 11 implementation.

Significant Accomplishments (Spring 2013 - Winter 2014)

Below is a list of some of the significant goals accomplished over the past year. Further details and illustrations of these accomplishments are show in the attached appendix.

Stormwater Mitigation of Mill Creek

Building on an effort that started in 1990, the Town of Sandwich has continued efforts to implement BMP retrofits to mitigate stormwater pollution entering Mill Creek, a tributary of Sandwich Harbor. The Town is planning the next phase of this project, and is seeking funding sources. Shellfishing had been prohibited by the State at Sandwich Harbor since 1985 due to bacteriological contamination.

Starting with illicit detection inspection in 1990 and continuing with Coastal Pollution Remediation (CPR) grants and now the 319 grant, the Town continues to actively mitigate stormwater impacts in the Town of Sandwich. The Town's efforts to abate pollution, including stormwater mitigation, have resulted in the recent reopening of the shellfish beds by the Division of Marine Fisheries and successful shellfish harvests.

Comprehensive Water Resources Management Plan Development

The Town of Sandwich has continued Comprehensive Water Resources Management Planning to address water resource issues across Town, including stormwater management. In addition to stormwater, the work will assess and develop solutions for wastewater and other potential pollution sources. The Town's consultant has completed the draft of the first phase of this work, the Needs Assessment.

Environmental Exposition at Sandwich High School

The Engineering Department attends an Environmental Expo at Sandwich High School each year to view projects completed by the senior class. The Engineering Department assists students throughout their project period by providing mapping and stormwater information related to their local projects.

Sandwich High School Senior Project Program

This year, the Engineering Department continued participated in the Sandwich High School's Senior Project Program. The Department provided guidance with environmental and stormwater pollution issues.

Household Hazardous Products Collection

The Town collaborates annually with four other neighboring communities to provide opportunities for residents to properly dispose of household hazardous products. This reduces the amount of hazardous material released to the environment, including water resources.

Municipal Solid Waste Disposal Enhancements

Town recently implemented a Pay-As-You-Throw program at the Solid Waste Transfer Station. This program requires users to pay for each bag of general trash disposed of. This, together with improvements to the recycling center has reduced the Town's municipal solid waste stream and increased recycling. The Department of Public Works also distributed compost bins for home composting and aired "Home Composting - Turning Your Spoils to Soil" on local TV (a MassDEP DVD). The Town hosted and participated in a Home Composting demonstration presented by the Cape Cod Commission. The Town gave away recycling and compost bins at this event.

Community Pride Day

The Town of Sandwich continues the annual Community Pride Day where residents participate in the cleanup of the Town. The DPW distributes equipment to assist in the cleanup of trash and identifies locations where residents can focus their efforts, such as at walking trails, roadsides, beaches, marshes and along shorelines. This event helps prevent trash from entering our valuable water bodies.

Stormwater Inspections and Monitoring

The Town continues to monitor erosion control at developments and inspect illicit connections throughout town as part of its SMP. The Town's enforcement of this program has effectively cleaned up many sites, minimizing impacts to the Town's drainage system and water bodies.

Stormwater Management Plan on Display

The Stormwater Management Plan is on display on the Town's web site for public viewing. Additionally, the Town's GIS allows the public to pinpoint specific stormwater problems and relay this information via e-mail to the Department of Public Works. The e-mail shows a map and ID number of the drainage facility so the DPW can quickly respond to any drainage issues. This process also allows accurate record keeping by the DPW.

Water Quality Groups

The Town of Sandwich is proactive in matters related to water quality in Sandwich and on Cape Cod. The Town has many public officials and volunteers actively involved with water quality committees including but not limited to the Sandwich Water Quality Advisory Board, Mass Estuaries Program, Popponesset Bay State DEP Pilot Intra-municipal Work Group and 3 Bays Initiative.

Status of Goals for Year 11

Similar to the original table submitted for the NPDES General Permit, the attached table shows goals proposed for all Six Control Measures. This updated table reflects new goals and the status of Year 1 through 11 goals. The yellow highlighted cells represent goals scheduled and met in each season of respective years. New goals mentioned earlier have also been included in the table.

The attached appendix shows several of the actions performed by the Town to meet the Year 11 goals listed in the table.

Overall Status of 11-Year Permit Term

As can be seen in the attached table, almost all of the goals in the Town's SMP have been met over the permit period. It's important to note that several new goals were added to the Six Control Measures as the SMP evolved. Goals that were not achieved are shown below. In all instances, these goals will be accomplished in future years, as identified in the table. Note: Some of the goals overlap in the Six Control Measures.

Unmet Goals of Six Control Measures

5.4 Construction Stormwater Runoff Control

4g. Recommended BMP's - Future Goal

The Town requires developers to design drainage facilities using BMP's. The Town had anticipated the Cape Cod Commission obtaining a grant to create a list of "Cape Cod BMP's" to distribute to developers. Since the grant was not awarded, the Town has begun to develop its own brochure and list of BMP's. This work is underway and is anticipated to be completed in the next permit year.

4i. Erosion Control Guidelines – Future Goal

The Town has begun to update its current Erosion Control Guideline to reflect current BMP practices and design. This guideline will be available for developers and homeowners. The guideline will also

complement enforcement letters for non-compliance. This work is underway and is anticipated to be completed in the next permit year.

- 5.5 Post Construction Stormwater Management
- 5f. Recommended BMP's Future Goal. See Unmet Goal 5.2, 4g above.
- 5h. Erosion Control Guidelines Future Goal. See Unmet Goal 5.2, 4.i above.

Future Stormwater Management Plan & Permit

As mentioned above, the Town plans to complete the remaining goals of the SMP during the next permit and will continue implementing most of the SMP goals annually.

The Town will add to its SMP goals as necessary to meet compliance requirements of new permits issued by EPA and DEP. Several of the preliminary requirements for the new permit listed in the EPA letter dated August 3, 2007 are goals that the Town of Sandwich has already implemented. The Town anticipates that it will be able to comply with the others as staffing and funding becomes available.

Conclusion

The Town of Sandwich's accomplishments over the permit period meet or exceed nearly all of the scheduled goals. Additionally, new goals have been created to further enhance the Towns Stormwater Management Plan. We trust that these accomplishments will satisfy the Massachusetts Department of Environmental Protection and the United States Environmental Protection Agency requirements for this permit. Please contact Sam Jensen of the Sandwich Engineering Department if you have any questions or require further information regarding this Annual Update.

Sincerely,

Samuel J.P. Jensen, P.E. Assistant Town Engineer

Encl.

cc:

G. Dunham, Town Manager

P. Tilton, DPW Director, Town Engineer

APPENDIX YEAR 11 UPDATE

- SANDWICH ENTERPRISE NEWSPAPER ARTICLE FEATURING SHELLFISHING IN SANDWICH HARBOR
- DPW HANDOUTS
- SANDWICH ENTERPRISE NEWSPAPER ARTICLE REGARDING HOUSEHOLD HAZARDOUS PRODUCTS COLLECTION
- COMPREHENSIVE WATER RESOURCES MANAGEMENT PLAN
- CAPE COD TIMES NEWSPAPER ARTICLE REGARDING COMMUNITY PRIDE DAY – TRASH CLEANUP



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Watershed Management

BRP WM 08A NPDES Stormwater General Permit Notice of Intent for Discharges from Small Municipal Separate Stormwater Sewer Systems (MS4's)
F. Storm Water Management Program TIME FRAMES

Transmittal Number: W035665

Facility ID (if known): Page: 1 of 3

| 1 | PERMIT | YEAR ONE | | PERMIT YEAR | TWO | PERMIT Y | FAR THP | FF I DI | ERMIT YEA | AR FOUR | | PERMIT V | EAR FIVE | | | 1 | | , , , , , , , , , , , , , , , , , , , | | | |
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| | ring Summ | er Fall W | inter Sprin | ng Summer Fa | all Winter | r Spring Summe | er Fall | | | Fall Winte | | | | PERMIT YEAR 6 | PERMIT YEAR 7 | PERMIT YEAR 8 | PERMIT YEAR 9 | PERMIT YEAR 10 P | ERMIT YEAR 11 | | |
| ID# | 03 | 03 03 | 3-04 04 | 04 04 | 4 04-05 | 05 05 | 05 | 05-06 06 | 06 | 06 06-07 | 07 | 07 | 07 07-08 | ACHIEVEMENTS | ACHIEVEMENTS | ACHIEVEMENTS | ACHIEVEMENTS | ACHIEVEMENTS A | CHIEVEMENTS | | STATUS |
| .1: Publ | c Education | n & Outreach | | | | | 1 | | | | | | | | | | | | | Goals | Comments |
| 1a | | | _ | | | | | | | | | | | | | | | | | Current Educational Brochures | Brochures available at Town buildings and distributed at Stormwater events. Earth Day Events. |
| 1b | | | | | | | | | | | | | | | | | | | | Development Review | Continue to enforce stormwater and erosion regulations during development review. |
| 1c | | | | | | | | | | | | | | | | | | | | Public Display of Stormwater Mgmt Plan | Displayed on Town web site and at Public Library. |
| 1d | | | | | | | | | | | | | | | | | | | | Public Meeting | Held Public Meeting. Updated Board of Selectmen on SMP - BoS endorsed continuation. |
| 1e | | | | | | | | | | | | | | | | | | | | Proposed Educational Brochure | Continue to distribute brochures and educational information. |
| 1f | | | | | | | | | | | | | | | | | | | | Outfall & Catch Basin ID & Mapping | GIS Drainage Layer is complete. Continue drainage updates. |
| 1g | | | | | | | | | | | | | | | | | | | | Web Site Information | SMP is displayed on web site. Future Stormwater information to be displayed on web. |
| 1h | | | | | | | | | | | | | | | | | | | | Educational Festival | Participated in Water Festivals at Elementary Schools w/ County and AmeriCorps. |
| 1i | | | | | | | | | | | | | | | | | | | | Educate DPW Employees | Educated DPW employees about disposal and containment of hazardous wastes |
| 1j | | | | | | | | | | | | | | | | | | | | Educational Video | AmeriCorps Cape Cod w/ Stormwater video in Sandwich complete |
| 1k | | | | | | | | | | | | | | | | | | | | Catch Basin Stencils | Placing approx 100 CB markers & 500 door hangers in Town Neck area during summer. |
| 11 | | | | | | | | | | | | | | | | | | | | Stormwater Posters | Displayed 4 stormwater posters in several Town offices. |
| 1m | | | | | | | | | | | | | | | | | | | | Student Involvement | Assisted Environmental Science Classes at High School. |
| 1n | | | | | | | | | | | | | | | | | | | | Stormwater Committee | Project Storm team continues to meet to discuss stormwater and implement Phase II Regs |
| 10 | | | | | | | | | | | | | | | | | | 1 | | Environmental Expo Review Team | Member of Environmental Expo Review Team for Sandwich High School |
| 2: Publi | : Involveme | ent & Participa | ntion | | | | | | l l | · · | | | <u> </u> | | | | | | | Environmental Experitorion Team | Months of Environmental Experience realist of earliest rings contest |
| 2a | | | | | | | | | | | | | | | | | | | | Development Review | Continue to enforce stormwater and erosion regulations during development review. |
| 2h | | | | | | | | | | | | | | | | | | | | Public Meeting | Held Public Meeting. Updated Board of Selectmen on SMP - BoS endorsed continuation. |
| 2c | | | | | | | | | | | | | | | | | | | | Public Display of Stormwater Mgmt Plan | Displayed on Town web site and at Public Library. |
| 2d | | | | | | | | | | | | | | | | | | | | Proposed Educational Brochure | Continue to distribute brochures and educational information. |
| 26 | | | | | | | | | | | | | | | | | | | | Illicit Discharge Identification | Continued inspection of potential illicit connections. |
| 2f | | | | | | | | | | | | | | | | | | | | Outfall & Catch Basin ID & Mapping | W/ AmeriCorps, identified over 2,500 CB's and outfalls w/ GPS. Report is available. GIS complete. |
| 20 | | | | | | | | | | | | | | | | | | | | Water Monitoring Program | |
| 2g 2h | | | | | | | | | | | | | | | | | | | | Educational Video | Health Dept performs annual sampling. AmeriCorps Cape Cod w/ Stormwater video in Sandwich complete |
| 211 | | | | | | | | | | | | | | | | | | | | Educational Video | |
| 21 | | | | | | | | | | | 1 | | | | | | | | | | Participated in Water Festivals at Elementary Schools w/ County and AmeriCorps. |
| 2] | | | | | | | | | | | | | | | | | | | | Student Involvement | Taught HS class, interacted w/ students on projects & involved them with data collection. |
| 2k | Disabayya | Detection & El | ine in a tie n | | | | | | <u> </u> | | | | | | | | | + | | Stormwater Committee | Formed Cape-wide group w/ CCC to develop & distribute educational info related to stormwater |
| o. iiiicit | Discharge L | Detection & El | mination | | | | | | | | | | | | | | | | | Household Howardous Wt- D | Continue to distribute info and askedula household because of the continue to |
| Ja . | | | | | | | | | | | | | | | | | | | | Household Hazardous Waste Program | Continue to distribute info and schedule household hazardous waste collection days w/ County. |
| 3D | | | | | | | | | | | | | | | | | | | | Sandwich Village Stormwater Assessment | Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 grant. |
| 30 | | | | | | | | | | | | | | | | | | | | Illicit Discharge & Dumping Identification | Continued inspections of illicit discharges. Inspected and issued notices to sump pump owners. |
| 3d | | | | | | | | | | | | | | | | | | | | Catch Basin Cleaning | Continue to clean & monitor CB conditions. GIS drainage layer complete. |
| 3e | | | | | | | | | | | | | | | | | | | | Outfall & Catch Basin ID & Mapping | W/ AmeriCorps, identified over 2,500 CB's and outfalls w/ GPS. Report is available. GIS complete. |
| 3f | | | | | | | | | | | | | | | | | | | | Educational Information | Displayed posters & distributed brochures to public & developers. Earth Day Activities. |
| 3g | | | | | | | | | | | | | | | | | | | | Allowable Non-Stormwater Discharges | Will continue to search for non-stormwater discharges that may be significant polluters. |
| 3h | | | | | | | | | | | | | | | | | | | | Town Bylaw - Illegal Disposal | Town By-law includes illegal disposal law and fines. Will continue to update regs as necessary |
| 3i | | + | | | | | | | | | | | | | | | | | | Water Sampling | Town continues sampling to monitor water quality improvements and to use for stormwater grants. |
| I | | 1 | | | | 1 | | | | | | | | | I | 1 | | 1 | | | 1 |

Note: Many of the BMP's above will continue beyond the initial 5-year permit period.

= Goals completed in the season & year shown above. Words in Red = goals not accomplished under the five year permit.

Annual Report 2014 Table.xls Town of Sandwich 1 4/29/2014



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Watershed Management

BRP WM 08ANPDES Stormwater General Permit Notice of Intent for Discharges from Small Municipal Separate Stormwater Sewer Systems (MS4's) F. Storm Water Management Program TIME FRAMES

Transmittal Number: W035665 Facility ID (if known):

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| | PE | RMIT YEAR ON | IE | | EAR TWO | PERMIT Y | EAR THR | EE | PE | RMIT YE | AR FOUR | PERMIT Y | EAR FIVE | Ē | | | | | | | | |
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| BMP ID# | Spring S 03 | ummer Fall 03 03 | Winter 03-04 | Spring Summer 04 04 | Fall Winter 04 04-05 | Spring Summe 05 05 | er Fall 05 | Winter 05-06 | Spring 5 05 | Summer 05 | Fall Winter 05 05-06 | Spring Summer 07 07 | Fall 07 | Winter 07-08 | PERMIT YEAR 6 ACHIEVEMENTS | PERMIT YEAR 7 ACHIEVEMENTS | PERMIT YEAR 8 ACHIEVEMENTS | PERMIT YEAR 9 ACHIEVEMENTS | PERMIT YEAR 10 ACHIEVEMENTS | PERMIT YEAR 11 ACHIEVEMENTS | | STATUS |
| 5.4: C | onst. Stor | mwater Runoff | Control | | | | | | | | | | | | | | | | | | Goals | Comments |
| 4a | | | | | | | | | | | | | | | | | | | | | Town Bylaw - Driveway Regulation | Continue to enforce driveway regulations to minimize stormwater impacts. |
| 4b | | | | | | | | | | | | | | | | | | | | | Existing Laws & Regulations | Continue to enforce stormwater and erosion regulations and will evaluate need for updates. |
| 4c | | | | | | | | | | | | | | | | | | | | | Educational Info & Public Participation | Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. |
| 4d | | | | | | | | | | | | | | | | | | | | | Development Review | Continue to enforce stormwater and erosion regulations during development review. |
| 4e | | | | | | | | | | | | | | | | | | | | | Consideration of Public Information | Public notifies DPW of drainage issues via GIS. Town will solicit input on SMP and from web site. |
| 4f | | | | | | | | | | | | | | | | | | | | | Site Inspections | Town officials continue to inspect & enforce regulations related to stormwater & erosion control. |
| 4g | | | | | | | | | | | | | | | | | | | | | Recommended BMP's | Required BMP's thru development review. Town will complete BMP List for developers |
| 4h | | | | | | | | | | | | | | | | | | | | | Zoning Bylaw - Erosion Control | Erosion control law in place and being enforced by site visits. Update as necessary. |
| 4i | | | | | | | | | | | | | | | | | | | | | Erosion Control Guidelines | Will include with recommended BMP List for distribution. Old version is being updated. |
| 4i | | | | | | | | | | | | | | | | | | | | | Subdivision Rules & Regulations | Made changes to stormwater regs in the Subdivision Rules & Regulations. Update as necessary. |
| 4k | | | | | | | | | | | | | | | | | | | | | Water Sampling | Health Department/County sample water quality annually. DPW sampled Mill Creek for 319 Grant. |
| 41 | | | | | | | | | | | | | | | | | | | | | Stormwater Posters | Displayed 4 Stormwater posters in Town buildings. |
| | | | | | | | | | | | | | | | | | | | | | | <u> </u> |
| 5.5: F | ost-Const | ruction Stormw | ater Mar | nagement | <u> </u> | | | | | | l. | i i | | | | | | | | | | |
| 5a | | | | | | | | | | | | | | | | | | | | | Growth Incentive Zones - Stormwater Plans | Working with CCC on Growth Centers and Local Comprehensive Plan to address these issues. |
| 5b | | | | | | | | | | | | | | | | | | | | | Existing Laws and Regulations | Continue to enforce stormwater and erosion regulations and will evaluate need for updates. |
| 5c | | | | | | | | | | | | | | | | | | | | | Educational Info & Public Participation | Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. |
| 5d | | | | | | | | | | | | | | | | | | | | | Development Review | Continue to enforce stormwater and erosion regulations during development review. |
| 5e | | | | | | | | | | | | | | | | | | | | | Catch Basin Cleaning | Continue to clean & monitor CB conditions. Will include Maintenance Plan on GIS. |
| 5f | | | | | | | | | | | | | | | | | | | | | Recommended BMP's | Required BMP's thru development review. Town will complete BMP List for developers. |
| 5g | | | | | | | | | | | | | | | | | | | | | Zoning Bylaw - Erosion Control | Erosion control law in place and being enforced by site visits. Will update w/ BMP focus |
| 5h | | | | | | | | | | | | | | | | | | | | | Erosion Control Guidelines | Will include with recommended BMP List for distribution. Old version is being updated. |
| 5i | | | | | | | | | | | | | | | | | | | | | Subdivision Rules & Regulations | Made changes to stormwater regs in the Subdivision Rules & Regulations. Update as necessary. |
| 5j | | | | | | | | | | | | | | | | | | | | | Water Sampling | Health Department and County continue to sample water quality and report to DPW. |
| 5k | | | | | | | | | | | | | | | | | | | | | Stormwater Posters | Displayed 4 Stormwater posters in Town buildings. |
| | | | | | | | | | | | | | | | | | | | | | | |
| 5.6: F | ollution Pr | revention & Goo | od Hous | ekeeping in Muni | icipal Operations | | | | | | | | | | | | | | | | | |
| 6a | | | | | | | | | | | | | | | | | | | | | Stormwater Mitigation w/ BMP's | Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant |
| 6b | | | | | | | | | | | | | | | | | | | | | Pollution Control & Mitigation Measures | Installed fuel spill cleanup kit. Will continue pollution control at DPW and Town buildings. |
| 6c | | | | | | | | | | | | | | | | | | | | | BMP Projects on Town-Owned Land | Will continue to implement BMP's at townwide projects. |
| 6d | | | | | | | | | | | | | | | | | | | | | DPW: On-Site Stormwater Containment | DPW inspects Transfer Station drainage facilities quarterly and entire site annually. |
| 6e | | | | | | | | | | | | | | | | | | | | | DPW Environmental Audit - EPA Program | Constructed Salt Shed and Interior washing area in DPW Garage. |
| 6f | | | | | | | | | | | | | | | | | | | | | DPW Maintenance Program | DPW uses GIS to assist w/ catch basin maintenance records |
| 6g | | | | | | | | | | | | | | | | | | | | | DPW Training | Employees are trained about stormwater impacts. DPW attends stormwater seminars |
| 6h | | | | | | | | | | | | | | | | | | | | | Tree Planting Program | Town has completed a Tree Inventory and Management Plan for Sandwich Village. |
| 6i | | | | | | | | | | | | | | | | | | | | | DPW Brochures | DEP and other agency brochures/FAQ are made available to employees/public. On web. |

Note: Many of the BMP's above will continue beyond the initial 5-year permit period.

= Goals completed in the season & year shown above. Words in Red = goals not accomplished under the five year permit.



Facility ID (if known): Page: 3 of 3

Transmittal Number: W035665

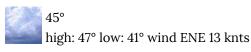
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management
BRP WM 08A_{NPDES} Stormwater General Permit Notice of Intent
for Discharges from Small Municipal Separate Stormwater Sewer Systems (MS4's)
F. Storm Water Management Program TIME FRAMES

| 7b Water Sampling Town and County continue sampling efforts. DPW will use for grants & BMP projects. 7c BMP Mitigation Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. | | PERM | IIT YEAR | ONE | | PERMIT YE | AR TWO | | PERMIT YEA | AR THRE | EE | PE | ERMIT YE | AR FOL | JR | PE | RMIT YE | AR FIVE | | | | | | | | |
|--|-----------------|-----------|-----------------|--------------------|--------------------|--------------|----------------------|--------------------|-------------------|------------|-----------------|--------------|--------------|------------|-----------------|----------------|--------------|-------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|--------------------------------|--------------------------------|---|---|
| Hentification & Mapping of Outfalls & CB's W/ AmeriCorps, identified over 2,500 CB's and outfalls w/ GPS. Report is available. GIS complete. Water Sampling Town and County continue sampling efforts. DPW will use for grants & BMP projects. BMP Mitigation Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. Public Education & Participation Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. | BMP Sp ID# (| ring Sum | mer Fal 3 03 | all Wint 3 03-0 | er Spring 04 04 | Summer 04 | Fall Wint 04 04-0 | ter Sprir 05 05 | ng Summer 5 05 | Fall 05 | Winter 05-06 | Spring 05 | Summer 05 | Fall 05 | Winter 05-06 | Spring S 07 | Summer 07 | Fall Winter 07 07-08 | PERMIT YEAR 6 ACHIEVEMENTS | PERMIT YEAR 7 ACHIEVEMENTS | PERMIT YEAR 8 ACHIEVEMENTS | PERMIT YEAR 9 ACHIEVEMENTS | PERMIT YEAR 10 ACHIEVEMENTS | PERMIT YEAR 11 ACHIEVEMENTS | | STATUS |
| Water Sampling Town and County continue sampling efforts. DPW will use for grants & BMP projects. BMP Mitigation Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. Public Education & Participation Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. | 5.7: BMP' | s for Mee | ting TMD | DL | | | | | | | | | | | | | | | | | | | | | Goals | Comments |
| Water Sampling Town and County continue sampling efforts. DPW will use for grants & BMP projects. BMP Mitigation Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. Public Education & Participation Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. | 7a | | | | | | | | | | | | | | | | | | | | | | | | Identification & Mapping of Outfalls & CB's | W/ AmeriCorps, identified over 2,500 CB's and outfalls w/ GPS. Report is available, GIS complete. |
| 7d Public Education & Participation Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. | 7b | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7d Public Education & Participation Distributed & displayed educational information. Earth Day Activities. Water & Sewer article. | 7c | | | | | | | | | | | | | | | | | | | | | | | | BMP Mitigation | Cont'd using Town funds/grants to mitigate stormwater. Completed construction of 319 Grant. |
| | 7d | | | | | | | | | | | | | | | | | | | | | | | | | |
| State Stat | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | /e | | | | _ | | | | | | | | | | | | | | | | | | | | DPW Maintenance, Cleanup & | DPW inspects, maintains and records any information related to stormwater impacts. |
| | | | | | | + | | | | | | | | | | | | | | | | | | | | |
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Note: Many of the BMP's above will continue beyond the initial 5-year permit period.

= Goals completed in the season & year shown above. Words in Red = goals not accomplished under the five year permit.

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Tweet

Shellfish Allergy Won't Keep Carl Johansen Out Of The **Creeks**

By: James Kinsella, November 27, 2013



JEFF URQUHART/ENTERPRISE - Carl Johansen emerges from Mill Creek with his catch of quahogs on Sunday, which was opening day for the town's shellfishing season.

Ask Carl A. Johansen how long he has been shellfishing, and he replies, "Quite a while, my friend, quite a while."

Now 79, Mr. Johansen said he probably was in his 20s when he began harvesting shellfish on the flats along the Dorchester coastline.

As of this past Sunday morning the Oxford Road resident was still at it: standing in the Old Harbor Creek estuary in below-freezing temperatures, raking for quahogs in his favorite spot near the Sandwich Boardwalk.

But what really sets Carl Johansen apart, as a

shellfisherman, is that he is allergic to shellfish.

Rather than eat them, he brings them to an informal network of friends, people who can and do enjoy eating shellfish.





Edward F. Slamin, who lives around the corner from Mr. Johansen on Courtland Drive, has spent many an hour fishing with his neighbor.

"He's just a very kind, thoughtful, generous man," Mr. Slamin said about Mr. Johansen.

Mr. Johansen was not always allergic to shellfish.

"I used to love quahogs," he said.

While walking along beaches to go surfcasting, he and his friends would come across quahogs and surf clams, which they would consume on the spot.

For decades, he downed shellfish. But then, about 15 years ago, he had one of his favorite restaurants whip up a batch of quahog chowder. Oddly, it did not agree with him.

He ordered up another batch. Same result.

Mr. Johansen went to see his doctor, who told him that he had developed an allergy to shellfish. But if Mr. Johansen cannot have shellfish himself, he makes certain that others can.

Because he has chronic obstructive pulmonary disease, commonly referred to as COPD, bending over is difficult for him. That pretty much keeps him from digging for steamers.

Quahogs, however, are another story. Using his "Ribb rake," made by the R.A. Ribb Company in Harwich, Mr. Johansen is able to stand tall and rake relatively close to the surface.

Over time, he said, he has developed a sensitivity to whether the rake tines have encountered a quahog or a rock. "You can almost feel the difference," he said.

Once he has harvested his quahogs—Sandwich allows recreational shellfish license holders to gather a peck of quahogs every Sunday during its season, which typically runs from late November to May—the time has come to give them away.

Recipients include Mr. Slamin. Although he enjoys the outdoors, Mr. Slamin said he never got into digging for quahogs.

But he does enjoy hunting, and he knows that Mr. Johansen and his wife, Judith E. Johansen, enjoy venison. So Mr. Slamin will bring by venison for the Johansens, just as Mr. Johansen will bring by quahogs for him.



[]

Mr. Johansen said he was introduced to the concept of sharing as a life practice back in his teens, when he worked as head herdsman on a farm near Rutland, Vermont.

In addition to sharing quahogs, Mr. Johansen also has been known to share his enthusiasm for shellfishing with potential converts.

One such convert is town manager George H. Dunham, who now has obtained his own recreational license. Mr. Dunham said both Mr. Johansen and Mark S. Galkowski, the town's director of natural resources, helped get him interested in shellfishing.

Quahogging also has provided Mr. Johansen with unexpected adventure. Two years ago, he was in the creek in Sandwich when another shellfisherman called him over, saying he had come upon a lot of quahogs.

Mr. Johansen made his way to the spot. But then he took a step backward, into a deep hole he did not realize was there.

Down he went. He came back up, helped by the shellfisherman and his own peck basket float, which he had made from a child's buoyant plastic swimming board. But the air had been knocked out of him.

A nearby shellfish constable saw what had happened and called Sandwich Rescue.

"They put me in the ambulance," Mr. Johansen said, and drove him to his house.

"I was fine," he said.

The episode, however, also made him aware of how soft the sand can be in spots in the creek. These days, as he moves around in the water, he will slide his feet over and test the firmness before putting his weight on a new spot.

Yet Mr. Johansen is not about to let unexpected holes or freezing temperatures or anything else keep him from quahogging.

"For me," he said, "it's the only way I can test myself, to see what I can do, and I'm not giving up."

Comments

Please sign in to leave a comment.

maryanne

Thanks for a wonderful article about a man I do not know well, but am a great admirer of. Mr. Johansen seems to be a man of many talents and experiences, sharing them freely with great generosity. I am most familiar with, and grateful for, his presence at Town Meeting. He is always well-prepared and is highly knowledgeable about the subjects he is passionate about. He is knowledgeable of, and wise to the rules of the meeting, always respectful towards those he is speaking for or against. Thanks for highlighting a person to whom we can all look up to as how to live life to its fullestk oy and determination, giving to others as a practice. Thanks Mr. Johansen!

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COMMINGLED COMPACTORS -

- FIBER COMPACTORS -

How to Recycle in Sandwich

MATERIAL WHAT TO RECYCLE

HOW TO PREPARE

DO NOT INCLUDE

METAL

- Steel/tin and metal food cans Aluminum pie plates and trays
- Rinse clean ■ Labels OK
- Aerosol cans Paint cans

- Deposit and non-deposit beverage cans

Coat hangers

Cookware

Deposit cans may also be donated at the Sandwich Little League shed

Recycle DO NOT INCLUDE items in the light-iron pile

GLASS

- Clear and colored beverage containers
 Rinse clean
- Broken glass/auto glass



- Food and sauce jars
- Collar, neck rings & labels OK
- Mirrors

- Caps & lids OK
- Ceramics: plates, cookware
- Drinking glasses
- Light bulbs
- Deposit bottles may also be donated at the Sandwich Little League shed
- Windows

PLASTIC



- All number 1 thu 7 recyclable rigid plastic containers
- Milk, water, soda, juice bottles
- Shampoo, conditioner bottles
- Laundry, bleach, fabric softener bottles
- Waxy gable cartons: Milk and Juice

Rinse clean, caps OK





- Plastic bags: recycled in waste receptacles located in front of each compactor
- Styrofoam packaging of ANY KIND
- Chemical and motor oil containers
- Water/Garden Hose



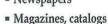
CARDBOARD = All cardboard must be recycled and will not be allowed in the trash-trailer except as noted in **DO NOT INCLUDE**

Complete list on back of brochure

- Break down, flatten or fold
- Contaminated boxes
- Food soiled and frozen food boxes example: pizza and Chinese take out

PAPER





- Junk mail, envelopes: tearable
- Books
- Paper bags
- Phone books
 - Office and computer paper
- Boxboard: cereal, cracker remove plastic liners

Complete list on back of brochure

- Place in paper grocery bags Food soiled as noted above
 - Paper towels
 - Tissues
 - Diapers
 - Boxboard plastic liners: recycled in waste receptacles located in front of each recycling compactor.

Paper (Fiber) is recycled in first or second designated compactor from left to right. Commingled metal, glass and plastic is recycled in third or fourth designated compactors from left to right. Only one Fiber and one Commingled compactor is open at a time. Limited recycling and Transfer station stickers may be obtained at the Town Hall Annex, 145 Main Street, across from the Sandwich Library. If unsure where a specific item should be recycled, please ask an attendant.

How to Recycle Fiber (Paper) in Sandwich

WHAT FIBER TO RECYCLE

Booklets

Books: soft cover

Boxes: for office supplies, like paper clips

Boxes: cereal, cracker, pasta, shoe, etc

Boxes: with plastic window

Brochures: including glossy

Calendars: wall type

Cardboard: corrugated and paperboard

Catalogs

Clasp envelopes

Colored paper

Construction and kraft paper

Cover and card stock, index cards

Envelopes: with plastic windows or labels

File folders

Flyers

Glossy paper

Greeting cards

Lottery tickets

Mail

Magazines

Mat board: used in picture framing

Math paper: graph and ledger, etc.

Newspapers: with or without inserts

Newsprint

Office and copy paper

Packing paper

Paper: lined and white

Paper: fax

Paper bags: brown and white

Paper bags: with handles

Paper towel and toilet paper tubes

Phone books

Photocopies

Post-it notes

Receipts

Shredded paper: in paper bags

Spiral notebooks

Writing tablets

DO NOT INCLUDE

Candy wrappers

Carbon paper

Disposable diapers

Envelopes with bubble wrap

Food-soiled paper and cardboard

Label backings

Paper cups or plates

Paper towels, napkins, tissues

Photographs

Take-out food containers: Chinese, etc.

Tyvek® mailing envelopes

Waxed paper and cardboard

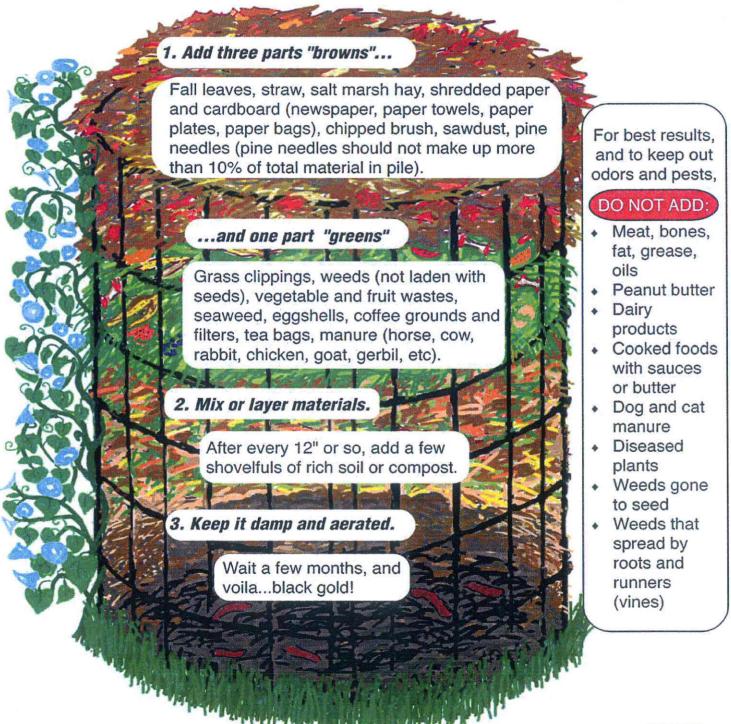
Waxy gable cartons: Milk and Orange Juice

Metal spiral notebooks, paper clips, plastic envelope windows, self-stick labels and staples are allowed to be recycled with the items listed above

Items containing personal information should be shredded and recycled in paper bags

Composting is easy!

To make compost, just follow these simple steps:







WHEN IT RAINS

A HOMEOWNER'S GUIDE TO UNDERSTANDING STORMWATER POLLUTION

Did you know your neighborhood drains to Cape Cod waters? A little effort on everyone's part goes a long way toward keeping our waters clean!



For more information:

Why should I care about stormwater pollution?

groundwater, rivers, ponds, estuaries and the ocean. waterways. This water is carried away by stormwater and lawns. As stormwater travels over the land, it Stormwater is rain that falls on driveways, roads, Pollution of our waterways can kill plants and picks up contaminants not naturally found in our unpleasant or even unsafe to boat, swim or fish. pipes and drains. It eventually ends up in our animals that live in the water and make it

What is in stormwater pollution?

Fertilizers and pesticides Car washing detergents Septic system overflow Motor vehicle fluids Animal and yard waste Oil and grease Sediments

What can I do to keep Cape Cod waters clean?

- Never dump anything into or near storm drains.
- Use fertilizers sparingly and avoid pesticides.
- Sweep up driveways, sidewalks and roads.
 - Compost your yard waste.
- Water the lawn, not driveways or streets.
- · Instead of washing the car in the driveway wash it on the lawn or, better yet, go to a carwash that ecycles.
- Check your car for oil, antifreeze and transmission leaks and make immediate repairs if needed.
- recycle it instead at a designated recycling center. Never dump oil or antifreeze on the ground;
- Pick up after your pet.
- Pump and inspect your septic tank regularly.

Helpful Websites:

www.state.ma.us/dep/brp/stormwtr/stormpub.htm www.epa.gov/npdes/stormwater www.capecodgroundwater.org CapeNews.net Changes Click Here To Learn More



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Hazardous Waste Collection At Sandwich High School











JOHN LYNCH/ENTERPRISE PSC Environmental Services workers sort through hazardous waste dropped off at Sandwich High School during a free collection last Saturday.

By: KATIE GOERS, April 24, 2014

Residents of Sandwich, Mashpee, Bourne, and Falmouth came out to Sandwich High School on Saturday morning to properly dispose of their hazardous waste materials. Michael S. Maguire of Dennis headed up Saturday's operation, which by 9 AM already saw cars lining up to the parking lot entrance.

This collection was one of 23 collections held on Cape Cod every year designed to eliminate the amount of hazardous material being disposed of incorrectly, such as being dumped onto the lawn. Doing this has serious consequences for the local environment.

"This concept is very simple," Mr. Maguire said. "If you take a gallon of gasoline and dump it out into your backyard, a portion of that is going to end up in our drinking water."

Mr. Maguire and his team are joined by workers from PSC, an environmental and industrial services company from Rhode Island, to sort and dispose of the waste that comes through the line. Some of the waste will be incinerated while some of it can be re-purposed into energy. About 60 percent of the volume of waste is expected to come from paint, while 15 percent is likely to be pesticides.

Items that are not accepted are non-hazardous materials, radioactive materials, and explosives. "Typically, people have common sense and don't bring those items anyways," Mr. Maguire said. "Generally what you're going to see is what comes out of someone's garage."

However, Mr. Maguire has seen residents bring items such as an 85-gallon drum of DDT and a stun gun. For the stun gun, the resident was referred to the Sandwich police as those are illegal to possess.

In order to allow the process to run smoothly and to collect some data, Kalliope E. Egloff of Mashpee and David M. Quinn of Orleans asked the drivers a series of questions and checked the materials they brought to the collection.

"We only take stuff that they don't take at the transfer station so residents don't end up paying more in their taxes," Ms. Egloff said. Waste disposal is expensive and



costs the towns about \$11,000 with that cost being divided between the four towns based on the percentage of households per town that dropped off waste.

Despite the cost of disposal, Mr. Quinn stressed why they hold these events. "All these people have a truckload of material. With all of the groundwater issues on the Cape, it's really important to have this option."

It is also important to inform residents of the collections being held. Covanta SEMASS, a resource recovery facility for southeastern Massachusetts, foots a \$30,000 bill for fliers to be sent to all Cape Cod residents and businesses. Barnstable County pays for the remaining \$5,000 that goes into the flier production.

Barnstable County also pays the wages of any staff working on collection day. Combined with the collections being subsidized out of the tax base, residents are able to bring their waste in for disposal without having to pay a surcharge.

Beyond the hazardous waste collections, Mr. Maguire stressed the importance of upcoming events like the National Prescription Take-Back Day on April 26. "We're not the law, we're environmental. It's important to dispose of medications properly so that they're not being flushed down the toilet and into our groundwater," he said.

"The bottom line is, I understand that it's not on the top of your list to come to a hazardous materials collection on a Saturday, but it makes a big difference," Mr. Maguire said.

With the drinking water on Cape Cod being only about 20 to 40 feet underground, the implications of pouring gasoline on the lawn are dire.

"The Cape's economy is based on a clean environment," Mr. Maguire said. "If we can prevent further contamination, why wouldn't you? It's free."

Saturday's Totals

Number of Participants:

- 347 cars representing waste from 451 households participated
- 327 of the 347 were year-round residents
- 137 of the 347 were first-time participants
- 38 of the 347 brought waste that was left in their house from the previous owners
- 4 small business participated (at their own cost)

Waste Collected:

• 4,525 gallons of waste at a total weight of 20,525 pounds

(just over 10 tons)

- 12 fifty-five gallon drums of pesticide
- 6 fifty-five gallon drums of gasoline
- 10 cubic yard boxes of flammable paints and stains
- 7 fifty-five gallon drums of flammable paint sludge
- 8 fifty-five gallon drums of aerosol containers

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Town of Sandwich Comprehensive Water Resources Management Plan

Needs Assessment

March 2012



Prepared for the Town of Sandwich





Sandwich cleanup scheduled for today

May 18, 2013 2:00 AM

SANDWICH — Once again volunteers will be cleaning up the town in anticipation of the summer onslaught of tourists.

From 8 a.m. to noon today, groups will be participating in an annual spring cleanup that was launched by state Rep. Randy Hunt, R-Sandwich, when he was a selectman.

Supplies such as bags, gloves, trash grabbers and safety vests are available at the department of public works building at the town's transfer station from 9 a.m. until noon.

Volunteers are asked to sign up at the police station for the area they want to clean. The DPW will swing by after noon to pick up the yellow trash bags.

GEORGE BRENNAN

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