Town of Agawam
Massachusetts

NPDES
Municipal Separated Storm Sewer System
Phase II Stormwater Permit

2005
Annual Report

Due:
May 1, 2005

Submitted:
April 28, 2005

by
Mayor Richard A. Cohen

Town of Agawam

36 Main Street Agawam, Massachusetts 01001-1837

Tel. 413-786-0400 Fax 413-786-9927

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 main St.
Worcester, MA 01608

April 28, 2005

RE: Agawam Massachusetts
NPDES Phase II MS4 Permit
Annual Report 2004

Dear Sir or Madame:

The Town of Agawam is pleased to submit the enclosed Municipal Stormwater Management Program Annual Report for permit year one in order to comply with the NPDES Stormwater MS4 Permit requirements.

The enclosed information includes documentation of year one activities, a self-assessment of compliance with permit conditions, assessment of BMPs, assessment of measurable goals, assessment of progress towards achieving the measurable goals, summary of results of any information that has been collected and analyzed, discussion of activities for the next reporting cycle, discussion of changes in identified BMPs, and reference to any reliance on other entities for achieving measurable goals.

Please feel free to contact me with any questions or comments regarding this submittal.

Sincerely,

Richard A. Cohen,
Mayor

CC: U.S.E.P.A. - Water Technical Unit

Town of Agawam

36 Main Street Agawam, Massachusetts 01001-1837

Tel. 413-786-0400 Fax 413-786-9927

U.S. Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

April 28, 2005

RE: Agawam Massachusetts
NPDES Phase II MS4 Permit
Annual Report 2005

Dear Sir or Madame:

The Town of Agawam is pleased to submit the enclosed Municipal Stormwater Management Program Annual Report for permit year two in order to comply with the NPDES Stormwater MS4 Permit requirements.

The enclosed information includes documentation of year one activities, a self-assessment of compliance with permit conditions, assessment of BMPs, assessment of measurable goals, assessment of progress towards achieving the measurable goals, summary of results of any information that has been collected and analyzed, discussion of activities for the next reporting cycle, discussion of changes in identified BMPs, and reference to any reliance on other entities for achieving measurable goals.

Please feel free to contact me with any questions or comments regarding this submittal.

Sincerely,

Richard A. Cohen,
Mayor

Town of Agawam

2005 ANNUAL REPORT **PERMIT # MAR 041 001**

NPDES Phase II Small MS4 General Permit **DEP Transmittal # W 063323**

Part 1. General Information

Contact Person: John P. Stone **Title:** Superintendent
Department of Public Works

Telephone Number: 413-786-0400-x225

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Richard A. Cohen

Name: Richard A. Cohen

Title: Mayor

Date: April 28, 2005

Part 2. Introduction

The following is the Town of Agawam Massachusetts Annual Report as required by the EPA NPDES Phase II Small MS4 General Permit Regulations. This report is for year two of the five year permit cycle. This report includes a self-assessment review of compliance with the permit conditions, an assessment of the appropriateness of the selected BMPs, an assessment of the progress towards achieving the measurable goals, a summary of results of any information that has been collected and analyzed, a discussion of activities for the next reporting cycle, a discussion of any changes in identified BMPs or measurable goals, and reference to any reliance on another entity for achieving any measurable goal.

RELIANCE ON OTHER ENTITIES

INTER-CONNECTED MS4S - The Town of Agawam has interconnected MS4s within its boundaries as follows: Massachusetts Highway Department controls certain state numbered routes, Massachusetts Department of Environmental Management controls Robinson State Park on the Westfield River, the Springfield Water and Sewer Commission controls the Bondi's Island Regional Treatment Facility on the Connecticut and Westfield Rivers, and the City of Springfield owns and operates the Bondi's Island Landfill on the Westfield River. Each of these facilities have drainage systems which are separate from or interconnect to the Town of Agawam's drainage system but are under control and operation by entities other than the Town of Agawam.

VOLUNTEERS – Several of the permit conditions within the minimum control measure for public participation relies on the interest and participation of volunteers.

SELF-ASSESSMENT

The following is a summary of all activities which exceed the permit requirements and those requirements which have not been completed. The Town of Agawam requests that the following alterations of Minimum Control Best Management Practices (BMPs) permit requirements be adopted as new permit conditions. All Minimum Control BMPs not

BMP 1E – Press Releases – Six environmental education press releases were given to local media, rather than just two, during permit year two.

BMP 1G – Community Outreach – To encourage wider participation in stormwater related activities, this new BMP was added in permit year 2. Community activities will be dependent upon available funding.

BMP 2B – Attitude Surveys – Surveys began mailing in late April. Distribution will not be completed until August 05, permit year 3.

BMP 2C – Storm Drain Markers – (BMP was previously know as Storm Drain Stenciling, now BMP 3G) In an effort to identify storm drains, the DPW purchased storm drain markers for our community. Unfortunately, no volunteer groups were available to perform the marking of storm drains. The town will continue to search for volunteers in the future.

BMP 2E – Community Outreach Participation – This BMP was added to track the community participation level based on community outreach programs provided by the Town.

BMP 3A – Mapping Stormwater Outfalls – In addition to original permit requirements, the Town of Agawam with its consultant Tighe & Bond have applied for and been granted a State Revolving Funding (SRF) loan for the mapping of the drainage system town-wide. See the project Approval Certificate in Appendix 3A. Funding has been released and the GIS mapping project has begun. Generally, the scope of the project includes the following components, included is their status:

Compilation of existing data - complete

Compilation of existing GIS data layers - complete

Update of existing GIS data layers - complete

Field locating of stormwater features – partially complete

Compilation of stormwater mapping – partially complete

BMP 3C – Illicit Discharge Plan Development – As part of the development of a draft Non-Stormwater Discharge Ordinance, existing illicit discharge practices were evaluated. Existing activities involve the investigation, and removal of illicit discharges or dumping if the DPW were made aware of an issue based upon resident complaints or observation by DPW personnel. Removal of illicit discharges has been based upon existing authority by the DPW to do so. Also, drainage system GIS mapping is being developed. Once the GIS mapping is complete, the proper evaluation of how to proceed with the development of an illicit discharge plan will take place.

BMP 3G – Storm Drain Stenciling – This BMP has been eliminated and is now part of BMP 2C. Changes in this BMP were made due to the town purchasing storm drain markers rather than stenciling.

BMP 4A - Construction Runoff Ordinance – Draft Stormwater Ordinance amendments to the existing Water and Sewer Ordinance section was developed. These amendments included sections pertaining to erosion and sediment control. Additionally, all new subdivisions are required to include within the construction plan set, a separate sheet showing all construction phase erosion and sediment control measures for the site. Also, the developer is required to submit an informational copy of the project's SWPPP to the DPW as prepared for the NPDES construction phase N.O.I. for EPA. Construction site BMP educational materials have been displayed in the DPW offices. The material includes information on construction phase erosion and sediment control BMPs.

BMP 4B - Construction Plan Review – Draft Stormwater Ordinance amendments to the existing Water and Sewer Ordinance section was developed. These amendments include sections pertaining to review of construction plans and design standards. All construction sites within the jurisdiction of the Rivers Act and the Wetland Protection Act must submit plans to the Conservation Commission for review of proposed erosion and sediment control measures. These sites are inspected and overseen by the Conservation Commission. All new subdivision submittals are required to include construction phase erosion and sediment control measures within the construction plan set. The developers of all new subdivisions are required to submit the project's EPA NOI for construction activities, and give a courtesy copy of the SWPPP to the DPW. DPW works with the Conservation Commission, developers, and property owners to alleviate erosion control problems as they occur.

BMP 6A – During Permit Year 2, in addition to updating the original SPCC Plan and

developed and implemented. Initial training will be postponed until year 3 or upon completion of BMP 6A.

BMP 6C - Catch Basin Cleaning Program - The Town of Agawam was unable to perform catch basin maintenance due to lack of funds. The Town of Agawam will continue to utilize funds, if available, for annual cleaning of catch basins within priority areas. Cleaning in Year 3 will be dependent upon FEMA snow emergency reimbursement to the town and/ or the FY06 budget appropriation.

BMP 6E – Landscaping and Lawn Care – In addition to using our licensed pesticide applicator, the DEP sent 4 staff members to a DEP sponsored Healthy Lawn and Landscape Workshop.

BMP 6F - Stormwater Pollution Prevention Plan / MSGP –The Town of Agawam requests that this goal be amended to allow for the revised schedule and the construction schedule of the new DPW facility, which will comply with all MSGP requirements in a cost effective manner.

SUMMARY - The Town of Agawam has made its best effort to comply with all of the permit requirements for year two. The previous discussion describes several requirements for which the Town requests an alteration. We feel that the items which were done in excess of the year one requirement compensate for those items for which a requirement adjustment is requested.

PART 3. STORMWATER MANAGEMENT PROGRAM

MINIMUM CONTROL BEST MANAGEMENT PRACTICES

1A Educational Displays

The Town will post one educational display per year in the Municipal Building. Displays will contain information on stormwater related issues and may be obtained from an applicable governmental or other public agency, purchased from a distributor, or created by students working on projects under BMP #1B. The Department of Public Works (DPW) will have responsibility for this BMP, which will be utilized in Years 1 through 5.

Year 2 Activities

Within the month of March 2005, a new educational display was posted in the Town Hall. The focus of the display was to educate the community on how NPS Pollution can cause water quality problems. In addition, reference flyers were available to the community, helping identify ways to reduce and prevent NPS Pollution. See Appendix 1A for display contents

Best Management Practice Assessment / Proposed Changes

This BMP was proposed to take place in the spring of 2004. This BMP was performed within the second permit year. This management practice was completed and effective. In the future, the Town of Agawam will continue to display stormwater related materials in the spring.

Possible Future Activities

In year 3, the DPW will create an educational display based on the results of the community attitude survey (see appendix 2B) currently being mailed to residents.

1B Classroom Education

The Town will continue the science curriculum and encourage stormwater educational topics to be included in the curriculum for Grades 4 through 8. At minimum, the curriculum will include one presentation given to the students about stormwater related topics. The School Department will be responsible for this BMP, which will be implemented in Years 1 through 5.

Year 2 Activities

To increase recycling awareness and reduce the number of pollutants and their impacts on storm water, the Agawam DPW has sponsored a number of events to help the Agawam Teachers support the Environmental, Science and Mathematic Curriculum currently in place within the public school system. Assembly Presentations

Grades 3 & 4
A Litter Bit Goes A Long Way by Jack Golden of Greenfield, MA
Students were educated with valuable lessons about waste reduction and recycling. The presentation explored a serious issue of our wasteful habits and how we need to protect our earth from pollutants. Areas targeted included recycling and waste prevention in the storm drains.

- The Thirsty Lizard Program
  Grades 5-7
  The Agawam Middle School was introduced and encouraged to add the Thirsty Lizard Program to support the current curriculum and lesson plans in place regarding water conservation.

- The Go Green Initiative
  Grades Pre-K through 12
  The Town of Agawam adopted the Go Green Initiative to help our community focus our efforts on environmental awareness both in the schools and at home. During the year, schools evaluated 5 environmentally responsible principles including identifying products and practices that could harm the environment around them.

Possible Future Activities

In an effort to further help the School Department educate students on stormwater quality, the Town of Agawam DPW Solid Waste Coordinator will continue to help coordinate any presentations as staffing and funds allow.

1C Local Cable Access

The Town will post two informational bulletins per year on the local cable access channel. Bulletins will contain information on stormwater related issues and associated community activities. The DPW will have responsibility for this BMP, which will be utilized in Years 1 through 5.

Year 2 Activities

A Hazardous Waste Bulletin was posted in the Summer 04. Information on the bulletin included which items could be brought to the Household Hazardous Waste Day event. In addition, it listed how to properly dispose of latex paint and used motor oil, in an effort to help prevent illegal dumping of these two common waste products.

Winter 04, a Stormwater informational bulletin was posted, answering the common questions: What is Stormwater? What are stormwater pollutants? And How you can prevent Stormwater Runoff Pollution!

Spring 05, Stormdrain Marker Volunteer bulletin posted, asking for volunteers to help place stromdrain markers and help prevent illegal dumping in our community.

Spring 05, bulletin posted, residents were invited to attend a free DEP sponsored Healthy Lawns and Landscape Workshop. Topics will include the health effects and alternatives to pesticides and fertilizers, as well as healthy landscape choices for the communities family, pets and environment.

Spring 05, interested residents were encouraged to purchase Rain Barrels for their yards. Rain barrels are a great way to collect runoff from the roof when it rains and stores it for use during dry conditions when water ban restrictions are in place.

Best Management Practice Assessment / Proposed Change

No changes proposed to this BMP. The Town of Agawam will continue to post two bulletins on the local cable access channel to better educate the community regarding stormwater related issues.

Possible Future Activities

The DPW will post a Summer 05 bulletin to help educate the community on what NPS Pollution is and what they can do to reduce and prevent NPS Pollution. The bulletin information will reflect the display posted in the Agawam Town Hall Main Lobby. See Appendix 1A.

In the Winter of 05/06, the DPW will post a bulletin with information to residents on stormwater topics. Bulletin will be based on the results of the community questionnaire currently being mailed to residents. See appendix 2B.

1D Community Website

The Town will post stormwater educational information on the community website two times per year. The website will include a link to DEP's website and updates annually or as needed. The DPW will be responsible for this BMP, which will be implemented in Year 1 and updated in Years 2 through 5.

Year 2 Activities

During Year 2, website updates included:

- Town of Agawam Solid Waste regulations – including references on Household Hazardous Waste disposal, recycling, and bulk pick up services and

- Lawn and Garden Care
- Septic System Care

All sites had links to EPA

See Appendix 1D for text of website.

Best Management Practice Assessment / Proposed Change

This goal has been met. No changes are proposed.

Future Activities

The website will be updated within permit year 3.

1E Newspaper Press Releases

The Town will send out two press releases per year to the local newspaper. Press releases will contain information on stormwater related issues and community activities. The DPW will have responsibility for this, which will be utilized in Years 1 through 5.

Year 2 Activities

The Town of Agawam has submitted a number of Press Releases as listed below.

- "Agawam schools Go Green"
  Highlighting the environmental program the Town of Agawam adopted to help our community focus our efforts on environmental awareness both in the schools and at home. See Appendix 1E

- "A Litter Bit Goes A Long Way"
  Information piece regarding the continued efforts of the Agawam DPW to support the public school system in educating their students on proper disposal options. See Appendix 1E

- Household Hazardous Waste Collection
  A guideline to what items are considered Hazardous Waste and how to properly dispose of them. See Appendix 1C

- Healthy Lawns and Landscapes come to Agawam!
  An invitation to residents to attend a FREE DEP funded workshop. Workshop will give tips and techniques to landscaping without the use of chemicals that my harm children, pets and the environment. See Appendix 1E

- The Town of Agawam offers Rain Barrel Water Conservation Program
  Rain Barrels are a way to conserve water by collecting runoff off the roof for later use during dry conditions and when water ban restrictions are in place. See Appendix 1E.

Best Management Practice Assessment / Proposed Change

Six press releases were printed in local newspapers, exceeding our BMP commitment. No proposed changes at this time.

Possible Future Activities

The Town of Agawam will continue to send out press releases throughout the year. Future press releases will include stormwater related activities and pollution prevention practices.

1F Informational Pamphlets

The Town will distribute one informational pamphlet or notice per year to every household Town-wide. The pamphlet or notice will likely be included with the mailing of the Consumer Confidence Report on water quality. Pamphlets will contain information on stormwater related issues and may be obtained from an applicable governmental or other public agency, purchased from a distributor, or possibly created by student's project under BMP #1B. The DPW will have responsibility for this BMP, which will be utilized in Years 1, 3, and 5.

Year 2 Activities

No activities were scheduled for year 2 under this BMP.

Best Management Practice Assessment / Proposed Change

Goal has been met. No changes proposed at this time.

Possible Future Activities

Next informational pamphlet to be distributed during year 3.

1G Community Outreach

The Town will attempt to distribute informational flyers at local community events as well as sponsor educational programs as funding becomes available. Flyers and programs will contain information on stormwater related issues as pertinent to the town. The DPW will have responsibility for this BMP, which will be utilized in Years 2-5.

Year 2 Activities

Healthy Lawns and Landscapes Workshop!
Residents were encouraged to attend a FREE DEP funded workshop. Workshop gave tips and techniques to landscaping without the use of chemicals that my harm children, pets and the environment. Local Garden centers were also invited to attend, as well as to donate supportive products to all participants. See Appendix 1C

The Town of Agawam offered a Rain Barrel Water Conservation Program to residents. Rain Barrels are a way to conserve water by collecting runoff off rooftops for later use during dry conditions and when water ban restrictions are in place. Distribution to take place in year 3. See Appendix 1E.

Best Management Practice Assessment / Proposed Change

This BMP was added to include additional outreach activities currently not applicable in other areas. The Town of Agawam feels all these activities were effective in helping support other BMPs.

Possible Future Activities

The town will continue to distribute educational flyers at community events and sponsor educational programs as funding becomes available.

MINIMUM CONTROL BEST MANAGEMENT PRACTICES

2A Adopt-a-Road

The Town will continue to support neighborhood cleanup days by providing trash-bags and subsequent collection for voluntary roadside cleanups. The town will document locations targeted during each permit year as well as communication with potential volunteers. The Department of Public Works (DPW) will be responsible for this BMP, which will be implemented in Years 1 through 5.

Year 2 Activities

Valley Brook Road and Forest Hill Road Residents were contacted regarding yard waste being disposed of in area brook. Residents were informed of stream clean-up procedures and how the DPW can help them organize a community clean-up if a group chose to participate. No response was received from the letter. See appendix 2A.

A second volunteer effort was initiated with a home school group within the Town of Agawam. DPW will continue working with the home school group, to identify an area to be cleaned in late spring. See appendix 2A.

Community Clean ups included:

- Suffield Street, across from Southgate Shopping Center and Junior High School Grounds – clean up provided by the Hampden County Community Service Group
- High School and Library area on Cooper Street – clean up provided by local student groups.

Best Management Practice Assessment / Proposed Change

The DPW has supported volunteer cleanups, no groups have followed through at this

2B Attitude Surveys

The Town will include a questionnaire with stormwater related questions with the mailing of the water bills. The questionnaire will be used to measure community awareness of stormwater issues and the success of the Public Education and Public Involvement components of the Stormwater Management Plan. The DPW will have responsibility for this BMP, which will be utilized in Years 2 and 5.

Year 2 Activities

The DPW created an Attitude Survey regarding Stormwater related information. Mailing began in late April with the first group of water bills. Mailings will continue through the water bills as they are distributed throughout the community. Expected completion is mid August. Residents are encouraged to complete the survey and mail back with their water payment or mail to DPW. See Appendix 2B.

Best Management Practice Assessment / Proposed Change

This BMP is in progress. Mailings have begun and all residents should have received a survey by August 05. No Activities scheduled for year 3.

Future Activities

A questionnaire will be mailed to town residents within water billing again during year five.

Responses from the survey will be reviewed and used in the planning of future educational topics.

2C Catch Basin Marking

The Town will support and supervise volunteer groups to mark catch basins with stormdrain markers. The DPW will supply guidance to volunteer groups regarding the installation of stormdrain markers, directions to locations, and all necessary materials. The Town's goal is to identify and mark 200 catch basins per year depending on volunteer participation. The DPW/volunteer groups will be responsible for this BMP, which will be implemented in Years 1 through 5.

Year 2 Activities

In an effort to identify catch basins, the DPW has purchased 2000 storm drain makers for our area. See appendix 2C

In an effort to increase community participation and strengthen our volunteer programs, flyers were posted at public library, town hall and the local cable access channel. See appendix 1C

In addition, our flyer was passed out at the Boy Scouts of America area meeting in Westfield, MA. See appendix 2C.

We have had one group contact the DPW with interest in participating in the marking of catch basins. Communication and organization will continue as the group becomes available. See appendix 2C

Best Management Practice Assessment / Proposed Change

The goal of supporting and supervising volunteers to mark catch basins during year two was not accomplished due to lack of volunteer participation.

This BMP was added to replace the previous Stormdrain Stenciling Program – now BMP 3G

2D Watershed Committee

The Town of Agawam will coordinate stormwater activities with the Westfield River Watershed Association (WRWA) within Year 1 and will participate in Years 2 through 5. The Conservation Commission will be responsible for Agawam's participation in the WRWA.

Year 2 Activities

The Agawam DPW has informed the Westfield River Watershed Association of the towns initiative to find volunteers to help identify storm drains with storm drain markers. The WRWA provided and promoted the town's volunteer activity at a Boy Scouts of America meeting in Westfield, MA. See Appendix 1C

Year 2 Annual Report will be forwarded to the WRWA upon completion.

Best Management Practice Assessment / Proposed Change

The goal has been met. No changes proposed at this time.

Future Activities

Annual reports shall be distributed to the above mentioned organizations for permit years 3 through 5. Meetings with appropriate staff will be held on an as needed basis.

2E Community Outreach

The Town will attempt to track the community participation level based on community outreach programs provided by the Town. The DPW will have responsibility for this BMP, which will be utilized in Years 2-5.

Year 2 Activities

Rocky's Hardware and Malone Garden Center participated in the event, donating supportive products to all participants. See Appendix 1E

The Town of Agawam offered a Rain Barrel Water Conservation Program to residents. Rain Barrels are a way to conserve water by collecting runoff off the roof for later use during dry conditions and when water ban restrictions are in place. Distribution to take place in year 3. See Appendix 1E.

Best Management Practice Assessment / Proposed Change

This BMP was added to track outreach activity participation from our community.

Possible Future Activities

The town will continue to track the community participation level.

Minimum Control Best Management Practices

3A Mapping Stormwater Outfalls

A Stormwater Outfall Map will be developed showing all municipal stormwater outfall pipes greater than 12-inches diameter. Existing information and reports from previous investigations will be compiled in Year 1. Approximately 25% of the outfalls will be field inspected each year for Years 2 through 5. Inspectors will catalogue the size, pipe material and condition of each, the receiving water-body, and visual observation of the discharge and immediate downstream channel. The Department of Public Works (DPW) will be responsible for this BMP.

Year 2 Activities

Some existing mapping is available. This existing mapping is often utilized for stormwater related investigations.

The Town of Agawam with its consultants Tighe & Bond have applied for and been granted a State Revolving Funding (SRF) loan for the mapping of the drainage system town-wide. See the project Approval Certificate in Appendix 3A. Funding has been released and the GIS mapping project has begun. Generally, the scope of the project includes the following components, included is their status:

Compilation of existing data - complete

Compilation of existing GIS data layers - complete

Update of existing GIS data layers - complete

Field locating of stormwater features – partially complete

Compilation of stormwater mapping – partially complete

Records Management of record plans – partially complete

Hardware and Software Purchase – future task

Best Management Practice Assessment / Proposed Change

The GIS mapping project is in progress. The details described in this requirement will be gathered during the mapping. Once mapping is complete. The establishment of outfall inspections will be evaluated.

Possible Future Activities

No Comment.

3B Non-Stormwater Discharge Ordinance

The Town intends to adopt an ordinance or other regulatory mechanism to prohibit non-stormwater discharges into the MS4 system. The Town will evaluate existing regulations in Year 1, prepare a draft ordinance in Year 2, and propose the new ordinance for adoption in Year 3. Pending adoption, the ordinance will be enforced in Years 3 through 5. The DPW will have responsibility for this BMP.

Year 2 Activities

A draft ordinance prohibiting non-stormwater discharges has been developed. The group, which developed the current draft ordinance, will continue to meet and produce the final draft. See Appendix 3B

Best Management Practice Assessment / Proposed Change

This activity will move forward as scheduled.

Possible Future Activities

3C Develop Illicit Discharge Plan

The Town will develop an Illicit Discharge Plan to include procedures for identifying, locating, removing illicit discharges as well as documenting actions and evaluating impacts. The Town will evaluate existing procedures in Year 2. The Town will prepare a draft plan and propose the plan for adoption in Year 3. Pending adoption, the plan will be implemented in Years 3 through 5. The DPW will be responsible for this BMP.

Year 2 Activities

As part of the development of a draft Non-Stormwater Discharge Ordinance, existing illicit discharge practices were evaluated. Existing activities involve the investigation, and removal of illicit discharges or dumping if the DPW were made aware of an issue based upon resident complaints or observation by DPW personnel. Removal of illicit discharges has been based upon existing authority by the DPW to do so. Also, drainage system GIS mapping is being developed. Once the GIS mapping is complete, the proper evaluation of how to proceed with the development of an illicit discharge plan will take place.

Best Management Practice Assessment / Proposed Change

No comment

Future Activities

During year 3, based on the progress towards adoption of an illicit discharge ordinance and the GIS mapping of the drainage system, a draft illicit discharge plan will be prepared and proposed to the appropriate officials in year 3.

3D Inform Employees, Businesses, and Public

Municipal employees, businesses and the public will be informed regarding the illicit discharge plan and the non-stormwater ordinance. Elements of the public education program will include publicity for this BMP. The DPW will be responsible for this BMP, which will be implemented in Years 3 through 5.

Year 2 Activities

No activities are scheduled until year 3.

Educational materials have been displayed in the DPW offices. The material includes information on construction phase erosion and sediment control BMPs.

Best Management Practice Assessment / Proposed Change

No comment.

Possible Future Activities

No comment.

3E Video Inspection

The DPW will contract for the use of a video camera to inspect storm drain pipes as practicable to follow up on illicit discharges discovered during activities under BMP #3B. The DPW will be responsible for this BMP, which will continue for permit Years 3 through 5.

Year 2 Activities

No activities are scheduled for year 2.

No Comment

3F Failing Septic Systems

The Board of Health (BOH) currently keeps records of septic system failures that are used to identify problem areas. The BOH will report failures to the DPW for inclusion in GIS mapping in Year 3. The BOH will be responsible for this BMP, which will continue for Years 1 through 5.

Year 2 Activities

The Board of Health maintains records on all inspections involving septic systems. The BOH has forwarded a list of all failed systems from 2004 to the DPW. Septic System locations and their failures will be incorporated into the GIS stormwater mapping project at the appropriate time. See Appendix 3F.

The Southwest Area Sewer Improvement Project is proceeding to the development of a draft EIR for submission to DEP and EOEA during permit year 3.

Best Management Practice Assessment / Proposed Change

This original permit requirement is proceeding as scheduled.

The permit requirements have been exceeded in that the Town continues to proactively pursue major wastewater disposal improvements in the future. See Appendix 3F.

Future Activities

No Comment.

3G Catch Basin Marking

The Town will support and supervise volunteer groups to mark catch basins with stormdrain markers. The DPW will supply guidance to volunteer groups regarding the installation of stormdrain markers, directions to locations, and all necessary materials. The Town's goal is to identify and mark 200 catch basins per year depending on volunteer participation. The DPW/volunteer groups will be responsible for this BMP, which will be implemented in Years 1 through 5.

Year 2 Activities

In an effort to identify catch basins, the DPW has purchased 2000 storm drain makers for our area. See appendix 2C

In an effort to increase community participation and strengthen our volunteer programs, flyers were posted at public library, town hall and the local cable access channel. See appendix 1C

In addition, our flyer was passed out at the Boy Scouts of America area meeting in Westfield, MA. See appendix 2C.

We have had one group contact the DPW with interest in participating in the marking of catch basins. Communication and organization will continue as the group becomes available. See appendix 2C

Best Management Practice Assessment / Proposed Change

The goal of supporting and supervising volunteers to mark catch basins during year two was not accomplished due to lack of volunteer participation.

Possible Future Activities

MINIMUM CONTROL BEST MANAGEMENT PRACTICES

4A Construction Runoff Ordinance

The Town intends to adopt a Construction Runoff Ordinance or other regulatory mechanism to require sediment and erosion control at construction projects with over one acre in total disturbance. The Town will evaluate existing regulations (including Zoning, Subdivision, and Wetlands regulations) in Year 1, prepare a draft ordinance in Year 2, and propose the new ordinance for adoption in Year 3. Pending adoption, the ordinance will be enforced in Years 3 through 5. The DPW, Planning Department, and Building Inspector have responsibility for this BMP.

Year 2 Activities

A draft ordinance sections on Erosion and Sediment Control was developed as part of overall Water & Sewer Ordinance amendments. All new subdivisions are required to include within the construction plan set, a separate sheet showing all construction phase erosion and sediment control measures for the site. See appendix 3B for Draft Ordinance.

Also, the developer is required to submit an informational copy of the project's SWPPP to the DPW as prepared for the NPDES construction phase N.O.I. for EPA.

Construction site BMP educational materials have been displayed in the DPW offices. The material includes information on construction phase erosion and sediment control BMPs.

Best Management Practice Assessment / Proposed Change

The final draft will be completed and offered to the City Council for adoption during year 3.

4B Construction Plan Review

Under the Construction Runoff Ordinance (or other regulatory mechanism), applicants with projects with disturbance over one acre will be required to submit sediment and erosion control plans for Town review and approval. Until a new ordinance is adopted (anticipated in Year 3), the Town will continue to review construction plans in accordance with existing regulations. Pending adoption, plans will be reviewed per the new ordinance in Years 3 through 5. The DPW, Planning Department, and Building Inspector have responsibility for this BMP.

Year 2 Activities

All construction sites within the jurisdiction of the Rivers Act and the Wetland Protection Act must submit plans to the Conservation Commission for review of proposed erosion and sediment control measures. These sites are inspected and overseen by the Conservation Commission.

All new subdivision submittals are required to include construction phase erosion and sediment control measures within the construction plan set.

The developers of all new subdivisions are required to submit the project's EPA NOI for construction activities, and give a courtesy copy of the SWPPP to the DPW.

DPW works with the Conservation Commission, developers, and property owners to alleviate erosion control problems as they occur.

Best Management Practice Assessment / Proposed Change

This permit requirement has been exceeded in that erosion and sediment control is already an integral part of subdivision review ahead of the new ordinance adoption schedule.

Possible Future Activities

4C Inspection / Reporting

Under the Construction Runoff Ordinance (or other regulatory mechanism), projects with disturbance over one acre will be required to have regular inspection of sediment and erosion controls and reporting of construction activities. Until a new ordinance is adopted (anticipated in Year 3), the Town will continue to require inspection and reporting in accordance with existing regulations. Pending adoption, construction inspection and reporting will be enforced in Years 3 through 5. The DPW, Planning Department, and Building Inspector have responsibility for this BMP.

Year 2 Activities

No activities are scheduled for year 2.

DPW and Conservation Commission work together to inspect and enforce the Wetland Protection Act on projects within the appropriate jurisdiction.

Best Management Practice Assessment / Proposed Change

No change is proposed.

Future Activities

Inspections will occur as needed for relevant existing regulations.

MINIMUM CONTROL BEST MANAGEMENT PRACTICES

5A Post Construction Runoff Ordinance

The Town intends to adopt an ordinance or other regulatory mechanism to address post construction runoff from projects with over one acre in total disturbance. The Town will evaluate existing regulations (including Zoning, Subdivision, and Wetlands regulations) in Year 1, prepare a draft ordinance in Year 2, and propose the new ordinance for adoption in Year 3. Pending adoption, the ordinance will be enforced in Years 3 through 5. The DPW, Planning Department, and Building Inspector have responsibility for this BMP.

Year 2 Activities

A draft of Post-Construction Runoff Control ordinance sections as part of overall Water and Sewer ordinance amendments has been developed. See Appendix 3B for Draft Ordinance.

The Conservation Commission through the Wetland Protection Act continues to regulate activities within and near wetland resource areas.

Best Management Practice Assessment / Proposed Change

During year 3, the final draft amendments will be completed. The ordinance amendments will be proposed to the City Council for adoption during year 3.

Possible Future Activities

As part of the new ordinance development/adoption process, the DPW's existing drainage permit process will be evaluated for amendment to improve the post-construction controls, which are already required under existing Town Code.

Year 2 Activities

Further review of existing practices by the DPW indicates that post-construction BMPs are currently required as part of the site plan and subdivision review process.

Best Management Practice Assessment / Proposed Change

No change is proposed.

Possible Future Activities

The Town will proceed with activities as scheduled in the permit implementation.

5C Stormwater System Maintenance Plan

Under the Post Construction Runoff Ordinance (or other regulatory mechanism), projects with disturbance over one acre will be required to include a program outlining enhanced procedures for long term operation and maintenance of stormwater facilities. Until a new ordinance is adopted (anticipated in Year 3), the Town will continue to require stormwater facility operation and maintenance in accordance with existing regulations. Pending adoption, additional operation and maintenance requirements for stormwater facilities to be constructed as part of new development and redevelopment projects will be enforced in Years 3 through 5. The DPW, Planning Department, and Building Inspector have responsibility for this BMP.

Year 2 Activities

No activities are scheduled for permit year two.

Best Management Practice Assessment / Proposed Ch

MINIMUM CONTROL BEST MANAGEMENT PRACTICES

6A Municipal Maintenance Activity Program

The Town will develop a program to outline procedures associated with maintenance of open spaces and parks, vehicular fleets, Town-related construction activities, roads, and storm sewer system. The Town will evaluate existing municipal procedures, modify any procedures if needed, and prepare the program plan in Year 1. The Town will continue to monitor compliance and revise policies as necessary in Years 2 through 5. The DPW will have the responsibility for this BMP.

Year 2 Activities

A part-time Stormwater Coordinator position was created during this permit year.

The DPW has evaluated the BMPs shown on EPA's website regarding Pollution Prevention / Good Housekeeping for Municipal Operations and determined that several are significant to the Town of Agawam for further implementation in the future. Further evaluation and implementation will be done by the appropriate DPW personnel. Those of interest include:

- Automobile Maintenance
- Vehicle Washing
- Hazardous Materials Storage
- Spill Response and Prevention
- Materials Management

Best Management Practice Assessment / Proposed Change

Possible Future Activities

The Town of Agawam will review current procedures for the Good Housekeeping BMPs as listed above. In reviewing the current procedures, modifications will be made as necessary to insure compliance. In addition, an employee handbook will begin to be created for future distribution and reference.

6B Training of Municipal Employees

Municipal employees performing activities under the new Municipal Maintenance Activity Program (BMP #6A) will be informed of new good housekeeping policies and procedures. This will occur pending adoption of the Program in Year 1. DPW employees will also be informed of the Stormwater Pollution Prevention Plan requirements for the DPW and Transfer Station, as applicable. Initial training will be given in Year 2. An Annual Refresher in the form of a seminar or memorandum will be given each year for Years 3 through 5. The DPW has responsibility for this BMP.

Year 2 Activities

No training occurred because the Municipal Maintenance Activity Program in 6A is still in the reviewing stage of planning.

Best Management Practice Assessment / Proposed Change

Based on the evaluation of BMPs shown on the EPA's website regarding Pollution Prevention / Good Housekeeping for Municipal Operations, the following were listed in BMP 6A as priority areas:

- Automobile Maintenance
- Vehicle Washing

Once further evaluation on current practices and needs are assessed in BMP 6A, training will be developed and implemented. Initial training will be postponed until year 3 or upon completion of BMP 6A.

Future Activities

Once the new Municipal Maintenance Activity Program (BMP 6A) is accomplished DPW employees will be informed of new good housekeeping policies and procedures.

6C Catch Basin Cleaning Program

The Town will develop a program with prioritized areas for catch basins in the urbanized area in Year 1. The Town will continue to monitor compliance and revise policies as necessary in Years 2 through 5. The DPW will have the responsibility for this BMP.

Year 2 Activities

The Town continues to use the previously developed catch basin cleaning priority area location list to determine where to focus their catch basin cleaning efforts. These priority areas are based on the locations in Town, which have significant hills and are thus subject to additional sanding during the winter season. See Appendix 6C for priority areas. As in year 1, the intention of this program is to utilize any unexpended funds from the snow plowing account for catch basin cleaning. Unfortunately due to the lack of funds remained after the winter season, no catch basins were documented cleaned as of this time.

Best Management Practice Assessment / Proposed Change

The Town of Agawam will continue to utilize funds, if available, for annual cleaning of catch basins within priority area. Catch Basin Cleaning could occur during the year 3 summer quarter of permit, depending FEMA

6D Street Sweeping

The Town will sweep all streets in the urbanized area once each year. The DPW has the responsibility for this BMP, which will be utilized for Years 1 through 5.

Year 2 Activities

During Year 2, the DPW completed street sweeping in the following areas:

- 264 curb miles of roadway
- Additional sweeping included the Senior Center, Spencer Street and Edward Street.
- Water break cleanup of soil on Silver Street
- Street Sweeping prior to paving operations on O'Briens Corner, Mill Street and Franklin Street.

Best Management Practice Assessment / Proposed Change

The Town of Agawam has successfully completed street cleaning to all streets in the urbanized area, including municipal building parking lots.

Possible Future Activities

The Town of Agawam will continue to provide street cleaning to all proposed areas as needed during the Summer, Fall and Spring quarters of the permit years.

6E Pest Control / Landscaping and Lawn Care

The Town will evaluate the use of toxic chemicals in Year 1 and continue to contract with licensed applicators only in Years 2 through 5. The DPW has the responsibility for this BMP.

Year 2 Activities

The DPW provides maintenance services for Parks, the Golf Course, and Schools. The application of fertilizers and pesticides are under the supervision of licensed pesticide applicator, thus the chemicals are used appropriately and the over- use of chemicals is avoided. The maintenance of the golf course includes the use of organic practices where appropriate.

In support of chemical alternatives while landscaping, three DPW Staff Members attended the Healthy Lawn and Landscape Workshop sponsored by the DEP. See Appendix 1C.

Best Management Practice Assessment / Proposed Change

DPW will continue to utilize organic alternatives were practicable.

Possible Future Activities

The DPW intends to continue to utilize licensed contractors for grounds maintenance work.

6F Stormwater Pollution Prevention Plan / MSGP

A Stormwater Pollution Prevention Plan (SWPPP) will be implemented for the DPW facility under the EPA Phase II Stormwater Program Multi-Sector General Permit (MSGP). The DPW has the responsibility of this BMP, which will be utilized for Years 1 through 5.

equipment used to control and document oil spills and to prevent spills from reaching surface waters. In addition, the Plan includes recommendations to upgrade the facility in areas where existing oil spill prevention, control and countermeasures are inadequate. The Town's future MSGP compliance program, specifically a storm water pollution prevention plan, is anticipated to incorporate components of the SPCC Plan. See Appendix 6F for an outline of the SPCC Plan.

The DPW has been working with the Mayor throughout the permit year on a project which includes the purchase, design, and construction of a new DPW yard. Currently, the new facility is under design. It is anticipated that design will be complete in 2004. Construction will begin in 2005. The new facility will be available for occupancy in 2005 or 2006 depending on funding.

Best Management Practice Assessment / Proposed Change

The Town of Agawam requests that this goal be amended to allow for the revised MSGP schedule and the construction schedule of the new DPW facility, which will comply with all MSGP requirements in a cost effective manner.

Future Activities

DPW yard operations will move to the new facility once it is available.

6G Used Oil Recycling

The Town currently collects used oil for proper disposal and recycling. The Town will continue to offer Used Oil Recycling year-round in Years 1 through 5. The DPW has the responsibility for this BMP.

Year 1 Activities

2100 gallons of used motor oil were collected at the DPW Town Garage.

Best Management Practice Assessment / Proposed Change

The Town of Agawam has met its obligation to provide the residents with a drop-off location for used motor oil. The town feels it has provided ample notification to residents through flyers and telephone communication regarding the drop off location option. The town will continue to provide this disposal option to the residents.

Possible Future Activities

The Town of Agawam will continue to provide the residents a drop-off location for used motor oil and car batteries at no charge to the residents. The DPW will continue notifying residents using the cable access informational bulletin and or press releases.

6H Hazardous Waste Collection

The Town will continue its annual Hazardous Waste Collection Day subject to funding. Every fall, the Town publicizes the collection day through newspaper ads and radio and television ads. The DPW will continue to have the responsibility for this BMP, which will be utilized in Years 1 through 5.

Year 1 Activities

The Town of Agawam successfully hosted another annual Household Hazardous Waste collection day in the Summer of 04, diverting the following materials from the waste stream and illegal dumping:

- 550 gallons of Liquids for Fuels Blending
- 11040 pound of Paints, Resins and Adhesives
- 220 gallons of Aerosols
- 140 gallons of Lab Pack Chemicals
- 495 gallons of Lab Pack Pesticides
- 55 gallons of Caustic Solution

Best Management Practice Assessment / Proposed Change

Due to available funding, the Town of Agawam has successfully met its goal to provide proper and safe disposal options to the residents for Household Hazardous Waste.

Possible Future Activities

The town will continue to provide proper disposal options to the residents, based on available funding.

MINIMUM CONTROL BEST MANAGEMENT PRACTICES

7A TMDL for the Connecticut River

According to the Massachusetts Year 2002 Integrated List of Waters, Connecticut River is designated as Category 5 "Waters requiring a TMDL". The targeted pollutants are priority organics, pathogens, and suspended solids. Sources of priority organics may include but are not limited to: road surfaces, inadequate fueling areas or practices, illegal dumping. Sources of pathogens may include but are not limited to: pet waste, winter road maintenance materials, illicit sewer discharges, and failing septic systems. Sources of the suspended solids may include but are not limited to: lawn care products, litter, winter road maintenance materials, erosion from construction activities, and illicit sewer discharges. The Stormwater Management Program includes many BMPs to address reduction of contaminants from these sources under all Six Minimum Control categories. The City will implement these BMPs under the responsible department and timeframes as previously described.

Year 2 Activities

All previously described Best Management Practices address the TMDL of the Connecticut River.

Best Management Practice Assessment / Proposed Change

The Connecticut River has many contributing factors to cause the need for the TMDL designation. Agawam along with other community's efforts within Massachusetts will contribute to improvements in this major river's water quality.

Possible Future Activities

The future activities within the Town of Agawam's Stormwater Management Plan will be implemented as funding and other resources will allow.

setts Department of Environmental Protection
Resource Protection - Watershed Management
8A NPDES Stormwater General Permit Notice of Intent
rges from Small Municipal Separate Storm Sewer Systems (MS4s)
Water Management Program TIME FRAMES

Transmittal Number W - 063323

Facility ID (MAR041001)

	Permit Year 1				Permit Year 2				Permit Year 3				Permit Year 4				Permit Year 5				
MP	Summer '03	Fall '03	Wint '03/04	Spring '04	Summer '04	Fall '04	Wintr '04/05	Spring '05	Summer '05	Fall '05	Wintr '05/06	Spring '06	Summer '06	Fall '06	Wintr '06/07	Spring '07	Summer '07	Fall '07	Wintr '07/08	Spring '08	Next Permit
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ion Prev. Plan/MSGP																					
g																					
Collection																					

Printed 4/25/2005

APPENDIX

Sections

1 – Public Education

- 1A – Stormwater Display
- 1B – Classroom Education Materials
- 1C – Local Cable Access Bulletins
- 1D – Community Website Updates
- 1E – Press Releases
- 1G – Community Outreach Materials

2 – Public Involvement / Participation

- 2A – Adopt a Road
- 2B – Attitude Surveys
- 2C – Catch Basin Marking

3 – Illicit Discharge Detection & Elimination

- 3A – Mapping Stormwater Outfalls – Status Map
- 3A – Stormwater Mapping – SRF Project Approval
- 3B – Non-Stormwater Discharge Ordinance - Draft
- 3F – Septic System Failures
- 3F – Southwest Area Wastewater Disposal Evaluation

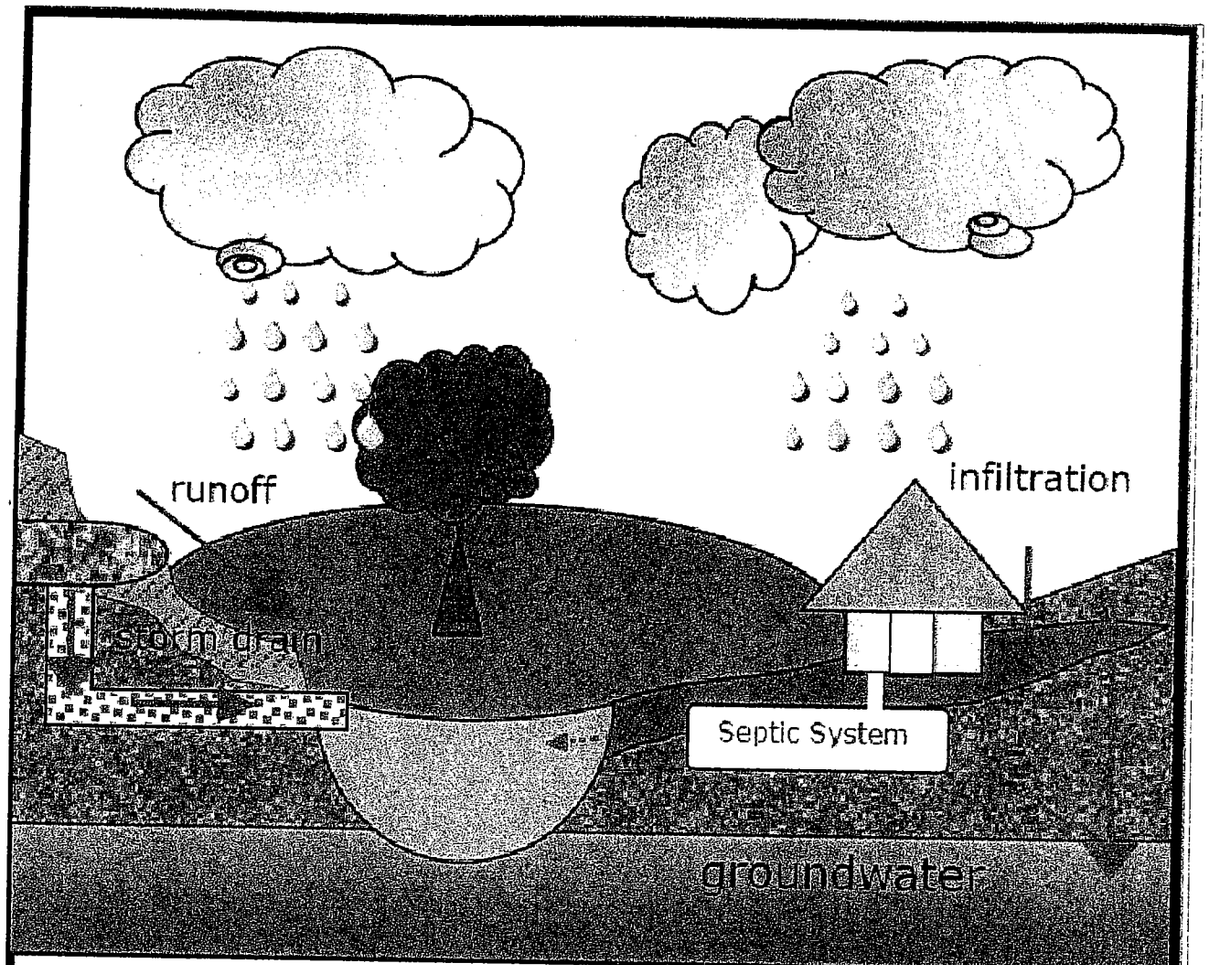
6 – Good Housekeeping / Pollution Prevention

- 6C – Catch Basin Cleaning Priority Areas
- 6G – Used Oil Recycling Literature
- 6H – Hazardous Waste Collection Grant Research

Appendix 1A

Year 2

Stormwater Display



NPS pollution does not observe property lines. It flows wherever water takes it throughout the watershed – typically to stormdrains and then, without

GIVE YOUR WATERWAYS THE BLUES!

Catch basins drain directly to our waterways.

Protect your waterways from Nonpoint Source Pollution*.

DO

In the yard…

- Sweep gutters and driveways regularly.
- Place leaves and grass clippings in the garden, compost or in a collection bag.

In the street…

- Clean up pet droppings and dispose of them in the rubbish toilet, or bury.

With the car…

- Wash your car over gravel or grass and use a minimum amount of detergent or use biodegradable soap.

DON'T

In the yard…

- Don't hose leaves, dirt and grass clippings down the drain or into the gutter.
- Don't fertilize before a rain storm.

In the street…

- Don't drop packaging or cigarette buts on the ground.

With the car…

- Don't wash the car in the street.
- Don't dump oil or other engine fluids

Appendix 1B

Year 2

Classroom Education Materials

Memorandum

To: Principal Farrell, Principal Palazzi, Principal Lewis, Principal Howard

From: Tracy M. DeMaio – Solid Waste Coordinator, Town of Agawam

Date: 12/1/2004

RE: Jack Golden Presentation - "A Litter Bit Goes A Long Way!"

Jack Golden will again be visiting your 3rd and 4th grade students to present yet another hit assembly presentation, **"A Litter Bit Goes A Long Way!".** This 45-minute assembly presentation focuses on Litter Prevention and that litter is trash where it doesn't belong! In other words, by putting trash where it does belong, prevents litter! A few areas mentioned to help prevent littering is getting your trash recycled, turning our trash into something useful and litter prevention in storm drains.

Attached you will find your schools scheduled presentation day. Closer to that date, Jack Golden will be contacting each of you to confirm set up times and locations. In the meantime, please confirm your scheduled date, review the location (based on last years records) and fill in your desired presentation time. The prep time will be 1 hour earlier, so be sure that area is available. Once you have this information filled in, please fax back to me at 413-786-9927.

Thank you!

Tracy

Tracy M. DeMaio
Solid Waste / Stormwater Project Coordinator
Town of Agawam DPW

TOWN OF AGAWAM
"A Litter Bit Goes a Long Way" Presentation Schedule

Monday, February 28th

AM SESSION

CLIFFORD GRANGER ELEMENTARY SCHOOL
31 Westfield Street

413-821-0581

Principal: Ms. Phyllis Lewis

Location: Gymnasium
Preparation Time:
Presentation Time:

PM SESSION

BENJAMIN PHELPS ELEMENTARY SCHOOL
689 Main Street

413-821-0587

Principal: Mr. Robert Farrell

Location: Cafeteria
Preparation Time: 1:15
Presentation: 2:15pm

Wednesday, March 2nd

AM SESSION

ROBINSON PARK ELEMENTARY SCHOOL
65 Begley Street

413-821-0582

Principal: Mrs. Cynthia Palazzi

Location: Cafeteria
Preparation Time:
Presentation:

MEMORANDUM

TO: MR. LITTLEFIELD, MR ZAVARELLA

FROM: TRACY DEMAIO – SOLID WASTE COORDINATOR

SUBJECT: WATER CONSERVATION EDUCATIONAL TOOLS.

Attached you will find some literature regarding "**The Thirsty Lizard Program**". This program is designed for students in grades 6 through 8. The primary goal of the Program is to help students become more aware of the amount of water consumed within their home and hopefully eliminate some of their wasteful water habits. To determine the amount of water consumed, students will use data collection, graphing and math skills as well as critical thinking skills. These lessons will help determine how to effectively use their water supply; to not only saving money, but to help save the Earth and its precious rivers, wetlands and lakes.

The first week of May is **National Water Week**. The Thirsty Lizard Program may be just the teaching tool your staff is looking for to support the curriculum and lesson plans currently in place. Should you or your staff have any questions regarding this program, you may contact James Richardson at the Niagra Conservation at 1-800-831-8383

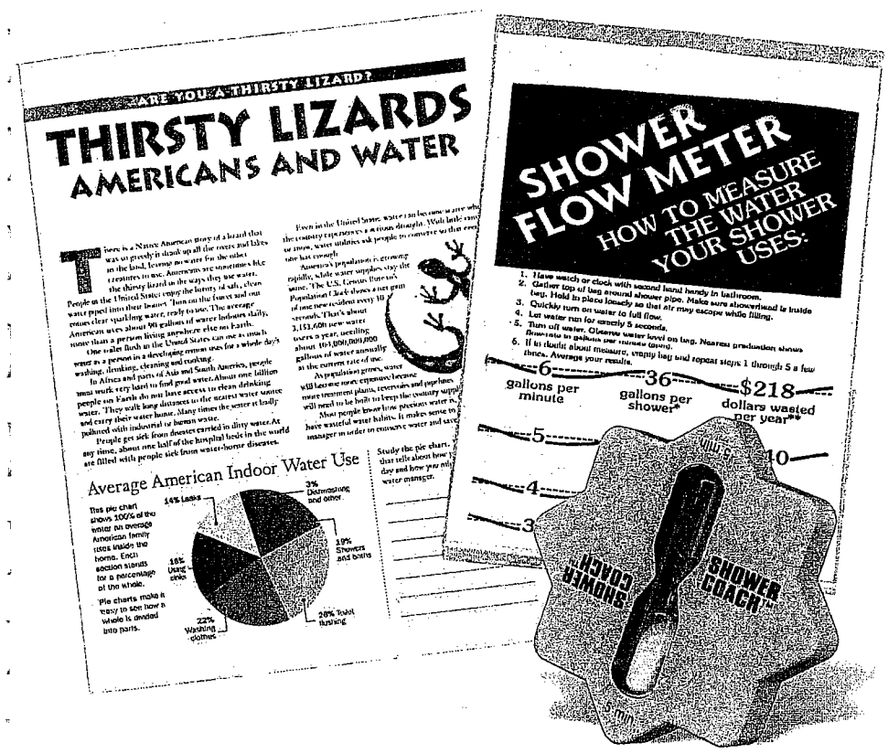
Sincerely,

Tracy DeMaio
Town of Agawam
Solid Waste / Stormwater Project Coordinator

3 The Thirsty Lizard Project:

A water conservation educational tool for schools and utilities.

The Thirsty Lizard Project is a proven water-conservation education tool that meets the needs of both schools and water utilities. It provides teachers with an educationally valid option for teaching data collection, graphing and math skills at the same time it helps middle school students improve their personal water management skills.



"The Thirsty Lizard Project was a great addition to our school year. My students had the opportunity to hone their data collection, graphing and unit-conversion skills while they learned to be better water managers. I'm looking forward to using these materials again next year."

Program Benefits to Teachers and Utilities:

- Meets national science and math standards
- Average student saves **100 gallons** in a single week; Quantifiable results
- Helps meet utilities' marketing and public relations goals.
- **Available in English and Spanish**
- Changes water use behavior
- **Can be customized for utilities** with name, logo and messages

Program Benefits to Students:

- Created and tested by educators and water conservation professionals.
- Solidly aligned to national standards in science and math.
- Crafted to fit with contemporary educational modalities.
- **Ninety-five percent approval rating** by participating teachers, parents and students.
- Economically priced.
- Classroom sets include a teacher's manual and 30 student readers, shower timers and faucet flow bags.

THE THIRSTY LIZARD PROGRAM

The Thirsty Lizard Program is a two-week water conservation exercise that provides teachers and students with instruction in graphing and data collection. It is designed for use by 6th through 8th grade students and the classroom set includes everything the teacher will need to teach the exercise to 30 students – student readers, a teacher's guide with reproducible maters, shower timers, and flow rate calculation bags. The materials are aligned with national science and math content standards.

In addition to educating about conservation, the project gives the utility the opportunity to meet several marketing/public relations goals. By sending home letters to the parents, the utility can engage and inform the adult members of the student's families about the project. Parent letters are printed on the letterhead of the donating agency, providing good community relations.

Parental responses can be used to create a mailing list, to offer conservation materials, and to follow-up on how well their students are doing with their conservation goals. Utility offered conservation kits can be mailed from Niagara Conservation directly to your customers.

Thank you for taking the time to look over the Thirsty Lizard program. We look forward to helping you help the students in your community learn to about water conservation.

ARE YOU A THIRSTY LIZARD?

THIRSTY LIZARDS
AMERICANS AND WATER

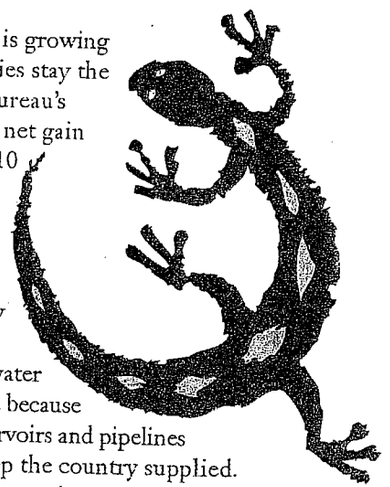
There is a Native American story of a lizard that was so greedy it drank up all the rivers and lakes in the land, leaving no water for the other creatures to use. Americans are sometimes like the thirsty lizard in the ways they use water. People in the United States enjoy the luxury of safe, clean water piped into their homes. Turn on the faucet and out comes clear sparkling water, ready to use. **The average American uses about 90 gallons of water indoors daily, more than a person living anywhere else on Earth.**

One toilet flush in the United States can use as much water as a person in a developing nation uses for a whole day's washing, drinking, cleaning and cooking.

In Africa and parts of Asia and South America, people must work very hard to find good water. **About one billion people on Earth do not have access to clean drinking water.** They walk long distances to the nearest water source and carry their water home. Many times the water is badly polluted with industrial or human waste.

People get sick from diseases carried in dirty water. **At any time, about one half of the hospital beds in the world are filled with people sick from water-borne diseases.**

Even in the United States water can become scarce when the country experiences a serious drought. With little rain or snow, water utilities ask people to conserve so that everyone has enough.



America's population is growing rapidly, while water supplies stay the same. The U.S. Census Bureau's Population Clock shows a net gain of one new resident every 10 seconds. **That's about 3,153,600 new water users a year, needing about 104,000,000,000 gallons of water annually** at the current rate of use.

As population grows, water will become more expensive because more treatment plants, reservoirs and pipelines will need to be built to keep the country supplied.

Most people know how precious water is, but many still have wasteful water habits. It makes sense to be a good water manager in order to conserve water and save money.

Average American Indoor Water Use

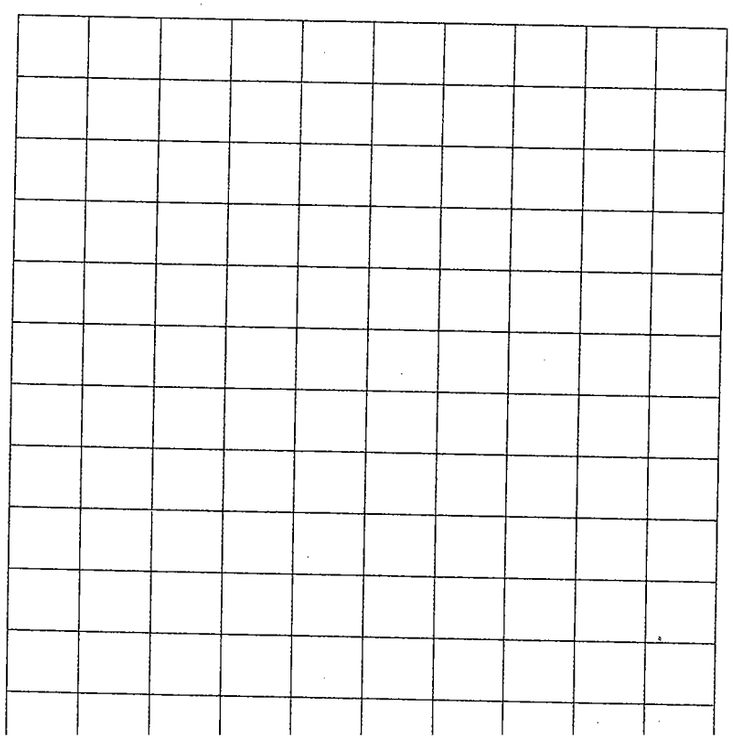
This pie chart shows 100% of the

Study the pie chart. Write a sentence that tells about how you use water every day and how you might become a better water manager.

Chart Their Results

Create a double bar graph that compares the amount of water the family uses with **typical** and **conserving** water habits. Remember that all graphs need **TAILS** – **T**itles, **A**xes, **I**ntervals, **L**abels and **S**cale.

The **dependent variable** in a graph is the unit that is being measured, and is usually shown on the **Y,** or vertical, axis. For this graph, the dependent variable is the number of gallons of water used. The **independent variable** is the unit that changes, and is usually shown on the **X,** or horizontal, axis. For this graph, the independent variable shows results of changes in water-use activities.



How Much Money Can the Smith Family Save?

To calculate how much money the Smiths can save by taking **shorter showers,** use the figure at the bottom of page two. Since Anytown Waterworks charges the Smiths by the cubic foot, you must convert the gallons into cubic feet. There are 7.5 gallons of water in a cubic foot. Show your answer here, expressed in a formula:

The Smiths save water in three ways with shorter showers:

- They purchase water from Anytown Waterworks for two cents ($0.02) per cubic foot, so shorter showers mean less water.
- It costs the Smiths about $200 per year for electricity to heat water for showers. Cutting shower time in half saves them 50% of this cost.
- They pay one cent ($0.01) to Anytown Waterworks for wastewater treatment for every cubic foot of water they use.

TOWN OF AGAWAM

GO GREEN INITIATIVE PROCLAMATION

WHEREAS: the Go Green Initiative was founded to support school recycling and environmental efforts, and teach our students and community to be responsible caretakers of the planet; and

WHEREAS: the Go Green Initiative brings city officials, principals, teachers, custodians, parents and students together to set goals, share ideas, and celebrate success; and

WHEREAS: the Go Green Initiative is intended to heighten community awareness of and participation in environmentally responsible behavior; and

WHEREAS: the Go Green Initiative will help our schools develop a more efficient recycling program, thereby decreasing trash disposal and its related costs; and

WHEREAS: the Town of Agawam wishes to participate and support the Go Green Initiative in encouraging schools to educate and practice environmentally responsible behavior throughout our community.

NOW, THEREFORE, I Richard A. Cohen, Mayor of the Town of Agawam, officially proclaim the Town of Agawam a Go Green Community.

Go Green Initiative Association

Go Green Planning Guide For School-Site Go Green Teams

2004

Protecting Children's Health Through Environmental Stewardship

"All schools prepare our children for the future,

Go Green Planning Guide

Creating an Environmentally Responsible School Community

How To Use This Planning Guide

This guide is a tool for schools which are implementing the Go Green Initiative, either for the first time, or for a new school year. Use this tool in conjunction with the Go Green Initiative Guidebook.

This guide is the product of extensive piloting and feedback from parents, teachers and principals. We welcome any feedback on this guide, and will always be on the lookout for creating optimal tools that help you achieve success.

This guide will walk your Go Green Team through each principle of the Go Green Initiative, and ask you to complete planning exercises for each. Your Go Green Team should consist of at least one representative of the following campus stakeholders: parents, teachers, administrators, custodians and where age appropriate, students.

By the time your Go Green Team completes this guide, you will have a month-by-month activity plan and budget to support your overall Go Green goals. It is not necessary to implement all five of the principles of the Go Green Initiative in the first year, though your Go Green team may find it perfectly reasonable to do so. The important thing is that your Go Green Team is comfortable with your plan, and willing to energize each sector of the campus community around shared goals. The Go Green Initiative is not a sprint toward environmental stewardship. Rather, it is a daily walk toward a better future that moves at a sustainable pace.

When your Go Green Team has completed this guide, please email, fax, scan or send a double-sided hard copy on recycled-content paper to:

The Go Green Initiative Association
C/O Jill Buck, Executive Director
2529 Via Espada
Pleasanton, CA 94566
Fax: 208-730-7553

- The following people will lead our campus composting efforts (2-3 people):
  - _____
  - _____
  - _____
- List month-by-month activities and/or goals related to generating compost:

Month	Activity	Person(s) in charge
September		
October		
November		
December		
January		
February		
March		
April		
May		

Materials to be recycled	**Quantification Method**	**Collection Point(s)**	**Student Involvement Plan**	**Can this material be used as a fundraiser?** (Contact waste hauler and/or local recycling coordinator for advice on paper, plastic and aluminum)
Example: Paper	Example: Each week when the 96 gallon recycling containers are brought out for the waste hauler, someone will estimate the percentage to which the 96 gallon containers are filled, then convert the gallons to lbs. (96 gallons full = approx. 250 lbs.)	Example: Small bins in each classroom; six 96 gallon containers placed conveniently around campus	Example: Students will decorate old book boxes that would have been thrown into the garbage, and designate them as classroom paper recycling bins. Each week, the super kid-of-the-week will empty the recycling bin into the 96 gallon container nearest his/her classroom.	

Month	Activity	Person(s) in charge
September		
October		
November		
December		
January		
February		
March		
April		
May		
June		

Use the Go Green Budget Planning Tool in Appendix A, pgs. 21-22, to determine your recycling budget.

And, of course, students must be educated in environmentally responsible behavior. In many cases, this education isn't in the form of curriculum – though we recommend some curriculum programs very highly. The most effective education students receive is through habitual practice of environmental stewardship, and through seeing adults model responsible behavior. Just as we insist that children practice brushing their teeth daily before they understand the concepts of plaque and cavities, we can teach children to separate their recyclables and to participate in composting even before they have any formal training on the intricacies of those topics. The Go Green Initiative believes that practical, hands-on learning will achieve maximum impact. It does no good whatsoever to teach students about recycling if their campus isn't set up for recycling. It will achieve nothing to teach children about conservation if every week they bring home inch-thick packets of flyers to their parents on single-sided (vs. double-sided) sheets of paper. A lesson on energy conservation is meaningless to students if their classroom air conditioning runs non-stop to achieve 65 degrees. Seeing is believing for kids. They need to see adults practicing environmental stewardship daily in order to believe it is important.

Preliminary Questions:

- Do we host parent education workshops on environmental topics, e.g. at-home recycling, pesticide use, composting, etc.? _ Yes _No
- Do we help teachers acquire environmental education materials for their classrooms? _Yes _No
- Do we have staff development training for school staff regarding environmental education? _Yes _No
- Are there environmental education topics woven into science/math/social science curriculum and standards for students? _Yes _No

Goal-setting Section:

- We will focus our environmental educational efforts on the following subjects this year:
  - _____
  - _____
  - _____
  - _____
  - _____

- List month-by-month activities and/or goals related to educating:

Month	Activity	Person(s) in charge
September		
October		
November		
December		
January		
February		
March		
April		
May		
June		

- Our disposal of green waste? _ Yes _No
- School's impact on indigenous wildlife, and efforts to mitigate the impact? _ Yes _ No
- Other? _____

Goal-setting Section:

- We will evaluate the environmental impact of the following areas:
  - _____
  - _____
  - _____
  - _____
  - _____
- Some of the obstacles to evaluating the environmental impact of these items will be:

- We can overcome each obstacle by:

- The following people will be in charge of our environmental impact projects (2-3 people):
  - _____
  - _____
  - _____

Nationalize Principles of Responsible Paper Consumption

Paper gets special treatment in the Go Green Initiative because it is the recyclable material most prevalent on school campuses. We use paper for textbooks, notebooks, worksheets, scratch paper, art projects, library books, flyers to parents, internal communication, and for my son, paper airplanes! Paper on school campuses isn't going away; it's a valuable commodity, and serves its purpose. Because paper is so important and valuable to the way we do business, it is critical to utilize it with respect, so that we can teach children how to manage paper consumption responsibly.

We all know that paper comes from trees, and that by recycling paper, we might save some trees. I say, "*Might* save *some* trees," because there are variables to that statement. First and foremost, if we're all sending paper away to be recycled, but no one is buying recycled content office and classroom paper products, paper manufacturers won't see the demand for recycled content office papers and will instead use all that recovered paper to make items like bath tissue and cereal boxes. It's important to increase the amount of recycled content office paper we purchase in order to ensure a strong market for this paper. As demand for recycled content paper increases, the demand for the fiber to make recycled paper also increases, thereby encouraging paper recycling. It used to be true that recycled content paper was inferior in quality, value and functionality compared to virgin paper, but that is simply not so today. All of the nation's top paper mills make recycled content paper products that are as bright, clean, and safe as virgin papers for copy machines. Recycled content office paper is also increasingly as cost-effective and comparably priced as virgin paper. As an institution, schools purchase so much paper that if schools started buying recycled content paper, the laws of supply and demand would dictate that the price of recycled content paper would come down.

Another variable in the "saving trees" argument is the fact that we need a continuous infusion of virgin fiber (new trees) in the paper supply. If you took a piece of virgin paper, and kept recycling it for reuse, you could only do that about nine times before the fibers would become too short to hold together in the form of a piece of paper. The truth is, unless our society becomes completely paperless, we cannot discontinue using trees for paper products through merely recycling. Still, if we must use paper, then we should buy recycled content paper, and recycle all the paper we can. If your campus provides ample collection points for paper and proper training to the campus community, it is possible to remove 100% of the paper from your waste stream, i.e. all the things you send to the landfill.

In communities in which parents and teachers have access to the Internet, it is a good idea to reduce the amount of paper being consumed by communicating via email and school web sites. When that approach is not entirely possible, you can print on both sides of the paper and utilize half sheets where practical. At the Charter Go Green School, Walnut Grove Elementary, the PTA had been spending nearly $10,000 per year printing weekly flyers for parents. After "going Green," they reduced that amount by over 75%, and had enough money to hire a part-time art teacher they had wanted to bring on campus for years. For families without Internet access, they made hard copies of all communication available, and opened their school computer lab for a few hours each week for parents who wanted to check the school website and email from teachers.

- List month-by-month activities and/or goals related to responsible paper consumption:

Month	Activity	Person(s) in charge
September		
October		
November		
December		
January		
February		
March		
April		
May		
June		

Appendix A:
Go Green Budget Planning Tool

You will find the excel spreadsheet version of the following table on the Go Green Initiative web site (www.gogreeninitiative.org). Click on the "Services" page and look under "Go Green Toolkit." The advantage to using the excel spreadsheet version is that it is easy to add or delete rows and it is designed to automatically tabulate your budget subtotals under each element of the Go Green Initiative and your overall program budget. However, feel free to use the table below if you prefer doing manual calculations.

Generate Compost

Resources needed to compost	Cost of each item
•	$
•	$
•	$
•	$
•	$
Subtotal for Composting	**$**

Recycle

Resources needed to recycle	Cost of each item
•	$
•	$

Appendix B:
Negotiating with Your Waste Hauler

The following checklist will help you establish the service you need from your waste hauler, in order to achieve maximum success with your campus recycling program. Even if your garbage contract is handled by your school district, and not your school site, the following negotiation points will help you intelligently participate in decision-making processes involving garbage and recyclable material removal from your campus.

√ What recyclables do you currently collect/have a market for? (Examples: paper, glass, plastics, aluminum, e-waste, printer cartridges, cell phones, etc.)

√ How do you prefer to have recyclables…
- Separated from garbage?
- Collected?
- Readied for pick-up?
- (Examples: special containers, how do we maintain acceptable levels of quality in our collection method?)

√ When/where will you pick up recyclables? Is there a charge, or will your cost for pick-up be absorbed in the profit you make from the recyclables we collect?

√ If we reduce our garbage volume as a result of removing recyclables from our waste stream, what can we expect our savings to be?

√ Will you pay us for recyclables we source separate, i.e. can we use recycling as a fundraiser?

√ If we sell recyclables, for which you have an established market, to another broker, will there be a negative impact on our garbage contract with you?

Appendix 1C

Year 1

Local Cable Access Bulletins

TOWN of AGAWAM
HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY

SATURDAY, JULY 17, 2004

9:00 AM - 12:00 NOON- **BY APPOINTMENT ONLY**

LOCATION: AGAWAM HIGH SCHOOL PARKING LOT, COOPER ST.

PROOF OF AGAWAM RESIDENCY REQUIRED
NO COMMERCIAL BUSINESSES

Each household will be limited to a quantity of waste equal to 25 gallons liquid or 25 pounds solid.

WHAT DO I BRING??

FROM THE HOUSE	FROM THE GARAGE	FROM THE WORKBENCH	FROM THE YARD
Rubber Cement	Gasoline\Kerosene	Oil Paints	Insecticides\Fungicides
Photo Chemicals	Antifreeze	Stains\Varnishes	Chemical Fertilizers
Furniture Polish	Engine De-greaser	Wood Preservative	Weed Killers
Oven Cleaner	Car Wax\Polish	Paint Stripper\Thinner	Flea Control Products
Drain\Toilet Cleaners	Driveway Sealers	Aerosol Cans	No-Pest Strips
Rug\Upholstery Cleaner	Roofing Tar	Adhesives	Pool Chemicals
Flourescent Light Bulbs			

** Propane Tanks may be dropped off for a $12 per tank disposal fee. **

WHAT NOT TO BRING!!

Empty Containers - **DO NOT BRING EMPTY PAINT CANS** - Empty paint cans can be thrown in your trash.
Latex Paint - Dry paint out by adding kitty litter. Leave dried out- opened cans near trash container on regular pick up day

What is stormwater?

Pure rain or snowfall plus anything it carries along with it.

As stormwater flows,
it picks up and carries away natural and human-made pollutants.

Unlike sewerage, stormwater is not treated.

Stormwater flows directly from our streets to waterways inhabited by fish, frogs and other aquatic animals and plants.

Next: Stormwater Pollutants

Stormwater Pollutants include:

- Excess fertilizers, herbicides, and insecticides
- Oil, grease, and toxic chemicals
- Bacteria from pet wastes, and faulty septic systems

Next: You Can Help!

You can prevent Stormwater Runoff Pollution!

- Use fertilizers and pesticides sparingly
- Never dump anything down storm drains
- Compost your yard waste
- Take your car to the car wash
- Check car for leaks, and recycle motor oil
- Pick up after your pet

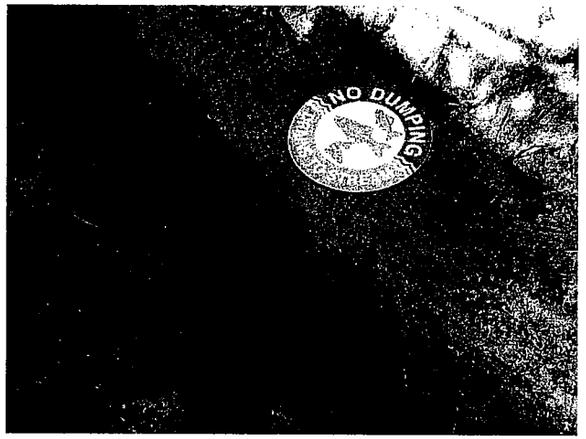
For more information, visit www.epa.gov/nps or www.epa.gov/npdes/stormwater

Attach Color Copy!

Coming Soon to a Street near You!

STORMDRAIN MARKERS!

Voluteers Wanted!



What is stormwater?
Pure rain or snowfall plus anything it carries along with it.
As stormwater flows, it picks up and carries away natural and human-made pollutants to *storm drains*.
Unlike sewerage, stormwater is not treated.
Stormwater flows directly from our streets to waterways inhabited by fish and other aquatic animals and plants.

Stormwater Pollutants Include:

Pollutants in stormdraiins flow to streams and wetlands.

<u>VOLUNTEERS</u> are needed to place stormdrain markers and help prevent illegal dumping in our Community.

CONTACT:

Tracy DeMaio
Agawam DPW-
Town Hall
413-786-0400 ext 286

Massachusetts Department of Environmental Protection
and the
Agawam Department of Public Works

Present

Healthy Lawns and Landscapes

*A **Free** Workshop*

Learn how to have a beautiful lawn and landscape that's healthy for your family, neighbors, pets and the environment!

Tuesday- April 26, 2005

7-9 pm

Agawam Public Library

Healthy Lawns and Landscapes Workshop Description

You can have a beautiful yard without using chemicals that may harm children, pets and the environment. In April and May, communities across the state will present free Healthy Lawns and Landscapes workshops led by Ann McGovern of the Massachusetts Department of Environmental Protection (DEP). Homeowners and landscapers are welcome to attend and may register by calling Tracy DeMaio, 786-0400 ext.286.

Pesticides and lawn chemicals may have unforeseen impacts on human health and can move through the soil into drinking water supplies, ponds, streams and rivers. Children and pets are especially susceptible to harmful effects of pesticides because of their size. Birds and other wildlife suffer injury and even death from long term exposure to traces of pesticides in the environment.

"With a few simple changes, you can have a beautiful lawn and landscape without the use of harmful chemicals," notes Ann McGovern, Consumer Waste Reduction Coordinator for the DEP. "By developing healthy soil, choosing plants that are appropriate for your site conditions and following some basic guidelines in caring for them, you can have a very rewarding, attractive landscape that contributes to the health of your family, neighbors, pets, wildlife and water quality."

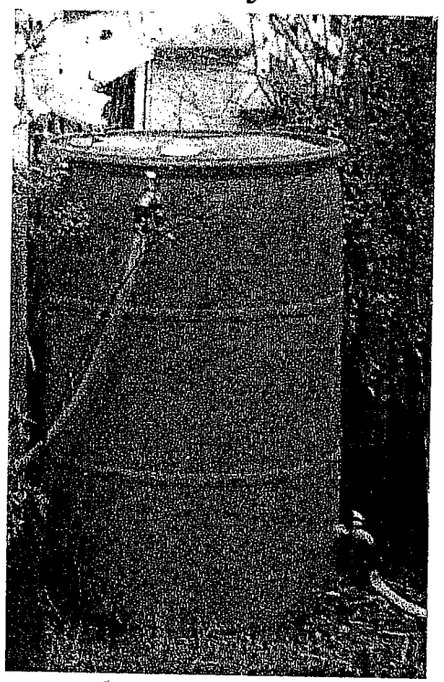
Developing healthy soil helps reduce or eliminate the need for synthetic fertilizers and pesticides in our lawns, gardens and landscapes. Learn how to create healthy soil by using compost, mulch and other practices. Learn what lawns need to grow well and what practices you can use to establish and maintain a healthy lawn with minimal inputs of chemicals, water, time and money. Many of these principles apply to other landscape plants as well. The workshop will be tailored to the topics of interest to the audience, such as:

- Health effects of pesticides;
- How to create healthy soil for lawns and landscapes;
- Simple steps to healthy lawns;
- Other healthy landscape choices (flowers, shrubs, trees, vegetables);
- Alternatives to pesticides and chemical fertilizers;
- Resources for more information.

Come and learn some simple techniques you can use in your own yard. Working with nature, you can create conditions in which life in and beyond your yard can thrive. YOU can be part of the solution to pollution.

Interested in Conserving Water?

Keep your garden green
all summer long with
an environmentally-friendly
rain barrel from



THE NEW ENGLAND RAIN BARREL COMPANY

SPECIAL OFFER

Agawam area residents
can get
The New Englander
for only **$ 62** Regular price $85

Offer expires May 6 , 2005

To order, call toll free: (877) 977-3135,

Appendix 1D

Year 1

Community Website Updates

TOWN OF AGAWAM -DEPARTMENT OF PUBLIC WORKS

REGULATIONS FOR SOLID WASTE COLLECTIONS

GENERAL REQUIREMENTS

1. Only one-family through four-family dwellings are eligible for solid waste collection service.

2. All refuse and recyclables to be collected shall be placed at the tree-belt by **7:00 A.M.** of the scheduled collection day, but **no earlier than 24 hours in advance of the collection day**. On days when more than one class of materials are being collected, the various items such as refuse, recyclables, bulky items, yard waste, etc. shall be **placed separate and apart from each other**.

3. **Paper products for recycling** shall be placed in a paper bag and set out on top of, or next to, the blue recycling container.

4. Residents who do not participate and comply with the **mandatory recycling provisions** are subject, after one notice, to fines of up to $50 for each violation. **This will be enforced to reduce disposal costs.**

5. Residents who experience problems with the collection service may telephone the collection contractor, **Browning-Ferris Industries, Inc. at 592-9411** or the Department of Public Works at 786-0400, Ext. 286, 224, 225, 274.

.6. **Refuse collection** will be weekly. The **collection of recyclables** will be bi-weekly throughout the year. The dates for recyclable and other collections are indicated on the collection schedule.

7. Materials placed on the tree-belt in noncompliance with these regulations and the Schedule of Collections must be removed therefrom within **48 hours following a collection day.**

REFUSE

1. **All refuse must be in containers**. Allowable containers are: Metal or plastic containers having a maximum capacity of 30 gallons and two handles, one on each side; or plastic bags having a maximum capacity of 7 cubic feet. **No cardboard boxes or paper bags may be used**. Wood or coal ashes must be placed in plastic bags.

2. **Refuse** means the solid wastes generated from the operation of a household including garbage, lumber and wood with no dimension greater than 3 feet and no exposed nails.

   Branches from 1"-3" in diameter and not over 3 feet in length will be collected if tied in bundles weighing less than 50 pounds.

   SPECIFICALLY EXCLUDED ARE THE FOLLOWING: YARD WASTES, INCLUDING LEAVES, GRASS CLIPPINGS, HEDGE TRIMMINGS, BRUSH, AND BRANCHES UNDER 1" IN DIAMETER: stumps; trees; tree trunks or parts thereof; automobile bodies and motors or parts thereof; lead acid batteries; metal pipes; demolition waste including insulation, masonry, concrete, bricks, pipe, plaster, sheetrock, asphalt shingles and stone; bulky wastes; BUTTON BATTERIES; RECHARGEABLE BATTERIES; liquid wastes; hazardous wastes; materials to be recycled; and RADIOACTIVE MATERIAL found in smoke detectors, chemotherapy treatment waste or by-product.

3. During the months of May through September, inclusive, garbage shall not be placed loosely in barrels but shall be wrapped in paper or placed in closed bags within the barrel.

4. Containers should not be loaded to such a weight that they cannot be lifted by one person.

5. One RUBBER TIRE without rim may be disposed of per collection.

BULK COLLECTION (NOW BY APPOINTMENT)

Residents **MUST** call the collection contractor, **BFI**, at **(413) 592-9411** to arrange for a bulk item collection. Residents may arrange for **one collection per month** and up to **five (5) items** will be taken per collection. Items to be collected must originate from the resident's household and must be placed on the tree-belt. Collection appointments will be made within 30 days of your call, usually much sooner. **Please do not call the Town Hall Offices for an appointment, we cannot schedule the collections, you must do so directly with BFI.**

ITEMS TO BE COLLECTED INCLUDE: Plumbing fixtures, furniture, mattresses, bedsprings, stoves, refrigerators, freezers, clothes washers, clothes dryers, dishwashers, air conditioners, water heaters, power equipmcnt if gas and oil are drained, and other bulky wastes. *** **Any refrigerator, freezer, air conditioner or dehumidifier to be collected must have a certificate affixed thereto, by a qualified technician, that all freon (CFC's) have been removed.**
Contact your appliance service firm for this service.

MATERIALS SPECIFICALLY EXCLUDED FROM THE BULK COLLECTIONS: Household rubbish; garbage; liquid wastes of any kind; home heating oil tanks unless cut in half and cleaned of all oil; rubber tires, propane tanks, automobile chassis, bodies, engines, parts and batteries; concrete or masonry; tree stumps, trunks, branches, brush, bushes, lawn clippings, leaves, and hedge trimmings; metal cans and drums or containers unless an end has been removed and it can be ascertained that no material remains in the container; lumber; sheet rock; materials from the operation of a household business; and **hazardous waste.**

MANDATORY RECYCLING

Please use the following guidelines when recycling:

CONTAINERS

Place Clean, Rinsed Containers in BLUE RECYCLING CONTAINERS*

- **METAL CANS (Rinse)**
- **ALUMINUM Foil, Cans and Trays (Clean Only)**
- **GLASS BOTTLES-All Colors, Less than 2 Gallons (Rinse, Unbroken)**
- **PLASTIC Bottles, Jars, Tubs, Microwave Trays (Rinse, Remove Caps, lids, pumps, and wraps)**

MIXED PAPER

Place in a PAPER BAG and set them on top of, or next to, recycling container*

Note: Do Not use Plastic Bags to hold paper recycling

- **NEWSPAPERS/INSERTS**
- **MAGAZINES/CATALOGS**
- **PAPER BAGS**
- **WHITE & COLORED OFFICE PAPER**
- **COMPUTER PAPER**
- **PAPERBACKS & PHONE BOOKS (Remove Covers)**
- **JUNK MAIL**
- **BOX BOARD -Cereal, Shoe, Cracker Boxes, Etc. (Remove Plastic Liners)**
- **CORRUGATED CARDBOARD (Must be flattened and NO LARGER THAN 2' x 3')**

OTHER

- **TELEVISION & COMPUTER SCREENS -**
  Call BFI 592-9411 to arrange for pickup
- **BUTTON BATTERIES-**
  Call Town Hall 786-0400 x286 for drop-off locations

- **HAZARDOUS WASTE-**
  Call Town Hall 786-0400 x286 for collection dates
- **PAINT, ANTI-FREEZE-**
  Call Town Hall 786-0400 x286 for collection dates
- **WASTE OIL & USED CAR BATTERIES-**
  Drop off at Town Garage - 1347 Main Street, M-F 8-3
  NO TWO-CYCLE MIX, or contaminated oil allowed!!

DO NOT INCLUDE

NO PLASTIC BAGS OR WRAPS

NO BOTTLES USED FOR HAZARDOUS MATERIALS (Antifreeze, Oil, etc.)

NO LIGHT BULBS, WINDOW OR AUTO GLASS, PYREX CERAMICS, MIRRORS, DRINKING GLASSES, VASES, OR BROKEN GLASS

NO STYROFOAM CONTAINERS, FLOWER POTS, DISHES OR CROCKERY

NO COAT HANGERS (Metal OR Plastic)

NO AEROSOL CANS, PROPANE TANKS, SCRAP METAL, OR METAL OBJECTS

QUESTIONS? Please contact Agawam's Recycling Coordinator at 786-0400 ext. 286.

***Additional Recycling Bins are available at the Deparment of Public Works, M-F 8:30am-4:30pm**

Additional Recycling Links:

http://www.springfieldmrf.org
http://www.mass.gov/dep/recycle/recycle.htm

HOUSEHOLD
HAZARDOUS WASTE

What items are Hazzardous Waste?

Watch for details onthe next Houshold Hazzardaous Waste Event to be scheduled in 2005.
DO NOT dispose of these items in your regulare trash pick up!

FROM THE HOUSE	FROM THE GARAGE	FROM THE WORKBENCH	FROM THE YARD
Rubber Cement	Gasoline\Kerosene	Oil Based Paints	Insecticides\Fungicides
Photo Chemicals	Antifreeze	Stains\Varnishes	Chemical Fertilizers
Furniture Polish	Engine De-greaser	Wood Preservative	Weed Killers
Oven Cleaner	Car Wax\Polish	Paint Stripper\Thinner	Flea Control Products
Drain\Toilet Cleaners	Driveway Sealers	Aerosol Cans	No-Pest Strips
Rug\Upholstery Cleaner	Roofing Tar	Adhesives	Pool Chemicals
Flourescent Light Bulbs			
Mercury Thermometers			
Button Batteries.			

NEVER DUMP ANYTHING DOWN STORM DRAINS!!!

Used Motor Oil & Used Car Batteries - Theses items can be brought to the DPW Garage, 1347 Main Stree, M-F 8am-3pm

Empty Paint Cans - leave unopened next to you trash containers on

What is Stormwater?

Stormwater is pure rainwater plus anything the rain carries along with it.

Rain or snow that falls on the roof of your house, or collects on paved areas like driveways, roads and footpaths is carried away through a system of pipes that is separate from the sewerage system. As the water moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. Unlike sewage, **stormwater is not treated**. In some cases it's filtered through traps, usually located at the end of the pipe system, but it still flows directly from streets and gutters into our waterways. Straight from your street to waterways inhabited by fish, frogs and other aquatic animals and plants.

For more information about stormwater, visit:
www.epa.gov/nps
www.mass.gov/dep/brp/stormwtr/aboutstm.htm

Stormwater Pollutants Include:

- Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas;
- Oil, grease, and toxic chemicals from urban runoff and energy production;
- Sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks;
- Bacteria and nutrients from livestock, pet wastes, and faulty septic systems

Healthy Habits

The most effective way to reduce stormwater pollution is to stop the pollutants from entering the system in the first place.

- Use fertilizers sparingly and sweep up driveways, sidewalks and roads
- Never dump anything down storm drains
- Vegetate bare spots in your yard
- Compost your yard waste
- Avoid pesticides: learn about Integrated Pest Management
- Direct downspouts away from paved surfaces
- Take your car to the car wash instead of washing it in the driveway
- Check car for leaks, and recycle motor oil
- Pick up after your pet
- Have your septic tank pumped and system inspected regularly

For more information regarding Healthy Habits visit the following websites:

Car Washing: http://www.mass.gov/dep/brp/wm/files/carswash.pdf
Car Care: http://www.mass.gov/dep/brp/wm/files/oilspill/pdf
Pet Wastes: http://www.mass.gov/dep/brp/wm/files/petwaste.pdf

Lawn and Garden

Yard Waste can clog storm drains, which can result in localized flooding.

- Do not allow soil, leaves or grass clippings to accumulate on your driveway, sidewalk or on the street.
- Compost yard waste and use it to condition your soil.

Fertilizers contain large amounts of phosphorus and nitrogen, which can cause algae blooms in aquatic areas. These blooms deplete oxygen in the water and can kill a large number of fish.

- Avoid the use of fertilizers.
- Use native vegetation to reduce maintenance.
- Test soil every 3 to 4 years to maintain proper nutrients.
- Use organic fertilizers such as manure and compost.
- If you use fertilizers, read the label carefully and do not over apply!
- Sweep, do not was any excess fertilizers or soil off driveways or walkways.
- Never apply before it rains or on a windy day.

Pesticides and Herbicides contain toxic materials that are harmful to humans, animals, aquatic organisms and plants.

- Carefully follow the directions on the label. DO NOT OVERAPPLY.
- Minimize the use of herbicides and pesticides.

Septic Systems

Septic systems can provide long-term, effective treatment of household wastewater if properly designed, constructed and maintained. Failing septic systems can contaminate the ground water that you or your neighbors drink and can pollute nearby rivers, lakes and coastal waters

Failing septic systems are expensive to repair or replace. Keeping your septic system in working condition will save you money!

Here are **ten simple steps** you can take to keep your septic system working properly.

1. Locate your septic tank and drainfield. Keep a drawing of these locations in your records.
2. Have your **septic system inspected** at least every three years.
3. **Pump your septic tank** as needed (generally every three to five years).
4. Don't dispose of household hazardous wastes in sinks or toilets.
5. Keep other household items, such as cigarette filters, coffee grounds, grease, dental floss, feminine hygiene products, condoms, diapers, and cat litter out of your system.
6. Use water efficiently.
7. Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the system. Also, do not apply manure or fertilizers over the drainfield.
8. Keep vehicles and livestock off your septic system. The weight can damage the pipes and tank, and your system may not drain properly under compacted soil.
9. Keep gutters and basement sump pumps from draining into

For more information regarding maintaining your septic tank and a septic tank works, go to:
http://www.epa.gov/owm/septic/pubs/homeowner_guide_long.pdf

Appendix 1E

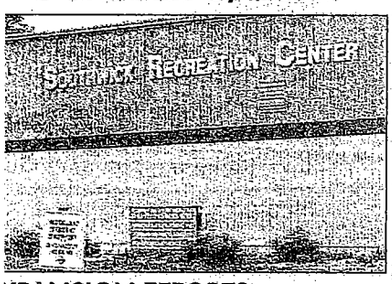
Year 1

Newspaper Press Releases

The MetroWest
Reminder

DVD REVIEWS
Page 12

OCTOBER 6, 2004



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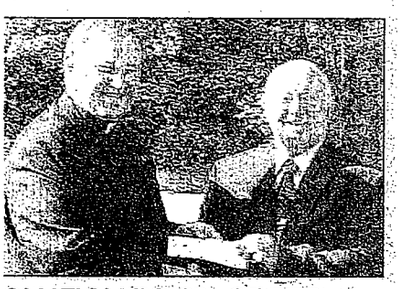

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ıge 4

JND-RAISER

Agawam schools 'Go

By Michelle Kealey
Staff Writer

AGAWAM – Students in all of Agawam's schools will be learning much more about recycling this year and in the years to come.

The city recently became part of the Go Green Initiative (GGI) and is the first Massachusetts city or town to adopt the program.

Jill Buck, executive director and creator of the GGI, explained that she started the program a few years ago because she was interested in protecting children's health.

She said that there are some things that go on in schools that could use improvements.

For example, she said many schools do not do simple things like recycle.

She added that she had walked into classrooms and saw valuable recyclables that were not being recycled.

Buck tried to find a program that she could utilize in her city in California to help schools raise awareness about recycling, but no such programs existed.

As a result, she started the GGI, which has spread to six other states.

Buck explained that the GGI helps cover everything that may improve the environment in the schools, such as energy, recycling, the pesticides used and purchasing recycled paper.

She added that the program is unique because it brings parents, teachers, principals and students together to create an environmentally conscious campus.

"Go Green's main goal is a team effort," she said.

Buck explained that the GGI is an ongoing pr
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Please see

Go Green

Continued from page one

were supportive.

DeMaio said she began to meet with the school principals and they began to evaluate what they were already doing in the schools to recycle.

She said that many of the schools have a solid recycling foundation in place, and the GGI will help enhance the schools' efforts.

Now, in Agawam Junior High School, for example, DeMaio said that there are recycling bins in each of the classrooms.

As a new recycling effort, Demaio explained that many of the schools have begun to recycle items in the cafeteria. The cafeteria employees have begun to recycle all of the cans that are empty once the lunches are prepared.

DeMaio said that there has been three groups that are very supportive of the GGI – the custodial staff, the cafeteria staff and the school staff and administration.

She added that she has many more ideas and plans for Agawam and the GGI, but she doesn't "want to overwhelm anyone."

She said she wants to implement one program at a time, beginning with recycling. "Each school has their own set of goals," she said.

She also plans to do some research to make sure that the schools are using recycled paper.

DeMaio said that by implementing a strong recycling program in the schools, children will begin to bring their recycling habits home.

She added that the GGI supports the current curriculum as well.

"It is a great opportunity for Agawam. It will strengthen the recycling efforts and will benefit the students and adults," DeMaio said. "I am proud of the efforts made here and I am proud to be chosen as the pilot program [in Massachusetts]."

She added that she wants to make Go Green proud that they chose Agawam and "we will."

Agawam School Superintendent Mary Czajowski said that she wanted to know more about the program before she committed to the city's participation as the pilot program.

After learning about the background of the GGI and finding out more information, she thought the GGI would be a "wonderful opportunity to support school recycling."

Czajowski said teaching children more responsibility about recycling is important.

"It is a school-wide and district-wide effort to teach people about recycling," she said. "It is a wonderful teaching tool for children."

She added that the children may bring home their recycling habits, creating a home-school connection.

Czjakowski said that the school administration plans to officially kick-off the GGI in a positive light. She said that if she can get other administrators and principals on board, she may have them "Go Green" by spraying their hair green for a day to promote the program.

"It would certainly get the attention of the kids," she said.

She added that other options include special tee shirts or hats.

Apprentice

Continued from page one

"He kind-of knew that I was a mover and a shaker – he thought it was kind-of funny," Cohen added.

In addition to dining regularly with judges, and networking with others in the business world, Cohen said he also does charity work with the Miami Dolphins football team and Big Brothers/Big Sisters ("I'm still a Big Brother," he said). These affiliations allow him to give back to the community, but they also open doors for him.

"I get more and more connections," he said. "I represent some Dolphins players and a couple of rap stars."

In addition to building up his law practice, Cohen added that his real estate business has not suffered, either.

"I have multiple rental properties in Dade County and Broward County and I just started a residential program in Lehigh Acres – it's all single family homes," he explained.

And that brings us up to the taping of *The Apprentice 2*.

Trying for a piece of Trump's empire

Cohen explained that he was told by friends and colleagues that he should apply for the hit NBC show featuring billionaire developer Donald Trump and his search for a candidate who he can trust to run one of his companies.

"The first person [to tell me to apply for the show] was a judge I'm friends with, Robert Diaz, who I have breakfast with every morning," Cohen said. "Associates who work for me also thought it was a great idea – so I sent in a tape."

The tape, he explained, could have been taken as a joke.

"I conducted the interviews ... the whole tape was interviews of people I work with, including an interview with my nephew asking him questions about why his uncle is the greatest businessman he knows," Cohen explained. "At four, he doesn't know many businessmen so it was pretty easy to win him over."

But someone was impressed, because he heard from the producers shortly after submitting the tape.

Apprentice 2 triumphs and tragedies we see on national television each Thursday, were chosen from that pool.

Looking back on his *Apprentice* experience, Cohen said his business background served a bit as a double-edged sword.

"It was one of those things – sometimes your biggest asset is your greatest liability," he said. And his leadership skills were not jiving with Donald Trump's in the second episode of the season – Cohen's final episode on the show.

"For someone who doesn't have [business] partners and leads through strict leadership – I don't require a lot of input from others," he reflected.

He used his experience leading the women's team in task one on the show as an example of difference in management styles.

He said he thought the women on *The Apprentice 2* made too many lists which took up precious limited time before coming to a conclusion about a task.

"There's not a lot of lists," he

Cohen recently visited his hometown of Longmeadow and his colleagues at Semolina Bread Co. While there, he scooped "Red Velvet" ice cream created for Ciao Bella ice

Town of Agawam

Agawam, Massachusetts 01001-1837

For Immediate Release:

November 23, 2004

Media Contact:
Tracy DeMaio
413-786-0400 ext.286

Department of Environmental Protection
Awards the Town of Agawam

Agawam, MA - The Department of Environmental Protection has awarded the town of Agawam a Municipal Recycling Grant to help their schools create a sustainable chemical management system as well as the clearing out of any stockpiled chemicals. This grant award is valued at up to $5,000.

The goals of this program are to reduce the purchasing of unnecessary chemicals, safely manage the chemicals necessary for classroom instruction, management of the physical location, and to avoid future stockpiling. The town of Agawam will receive professional hazardous waste management services to perform a chemical inventory, training on chemical hazardous awareness and how to establish and implement a chemical management plan.

Through this grant, the Town of Agawam will be establishing an environmental health and safety team to develop and implement a chemical management plan. Pleased with this opportunity, Mayor Richard Cohen states "This grant will help Agawam continue its strong initiative to meet high standards of compliance in maintaining a healthy and safe environment, now and for the

Reminder 12/8/04

School Chemical Clean-out/ Proper Disposal

Agawam

Agawam receives Municipal Recycling Grant

By Michelle Kealey
Staff Writer

AGAWAM – With the help of a grant from the Department of Environmental Protection (DEP), the city will be able to further its recycling efforts.

The DEP recently awarded the city with a $5,000 Municipal Recycling Grant, which will help the schools and the city to establish a chemical management system.

Tracy DeMaio, recycling coordinator in Agawam, explained that she applied for the grant in September. The applicants could request help in a number of areas under this one grant.

She said that she chose to apply for assistance in chemical management because it fits in with the Go Green Initiative that has recently been adopted in Agawam.

Agawam is the first city in Massachusetts to adopt the Go Green program, which is designed to create awareness about recycling in the schools and to have students and staff actively participate in recycling programs to help improve and protect the environment in the city.

"We are tackling different areas of the program," she said.

DeMaio said that since she has been recycling coordinator, she does not recall having any technical assistance in the area of chemical management.

The DEP grant does not give the city direct cash to utilize. Instead, DeMaio explained that the DEP will give the city technical assistance.

"They will send someone with experience to help us evaluate what we are currently doing in the schools," she said.

After the evaluation, the DEP will assist the city in developing a chemical management plan.

DeMaio said that she will not know the details or the process of the program until the DEP assigns someone to work with the city, but she believes that they will start with evaluating the chemicals us the classroom as well as cle supplies.

The grant will allow Ag and its schools to reduc purchasing of unnece chemicals, to learn how to s manage chemicals used i classroom, how to manag location of the chemicals as w how to avoid future stockpili the chemicals.

DeMaio said that a tean be created within the city to with the chemical project. Sh the members will include her member from the cher management team, the high sc and the Fire Department.

For Immediate Release
Contact: Tracy DeMaio
786-0400 ext.286

Agawam DPW sponsors a hit presentation
" A Litter Big Goes A Long Way"
to area Elementary Schools

Agawam – What happens when Americas favorite Trashologist and a game show host get together? Laughter and learning about Litter Prevention!!

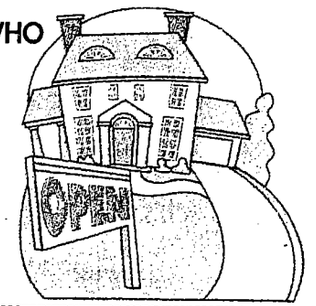
The town of Agawam has been awarded funding from the Springfield Materials Recycling Facility Mini-grant fund. The goal of the mini grants is to fund local projects that increase recycling awareness. The DPW has chosen to hire Jack Golden from Greenfield, MA to present his hit assembly presentation, "**A Litter Bit Goes A Long Way**".

In previous years, Mr. Golden has presented his familiar "Garbage Is My Bag" presentation to 3rd and 4th grade students. On February 28th and March 2nd, Jack Golden will be providing another 45-minute assembly presentations at each of the 4 elementary schools, "**A Litter Bit Goes A Long Way**". The 3rd and/or 4th grade students will yet

drains. Using a fast paced, age appropriate manner, with a blend of mime, comedy, song, circus skills and dramatic story, Jack Golden will explore a serious issue of our wasteful habits with the students. The goal of the presentation is to strengthen new attitudes and responsibilities towards our neighborhood and community in a hilarious yet professional manner, supporting the Massachusetts Curriculum Frameworks as well as Agawam's local solid waste program.

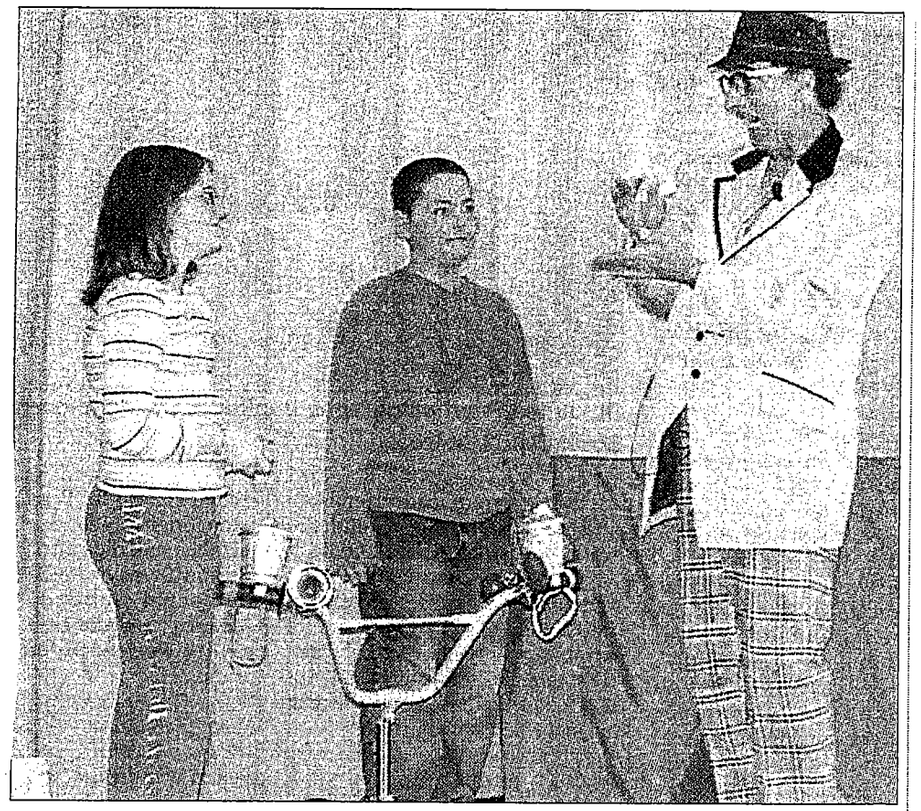
The MetroWest
Reminder
Your Connection To The Community Since 1962
Serving Agawam, West Spring

WHO'S WHO IN REAL ESTATE
Page 25



MARCH 9, 2005

A LITTER BIT GOES A LONG WAY



Jack Golden of Greenfield, Mass. visited Robinson Park Elementary School to help teach children about litter and the importance of placing trash where it belongs – in a trash can. Above Aleh Hodge, third grader, and Stephen DePalma, fourth grader, compete in the game show "A Better World with Les Litter," with the host, Les Litter.

MetroWest Reminder photo by Michelle Kaplan

FOR IMMEDIATE RELEASE
Town of Agawam Department of Public Works
Contact: Tracy DeMaio

HEALTHY LAWNS AND LANDSCAPES COME TO AGAWAM!

You can have a beautiful yard without using chemicals that may harm children, pets and the environment. On Tuesday, April 26th the Massachusetts Department of Environmental Protection and the Agawam Department of Public Works will present a FREE Healthy Lawns and Landscapes Workshop led by Ann McGovern of the Massachusetts Department of Environmental Protection (DEP). The workshop will be held at the Agawam Public Library, 750 Cooper Street. To register for the workshop, call Tracy DeMaio at 786-0400 ext.286

Pesticides and lawn chemicals may have unforeseen impacts on human health and can move through the soil into drinking water supplies, ponds, streams and rivers. Children and pets are especially susceptible to harmful effects of pesticides because of their size. Birds and other wildlife suffer injury and even death from long term exposure to traces of pesticides in the environment.

"With a few simple changes, you can have a beautiful lawn and landscape without the use of harmful chemicals," notes Ann McGovern, Consumer Waste Reduction Coordinator for the DEP. "By developing healthy soil, choosing plants that are appropriate for your site conditions and following some basic guidelines in caring for them, you can have a very rewarding, attractive landscape that contributes to the health of your family, neighbors, pets, wildlife and water quality."

Come and learn some simple techniques you can use in your own yard. Working with nature, you can create conditions in which life in and beyond your yard can thrive. YOU can be part of the solution to pollution.

PRESS RELEASE
FOR IMMEDIATE RELEASE
April 11, 2005

FOR MORE INFORMATION CONTACT:
TRACY DEMAIO, Stormwater Project Coordinator
413-786-0400 X 286

THE TOWN OF AGAWAM OFFERS RAIN BARREL WATER CONSERVATION PROGRAM

The Town of Agawam is pleased to announce that The New England Rain Barrel Company is offering the residents of Agawam rain barrels as a way to conserve water and help the environment. A rain barrel collects water from the roof when it rains and stores it for use during dry conditions and when water ban restrictions are in place. For a limited time, the rain barrels can be purchased by Agawam residents for $62 each, a $23 discount off the retail price of $85.

The average homeowner uses approximately 40% of water for outdoor use. A one inch rainfall on a 1,200 square foot roof will yield over 700 gallons of water. Using a rain barrel is an excellent way to conserve some of this water. A quarter inch run-off from an average roof will easily fill the barrel. If you have 5 storms a season, that equals 275 gallons of free water

The rain barrels are made from 55 gallon blue plastic recycled containers. The top does not come off, keeping children or pets from getting in the barrel. It has a six inch diameter inlet opening, covered with a screened louver to keep insects and debris out. The barrels have 2 brass spigots; one to allow you to connect a hose for watering, and one for overflow. You can connect a hose to the overflow spigot and redirect the water away from your home. It even comes with a 5 foot hose with a shutoff valve. You can join multiple barrels for additional capacity.

The company will be taking orders through May 6th and has scheduled a general delivery of the rain barrels on Saturday May 14 at Agawam Town Hall from noon to 3 pm. If you're interested in ordering a rain barrel, call The New England Rain Barrel Company at 877-977-3135 or order online at www.nerainbarrel.com.

Appendix 1G

Year 2

Community Outreach

When your car leaks oil on the street,
Remember
it's not *just* leaking oil on the street.

Leaking oil goes from car to street. Then it gets washed from the street into the storm drain and into our lakes, rivers, and streams. Now imagine the number of cars in the area and you can imagine the amount of oil that finds its way from leaky gaskets into our water. So please, fix oil leaks.

Clean water is important to all of us.

It's up to all of us to make it happen. In recent years, sources of water pollution like industrial wastes from factories have been greatly reduced. Now, more than 60 percent of water pollution comes from things like cars leaking oil, fertilizers from farms and gardens, and failing septic tanks. All these sources add up to a big pollution problem. But each of us can do small things to help clean up our water too—and that adds up to a pollution solution!

Why do we need clean water?

Having clean water is of primary importance for our health and economy. Clean water provides recreation, commercial opportunities, fish habitat, drinking water, and adds beauty to our landscape. All of us benefit from clean water—and all of us have a role in getting and keeping our lakes, rivers, streams, marine, and ground waters clean.

What's the problem with motor oil?

Oil doesn't dissolve in water. It lasts a long time and sticks to everything from beach sand to bird feathers. Oil and petroleum products are toxic to people, wildlife, and plants. One quart of motor oil can pollute 250,000 gallons of water, and one gallon of gasoline can pollute 750,000 gallons of water! Oil that leaks from our cars onto roads and driveways is washed into storm drains, and then usually flows directly into a lake or stream. Used motor oil is the largest single source of oil pollution in lakes, streams, and rivers. Americans spill 180 million gallons of used oil each year into the nation's waters. This is 16 times the amount spilled by the Exxon Valdez in Alaska!

Clean Water Tips:

How can you fertilize and help keep our waters clean?

Check for oil leaks from your vehicle regularly and fix them promptly!

Never dispose of oil or other engine fluids down the storm drain, on the ground, or into a ditch. Recycle used motor oil. For more information on recycling, contact the closest DEP regional office.

Buy recycled oil to use in your car.

Use ground cloths or drip pans beneath your vehicle if you have leaks or are doing engine work. Clean up spills!

To find out more about the impacts of nonpoint source pollution and what you can do to prevent it, call the numbers listed below.

MDC
617/727-5114

EPA New England
617/918-1111

When you fertilize the lawn, *Remember* you're not *just* fertilizing the lawn.

It's hard to imagine that a green, flourishing lawn could pose a threat to the environment, but the fertilizers you apply to your lawn are potential pollutants! If applied improperly or in excess, fertilizer can be washed off your property and end up in lakes and streams. This causes algae to grow, which uses up oxygen that fish need to survive. So if you fertilize, please follow directions and use sparingly.

Clean water is important to all of us.

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What's the problem with fertilizers?

Fertilizer is a "growing" problem for lakes, rivers, and streams, especially if it's not used carefully. If you use too much fertilizer or apply it at the wrong time, it can easily wash off your lawn or garden into storm drains and then flow into lakes or streams. Just like in your garden, fertilizer in lakes and streams makes plants grow. In water bodies, extra fertilizer can mean extra algae and aquatic plant growth. Too much algae causes water quality problems and makes boating, fishing, and swimming unpleasant. As algae decay, it uses up oxygen in the water that fish and other wildlife need.

Clean Water Tips:

How can you fertilize and help keep our waters clean?

Use fertilizer sparingly. Many plants don't need as much fertilizer or need it as often as you might think.

Don't fertilize before a rain storm.

Consider using organic fertilizers. They release nutrients more slowly.

Have your soil tested before applying fertilizers to your lawn and gardens. A standard soil test costs $8.00. You may not need to add any fertilizer. (Call the UMass Extension Soil Testing Lab at 413/545-2311 or download a soil test order form at www.umass.edu/plsoils/soiltest.)

To find out more about the impacts of nonpoint source pollution and what you can do to prevent it, call the numbers listed below.

MDC
617/727-5114

617/626-1540

EPA New England
617/918-1111

Massachusetts Department of Environmental Protection

Town of Agawam

Agawam, Massachusetts 01001-1837

Maintenance Reminder

Why am I receiving this reminder?

- DPW records indicate a detention pond is located on your property.
- Per Town Code, Detention Ponds must be maintained by the owner of the property.
- The recommended minimum is that the area be mowed two times per year.

Why do I need to mow the detention pond?

- Mowing within the fenced area of the detention pond will reduce weed growth.
- Reduced weed growth improves the functioning of the pond and reduces clogging.
- The recommended times to mow are Spring and Fall.
- Mowing according to this schedule reduces the need for future high-cost maintenance.

Thank you for your cooperation in maintaining the detention pond area.

Appendix 2A

Year 2

Adopt-a-Road

Organna

Town of Agawam

36 Main Street Agawam, Massachusetts 01001-1837

Tel. 413-786-0400 Fax 413-786-9927

Dear Valley Brook Rd. -OR- Forest Hills Rd. Resident: May 12, 2004

Recently the Conservation Commission has received complaints about trash, debris, and yard waste being dumped into the brook, which is behind your property. The Conservation Commission and the Town of Agawam asks for your assistance in this matter.

Please do not put grass clippings, branches, leaves, other yard waste, or trash into the brook.

The Massachusetts Wetland Protection Act prohibits dumping into this area. Also, debris in the brook can cause restrictions in the water flow and potentially cause flooding during rain events. It is for the good of the neighborhood that the stream be kept free of trash and debris.

If any residents are interested in volunteering to do a stream clean-up on a weekend this summer, contact the DPW office in Town Hall at 786-0400 x275 to get DPW's assistance. DPW will provide trash bags and will pick up the materials for disposal on the Monday after the cleanup is complete.

STREAM CLEAN-UP PROCEDURE

- A group of residents must chose to participate.
- These residents must decide on a weekend to complete the clean-up.
- One representative can contact DPW at 786-0400 x275 to get DPW assistance.
- DPW can provide trash bags. Coordinate time to pick up the trash bags from Town Hall.
- Coordinate the location that the trash materials will be left.
- Schedule the following Monday for DPW to pick up the trash, 2 weeks notice please.

Working together, Agawam can preserve important water resources. Thank you for your anticipated cooperation.

Tracy DeMaio

From: Ruth Bushey [radb61@comcast.net]
Sent: Monday, February 28, 2005 11:15 PM
To: tdemaio@agawam.ma.us
Subject: Neighborhood Clean-up Project

Dear Tracy~
I am a friend of Sue Tapply's and got your email address off of a forward from her. I happen to co-ordinate a local homeschool Co-op and several of our members are interested in finding out more about your neighborhood clean-up project.
How old do the children need to be?
How many children are needed?
What exactly do you mean by "clean-up"?
Where and When?

A few more questions remain, but there is a lot of interest within our group so please contact me at your earliest convenience. We can talk about organizing the details.
Thanks!
Ruth Bushey
127 Roosevelt Ave.
Feeding Hills
413-786-6356 (Home)
413-642-0339 (Work/Cell)

Tracy DeMaio

From: Tracy DeMaio [tdemaio@agawam.ma.us]
Sent: Tuesday, March 01, 2005 10:11 AM
To: 'Ruth Bushey'
Subject: RE: Neighborhood Clean-up Project

Ruth –
I wanted to thank you for taking the time to speak with me today. As we had discussed, the Agawam DPW is searching for volunteer groups to help clean up areas in Agawam that have been neglected by residents and or visitors, having left trash and unwanted waste behind. The areas of clean up will be determined once the snow melts in early Spring.

I understand that your group contains a wide range of ages. We can certainly work together to make sure all ages take part in this volunteer effort, helping make a difference in our community.

Some ideas we had discussed were:

1. Partnering younger students with older "Clean up Buddies" to monitor the safety of the younger ones.
2. DPW will provide gloves and trash bags to all volunteers.
3. DPW will send out Press Releases to local newspapers and TV stations to further volunteer group recognition for their efforts.
4. DPW will pick up all trash bags curbside in clean up areas.
5. Volunteer group can certainly recommend clean up areas based on needs they see in their community or neighborhood.

Again, if you have any further questions or concerns, please feel free to contact me at any time! In addition, I would be more that happy to attend one of your group meetings to answer any questions your parents have. Otherwise, I will contact you early spring to further discuss areas of concentration to be cleaned up.

Thank you again for your time! The Agawam Department of Public Works looks forward to working with your students in the near future!!
Sincerely,
Tracy

Tracy M. DeMaio
Town of Agawam DPW
Solid Waste & Stormwater Project Coordinator
413-786-0400 ext.286

Appendix 2B

Year 2

Attitude Surveys

urvey

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to the DPW.

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Systems
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3. *Stormwater goes to the treatment plant.*
   - *A. Yes*
   - *B. No*

4. *Stormwater Pollutants Include:*
   - *A. Chemical Pollution: fertilizers, detergent, oil.*
   - *B. Litter: cigarettes, paper, plastic*
   - *C. Natural Pollution: pet waste, leaves, yard waste*
   - *D. All of the Above*

5. *Septic Systems should be inspected:*
   - *A. Once a year*
   - *B. Once every 3-5 years*
   - *C. Once every 10 years*

6. *Chlorinated swimming pool water should be drained into stormdrains.*
   - *A. Yes*
   - *B. No*

7. *What are detention ponds?*

   _____

   _____

   _____

   _____

8. *I can put the following in the catch basin:*
   - *A. Leaves*
   - *B. Grass Clippings*
   - *C. Trash and Cigarette Buts*
   - *D. None of the above*

9. *Have you ever attended a local Household Hazardous Waste Day Event in Agawam?*
   - *A. Yes*
   - *B. No*

10. *I dispose of Household Hazardous waste by:*

    _____

11. *Where do you dispose of used motor oil?*
    - *A. DPW Town Garage*
    - *B. Catch Basin*
    - *C. Behind my house*
    - *D. Other:* _____

12. *Comments:*

    _____

    _____

    _____

    _____

_____

Appendix 2C

Year 2

Catch Basin Marking

INVOICE

das
MANUFACTURING
INCORPORATED

3610 CINNAMON TRACE DR.
VALRICO, FL 33594
813-681-6024

No: 4119

Town of Agawam
Attn: Tracy DeMaio/DPW
36 Main Street
Agawam, MA 01001

INVOICE DATE	CUSTOMER P.O.	TERMS	SALESPERSON
12/23/04	91014	Net 30	#1

QUANTITY ORDERED	QUANTITY SHIPPED	DESCRIPTION	PRICE	AMOUNT
2000	2000	Duracast das Curb Marker #SDS	1.96	3920.00
60	60	das Curb Marker Adhesive	4.95	297.00
2000	2000	Door Hanger	.20	400.00
60	60	Hand Cleaner		N/C
6	6	Wire Brush		N/C
		Subtotal		4617.00
		Shipping		65.78
		Total		$4682.78

Town of Agawam

Agawam, Massachusetts 01001-1837

Coming Soon to a Street near You - Stormdrain Markers!

What is stormwater?

- Pure rain or snowfall plus anything it carries along with it.
- As stormwater flows, it picks up and carries away natural and human-made pollutants to *storm drains*.
- Unlike sewage, stormwater is not treated.
- Stormwater flows directly from our streets to waterways, inhabited by fish and other aquatic animals and plants.

Stormwater Pollutants Include:

- Excess fertilizers, herbicides, and insecticides
- Oil, grease, and toxic chemicals
- Bacteria from pet wastes, and faulty septic systems

Pollutants in stormdreains flow to streams and wetlands.

You can prevent Stormwater Runoff Pollution!

- Never dump anything down storm drains!
- Become a Stormdrain Marker Volunteer!

HOW CAN YOU HELP THE TOWN OF AGAWAM?

Volunteer to help prevent illegal dumping by marking stormdrains

Town of Agawam

Agawam, Massachusetts 01001-1837

413-786-0400 ext.286

October 20, 2004

Dear Mr. and Mrs. Kreps:

I would like to thank you for volunteering your troop to install storm drain markers throughout our community! This is a huge help to the Town of Agawam. Many people mistakenly believe that there is no problem with draining their wastes down stormdrains. Through your efforts, we can better educate the residents on proper waste disposal options through pollution prevention literature and marking strom drains with "No Dumping, Drains to Waterways" markers.

As previously discussed, this volunteer effort is dependent on grant funding. Once the town receives notification of our grant status, I will contact you.

Again, thank you for volunteering your time. Your willingness to participate in our initiative is a clear representation of your troops layalty to their community and environment. It will be an honor to partner with Troop 77 of Agawam.

Sinerely,

Tracy M. DeMaio
Solid Waste / Stormwater Project Coordinator

Town of Agawam

Agawam, Massachusetts 01001-1837

February 16, 2005

Dear Mr. and Mrs. Kreps:

We had spoken back in October 2004 regarding Troop 77 volunteeing to install stormdrain markers throughout our community. Fortunately, the Agawam DPW was able to invest in stormdrain markers and eduational literature for our community. Therefore, I'd like to confirm if your troop is still interested in volunteering to install these markers, helping to better educate our residents on proper waste disposal options.

I can be reached at 786-0400 ext.286 between the hours of 9am-3pm or on my cell phone 575-2323. I would love the opportunity to speak with you regarding this initiative and your troops role in this volunteer effort.

Sincerely,

Tracy M. DeMaio
Solid Waste / Stormwater Project Coordinator

Town of Agawam

Agawam, Massachusetts 01001-1837

March 18, 2005

Dear Nick-

Thank you for contacting me regarding the Stormdrain Marker Volunteer Program. As we had discussed, enclosed you will find the following information:

1. Stormdrain Marker Volunteer Flyer
2. Volunteer Checklist - all materials to be provided by the Department of Public Works.
3. Stormdrain Data Info Sheet
   At each stormdrain, we'd like to have the volunteers fill out the attached data sheet. This will help us determine where we need to further focus our efforts within our DPW as well as community education.
4. Curb Marker Installation Instructions
5. Door Hangers
   Door hangers will be distributed to all surrounding homes and businesses where storm drains have been marked. This will help us re-inforce your efforts and better educate the community on proper waste disposal habits.
6. Sample Storm Drain Marker.
7. Storm Drain Literature

Once you have reviewed the enclosed information, let's set up a date where I can meet with you and Troop 77. At that time, I will answer any additional questions or concerns your troop has regarding this volunteer project.

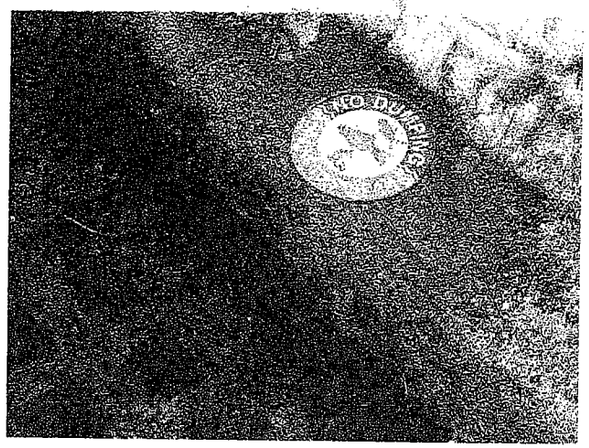
I look forward to meeting with you!

Sincerely,

Coming Soon to a Street near You!

STORMDRAIN MARKERS!

Volunteers Wanted!



What is stormwater?

- Pure rain or snowfall plus anything it carries along with it.
- As stormwater flows, it picks up and carries away natural and human-made pollutants to *storm drains*.
- Unlike sewage, stormwater is not treated.
- Stormwater flows directly from our streets to waterways, inhabited by fish and other aquatic animals and plants.

Pollutants in stormdrains flow to streams and wetlands.

To help prevent illegal dumping in our community, <u>VOLUNTEER</u> to mark and identify stormdrains.

VOLUNTEER CHECK LIST

Volunteer Bags / Wagon	
- Storm Drain Markers	
- Adhesive	
- Rubber Gloves	
- Wire Brushes	
- Whisk Brooms	
- Hand Cleaner	
- Door Hangers	
- Safety Vests	
- Safety Cones	

Volunteer Binders	
-Street Map of Area	
- Storm Drain Data Sheets	
- Installation Instructions	
- Storm Drain Literature	
- Pens / Pencils	

STORM DRAIN DATA INFO

Date of Installation: _____

Volunteer Group / Name: _____

Street Targeted: _____

Number of Storm Drains _____

Number of Markers Installed _____

OBSERVATIONS

Please check below- items found within five feet of each side of the storm drain marked by storm drain marker.

Non-Point Source Pollutants:		***notes:***
Grass Clippings	_____	_____
Leaves	_____	_____
Motor Oil	_____	_____
Paint	_____	_____
Pet Wastes	_____	_____

Street Litter, Including:		
Beverage Bottles	_____	_____
Beverage Cans	_____	_____
Caps / Lids	_____	_____
Cigarette Butts	_____	_____
Clothing	_____	_____
Fast Food Wrappers	_____	_____
Newspaper/Magazines	_____	_____
Paper Bags	_____	_____
Plastic Bags / Wrappers		

Easy Curb Marker Installation

The das Curb Marker can be applied to most flat, non-soil surfaces

1. Clean Surface

Make sure application surface is flat, and dry.
Using wire brushes clean surface area of any loose debris, such as sand and dirt. Dust away debris using whisk broom.

2. Apply Adhesive

Following the pattern on the back of the curb marker, apply a bead of adhesive. Working 1/8" from the edge, following the arrows from the edge to the center of the marker.

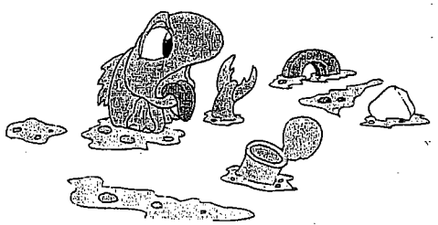
WHEN IT RAINS, POLLUTION GOES DOWN THE STORM DRAIN.

SPONSORED BY THE CONNECTICUT RIVER WATERSHED TEAM,
MASSACHUSETTS WATERSHED INITIATIVE, COMMONWEALTH OF MASSACHUSETTS.

Did you know... that every time it rains, water collects litter, motor oil, antifreeze, pet wastes, excess fertilizers and pesticides, leaves and grass clippings, and other waste materials as it runs off our roofs, lawns, driveways and streets towards the storm drain.

Contrary to popular belief, most storm drains do not connect to a water treatment facility. As a result, untreated rain water drains directly to our local streams, ponds, lakes and rivers via the storm drain system.

Could you imagine swimming in polluted water that contains pet wastes, motor oil, antifreeze, and pesticides?



Nonpoint Source Pollution

The pollution rain washes off roofs, lawns and road surfaces is [illegible]

Motor Oil

- Damages and/or kills underwater vegetation and aquatic life.
- Just one quart of oil can contaminate two million gallons of drinking water or create an 8-acre oil slick.
- More oil wastes goes down storm drains each year than was spilled by the Exxon Valdez.

- ✓ NEVER pour used motor oil down a storm drain.
- ✓ Put used motor oil in a sturdy container and take it to a local service station to be recycled.
- ✓ In the State of Massachusetts, you can return used motor oil to the place where you purchased it with your original receipt.

Antifreeze

- **A Highly Toxic Chemical** that has serious oxygen-depleting characteristics.
- **Extremely Harmful** to humans, fish, birds, wildlife and pets.
- Animals that live in, or drink from, contaminated water may die.
- Sweet taste attracts children and pets.

- ✓ Take your used antifreeze to a local service station for recycling.
- ✓ DO NOT mix your antifreeze with any other substance.

Car-Washing

- When you wash your car, the detergent-rich water used to wash the grime off your car often flows down the street and into a storm drain. This results in high loads of nutrients, metals, and hydrocarbons in our local water bodies.

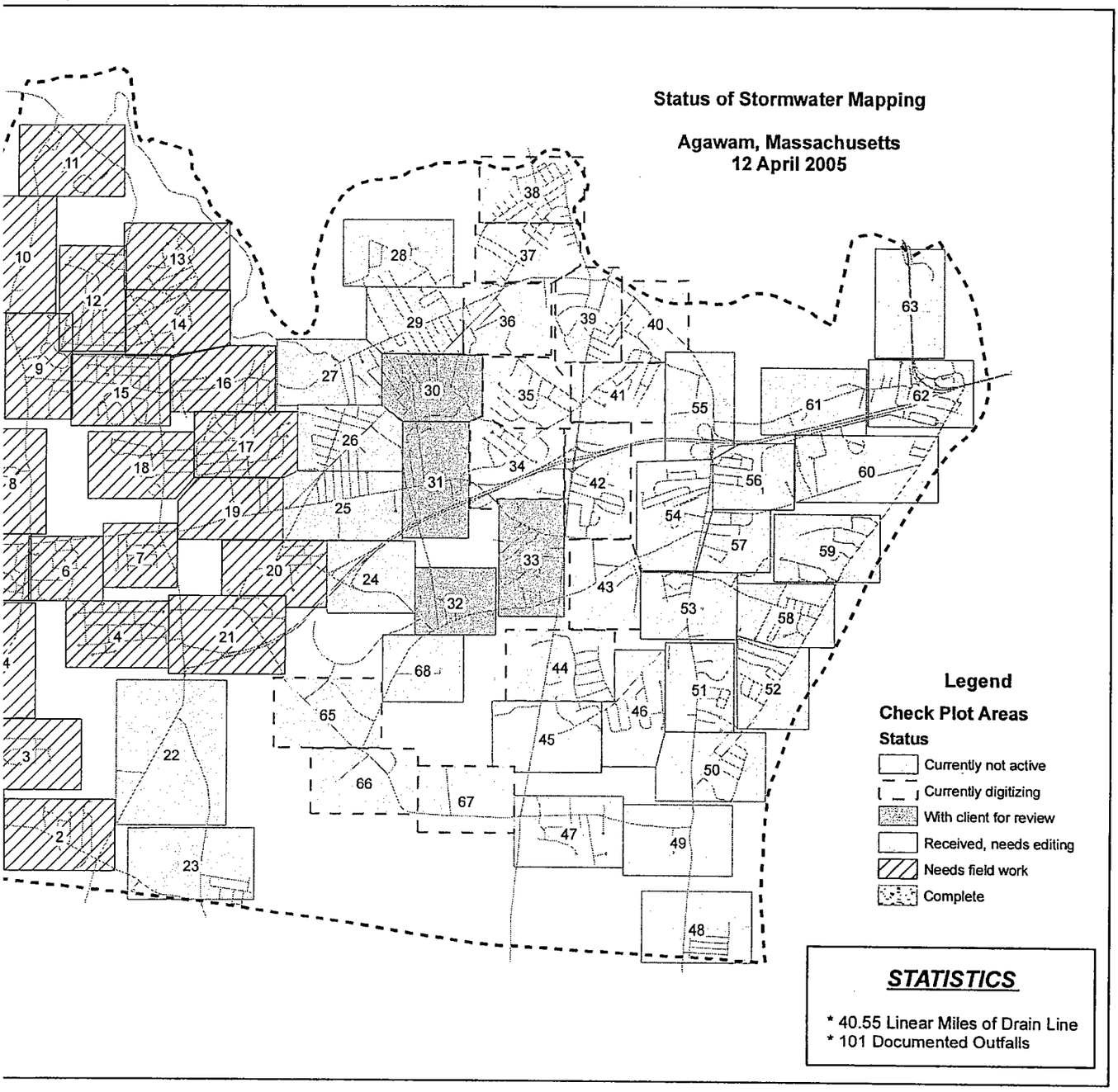
- ✓ Wash your car at a commercial car wash facility where they recycle their water or treat it prior to discharge to the sanitary sewer system.
- ✓ Wash your car on gravel, grass or other permeable surface that allows the soapy water to be filtered out.
- ✓ Use biodegradable soaps.
- ✓ Use hoses with nozzles that automatically turn off when left unattended.

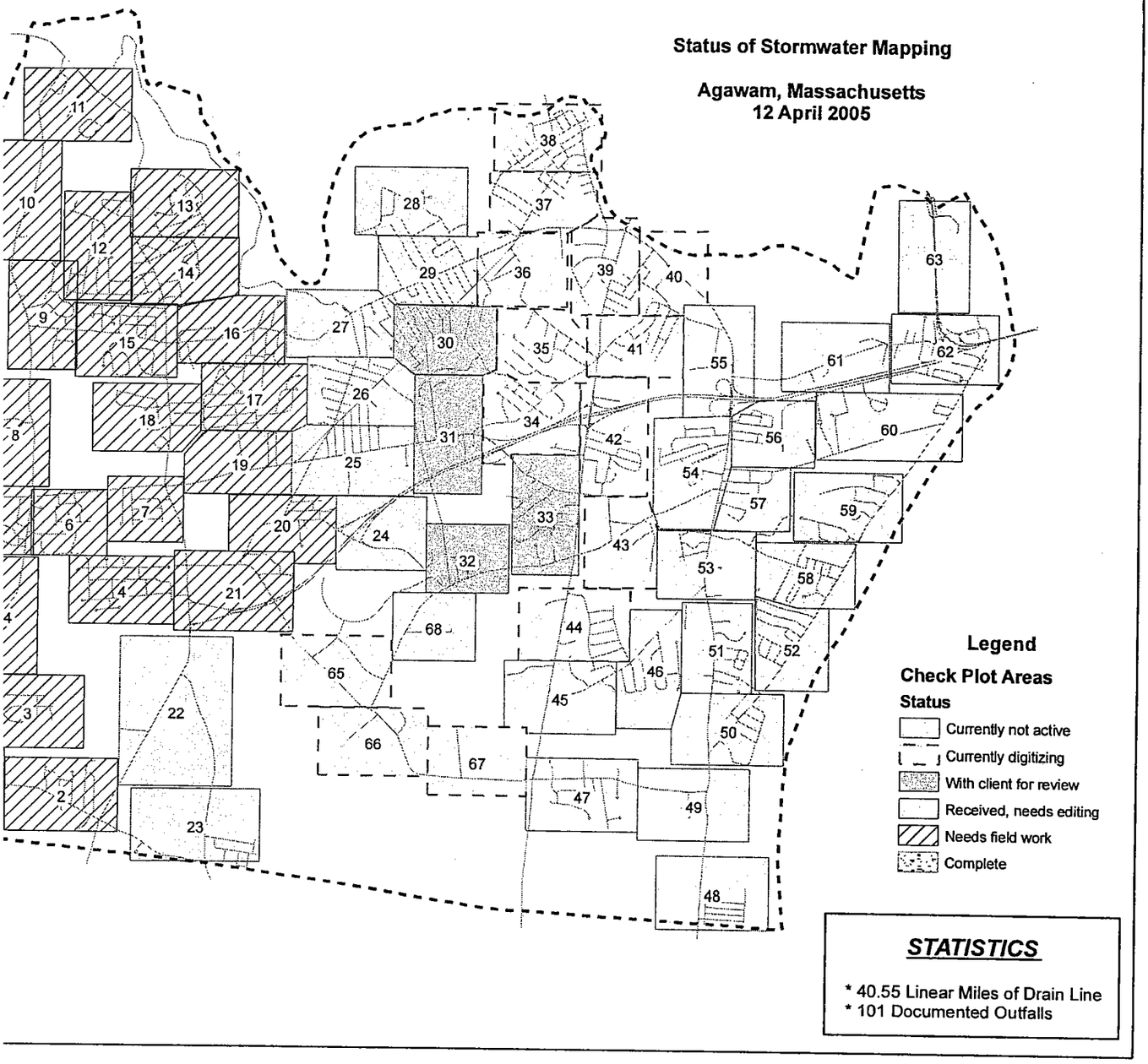
Appendix 3A

Year 2

Status Map of

Drainage Mapping Project


Status of Stormwater Mapping
Agawam, Massachusetts
12 April 2005
Legend
Check Plot Areas
Status
Currently not active
Currently digitizing
With client for review
Received, needs editing
Needs field work
Complete
STATISTICS
* 40.55 Linear Miles of Drain Line
* 101 Documented Outfalls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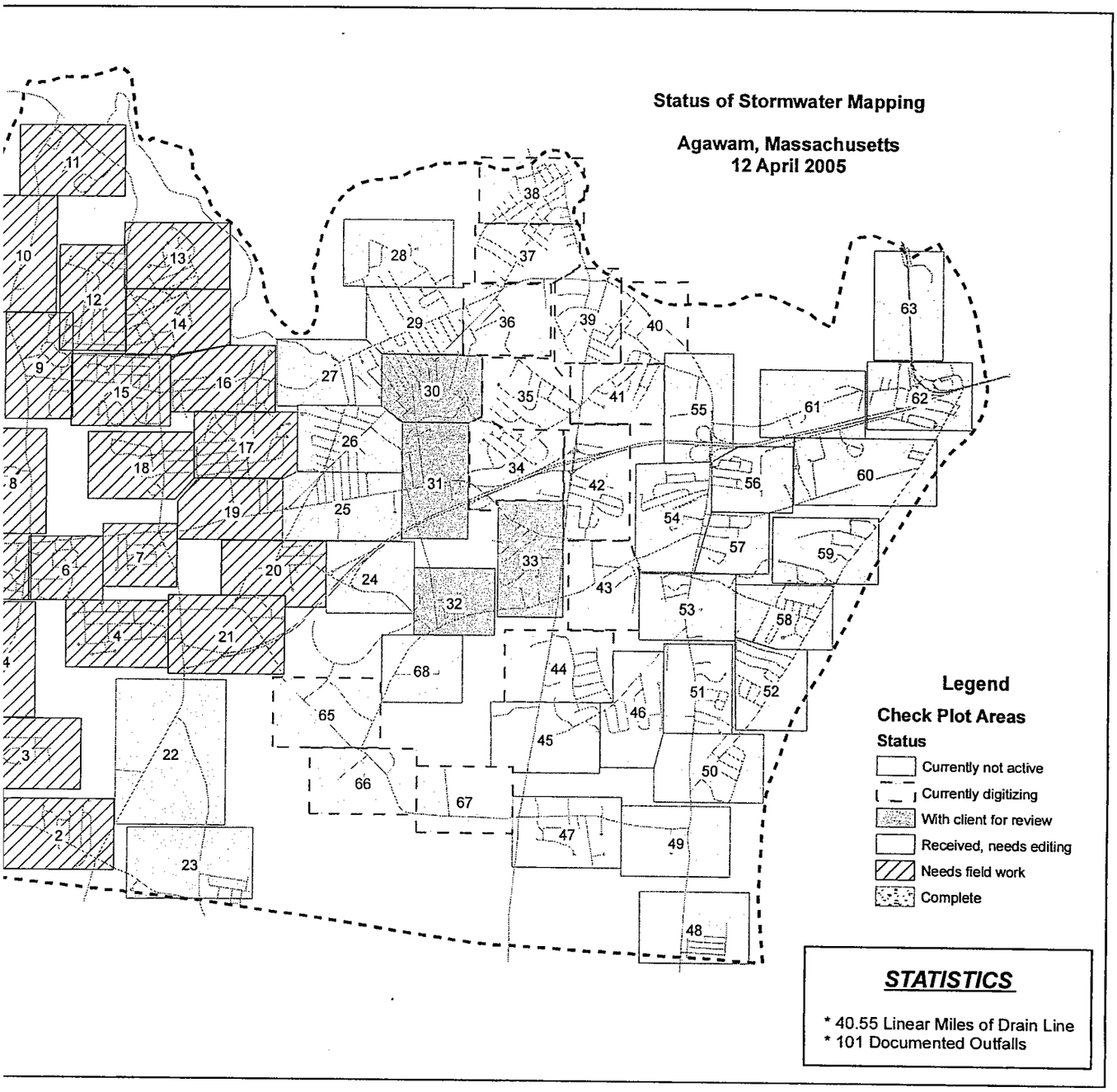
Status of Stormwater Mapping
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Complete
STATISTICS
* 40.55 Linear Miles of Drain Line
* 101 Documented Outfalls

Appendix 3A

Year 2

Stormwater Mapping Project

State Revolving Fund

Project Approval Certificate

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

1/5/04
CC - Treasurer
- Auditor
- Supt DPW

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

December 18, 2003

The Honorable Richard A. Cohen, Mayor
Town of Agawam
36 Main Street
Agawam, MA 01001-1837

RE: Town of Agawam
CWSRF - 1784
Project Approval Certificate CW-03-15

Dear Mayor Cohen:

The Division of Municipal Services (DMS) is pleased to inform you that the Project Approval Certificate for the above-referenced project has been signed and forwarded to the Massachusetts Water Pollution Abatement Trust (the "Trust"). The attached copy of your Project Approval Certificate allows you to proceed with your project without loss of potential eligibility in accordance with the provisions of 310 CMR 44.00, subject to the conditions of the certificate.

The Trust will now conduct an analysis of the financial information contained in your application. Loan commitments will then be made to you by the Trust, pending an affirmative vote from the Board of Trustees. The process of finalizing the actual loan agreements will begin once the commitments have been executed.

Please refer to the project schedule contained in Exhibit B of your Project Approval Certificate. The schedule is an important condition of the Department's approval. If your project falls behind schedule, you must request a revision to the schedule from DMS. Any such request must be in writing and be supported with adequate documentation, as there is a pressing demand by other municipalities for these limited funds.

We look forward to working with you. Should any issues or questions arise, particularly as they relate to scheduling, please contact Donald P. St. Marie of this office at (617) 292-5709.

Sincerely,

DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER POLLUTION ABATEMENT STATE REVOLVING FUND PROGRAM

PROJECT APPROVAL CERTIFICATE

A. PROJECT DESCRIPTION

1. Applicant: Town of Agawam
2. Address: Department of Public Works 36 Main Street Agawam MA 01001
3. Project Contact/Telephone: John P. Stone - Telephone: (413) 786-0400
4. Reviewer: Bachu Hirani - Telephone: (617) 292-5791
5. Project Number / Description: CWSRF 1784 / Phase II Stormwate/CSMP

B. APPROVED FUNDING

1. Eligible Costs approved for funding from the Calendar Year 2003 IUP: $314,000.00
2. Financial Assistance: 2% Interest Loan

C. CERTIFICATION

The Department of Environmental Protection (the "Department") hereby determines and certifies to the Massachusetts Water Pollution Abatement Trust (the "Trust") in accordance with M.G.L. c. 21, s.27A, M.G.L. c. 29C, (the "Enabling Act"), and 310 CMR 44.00 (the "Regulations") (with all capitalized terms not otherwise defined herein having the meaning given such terms in the Regulations) as follows:

1. This Project Approval Certificate (the "Certificate") is issued by the Department in accordance with M.G.L. c. 21, s. 27A, the Enabling Act, and the Regulations, for the Water Pollution Abatement Project (the "Project") of the Applicant (the "Applicant") described above. The Department has approved the Project and hereby certifies to the Trust the total Costs of the Project determined by the Department to be eligible for financial assistance pursuant to Sections 6 and 6A of the Enabling Act ("Eligible Costs"). The Department's eligibility determination in Exhibit A complies with the applicable provisions of the Regulations.

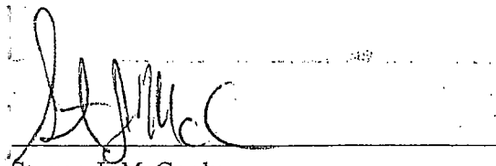
2. This Certificate and the Department's approval of the Project is conditioned upon; (i) the Applicant's compliance with the terms and conditions of the Applicant's certification contained in its Application for financial assistance; (ii) the Applicant's compliance with the Project schedule contained in Exhibit B and the Special Conditions contained in Exhibit C; (iii) the execution and delivery by the Applicant and the Department of a Project Regulatory Agreement for the Project (the "Project Regulatory Agreement") in form and substance satisfactory to the Department; and (iv) the Applicant's compliance with the executed Project Regulatory Agreement, as determined by the Department. The Project Regulatory Agreement shall be incorporated by reference in the Loan Agreement between the Trust and the Applicant, and failure by the Applicant to comply with the Project Regulatory Agreement shall constitute an event of default under the Loan Agreement.

3. The Project is included on the Department's Intended Use Plan Project Listing for the 2003 calendar year.

4. This Certificate is issued by the Department on the basis of information provided by the Applicant in its application for financial assistance and the representations of the Applicant contained therein. The Applicant has agreed to promptly notify the Department of any material change in the information contained in the Application, which change may be grounds for modification or rescission of this Certificate. This Certificate is further subject to modification or rescission because of any change in law subsequent to the date of this Certificate and prior to the date any financial assistance is provided by the Trust in accordance with this Certificate.

5. The Department has determined that the Applicant has demonstrated adequate technical, financial, and managerial capability.

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION



Date: 12/18/2003

Steven J. McCurdy
Acting Division Director

Exhibit A

ELIGIBILITY DETERMINATION

ITEM	ELIGIBLE COST	INELIGIBLE COST
Planning		
Technical Services	$314,000.00	$0.00
Total:	**$314,000.00**	$0.00

Exhibit B

PROJECT SCHEDULE

Project	Project Start	Project Completion
Technical Services	12/1/2003	11/30/2004

Exhibit C

SPECIAL CONDITIONS

(1) The Applicant shall ensure that any prime contracts or subcontracts for services, construction, goods or equipment for the Project contains the applicable M/WBE utilization goals: construction [MBE - 8.25%, WBE - '09%]; services [MBE - 11%, WBE - 5%]; goods [MBE - 2%, WBE - 1%]; and equipment [MBE - 5%, WBE - 2%]. he applicable M/WBE goals depend on the predominate character of the specific contract being procured by the Applicant, as determined by the Department. The Applicant shall ensure that all vendors submitting bids or proposals prime contractors or subcontractors in response to Project-related procurements complete the Commonwealth of assachusetts Vendor Information Form ("VIF"). The Applicant shall also be responsible for submitting the completed VIFs to the Department when it requests the Department's approval to award the contract.

(2) The Applicant shall submit an executed copy of the contract for engineering services to the Department within sixty (60) days of the date of contract execution. The Applicant understands that no payments for the Project 'ill be processed until such contract has been submitted to the Department.

(3) Prior to receiving final payment for the Project, the Applicant shall certify to the Department that all work included in the Project Regulatory Agreement for the Project, as approved by the Department, has been c mpleted and performed in accordance with the Project Regulatory Agreement.

(4) The Applicant shall establish accounts for the Project which shall be maintained in accordance with g ierally accepted government accounting standards.

(5) The Applicant understands and agrees that the Department's issuance of a Project Approval Certificate f this Project or entry into a Project Regulatory Agreement does not constitute the Department's sanction or approval o any changes or deviation from any applicable state regulatory or permit standards, criteria, or conditions, or from the terms or schedules of state enforcement actions or orders applicable to the Project.

(6) The Applicant agrees to provide any Project information and documentation requested by the Department. The Applicant shall maintain all Project records for seven (7) years after the issuance of final payment or u il any litigation, appeal, claim, or audit that is begun before the end of the seven (7) year period is completed or 'e olved, whichever is longer.

(7) Any proposed change in Project-related contracts which substantially modifies the Project initially p posed shall be submitted to the Department for prior approval.

Appendix 3B

Year 2

Draft Stormwater Ordinance Amendments

DRAFT - Stormwater Ordinance Amendments

DEFINITIONS

Applicant: The person(s) or entity which applies for a Storm Drain Permit as the property owner or the owner's agent.

Authorized Enforcement Agency: The Department of Public Works, its employees, or agents designated to enforce this ordinance on the behalf of the Superintendent.

Best Management Practices (BMP): structural or non-structural practices which temporarily store or treat urban stormwater runoff to reduce flooding, remove pollutants, or reduce pollutants at their source.

Clean Water Act – The federal Water Pollution Control Act (33U.S.C. Section 1251 et seq.), and any subsequent amendments thereto.

DEP or Department of Environmental Protection – A department of the Commonwealth of Massachusetts which regulates environmental concerns including but not limited to the Wetland Protection Act and as co-permittee of certain NPDES permits with the EPA.

Discharge: The following are the definitions of terms used in this Section.

Direct Stormwater Discharge - The discharge of treated or untreated stormwater directly to the MS4 which may or may not subsequently discharge to the waters of the Commonwealth of Massachusetts including rivers, streams, brooks, or wetlands.

Illicit Stormwater Discharge – Any non-stormwater discharge into the Municipal Separate Storm Sewer System (MS4), except as specifically exempted in this code. Discharges which are in compliance with a NPDES Storm Water Discharge Permit are not illicit discharges.

Indirect Stormwater Discharge – The discharge of treated or untreated stormwater to the waters of the Commonwealth of Massachusetts including rivers, streams,

Dumping – An act or omission of any person or entity, the proximate result of which is the introduction of Pollutant(s) to the MS4.

EPA or Environmental Protection Agency – The United States Environmental Protection Agency a department of the federal government which requires compliance with the Clean Water Act and NPDES permitting.

Existing Discharge – Any discharge to the MS4 which is under construction or operation at the time of the enactment of this Code.

Flow Attenuation – prolonging the flow time of runoff to reduce the volume of the peak discharge.

Illicit Connection – Any surface flow or conveyance of flows to the MS4 which contains non-stormwater discharges except as exempted within this Code.

Illicit Discharge – Any release of untreated effluent into the MS4 of runoff which includes Pollutants or Non-Stormwater components which have not undergone pre-treatment through structural or non-structural BMPs which are in compliance with the construction, and long term maintenance requirements specified in the DPWs Storm Drain Permit for the site.

MS4 or Municipal Separated Storm Sewer System - the system of conveyances of mains, laterals, swales, catch basins, roadway gutters, and other BMPs located within Public Ways and easements established and conveyed and accepted by the Town for utility and drainage purposes.

NPDES – National Pollutant Discharge Elimination System – permitting required by the EPA for various types of discharges to the waters of the United States.

Non-Stormwater Discharge – discharge which is composed of constituents which are not stormwater except as specifically exempted within the Code.

Pollutant – Dredged spoil, solid waste, incinerator residue, filter backwash water, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, rock, sand, animal or agricultural waste, oil, grease, gasoline or diesel fuel.

Public Way – A right of way which has been established and accepted as a Public Way

SD Permit or Storm Drain Permit – A permit given by the DPW to applicants which authorizes the discharge of runoff directly to the MS4 and indirectly to the waters of the Commonwealth.

Storm Drainage System – Publicly owned facilities by which storm water is collected and/or conveyed, including be not limited to public roads with drainage systems,

Water Resource – Same as Waters of the Commonwealth.

Waters of the Commonwealth – All waters within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters, and groundwater. These are protected water resources through State and / or Federal regulation.

Watercourses – A natural or manmade channel through which water flows or a stream of water including a river, brook, or underground stream.

Applicability

This section of the Town of Agawam Code shall apply to all direct discharges to the MS4 and any discharges for which a DPW Storm Drain Permit is required. Storm Drain Permit applicability is described further in section ???? of this Code.

Administration

The Superintendent of the Department of Public Works or his/her agents or designees shall administer, implement, and enforce this Ordinance

Severability

Then invalidity of any section or provision of this Ordinance shall not invalidate any other section or provision thereof.

Storm Drain Permitting

will be considered a common project and be additive if changes have occurred within the 5 years preceding the submission date.

3. Any alteration of a pre-existing condition at a site which causes an increase in impervious area of at least 20% over existing impervious conditions, shall be required to provide Stormwater Pre-treatment including TSS Removal and Peak Attenuation for the changes. Any changes made in the past 5 years shall be added to the proposed change to constitute the 20% increase.

No land owner or land operator shall receive any building permit or approval by the Planning Board or the Board of Appeals as required within other portions of the Town of Agawam Code, nor may any land owner commence land disturbance activities, without approval of a Storm Drain Permit from the Department of Public Works and meeting the requirements of this ordinance.

Permit Fees

Fees for storm drain permits may be established. The rates shall be set or altered by the Superintendent of the Department of Public Works.

Permitting Requirements

The following components will be required to receive a Storm Drain Permit at the discretion of the Superintendent of the Department of Public Works.

1. Application – this shall describe the existing site, the alterations proposed, description of all environmental permitting for the project, and other information as specified by the DPW.

2. Stormwater Management Plan – The purpose of the Stormwater Management Plan is to ensure that the runoff from a site has been treated for water quality and quantity impacts during the construction of the project and during the long term. This treatment includes but is not limited to erosion and sediment control to the extent practicable via structural and non-structural BMPs during construction and the establishment of structural BMPs for long term controls.

   The Superintendent of the Department of Public Works may require and alter

A. Temporary Measures - this shall include a written description of proposed temporary BMPs, a plan at an appropriate scale of those BMPs, construction details, a description of maintenance of proposed BMPs, a maintenance schedule, and reporting requirements of erosion and sediment controls and on-site hazardous materials handling and storage, dust control, off-site sedimentation measures, plan and procedures, and certification by the contractor and all subcontractors on the site of adherence to the described construction phase plan. The DPW shall prepare and make available the full standards for temporary BMP measures and may update those standards.

B. Permanent Measures – this shall include a written description of proposed permanent BMPs, a plan at a scale of not less than 1" = 40' of those BMPs, construction details, computations in an acceptable format, a description of long term maintenance of proposed BMPs, a long term maintenance schedule, and reporting requirements for maintenance and inspections as specified by the DPW. The DPW shall prepare and make available the full standards for permanent BMP measures and may update those standards.

C. Maintenance – A description of long term maintenance and inspection schedules shall be submitted for site development projects.

D. Certification – A statement to be signed by the contractor and all relevant subcontractors shall be included in the SWM Plan certifying that they have read and understand the construction phase requirements and agree to comply

3. Inspections – inspections shall be required as determined by the Department of Public Works Superintendent or his/her agent. If in the course of inspections of temporary or permanent BMPs, it is determined that resources or the MS4 is not being adequately protected, or that information submitted by the applicant in reporting to the DPW is inadequate, has missing information, or is insufficient, enforcement action will proceed at a level which is appropriate at the discretion of the DPW given the level of the perceived offense.

4. Stormwater Management Performance Standards – The Superintendent of the

construction and post-construction conditions at the same scale which is appropriate for complexity and size of the project. Description / investigation of down stream receiving resource waters.

3. Soil Survey Information – Copy of Hampden County Soil Survey Map with site clearly outlined at the scale of the map. Copy must be clear such that soil type and hydrologic soil group can be determined. Also, list the soil types, and relevant characteristics for the purpose of modeling the project's runoff.
4. Hydrologic Modeling Data– All areas shall be modeled utilizing the TR 55 method of Drainage Calculation. Submittals shall include the following information. Submittals will not be reviewed until complete information is given in an easy to follow format. The use of tables, summaries, and accompanying back-up data is strongly encouraged. Drainage Subareas designation, Time of Concentration path location, path length, surface grade, contributing subareas, soil type boundary location, Modeling Method description, Modeling Data, Model Output, and other information as specified by the DPW.
5. Design Storm Description – 100 year, 24 hr storm for areas outside of DEP environmental permitting jurisdiction or other relevant state or federal permitting requirements. Utilize the design storm specified in current state or federal permitting requirements for the particular site.
6. Detention Pond Design – seasonal high ground water elevation must be determined by a Certified Soil Evaluator or Certified Professional Soil Scientist for the proposed location of the detention pond. There must be a two foot separation between the lowest elevation of the detention pond and the seasonal high ground water elevation. The side slopes of the detention pond must not exceed 3:1 and have a sinuous shape. Contributing area for each detention pond shall be a maximum of 10 acres. It shall be less depending on the characteristics of the pre-construction site drainage pathways. An overland spillway shall be included such that if the capacity of the detention pond is exceeded or the outlet becomes temporarily clogged, a defined overland flow path has been establish which is adequately reinforced to resist erosion and to protect adjacent property from drainage flows.
7. Outlet to water resources – Structures shall adequately dissipate energy of outlet effluent such that down stream wetlands, brooks, streams, and adjacent properties are not damaged by any increase in peak flows due to construction phase and post-construction conditions.

9. Easements – Rights for the drainage of project drainage effluent shall be secured from adjacent property owners as necessary in the form of easements.

Infiltration structures / practices although required in other permitting will not be taken into account for volume calculations for a project except as specifically allowed by the DPW. Examples of projects which may allow the certain infiltration practices to be used in calculations include projects whose area is less than 5 acres in size or sites where the soil characteristics are very amenable to infiltration practices (hydrologic soil type A). This does not negate the requirements of other permits for infiltration/groundwater recharge practices.

5. Maintenance – A description of required maintenance of Temporary BMPs and Permanent BMPs.

6. Reporting – The following reports must be submitted to the DPW by the appropriate responsible party on the behalf of the Applicant/Permittee.

Construction Phase
Annual
Final Reports – Upon the completion of the work the permittee shall submit a report (including certified as-built construction plans) from a Professional Engineer (P.E.), surveyor, or a Certified Professional in Erosion and Sediment Control (CPESC), certifying that all erosion and sediment control devices, and approved changes and modification, have been completed in accordance with the conditions of the approved permit. Any discrepancies should be noted in the cover letter.

7. Review / Approval of Permit

The review and approval by the DPW of information submitted for compliance with the Storm Drain Permit does not relieve the Applicant of full responsibility for the adequate protection of water resources as required by State and Federal Law. If in the course of the construction and / or ongoing maintenance of the proposed BMPs it is determined by the DPW, the Town, or any other authority which has jurisdiction over the protection of water resources that the measures currently implemented are inadequate, the owner of the site shall be responsible

Prohibitions

No person or entity shall do or suffer to be done any Dumping into the MS4, including without limitation implied, the placing or emptying into any catch basin or other portal to the MS4, of any Pollutant or Illicit Discharge or Illicit Connection.

Illicit Connections

Any drain or conveyance, whether on the surface or subsurface, which allows an Illicit Discharge to enter the MS4. No person shall construct, use, allow, maintain, or continue any illicit connection to the MS4 regardless of whether the connection was permissible under applicable law, regulation, or custom at the time of connection.

Obstruction of MS4

No person shall obstruct, interfere, or clog the normal flows of stormwater into or out of the MS4 without prior written approval from the DPW Superintendent.

Maintenance of MS4 within Easements

There are certain portions of the MS4 which were established within easements for drainage purposes on private property. The structures within these easement may include but not be limited to swales, grading restrictions, catch basins, yard drains, detention ponds, fences, pipes, culverts, outlet structures, berms, stone lined structures, check dams, or other structures intended to convey, detain, or treat stormwater runoff. The owners of properties which have easements to the Town for drainage purposes shall perform rudimentary maintenance on those structures such that the structure may remain unclogged, vegetated where applicable, prevent erosion, and if grassed mowed at a minimum two times per year as feasible.

Allowed Non-Stormwater Discharges or Exemptions

The following description of non-stormwater discharges or flows are allowed unless they are identified as a significant contributor of pollutants to the MS4.

9. air conditioning condensation
10. irrigation water
11. springs
12. water from crawl space pumps
13. footing drains
14. lawn watering
15. individual residential car washing
16. temporary one-day fund raising car wash
17. flows from riparian habitats and wetlands
18. de-chlorinated swimming pool discharges
19. street wash water
20. discharges or flows from fire fighting activities
21. Agricultural runoff as described within section ##.

Enforcement

The Department of Public Works or its authorized agent shall enforce this ordinance, and regulations promulgated hereunder, as well as the terms and conditions of all permit notices, orders, and may pursue all civil and criminal remedies for such violations.

Enforcement Procedures for Storm Drain Permit

The enforcement procedures to ensure compliance with the requirements of the Storm Drain Permit as described in this ordinance shall proceed as follows.

Step One – Verbal Notice of Violation. If the violation is not addressed to the satisfaction of the DPW and within an appropriate time frame established by the DPW, enforcement shall proceed to Step 2.

Step Two – Written Notice of Violation. If the violation is not addressed to the satisfaction of the DPW and within an appropriate time frame established by the DPW, enforcement shall proceed to Step 3.

Step Three – Fines. Fines shall be levied against the owner of the property which has caused the violation and / or the Applicant for the Storm Drain Permit for that location. Fines shall be imposed up to a maximum of $300 per day for each

Appendix 3F

Year 2

Failing Septic Systems – Failed Systems 2004

FAILED SEPTIC SYSTEMS 2004

Tony Menzone 51 Bradford Street Agawam, MA	Failed: 5/22/04 Inspector: Brian Pranka
Mike Gold 19 Cherry Street Agawam, MA	Failed: 7/22/04 Inspector: Brian Pranka
Owner: ??? 45 Christopher Lane Feeding Hills, MA	Failed: 10/10/04 Inspector: Gary Sedelow
Agawam Sportsman Club 358 Corey Street Agawam, MA	Failed: 5/10/04 Inspector: Nathan Torretti
Harrington 33 Riverside Avenue Agawam, MA	Failed: 5/06/04 Inspector: John Alves
Anna Waniewski 417 So. Westfield Street Feeding Hills, MA	Failed: 1/22/04 Inspector: Nathan Torretti
Roger Farrington 111 White Fox Road Feeding Hills, MA	Failed: 11/18/04 Inspector: Nathan Torretti

Appendix 3F

Year 2

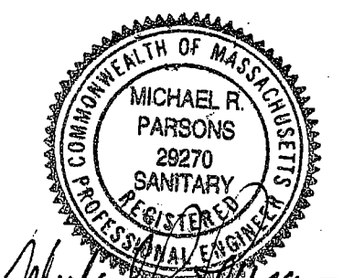
Southwest Area Wastewater Disposal Evaluation

Final

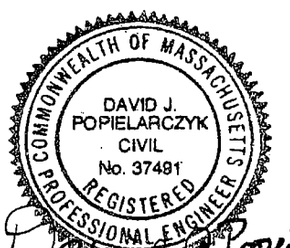
Southwest Area Wastewater Disposal Evaluation

Project Evaluation Report

Town of Agawam
Department of Public Works



10/12/04



10/12/04

E.1 INTRODUCTION

This report presents a wastewater disposal evaluation performed for the southwest area of Agawam. This evaluation has been performed to determine whether wastewater disposal improvements are needed in this area of Town and, if they are determined to be necessary, the most appropriate and cost-effective means of wastewater disposal for the area. The southwest area of Town is currently served by individual subsurface wastewater disposal systems (primarily septic tanks with leach fields) and is unsewered.

This evaluation follows Massachusetts Department of Environmental Protection (MADEP) guidelines in order to maintain eligibility for funding through the State Revolving Fund (SRF) Loan Program. The MADEP requires that for a project of this size and scope a Project Evaluation Report be prepared prior to design documenting the need for wastewater disposal improvements and that various wastewater disposal alternatives have been considered.

The following tasks were performed as part of this evaluation and are described in the report:

1. Reviewed existing background information
2. Developed mapping of the study area
3. Reviewed prior planning efforts
4. Assessed current conditions in the study area
5. Projected future development in the study area
6. Evaluated the need for improvements to existing wastewater disposal systems
7. Developed and evaluated wastewater disposal improvement alternatives

The study area was divided into 22 sub-areas in order to obtain detailed, site-specific information from individual neighborhoods on the need for wastewater disposal improvements and to prioritize improvements in the study area. These sub-areas are

records. This information was used to provide evidence that wastewater disposal improvements are needed in the study area and to prioritize the need for improvements.

Septic system problems were identified throughout the study area through the questionnaire survey and BOH Title 5 inspection records. Five sub-areas were determined to be of greatest concern with a "High" need for wastewater disposal improvements:

1. Bradford Drive Area (Sub-Area 14)
2. White Fox Road Area (Sub-Area 16)
3. Tobacco Farm Road Area (Sub-Area 19)
4. North West Street (Sub-Area 22)
5. Joanne Circle Area (Sub-Area 3)

Only 5 of the 22 sub-areas were determined to have a "Low" need for wastewater disposal improvements (Sub-Areas 1, 4, 6, 10 and 11). These sub-areas were located in the southern portion of the study area, along Barry Street. Need priority is shown on Figure 3-1 in the report.

Following the questionnaire survey and review of BOH Title 5 inspection records, soil, groundwater, and water quality data were collected in the "High" need areas listed above to further document the need for wastewater disposal improvements. In addition, property inspections were performed in the "High" need areas to further document septic system failures.

The soil borings, property inspections, and water quality testing confirmed that septic system problems are significant in these five sub-areas. The data collected indicates that poor soil conditions, seasonal high groundwater levels, and small lot sizes contribute to the septic system failures reported in each of these sub-areas.

The Bradford Drive Area (Sub-Area 14) has the most significant need for wastewater disposal improvements. In Sub-Area 22 (North West Street Area), the Karen Lynn Circle area appears to be of particular concern. In Sub-Area 19, poor septic system

E.3 DEVELOPMENT AND EVALUATION OF ALTERNATIVES

Wastewater disposal improvement alternatives have been developed for the study area, including especially the five "High" need areas listed previously. The wastewater disposal improvement alternatives considered during this evaluation can be divided into three categories:

1. Continue to use individual sub-surface disposal systems
2. Construct decentralized, neighborhood treatment facilities
3. Expand the Town's existing sanitary sewerage system

Wastewater disposal improvement alternatives have been developed, evaluated and compared for each of these categories.

E.3.1 Individual Sub-Surface Disposal Systems

Individual sub-surface disposal systems appear to be effective and appropriate in some portions of the study area, such as the Barry Street area, from South West Street to South Westfield Street. In this area, septic system problems were relatively infrequent, few homeowners had to modify their lifestyle to accommodate their septic systems, and the perceived need for sewer service was lower than in other study sub-areas. The 1978 soil survey data indicates that the soils are generally favorable for sub-surface wastewater disposal along this portion of Barry Street.

The septic tank problems identified throughout the study area can, in many cases, be attributed to poor soils, high groundwater, and/or small property lots. Where these poor site conditions exist, continued use of conventional septic systems (septic tanks, distribution boxes, and leach fields) is not expected to provide effective, trouble-free wastewater treatment and would likely require that homeowners continue to modify their lifestyles to accommodate their septic systems. However, upgrades to the individual septic systems or replacement with homeowner Innovative/Alternative (I/A) treatment systems (such as FAST or Amphidrome) may be effective in addressing the problems currently experienced in some of these areas.

E.3.2 Decentralized Treatment Facilities

The construction of decentralized, neighborhood treatment facilities was considered in this evaluation and is expected to provide effective wastewater treatment and disposal, assuming that appropriate sites for soil absorption systems can be identified in or near the neighborhoods to be served. For the purposes of this evaluation, preliminary soil absorption sites have been selected, based on a review of open land areas and soil survey data, and are presented in the report.

The five neighborhoods with a "High" need for wastewater disposal listed below were targeted for decentralized treatment facilities in this evaluation:

1. Bradford Drive Area (Sub-Area 14)
2. White Fox Road Area (Sub-Area 16)
3. Tobacco Farm Road Area (Sub-Area 19)
4. Karen Lynn Circle Area (neighborhood in Sub-Area 22)
5. Joanne Circle Area (Sub-Area 3)

These five sub-areas were selected because upgrading or replacing individual septic systems is least likely to be effective in these neighborhoods because of the poor site conditions identified in these areas, as described in Section 3 of this report. However, the Town may also wish to pursue the construction of decentralized treatment facilities in other study areas to address septic system problems.

The wastewater treatment and disposal system for the Bradford Drive neighborhood (Sub-Area 14) would be regulated by Title 5, based on the anticipated wastewater flows. The construction of a conventional septic system (septic tank, dosing chamber, and leach field) was determined to be appropriate for this neighborhood. The total cost (capital cost and 20-year O&M cost) of the neighborhood septic system and the sewers required to convey the wastewater flow from the neighborhood to the soil absorption system is estimated as $1,037,000.

The wastewater treatment and disposal systems for the remaining four neighborhoods

- Amphidrome
- FAST
- Rotating Biological Contactors (RBCs)
- ZenoGem

The total costs of these treatment systems were determined for each of the five sub-areas. The total costs include the cost to construct the treatment facilities, soil absorption system, and sewer collection system; design and construction phase engineering services costs; permitting costs; land acquisition costs; and annual operation and maintenance costs over a 20-year period. The locations of the decentralized treatment facilities are shown in Figure 4-1 in the report.

The four treatment systems were also compared based on performance and reliability, land space requirements and expandability, and aesthetic impacts. The treatment systems were ranked from 1 to 5 in each category with 1 being the least favorable and 5 being the most favorable and an average rank was developed for each system. Each of the I/A biological treatment systems considered is expected to be able to comply with the anticipated Groundwater Discharge Permit effluent limits.

The FAST and Amphidrome systems provide wastewater treatment and disposal at a lower cost than the RBC and Zenogem systems for the flow ranges required in Agawam, and have a relatively high average non-monetary rank. A summary of the estimated costs of the FAST and Amphidrome systems for Sub-Areas 3, 16, 19 and 22 (Karen Lynn Circle area) is presented below in Table E-1.

Table E-1

Engineer's Opinion of Probable Decentralized Facilities Costs

Sub-Area	Description	Total Cost [1]	
		Amphidrome System	FAST System
3	Joanne Circle Area	$2.7 million	$2.7 million
16	White Fox Road Area	$3.1 million	$3.3 million

ZenoGem is a more expensive system, but did score high on the non-monetary ranking and is expected to also produce a high quality effluent. The results of the cost and non-monetary evaluation indicate that an RBC system is the least attractive treatment alternative since it has the highest cost and lowest non-monetary rank.

E.3.3 Sewerage System Expansion

The expansion of the existing sewerage system to serve the study area was considered as part of this evaluation. A total of 15 sewerage system expansion alternatives were developed, which consist of various combinations of gravity sewers, pump stations, and low pressure sewers/grinder pumps to convey wastewater flow from the study area to the existing sanitary sewerage system. These alternatives are shown in Figures 4-2 through 4-16 in the report.

In order to reduce the number of pump stations that would otherwise be needed, the construction of cross-country sewers along the low-lying areas adjacent to Still Brook was considered for many of the alternatives. Four Still Brook Interceptor sections were established for the purposes of this evaluation. Still Brook Interceptor Sections 1 and 2 would impact wetlands and rare species habitats and Still Brook Interceptor Sections 3 and 4 would impact only wetlands. Construction of Section 3 would have the smallest environmental impact and, as such, is most likely to be approved of the four Still Brook Interceptor sections considered.

Total project costs were developed for each alternative, which include construction costs, design and construction phase engineering services costs, permitting costs, land acquisition costs, and operation and maintenance (O&M) costs over a 20-year period. The total project costs range from $28.7 million to $33.4 million, as shown in Table E-2. Generally, the alternatives with greater lengths of cross-country sewer (more Still Brook Interceptor sections) have a higher estimated cost.

In addition, the capital costs to construct new sewerage facilities (gravity sewers, pump stations, force mains, and low pressure sewers/grinder pumps) to serve just the "high" need areas identified (Sub-Areas 3, 14, 16, 19, & the Karen Lynn Circle neighborhood in Sub-Area 22) were developed and are also shown in Table E-2.

Table E-2

Sewerage System Expansion Alternatives Summary

Southwest Area Wastewater Disposal Evaluation

Alternative No.	Description	Total Project Costs [1]	Capital Costs to Serve "High" Need Areas[2]	Average Non-Monetary Rank [3]
1	Gravity sewers Seven pump stations	$29,740,000	$18,029,000	3.8
2	Gravity sewers Six pump stations, Still Brook Inter. Section 1	$30,940,000	$18,599,000	3.3
3	Gravity sewers Six pump stations, Still Brook Inter. Section 2	$30,680,000	$18,369,000	3.2
4	Gravity sewers Five pump stations, Still Brook Inter. Sections 1 & 2	$31,450,000	$18,558,000	3.0
5	Gravity sewers Six pump stations, Still Brook Inter. Section 3	$30,340,000	$18,252,000	3.7
6	Gravity sewers Four pump stations, Still Brook Inter. Sections 1, 2 & 3	$32,210,000	$19,972,000	2.5
7	Gravity sewers Five pump stations, Still Brook Inter. Sections 1 & 3	$31,480,000	$18,745,000	3.3
8	Gravity sewers Five pump stations, Still Brook Inter. Sections 2 & 3	$31,310,000	$19,654,000	3.0
9	Gravity sewers Four pump stations, Still Brook Inter. Sections 1, 2, 3 & 4	$33,360,000	$19,699,000	2.3
10	Gravity & LP sewers (SAs 4 & 14) Five pump stations	$29,400,000	$17,822,000	4.0
11	Gravity & LP sewers (SAs 4 & 14) Four pump stations, Still Brook Inter. Section 3	$29,700,000	$17,848,000	4.0
12	Gravity & LP sewers (SAs 4 & 14) Three pump stations, Still Brook Inter. Sections 1 & 3	$30,820,000	$17,495,000	3.8
13	Gravity & LP sewers (SAs 4, 14 & 16) Four pump stations	$28,690,000	$17,222,000	4.0
14	Gravity & LP sewers (SAs 4, 14 & 16) Three pump stations, Still Brook Interceptor Section 3	$29,290,000	$17,550,000	3.8
15	Gravity & LP sewers (SAs 4, 14 & 17) Three pump stations, Still Brook Interceptor Section 3	$28,700,000	$17,761,000	4.0

Notes:

(1) Total project costs include construction costs, design and construction phase engineering services costs, permitting costs, land acquisition costs, and operation and maintenance costs over a 20-year period.

(2) The "high" need areas identifed include Sub-Areas 3, 14, 16, 19 and 22 (Karen Lynn Circle area).

(3) The average non-monetary rank is based on the rank determined for (1) the cost to serve the "high" need areas, (2) environmental impacts, (3) historic/archaeological impacts, (4) pump stations, (5) expandability, and (6) land acquisition. Alternatives are ranked from 1 to 5 in each category with 1 being the least favorable and 5 being the most favorable.

The capital costs to serve just the sub-areas with a "High" need for wastewater disposal improvements (Sub-Areas 3, 14, 16, 19, and the Karen Lynn Circle area in Sub-Area 22) range from $17.2 million to $20.0 million, which is a significant portion of the capital costs to sewer the study area. These high costs reflect that the sewers and pump stations that would be constructed to serve the "High" need areas would provide the backbone of the study area sewerage system. Once these sewers and pump stations are installed, the sewerage system can be easily and cost-effectively expanded in the future to serve other sections of the study area.

In addition to comparing alternatives based on cost, alternatives were also compared based on environmental impacts, historic/archaeological impacts, pump stations, expandability, and land acquisition. Alternatives were ranked from 1 to 5 in each category with 1 being the least favorable and 5 being the most favorable. The average non-monetary ranks range from 2.3 to 4.0. Generally, the alternatives with greater lengths of cross-country sewer (more Still Brook Interceptor sections) have a lower non-monetary rank, primarily because of the greater environmental impacts.

E.4 RECOMMENDATIONS

E.4.1 Individual Sub-Surface Disposal Systems

Individual sub-surface disposal systems appear to be effective and appropriate in only a few of the study sub-areas, primarily in the Barry Street area, from South West Street to South Westfield Street. In the remaining sub-areas poor site conditions (high groundwater levels, poor soils, and/or small lot sizes) were identified.

In some cases, upgrades to homeowner septic systems or replacement with Innovative/Alternative (I/A) treatment systems may be an effective method of wastewater disposal. Although system upgrades or replacement with I/A treatment systems may reduce the severity of disposal system problems (i.e. reduction in breakout occurrences, odors, sewer backups, etc.) in areas with difficult site conditions, they may not completely correct the wastewater disposal problems. More detailed, site-specific investigations, such as excavating test pits and determining soil percolation rates, are necessary to determine whether upgraded septic systems or I/A treatment systems will be effective for individual homeowners.

E.4.2 Decentralized Treatment Facilities

As discussed previously, a conventional Title 5 septic system would be appropriate for the Bradford Drive Area (Sub-Area 14) and is recommended if a decentralized treatment facility is pursued to address wastewater disposal problems in this neighborhood.

For the remaining four "high" need areas (Sub-Areas 3, 16, 19 and Karen Lynn Circle neighborhood in Sub-Area 22), it is recommended that the Town review in greater detail the Amphidrome and FAST systems if decentralized treatment facilities are pursued in these neighborhoods. As noted previously, these treatment facilities are expected to provide the anticipated level of treatment needed at the lowest cost and have a relatively high non-monetary rank. The actual Groundwater Discharge Permit effluent limits should be determined by the Town during design since these limits could have an impact on the selection of the preferred treatment system. The selection of a specific treatment system would be made during design and it is anticipated that other treatment options would also be considered at that time, as appropriate.

The decentralized treatment facilities for the five "high" need areas, shown on Figure 4-1, would require between 0.5 and 1.1 acres of land area in or near these neighborhoods in order to site the treatment units and the leach field. The effectiveness of these treatment systems is contingent upon the soil conditions on these sites being suitable for sub-surface wastewater disposal. As such, it is recommended that a more detailed review of soil conditions be performed if decentralized treatment facilities are pursued to confirm soil suitability.

By constructing decentralized treatment facilities in the five "high" need areas, 237 of the 758 homes in the study area would be served at a capital cost/house ranging from $31,100 to $44,400, as is detailed in Section 6.3. The average annual operation and maintenance (O&M) cost for the decentralized facilities in Sub-Areas 3, 16, 19 and 22 (package treatment systems) was estimated as $1,142/house while the average annual O&M cost for the decentralized facility in Sub-Area 14 (a conventional Title 5 septic system) was estimated as $197/house.

E.4.3 Sewerage System Expansion

difference). Each of the preferred alternatives also has a relatively high non-monetary rank, ranging from 3.8 to 4.0 (5% difference).

Table E-3

Summary of Preferred Sewerage System Expansion Alternatives

Alternative No.	Description	Total Project Costs (1)	Capital Costs to Serve "High" Need Areas (2)	Average Non-Monetary Rank (3)
10	Gravity & LP sewers (SAs 4 & 14) Five pump stations	$29.4 million	$17.8 million	4.0
11	Gravity & LP sewers (SAs 4 & 14) Four pump stations Still Brook Interceptor Section 3	$29.7 million	$17.8 million	4.0
13	Gravity & LP sewers (SAs 4, 14 & 16) Four pump stations	$28.7 million	$17.2 million	4.0
14	Gravity & LP sewers (SAs 4, 14 & 16) Three pump stations Still Brook Interceptor Section 3	$29.3 million	$17.6 million	3.8
15	Gravity & LP sewers (SAs 4, 14 & 17) Three pump stations Still Brook Interceptor Section 3	$28.7 million	$17.8 million	4.0

Notes:

(1) Total project costs include construction costs, engineering services costs, permitting, land acquisition, and O&M costs over a 20-year period.

(2) The "high" need areas identified include Sub-Areas 3, 14, 16, 19 and 22 (Karen Lynn Circle Area).

(3) The average non-monetary rank is based on the rank determined for (1) the cost to serve the "high" need areas, (2) environmental impacts, (3) historic/archaeological impacts, (4) pump stations, (5) expandability, and (6) land acquisition. Alternatives are ranked from 1 to 5 in each category with 1 being the least favorable and 5 being the most favorable.

Alternative 15 (shown in Figure 4-16) is the recommended sewer system expansion alternative because of its relatively low total project cost and high non-monetary rank and because it requires the fewest number of pump stations. Note that Alternative 15 is contingent upon the Oak Ridge Golf Club allowing construction of Section 3 of the Still

The tasks required to implement sewerage system expansion in the study area and schedules for these tasks are presented in Section 6.5.

Appendix 6C

Year 2

Catch Basin Cleaning Priority Areas

Spot Sanding (Freeze after melting)
3 routs

	A	B	C	D	E	F
1	**STREET**	**Description**	**Priority**	**Length**	**Spot Route**	
2	ADAMS ST.	ENTIRE	2	6200	2	
3	ALBERT ST.	ENTIRE	1	1750	2	
4	ALHAMBRA CIR NO.	ENTIRE	1	1250	2	
5	ALHAMBRA CIR. SO.	ENTIRE	1	1150	2	
6	ANTHONY ST.	ENTIRE	1	1750	2	
7	AUTUMN ST.	ENTIRE	1	1450	2	
8	BIRCH HILL RD.	ENTIRE	1	2100	2	
9	BRIDGE ST.	ENTIRE	2	1750	2	
10	CENTER ST.	ENTIRE	1	850	2	
11	CENTERWOOD DR.	ENTIRE	1	500	2	
12	CHAREST LANE	ENTIRE	1	850	2	
13	CLEMATIS ST.	ENTIRE	1	1250	2	
14	COOPER ST.	SUFFIELD TO MAIN	2	5000	2	
15	COREY ST.	ENTIRE	1	6200	2	
16	EDWARD ST.	ENTIRE	2	1700	2	
17	ELM ST.	ENTIRE	2	3750	2	
18	FAYEMORE DR.	ENTIRE	1	750	2	
19	FEDERAL ST.	ENTIRE STREET	1	1600	2	
20	FERNWOOD DR.	ENTIRE	1	2400	2	
21	HASKELL ST.	Wright to Colonial Haven 422'	1	700	2	
22	HUNTERS GREEN CIR.	ENTIRE	1	1660	2	
23	KANAWHA AVE.	ENTIRE	1	1400	2	
24	LEONARD ST.	ENTIRE	2	4300	2	
25	MALLARD CIR.	ENTIRE	1	2500	2	
26	MAPLE ST.	ENTIRE	2	3750	2	
27	MEADOW ST.	ENTIRE	2	6800	2	
28	MILL ST.	SUFFIELD ST. TO PERRY LANE	2	950	2	
29	PERRY LANE	SILVER TO ELM	1	640	2	
30	PERRY LANE	MILL TO ELM	1	760	2	
31	PRINCE LANE	ENTIRE	1	200	2	
32	QUAIL HOLLOW RD.	ENTIRE	1	950	2	
33	REED ST.	ENTIRE	1	1700	2	
34	RIDGE AVE.	ENTIRE	1	800	2	
35	RIVER RD.	TRAF. CIR. TO RIVER RD.	3	600	2	
36	RIVER ST.	ENTIRE	2	700	2	
37	RIVIERA DR.	ENTIRE	1	2000	2	
38	SCHOOL ST.	ENTIRE	2	7100	2	
39	SILVER ST.	SUFFIELD ST. TO ELM ST.	2	2200	2	
40	SO. PARK TER.	ENTIRE	1	1700	2	
41	SOUTH ST.	ENTIRE	2	5500	2	
42	SPRINGFIELD ST.	ROWLEY TO SUFFIELD	3	3900	2	
43	SUFFIELD ST.	MAIN TO COOPER	3	4150	2	
44	SUFFIELD ST.	SILVER ST. TO SOUTH ST.	3	5200	2	
45	SUFFIELD ST.	SOUTH ST. TO CONN.	3	4200	2	
46	SUFFIELD ST.	RT. 57 TO SILVER ST.	3	5750	2	
47	SUFFIELD ST.	COOPER TO ROUTE 57	3	1400	2	
48	SUNNYSLOPE AVE.	ENTIRE	1	1250	2	
49	VALENTINE ST.	ENTIRE	1	1800	2	
50	WALNUT ST.	ENTIRE	3	4050	2	
51	WALNUT ST. EXT.	ENTIRE	3	1350	2	
52	WASHINGTON AVE.	Ramah to Suffield	1	690	2	122900
53	BEGLEY ST.	ENTIRE	1	900	3	
54	BROOKSIDE DR	ENTIRE STREET	1	635	3	

	A	B	C	D	E	F
67	FRANKLIN ST. EXT.	ENTIRE	1	1150	3	
68	GARDEN ST.	SILVER TO RTE 57 RAMPS	2	3120	3	
69	GARDEN ST.	MEMORIAL TO ON RAMP RTE 57	2	1620	3	
70	GARDEN ST.	POPLAR TO MEMORIAL	2	1160	3	
71	HARDING ST.	ENTIRE	1	800	3	
72	HOMER ST.	ENTIRE	1	1850	3	
73	KRISTEN LANE	SPRINGFIELD ST. NORTHERLY TO CUL DE SAC	1	450	3	
74	LETENDRE AVE.	ENTIRE	1	1700	3	
75	LINE ST.	ENTIRE	2	3250	3	
76	MEMORIAL DR.	ENTIRE	1	1300	3	
77	MILL ST.	RT. 57 TO SUFFIELD ST.	2	3300	3	
78	MILL ST.	RT.57 TO SPRINGFIELD ST.	3	6700	3	
79	MORNINGSIDE CIR.	ENTIRE STREET	1	1200	3	
80	MULBERRY ST.	ENTIRE	1	400	3	
81	NORTH ST.	NO. WESTFIELD TO COLEMORE	2	6500	3	
82	NORTH ST.	COLEMORE TO SPRINGFIELD	2	5500	3	
83	PIERCE ST.	ENTIRE	1	500	3	
84	POPLAR ST.	SHOEMAKER TO GARDEN	2	2000	3	
85	POPLAR ST.	GARDEN TO MILL	2	2100	3	
86	ROWLEY ST.	ENTIRE	2	4850	3	
87	RUSSO CIR.	ENTIRE STREET	1	650	3	
88	SHIBLEY CT.	ENTIRE	1	250	3	
89	SHOEMAKER LANE	SUFFIELD TO POPLAR	2	12400	3	
90	SHOEMAKER LANE	POPLAR TO SOUTH WESTFIELD	2	1650	3	
91	SHOEMAKER LANE	WEST OF SOUTH WESTFIELD	1	350	3	
92	SILVER LAKE DR.	ENTIRE	1	3284	3	
93	SILVER ST.	SUFFIELD ST. TO SHOEMAKER	2	8700	3	
94	SPRINGFIELD ST.	F. H. CENTER TO MILL ST.	3	4200	3	
95	SPRINGFIELD ST.	MILL TO LINE	3	5700	3	
96	SPRINGFIELD ST.	LINE TO ROWLEY	3	3700	3	
97	WILSON ST.	ENTIRE	1	950	3	
98	YALE AVE.	ENTIRE	1	1100	3	117339
99	ANVIL ST.	ENTIRE STREET	1	850	4	
100	BARRY ST.	PINE TO SO. WEST	2	4300	4	
101	BARRY ST.	SO. WEST TO SOUTHWICK	1	3550	4	
102	BARRY ST.	SO. WESTFIELD TO PINE	1	3600	4	
103	BLACKSMITH RD.	ENTIRE	1	700	4	
104	CEDAR KNOLL DR.	JUNIPER RIDGE DR. TO CUL-DE-SAC	1	750	4	
105	CHRISTOPHER LANE	ENTIRE	1	1900	4	
106	CLOVER HILL DR.	FOREST HILL RD TO END	1	450	4	
107	CLOVER HILL DR.	NO WSTFLD TO FOREST HILL	1	2410	4	
108	ELMAR DR.	HICKORY TO PAUL REVERE	1	650	4	
109	ELMAR DR.	HENDOM TO HICKORY	1	1120	4	
110	FOREST HILL RD.	ENTIRE	1	2300	4	
111	FORGE ST.	ENTIRE STREET	1	700	4	
112	FOX FARM RD.	ENTIRE	1	1500	4	
113	HENDOM DR.	ENTIRE	1	3200	4	
114	INDEPENDENCE RD.	ENTIRE	1	2780	4	
115	LISWELL DR.	ENTIRE	1	1500	4	
116	MEYERS DR.	ENTIRE	1	420	4	
117	MICHAEL ST.	ENTIRE				

	A	B	C	D	E	F
133	SOUTHWICK ST.	NO. WEST TO SOUTHWICK LINE	3	4500	4	
134	SOUTHWICK ST.	NO. WEST ST. TO F. H. CENTER	3	4200	4	
135	STRAWBERRY HILL RD.	ENTIRE	1	1700	4	
136	THALIA DR.	ENTIRE	1	2300	4	
137	TINA LANE	ENTIRE	1	1250	4	
138	VALLEY BROOK RD.	ENTIRE	1	3250	4	
139	WAGON WHEEL DR.	NORTH & SOUTH OF ANVIL ST. TO CUL DE SAC	1	1100	4	
140	WHITE FOX RD.	ENTIRE	1	2150	4	
141	WOODCOCK CRT.	ENTIRE STREET	1	550	4	124080
142				0		

Appendix 6G

Year 2

Used Oil Recycling

TOWN OF AGAWAM DEPARTMENT OF PUBLIC WORKS
REGULATIONS FOR SOLID WASTE COLLECTIONS 2005

GENERAL REQUIREMENTS

1. Only one-family through four-family dwellings are eligible for solid waste collection service.

2. All refuse and recyclables to be collected shall be placed at the tree-belt by **7:00 A.M.** of the scheduled collection day, but **no earlier than 24 hours in advance of the collection day**. On days when more than one class of materials are being collected, the various items such as refuse, recyclables, bulky items, yard waste, etc. shall be **placed separate and apart from each other.**

3. **Paper products for recycling** shall be placed in a paper bag and set out on top of, or next to, the blue recycling container.

4. Residents who do not participate and comply with the **mandatory recycling provisions** are subject, after one notice, to fines of up to $50 for each violation. **This will be enforced to reduce disposal costs.**

5. Residents who experience problems with the collection service may telephone the collection contractor, **Browning-Ferris Industries, Inc. at 592-9411** or the Department of Public Works at 786-0400, Ext. 286, 231, 225, 224, or 274.

6. **Refuse collection** will be weekly. The **collection of recyclables** will be bi-weekly throughout the year. The dates for recyclable and other collections are indicated on the collection schedule.

7. Materials placed on the tree-belt in noncompliance with these regulations and the Schedule of Collections must be removed therefrom within **48 hours following a collection day.**

8. **Christmas trees** will be collected with your regular refuse during January. Chrisumas trees over 7' in length must be cut in half.

REFUSE

1. **All refuse must be in containers.** Allowable containers are: Metal or plastic containers having a maximum capacity of 30 gallons and two handles, one on each side; or plastic bags having a maximum capacity of 7 cubic feet. **No cardboard boxes or paper bags may be used.** Wood or coal ashes must be placed in plastic bags.

2. **Refuse** means the solid wastes generated from the operation of a household including garbage, lumber and wood with no dimension greater than 3 feet and no exposed nails.

   SPECIFICALLY EXCLUDED ARE THE FOLLOWING: YARD WASTES, INCLUDING LEAVES, GRASS CLIPPINGS, HEDGE TRIMMINGS, BRUSH, AND BRANCHES UNDER 1" IN DIAMETER: stumps; trees; tree trunks or parts thereof; automobile bodies and motors or parts thereof; lead acid batteries; metal pipes; demolition waste including insulation, masonry, concrete, bricks, pipe, plaster, sheetrock, asphalt shingles and stone; bulky wastes; BUTTON BATTERIES; RECHARGEABLE BATTERIES; liquid wastes; hazardous wastes; materials to be recycled; and RADIOACTIVE MATERIAL found in smoke detectors, chemotherapy treatment waste or by-product.

3. During the months of May through September, inclusive, garbage shall not be placed loosely in barrels but shall be wrapped in paper or placed in closed bags within the barrel.

4. Containers should not be loaded to such a weight that they cannot be lifted by one person.

5. One RUBBER TIRE without rim may be disposed of per collection.

Appendix 6H

Year 2

Hazardous Waste Collection Grant Research

Municipal Recycling Incentive Program (MRIP)
Western Massachusetts District

August 17, 2004

Dear Mr. Stone,

For the past several months, I have been working with Tracy Demaio, Agawam's Recycling Coordinator, researching various models for the collection and management of Household Hazardous Waste (HHW). The goal of this research was to provide a cost benefit analysis of the various models so that you would be prepared to make decision relative to the design of your new town yard. This project's staff time was funded by a technical assistance grant awarded to Agawam by the Department of Environmental Protection.

Agawam is very fortunate to have a spacious, assessable site for the construction of a new town yard facility to house DPW activities. The attached report details several options for the management of HHW and makes recommendations regarding possible scenarios for developing a more centralized collection system these materials.

It has been my pleasure to assist the town with this project and I look forward to seeing the completion of your new town yard facility.

Sincerely,

Arlene C. Miller

Arlene C. Miller
MRIP Coordinator for Western MA

Agawam HHW Collection Options
DEP Technical Assistance Grant
2004
Arlene C. Miller, MRIP Coordinator

Background **DRAFT**

The town of Agawam has historically managed a very comprehensive solid waste management program which includes curbside collection of trash and recycling as well as annual one day Household Hazardous Waste (HHW) collect events. In addition, many "extra" items are included for collection in the curbside contract such as fluorescent bulbs, white goods, computers, TVs and bulky items.

The manner in which communities manage trash has changed in the last 20 years. New federal and state regulations have mandated that certain items be collected separately from trash. Massachusetts State Waste Bans require that recyclable goods such as paper and containers be handled separately, mercury bearing wastes such as fluorescent bulbs are deemed hazardous mixed in with trash, computers and TVs are banned from disposal facilities and it goes on. The new Agawam DPW garage and town yard will allow the town to review current waste handling practices and to consider alternatives. Of particular interest is the handling of special wastes that are defined in the Commonwealth's waste ban regulations.

The Town of Agawam applied for and received a DEP Technical Assistance grant in FY 2004 which would provide dedicated DEP staff time to review various household hazardous waste collection options for the town. The goal of this project is to present a clear explanation of various HHW collection options that would maximize the use of the new site, provide convenient and cost effective service to residents and potentially reduce the cost of collecting and disposing of HHW.

The following report will provide a cost benefit analysis of various options associated with the handling and management of these special wastes. The goal is to present options that provide a cost effective and convenient method for residents to dispose of various wastes.

Research

Segal (DEP), Arlene Miller (DEP), Tracy Demaio (Agawam) and Jack Stone (Agawam), brainstormed and developed a list of potential collection scenarios with a wide range of possibilities. That list is attached as Attachment A. While this broad range of possibilities was an interesting exercise, after more research and consideration of the needs of the community, the list was paired down and consolidated to reflect three options.

On important part of the research on this project was to consider existing HHW collection models that are already operational in the region or elsewhere. There are several excellent HHW collection models in western MA. Two that were particularly interesting to this review are Chicopee and Springfield. Arlene and Tracy conducted site visits to both facilities. Photos and notes from both visits are attached.

The Chicopee model was very cost effective and included the collection of mercury bearing wastes, oil, antifreeze and paint. Chicopee was fortunate to receive sheds for both the paint and mercury waste collections from DEP grants. It was interesting to see the set up and view what little space it required. It was also interesting to learn that the collection of these items is held one morning a week or less and by appointment only.

The City of Springfield runs a full-service comprehensive HHW collection operation. While they collect every household HHW item, they segregate their collections into paint and related items as one type of collection and HHW days as another. The City contracts directly with an HHW vendor to run all 5 or 6 one-day events and to bulk pack the material for seasonal storage at the Springfield site. The key to the success of this program is the bulk packing. It reduces the costs significantly over conventional one-day HHW collection events. Springfield serves about three times as many residents as Agawam, at the same cost.

This research provided the basis for the further development of the options, which follow.

Option #1: ***Current HWW Management Program Structure:*** (No change) There are three parts to the current structure: drop-off, curbside and one day HHW events.

1. Drop-off:
The town of Agawam currently collects the following special items as drop off items at various places in town.

a. motor oil at the DPW garage
b. car batteries at DPW garage
c. Rechargeable batteries at Town Hall

3. One day HHW events:
All paint and paint related products as well as pesticides, household cleaners, automotive wastes from the garage etc. are collected at this event. In addition the following items are collected:

a. propane tanks

Total cost: $42,641

Option #2*: Consolidation and Minor Expansion:*
This option calls for the consolidation of all current drop-off services at the new town yard. It also describes shifting the collection of mercury bearing waste from the curbside to a designated location at the new town yard. This model would also have three parts; a drop off at the town yard, a curbside component and one day HHW collection events.

1. Drop-off:
Materials to be collected at the town yard ***by appointment only*** would include:

a. Motor oil
b. Car batteries
c. Rechargeable batteries
d. Fluorescent bulbs
e. Button batteries
f. Other mercury bearing wastes such as ballasts

No capital investment is required for this option. An oil tank will be at the town yard. Space for the collection and storage of the fluorescent bulbs and other mercury bearing waste can be designated inside the building. An area of about 10-ft x 10-ft would offer plenty of space for this activity.

2. Curbside Collection:
Materials to be collected at the curb would include:

a. Tires without rims
b. Bulky items with a limit of 5 items/hh/mo
c. White goods
d. CRTs (computers and TVs)

3. One-day HHW events: The continuation of annual one-day HHW events is a good practice.

This model has two obvious advantages. The first is that the many drop-off services that

Option #3*: Alternatives for expansion:*
The town of Agawam is very fortunate to have the opportunity, because of the new town yard, to consolidate and possibly expand its solid waste collection program. The following alternatives should be considered as the town yard is being designed. These alternatives can be added at any time in the future.

a. Paint and paint related products: It is known that paint and paint related products are the most prevalent materials collected at HHW events. The purchase of one or more flammable sheds would allow Agawam to offer the collection of these items on a more regular basis at very little additional cost. Collections would be by appointment only. Frequent collection (several times each month) would serve to remove more of this material from the waste stream and would most likely result in less residents coming at any one time.

b. Portsmouth Shed: Agawam owns a beautiful Shed –the Portsmouth 12'x20" utility shed. This shed currently sits behind the town hall in the parking lot. If possible, this shed should be moved to the new DPW site. It could be used as a paint collection shed. A few shelves and one or more flammable proof lockers would outfit this shed nicely as a paint collection shed, at very little or no cost to the town.

c. HHW collections: Once again, there is great opportunity to modify the one-day HHW events to a more comprehensive but cost-effective model.

The current one day events require the use of a qualified HHW vendor who bills the town on a per car basis. The alternative model is to purchase 4 flammable proof sheds, hold 4-6 events annually and have the vendor bulk pack the waste in 55-gallon drums. This model is similar to the program design in the City of Springfield and allows for more frequent collection of HHW material, at a very reduced cost per car to the town.
Over the course of a season, Springfield services about 1000 cars at a total cost, including labor and disposal, of about $12, 000. ($12/car) Agawam's current program costs about $30/car per car.

Agawam has the luxury at its new town yard of significant space that would allow this expansion of HHW collection to occur. It also has the Portsmouth shed, which could house a portion if not all, of the flammable proof lockers required to store collected HHW material. There would be some up front capital expense to set up the facility with lockers. However, judging from the program in Springfield, the annual cost to operate such a program would be very similar if not less than the cost to operate the current one-day event.

Summary: Recommendations for Implementation:

The solid waste management program in Agawam is very complete and adequate. The construction of the new town yard will allow for the consolidation of services, which will, by itself, create efficiencies. The program suggestions described here could enhance the current program, allowing the town to provide a more comprehensive service to residents at the same or reduced cost. The new town yard provides opportunities no matter which programs the town decides to implement.

Following is a summary of the recommendations:

1. Offer drop-off collection at the town yard for:
   a. Motor oil
   b. Car batteries
   c. Rechargeable batteries
   d. Button batteries
   e. Fluorescent bulbs and other mercury bearing waste

2. Continue offering curbside collection of all recyclable materials as well as bulky waste, CRTs, tires without rims and white goods.

3. Continue holding one-day annual HHW collection events but have the events at the new town yard.

4. Move the Portsmouth utility shed from the Town Hall parking lot to the new town yard.

5. Purchase several flammable-proof sheds for the storage of paint and paint related products that may find itself on your property. When the time or money permits, grow into the expanded option of bulking HHW on site and eliminating the costly one-day events. Although this last program expansion option would add about $8,000 to the cost of the program, it would most likely triple the number of residents served and significanlty increase the amount of waste removed from the environment.

The town of Agawam is in a very desirable position regarding its waste management options. Not only does it have a state of the art waste to energy facility and MRF in its "back yard' but it also will be moving all DPW operations to a spacious new facility. The options above offer opportunities for consolidation and expansion of current operations in a cost-effective manner.