



*City of Marlborough*  
*Conservation Commission*

140 Main Street  
Marlborough, Massachusetts 01752  
Tel. (508) 460-3768 Facsimile (508) 460-3700

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MAR 04/11/05

05

April 28, 2005

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

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
627 Main Street  
Worcester, MA 01608

RE: NPDES PII Small MS4 General Permit – Annual Report No. 2

Dear: USEPA and MDEP:

Enclosed please find the NPDES PII Small MS4 General Permit – Annual Report No.2 for the City of Marlborough.

If you have any questions, please contact me at 508-460-3768 or at [pryder@ci.marlborough.ma.us](mailto:pryder@ci.marlborough.ma.us).

Sincerely,

Priscilla Ryder  
Conservation Officer

Cc: Mayor Hunt  
James Arsenault  
Ron LaFreniere

**Municipality/Organization:** Marlborough, MA

**EPA NPDES Permit Number:** 1128

**MaDEP Transmittal Number:** W-035393

**Annual Report Number  
& Reporting Period:** No. 1: May 04-May 05

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Priscilla Ryder **Title:** Conservation Officer

**Telephone #:** 508-460-3769 **Email:** pryder@ci.marlborough.ma.us

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:** 

**Printed Name:** Dennis C. Hunt

**Title:** Mayor

**Date:** 4/29/05

## **Part II. Self-Assessment**

The City of Marlborough has completed the required self assessment and has determined that our municipality is in compliance with all permit conditions, a few items as noted below were delayed and we have highlighted some of the tasks that proved successful in this past year- '04.

Part D 1-1 – Informational brochures. The informational brochure will be mailed out in the residential water bills in the May-July 2005 water bill cycle and annually thereafter. The delay in getting this out has been that we had wanted the brochure to be in Portuguese and Spanish, but had little luck in getting this done. Our hope is that in the '06 mailing cycle we will have it translated so that the large Brazilian and Hispanic population can also participate and learn about how to protect our stormwater.

Part D 1-4 Student Education-Patt Koscinski the High School environmental science teacher took it upon herself to teach her 9<sup>th</sup> grade class about stormwater management and watershed protection. She then had her 9<sup>th</sup> grade class honors students, teach the 7th grade middle school classes. This topic fits very well into the MCAS curriculum for both of these grades so was a perfect match. She was able to borrow the “watershed model” from DEP for this class project. She reported that this was a very successful class and she is willing to do this as an annual assignment. The presentation and publication provided by and to the students are attached. Patt Koscinski is also working with the local watershed group the Organization for the Assabet River and the Conservation Commission to put together a curriculum for the” Water Wise workshops” this summer. The workshops will be taught 6-8 times throughout the summer at the local beach to educate kids and adults about water conservation and water quality issues. \$5,000 funding has been raised by OAR to hire a staff and provide the resources to do these workshops.

Part D 1-7a In addition to mailing letters to 10 companies each year to confirm compliance with their stormwater management plans, the SWMAC is interested in putting together a brochure that will be mailed to all businesses with stormwater plans, as a first step to getting better compliance. Our experience is that the businesses respond best to a letter, rather than self-reporting annually. We will be experimenting with this to fine tune the process to get the best compliance. We only received 3 unsolicited stormwater reports this year, out of the 20 we expected.

Pat D 2-4 Public Hearing - The SWMAC has been meeting and was not ready to hold a public meeting until they were comfortable with the subject themselves. We have since set a public meeting date for May 12<sup>th</sup> 2005. The public is being invited to attend and the following boards have been specifically invited: City Council, Planning Board, Board of Health, Recycling Committee, Building Dept., Engineering Dept., and Conservation Commission. (see attached flier)

Part D 3-1 – GIS Mapping –We have obtained GIS locations for almost all of the City's drainage structures. We have also mapped about 60% of the City's drainage system

connectivity, flow direction and outfall locations. Most of the connectivity information has been generated from paper maps we had in the office. These locations are mostly in the newly developed areas. The other 40% of the city we still need drainage connectivity and outfall locations. These tend to be in the older sections of the City and will be addressed in '05 and '06 as funding permits. We are hopeful that the stream teams can help us identify outfall locations with GPS units.

Part D 3-2 – Storm Water Management Advisory Committee (SWMAC) - The SWMAC has met 5 times and has been very active in reviewing the draft Stormwater Ordinance and working to see how best it can be integrated into the existing permitting and reviewing procedure within the city. Although many of our existing ordinances speak to stormwater and erosion control items already, we believe it made more sense to adopt a separate ordinance. The importance of stormwater protection and planning would then be in the forefront of all development and earth moving activities throughout the city.

Part D 4-2 Sampling/Testing - We are just now determining the protocol for the IDDE procedure (see 3-3). Once this protocol is set up we will be determining what baseline sampling we need to take. The Stream teams which are going to be going out in June of '05 will also be providing helpful data on where samplings may be appropriate.

Personnel changes - A new City Engineer is now on board his name is James Arsenault and will now be responsible for all the City Engineer assigned tasks. Tom Cullen Jr. is the new Assistant Commissioner of Operations.

### Part III. Summary of Minimum Control Measures

#### 1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
1-1	Informational brochures	Conservation/ Priscilla Ryder	Distribute city wide annually	The brochure is complete. This was not mailed out in '04 as we were waiting for Spanish and Portuguese translation which failed to be delivered.	Will be distributed in May-June 2005 water bills (in English only), and annually thereafter (with Spanish and Portuguese section included)
1-2	Storm drain stenciling	Conservation/ Priscilla Ryder	Stencil ¼ of drains per year	Eagle scout and high school student volunteers placed storm drain markers on 494 catch basins and hung 850+ door hangers in the Millham Reservoir Watershed in '04 (see attached map of marked areas)	The remainder of the Millham watershed and beginning the Sudbury Reservoir Watershed catch basins will be marked in '05
1-3	Cable TV Program	Conservation/ Priscilla Ryder	Tape/ air once annually	Contact made with M8 Cable TV show and developed script. Cable show is willing to tape but couldn't do so until June '05 (see attached)	Taping set for June '05. Will be aired several times annually. One ½ hour show and public service announcements.
1-4	Student Education		Speak to middle school class	The high school 9 <sup>th</sup> grade environmental studies class put together a presentation which they taught to the 7 <sup>th</sup> grade class at the middle school in December '04 (see attached write up) and Water Wise workshops at city beach.	Program was so successful in '04 this will be done in '05 and annually thereafter. It fits in very well with the MCAS curriculum for both grades.
Revised		Patt Koscinski-High School Environmental Science Teacher	High School and Middle School class curriculum developed.		
1-5	Web site posting	IS/ Jeanne Bunting	Post storm water information on City Web site	The brochure and stormdrain flier information was posted.	Information to be updated as needed annually

revised		Conservation/ Priscilla Ryder			
1-6	Prepare compliance report	Conservation/ Priscilla Ryder	Prepare annual report	Report prepared April '04	Report to be prepared April '05
1-7	Annual Reporting Reminders	Conservation/ Priscilla Ryder	Notices to non-residential properties	Letters mailed Aug. '04, 10 inspections done with follow up compliance. (see compliance report)	Letters to 10 new companies to be mailed July '05 Inspections Aug '05.
1.7a NEW	Annual Reporting Reminders	Conservation /Priscilla Ryder	Notices to commercial properties		Develop a brochure to educate businesses to meet stormwater maintenance requirements.

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
2-1	Volunteer for stenciling	Conservation/ Priscilla Ryder	Volunteers to install storm drain markers	One Eagle scouts and one high school student doing a public service project applied markers and distributed fliers in '04	Two additional eagle scouts will be working on drain markers and fliers in the Sudbury Watershed '05
2-2	Household Hazardous Waste Collection day	Emerg. Mgt/ Don Cusson	Hold HHWCD Annually	Two events were held 5-15-04 and 10-9-04 and additional one on 7-28-04	Two events scheduled for 5-14-05 and 10-15-05
2-3	Storm Water Management Advisory Committee	Conservation/ Priscilla Ryder	Form SWMAC	The SWMAC was formed in '03 and met 5 times between Dec. '04 and May '05	SWMAC will meet at least monthly in '05-'06.
2-4	Public Hearings	Conservation/ Priscilla Ryder	Hold Public Meeting on SWP	The public meeting is scheduled for May 12, 2005 (see attached flier)	We will have additional hearing if necessary in '06
2-5	Stream Team	Conservation/ Priscilla Ryder	Form Stream Team	Stream team information was collected, strategy established. Recruitment of volunteers to occur on 4-30-05 cleanup day.	Stream Team to be formed and first meeting held in June '05. Stream teams will begin stream investigation in summer '05.

2-6	Clean up day		Sponsor Clean-up day	400 volunteers to participate in 4/30/05 earth day cleanup (see flier)	Annual cleanup to continue 4/'05 (the Saturday close to earth day)
Revised		Cheryl Hunt/Mayors' Wife			

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
3-1	GIS Mapping	DPW/ city engineer	Map City ¼ of Drainage System	60% of the city's drainage system has been entered onto the GIS mapping system. This includes catchbasin locations.	The remaining 40% of the drainage system and the connectivity of the system will be done in '05, '06 and '07 this is the more difficult portion of the system which requires field work. Some of which will be done by stream teams.
3-2	Ordinance Review	DPW/ city engineer/ James Arsenault	Review applicable ordinances	Ordinance review is being performed by City Engineer. Revising Planning Board and Siteplan Review regulations to include and reference stormwater management policy and proposed regulations.	Draft ordinance and rules changes to be presented to City Council 9-'05
3-3	Protocol development for IDDE	DPW/ city engineer/ James Arsenault	Develop protocol for IDDE	DPW Engineer, Conservation Officer and Public Utility Commissioner reviewed IDDE issues. Many items listed are already being done	Develop check off list for IDDE items to gage compliance.

3-4	Ordinance Modifications	DPW/ city engineer James Arsenault	Drainage ordinance modifications	Draft Stormwater Management Ordinance was developed and is under review by the SWMAC	The draft ordinance will be presented to City Council in September '05 for approval.
3-5	Stream Team inspections	Conservation/ Priscilla Ryder	Inspect city's streams/outfalls	See 2-5 above	See 2-5 above Will begin in '05
3-6	Ill. Dis. Notice/Enforcement	DPW/ city engineer	Disconnect w/in 6 mos.		Will begin in '07

#### 4. Construction Site Storm water Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
4-1	Regulation Review	DPW/ City Engineer- James Arsenault	Review applicable regulations	See 3-2 above	See 3-2 above
4-2 Revised	Sampling/Testing	DPW/city engineer- James Arsenault	Sample/test to est. baseline		Protocol for baseline sampling will be developed '05 after IDDE program is started.
4-3 Revised	Storm water management policy	DPW/ City Engineer- James Arsenault	Adopt DEP Policy	See 4-1 above	See 4-1 above
4-4 Revised	Re-sampling retesting discharges	DPW/ city engineer- James Arsenault	Resample/retest discharges		Resampling to begin in '06 first sampling after protocol established.

#### 5. Post-Construction Storm water Management in New Development and Redevelopment



BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
5-1	Regulation Reviews		Review applicable regulations	See 4-1 above	See 4-1 above
Revised		DPW/ city engineer- James Arsenault			
5-2	Sampling/testing		Sample/test to est. baseline	See 4-2 above	See 4-2 above
Revised		DPW/city engineer- James Arsenault			
5-3	Storm water management policy		Adopt DEP Policy	See 4-1 and 4-3 above	See 4-1 and 4-3 above
Revised		DPW/ city engineer- James Arsenault			
5-4	Re-sampling/retesting	DPW/ city engineer- James Arsenault	Resample/retest discharge	See 4-4 above	See 4-4 above
5-5	Annual Reporting	Conservation/ Priscilla Ryder	Achieve annual reporting compliance	See 1-7 above	See 1-7 above
5-6	Random inspections	Conservation/ Priscilla Ryder	Inspect 10 facilities	See 1-7 and 1-7a above	See 1-7 and 1-7a above

**6. Pollution Prevention and Good Housekeeping in Municipal Operations**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
6-1	Street Sweeping	DPW/ Tom Cullen Jr.	Sweep all streets annually	All streets were swept between April and Nov. 2004 (see map from city web site attached)	All streets will be swept between April and Nov. 2005

6-2	Catch basin cleaning	DPW/ Tom Cullen Jr.	Clean ½ catch basins annually	1/3 of catch basins were cleaned in 2004	1/3 of catch basins will be cleaned in 2005
6-3	Employee training	DPW/ city engineer	Train DPW employees	None required	In- house employee training to be done. Also training of custodial staff, who are regularly dumping soapy mop water into storm drains (we have discovered)

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) –**

The TMDL for the Assabet River and the Hob Brook were both issued in 2004. They both require further investigation to pinpoint and prioritize areas for management. In 2005 these priorities will be listed and a plan for implementation will be forth coming. We are hopeful that our stream team and IDDE detection program will help to identify any non-point sources of problems within these two watershed areas.

**Part IV. Summary of Information Collected and Analyzed**

All applicable information is included in Part II and III above.



## ATTACHMENTS

The following documents are attached and are referenced in the report. The number at the top left corner of the page for each section corresponds to the section of the report.

### Part III Sections:

- 1-2 Storm drain marker and door hanger information
- 1-3 Cable TV Program outline
- 1-4 Material from Middle School Program presentation
  - a. Know your water facts
  - b. Water Water Everywhere in Marlborough
  - c. Marlborough kids enjoy beach watershed lesson (article)
  
- 2-2 Household Hazardous Waste Collection Day flier
- 2-4 Stormwater Management Plan – Public Meeting flier
- 2-6 Project Clean Sweep Flier
  
- 6-1 Street Sweeping map (from web site)

## Be Part of the Solution To Stormwater Pollution

### WHAT IS THE PROBLEM?

Every time it rains, gallons and gallons of polluted runoff flow into the nearest lake, pond, or river. Polluted runoff may include motor oil, yard clippings, dirt, fertilizers, pesticides and other toxins. The pollutants come from yards, driveways, and gutters, or are sometimes dumped directly into the catch basins by neighbors who don't know better. All of this pollution ends up in our streams, brooks and eventually, from your neighborhood, into the nearest lake, pond or reservoir, where you swim, fish or get your drinking water. These pollutants degrade water quality and are harmful to us and wildlife!

### HOW CAN I HELP?

The catch basin inlets on your street have been marked with a colorful marker, like the one on the front of this door hanger, which carries a pollution prevention message. Go take a look! Volunteers from your community have taken the time to install the markers and distribute this message. You can help, too!

- Do not dump anything into the storm drain.
- Use fertilizer and pesticides sparingly.
- Keep grass clippings, trash, and dirt off the streets and out of the gutter.
- Spread the word about protecting our water from polluted runoff.
- Report illegal dumping in storm drains to the Conservation Commission.

Questions about stormwater runoff, or storm drain markers? Call

**Marlborough Conservation**

**Commission**

**508-460-3768**



Foundation, PO Box 2795,  
Worcester, MA 01613-9938.

## George J. Rammer, Sr., 83

George J. Rammer, Sr., 83, of Marlborough died Friday, June 18, 2004 at UMass Memorial Healthcare, 55 Lake Ave. North in Worcester after an illness.

He was the husband of the late Jane P. (Diamond) Rammer who died in 2002.

He leaves his son George J. Rammer, Jr., and his wife Gisele of Marlborough; a daughter Linda J. Woodard and her husband Stephen of Marlborough; two brothers, Anthony Rammer of Hyde Park, New York; and Henry Rammer of Belfast, Maine; and a sister Katherine Gryczniak of Florida. He also leaves several nieces and nephews. He was the brother of the late Mary Darrow.

He was born in Bayside, New York, son of the late Anthony and Helen (Falkowski) Rammer and had lived in Marlborough for more than 30 years.

He was educated in the Bayside, New York school system.

He was a United States Army veteran of World War II.

Mr. Rammer was a facilities technician for over 35 years at the G.T.E. Lab of Waltham, retiring in 1986. After his retirement, he had a part time job at J.P. Bartlett of Sudbury for 5 years.

He was a member of Immaculate Conception Church. He was an avid gardener and enjoyed being an outdoorsman and fishing.

A funeral was held June 22, from the John P. Rowe Funeral Home, Inc., 57 Main Street, Marlborough, with a mass at Immaculate Conception Church, Marlborough. Burial with military honors followed.

# INSIDE MARLBOROUGH

## STORM DRAIN EDUCATION OUTREACH

*Many city residents have "no clue" about the pollution consequences*

Ever wonder what those small square grates on the side of the roadway are for? They carry all the rainwater, and anything else dumped on the roadway and adjacent properties, into the nearest stream, pond and/or lake. Oil, grease, paint and fertilizers find their way into our ponds through this drainage system, discarded by people who do not know any better.

Robert Platt hopes to change that through his Eagle Scout project. Platt and his team of Boy Scouts began educating the public recently by attaching green and blue markers, which say, "No Dumping drains to water" at each storm drain within the Millham Reservoir watershed. Each house on these roadways will also receive a door hanger, which explains the need to keep pollutants out of the storm drains.

Platt and his crew began installing storm drain markers in the neighborhood surrounding Richer School, all of which drain into Millham Reservoir, then into the Assabet River. Later this

year another Eagle Scout will place the remaining markers on the remaining streets within the Millham Reservoir watershed.

Other scouts have marked other watershed areas and have learned from experience that people have "no clue" where these storm drains go.

One woman read the door hanger and indicated that she had no idea the street drains flow into the stream beside her house. She thought the drains connect with the city sewer system. She now will be sure to keep the drains clean and be sure no one dumps anything into them.

As the door hanger emphasizes, all storm drains need to be kept clean. Any pollution into these drains should be reported to the fire department and the Conservation Commission for cleanup to be sure this contamination does not reach a stream, lake, or river. Every citizen and resident throughout Marlborough can help to be part of the solution to storm water pollution as outlined in the door hanger.

Over the next two years, additional storm drain markers will be installed on all catch basins throughout the city, to protect all water bodies and waterways, Lake Williams, Millham Reservoir, the Sudbury Reservoir, Hop Brook, Mowry Brook and the Assabet River areas. Residents are being encouraged to keep an eye out for these new markers and do their part to keep the city's streams, lakes and ponds clean.

Platt and the scouts would also like to thank S.D. Visual Images for donating the printed door hangers, and Walmart for helping supply some refreshments for this event.

Here are some suggestions residents are being asked to follow: do not dump anything into the storm drain; use fertilizer and pesticides sparingly; keep grass clippings, trash, and dirt off the streets and out of the gutter; spread the word about protecting the water from polluted runoff; and report illegal dumping in storm drains to the Conservation Commission, 508-460-3768.

## Christian-based recovery program

*Continued from previous page*

obsessive behavior. The program is sponsored by SOS Ministries, an outreach of Greater Grace Christian Fellowship in Marlborough.

For more information, contact S.O.S. Ministries at (508) 254-

Massachusetts Association of School Committees (MASC) Division IV Central Region as the Division Chair.

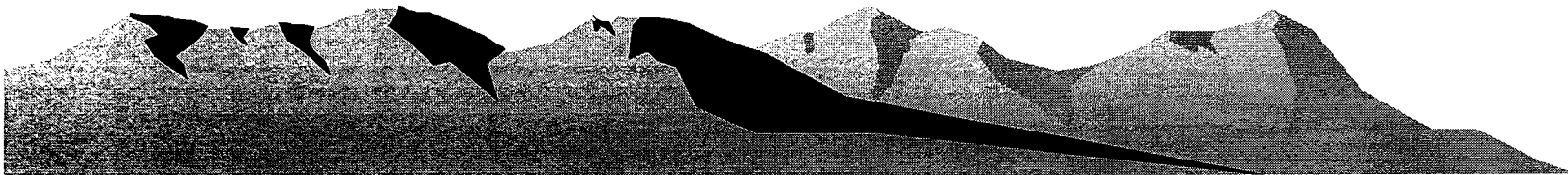
Robey, who was recently re-elected to her third term on the Marlborough School Committee, has served as the Committee's Vice Chair and as Chair of the Finance Subcommittee, having also served on the Policy and Negotiations Subcommittees. At

Richer/Bigelow Home and School Association, and corresponding secretary of the GFWC Marlborough Junior Woman's Club; and a volunteer at the Middle School Library.

MASC is a non-profit organization that represents more than 2,100 Massachusetts school committee members in over 330 local and regional school districts throughout the Commonwealth.

# Water Water Everywhere

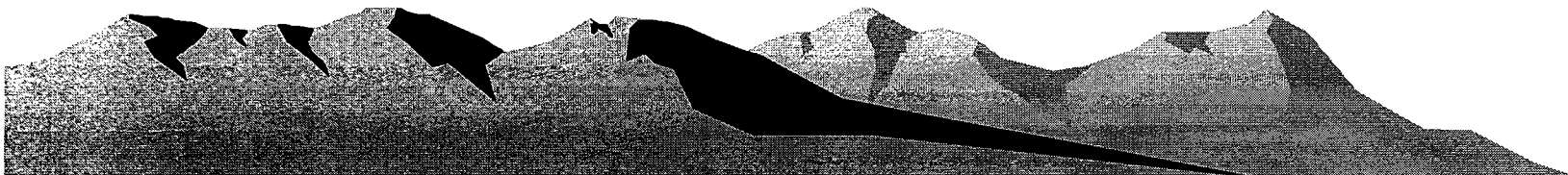
## Water in Marlborough



1-4  
Student  
Education -  
Presentation

# Where does Marlborough's water come from?

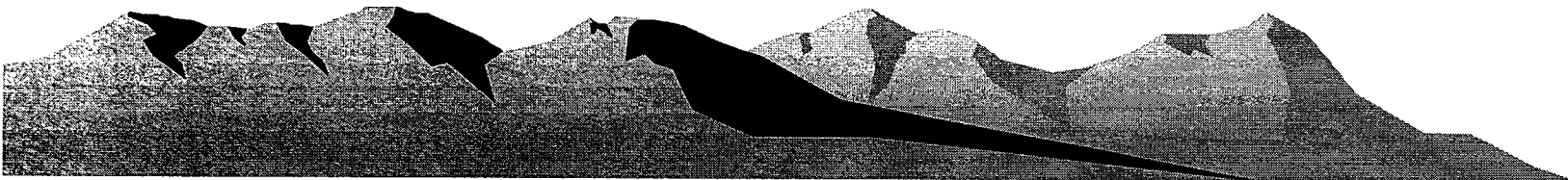
- Millham reservoir
  - Near the mall
- Lake Williams (emergency use)
  - Near the courthouse
- Wachusett reservoir
- Quabbin reservoir
  - Interesting fact
    - *Quabbin reservoir is also home to a large population of the endangered bald eagles*





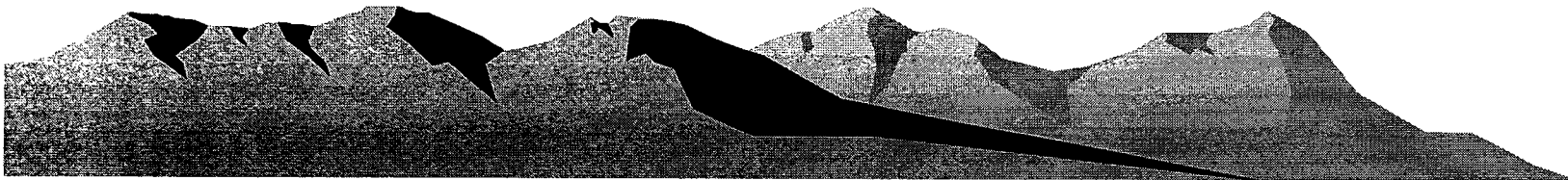
# Facts on the Quabbin

- Created in the 1930's
- One of the largest reservoirs in the U.S.A.
- Fed by three branches of the Swift River
- Four towns were flooded in its creation
- 18 miles long
- 181 miles of shoreline
- 60 islands
- Holds 412 billion gallons of water



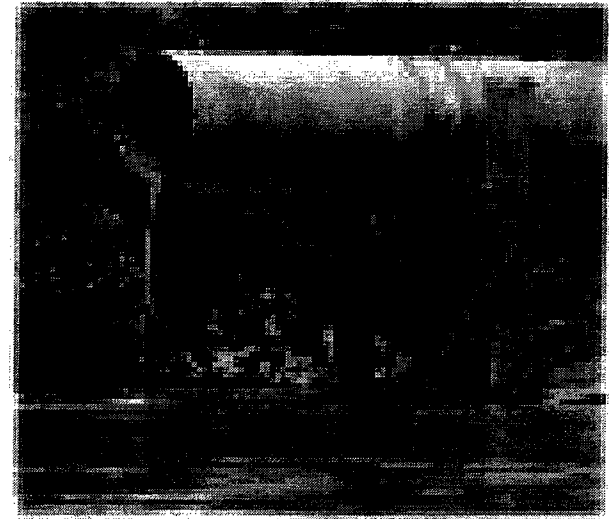
# How does water get to reservoirs?

- Rivers
- Precipitation
- Groundwater runoff
  
- Watershed- all water sources that flow into a larger and more stable body of water
  - Example = river flowing into a reservoir



# What Pollutes the Water?

- Point Pollution: Pollution that comes from a single, easily identifiable source
- Examples:
  - Oil Tanker spills
  - Waste from factories
    - Thermal and solid waste
  - Underground septic systems



# What pollutes the Water?

Non-point pollution- pollution that comes from multiple, not directly identifiable sources

## Examples:

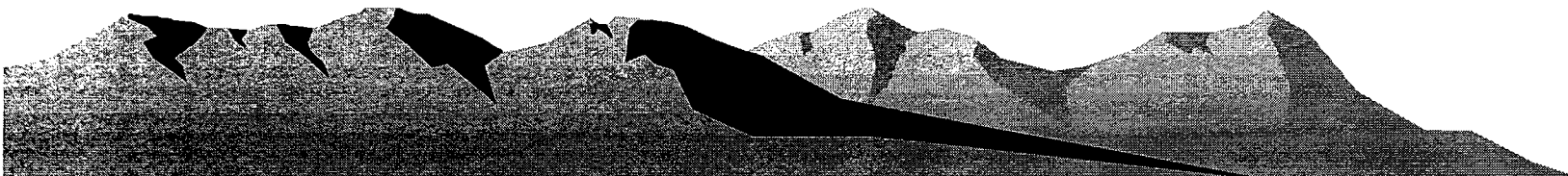
- Fertilizer washing off lawns into a storm drain
- Animal feces flowing into a storm drain

Storm Drain- water system (sewers) that empty into another body of water (river)

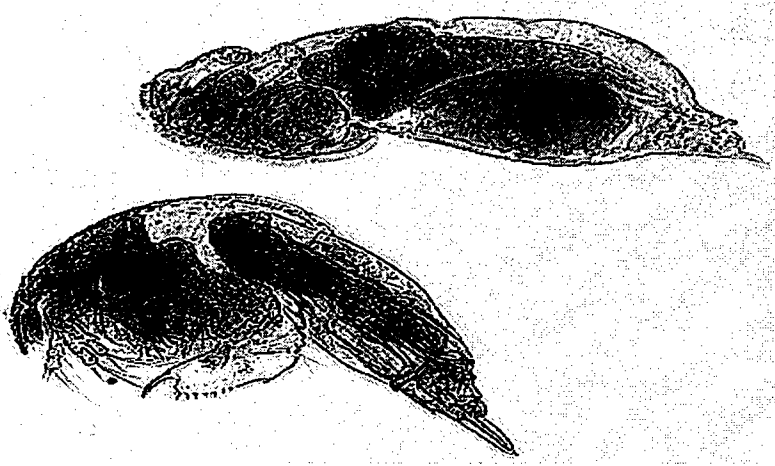


# What happens to polluted water?

- Marlborough's polluted water is treated at the Easterly and Westerly plants
  - Westerly plant is near the Solomon Pond Mall
  - Easterly plant is on Route 20 near Sudbury

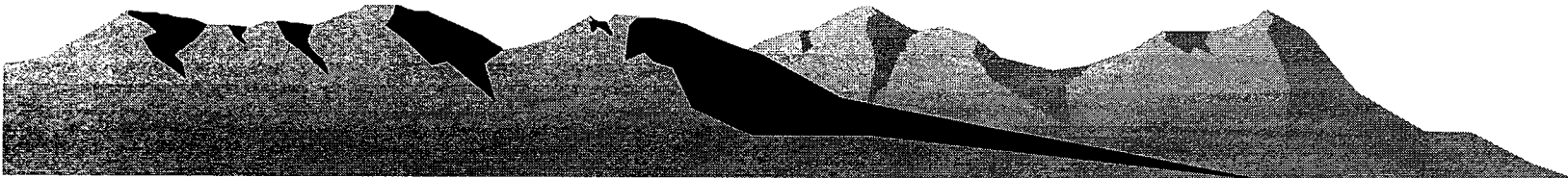


# How is Water Treated?



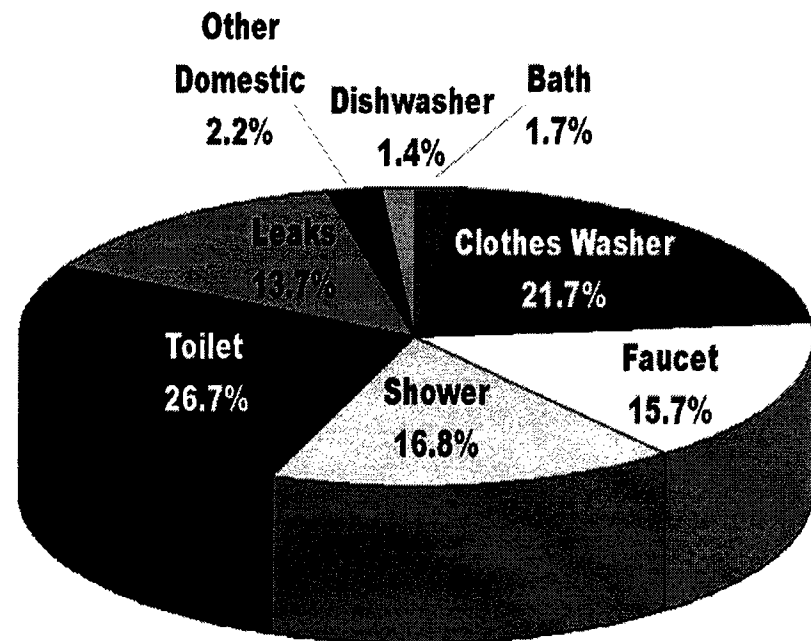
Microorganisms play a vital role in the cleanup of waste. They break down the waste matter and make it easier for us !

- What is done to the water at the plant?
  - Sediment falls to the bottom and is removed
  - Oxygenated in whirl tank
  - Microorganisms help decompose waste
  - Chlorine is added to kill any bacteria



# Wasting Water?

- Thousands of gallons of water are wasted everyday
- 50% of water is used by industry
  - This water is often carelessly disposed of
- 42% of our water is used by agriculture
  - Water seeps into ground



**Typical Household Water Use  
(Indoor)**

After "Residential End Uses of Water," by permission.  
Copyright 1999, American Water Works Association and AWWA Research Foundation



# What can I Do to Help?

- Many things can be done to conserve
  - Buy low flow faucet heads
  - Water your lawn at night
  - Shut off water when your not using it
    - Ex- Brushing teeth

