

A Comprehensive Public Outreach & Education Program

One Community's Approach

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NEWEA 2018 Spring Meeting

June 4, 2018



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One Community's Approach

Program Elements

Town

- * World Water Monitoring Challenge
- * Elementary/Middle School Education Program
- * High School/College Education and Training
- * WWTF Internship
- * WWTF Tours

Consultant

- * World Water Monitoring Challenge
- * Sump Pump Brochure/Mailer
- * FOG Brochure/Mailer
- * Wipes Brochure/Mailer

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Consultant Elements

World Water Monitoring Challenge

- * Assign Internal Contact Person
- * Set Date and Rain Date with Town
- * Coordinate with Teacher Contact
 - * Number of Students
 - * Special Requirements
 - * Food Allergies
- * Contact Bus Company
- * Solicit Internal Staff for Volunteers to Assist Town Staff at the 4 Test Stations
 - * pH, Turbidity, Dissolved Oxygen, Temperature
- * Provide Services with Community Outreach Funds
 - * Bus Transportation
 - * WEF Backpacks with Goodies
 - * Beverage and Snack
 - * Volunteer Staff to Assist Town Staff

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Consultant Elements

Brochures/Mailers

- * Sump Pumps
- * FOG
- * Wipes



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Consultant Elements

Sump Pump Brochure/Mailer



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Consultant Elements

FOG Brochure/Mailer



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Consultant Elements Wipes Brochure/Mailer



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Town Elements

- * World Water Monitoring Challenge
- * Elementary/Middle School Education Program
- * High School/Vocational-Technical School Education and Training
- * WWTF Internship
- * WWTF Tours



My Experience

- * 32 Years as Operator, Lab Tech, Plant Supervisor and now Superintendent
- * Grade 7 Massachusetts Wastewater License
- * 2008 NEWEA Public Educator Award
- * 2011 WEF National Public Educator Award
- * 2015 NEWEA Operator of the Year Award
- * 2017 NEWEA E. Sherman Chase Award



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Billerica's Progression

- * 1994 to Present - 100 Elementary Classrooms Visits
- * 2000 to Present - Treatment Plant Tours for Regional Vocational Schools
- * 2008 to Present – World Water Monitoring Day, Elementary School Hands-On Field Trips
- * 2017 to Present - Introduce Industry to Billerica High School and Start Intern Program



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Billerica Public Outreach Program

- * Program started in 1994 to Present
- * Water Quality Awareness Week
- * MWPCA Poster Contest
- * 100+ Classrooms visits in April and May every year!



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Have a Plan!

- * Permission from School Superintendent
- * Letters into teachers mailboxes in each school
- * Outlining what you offer and how long it will take
- * Make it easy for the teacher



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My Lesson Plan

- * Grade 1- Water Cycle and Conservation
- * Grade 2- Surface Water +
- * Grade 3- Ground Water +
- * Grade 4- Drinking Water +
- * Grade 5- Wastewater, Storm Water +

- * Everything! Shock and Awe... Visuals... Samples



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Captive Audience!



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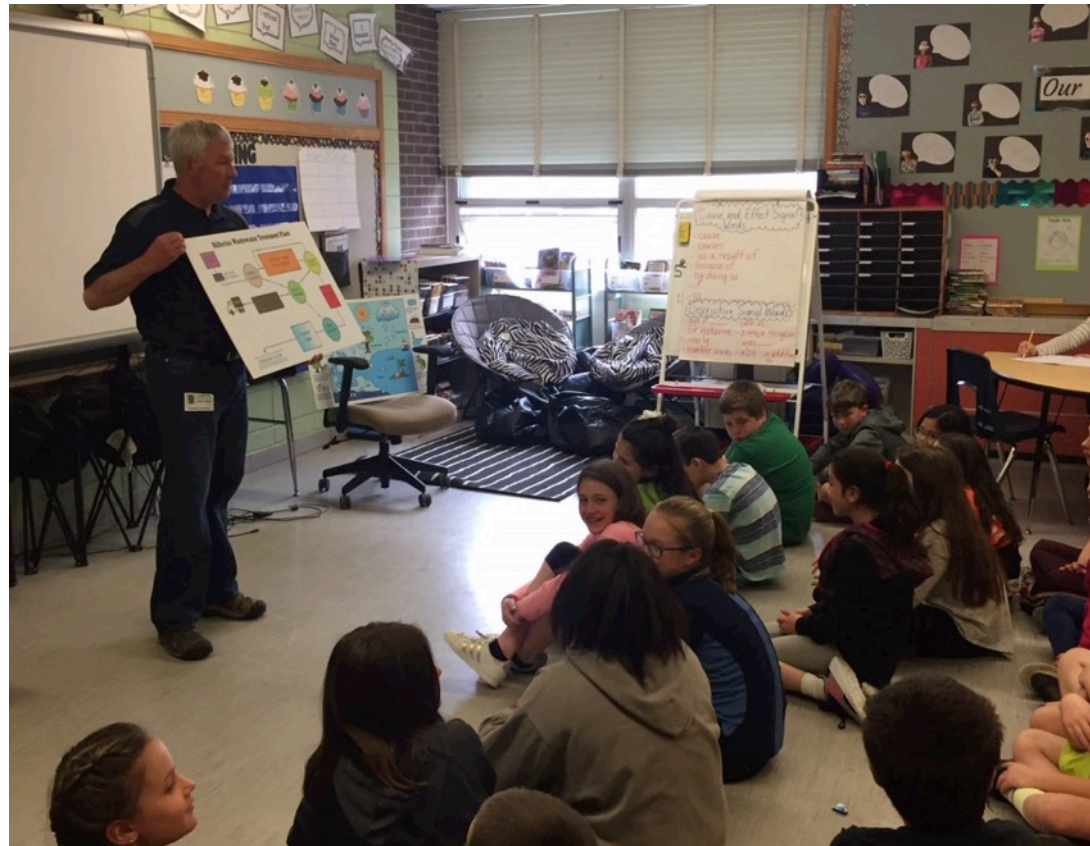
Water Cycle



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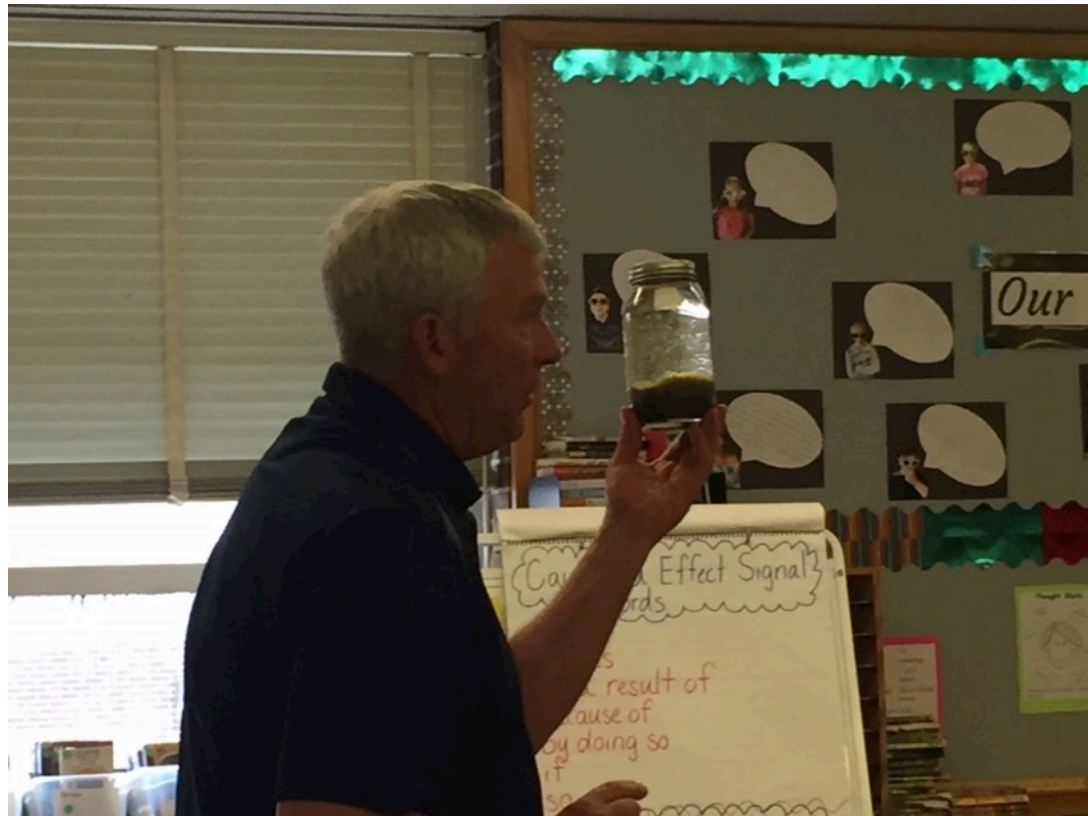
Plant Layout



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One Community's Approach

Mixed Liquor



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- * **World Water Monitoring Day**
(Now World Water Monitoring Challenge)
- * 4 Hands-on testing stations
- * Kids test pH, Temperature, Dissolved Oxygen and Turbidity
- * Each station has an engineer and an operator to discuss each station in detail
- * Each station uses both colorimeter tests and then actual meter results
- * Kids are encouraged to note differences in test methods



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WWMD!



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WWMD at Nuttings Lake



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Teachers, Students & Parents!



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A Partnership

- * Billerica had limited resources for Public Outreach
- * Working with Woodard & Curran added several benefits
- * Brought funding, expertise and to our fieldtrips
- * Benefits are forming bonds with Engineering personnel
- * Relationships and Trust



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Influencing the Next Generation

- * In 2000 we started working with older kids to introduce water and wastewater industry
- * Minuteman and Essex Vocational Schools
- * 2017 Billerica Memorial High School.
- * Internships



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How is our Industry Found?

- * High School, Technical School and College
- * Unemployment Bureau
- * Veterans
- * Mentoring
- * NEIWPC, NEWEA, MWPCA, WEF
- * Word of Mouth



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What Billerica Did

- * Changed job description to lower grade level
- * Put deadlines on reaching certain grade levels
- * Motivation...you will lose your job if you don't succeed!
- * Had to deal with union in Town
- * Had to have Town Manager and DPW Director on board with plan



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Training

- * Signup for training classes, beginner thru advanced
- * Now working in a plant, so it makes more sense
- * Created a library in the plant
- * Set aside time daily for study
- * Able to talk with existing operators about questions they have
- * Generates more interest in current employees



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Current Results

- * We have hired 4 new operators
- * Training plan is working
- * We have hired 7 people through word of mouth and mentoring
- * We have made outside training mandatory for all employees
- * Experienced operators have been extremely beneficial to have around to help train new people



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* Thank You!

* Thoughts?

* Questions?



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Our New Mascot!



Any Guesses?

