

City of Brewer's MS4 Program "Above & Beyond"

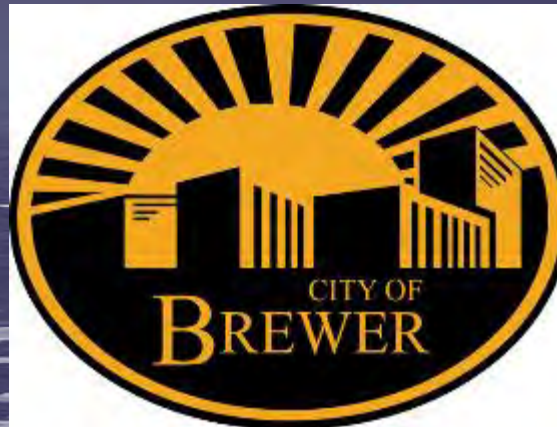
Maine Sustainability & Water Conference 2018

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City of Brewer

Phil Ruck, P.E., President

Stillwater Environmental Engineering, Inc.



Clean Water Act

- ☞ Federal Water Pollution Control Act of 1948
- ☞ Clean Water Act of 1977
 - Made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained.



What is an MS4?

- ☞ Municipal Separate Storm Sewer System
- ☞ Storm Water Management System
 - Road Ditches
 - Culverts
 - Catch Basins
 - Curbs and Gutters
- ☞ Owned or Operated by the City
- ☞ Discharge Directly to Surface Waters, or Wetlands

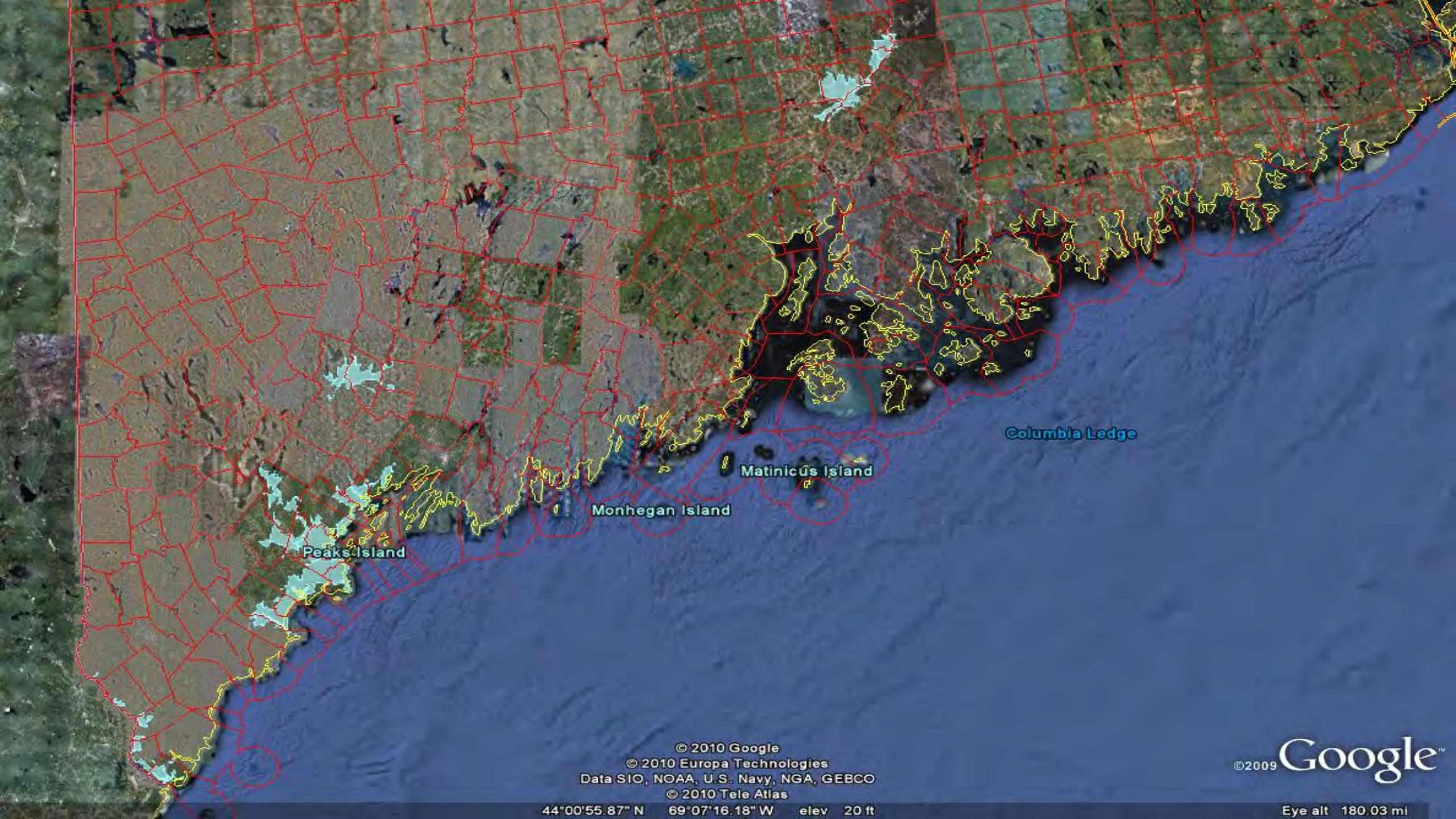


MDEP MS4 Program

- ☞ Maine DEP Storm Water Program
 - MS4 General Permit
 - July 1, 2013 to June 30, 2018
- ☞ 30 MS4 Municipalities
- ☞ Several State/Federally Owned MS4s



***Minimize pollution from storm water runoff in urbanized areas!**



Peaks Island

Monhegan Island

Matinicus Island

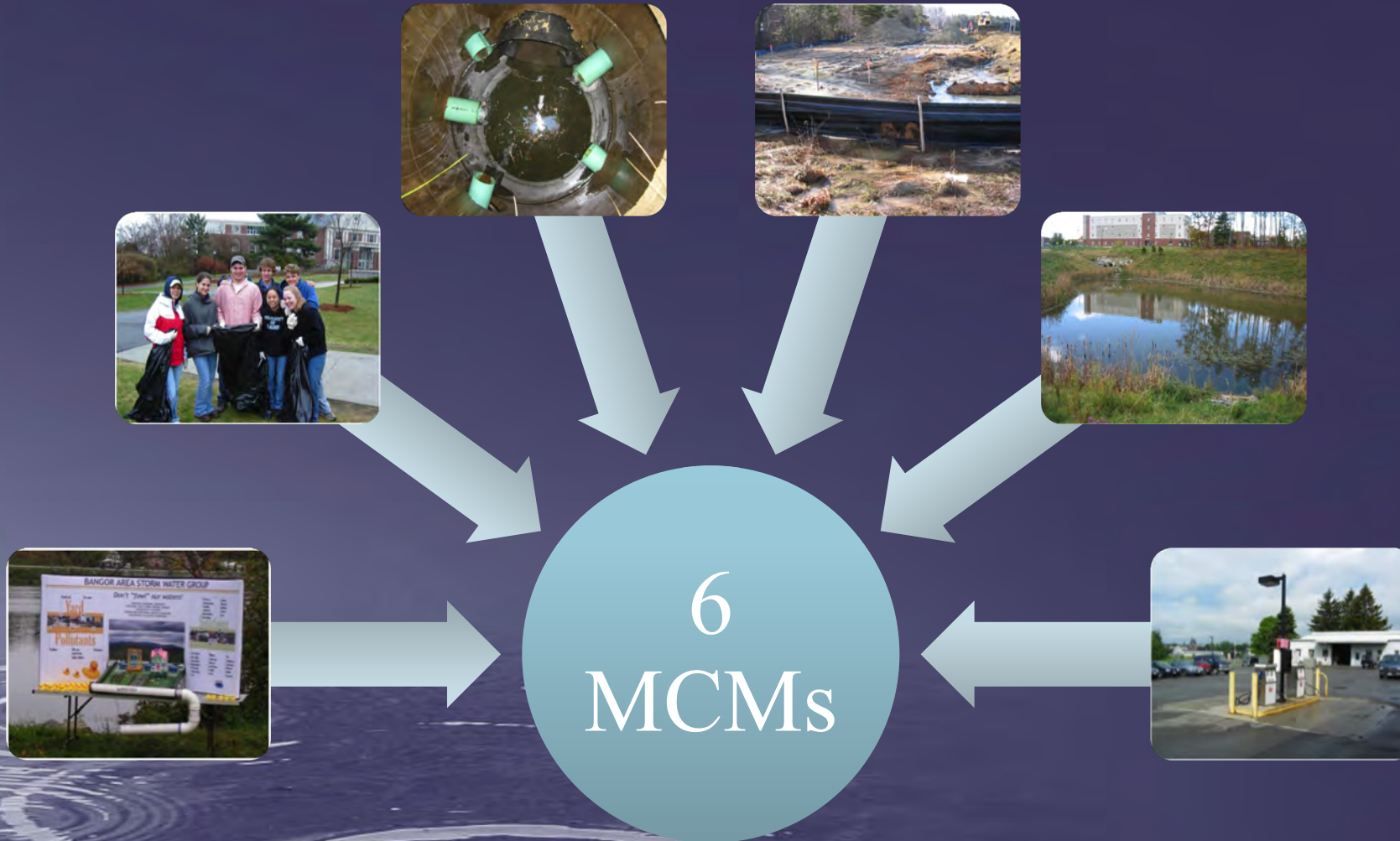
Columbia Ledge

© 2010 Google
© 2010 Europa Technologies
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2010 Tele Atlas
44°00'55.87" N 69°07'16.18" W elev 20 ft

©2009 Google™

Eye alt 180.03 mi

Minimum Control Measures



School Education Events in Brewer



- ☞ 24 year adopt-a-school program
- ☞ 2016 and 2017 Mr. and Mrs. Fish came to teach the 2nd grade class at the Brewer Community School about stormwater pollution prevention.
 - Dynamic award winning educators Deb and Jeff Sandler who for 40 years have performed in 20 countries.
 - Presentation features colorful costumes, humor and lots of student interaction.

Website: mrandmrsfish.com
Email: mmfish@maine.rr.com



Healing Waters-Catch Basin Medallions



- On April 28, 2017 Brewer was honored to host 12 veterans from Project Healing Waters Fly Fishing.
- The veterans installed markers on 100 catch basins and passed out 250 Brewer Stormwater Program door hangers to residents.
- Second year hosting Project Healing Waters Fly Fishing



Storm Drain Stencil Stenciling



- On June 15, 2017 Brewer High ROTC students stenciled 135 catch basins and passed out 300 informational door hangers.
- Brewer has been performing stenciling projects with students and groups in the city for 24 years!

Cabin Fever Reliever & Brewer Days

- Environmental Services Department participates in these 2 annual events.
- Each year ES Dept. staff able to talk to 100's of Brewer residents about what they can do on their own properties to prevent stormwater pollution.
- Each person that stops by our display receives promotional giveaways (rubber duck, pens, key chain, or activity books for children)
- This year Brewer spoke to 150 people at Brewer Days and 125 people at the Cabin Fever Reliever



Penobscot River Keepers Partnership



Hampden High School
AP Environmental Students 2016

- ☛ Partnership with Environmental Services Department for 24 years.
- ☛ Penobscot River Keepers teach students about the history, beauty and recreational uses of the river
- ☛ Typically, 6-8 groups of local high school and middle school students tour the Brewer Water Pollution Control Facility and participate in a lunch and learn session to learn about stormwater pollution prevention, wastewater treatment, and jobs in the water industry.

Felts Brook Water Quality Testing



Brewer HS Environmental Science Students

- ☛ Water quality testing the last 5 years
- ☛ Benthic monitoring in 2015 and in August of 2017
- ☛ 2015 Result was class A water - Very good!
- ☛ Benthic monitoring is the study of bugs that naturally live in lakes, streams, and brooks that form the aquatic food chain
- ☛ MDEP uses benthic monitoring to determine if the waterbody is in good health or impaired

Annual Stream Clean Up Events

- The stream clean up has been going on for 13 years, since 2005.
- 2,600 volunteers total!
(200 on average/year)
- Collected 54 tons of trash picked up!
(4.2 tons on average/year)



How did Brewer do it?

- ☛ Devoted staff and department heads
- ☛ Longevity! - Brewer has had many staff members that have been involved for the entire 13 years of the stream clean up.



Public Education, Outreach, and Participation

Secrets to Success

- Department heads and mid-management employees work as committee members and team leaders the day of the event
- Involve employees from Public Works, Fire Dept., Police Dept. , Parks and Rec, and Environmental Dept. as support staff for the event.
- Keep volunteers coming back each year by sending the thank you letters after each event and then invitation for next event in February of each year.
- Contact Scout groups early!



Questions?



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