



ANJEC 40th Annual Environmental Congress

FLOOD PREPARATION AND RESPONSE WORKSHOP

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- Impacts of Floods
- Do Environmental Commissions Have a Role?
- What can an Environmental Commission Do?
 - Before
 - During
 - After
- Getting Started
- Questions



NOAA Post Katrina Aerial Photography



Economic Impacts



Photo from Newsmotion.org

Debris



Photo from: Garden State Theatre Organ Society

<http://www.gstos.org/brookflood2.htm>

Toxic Materials



Toxic Materials

2 more oil spills caused by flooding in Colorado

By COLLEEN SLEVIN, Associated Press

Updated 5:05 pm, Monday, September 23, 2013



Photo from: NOAA

Sewage Overflows



Coloradans told to stay out of floodwater following chemical and sewage fears

Contaminated Drinking Water



BOIL ALERT

BOIL ALERT



Do Residential Properties Contribute?



Photo Provided Montville Police Department, Hurricane Irene, Aug 2011

- Damage is:
 - Social
 - Economic
 - **Environmental!**
 - Deaths, illnesses and Injuries
 - Debris
 - Toxins
 - Pathogens – illnesses
 - Contaminated water supply

So who takes care of this?

Before

- Army Corps of Engineers
 - Levees, floodwalls, basins
- Regulators
 - FEMA
 - DEP
 - Stormwater Regulations
 - Local Ordinances



So who takes care of this?

During

- First Responders
 - Police
 - Fire
 - Rescue Squad
 - National Guard



So who takes care of this?

After

- DPWs
- Public Health
- FEMA
- Army Corps
- EPA
- Code officials
- Individuals



Is there a place for Environmental Commissions?

- Resources
 - Volunteers
 - Limited Funds
 - Limited Authority
- Charged with protecting the Environment

Is there a place for Environmental Commissions?

- Responsibilities

An environmental commission organized under this act shall have power to conduct research into the use and possible use of the open land areas of the municipality and may coordinate the activities of unofficial bodies organized for similar purposes, and may advertise, prepare, print and distribute books, maps, charts, plans and pamphlets which in its judgment it deems necessary for its purposes. It shall keep an index of all open areas, publicly or privately owned, including open marshland, swamps and other wetlands, in order to obtain information on the proper use of such areas, and may from time to time recommend to the planning board or, if none, to the mayor and governing body of the municipality plans and programs for inclusion in a municipal master plan and the development and use of such areas.

An environmental commission shall have power to study and make recommendations concerning open space preservation, water resource management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance, marine resources and protection of flora and fauna.

Is there a place for Environmental Commissions?

YES, there is much Environmental Commissions can do with regards to flood within their given:

- Responsibilities – Protecting the Environment
- Resources – Education and Planning
- Authority – Guide development

So What Can We Do?

- Before
 - An ounce of prevention is worth a pound of cure.
 - We have had enough floods, we can turn our hindsight into foresight



Know your enemy

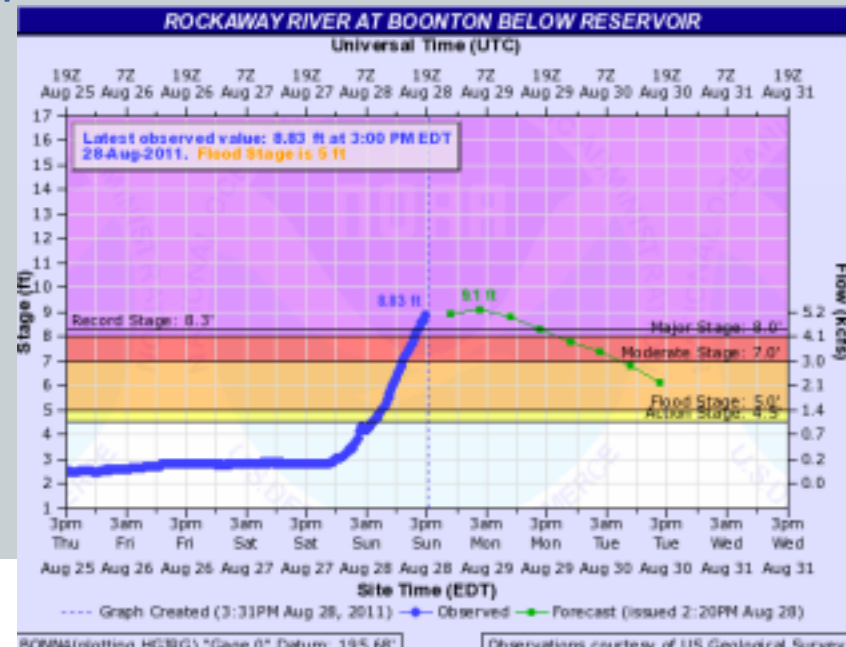
- Understand your flooding and the risks
 - Coastal Flooding
 - Fluvial (River) Flooding
 - Flash Flooding
 - Post Storm Flooding
 - Street Flooding
 - Storm Sewers
 - Combined Sewers
 - Sanitary Sewers
 - Basement Backups



How do we do this?

- NJDEP Flood Maps
- Talk with Municipal Engineer
- Talk with DPW, Health Officer, Police and Fire
 - What have they seen happen and where.

- FEMA Maps
- USGS Gage Data
- Depth Grid



Understand potential problems

- Unsecured Materials



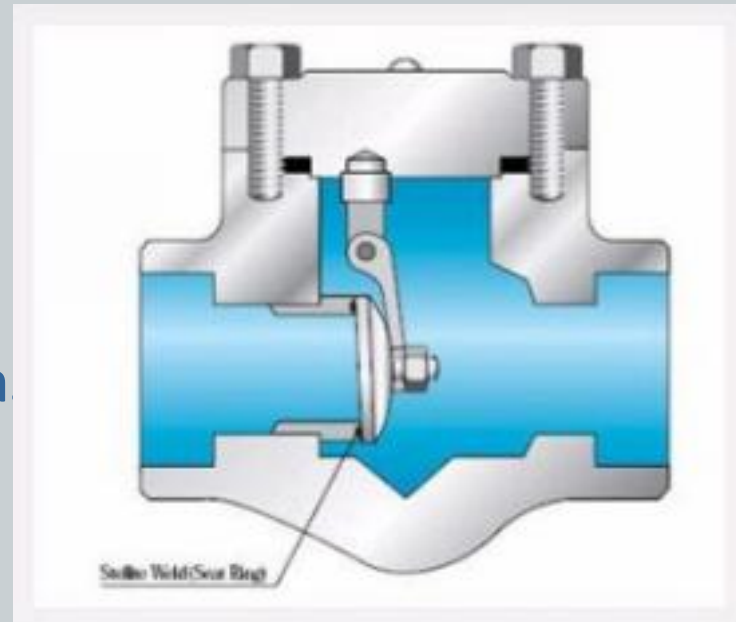
Understand potential problems

- Storage of hazardous materials
 - Household
 - Industrial
 - Municipal



Understand potential problems

- Unprotected sewer connections
- Sanitary sewer inflow
 - Cross connections
 - Sump pump connections
 - Unmaintained sewer system



Understand potential problems

- Septic systems
- Wells
- Construction sites
- Condition of Dunes

How do you reach people?

- NJ is known as the revolving door state.
- A picture is worth 1,000 words
- Show the town is leading the way.
- Remind them everyone is affected and everyone contributes to the problem, not just those in the floodplain.
- Can you get people to make a plan, can they execute it?

Immediately Before and During a Flood

- EC's are not First Responders
- Be involved, if you don't someone else will.

Immediately Before and During a Flood

- Can you alert residents?
- Is there a mechanism in place for residents to report environmental problems.



Photo Provided Montville Police Department, Hurricane Irene, Aug 2011

Immediately Before and During a Flood

- Dissemination of information



- How do we maintain critical functions.
 - Prioritize repairs
 - Trash
 - Recycling
 - Report problems

- Proper clean up
 - Special collections for electronics
 - What goes where?
 - What happens to all the branches and trees.
 - Sand clean up, can we just throw it back on the beach?

After the flood

- Proper clean up
 - Avoiding mold growth, bleach the walls.



- Proper clean up
 - Care of wells
 - Septic systems
 - <http://water.epa.gov/drink/emereprep/flood/septicsystems.cfm>
 - <http://water.epa.gov/drink/info/well/whatdo.cfm>



The screenshot shows the EPA website header with the logo and navigation menu. The main content area is titled "Water: After a Flood" and "Septic Systems - What to Do after the Flood". It includes a breadcrumb trail: "You are here: Water » Drinking Water » Emergency Preparedness » After a Flood » Septic Systems - What to Do after the Flood". There are also "Contact Us" and "Share" buttons.



The screenshot shows the EPA website header with the logo and navigation menu. The main content area is titled "Water: Private Wells" and "What to Do After the Flood". It includes a breadcrumb trail: "You are here: Water » Drinking Water » Consumer Information » Private Wells » What to Do After the Flood". There are also "Contact Us" and "Share" buttons.

- Don't rebuild on past mistakes
 - Influx of building permits
 - Salt water resistant plantings
 - Go out see for yourself, what could be done better next time.

- Assess your community's risk
- Identify your critical needs
- Pick one or two things to do for before, during and after.
 - Get the biggest bang for your buck.
 - Let the town lead the way.
 - Try something you are confident in.
- Build on success



Photo Provided Montville Police Department, Hurricane Irene, Aug 2011