



Berwick, Maine

Flood Resilience Planning

Lessons Learned and Recommendations:

- Think ahead—Make plans now to reduce risk.
- Put low-cost solutions into place right away, then make larger changes later.

What they did, and why:

Berwick, Maine, had two 100-year floods - one in May 2006 and another in April 2007. The Berwick Water Department was cut off from road access in both cases. Worried that it might be vulnerable to future floods, the department requested that its facility be inspected by utility operators and EPA engineers to determine, through the use of the EPA’s four-step flood resilience plan, what parts of the plant are most vulnerable. The inspection also looked at what steps to take to make

the utility more resilient to future flooding. Using FEMA flood-mapping techniques, flood experts from Berwick and EPA determined the areas of the facility that were most vulnerable to flooding. It was determined that the best solutions to mitigate flood risk was a gradual equipment replacement plan that would shift the positions of the equipment within the plant to prevent problems when there is a flood. The town also allowed the plant to have a second access to prevent its being blocked by future flooding.

Benefits:

- Decreased risk of damaging vital assets to the community
- Potential reduction of costs from flood damage through upfront low-cost mitigation
- A gradual replacement plan does not force the plant to incur any extra costs

Four basic steps to increase your utility’s resilience to flooding:

1. Understand the threat of flooding.
2. Identify vulnerable assets and determine threats to these assets.
3. Identify and evaluate options to reduce consequences from flooding.
4. Develop plan to put these measures into place.

“When you realize that a flood could come and bring [your workable plant] to an end in a couple of hours, and you’d be down for potentially weeks, that makes you...want to know ‘what can I do to avoid this?’”

*Chris Weismann,
Berwick Water
Department*

What is a 100 year flood?

A flood that has a 1% chance of occurring in any given year.