



United States Department of Agriculture



# PUBLIC PARTICIPATION MEETING

## Norwalk Site 2 Dam Rehabilitation Plan

Thursday, April 19, 2018      Ridgefield Community Center  
Presenter: Kristin Walker, Project Engineer

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# Public Law 83-566

On August 4, 1954 congress approved the “Watershed Protection and Flood Prevention Act”, A.K.A. PL-83-566.

“...it is the sense of congress that the Federal Government should cooperate with States and their political subdivisions, soil or water conservation districts, flood prevention or control districts, and other local public agencies for the purpose of preventing such damages and of furthering the conservation, development, utilization, and disposal of water and thereby preserving and protecting the Nation’s land and water resources.” August 4, 1954, [H.R. 6788]



666 PUBLIC LAW 86-489-AUG. 4, 1954 [86 STAT.]  
Public Law 566 CHAPTER 656  
AN ACT  
To authorize the Secretary of Agriculture to cooperate with States and local agencies in the planning and carrying out of works of improvement for soil conservation, and for other purposes.  
*As it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.* That erosion, flood-water, and sediment damages in the watersheds of the rivers and streams of the United States, causing loss of life and damage to property, constitute a menace to the national welfare; and that it is the sense of Congress that the Federal Government should cooperate with States and their political subdivisions, soil or water conservation districts, flood prevention or control districts, and other local public agencies for the purpose of preventing such damages and of furthering the conservation, development, utilization, and disposal of water and thereby of preserving and protecting the Nation's land and water resources.  
SEC. 2. For the purposes of this Act, the following terms shall mean:  
The "Secretary"—the Secretary of Agriculture of the United States.  
"Works of improvement"—any undertaking for—  
(1) flood prevention (including structural and land-treatment measures) or  
(2) agricultural phases of the conservation, development, utilization, and disposal of water  
in watershed or subwatershed areas not exceeding two hundred and fifty thousand acres and not including any single structure which provides more than five thousand acre-feet of total capacity. No appropriation shall be made for any plan for works of improvement which includes any structure which provides more than twenty-five hundred acre-feet of total capacity unless such plan has been approved by resolutions adopted by the Committee on Agriculture and Forestry of the Senate and the Committee on Agriculture of the House of Representatives, respectively. A number of such subwatersheds when they are component parts of a larger watershed may be planned together when the local sponsoring organization so desires.  
"Local organization"—any State, political subdivision thereof, soil or water conservation district, flood prevention or control district, or combination thereof, or any other agency having authority under State law to carry out, maintain and operate the works of



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# It was a good thing. . .



## On August 18-19 of 1955 Storm Diane Hit



**Left:** Wallstreet Neighborhood of Norwalk, 1955. Photo credit: <https://www.ctpost.com/news/slideshow/The-Flood-of-1955-in-Connecticut-115405/photo-8482328.php>

**Far Left Top:** A bridge gets taken out along route 7 in Georgetown on the Norwalk River. Photo credit: <http://www.norwalkriverwatershed.org/images/rt7brggt.jpg>

**Far Left Bottom:** A house drifts with the flood waters. Courtesy of the Norwalk Museum, sourced from: <https://www.ctpost.com/news/slideshow/The-Flood-of-1955-in-Connecticut-115405/photo-8482327.php>

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# Public Law 83-566 Projects: Funding Sources and Responsibilities

- **Congressionally appropriated funds to construct watershed projects**
- **NRCS (formerly SCS, Soil Conservation Service)**
  - Design
  - QA/QC during construction
- **Sponsors:**
  - acquire necessary land rights to construct
  - Performing Operation and Maintenance of Dam structures such as this one
  - Responsible for 35% of rehabilitation construction cost and acquiring permits/ additional land rights (if needed)



# Norwalk Site 2 Dam History

- Constructed in 1979 with Federal \$\$ and DEEP State sponsorship
- Original project included 5 dams and some channel work
  - 2 of 5 dams were built Great Swamp Dam and Spectacle Swamp Dam
- Originally classified as a Class B—  
“Significant Hazard”
- Since construction, land use changes have occurred in the watershed both upstream and downstream

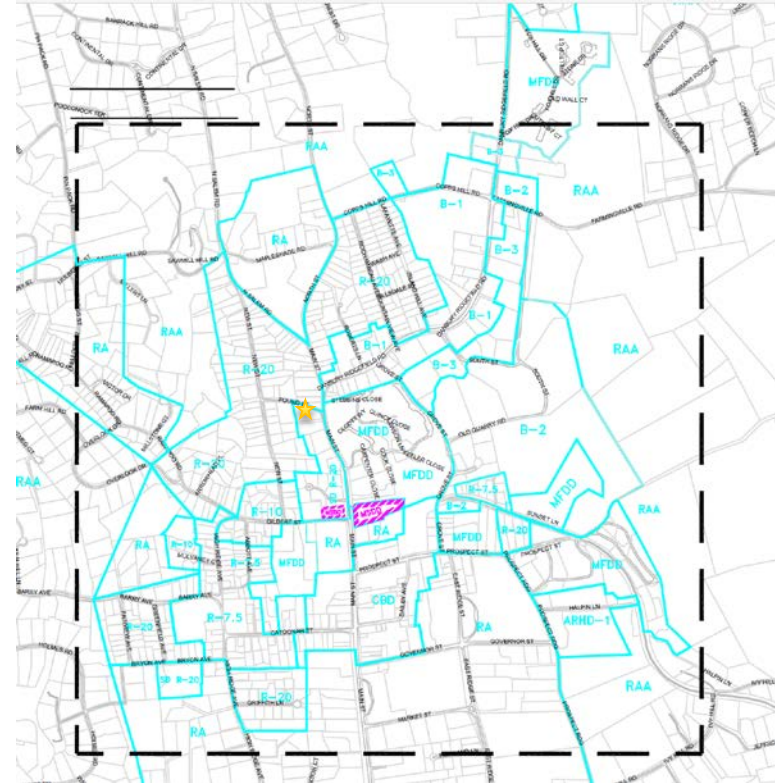


Photo Credit:  
<https://www.ridgefieldct.org/sites/ridgefieldct/files/uploads/zoningmap-feb2018.pdf>  
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# Hazard Classifications



Class “B” Significant Hazard Dam Failure Results in:	Class “A” High Hazard Dam Failure Results in:
<i>Possible</i> loss of life	<b>Probable</b> loss of life
<i>Minor</i> damage to habitable structure, residences, hospitals, convalescent homes, schools, etc.	<b>Major</b> damage to habitable structure, residences, hospitals, convalescent homes, schools, etc.
Damage to or interruption of the use of service utilities	
Damage to primary roadways (less than 1500 ADT*) and railroads	Damage to main highways (greater than 1500 ADT*)
Significant economic loss	Great economic loss

\*ADT=Average Daily Traffic

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Source: Section 22a-409-2(d) *Dam Safety Inspection Regulations*, “Dam Hazard Classification”, of the Regulations of Connecticut State Agencies.

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# Norwalk Site 2 Dam History

- At time of design/construction, CT Dam Safety regulations did not define a “Main highway”. Now the definition of a “Main highway” is as follows:

**Class B = Less than 1500 ADT\***

**Class C = Greater than 1500 ADT\***

- Further assessment determined Route 35 and Outpost Inn Rd. will be damaged if the dam breaches.
- Additionally, commercial development Downstream confirms this site as Class “C”, High Hazard.

\*ADT=Average Daily Traffic



Photo Credit:

<https://www.theridgefieldpress.com/103753/route-35-bridge-project-to-be-finished-by-end-of-may/>

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# Phase I: Time to Re-assess!



- **Due to the reclassification of the dam, DEEP requested an assessment of the Dam to decide whether to pursue rehabilitation**
  - Completed by NRCS September, 2011
- **Initial models show the dam overtops in the PMP (perfect storm)**
  - Overtopping can cause total dam failure (i.e. a Breach)
  - Potential to flood homes, businesses, roads, etc. downstream





# Phase II: Rehabilitation Plan (Current Phase)

- DEEP requested to have a Rehabilitation Plan developed to further investigate the deficiencies and analyze possible fixes
- Entered into an agreement with NRCS to complete the plan on April 7, 2015
- NRCS then issued a contract with a private firm, GSFW, to get the plan written
- The plan takes ~2 years to complete, from there, a design (Phase III) of the preferred alternative is developed
- Construction of the preferred alternative (Phase IV) depends on funding



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# Rehab Planning Team



- Major team effort that includes:

- DEEP (coordination and support, land rights determinations, outreach, etc.)
- NRCS CT staff (field surveys, reviews, outreach, etc.)
- NRCS National Watershed Management Center (guidance, final plan approval and adoption)
- Engineers, Hydrologists, Geologists, Biologists, Economists, Archaeologists, Environmental Consultants, **YOU (the public)**, etc.



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# Additional Public Meeting(s) To Be Announced. . .

- **Public participation is paramount in the rehab planning process**
- **The plan should be comprehensive and selected alternative(s) will aim to have minimal impact on the communities and resources surrounding it**
- **Community input and feedback is critical throughout this process. As we continue to develop the plan and suggest alternatives, we will solicit additional public participation.**

**Stay Tuned!**



# Questions/Concerns Always Welcome

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