

# WESTPORT, CONNECTICUT

## **FLOOD & EROSION CONTROL BOARD**

TOWN HALL, 110 MYRTLE AVENUE WESTPORT, CONNECTICUT 06880 (203) 341 1120 www.westportct.gov

#### **MINUTES**

Flood & Erosion Control Board Special Meeting of January 5, 2022

Present for the Board: William S. Mazo (Chair)

Philip Schemel

Aimee Monroy-Smith

Present for Department of Public Works: Edward Gill, Engineer II

William S. Mazo, Chair, opened the meeting at 7:30 pm.

#### **PUBLIC HEARING**

1. **109 Morningside Drive South / PZ-21-00881;** Application of Eric Bernheim on behalf of the owner, Kowalsky Family Company LLC, for a 6-lot subdivision. The application will be reviewed for drainage and grading recommendations to the Planning & Zoning Commission.

Edward Gill of the Engineering Department stated that the applicant reached out to request that the application not be heard at this meeting. They will be revising the plans to address comments from the Engineering Department, and will return at the February 2<sup>nd</sup>, 2022, Flood & Erosion Control Board meeting.

The chair closed the public hearing portion of the meeting, and moved on to the discussion item on the agenda.

### **DISCUSSION**

1. Agenda item: After the completion of discussion regarding the above application, the Engineering Department will be delivering a presentation detailing the history of flooding and flood studies in Westport.

Edward Gill presented a history of flooding in Westport, and a summary of the several flood studies that have been conducted in Westport.

In 1955, the Federal Government commissioned the United States Army Corps of Engineers (USACE) to undertake studies of tidal flooding in the northeastern United States, including the shoreline of Connecticut. This was due to record storms including a hurricane in September of 1938 and additional hurricanes in 1944 and 1954.

In 1961, the USACE presented the Town of Westport with a Hurricane Survey report. This report came to the conclusion that there was potential for improvements to limit tidal flooding damages in two areas of Westport. Those included the commercial area on the eastern bank of the Saugatuck River, and the residential neighborhood developing in the "Compo Basin" area, encircled by Compo Beach Road, Compo Road South, and Soundview Avenue. Due to a lack of public support, neither of the proposed projects was completed at that time. However, a reduced scope of work for flood protections around the Compo Basin was able to obtain public support and was implemented in the early 2000s.

For flooding due to rainfall events, the main efforts began after a record storm on October 15-16, 1955, when Westport experienced and recorded an average of 10 inches of rain within a 24-hour period. This led to the RTM creating the Flood & Erosion Control Board (F&ECB) on October 18, 1955. The F&ECB immediately commissioned a study, completed in December of 1956, from Hazen and Sawyer Engineers. This report noted that there were several improvements that could be made to drainage infrastructure, and that the Town needed to adopt regulations limiting the impact of future development.

In June of 1961, a report on flood controls for the Saugatuck River was completed and presented by the State of Connecticut Water Resources Commission. The report proposed improvements that would need to be made in order for prevention of flooding from the Saugatuck River up to a design storm on par with the October 1955 storm, estimated at 10" of rainfall in a 24-hour period. This plan included paving the sides and portions of the bottom of the Saugatuck River, widening portions of the river, removing the dams on the river, constructing dikes along the sides of the river, and piping Willow Brook through a location north of where the current course flows. None of these "improvements" were seen as prudent by the Town at the time, and there was no public support for this work.

Following these reports, the F&ECB took note of suggestions in the 1956 Hazen and Sawyer report that a more detailed study should be done for many of the watercourses in Westport prior to improvement projects. The Board commissioned another engineering firm, Seelye Stevenson Value and Knecht, to prepare a more detailed study of waterways and a general plan for what improvements should be made.

This study, completed in June 1964 and nicknamed the "701 Report," again emphasized the links between development and flooding, noting that regulations should address the impacts of development on flooding. This report also included calculations and designs for reconstructing the major drainage infrastructure along many of the major streams in Westport, both the crossings (bridges and culverts), and the channel improvements between those crossings.

To address the lack of regulations regarding the impacts of development on flooding, the Town instituted the Waterway Protection Line Ordinance (WPLO) through the Representative Town Meeting (RTM). This utilized an enabling statute from the State to create Waterway Protection Lines (WPLs) around previously unregulated watercourses within the Town of Westport. These lines would have restrictions on development within them, and projects proposing activity within the WPLs would require review by the F&ECB, the Conservation Commission, and the RTM. The WPLO was originally adopted in 1969 and underwent several changes over the next two decades as the three regulatory bodies worked to find their role in the implementation of the new regulations.

With the WPLO beginning to address regulation of development, the F&ECB then revisited the stream improvement projects that were proposed in the 701 Report. In 1974, after noting several issues relating to the methodology used in preparing the 701 Report, which was deemed out of

date, the F&ECB hired Leonard Jackson Associates to prepared a "Comprehensive Drainage Improvement Plan" for Westport.

The Comprehensive Drainage Improvement Plan (1974) investigated improvements to Silver Brook, Willow Brook, Dead Man's Brook, Muddy Brook, the Brook at St. Mary's Cemetery (Pussy Willow Brook), Stony Brook, Poplar Plains Brook, and Indian River. It was later expanded to include New Creek as well. A presentation of the original 8 streams was prepared by the F&ECB in 1981 and presented to the RTM, with a summary of the history of flooding in Westport, the nature of the Comprehensive Drainage Improvement Plan, the design philosophy used, management of the proposed improvements, impacts to the Town, and cost estimates for the improvements.

With this Plan in place, the F&ECB began working with the Engineering Department to start construction of the stream improvement projects. The first priority was a portion of Muddy Brook around Center Street and the West Parish Tributary to Muddy Brook. However, when work was done, some neighborhood residents opposed the nature of the work and the impacts it had on their properties. While it reduced flooding, concerns regarding the environmental harms incurred by removing the trees and other vegetation and the dramatic changes to the landscape caused the homeowners of the upstream adjoining portion of Muddy Brook, particularly in the vicinity of the Hillandale Road crossing, to oppose any further "improvements" from being constructed as proposed. The homeowners hired an engineering firm to help them, and sued the Town to stop the next stages of the Muddy Brook Stream Improvement.

Following this opposition, the F&ECB and Engineering Department shifted focus to a different stream improvement project, this one on Pussy Willow Brook. A new engineer was retained by the Town to design a stream improvement project here using the Comprehensive Drainage Improvement Plan calculations to size the crossings and channel improvements. This plan was presented to the F&ECB in 1987.

This plan was not able to be fully presented due to severe opposition from the neighborhood.

Based on the opposition encountered, the F&ECB resolved in 1988 to refocus their efforts toward only improving the structures at crossings, that is, culverts and bridges at roads, and postpone all channel improvements until "public acceptance is more pronounced."

With this goal in mind, the stream that would benefit most from crossing improvements and not be hindered by lack of channel improvements was determined to be Silver Brook. This watercourse flowed mostly through marshes and swamps behind developed residential properties, where the waters filling the floodplain caused little damage. An engineering firm was hired in the mid-1990's to design the improvements to Silver Brook, and over the next decade a majority of the improvements were constructed. After overcoming difficulties securing easements for construction, the last of the crossings was completed in 2014, roughly 20 years after design began.

In the meantime, the WPLO had been supplemented by several other regulations regarding stormwater and flooding. Chief among these were the Planning & Zoning regulations regarding the requirement of a "no-net-increase" policy for subdivisions. This required developers to show that when any new lots were created, they would be able to support drainage structures that would mitigate any increase in stormwater runoff when fully developed to the maximum allowable coverage.

By 1990, all permits proposing changes to impervious surfaces had to be reviewed by the Town Engineer, and the no-net-increase policy was used by the Engineering Department to require drainage on individual lots. In 2006, this protocol was revisited, and revised to the standard of

comparing pre- and post- development was made more restrictive by comparing undeveloped conditions to post-developed conditions.

Planning & Zoning also adopted FEMA standards for all Zoning Permits in designate Special Flood Hazard Areas (SFHAs). The information provided by FEMA for the National Flood Insurance Program (NFIP) in the 1980s included maps of watercourses throughout Westport, regulatory lines around those watercourses marking the regulatory floodways and 100-year flood zones, coastal flood zones associated with tidal flooding, and specific limitations on development in these areas.

After Superstorm Sandy in 2012, some funding secured by the Town was allocated to updating the flood studies done by Leonard Jackson Associates using updated methods and technology. With this funding, the Engineering Department commissioned a study of Dead Man's Brook by BL Companies, and another study of the other 8 major streams previously studied by Leonard Jackson Associates by GZA GeoEnvironmental. These studies proposed some alternatives for reducing flooding, but were not plans comparable to the Comprehensive Drainage Improvement Plan from 1981. These two studies are primarily tools used by the Engineering Department rather than the F&ECB.

More recently, emphasis has been put on improving water quality. This is primarily rooted in the Federal Water Pollution Control Act, which was passed in 1948, amended in 1972, and became known as the Clean Water Act. In 1990, the EPA promulgated Phase I of their stormwater program, for improving water quality in cities over 100,000 people and from construction sites over 5 acres. In 1999, the EPA started Phase II, which applied to smaller municipalities as well. To comply with these EPA requirements, the Connecticut Department of Energy and Environmental Protection (CT DEEP) issued a General Permit in 2004 to regulate Municipal Separate Storm Sewer Systems (MS4). Many of the requirements for MS4 were set as long term goals for municipalities to work toward over time.

Because of the previously instituted Drainage Standards, Westport has been able to show compliance with MS4 standards, rather than struggling to keep up with them. However, many of the long term requirements of MS4 will require additional investment in stormwater infrastructure beyond what is currently available.

The most recent discussions about achieving the goals outlined in MS4 have been investigating the creation of a Stormwater Authority to regulate stormwater management as a utility, separating the funding of stormwater related infrastructure from other Town funds. Only one municipality in Connecticut has introduced a Stormwater Authority, New London, but the success of that body has led to the State expanding the enabling legislature to open the door for other municipalities to follow.

In summary, Edward Gill noted that flooding issues have a long history in Westport, and the history of regulations regarding flooding is diverse and overlapping.

He related this back to the recent proposal that the F&ECB sent to the First Selectwoman following the December 8<sup>th</sup>, 2021 meeting, seeking to redefine their role within the Town. The F&ECB currently only reviews proposed new development, looking at criteria that are already enforced through other Departments, such as Conservation or Planning & Zoning.

Meanwhile, other aspects of flooding such as stream improvement projects have come to a halt. Recent public input seeking further action on behalf of the Town to address flooding has struggled to find an appropriate forum. Thus, by reducing involvement in WPLO reviews, the F&ECB may be able to take up a role as such a forum, and redirect efforts toward addressing flooding issues.

He noted that while preliminary responses from the First Selectwoman and Director of Public Works were positive, a meeting between them would need to be set up specifically to address and shape this proposal. Until such time as there is support for the F&ECB to make the proposed changes, the Board will continue to fulfill their role as defined in the WPLO.

Respectfully submitted,

William S. Mazo, Chair Flood & Erosion Control Board

WSM/eamg

Cc: First Selectwoman, Town Attorney, Public Works Director, Planning & Zoning Director, Conservation Director, Chair of RTM Environmental Committee, Chair of RTM Public Works Committee, Applicants, <a href="minutes@westportct.gov">minutes@westportct.gov</a>

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