

CEEJAC meeting

Flooding, Flood Zones Jurisdiction

9/13/22

Mark Mitchell: introduce subjects to the public before we have quarterly Connecticut Equity and Environmental Justice Advisory Committee meetings. This presentation is about water issues; how DEEP regulates water. Not covering local and federal water issues. Graham Stevens is bureau chief of water planning at DEEP

Graham Stevens: Extreme drought and flooding conditions in CT. Jeff will speak on—flooding and development issues.

Jeff Caiola presentation

- Flood Management
  - o Past ten years, a major storm event occurred almost each year
  - o Heavy rainfall, overflowing rivers, collapsed dams, snowmelt, climate change
  - o Three flooding events: riverine, coastal, stormwater
- Federal Government
  - o National Flood Insurance Act (1968)
  - o Flood Disaster Protection Act (1973) –insurance made mandatory for mortgaged property within floodplain
- CT
  - o Executive Order 18 (June 1977) Gov Ella Grasso
    - Prevent uneconomic uses and development of the state’s floodplains
    - Lessen the risk of flood losses in connection with state lands and installations and state financed or supported improvements
- Floodplain definition
  - o Level land that may be submerged by floodwater
  - o 100-Year Floodplain
    - 1% chance in a year of 8 in of rain in a 24-hour period
  - o Fringe: outer portions of floodplain
  - o Floodway: channel built to discharge base flood to a reserve of land (floodplain)
    - By law, cannot increase floodway elevation
- Federal Emergency Management Agency (FEMA) is responsible for (enforcing):
  - o Publishing flood maps & studies (used by CT)
  - o Flood Regulations (communities are required to adopt the flood maps and regulations to participate in Flood Insurance Program)
  - o Flood Insurance (for mortgaged property)
- How to Interpret a FEMA Map
  - o BFE: Base Flood Elevation
  - o Base Flood: flood which has a one per cent chance of being equaled or exceeded in any year, as defined in regulations of the National Flood Insurance Program
  - o Zone A: flood hazard area without BFEs (base flood elevation)
  - o Cross section: beginning of a study area

- Shaded Zone X: 0.2 percent-annual-chance floodplain (500-year floodplain, regulated by state)
- Zone AE: areas of inundation; 1% annual chance floodplain with BFEs
- Coastal Floodplain zones
  - Velocity Zone (VE): Wave height greater than 3ft
  - Coastal AE zone: 1.5-3ft wave
  - AE zone: less than 1.5 ft
- Bridgeport Harbor—floodplain zone example
  - Coastal floodplain transitions to inland zone along the harbor
- Jurisdiction over Floodplain
  - Cooperative effort between state, federal government, & cities/towns to implement regulations
    - Each community that participates is required to adopt/enforce floodplain management ordinances that meet minimum National Flood Insurance Program requirements
  - CT DEEP has a model ordinance for towns to follow
  - All towns/cities in the state participate in the flood insurance program
  - National flood insurance coordinator ensures the goals of National Flood Insurance Program are met
    - Provides trainings to municipalities
    - Leverages knowledge between state, communities, federal
- Floodplain Management and Local Process
  - Through local Planning and Zoning Commissioner
    - Meet monthly, hold public hearings
- CT Statute Sec 25-68—Flood Management—affects the following:
  - State actions
    - State department
      - Institution or agency
        - State or federal grant/loan proposed that affects land use
- Flood Management Certifications are used by
  - DOT – Department of Transportation
  - DOH – Department of Housing
  - DECD – Department of Economic Community Development
  - DAS – Department of Administrative Services
  - DEMHS – Division of Emergency Management and Homeland Security
  - UCONN – University of Connecticut
  - Recreational
  - wastewater treatment plants
  - Bridges, roadways, commercial buildings
- Example: Meriden park for flood storage
  - Designed for a 100-year flood
- Critical activity
  - any activity, including, but not limited to, the treatment, storage and disposal of hazardous waste and the siting of hospitals, housing for the elderly, schools, or

residences, in the .2 per cent floodplain in which the commissioner determines that a slight chance of flooding is too great

- Activities that meet a higher standard; State regulates 500-year storm with a higher standard than federal regulation
- Flood Management Certificate required
  - When action is conducted by state department
  - If funded by state through grant/loan
  - If located on a floodplain
  - If drainage is affected
- Compliance for proposed development requirements:
  - Will not obstruct flood flows
  - Complies with National Flood Insurance Program (NFIP)
  - For easements and properties in floodplains when the flood base for critical activity is elevated
  - Promotes long-term, non-intensive floodplain uses
- Interpreting Intensive Use
  - Non-intensive use of floodplain criteria:
    - Safety
    - Siting of utilities
    - Type of use
      - Ex) changing use of property creates different risks
    - Creation of dry land access
    - Consider all floodproofing techniques
    - Ability to notify people during a significant event—National Weather Service
- State regulations
  - Correspond with state statute
    - H-1: process/definitions
    - H-2: floodplain standards
    - H-3: stormwater standards
- Sec 25-68h-2
  - All state activities shall conform to National Flood Insurance Program
  - No rise in base flood elevation for the floodway
    - Structures shall not be designed for human habitation unless elevated with lowest floor one foot above the level of base flood
  - Question: residential structures not elevated, grandfathered in; affects flood insurance rates
    - Improvements to residential structure (improvements worth 50% value of structure), must meet all standards as if it were a brand-new structure
      - If improvements cost less than 50% value of structure, the improvements are not required to meet Flood Insurance standards
  - Question: how often does FEMA update flood map according to climate change?
    - Not often enough; FEMA is always catching up; not perfect; this is addressed in state actions by incorporating sea level rise in mapping

- New federal program: Risk 2.0; changes in federal government; may start addressing climate change
  - Question: Area in community highly susceptible to sea level rise—does the state provide guidance with allowing houses to get rebuilt or advising residents to retreat?
    - “Hard message to sell to get people to move”
    - Municipalities are starting to think differently, due to excess flooding in past years
    - Meriden example: trying to take residential properties out of floodplain
  - Question: low-income residents are not able to recover from flood in Louisiana
    - Making people pay for flood insurance—how are insurance companies being regulated so that people get their fair share for repairs from flooding?
      - FEMA CRS: community rating system
      - Higher standards for development reduce flood insurance for residents
- Exemption Process
  - State agency (or someone receiving grant from state) that cannot meet standards must get an exemption, explain why the agency is unable to comply and why it is necessary
    - State is then required to publish and notify the public about granting or denying the exemption request; public hearing period
    - Critical activity must be in the public interest
      - Cannot injure persons or damage public property
    - Complies with National Flood Insurance Program
    - Recipient of loan or grant is informed that increased flood insurance premiums may result from this activity
  - Activity deemed in public interest if:
    - Property subject to remediation
    - Adjacent to regional center, neighborhood conservation area, growth area or rural community center (areas planned for development or conservation)

## QUESTIONS

- Development housing regulations: how does this affect housing that may not be in the flood zone but are becoming subject to flooding due to climate change?
  - Example: Flooding, sewage backflow into commercial and residential areas
  - Answer: if it’s not in mapped floodplain, it’s not required to meet standards
    - Municipality can sponsor a change or map revision, do a floodplain study with federal government
  - How are homeowners notified of this floodplain change?
    - During map change, homeowners will be notified by federal government, FEMA
  - If you have flash flooding, would it be on a flood map?
    - It may be outside of the flood map
- Question: Is there an incentive for a municipality to do a study on its own?
  - Example: Problem in the south: housing developments are deliberately in flood plains
    - Connecticut can suggest to FEMA to adjust maps
    - Municipality wouldn’t pay for these studies

- Question:
  - Example: Department of Housing (DOH) is funding a private developer for affordable housing
    - Developer will apply through DOH for flood management
    - pre-post flood contingency plan is required
    - Developer should post this plan, emergency plan, safe egress plan; medical assistance and emergency personnel must be able to enter site
- Question: Funding for low-income residents in floodplain areas
  - Municipality should reach out to “division of emergency management and homeland security” for sources of funding for flood-risk development projects, elevate homes
    - Town engineer or town planner should work on this and provide answers
- Question: Are towns required to post their flood plans? Who regulates that?
  - Is there a legal requirement for an emergency evacuation plan?
    - Not sure this is required by law
    - Each town has an emergency planner
- Question: Are basements allowed in a flood zone?
  - Depends where, not always; finished basements may not be reimbursed for damage
- Sunny-Day Flooding
  - Significant tidal event, road flooding
  - Example: Milford, Guilford, Stratford

#### Bassick High School

- Grant through Department of Administrative services
- Built on fill and elevated
- Questions on Bassick High School
  - Bridgeport Resiliency Project: changes to sewer/drainage system, berm built
  - Land elevation of Bassick takes it out of flood zone
    - Extends the berm from the Bridgeport Resiliency Project
      - Issue this brings up is that the land is being extended closer to homes
      - Concern about circulation of water
      - How will the elevation of this land impact surrounding homes?
      - Was Bassick exempt from an environmental impact study?
    - DEEP ensures the users of the property (Bassick) are safe and no additional flooding will occur from Bassick development
      - DEEP doesn't have the authority in the layout of the development...
  - NEPA: National Environmental Policy Act
  - CEPA: Connecticut Environmental Policy Act
  - What would trigger the NEPA review/state CEPA review?
    - Certain federal investments that enable development
    - Industrial development in neighborhood
    - Reviews are tied to programs, agencies, and rules of agencies
    - CT grants permitting things, CEPA review

- Bridgeport Resiliency Project is federally funded
      - Thorough NEPA review
- (Maisa Tisdale) Because Bassick is a reimbursement project, as opposed to grant or loan, it escapes the oversight of DEEP?
  - Bassick development went through Department of Administrative Services instead of DEEP
    - This property abuts the berm
      - In an area where federal and state funds are being used for sewage pipes (the Bridgeport Resiliency Project)
    - Not understanding why there shouldn't be a NEPA review at least for Bassick?
    - Due diligence—
      - Traffic: an additional 1000 trips through neighborhood with narrow streets
      - referenced 1990s figures on traffic... outdated data being used
    - There should be a way for the state to weigh in on the environmental impacts
      - Including the impact on the federal program (Bridgeport Resiliency)
    - Flood insurance prices are forcing homeowners to move
    - Lower income, POC, will be surrounded by berm, tall school
      - We don't know what impact Bassick will have on the federal program Bridgeport Resiliency
- Question: In floodplains, it is DEEP's policy to discourage fill and prevent additional harm to surrounding neighborhood
  - Argument: Bassick is intensification of development
  - How does this project reconcile those two standards?
    - Answer: It's a coastal floodplain, flood storage
    - It was build on an existing school structure
      - Argument: this is an intensification of use because Bassick will be used differently than the previous college dormitory
  - Graham: a lot of these issues are city issues because the city of Bridgeport is approving this development