



Sustainability, Energy  
& Resiliency Committee  
City of Salem, MA

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**April 26, 2023 6:30 P.M.**  
**Remote Participation**

**Board Members Present**

John Hayes, Chair  
Chris Cantone, Vice Chair  
Doug Bowker  
Erin Casey  
Elvis Alvarez

**City Staff Present:**

Stacy Kilb, Sustainability Engagement Coordinator (recorder)

**Absent**

Rick Nye  
Jack Nessen  
Andy Varela, City Council Liaison

**Public:**

SATV (recording)  
Crystal Smith  
Seamus Crowley  
Shelly Stuler

**Introductions**

**Old/New Business, Part 1:**

Update on Greening the Gateway Cities Program in Salem, Anna Sheridan, Coordinator, Greening the Gateways Cities, Salem Sound Coastwatch

- Spring planting has begun



- Go to [www.maubancanopy.org](http://www.maubancanopy.org) to determine if you are “in the zone” and eligible for a free tree, and request one if so
- Or reach out to Anna at SSCW: [anna.sheridan@salemsound.org](mailto:anna.sheridan@salemsound.org)

**Guest Speaker:** Tom Devine, Senior Planner, Department of Planning & Community Development, Update and Discussion of Salem’s Proposed Flood Resiliency Zoning Ordinance. Summary of Public Forum held on April 10<sup>th</sup>. <https://publicinput.com/salemfhod>

- Tom Devine is project manager for the updated Flood Ordinance, works with Tom Daniel (Director, P&CD Department) and some in the Sustainability & Resiliency Dept. (SRD), but there has been some turnover
- Neal Duffy, current SRD Director, has been briefed
- There are technical experts on the Beals & Thomas team, who also worked on the Wetlands Ordinance update
- Project is driven by a Working Group (WG) that is very active and engaged, and includes staff from the Planning, Building, Engineering and Sustainability Depts, as well as members of Land Use Boards, local Environmental Groups, developers, and the public
  - Gail Kubik is in the WG though no longer on SERC
- Climate change is an issue everywhere, though it manifests differently in each location
- Salem’s projects include reducing (mitigating) GHG emissions and adapting to climate impacts
- The proposed Climate Resiliency Flood Overlay is one tool to address one problem: make buildings more resilient to coastal flooding
- Work is not done in a vacuum; we have many overlapping goals: housing, transportation, and equity as well as resilience
- This is a high-level view of the Draft Ordinance. It is in progress; input can be provided before it is finalized/ put before the City Council

**Presentation:**

- Recording of Public Forum April 10<sup>th</sup>: <https://publicinput.com/salemfhod>; submit comments to [tdevine@salem.com](mailto:tdevine@salem.com)
- Two Parallel Efforts within Zoning Ordinance
  - FHOD Ordinance: Revision of Flood Hazard Overlay District special permit through the PB, an administrative update.
  - FEMA has published a new Flood Hazard Overlay model Ordinance, and we are required to align with it
    - Includes minimum compliance for federal flood insurance, pegged to current FEMA mapping and flood risk; does not reflect future flood risk.
      - Applies to new construction within FEMA’s 100-year flood zones
      - Mirrors the state building code for flood zones. Finished spaces must be above 100 year, along w/building mechanicals, not much more than that
      - We need to go further for buildings to be resilient to future flood risk



- C-ROD: Climate Resiliency Overlay District, a special permit zoning ordinance informed by future sea level rise and storm event modelling. It goes beyond the minimum requirements of FEMA
  - Informed by similar work in other communities (Boston, Cambridge, Gloucester)
  - 2070 Future Flood Model Selected for C-ROD (Zoning Overlay District). Storm would be 4' higher than FEMA's 100-year flood risk, in addition to a larger horizontal range



- C-ROD will regulate uses in Buildings below the 2070 projected 100-year flood elevation. Sea Level Rise Base Flood Elevation (SLR BFE) – projected elevation of sea water for a 100-year storm
  - Residential circulation and storage – finished residential spaces not allowed below this elevation
  - Non-residential uses with wet or dry floodproofing allowed, subject to Planning Board (PB) review
  - Certain building mechanicals with wet or dry floodproofing are allowed, subject to PB review
    - No consensus yet on whether to allow parking, but leaning towards allowing parking to be wet-floodproofed if a plan is in place to remove vehicles before a flood event
  - Would apply to new construction and substantial renovations with some exemptions:
    - Small residential projects of 5 or fewer units
    - Accessory buildings like garages and sheds
    - Working on how it would apply to Accessory Dwelling Units and mixed use projects

Building Type	Substantial Renovation, Repair, or Rehabilitation	New Construction
Residential 5 units or fewer	No	Yes
Residential 6 units or more	Yes	Yes
Detached accessory structures	No	No
Non-residential	Yes	Yes

- John Hayes would like, if possible, to see tables for other cities
- Tom Devine notes that Boston and Cambridge links are on the project webpage



- We follow Boston’s framework most closely, but their Ordinance only applies to large projects, whereas ours applies to smaller ones
- Cambridge: Theirs applies to everything, including renovation of small residential projects, but instead of requiring floodproofing for nonresidential buildings under 2070 flood elevation, they use, the 10-year storm base, not the 100-year storm, so standards are more lenient
- Gloucester
  - Outright prohibits new construction in existing velocity zone FEMA (which experiences not just flood water but wave action); our WG is exploring this
  - New residential development or expansion may occupy no more than 10% of flood zone within a given parcel (we have not explored)
  - Discretionary open-ended provision in criteria that give their PB authority to ask for resiliency without being specific about what they’re looking for
- We want something that fits Salem
- John Hayes would like to know typical or “average” square footage of various buildings in Salem – such as single-family residences, multi-families, condos, small/medium businesses. Info is out there but footage probably varies a lot depending on layout, age, footprint, etc.
  - Do we need a threshold below which small retail is exempt (they may not be able to afford if a small mom-and-pop shop) - or if there are or will be state grants to assist?
- How do we assess historic properties?
  - Include an exemption? How to define “historic?” Over 50 years (which includes almost everything in Salem)? Tightly define, allow for a waiver process
  - Buildings within local historic districts and buildings outside but individually listed on the National Register of Historic Places will be included
  - Waiver can be obtained through PB special permit, applicant can request relief of specific provisions of Ordinance but not the entire Ordinance
    - Balance resiliency with maintaining historic value; we want all properties to make their best attempt
- Zoning ordinances are blunt tools that do allow for creativity and innovation and do not address specific cases; this will allow for innovation even though there are not specific provisions in the Ordinance
- Next Steps
  - Will formally submit to City Council in June
- Other Resources and Comments

## Discussion

- John Hayes: Will the City have a designated floodplain administrator? Yes, This is required as part of the FHOD minimum standards
- John Hayes: Does this require training of building inspectors, and what is the process? The Building Inspector already reviews projects for compliance in FHOD, some through C-ROD is the same, but some things will just be higher by 4’, so do not require special training. However, anything more “interesting



or unconventional” (ex. Wet floodproofing) may need special expertise. Will get support through PB review process but we do not have a resiliency expert on staff. PB can hire a peer reviewer with the expertise needed, chosen by PB and paid for by the applicant

- Erin Casey: Has there been discussion about requiring permeable pavement or other such materials? This has been discussed in WG meetings, but it has not been resolved yet. Coastal flooding is from the ocean, and not much can be done re flood storage (water absorption through pervious material would not help remove flood water). But the City is due to update its stormwater ordinance, which would be the place for this. This Ordinance focused on buildings and protecting health, safety, and welfare of humans
  - However projects in flood zones are also subject to Conservation Commission (ConCom) jurisdiction, and their purview goes beyond buildings and people to include ecological issues
- Equity issues? How to respond to a mandate for compliance in new construction?
  - Point Neighborhood is the highest-risk residential area, project was a recommendation from the Resilient Together: El Punto plan. City addressing flood risk via policies like this is especially critical in such areas, but if property owners in the neighborhood, many properties there will be exempt (5 or fewer units), so if substantially renovated, would not need to comply, so the ordinance would not help them with resiliency
  - People in public housing are under legal mandate, people must be rehoused if housing is made uninhabitable
  - At a certain point, flood resiliency will have to be looked upon as a public safety issue. If we know certain areas are guaranteed in the next 25 years to have catastrophic flooding, the City will need to address – e.g., after the 1914 Salem fire, the City changed requirements for how things had to be built
  - Have buildings withstand periodic flooding or eliminate permits for buildings at a certain level of flood risk? Looking at 2070, but will become more dire beyond, will need to think about managed retreat
  - There are some areas where it will not be a good idea to build new/renovate existing buildings, may need to abandon, or move some buildings. This option will need to be added to toolbox at some point
  - John Hayes is concerned about acceleration of melting polar ice sheets and that projections of SLR for 2070 may be conservative
  - We can't wait until 2070 and all these things will suddenly happen, it will be a gradual increase and we will need to adapt as we go along
  - JHayes commented about the January 2018 Bomb cyclone storm that caused flooding in Boston, at Salem's commuter rail road/lot, and up and down the North Shore. It was a combination of an astronomical high tide, a deepening low-pressure system, and storm surge; rapid intensification of storms is now becoming the norm, including with hurricanes.
- RE Community Collaboration: RT Climate Action Plan was Salem and Beverly together, Tom Devine is working w/Peabody on the North River Resiliency Plan, and Marblehead to design upgrades to the trail on the Marblehead-Salem line at Chadwick Lead Mills. This trail happens to be a utility corridor underground. It becomes increasingly necessary to collaborate in our political geography. We don't



have county government but have some support from state, and we need to work together to mitigate climate change

- John Hayes: 2014 Climate Change Vulnerability Assessment Action Plan <https://www.salemma.gov/planning-and-community-development/pages/salem-climate-change-vulnerability-assessment-action-plan> included municipal properties only, not commercial and residential. For multifamily dwellings of less than 6 units, it would be helpful to know where vulnerable critical infrastructure is, if in the basement or on the first floor
  - Discussion of multifamily units, condos vs. townhouses, footprints
  - Are landlords informed and considering impacts of climate change?
  - Tom Devine notes that the “gap” is limited as building code requires all new/renovations to raise mechanicals above flood zone, but based only on today’s flood risk (hence the gap)
  - The “book is not closed” on small residential; if Ordinance should be more inclusive, the WG would like to know
- WG will still needs to arrive at a number, John recommends to SERC that the City offers to multifamily dwellings that fall below the mandate, to have periodic public information sessions about flood risk.
- Doug Bowker: The impulse is to exempt properties that are low income/ would have difficulty in meeting mandate, but we should not make the exemption so wide that it ends up ignoring the already-vulnerable sections of the City. If it is worth having the Ordinance, then there needs to be discussion on how to provide subsidies for those who need the resilience upgrades but can’t afford them
- Erin Casey is also concerned about the equity issue; are we putting renters at additional flood risk? It is catastrophic for them to have possessions damaged in a flood
- Tom Devine finds these considerations helpful
- Who is resilient in new development vs. existing? New development, say by the Community Development Coalition (CDC) and Salem Housing Authority (SHA) and its private partner (Beacon Communities) at Lee Fort Terrace, without a local mandate, get favored for requests for state and federal funding if already incorporating resiliency planning, but existing lower income housing stock is not resilient. Discussion on the implications of exempting the latter is important
- SERC will help publicize this. Residents can be an activist force for absentee landlords
- Education and outreach must be done regardless of any Ordinance
- Tom Devine notes that this is a painful wrinkle: you have market rate housing that IS resilient and can withstand future flooding vs. market rate housing that is not resilient; one will be more expensive than the other, and when the real estate market starts to account for climate risk, this will lead to climate gentrification, where resilient buildings will not be accessible to lower income people
- Doug Bowker notes an article:
  - “Accounting for flood risk would lower American house prices by \$187bn: Unpriced future damages inflate home values the most in rural, inland regions”  
<https://www.salemma.gov/sustainability-energy-and-resiliency-committee-serc/news/accounting-flood-risk-would-lower-american>
  - <https://www.nature.com/articles/s41558-023-01594-8> (No paywall, very data heavy)
  - Will be pushback from real estate market, who will want to deny the risk exists



- Erin Casey: Discussion about allowing for higher buildings if you sacrifice the ground floor to flood resilience? When draft is released, we are allowing special allowances for buildings subject to C-ROD. Normally height is measured from average adjacent grade, but in these cases, can be measured from the 2070 flood elevation (4-5' higher)
  - But do we allow people to build up? If we lose a residential floor, can they just build up? There is no appetite for this yet. The desire for height limitation must be balanced with need for resiliency
- Tom Devine will bring SERC's comments to the WG, and invites SERC to the May City Council for the informal presentation, which will be followed by a joint City Council/Planning Board meeting, then a Council meeting

## City Updates

### **Engagement Coordinator Updates (Stacy Kilb)**

- SSU Earth Days Presentation to Prof. Bellino's "American Political Parties" class Friday, 4/14: "Salem's Sustainability, Housing, and Transportation Initiatives"
- Fish Weir building with the Massachusetts Tribe and Bentley 5<sup>th</sup> Grade students, Tuesday, 4/25

### **Upcoming Events**

- Pet Safety & Co-Existing With Coyotes, Thurs. 5/11, 6:00 PM, Community Life Center
- Living Green Expo Sat. 5/13, 10:00AM-1:00PM. Please table with Stacy!
  - John Hayes
  - Neal Duffy
  - Maybe Doug Bowker
  - Erin Casey (SSCW but can pop by)
- Salem Offshore Wind Terminal Project Meeting
  - [Offshore Wind Terminal 3rd Public Meeting](#)  
Salem Academy Charter School  
Norman H. Read Gymnasium, 16 Lynch Street, Salem, MA 01970  
Tuesday, May 2, 2023  
6:00 – 7:30 PM  
Virtual option available
  - Doug Bowker: reviewed all slides, still concerned that they are "hiding" impacts of the project. Must show view from the ground, from people's houses, not from 500' above ground and 1000' offshore
  - Pat Gozemba was asking questions about Community Benefits Agreement, but there has been no progress despite it having been brought up in Jan/Feb
  - Should be discussion on community impacts, John Hayes suggests SERC writes a letter
- Other Resources
  - May 2022 EPA Electrifying America's Ports webinar link to slides:  
[www.epa.gov/statelocalenergy/state-local-and-tribal-webinar-series](http://www.epa.gov/statelocalenergy/state-local-and-tribal-webinar-series)



- <https://www.newenglandforoffshorewind.org/why-offshore-wind/>
- John Hayes: future Gulf of Maine wind energy Projects. Electricity could go to NE grid for homes and businesses, etc. or could go onshore to produce hydrogen (aka “green hydrogen”). This is/will be a concern for the future. This is being supported by many utility companies.
  - Doug Bowker: Is hydrogen then used for straight combustion or combustion to produce electricity? Using green power to generate hydrogen is NOT efficient
- Projects based on ISO commitments AS ELECTRICITY. Would need to change permitting, withdraw from ISO if doing hydrogen instead.
- Sierra Club Municipal Climate Action Plan Panel (virtual), Thursday, May 4, 12-1 PM, [emma.brown@sierraclub.org](mailto:emma.brown@sierraclub.org)

**City Council Liaison Update (Andy Varela):** None

**Old/New Business**

- Review of Salem Port Development Public Forum, 4/6/23 (John Hayes)
- ~~Discussion of zoom logistics and SERC member participation (John Hayes)~~
- ~~Discussion of Sustainable Marblehead’s Green Homes Tour, 4/8/23 (John Hayes & Stacy Kilb)~~
- ~~Discussion of SERC’s May agenda~~

**Public Comment**

**Approve Meeting Minutes – March 22, 2023**

*A motion to approve the above meeting minutes is made by Doug Bowker, seconded by Erin Casey, and passes with all in favor:*

John Hayes, Chair	Yes
Chris Cantone, Vice Chair	Yes
Doug Bowker	Yes
Erin Casey	Yes
Elvis Alvarez	Yes
Rick Nye	Absent
Jack Nessen	Absent

**Upcoming City Committee Meetings**

Agendas can be found at: <https://www.salemma.gov/minutes-and-agendas>

- **Salem Food Policy Council:** First Monday of the month, 5/1/23, 6:00PM
- **Recycling Committee:** First Tuesday of the month, 5/2/23, 6:30PM
- **Tree Commission:** Third Monday of the month, 5/15/23, 6:00 PM
- **Conservation Commission:** Third Tuesday of the month, 5/16/23, 6:30PM-rescheduled to 5/30

**Next SERC Meeting - Wednesday, May 24th, 2023, at 6:30PM, virtual**





**Adjournment**

*A motion to approve the above meeting minutes is made by Chris Cantone, seconded by Doug Bowker, and passes with all in favor:*

John Hayes, Chair	Yes
Chris Cantone, Vice Chair	Yes
Doug Bowker	Yes
Erin Casey	Yes
Elvis Alvarez	Yes
Rick Nye	Absent
Jack Nessen	Absent

