

3rd Annual LISS Sustainable and Resilient Communities Workshop



Long Island Sound Study
A Partnership to Restore and Protect the Sound



Session #3: Planning for Inundation—Considerations for Engaging in Buyout Programs to Increase Community Resilience

Wednesday, December 11, 2024 – 10 AM-12 PM

This session featured presentations and discussion centered around different aspects of planning for inundation, particularly challenges and successes related to participating in buyout programs.

View the recording here: [Planning for Inundation session - December 11, 2024](#)

Contact Information & Resources

Session Facilitator:

- **Alison Branco, Ph.D**, Director of Climate Adaptation, The Nature Conservancy in NY, alison.branco@tnc.org

Resources:

- [Opportunities for Federal Support of Community-Driven Relocation](#)
- [Underwater | Union of Concerned Scientists](#)
- [Stockade Resilience | Schenectady NY](#)

Rye Brook, NY Case Study: Voluntary buyouts of flood-prone properties

Panelists:

- **Chris Bradbury**, Administrator, Village of Rye Brook, cbradbury@ryebrookny.gov
- **Michal Nowak**, Superintendent of Public Works and Engineering, Village of Rye Brook, mnowak@ryebrookny.rog

Resources:

- [Emergency Watershed Protection \(EWP\) Program Buyouts | Natural Resources Conservation Service](#)
- [NexSens Technology Inc. - Better data. It's never been easier.](#)

Lessons from Sandy: Evolving Buyout Strategies for Resilient Communities

Panelist:

- **Rachel Wieder**, Chief of Staff, Homeownership and Community Development, NYS Homes and Community Renewal, rachel.wieder@hcr.ny.gov

Resources:

- [Superstorm Sandy Long-Term Recovery and Resiliency | Homes and Community Renewal](#)
- [Blue Buffers Information Request Form | Homes and Community Renewal](#)

Creating Space for Emotions in Retreat and Relocation Work

Panelist:

- **Jessica Brunacini, Ph.D**, Director of the Coastal Training Program, Wells National Estuarine Research Reserve, jbrunacini@wellsnerr.org

Resources:

- [Guidebook for Community Conversations on Climate Migration – Climigration Network](#)
- [Voluntary Elevation & Property Acquisition Program | Hampton, NH](#)

Other Resources from the Discussion:

- [How can we Reduce Flood Risk in our Communities? | Extension News and Publications](#)
- [CT ECO Viewer](#)
- [Differential flood insurance participation and housing market trajectories under future coastal flooding in the United States | Communications Earth & Environment](#)

Contact Information for SRC Team:

- **Elizabeth Hornstein**, SRC Extension Professional – Suffolk County, NY
elizabeth.hornstein@cornell.edu
- **Sarah Schaefer-Brown**, SRC Extension Professional – Nassau County, NY
sarahschaefer-brown@cornell.edu
- **Sara Powell**, SRC Extension Professional – Westchester County, NY
slp285@cornell.edu
- **Deb Visco Abibou**, SRC Extension Professional – Western CT
deb.abibou@uconn.edu
- **Sarah Schechter**, SRC Extension Professional – Eastern CT
sarah.schechter@uconn.edu

Summary of the Q&A from the chat:

Q: For the towns that rely on property taxes, how do we address their loss of taxes as their tax base is torn down?

A:

- Michal Nowak - Honestly the Village determined that not to be a deterrent. We run a tight budget and are efficient in cutting costs and being frugal with our funding. We have a very well operating Treasury Dept. so we feel we are able to absorb the loss and tolerate the offset in the budget.
- Chris Bradbury - The loss of taxes (and others making up the difference in the tax levy) was not a deterrent for us to participate. This loss of tax base (approx. 14 homes out of 3,300 total in RB) was determined to be acceptable given the heightened risk of living in these areas and the risk to emergency service responders. The tax base impact was minimal in the big picture for us.

Q: Is there a cost-benefit analysis of loss of tax base versus reduction in cost of emergency services and remedial works?

A: Alison Branco - UCS study I mentioned about values and tax base at risk - note only applies to Sea level rise: <https://www.ucsusa.org/resources/underwater>

Q: What happens when you get 80% participation in a buy out but the last 20% wont move?/Have you found that the added open space helps mitigate flooding at all?

A:

- Chris Bradbury - Many stay but they will now have more open space in their neighborhood. It is important to still look for other ways to help those that stay so they do not feel forgotten. The EWP Floodplain Easement program requires more "clustering" of buyouts so more could be done to create a new floodplain. RB followed the EWP Recovery program which is intended to "reduce risk to life and property" which did not require clustering but eliminated the hazards.
- Michal Nowak - We will be creating these open spaces and slightly sloping them to give back some buffer. After a certain storm size (25 to 50 year), no these areas wont necessarily help in the state they are, but in smaller storms they can make a big difference in a 5 or 10 year storm. But we are pursuing other grants for design ideas and funding to maybe put back much more volume into the watershed by really sloping or benching these properties if we can

Q: Since your program is voluntary, how does Rye Brook deal with those who remain? They still require infrastructure and public safety. What are you doing with the land where homes were demolished? Parks? Create wetland buffers?

A: Michal Nowak - we are working around these homes. All infrastructure of the municipality is remaining. properties will be demolished, regraded and restored to open space / buffer.

Q: Is there any preemptive management being considered in flood-prone areas in Rye?

A: Chris Bradbury - Rye Brook and Rye City work very closely together. We have completed regional studies together and implemented projects together. I used to work in Rye City so I certainly understand the impacts there as well. We have both identified projects that can help flooding but some of them are in other municipalities.

Q: Did the municipality take any moves to sunset maintenance of roads, utilities, etc. in the impacted area?

A:

- Michal Nowak - NO, The roads are staying and will be maintained, we have other houses on these roads.
- Alison Branco - The Town of Brookhaven, on Long Island, has done a little bit of this in areas where more contiguous residential land has been purchased.

Q: What are the plans for the property once homes are removed?

A: Michal Nowak - Property will be restored to open space and graded in a way to help with flooding and give a little more buffer. There is a track to get more grants to come back and formally design a plan to slope the properties more and create benches or slopes to give back a lot more volume... But were limited now as we have some houses that are not participating in the buyout so we cant just carry that design straight through.

Q: Are the homes "deconstructed" to salvage materials?

A:

- Michal Nowak - We are just starting the demolition plans. Not sure we are requiring "salvaging" of material. Most of the material gets recycled at the dump and separated by material type.. But I am not aware that we will be salvaging materials as a point.
- Jessica Brunacini - I believe that an NRCS EWP-funded buyout project in Rhode Island did try to salvage as much of the demolition material as possible.

Q: What type of monitoring gauge did you use for the culvert and what are the approximate initial and annual maintenance costs?

A: Michael Nowak - <https://www.nexsens.com/>. \$12,000 for a unit and I believe \$300 a year for data.

Q: For the NRCS Emergency Watershed Protection Program Buyouts, is there a fast-tracked procurement process like a pre-confirmed list of consultants perhaps at federal and/or state level for demolition, legal counsel, survey/appraisal work, etc.? one team of a prime/subs, or several consultant teams and contracts to manage?

A:

- Michal Nowak - No list, but NRCS did guide us to other engineers and consultants that performed this work. We have contracted with E2PM to do demolition and they did the design for Long Island houses and were familiar with the language, reimbursement requirements, etc. Yes our local retained engineers could have done it, but it just made more sense to streamline and not have a learning curve.

- Chris Bradbury - We also talked to other municipal administrators to learn from their experience.

Q: A critic in a town not experiencing recurring damaging flooding, or in an inland area not subject to coastal flooding, would say "why should I , through municipal and state taxes/funding bailout in a town/neighborhood that made permitting decisions that put people/property in harm's way." Such an argument may be particularly persuasive to those who are not able to access beaches in private beach association neighborhoods requesting buyouts. How do we supporters of buyout respond to such concerns?

A:

- Michal Nowak - The Village was not in existence when these houses were built. The Village was formed in 1982, so much of the permitting was pre village of Rye Brook. your right, that is a valid argument we have heard from people. But we focused on the impacts and the goal to help people.
- Chris Bradbury - Also important to reduce the risk to emergency responders that have to risk their lives to save people in flood situations.

Q: Has anybody heard of programs that will help prior to an extreme event?

A: Jessica Brunacini - Our colleagues in the town of Hampton, NH are exploring a voluntary elevation, buyout, and relocation program - they conducted a community survey to get a sense of what types of strategies property owners are interested in. This type of pre-disaster research / engagement seems to me to be helpful for proactive planning:

<https://www.hamptonnh.gov/664/Voluntary-Elevation-Property-Acquisition>

Q: Another consideration is the insurance industry. If they continue to move away from insuring homes subject to repeated flooding, residents living in these areas will be between rock and a hard place.

A: Zbigniew Grabowski - We did an analysis of this nationally - insurance claims are likely to increase 25-130% by 2100 under low and high emissions scenarios - tough choices will have to be made at the federal level given that the NFIP is already in debt -

<https://www.nature.com/articles/s43247-024-01848-z>. Its also worth noting that 90% of coastal properties are uninsured against flood damage. Nationally we see ~10% of properties in the coastal zone having flood insurance - and it it will be increasingly difficult to be insured despite a rising need - buyouts and relocation to non flood prone areas, where the tax base can be replaced and protected - seems like a win-win for the vast majority of homeowners and municipalities.

Q: Is there a concern that buyout programs will increase pressure on the housing shortage? Is that being considered in how these programs are structured?

A: Alison Branco - The Regional Plan Association is currently working on a great project to quantify this exact issue, results should be out soon and will include NYC, Long Island and Westchester areas.

Q: In addition to physical damage of floods, sea level rise can be insidious even without an extreme event. Salt water intrusion into wells and public water supplies requires a big-ticket fix to provide public water. On-site sub surface sewage systems can become inundated, and become ineffective and create a nutrient and health risk. Sewering is another big ticket fix, especially if the elevation is lower than the sewage treatment plant, requiring pumping that will fail during storms/power outages. Do such problems exist in coastal CT and NY?

A:

- Michael Nowak - There are many locations in Coastal NY that have sanitary sewer systems that get flooded by "feet of water" this creates inflow and infiltration into the sewer systems, and overwhelms the systems. We basically have invested millions into relining our system, and replacing sewer manhole covers with solid ones that have leak proof seals to minimize as much inflow into the sewers as possible.
- Zbigniew Grabowski - Yes, we already know much of our coastal sewer infrastructure is below current sea level - we are currently pumping human waste up hill towards treatment in facilities that are threatened by climate change.

Q: I see a lot of structures being elevated. Can someone speak to this option versus buyout?

A:

- Michal Nowak - We did have one home on Brook Lane that decided to raise the house 2 feet above flood plain. They considered the buyout but decided to stay. We have spoken with a few homeowners about other options such as elevation, grants for elevations if they decided to stay. We did not steer the people either way, we supported them with information and resources and let them decide.
- Chris Bradbury - Some properties on these streets did elevate - but they still have a moat all around their home in big storms and cannot get out.

Q: Does the absence of presenters from CT mean that there are no similar options available?

A:

- Deb Abibou - The Federal programs are available to all, such as NRCS, which West Haven participated in.
- Zbigniew Grabowski - NRCS buyouts are a national program - but can be supported by the state conservationist:
<https://www.nrcs.usda.gov/programs-initiatives/emergency-watershed-protection-ewp-program-buyouts>. I know CLEAR published both SLAMM viewer <https://cteco.uconn.edu/viewer/index.html?viewer=slamm> and a fact sheet containing information on buyouts as one flood response <https://publications.extension.uconn.edu/publication/how-can-we-reduce-flood-risk-in-our-communities/>. Not sure if there are plans to see what municipalities are engaging in planned retreat across the state.
- Alison Branco - CT communities are eligible for federal buyout funding after disasters - FEMA, HUD, NRCS. I think maybe it hasn't happened as often (but not zero) in CT yet.

Q: Are there other alternatives to buyout? Perhaps adding buffers such as marshes depending on the risk factors?

A: Jessica Brunacini - I should have also mentioned that there is a lot of work going on in Maine to advance nature-based approaches (living shorelines, marsh restoration, etc.) to help build protection for communities, but again, these are short-term / temporary measures.

Q: Does moving the water more quickly through larger culverts exacerbate downstream flooding? Do larger culverts actually prevent road damage when the extreme event occurs?

A: Michal Nowak - Well upsizing the culvert is just a local solution. You need to look at the entire drainage area and determine the downstream impacts... You may solve your issue, but create a downstream issue as there may be other culverts or situations downstream that cannot handle the upflow... We have been very strategic in working through our culverts starting downstream working upstream, to make sure we did not flood out downstream.

Planning for Inundation poll results

Presented by: Sara Powell

Current run (last updated Dec 18, 2024 9:18pm)

8

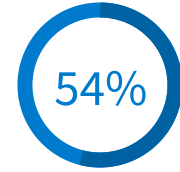
Activities

77

Participants

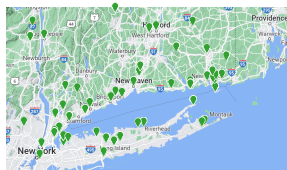
65

Average responses

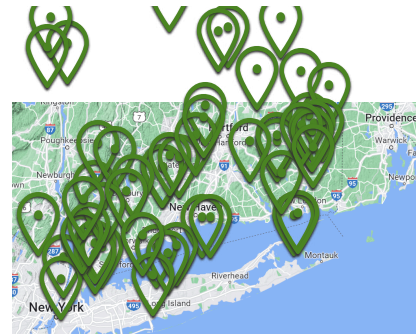


Average engagement

Where are you joining us from today?



Response options



Count Percentage



Engagement

53

100%

53

Responses

Please indicate the sector that best represents you:

Response options	Count	Percentage
Federal or state government	10	18%
Indigenous Nation or community	0	0%
Local government	22	39%
Nonprofit/NGO	12	21%
Watershed organization	1	2%
Community group	3	5%
Consultant	1	2%
Academia	3	5%
Interested individual	5	9%



Engagement

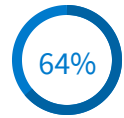
57

Responses

What do you think of/feel when you hear the words "buyout" and "relocation"?

Responses

- \$\$\$
- Restoration
- disparate_impact
- necessary
- Coastal_Loss
- Robert Moses
- ecologically_smart
- Habitat
- Adaptation
- emotional_climate
- Necessary
- Migration
- complicated
- Gentrification
- important_racial-equity
- eminent domain
- retreat
- smart
- unlikely
- change
- Need_to_educate
- opportunity
- Crisis
- emotional
- Expensive
- Smart
- inevitable_retreat
- dream_on_politically_untenable
- Regional
- flooding
- community_smart
- tax_implications
- expensive
- displacement
- Flooding_personal_loss
- below market value
- Change
- community pushback
- inequality
- Necessary
- Expensive
- Unrealistic
- tool
- Smart
- equity_racial_opportunity_cost
- Overdue
- gentrification
- failure
- unpredictable
- Opportunity
- Ecosystem_Benefit
- gentrification
- Needed
- opportunity
- Resistence
- low value
- reluctance
- privilege
- hesitation



Engagement

91

Responses

Responses



How familiar are you with buyout programs?

Response options	Count	Percentage
Very familiar - I have participated in or administered a buyout program.	4	7%
Somewhat familiar - Buyout programs have been discussed in my community.	17	30%
Less familiar - I have heard of buyout programs and am interested to learn more.	35	63%



Engagement

56

Responses

Which obstacles to participation in buyout programs do you think are most important for administrators?

Response options Count Percentage

Loss of tax base: Concern with loss of taxable properties that are bought out.

23 20%

Capacity: Having the necessary staff, resources, and time to implement the buyout program.

26 22%

Support: Getting buy-in from elected officials and community members.

24 21%

Financial timing: Program timeline working for resident needs; Obtaining a desirable interest rate.

4 3%

Financial feasibility: Coming up with an acceptable purchase price; Home prices in my municipality are too expensive.

19 16%

Geographic continuity: Not getting enough people adjacent to each other to participate to adequately improve/restore the floodplain.

19 16%

Other: Please share in the meeting chat!

1 1%



Engagement

116

Responses

Which obstacles to participation in buyout programs do you think are most important for homeowners?

Response options Count Percentage

Loss of tax base: Concern with loss of taxable properties that are bought out.

3 3%

Capacity: Having the necessary staff, resources, and time to implement the buyout program.

4 4%

Support: Getting buy-in from elected officials and community members.

15 13%

Financial timing: Program timeline working for resident needs; Obtaining a desirable interest rate.

33 29%

Financial feasibility: Coming up with an acceptable purchase price; Home prices in my municipality are too expensive.

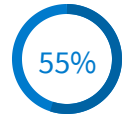
32 29%

Geographic continuity: Not getting enough people adjacent to each other to participate to adequately improve/restore the floodplain.

17 15%

Other: Please share in the meeting chat!

8 7%



Engagement

112

Responses

To what extent did this session provide you with new knowledge regarding buyout programs that will help with resilience planning in your community?

Response options Count Percentage

This session was informative and I plan to explore how to implement a buyout program in my community.

12 55%



Engagement

This session was informative, but I still need more information to determine if my community should pursue a buyout program.

10 45%

22

Responses

I did not learn new or useful information from this session.

0 0%

Based on what you learned today, what additional resources or information would be helpful to you?

Responses

I think ecosystem-level management planning would be helpful - putting management in social-ecological context would provide a balance between human and natural uses and environmental and human health and well-being outcomes. That perspective is often neglected as we battle individual problems in narrow context - treatments, not solutions.

What other municipalities are participating in these programs.

all panelists were fantastic and the layout according to the overarching buyout programs theme was so relevant especially with on-the-ground examples and best practices. Def share meeting documentation and a hub of buyout resources, or direction where it may already exist. also suggest regular programming for these type of training sessions on more regular basis? funding resources? mapping tools/online desktop databases directory?

Appraiser_list

What coordination is being done to get CT into a similar position as NY is - how to help in this effort at a state level

Engaging_town_officials

I don't think that our very small village will be part of any buy outs

More info about CT, historic homes, how to get funding for regional planning, how to do buyouts of businesses

Auditor_list



Engagement

13

Responses

Responses

I would like to hear from affected homeowners about the experience.

Funding maps showing how other buy out programs developed and them implemented their programs.

Very informative thank you.

How to improve existing buyout programs