

Making it Personal: Getting Vulnerable Neighborhoods to Talk About Long-Term Flood Risk

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Piermont, NY at a glance

- 2500 residents, tight knit
- 78% educated beyond high school
- Reasonably well-off
- Home is major financial asset
- Strong tradition of volunteerism, engaged on climate change
- Passionate about Piermont and living near the water

Piermont hammered by Sandy – highest risk in Rockland County



Highest flood risk in county: 52.5% at risk of 1% flood

Where Things Stand

Our team has been supporting Piermont's efforts to understand and address flooding risks for past 6 years

- Flooding Task Force (2013-14)
- Resilience Network (2014-2020)
- “Living room” conversations (2017)

Built **relationships** and generated **progress**, but **no clear path** around longer-term risk and adaptation options, including retreat



Sparking Dialogue and Action: Our Hypotheses

Community members **need to consider their own personal future** to effectively inform and support Village resilience efforts

- More compelling and sustainable to **have neighbors speak with neighbors** about their future than outsiders
- **Residents cannot plan without detailed information** on personal flood risk and adaptation options
- **Emotional & personal considerations** as important as the practical

Progress isn't possible without **integration of individual, neighborhood, and community aspiration**

What We Did

- **Local liaisons from key neighborhoods:** trained, co-designed approach, co-facilitated discussions
- **Flood-risk info:** both neighborhood-specific and individual property owner-specific
- **Personal risk questionnaire:** a guided process to help navigate emotional and personal considerations
- **Building trust and relationships around a difficult topic:** fictional property and neighborhood-based discussions



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Liaisons – Our Key Project Partners

- Organize and facilitate neighborhood dialogues
- Help neighbors identify information needs, serve as conduit to resources and experts
- Serve as a trusted neighborhood point of contact
- Serve as a trusted messenger to the Waterfront Resiliency Commission
- Support efforts to keep neighbors informed of ongoing adaptation efforts

The Liaison Role

A new pilot initiative spearheaded by the Piermont Waterfront Resiliency Commission is aimed at training and supporting Piermont residents who are willing to facilitate collaborative neighborhood dialogues on long-term planning for flood risk, both at the individual homeowner and neighborhood level.

Liaisons receive basic training on facilitating small groups, deepen their understanding of the increased risk of flooding Piermont is likely to experience in the coming decades, and learn more about the resources available to manage the village’s flooding risk. Below is a summary of liaison roles and responsibilities.

Liaisons Are Residents Who....	Liaisons Are Not....
<ul style="list-style-type: none"> • Organize and facilitate neighborhood dialogues to deepen residents understanding of long-term flooding risk and adaptation options 	<ul style="list-style-type: none"> • Are not expected to be subject experts; rather, they serve as links to need resources
<ul style="list-style-type: none"> • Help neighbors identify information needs and serve as a conduit to the appropriate resources and experts 	<ul style="list-style-type: none"> • Do not have a greater voice in adaptation actions; rather, they are trying to facilitate collaborative conversations among interested neighbors
<ul style="list-style-type: none"> • Serve as a trusted neighborhood point of contact for both residents and the village 	<ul style="list-style-type: none"> • Are not decision-makers for the neighborhood; rather, they are tasked with understanding and sharing the broader neighborhood perspective
<ul style="list-style-type: none"> • Serve as a trusted messenger to the Piermont Waterfront Resiliency Commission to inform ongoing resilience planning 	
<ul style="list-style-type: none"> • Support efforts to keep neighbors informed of ongoing adaptation efforts 	

Dialogues organized by
four neighborhoods

Largely driven by **flood risk** and **neighborhood cohesion**



Structure

- **Liaison training in Spring/Summer 2019**
 - Mix of trainings on substance, facilitation skills, co-designing public workshops
- **Two public workshops in Fall 2019**
 - One focused primarily on flood risks
 - Second focused primarily on adaptation options
- **Lots of countervailing pressure around time**
 - “Need more time to talk but don’t make meetings too long.”



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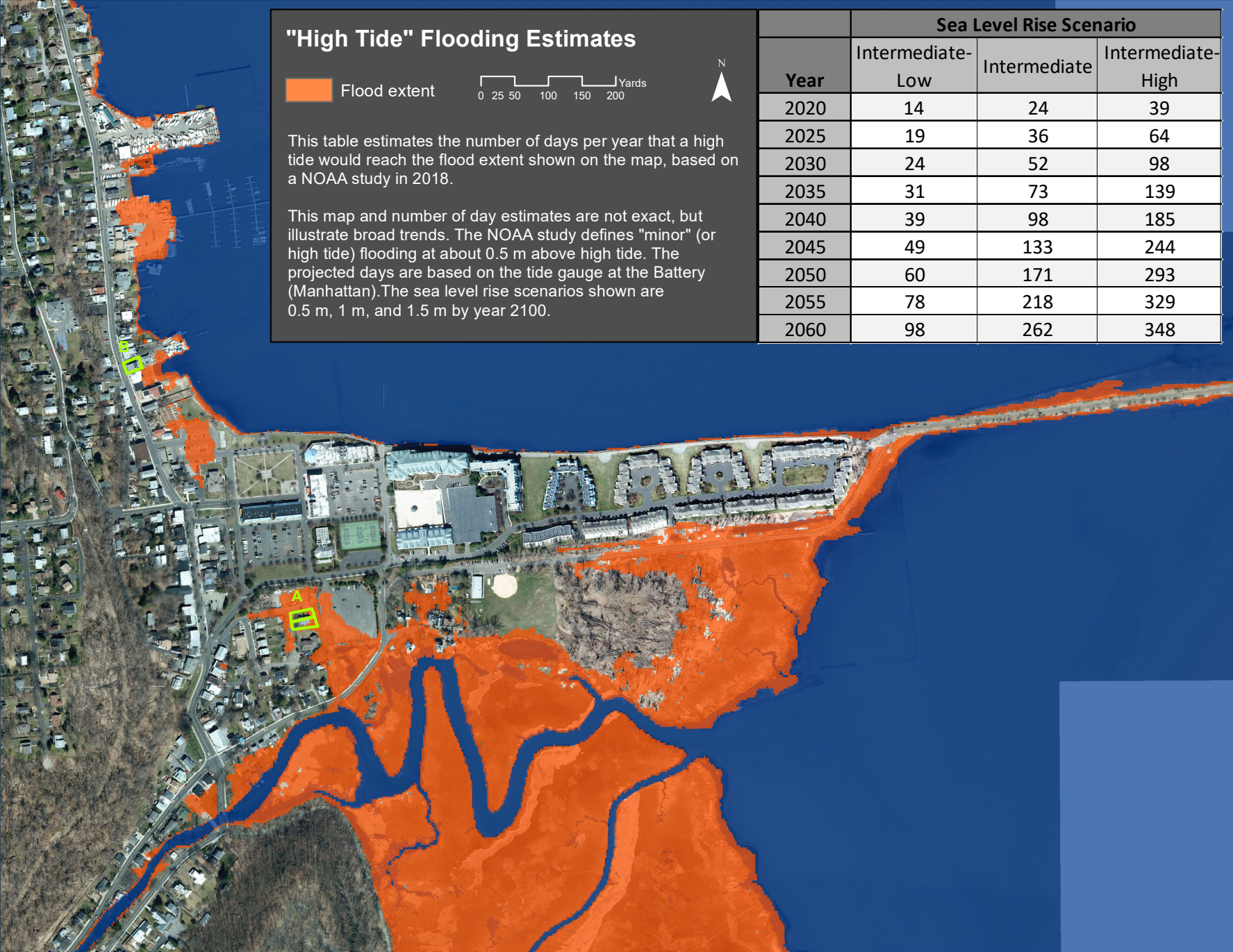
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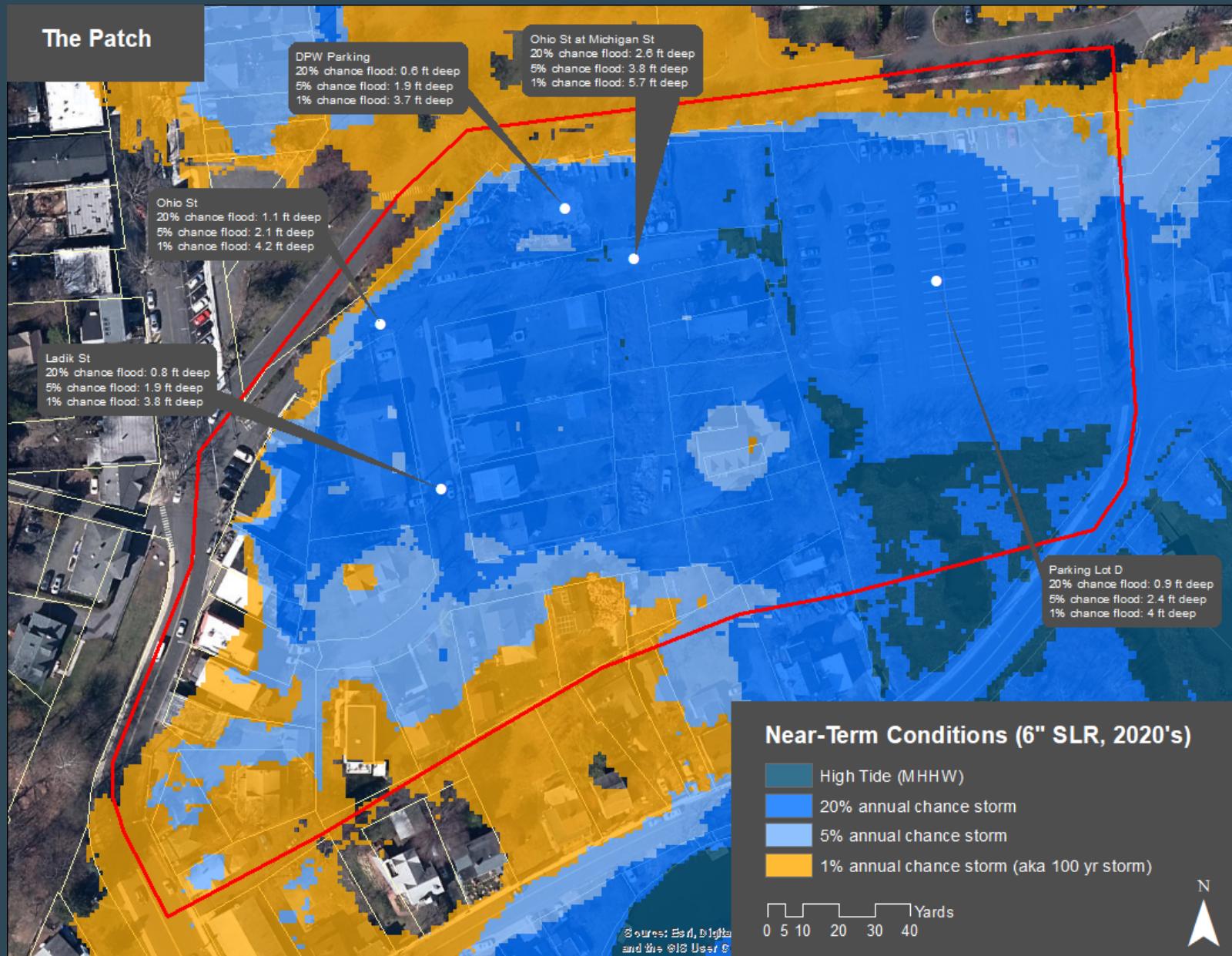
Sea level rise & nuisance flooding

NOAA Intermediate scenario annual days flooded:

- ~ 50 by 2030
- ~ 100 by 2040
- ~ 260 by 2060



Using Water Depth to Convey Specific Flood Risk



Mitigation Table

Measure	Level of Protection	Relative Cost	Individual / Collective	Permits?	Adverse Impacts?	Length of Protection	Insurance Impacts
Elevate Yard	Low	Low	Individual	Local	May increase off-site flooding	Short	None
Move Stored Materials	Low	Low	Individual	None	None	Medium	None
Elevate Mechanical Systems	Medium	Medium	Individual	Local	None	Medium	Slight \$ Decrease
Backflow Prevention	Medium	Medium	Ind / Coll	Local?	None	Medium	None
Street / Utility Protection / Elevation	Medium	High	Collective	Local / State?	May increase off-site flooding	Medium	None
Floodproof Structure	Medium / High	High	Ind / Coll	Local	May affect neighbors	Medium	Large decrease / Non Resid Only
Elevate Structure	High	High	Ind / Coll	Local	Visual	Long	Large Decrease
Buyout and Demolish	High	High	Ind / Coll	Local	Visual / Tax Base	Permanent	Eliminate Insurance
Move Structure	High	High	Ind / Coll	Local	Visual / Tax Base	Permanent	Large Decrease to Eliminate Ins
Berm / Levee / Flood Wall	Medium / High	High	Collective	Local / State? / Federal?	Visual / Local Costs / Maintenance	Medium / Long	Large Decrease Possible

Overview of Government Assistance

Measure	Individual / Collective	Length of Protection	Gov't Help Available?	Property Value Impacts	Insurance Impacts
Elevate Yard	Individual	Short	None	Minor Increase?	None
Move Stored Materials	Individual	Medium	None	None	None
Elevate Mechanical Systems	Individual	Medium	Not Likely	Minor Increase?	Slight \$ Decrease
Backflow Prevention	Ind / Coll	Medium	Not Likely	Minor Increase?	None
Street / Utility Protection / Elevation	Collective	Medium	Possibly through new FEMA Program	Minor Increase?	None
Floodproof Structure	Ind / Coll	Medium	Possibly; Non-Residential Only	Possible Significant Increase	Large decrease / Non Resid Only
Elevate Structure	Ind / Coll	Long	Possibly	Significant Increase	Large Decrease
Buyout and Demolish	Ind / Coll	Permanent	Possibly	Does not Apply	Eliminate Insurance
Move Structure	Ind / Coll	Permanent	Possibly	Possible Significant Increase	Large Decrease to Eliminate Ins
Berm / Levee / Flood Wall	Collective	Medium / Long	Only if project meets Benefit - Cost Requirements; Long lead time	Positive and Negative Impacts, small or large	Large Decrease Possible

Can Federal Programs Help?

Measure	FEMA - HMGP	FEMA - Flood Mitigation Assistance	FEMA - Increased Cost of Compliance	FEMA BRIC (Bldg Resilient Infrastructure & Communities)	FHA Rehabilitation Loan	HUD Community Devp Block Grants - Disaster
Who is Applicant? →	Community	Community	Individual	Community	Individual	Community
Elevate Yard	No	No	No	No	No	No
Move Stored Materials	No	No	No	No	No	No
Elevate Mechanicals	No	No	No	No	No	No
Backflow Prevention	Yes (Comm.)	No	No	Yes (Comm.)	No	Yes (Comm.)
Street / Utility Protection/ Elevation	Yes (Comm.)	No	No	Yes (Comm.)	No	Yes (Comm.)
Floodproof Structure	Yes	Yes	Yes	Yes	Yes	Yes
Elevate Structure	Yes	Yes	Yes	Yes	Yes	Yes
Buyout and Demolish	Yes	Yes	Yes	Yes	No	Yes
Move Structure	Yes	Yes	Yes	Yes	No	Yes
Berm / Levee / Flood Wall	Maybe (Small Projects)	No	No	Maybe (Small Projects)	No	Maybe (Small Projects)

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Fictional Scenarios

“...planning to retire in a couple of years.

“Terrifyingly, a boat actually ended up in their front yard though it did not hit the house.....During the storm, the family’s chief concern was evacuating Grace, who has limited mobility, and finding a place where she would be comfortable.

“After Sandy, they had utilities like the electric meter in the basement elevated, but they are wondering if they need to take more dramatic steps to protect themselves or their home. “

Profile of Piermont Household A (Ohio Street - Fictional Example)

The Abbott family has lived in a two-story home in the Patch neighborhood since 2000. Alan and Elaine love many aspects of living in their riverfront home. Alan, a 47-year old construction contractor, commutes to the city every day. Elaine, a 51-year old dentist, enjoys meeting up with friends to walk the family’s dogs on the pier. The couple raised their only daughter, Alice, in Piermont. She is now a senior at Tappan Zee High School and just got accepted to college. They are part of a close community of neighbors whose kids grew up with theirs.

Before Hurricane Sandy, the Abbotts had expected their 30-year mortgage for their home, which they bought for \$600,000, to be fully paid off by 2030. Though their house is not the lowest in the neighborhood, their first floor was inundated during Sandy. Not only were the utilities destroyed, but Alan almost lost his mother’s antique furniture (his most prized possession) in the dining room. The whole experience deeply unsettled the family and gave Alice terrible nightmares. For the entire month and a half while their house was being repaired from water and mold damage, they had to stay in a motel several towns over because it was the only one that would let them bring their dogs.

Since Hurricane Sandy, the Abbott’s monthly flood insurance payments have gone up substantially. Several weeks a year, they must park their car on a different street. Elaine Abbott tracks the family’s finances and has become increasingly concerned about their plans for the future. She is not sure how they would fare if another hurricane were to hit. Alan has heart issues and a bad back. She is very concerned that between Alan’s healthcare costs and Alice’s college tuition, if another big storm hits or their flood insurance goes up again, they will not be able to afford mortgage payments. Both parents would like to retire within fifteen years. They currently have \$15,000 set aside in an emergency fund, which Elaine is wondering if it is worth investing in steps to make their house less at-risk from flooding.

After repairing the damage Sandy did to their home, Alan and Elaine thought about flood-proofing their basement or elevating their home. They know that, given their home elevation, predicted sea level rise puts them at serious of risk of regular flooding in their yard and even their first floor. It frustrates Elaine that their garden keeps dying. It frustrates Alan that he regularly has to wade through puddles to get out in the morning. The couple actually talked with two other neighboring families who they are closest with about putting their homes on the market, but stopped looking into it when their friends said that they were having a hard time selling.

Personal Risk Worksheet

Attachment to Home

What influences your decisions about where you live?

Capacity to Recover from a Flood Event

How have experiences with flooding shaped your perception of risk?

Capacity to Reduce Flood Risk or Relocate

How much are you willing or able to pay for options to reduce risk or relocate?

Community Considerations

What else shapes how I think about managing flood risk in the future?

Moving Forward

What steps might I want to take to manage my risk?

Risk Profile Worksheet - Working Draft

Each of us views flood risk differently. Our perspectives are shaped by our age, our health, our family situation, our professional life, our attachment to our home, our finances, and more. While these factors are quite real, most of us don't take the time to consider how they shape our (and our family's) responses to risk.

The questions below are designed to help you assess your flood risk tolerance based on your own unique situation and preferences.¹ The questions can be used to consider and discuss the level of flood risk your household is willing to accept in your current home, and what you may be willing or able to do to reduce that risk (flood proof, elevate, relocate, no action).

We ask you to set aside some time to reflect on these questions prior to Community Workshop #2. Your answers to the questions are for your use only. While you may find it helpful to discuss these questions with your neighbors, it is your choice as to whether and how you share your self-assessment with others.

Basic Household Census

- Who is living with you in your home now?
- How long have you lived in your current home?
- Do you rent or own your home?
- Is your home mortgaged? If so, how many years do you have until it is paid off?
- Are the occupants in your home likely to change in the next year? 3 years? 5 years? 10 years?

Personal Risk Worksheet - Some Example Qs

- Do you feel committed to staying in Piermont regardless of how the community or your life changes?
- What are your greatest concerns and fears about facing a significant flooding event? Do you have a plan in place that you feel good about to deal with those concerns?
- To what extent will your decisions be affected by how your neighbors choose to manage their flood risk?

Planning for the Emotional at the Workshops

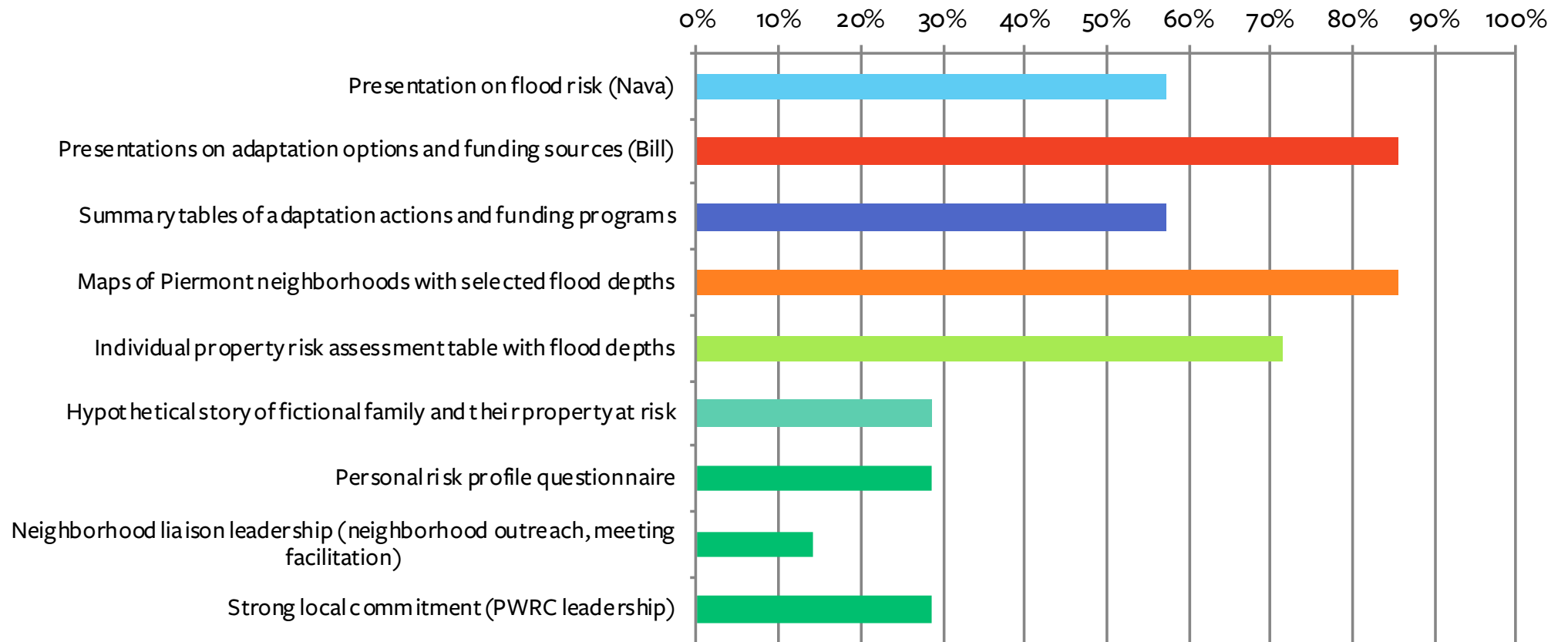
- Participants organized into small conversations with their neighbors – created a “safer” space
- Pairs of liaisons facilitating discussions – able to support each other, known to attendees
- Opted not to make workshop open to wider community – needing time to connect with each other first
- Lots of food.....

Results & Potential Next Steps

- **Retreat on the table** for at least one neighborhood
- Nearly everyone **came back for Workshop #2**
- Two of the four neighborhoods have:
 - Already held **follow-up meetings without CBI support**
 - Presented to Village Board on **adaptation ideas**
- Keen interest in **technical support and professional assistance**
- Strong **interest in ongoing discussions** and reaching out to electeds
- Potential to use tools to inform Planning Board reviews
- **Great effort by liaisons** to bring neighbors but gorgeous weather and challenging topic are **powerful deterrents**

Participant Survey

Which aspect(s) of the workshops do you consider most valuable?



Some things to think about.....

Structure, Outreach and Liaisons

- Know your “liaisons” – consider upfront survey (training needs, expertise, motivation – and plan on attrition)
- Intimate, neighborhood conversations essential – smaller groups, more comfortable space are better
- Support of local leaders and recognize liaisons when you can – empower the champions
- Active outreach key – face to face, bring a neighbor, etc.
- Maintain project momentum – minimize lag time

Detailed personal risk & adaptation information

- Individualized flood risk data was highly valued – time-consuming to generate and share and scary to absorb, but compelling
- Challenging to convey uncertainty in data
- Be ready for:
 - Concerns about “painting a bullseye on our own backs”
 - Chicken/egg between residents and village
- Help residents see linkage/distinctions between individual and community-level responses

Some things to think about....

The Emotional and Personal

- Skilled facilitation critical to foster honesty, transparency, trust
- Fictional family stories offer a "safe" first mental step
- Strong reluctance to think beyond 10 years or so – too complex, abstract, scary
- Give them time to grapple with the information and grieve
- Marry solutions with risk early-on; offer hope

Other factors

- Expertise wanted/needed – contractors, finance, etc.
- Interest in learning from each other about experiences being flooded & actions taken
- Model learning and co-designing project together
- Iterative "dance" between individual, neighborhood and community-wide interests

QUESTIONS &
DISCUSSION