When Rolling Easements are Ineffective

Possessory Adaptation Alternatives for Sea Level Rise

Deirdre Hall, City of Quincy

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DISCLAIMER

This presentation does not represent City of Quincy policy in regard to climate adaptation planning. It is strictly an academic discussion based upon City of Quincy data.

Additionally, the topics discussed in this presentation do not reflect my personal political opinions.

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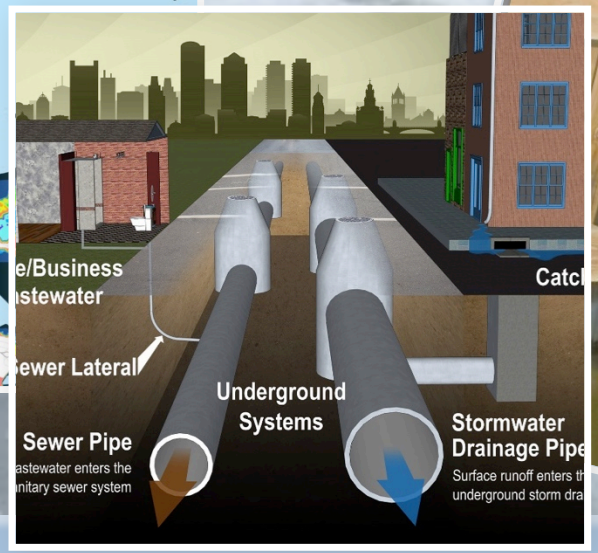
Background



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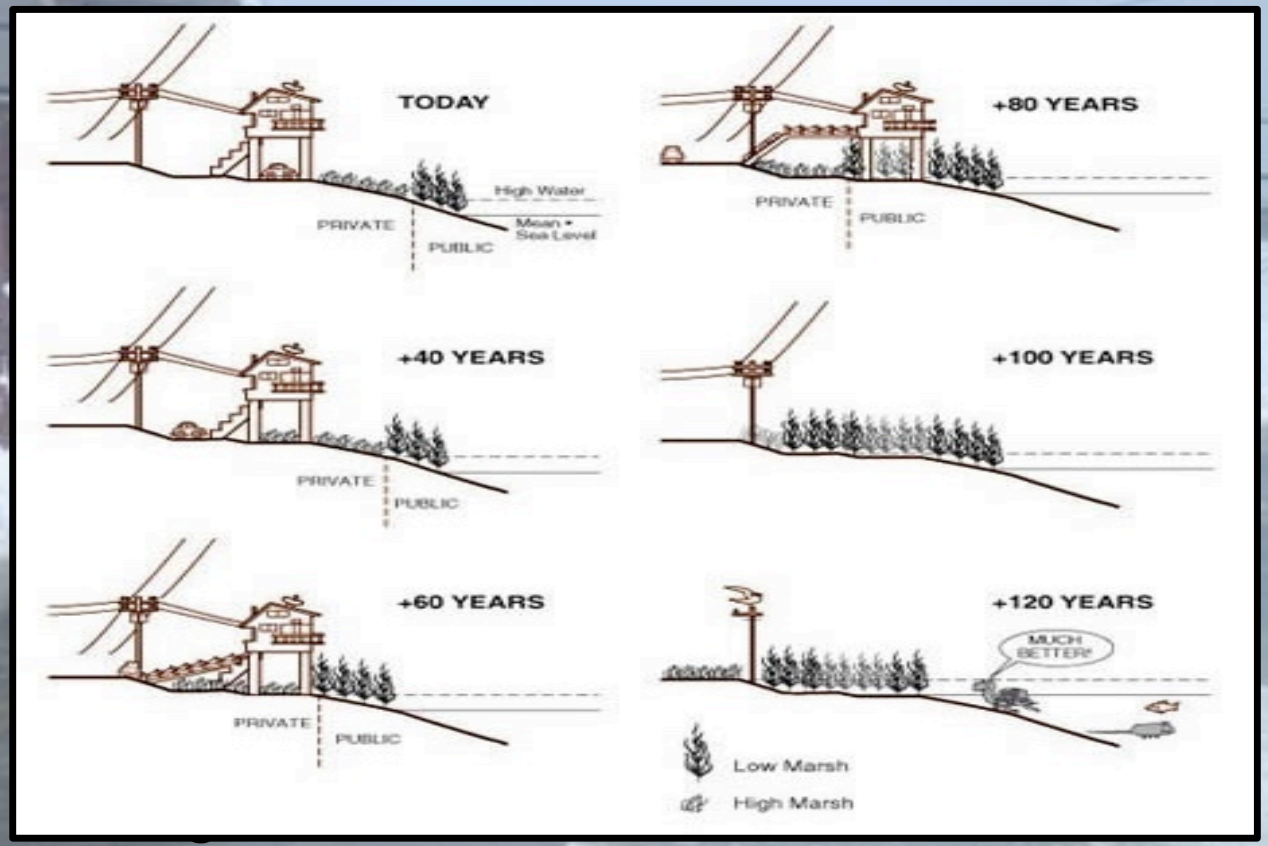

Rolling Easements Generally

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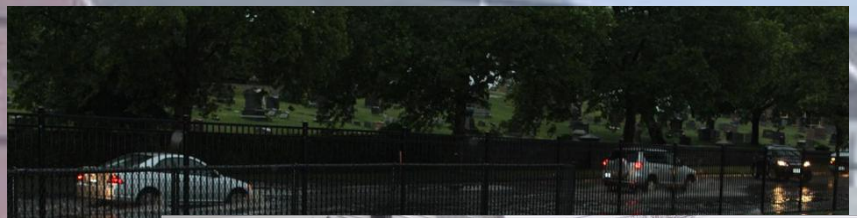
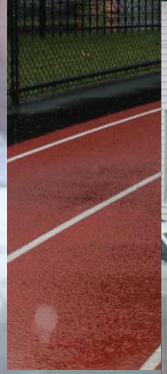
Problem?





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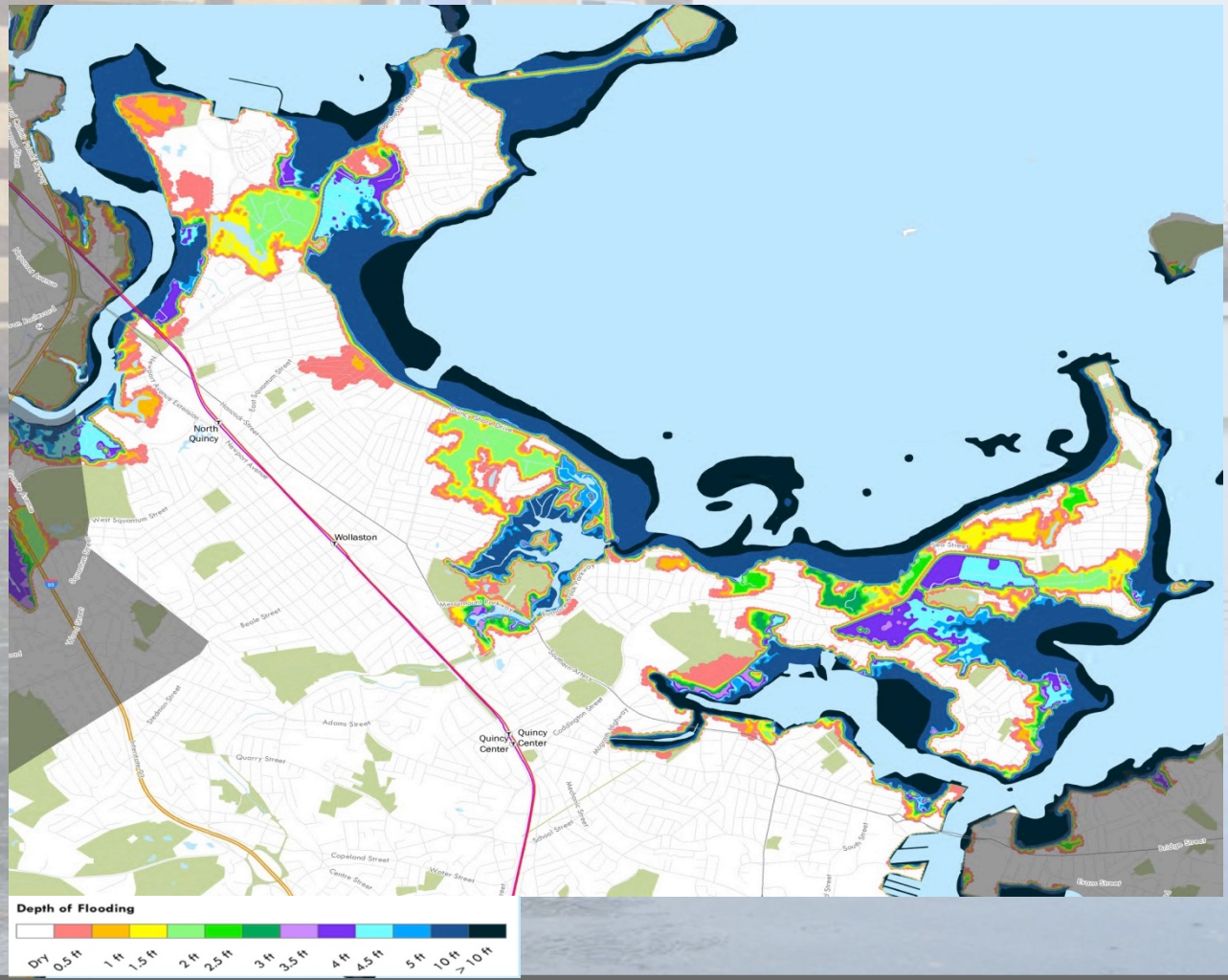
Current Flooding Conditions



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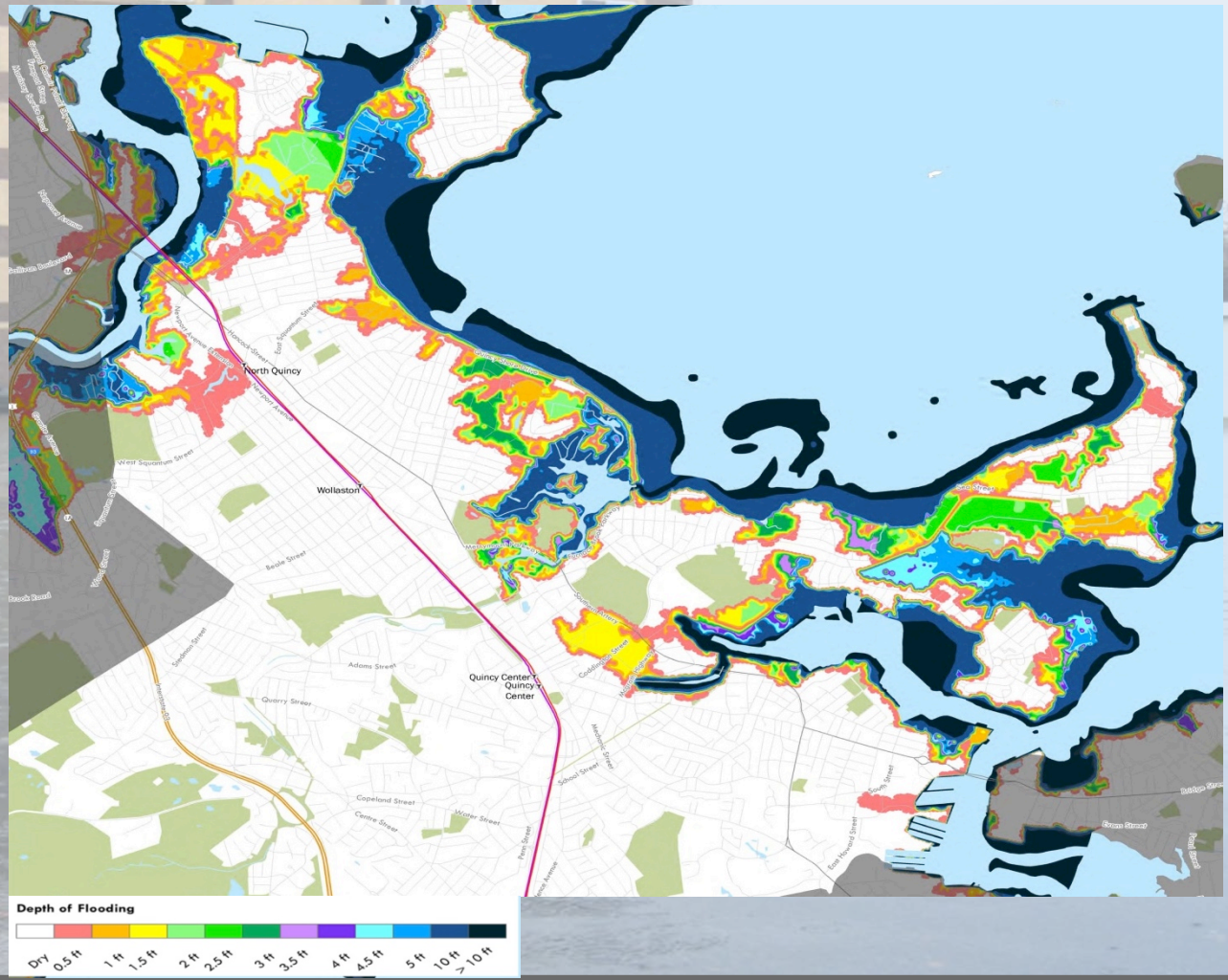
Projected 2030



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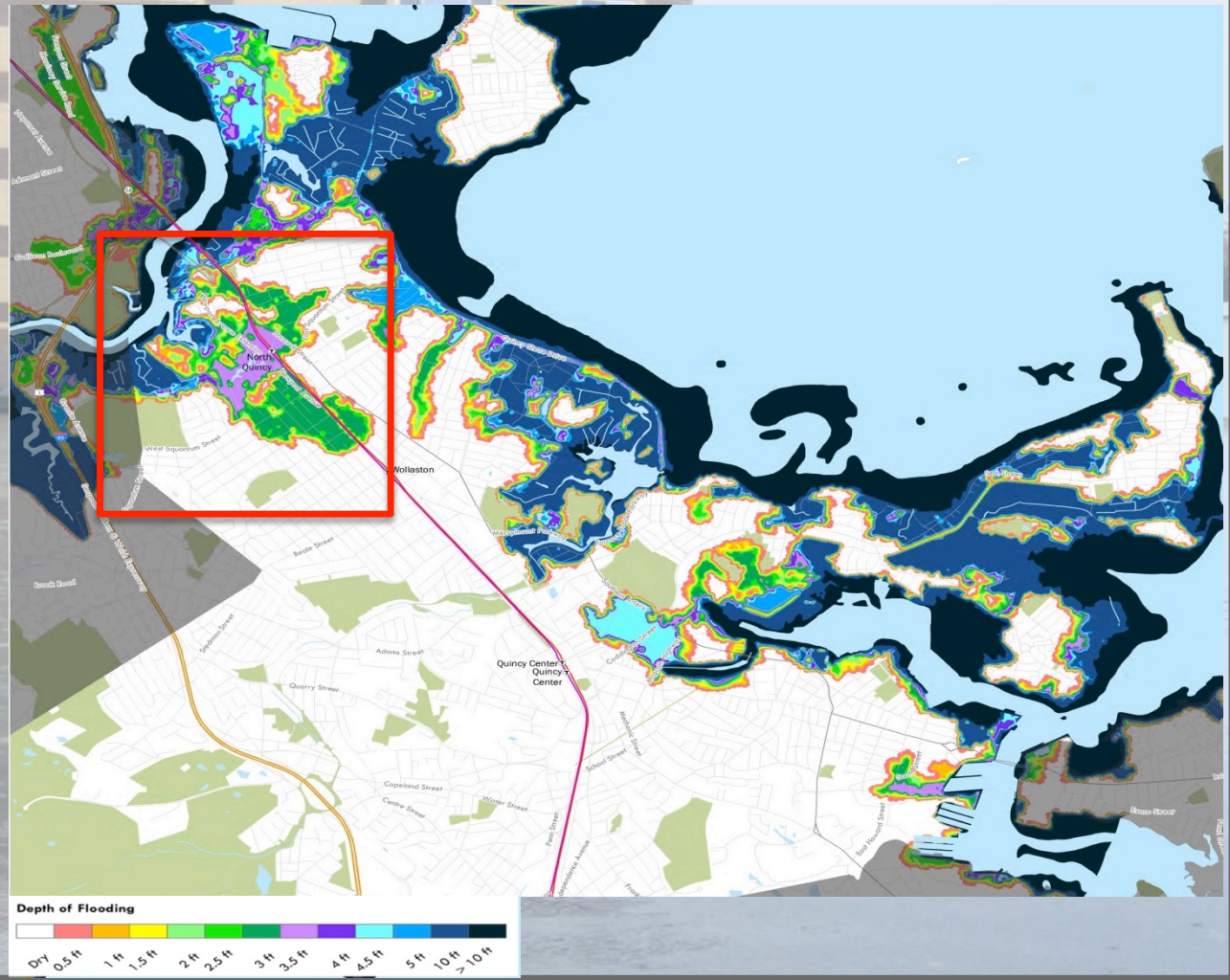
Projected 2070



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Application to Public Works

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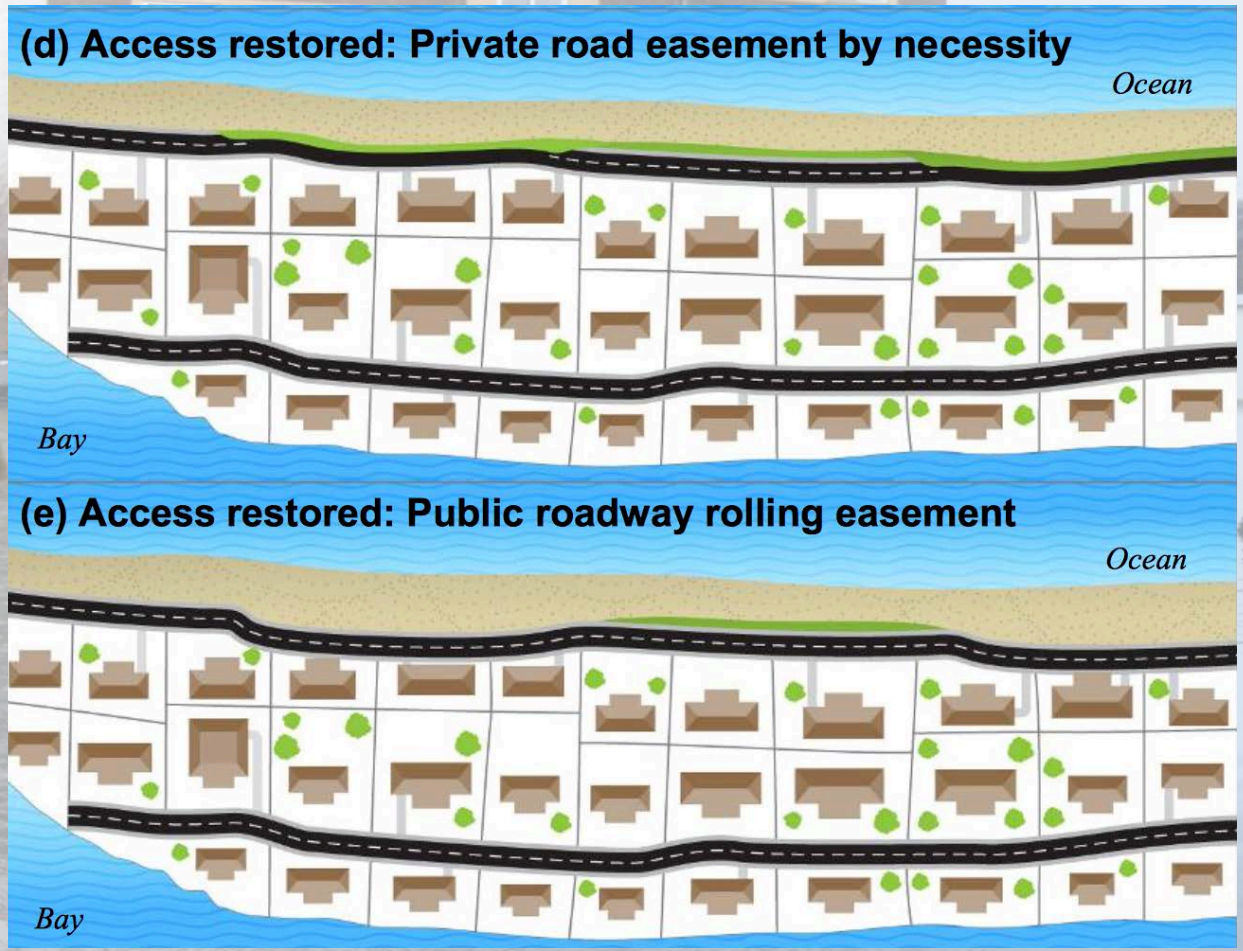

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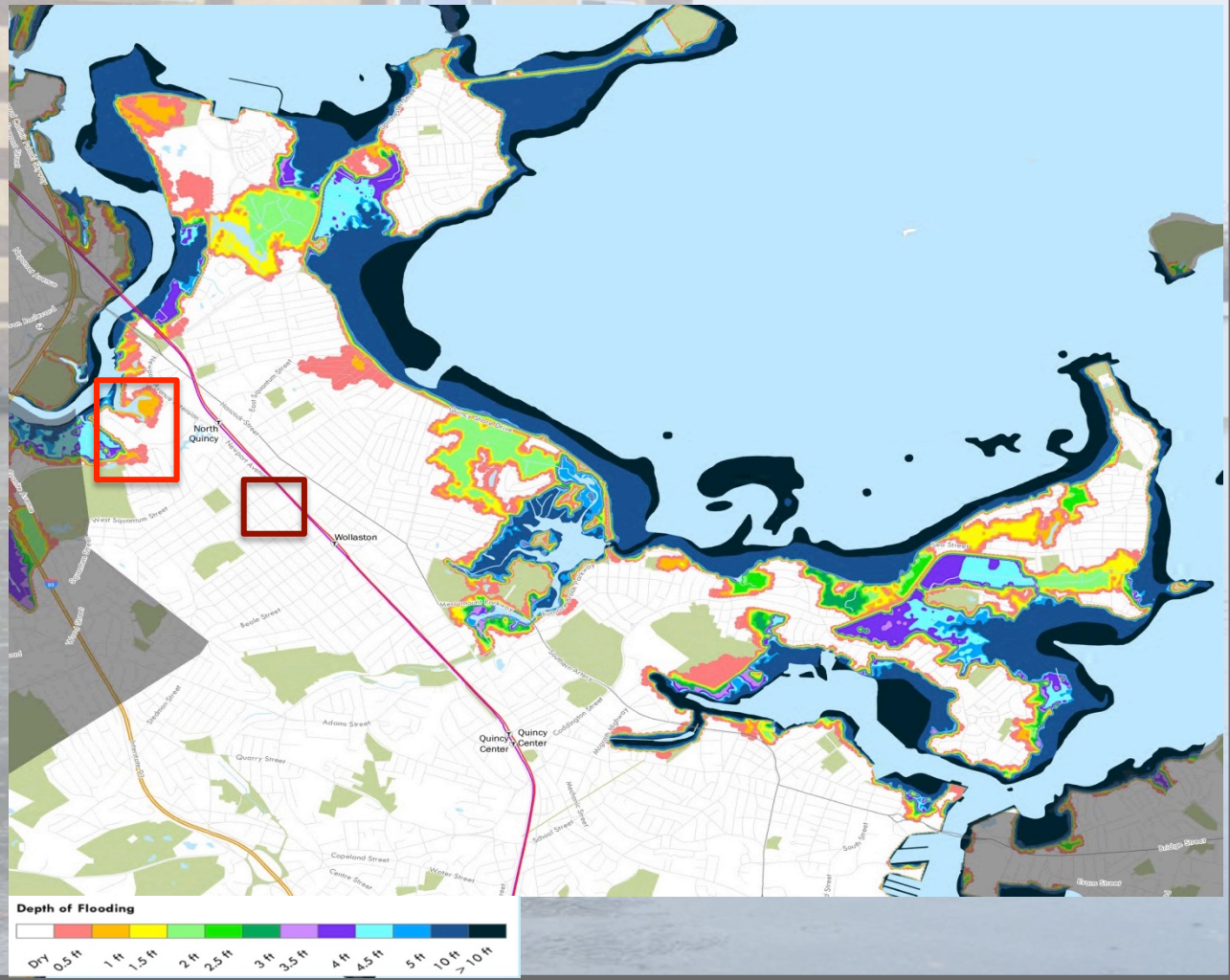
Current Flooding Conditions

Impacts on Sewer



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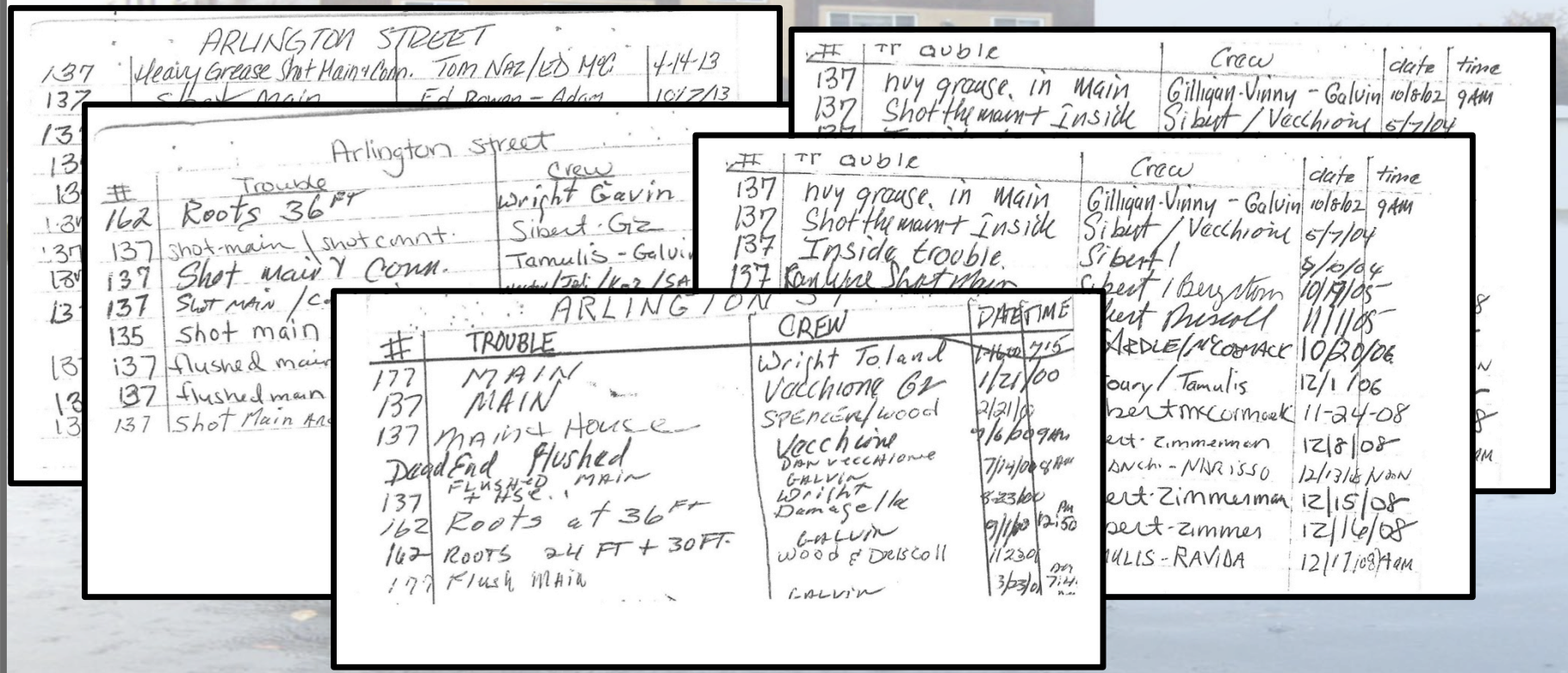
Arlington Street



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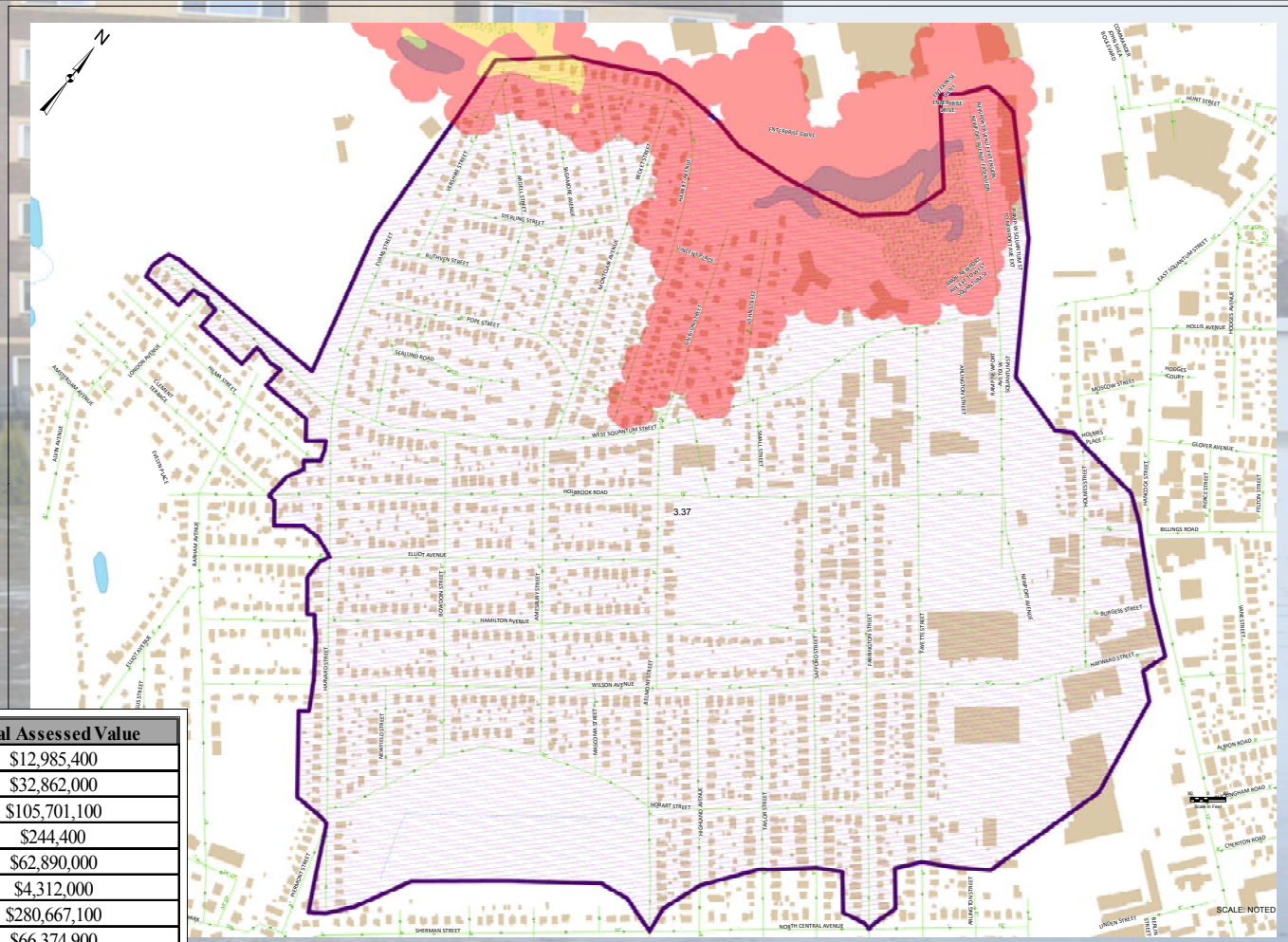

Zoning	Parcels withnin Zone	Total Assessed Value
BUSA	28	$12,985,400
BUSB	50	$32,862,000
BUSC	223	$105,701,100
INDA	2	$244,400
INDB	145	$62,890,000
OS	5	$4,312,000
RESA	859	$280,667,100
RESB	192	$66,374,900

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Present Possessory and Future Estates

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Fee Simple

Life Estate with Remainder Interests

Defeasible Estates Subject to Executory Interest

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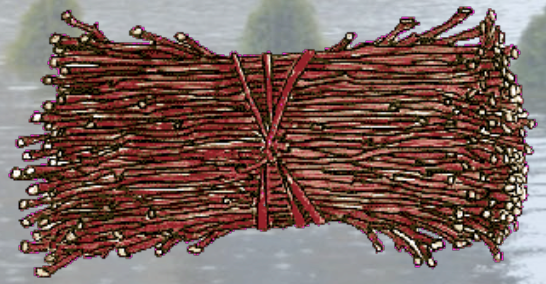
BLACKACRE

O → Deirdre



Fee Simple Absolute

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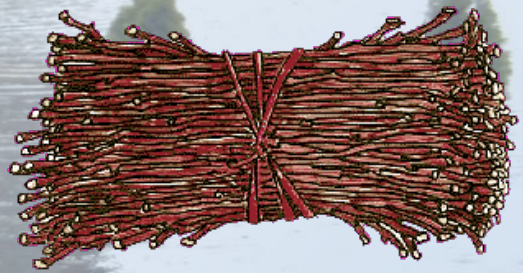
O → Deirdre for life, then to Zach



Life Estate with a Remainder Interest

Remainder interests may only follow the natural termination of a present possessory estate

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BLACKACRE

O → Deirdre but should wine ever be consumed on the premises then to Zach

Defeasible Estate: Fee simple subject to an executory interest

Defeasible Fee

Fee Simple Subject to Condition Subsequent

- Possibility of Reverter
  - Owner holds a defeasible fee subject to right of the executory interest holder to take it back when the sea rises X feet.
- Power of Termination
  - Government would have an executory future interest in a parcel upon the happening of an event (when the home owner engages in self help)

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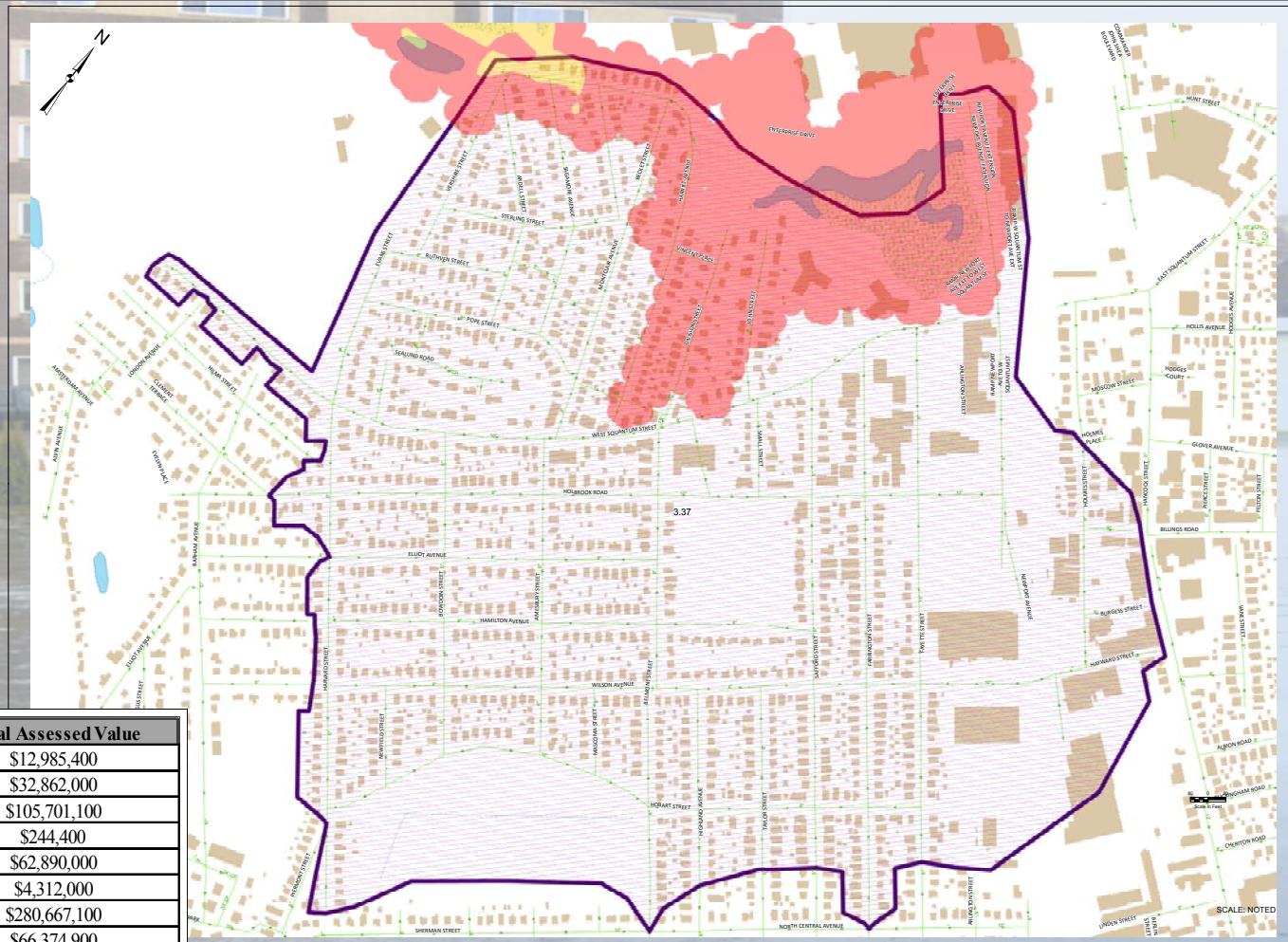

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Possessory Alternatives

- Life Estate with Remainder Interests
  - Using the best science available, determine what utility areas are going to be impacted by inundation, what the upstream impacts will be and design a more permanent solution.
    - This will eliminate the 10 million dollar pump station with a 25 year design life built to the 500 year flood plain (for FEMA fund eligibility)

Possessory Alternative

- Life Tenant
  - Remains responsible for taxes, maintenance and upkeep
  - Better than a conservation restriction because it does not limit the use of the use of the property during the life tenancy
  - Have a valuation
  - Not worried about waste
- Remainder Interest
  - Would likely vest before inundation allowing for more (and less costly) engineering alternatives.
  - Full property tax value until the death of the life tenant.
  - No need for litigation if life tenant engages in self help against rising flood waters.

Possessory Alternatives

- Remainder interest creation
  - Donation for tax benefits
  - Sale to municipality or land trust
  - Eminent Domain Taking
    - Value of the remainder interest for sale or taking is based upon the life of the tenant at the time of the transfer (actuarial tables) but is most likely far less than the cost of the property in fee simple absolute.

Valuation of a Remainder Interest

$$\left(1+\frac{i}{2}\right)\sum_{t=0}^{n-1} v^{t+1}\left[\left(1-\frac{l_{x+t+1}}{l_x}\right)-\left(1-\frac{l_{x+t}}{l_x}\right)\right]\left(1-\frac{1}{2n}-\frac{t}{n}\right)$$

Where: n = the estimated number of years of expected life
i = the applicable interest rate under s. 7520 of the Internal Revenue Code,
v = 1 divided by the sum of 1 plus the applicable interest rate under s. 7520 of the Internal Revenue Code,
x = the age of the life tenant, and lx = number of persons living at age x as set forth in Table 2000CM of § 20.2031-7 of this chapter. 26 C.F.R. 1.170A-12

Benefits to a Life estate/ remainder policy

- Remainder interests generally cost less than fee simple interests
- Provides for more land area for engineering solutions often at reduced lifetime costs
- Preserves intergenerational wealth
- No person is forced from their home during their lifetime

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Conclusion

- Unlike roadways, when planning for utility adaptation, government possession of entire parcels, rather than small slivers will provide more opportunity to engineer solutions
- Acquiring possessions of future interests rather than fee simple absolute interests saves money for government but also provides opportunity to preserve intergenerational wealth
- Provides a solution to the emotional connectedness of "losing a home."
- Useful long term retreat planning strategy for armored communities.

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QUESTIONS/COMMENTS?

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