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HOW MANAGED RETREAT
Figure 3: Federal Emergency Management Agency Hazard Mitigation Assistance, Number of Properties Mitigated and Funding by Mitigation Method, Fiscal Years 1989–2018

- **Number of mitigated properties**
  - 0.4% (245 properties)
  - 0.6% (369 properties)
  - 2.5% (1,436 properties)
  - 15.5% (8,827 properties)
  - 81.0% (46,212 properties)

- **Federal funds obligated for flood mitigation** (dollars in thousands)
  - 0.9% ($50,066)
  - 0.9% ($49,538)
  - 4.3% ($233,618)
  - 18.5% ($1,001,918)
  - 75.3% ($4,080,005)

Legend:
- Acquisition
- Elevation
- Mixed (acquisition and elevation)
- Floodproof
- Relocation

Source: GAO analysis of Federal Emergency Management Agency data | GAO-20-509

Note: Federal funds obligated were adjusted for inflation using the Bureau of Labor Statistics’ Consumer Price Index for All Urban Consumers.

Coordinated
- Organized relocation of whole community

Assisted
- Support in moving, including identifying or creating housing options

Funded
- Compensation for loss of property and moving costs

Nudged
- Incentives to relocate to safe areas at own cost

Siders, Hino, Mach, 2019
Keys to Retreat

Vision

Equity

Leadership (and Expertise)

Plan
“Retreat, Hell! We're just advancing in a different direction.”
- USMC General Oliver P. Smith
What do you want your city/ community/ coast to look like in 100 years?
Positive Vision >
Avoiding Fear
Local Illinois News

Cave

Will Valmeyer cave become business hub?

Jan 14, 2011  •  0

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Doris Rippelmeyer
Former Valmeyer Resident

Valmeyer, IL: The Documentary

12,560 views
national seashore

Rosetta Elkin
Keys to Retreat

Vision

Equity

Leadership (and Expertise)

Plan
What does equity mean for your community?

- Take race, income, historic injustice into account explicitly
- Be skeptical of CBA
- Account for difference in local capacity
Approximate areas that were proposed to become parks and green space in early 2006.
Grand Forks, North Dakota
WHERE WILL YOU BUILD THE FLOODWALL?
WHERE WILL YOU OFFER BUYOUTS?
Keys to Retreat

Vision
Equity

Leadership (and Expertise)

Plan
Dennis Knobloch, Former Mayor of Valmeyer, IL
Expertise

- Uniform Relocation Act
- Real Estate Agents
- Engineers to assess damage
- Environmental Site Inspectors
- Assessors for home value
- Cost-Benefit Calculation
- Willing to talk to people with prior experience ...
Learn but innovate

Funding

• Charlotte, NC – stormwater fee
• Harris county, TX – fees
• Des Moines, IA – sales tax
• Wisconsin – state fund, water quality funds
• California – adaptation fund
PARTICIPATION

- 10% incentive in high-risk area
- 5% incentive if move as a block
- Pair with real estate agent to find new house
- Help neighbors relocate together
- Purchase through non-profits (trust)
- Property swap (Wapello)
Keys to Retreat

Vision
Equity
Leadership (and Expertise)
Plan
PLAN

• What are you going to do with the land?
  • Who will own it? How will it be maintained?
• Where do people move TO? How does buyout relate to development?
• What happens to neighbors who stay?
• How will you decide who participates?
  • How will you communicate?
  • How will people decide? (How will decisions be made equitable?)

• Have an integrated plan
• Be totally transparent
• Involve community members
  • Get creative!
“the community” decides
Who decides?

Household

Community

What when conflict?
How define community?
What scale?

How decide? Vote?
“When you walk through Ellicott City and when you discover what's inside of those buildings, you see where slaves were hidden on their path to freedom. You see a lot of things that connect you to our greater community...this place is worth sticking around and working for.”

“If you pretend that human lives are worth less than historic buildings you’re a despicable person. And I don’t have any bones about saying that. You’re absolutely despicable.”

- Ellicott City, MD residents, quoted in Hersher, NPR, 2019
Jobs Programs
Water Quality Partnerships
Leasebacks / Life Estates
Expiring Permits
**Vision** – Advance in a new (positive) direction

**Equity** – Actively work to undo historic injustices

**Leadership** (and Expertise) – Leverage others

**Plan** – Integrated, participatory, transparent, creative
Questions?

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