

PREPTalks

New perspectives for emergency managers



Living with Water: How the Netherlands Prevents Flood Disasters

Jan Peelen

Agenda

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Introductions (5 minutes)

Watch the PrepTalks (20 minutes)

Discussion (30 minutes)

Introduction



- Jan Peelen is the representative of the Dutch Ministry for Infrastructure and Water Management at the Embassy of the Kingdom of the Netherlands.
- In this role, he advises U.S. entities on the topics of resilience, urban planning, and infrastructure and coordinates all water-related efforts of the Dutch diplomatic network in the U.S..

Watch the PrepTalk

<https://www.fema.gov/blog/preptalks-jan-peelen-living-water-how-netherlands-prevents-flood-disasters>

Topics

- How Does Your Community Live with Water?
- Framework for Living with Water
- Reimagining Citizen Engagement

Topic 1: How Does Your Community Live with Water?

1. Peelen explains that understanding how your community uses and views water in everyday life is a useful framework for creating risk mitigation programs
2. Although 60 percent of the Netherlands is prone to flooding, the Dutch have learned to live with water

The lesson that I want you to take from my talk is about culture; it's about living with water.

– Jan Peelen



Topic 1: How does your community live with water?



- How does your community interact with water? What is the value of water in your community?
 - Infrastructure (irrigation, drinking water, shipping, power generation)
 - Economic (port, tourism, fishing)
 - Recreation (boating, fishing, sailing, swimming, canoeing)
- What are your community's water-related risks?
 - Riverine flooding
 - Flash floods
 - Storm surge
 - Beach erosion
 - Water scarcity
 - Water system contamination or failure
 - Health of dams and levees

Topic 2: Framework for Living with Water

- The Dutch identified three core values for the Delta Programme as a framework to manage the uncertainty of climate change and to pair water management with development and design.
- Flexibility
 - Planning for the uncertainty of long-term climate change requires flexibility.
 - Your community and the natural landscape, especially the water, will dictate the solutions that you can implement.
 - Be flexible with authorities and plans to accommodate the environment.
- Sustainability
 - Make investments that are ecological, economic, and have social benefits.
 - Build project that are multi-purpose -- flood prevention and community use.
- Solidarity
 - Flood prevention is a team effort.
 - Build a common understanding of your community's risk, garner community support for capital investments, and include community members in the project design process.
 - Share the burden and benefits between the present and the future, and between those at risk and those who profit.

Topic 2: Framework for Living with Water

- Using the flexibility, sustainability, solidarity framework, the Dutch have created effective, economic, multi-use flood prevention projects:
 - A coastal defense structure that is also a recreational boulevard – flood prevention that retains tourism and the community’s economic base



- A bypass for the river in times of high discharge – instead of a levee, this approach provides more capacity for the water or “room for the river” and provides a park and water use for the community



Topic 2: Framework for Living with Water

- Using the flexibility, sustainability, solidarity framework, the Dutch have created effective, economic, multi-use flood prevention projects:
 - A “sand engine” that uses tides and wind to disperse sand – instead of repeated manual beach nourishment, this method works with nature to keep the coast viable



- **Dutch Dialogues:** The Netherlands is advising U.S. communities, including New Orleans, Charleston, Norfolk, and New York, on flood prevention projects

Don't fight nature, we have to work with nature.

– Jan Peelen



Topic 2: Framework for Living with Water

- Flexibility:
 - How can we be more flexible to incorporate uncertainty in planning?
 - Do we plan far enough ahead for future conditions?
 - How can we make our policies more flexible and adaptive?
- Sustainability:
 - What is the value you want to create in water-related projects?
 - Protection from flooding?
 - Beautification/park space?
 - Transportation enhancements (bike trails)?
 - Opportunity for new real estate?
 - Improving fishing grounds?
- What are some creative solutions that might work in your community that move from fighting nature to working with nature?
- How would you make a business case for a larger investment that both protects against flooding and adds value to the community?

Topic 3: Reimagine Citizen Engagement

Develop solidarity for living with water in your community:

- Provide easy access to clear risk information
- Tell stories about past floods and about how your community can be designed for future conditions
- Develop a process to include residents, businesses, faith-based organizations, and non-profit groups in decision making
- Explain the investments that may be needed for the long-term future of the community, including:
 - Buyout programs – moving residents away from high-risk areas
 - Land Use Plans – ensuring future building doesn't exacerbate flooding losses
 - Building Codes – building smart around water, raised homes and businesses
- Ensure community members feel ownership and become ambassadors of the project.

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