

# Exploring Stormwater Utilities

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# Overview of Today's Presentation

- Learn about what a stormwater utility is and how it works
- Assessing the costs of stormwater
- The importance of outreach and community engagement
- Case studies from the Mid-Atlantic region

# Why pay for Stormwater Now?

- Aging infrastructure in many communities
- Flooding issues
- Water pollution concerns
- Inadequate systems maintenance
- Water quality and quantity concerns
- Population growth

# Stormwater Questions for a Community

- What are the goals and objectives of a stormwater program?
- How will we pay to manage it?
- Who will pay for it?
- How much will it cost?

# What is a Stormwater Utility?

***A dedicated source of funding to pay for the operation, maintenance, planning and improvement of existing and future public stormwater systems.***



# How does a SW Utility Work?

- A special assessment district is set up to generate funding specifically for stormwater management.
- Revenues and expenses go into its own fund.
- Revenue collected supports maintenance of the existing storm drain systems, development of drainage plans, flood control measures, water quality programs, and can fund major capital expenses.
- Bill is collected from water/sewer/electric or property assessment

# Why Consider a Stormwater Utility?

- Federal and state regulation
- Helps pay for large infrastructure costs (CIP, O&M) – DEDICATED FUNDING SOURCE
- Better customer service to respond to drainage problems
- Consistent inspection and maintenance
- Cleaner water
- Protects property values
- Reduces traffic impacts from flooding

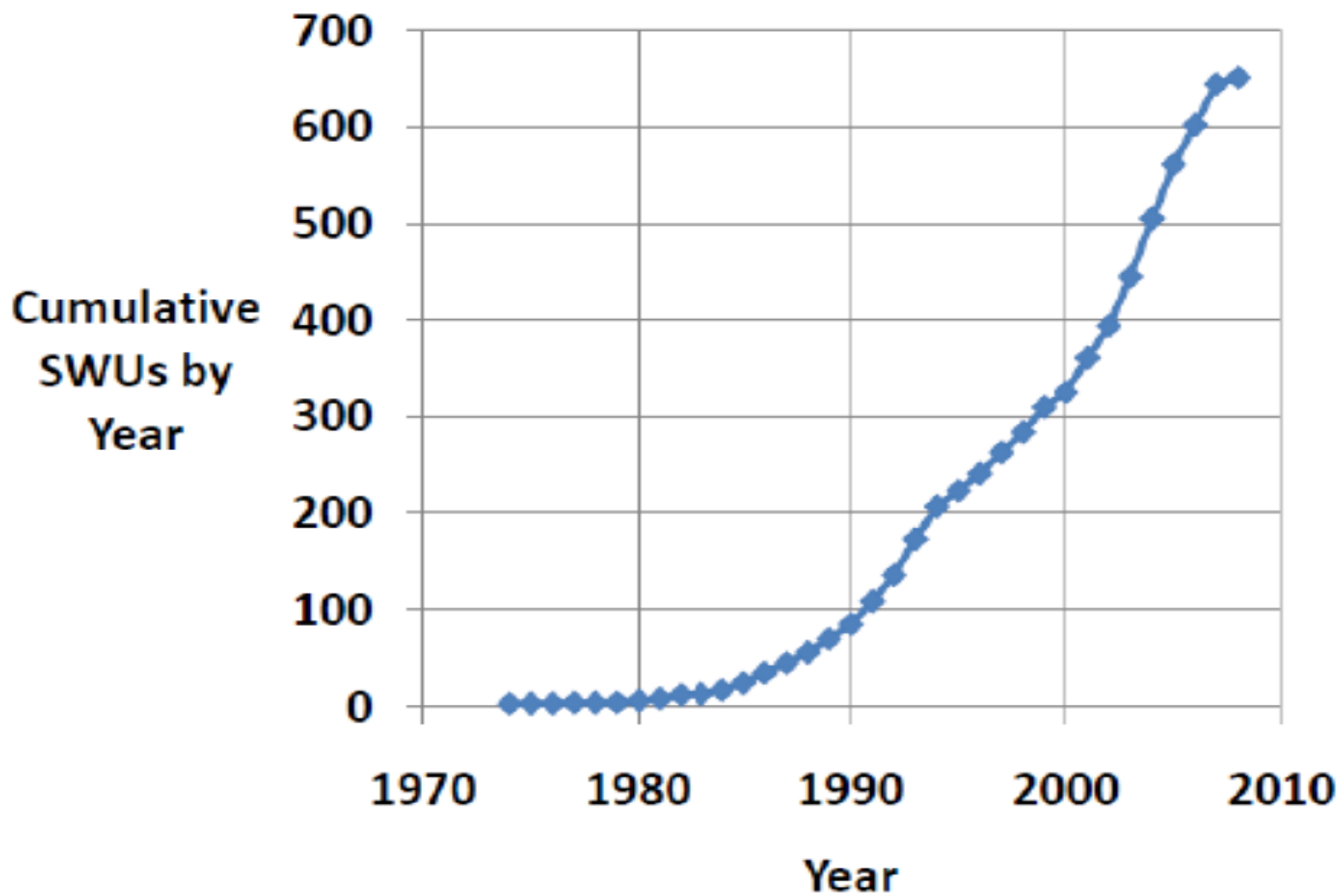
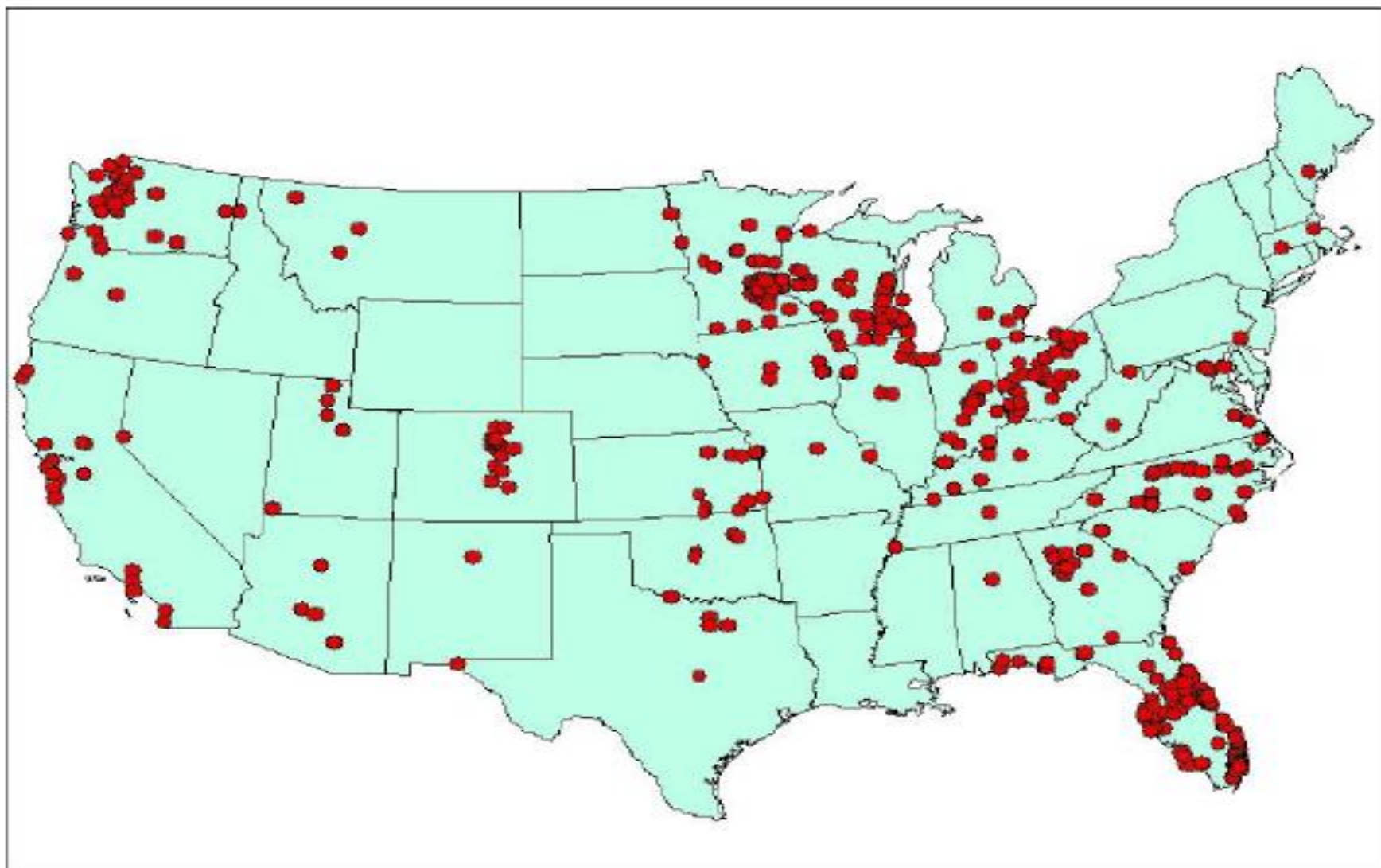


Figure 7. Number of stormwater utilities by year





**Figure 1. U.S. stormwater utilities (SWUs)**

# What can be covered in a SW Utility

Typically:

- **Customer Service** – cost of billing and collecting.
- **Citizen Education and Outreach**
- **Operating and Planning** – master planning, engineering services, development reviews and administrative functions.
- **Maintenance Service** – roadside ditch maintenance, mowing, cleaning, storm ponds, mitigation areas, pipe cleaning and replacement, debris removal, erosion engineering and permitting.



# How will it be Financed?

- Property owners are charged a user fee based on the amount of their **impervious surface**
- The larger the impervious surface, the bigger the fee
- Credits can be made available to reduce the fee



# Stormwater Utilities should be...

- Fair and equitable
- Reflect the community and its needs
- Be well thought out
- Include input from the community
- Collect what you need and prioritize it

# Why a Stormwater Utility?

- Equitable way to pay for stormwater
- Dedicated solely to stormwater
- Generates a fund that is adequate, stable, and equitable
- Comprehensive and consistent program
- Solves short term and long term stormwater problems

*No two stormwater utilities are created equal*

# Avoiding Failure

- Always need stakeholder support
- Need to educate community
- Must set a fair rate structure – KEEP IT SIMPLE
- Political timing must be considered
- Must deal with hurdles instead of ignoring
- Know your expenses and remember to prioritize

# Where to begin?

- Have a plan in place to educate and engage the community
- Assess and prioritize stormwater needs
- Understand what's been done; what should be done; and where you need to be in 5-10 years
- Try to build an optimal program

# Case Study – Ocean City, MD





# Ocean City Demographics

- Population: 7,173 (3,750 households and 1,829 families)
- Population density: 1,574.7 people per square mile
- Estimated summer weekend population: 320,000-345,000
- Racial makeup: 95.34% White, 2.50% African American, 1.24% Hispanic or Latino
- Per capita income : \$26,078
- 8.4% of the population below the poverty line

# Ocean City and Bay side



# Description of Ocean City 2010

- Impervious surface is at 79%
- 2,660 parcels of land were developed prior to 1985 that have no stormwater management controls



# Ocean City's Stormwater system

- Over 40 miles of storm drain pipe
- Over 1,800 storm drain inlets
- Over 300 storm drain outfalls



# Other Important Information

- A majority of Ocean City property owners are absentee (summer home/condo owners) and have no voting rights or representation
- Ocean City is in the midst of declines in revenue due to the recession and declining real estate property tax revenues
- The city potentially faces a multi-million dollar budget deficit

# What does OC do about stormwater?

- Current Resources: General Fund
  - Operational Supply budget \$197,790/year
  - Stormwater supplies budget \$65,000/year
  - DPW asks City council for approval every time there is an emergency
  - No O&M program to speak of



# Stormwater collection challenges

- Failing Pipes
- Inadequate capacity
- Clogged inlets
- Sea Level rise at outfalls
- Inadequate O&M



# Failing pipes

- Most storm drain systems in Ocean City were installed by the developer using corrugated metal pipe in the 60's-80's
- 80,000 linear feet (over 15 miles) of pipe needs to be replaced in the next 10 years at a cost of over **\$6 million**





# Failing pipes (continued)



# Inadequate capacity



# Future SW revenue needs

- \$6 million to replace old pipes – 15 miles of pipe need to be repaired
- Develop a Operations & Maintenance Program
- Create a storm drain cleaning program
- More seed money for a BMP cost share program
- Trash & debris cleanup program for canals
- Hotline for illicit discharge
- Expand rain garden program
- Expand mini-grant program



# Outreach and Community Engagement

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- Conducted many interviews & meetings with local groups and organizations
- Held public meetings & attended many events
- Set up stormwater work group with key members of community



# Public Meetings

**Please join us!**

Wed, Oct 6, 2010 - Town Hall - 6-8PM

Wed, Oct 20, 2010 - Convention Ctr - 6-8PM



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## Public Meeting Exit Survey Results – Ocean City Concerns

	Not concerned	Somewhat concerned	Very concerned	Critical
Flooding that makes driving around town difficult*	11.1%	33.3%	44.4%	11.1%
Flooding that will cause property damage**	0.0%	28.6%	28.6%	42.9%
Water that could be harmful to fish or wildlife**	14.3%	28.6%	28.6%	28.6%
Litter in the water (ocean/canal)*	0.0%	11.1%	33.3%	55.6%

\*9 respondents

\*\*7 respondents

## Ocean City Public Meeting: Stormwater Run-off



**Please join us for an open discussion about flooding and water quality in Ocean City. We want to hear from you about how we can improve and fund infrastructure & keep our town green and clean!**

Contact Gail Blazer  
Phone: 410-289-8825  
Email: [gblazer@oceancitymd.gov](mailto:gblazer@oceancitymd.gov)

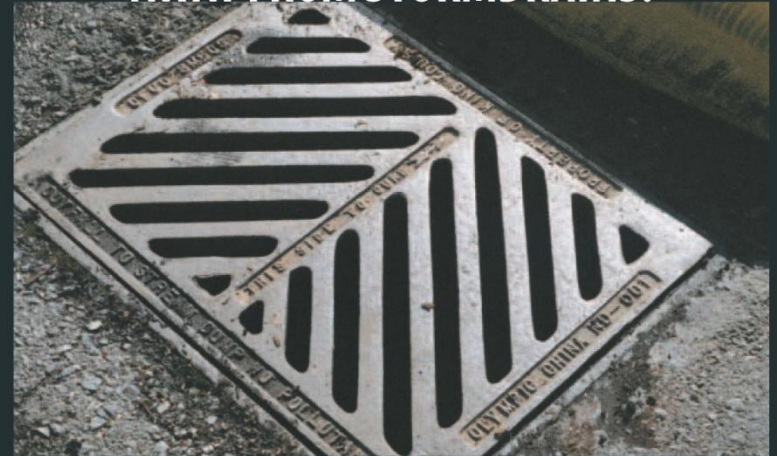
Town of Ocean City  
MD Department of Natural Resources  
Univ of MD Environmental Finance Ctr  
MD Coastal Bays Program



## PROTECT OUR COASTAL BAYS



KEEP TRASH, PET WASTE, AND CHEMICALS  
AWAY FROM STORMDRAINS.



## SUPPORT STORMWATER FINANCING IN OCEAN CITY



# Website



Tuesday, November 23, 2010

## Why Do We Need to Care About Stormwater?

*So stormwater, or rain water, is untreated water that gets into waterways, in this town's case the Coastal Bays. This water has sediment, nutrients, toxins and trash that should not be in our waters.*

*How we treat it requires someone paying for it--because when all the homes, businesses and the like were built (mainly if they were built before the mid-80s), many did not think of treatment methods for rain collection, nor did they think about water quality. The more pavement and buildings you have, the more polluted run off there will be (and Ocean City has a very high rate of pavement and buildings!).*

What to do?

Posted by Ocean City Stormwater at 10:51 AM [0 comments](#)

[Home](#)

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Welcome to the new Blog Site!

This space was designed to receive input, give feedback and your thoughts on stormwater (that's rain water) development in the town of Ocean City MD--or anywhere for that matter! Let us know what you know, what you do, and what you think of funding options--'how to pay' for the water that hits our sidewalks and then enters our waterways (Coastal Bays).

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Retrieved from: <http://oceancitymdstormwater.blogspot.com/>

Retrieved from: <http://oceancitymd.gov/Engineering/ocstormwater.html>

# Case Studies

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## Comparison of regional stormwater fees:

City, State	Year Stormwater Fee Established	Population	Fee Structure	Revenue Generated Per Year
Lewes, DE	2010	2,932	\$5/month Residential \$10/month Commercial \$20/month Industrial	\$200,000
Takoma Park, MD	1996	18,027	\$4/month Single Family \$4/month/ERU* Commercial and Multifamily* (*1 ERU = 1,228 sq/ft impervious surface)	\$350,000
Rockville, MD	2009	60,734	\$4.10/month Single Family \$4.10/ERU/month* All Other Properties (*1 ERU=2,330 sq/ft impervious surface)	\$1,927,928
Suffolk, VA	2005	83,659	\$5.24/month Single Family \$5.24/ERU/month* All Other Properties (*1 ERU=3,200sq/ft impervious surface)	\$4,056,979
Virginia Beach, VA	1993	433,746	\$7.23/month Single Family \$7.23/ERU/month* All Other Properties (*1 ERU=2,269 sq/ft impervious surface)	\$21,058,267
Washington, DC	2007	599,657	\$2.67/ERU/month* All Properties (*1 ERU=1,000 sq/ft impervious surface)	\$13,000,000

\*The twenty-three largest non-residential properties in Takoma Park, MD pay an average of \$4,222.87/year.





# Preliminary Recommendations

- Currently looking at total revenue needed
  - Approximately \$1.2 million/ year
  - Approximately \$12 million over the next 10 years

# Potential Stormwater Utility Rates

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- Potential Residential Property Fee
  - Flat rate fee
  - Estimated at \$3/month per household
- Potential Commercial Property Fee
  - 1 ERU = 2,500 sq ft
  - Rate determined per ERU



## Haven Hotel/Motel & Retail Stores: 101 N. Boardwalk

- 43 Room Hotel/Motel
- Impervious surface: 24,837 sq/ft
- In VA Beach this property would pay ~\$45 per month\*
- In Norfolk, VA this property would pay ~\$40.38 per month\*
- In Ocean City, this property would have ERUs and potentially pay estimated \$29.80/month

# Challenges Faced in Ocean City

- Legislation challenges
  - New law confirms that federal facilities can pay stormwater fees (S.3481, Cardin Law)
- Billing challenges
  - Not all parcels in Ocean City get a water bill (parking lots, vacant lots)
- Structural challenges
  - Residents live within businesses
  - Businesses share bathrooms
  - Infrastructure designed to accommodate larger summer population; even though they are only residing in Ocean City for 3-4 months, stormwater impact is felt year round

# Case Studies continued – Berlin, MD

- Population: 3,491
- Geographic footprint: 2.2 square miles
- Median income: \$33,438



# Berlin's Stormwater Situation

- Old infrastructure
- No O&M program
- Major flooding problems
- Approximately \$100,000 in available funds for several million dollar program
- Start with ACE report to begin prioritization
- Very engaged community

# **STORMWATER: HOW MUCH IS TOO MUCH?**



Photo courtesy of Carol Cain and Stacey Weidman

**IT'S UP TO YOU, BERLIN!**

**Let's talk stormwater.**

**We want to hear about how stormwater impacts YOU!**

If you're interested in learning more about Berlin's Stormwater Project, please contact Megan Hughes at [mhughes3@umd.edu](mailto:mhughes3@umd.edu) or

Grow Berlin Green at 410-629-1538

[www.growberlingreen.org](http://www.growberlingreen.org).



# Example of Stormwater Activities

## August 2011-September 2011

- Peach Festival on August 12-14<sup>th</sup> - stormwater project
- Finalize outreach marketing plan for year
- Hold 1<sup>st</sup> Stakeholder Committee meeting
- Attend Tindley Festival on September 16-17<sup>th</sup>
- Host Engineers Workshop on ESD (co-hosted by EA Engineering)
- Brief Town Council on our progress and outreach efforts