

Watershed Academy Webinar Thursday, October 27, 2011



The Watershed Academy

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## Today's Webinar

#### **Presenters:**

US EPA:

Don Waye, NPS Control Branch Holly Galavotti, Water Permits, Stormwater

Maine Department of Environmental Protection: Kathy Hoppe, Environmental Specialist

## **Webinar Logistics**

- **To Ask a Question** –Type your question in the 'Questions' box on the right side of your screen and click the 'Send' button.
- **To Obtain a Certificate** -Please use the URL at the end of the presentation to download and customize your own certificate(s).

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# **2001 NPS Outreach Focus Group Results**

The term Nonpoint Source Pollution

- Very few have heard the term
- Even fewer have a clue what it means

#### Stormwater Pollution

• Few people know where the water goes once it hits the gutters.

epa.gov/nps/outreach.html

# **2001 NPS Outreach Focus Group Results**

"The 'Mother Earth' thing doesn't work."

"Bring it down to a health issue. A seal or two dying doesn't do it for me."

"Unless it happens to me it's still someone else's problem."

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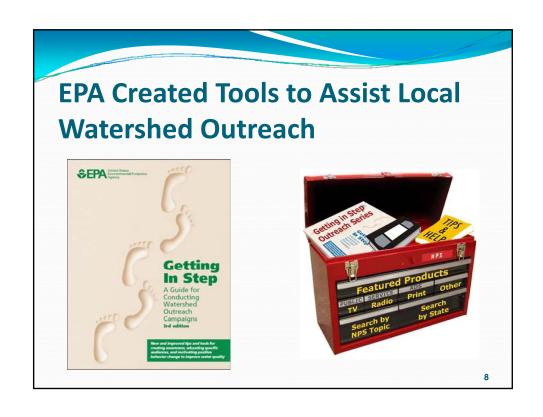
## **Social Marketing**

Source: Peter Mitchell

and AED

- "Social marketing is the application of marketing technologies developed in the commercial sector to the solution of social problems where the <a href="bottom line">bottom line</a> is behavior change." Alan Andreasen, <a href="Marketing Social Change">Marketing Social Change</a>
- <u>Core Concept #1:</u> To sell behavior change, there must be a fair exchange. Tip the scales in favor of making the right choice.



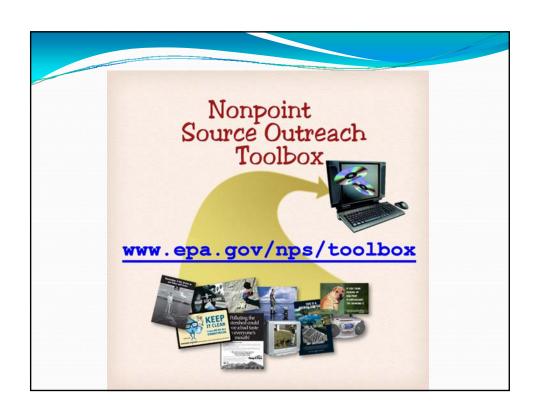


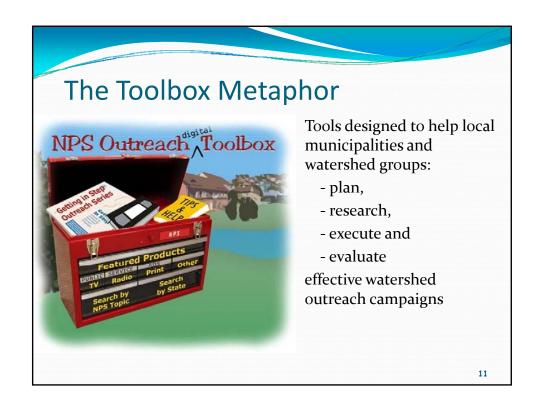
## **Getting In Step Guide for Conducting Effective Watershed Outreach**

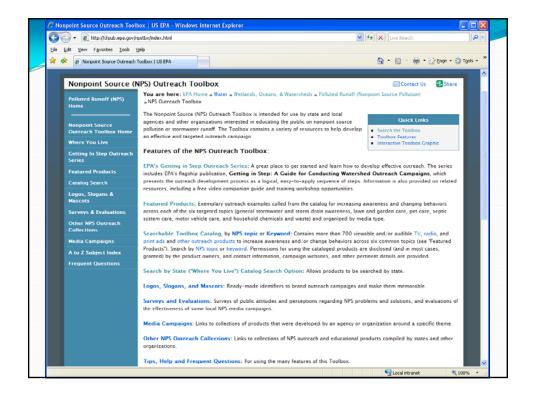
 Training materials available through EPA's Watershed Academy (www.epa.gov/watershedacademy)

- Six (6) steps are presented:
  - Define the driving forces, goals, and objectives
  - 2. Identify and analyze the target audience
  - 3. Create the message
  - 4. Package the message
  - 5. Distribute the message
  - 6. Evaluate the outreach campaign

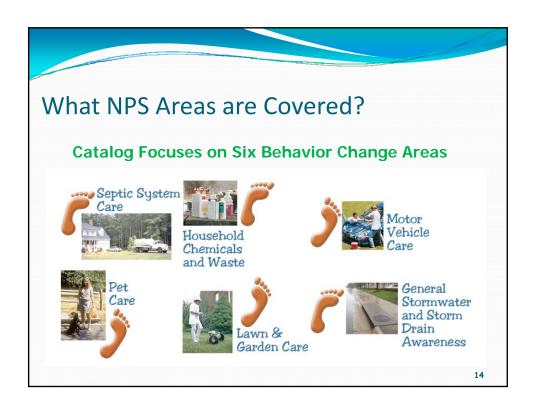


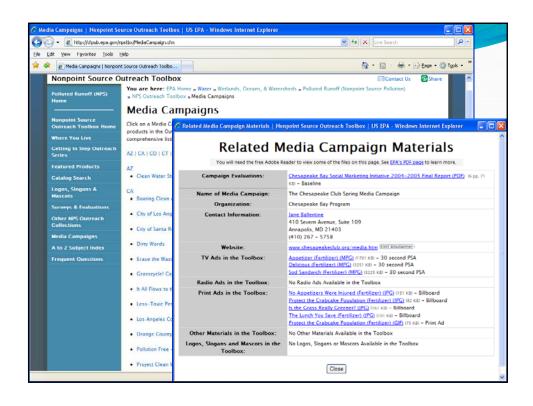




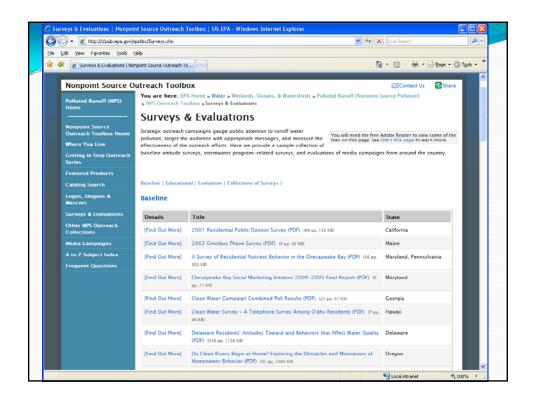


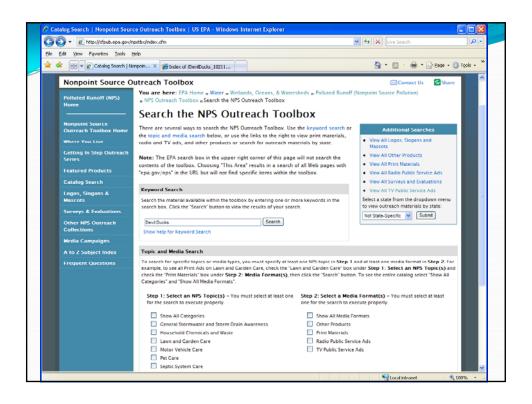


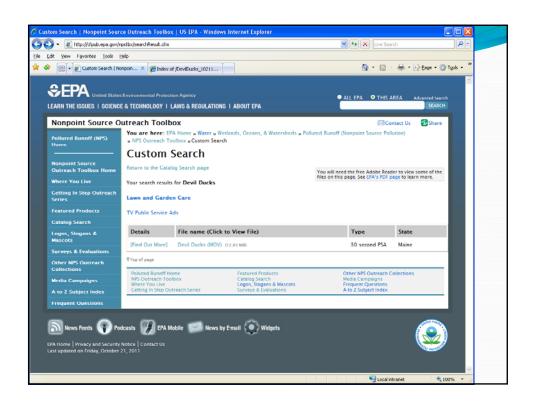


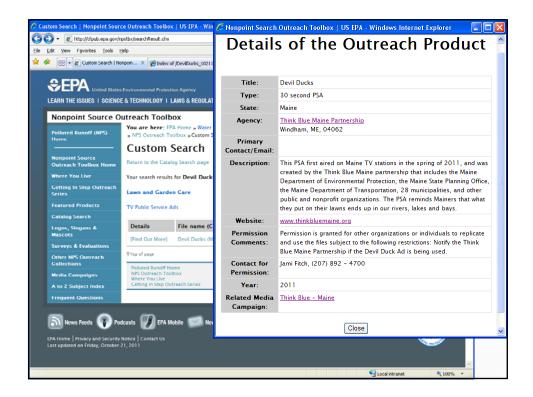


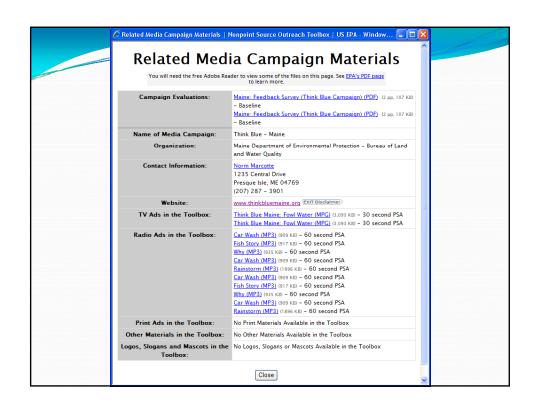


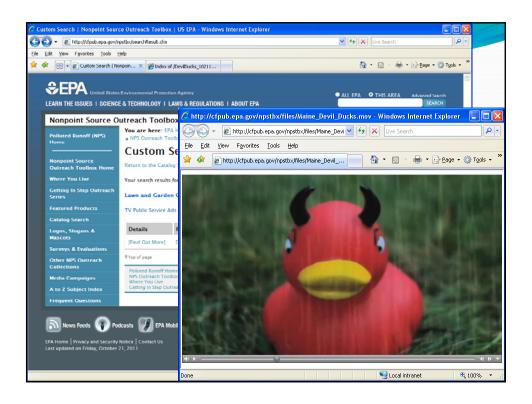


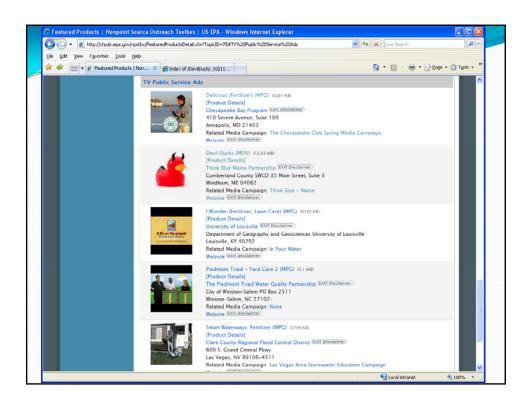












## Web Stats & Accolades

- 134,000 downloads of multimedia files and Web pages viewed on the Toolbox site during the first month online (May 2007); 70,000 average monthly downloads for the first 6 months
- 18 pages of positive comments. Samples:

"I thought the website was awesome. Some of those ideas are HOT:"

- City of Benica, CA

"I am too excited about this site. It is easy to use and clearly useful."

- NYS Dept of Environmental Conservation

"My overall evaluation is "WOW!" This toolbox will be a fantactic resource."

- Outreach Director, New Hampshire Lakes Association

"This is amazing." -Stormwater Program Manager, City of Fort Oglethorpe, GA
"The Toolbox is going to save my butt!" -Canon City, CO

## **Questions?**



## **EPA's Stormwater Program**

Holly Galavotti, Environmental Protection Specialist

EPA's Office of Water's Water Permit Division



## **EPA's Stormwater Program**



Under Clean Water Act Section 402(p), EPA regulates three main types of stormwater discharges as part of the National Pollutant Discharge Elimination System (NPDES) permit program:

- Industrial operations
- Construction activity disturbing 1 acre or more
- Municipal separate storm sewer systems (MS4s) that serve 100,000 people or more or are located in an urbanized area (defined by the Census)



# MS4 Program: Six Minimum Control Measures

- General Permits most small MS4s submit a notice of intent to their state (or EPA region in 4 states) for coverage under a statewide MS4 general permit
  - Large MS4s are covered by individual permits
- The permit requires regulated MS4s to implement a Stormwater Management Program that has 6 Minimum Control Measures:
  - Public Education and Outreach
  - Pubic Participation
  - Illicit Discharge Detection and Elimination
  - Construction Program
  - Post Construction Program
  - Pollution Prevention/Good Housekeeping

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# Stormwater Public Education Programs are Producing Results

- The goal is to inform the public about activities that increase pollutants and increase volumes of stormwater flowing to community waterbodies.
- The program focuses on stormwater impacts from:
  - Lawn fertilization
  - Littering
  - Car fluid recycling
  - Car washing
  - Pesticide use
  - Septic system maintenance
  - Pet waste
  - Illegal dumping and other activities



### **Measuring Success**

- Regulated cities develop stormwater public education and outreach programs and report their progress and results in Annual Reports to the state (or EPA in 4 states).
  - Wentzville, Missouri reported that 176 volunteers removed 181 tires from local waterways and 28,370 pounds of trash from 11 separate cleanup sites.
  - In Hamilton, Ohio civic groups from around the city installed 400+ labels on storm drains to inform the public on where their runoff discharges are released.

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### **Measuring Success**

One way to measure the effectiveness of a public education program is through surveys that assesses both public awareness and behaviors.

#### Hanover County, VA (2009) conducted citizen surveys

- Found an increase in public perceptions regarding the cleanliness of the county, from 51% in 2005 to 80% in 2009.
- A total of 170 tons of material was removed from county roadways through street sweeping and other efforts during the first year of the permit.

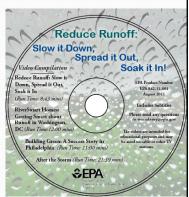
#### Salt Lake County, Utah surveyed 500 residents in 2010.

- Five out of eight residents think that all (9%) or some (53%) of Salt Lake County's stormwater goes to a treatment plant. Just 15% declare that none of the stormwater gets treated and the remaining residents (22%) admit they don't know.
- Three-quarters of county residents (77%) say they have heard ads or promotions about stormwater, primarily from television ads.

#### New Stormwater Educational DVD:

Reduce Runoff: Slow it Down, Spread it out, Soak it in!

- Available from the National Service Center for Environmental Publications (NSCEP)
- Email: nscep@bps-lmit.com or call: 800-490-9198.
- Be sure to include document number: EPA 842-11-001
- EPA Web site includes link to High Resolution files (FTP site): <u>water.epa.gov/polwaste/</u> <u>green/video.cfm</u>



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### **Questions?**







### Stormwater Phase II

- 28 regulated municipalities + nesteds (*Universities*, *Federal Facilities*, *Turnpike*, *Interstate*)
- Minimum Control Measures 1 & 2
- General Permit
  - First 5 yr General Permit goal of behavior change
  - Second 5 year permit awareness & behavior change plan

water starts with you

think blue

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#### We shouldn't do this alone ...

- 28 municipalities sorted out to basically 4 groups
  - Bangor Area Stormwater Group 7 communities + nested MS4s
  - Inter-local Stormwater Group 13 communities
  - Southern Maine 5
  - Lewiston/Auburn 3
- Nested (Universities, Federal Facilities, Turnpike, Interstate)
- Cooperative Extension, Soil & Water Conservation Districts, NGOs



#### Need to get up to speed ..

• Research:

Focus groups – <u>stormwater</u> (13K, 2 locations)

- Need for basic awareness
- Tested 3 totally different Public Service Announcements from Toolbox, San Diego's played very well
- Consultant recommended using San Diego ad (Thank you San Diego!)

Municipal employee survey

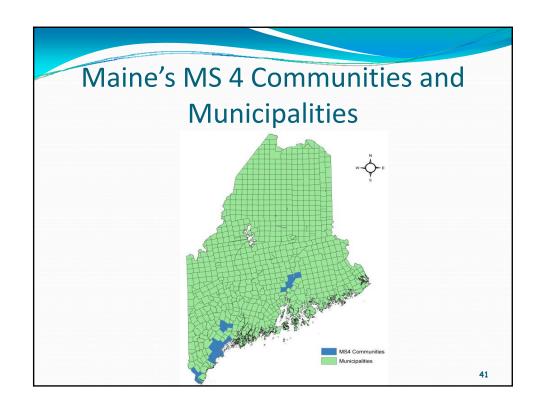
Tetra Tech Getting In Step workshop\*

\* EPA sponsored

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## ThinkBlueMaine.org

- Work together save \$, message consistent, effort appears big
- Developed common identity, web site\* and common URL
- DEP paid for voiceover of original San Diego ad, with new ending (\$2,500 in 2004)
- Purchase of air time (radio & TV but will only report TV)
  - Cumberland County Soil & Water Conservation District fiscal agent
  - All chipped in, aired statewide (\$110K 2004, 72K 2005, 67.5K 2006, 58K 2007, 60.6K 2009)
    - \* Partnership design by USM students, DEP hosted, now moving to Cumberland Co. SWCD





## Evaluation ....

- Statewide Phone Survey (Pre-survey 2004: \$1,200; post-survey 2004: \$4,500; ? 2005; \$4,400: 2006; \$3,900: 2011)
- 52% said they had seen or heard an advertisement regarding water pollution, 50% of those identified our ad. (top of the mind question 2006)
- 73% recall seeing an ad about stormwater that featured rubber ducks accumulating and flowing down stream. (aided question 2006)

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### Second 5-year General Permit

- Awareness Plan (Collaborated on a statewide plan, written by Cumberland Co. SWCD)
- Behavior Change Plan
  - Lawn care (Do-it-Yourselfers)
  - Synergy (Yippee more partners) P-free, YardScaping, LakeSmart, NPS program, MS4s, Cooperative Extension, Pesticide Control Board









### Stated Objective in Plan:

As a result of our efforts, at the end of this permit cycle, 50% of homeowners, aged 35-55, in the 28 regulated small MS4 municipalities will understand:

That water does run off their property, not all is absorbed, and it will carry with it pollutants, such as lawn chemicals, pet waste and oil drops.

This polluted water will enter the storm drains system, and discharge, untreated, directly to waterbodies used for drinking, fishing and swimming.

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#### Awareness & Behavior Change Plans

- Plans identified local efforts
  - Storm drain stenciling
  - Door hangers
  - Point-of-sale
  - Adult Ed
  - Booth/display
  - Newspaper articles
  - Web site
  - Stream clean up
  - Etc
  - And TV ad







http://www.baswg.org/toolbox/toolbox.htm http://www.cumberlandswcd.org/yardscape/index.htm

## More Research

- Lawn care focus groups (Safe for Kids & Pets) (\$13,000)
- Phone survey questions regarding lawn care (\$4,800)
- New England Cooperative Extension Lawn Care Project\*
- Norming Message research project\*

Most of your neighbors don't use lawn chemicals, such as fertilizers, weed and bug killers on their lawns. The use of these lawn chemicals threaten Bangor's water quality and the health



- \* Social marketing research data contact Dr. Brian Eisenhauer bweisenhauer@plymouth.edu
  - \* Partnership Plymouth State College in NH grad student.

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#### Free Research

- Studies by other organizations available on the internet.
- Message testing on the cheap (book club, child dance class, HS basketball game,...) We listened for emotional descriptions (how it made them feel, spoke to them)



# Making of Stormwater Awareness Lawn Care PSA

- Funding (\$30K):
  - Maine Dept. Of Ag Board of Pesticide Control
  - Casco Bay Partnership
  - Maine DEP
- Steering Committee:

Cooperative Extension/BASWG, Casco Bay Partnership, Cumberland Co SWCD/ISWG, Maine Dept. of Ag Pesticide Control Board, Maine DEP (P-free/LakeSmart, Commissioners Office, NPS/Stormwater)

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## Making of Ducky II

- Request For Proposals
- Consultants plethora of evaluation data
- Stuck with the duck
- Story boards, scripts ...
- Filming more complicated than you think
- Voice, music ...
- and don't forget closed captioning



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## Airing of Ducky II

- In the Awareness Plan for the Stormwater General Permit
- Cumberland County SWCD fiscal agent
- Media buy (target audience 35-55 year olds, higher education & income)

ThinkBlueMaine Partners raised \$79,400 for 3 week staggered statewide buy.

The 13 Portland communities bought a 4<sup>th</sup> week.



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## Evaluation

BASWG Intercept Survey – July 2011\*
48% have heard or read an advertisement about water pollution. (unaided)

What have you heard?

"Anything that drops on the ground goes right into the storm drains."

"Directed at lawn care. That's something a lot of people don't realize. Emphasis on personal responsibility."

"Everything that goes in the drain goes to rivers, oceans and lakes."

\* Partnership - University of Maine PHD candidate conducted study.

54% said they had heard of efforts by local organizations to reduce stormwater run-off.

#### What have you heard?

- "Heard Alan talk about stormwater at meetings."
- "Ads by BASWG"
- "City of Brewer ducks on the roads."
- "School painted storm drains."
- "Stream clean-up"
- "Hardware stores, retail stores."



E:

59% recall seeing an ad about stormwater pollution that featured red rubber ducks. (aided question)



#### **More Evaluation**

Statewide Phone Survey

34% recall an ad about water pollution, of those 70% specifically recall the *ThinkBlue* ad (top of the mind question)

#### What have you seen or heard?

"TV ad, bunch of ducks going out in the river I think, so rubber ducks, minimize fertilizer, leave lawn clippings, that's all I can remember."

"It's the one of the little rubber duckies. The message was waste and it's being washed in through the storm drains into the rivers and oceans, it was pet waste and other waste."

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"The Think Blue campaign .. Making people aware that anything on the sidewalk or driveways gets drained into drains and goes to lakes."

"Yes, the one with the ducks. Well that they had the lawn fertilizer and it ran into the storm drain and it turned from a yellow duck to a red duck with horns. The message was to reduce the amount of lawn chemicals you use, cut your grass higher, watch where your dogs poop\* and all that stuff."

\* Ducky 1 featured dog poop and was last run in Aug 2009.

"When people have pets they make messes that go down the drains, and the people smoking the cigarettes and the marijuana it goes down the drain ..."



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65% recall seeing an advertisement about stormwater pollution that featured rubber ducks. (Aided question)



### We hit our target audience!

Those with a college degree or more (72%) were more likely than those with a high school education or less (56%) to indicate they saw an advertisement about stormwater pollution.

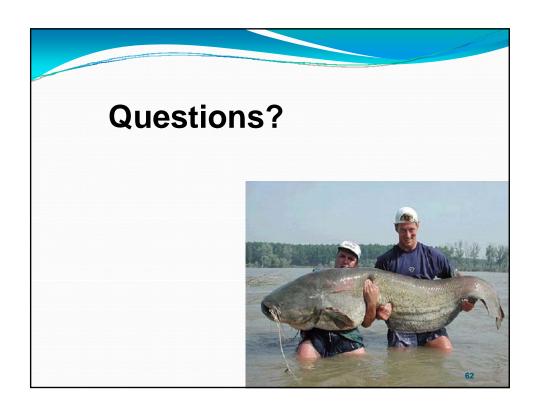
Those ages 30-39 (71%), 50-59 (76%) and 60+ (72%) were more likely than those ages 18-29 (43%) to indicate they saw an advertisement about stormwater.

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## Keys

- Collaborate whenever, wherever possible. You would be amazed at how many people are trying to do the same thing you are.
- 2. With collaboration each can take a small piece of the pie and do their part to make something bigger.
- 3. Identify your target audience, develop a plan, do your research, test or pilot, and evaluate!





## **Speaker Contact Information**

Don Waye, EPA's Office of Wetlands, Oceans and Watersheds

email: waye.don@epa.gov,

phone: 202-566-1170

Holly Galavotti, EPA's Office of Water's Water Permit Division

email. galavotti.holly@epa.gov

phone: 202-564-1489

Kathy Hoppe, Maine Department of Environmental Protection

email: Kathy.M.Hoppe@maine.gov

phone: 207-764-0477

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# Next Watershed Academy Webcast epa.gov/watershedwebcasts

EPA's Nitrogen and Phosphorus Pollution
Data Access Tool (NPDAT)
Wednesday,
November 30, 2011
1- 3 pm EST







for successfully completing
Conducting Effective Stormwater Outreach