Oil Spoils Our Water & Soil!
2013 Campaign

Marie Light, Principal Hydrologist
Skye Siegel, Program Coordinator
Pima County Department of Environmental Quality
Overview

Oil Spoils Our Water & Soil

- PDEQ
- AZPDES Permits
- Transportation Theme
- What we can do!
- Results of Phone Survey
PDEQ Mission

Identify & respond to environmental issues by providing public service including ...

- Air, water & soil monitoring
- Permitting
- Compliance inspections
- Enforcement
- Education & outreach
Stormwater

Rain that reaches the ground and flows

Sheet runoff

Surface flows in streams

Stormwater management: Maintain the integrity of surface water in our washes
• Flood control
• Pollution prevention
We need clean water

1. Essential for life support & vitality
   - Hydration $\sim\frac{1}{2}$ gal/day (2 liters/day)

2. Essential for hygiene $\sim$8 gal/day (35 l/d)

3. Essential for food $\sim$642 gal/day (2,825 l/d)
   - Vegetables, fruit,
   - Fish, Poultry, Meat

4. Important for aesthetics & recreation

UNESCO, 2011
Protecting the Nation’s Waters

Constitution of United States

Clean Water Act (Pollution Prevention)

National Pollutant Discharge Elimination System

Arizona Pollutant Discharge Elimination System
Stormwater Pollution

Occurs when runoff carries pollutants into our desert washes:

- Oil & Grease
- Pet waste
- Gasoline
- Trash
- Paints & Other liquids
Case Study: Cuyahoga River

1969 fire

2011 after remediation

Photo: Ohio Historical Society/Chris Brown
Case Study
July 2003 Kinder Morgan Gasoline Pipeline Spill

- 64,000+ gallons gasoline
  - 5 homes destroyed
  - Soil contamination
  - Groundwater contaminated

- Cleanup included
  - Soil Vapor Extraction
  - Pumping groundwater to remove fuel
Case Study
July 2003 Kinder Morgan Gasoline Spill

• Pipeline was repaired within 24 hours

• Worries about a shortage caused hoarding and ¼ mile gas lines in Tempe during early August, 2003.

Around Arizona, 8/03, www.doney.net/aroundaz/gas_lines.htm
What does all this have to do with each one of us?

- We know why stormwater is important
- We know laws protect our water.
- What can we do?
Oil evidence

- Look for the “rainbow” to identify water that contains petroleum products.
Prevent Oil Spills

- Dumping oil in a drain is illegal as it flows into drainageways which become polluted.
- Properly dispose of used oil.
- Drive safely to prevent spills from accidents!
Roadways & parking lots collect pollutants

- Fixing car leaks protects our water quality.
- Potential pollutants transported during rainstorms:
  - Oil
  - Grease
  - Petroleum hydrocarbons
  - Anti-freeze
Flood events

- Runoff flows into our desert washes which makes our water quality vulnerable to toxins from vehicles, such as oil, grease and hydrocarbons.
Actions You Can Take!

Effective ways to prevent stormwater pollution
Know where your stormwater goes

1. Flow over natural landscape and into washes

2. Flow over roads and through pipes
Good Housekeeping
Dispose of oil appropriately

- Recycle oil with your mechanic
- Recycle at ABOP (Anti-freeze, Batteries, Oil, & Paint) Sites
  - Sahuarita Landfill
  - Tangerine Road Landfill
  - Catalina Transfer Station
  - Ryan Field Transfer Station
- Recycle at Household Hazardous Waste
  - 2440 W. Sweetwater Drive
  - Los Reales Landfill

www.tucsonaz.gov/hhw
Maintain Your Vehicle
Make car maintenance a family project
Use the car wash
Do it yourself clean-up

- If a spill occurs, use a material to contain & absorb the oil like kitty litter or sand.
Properly contain oil & grease

- Residential area cleanup in Mayflower, Arkansas
- Call the Environmental Complaint Line 520-724-7400 if you witness a spill.
Neighborhood-scale detention basins
Kids in action!
Protect our Stormwater Quality

**Key ways**

- Fix your leaky car
- Scoop the poop
- Slow it down, soak it in
- Harvest rainwater
- Reduce, reuse, recycle
- Dispose of hazy waste properly
- Apply pesticides, herbicides, & fertilizers after rainfall
- Don’t be a litterbug!
Protection Our Water

Wildcat Dumping Hotline    622-5800
Environmental Complaints    724-7400