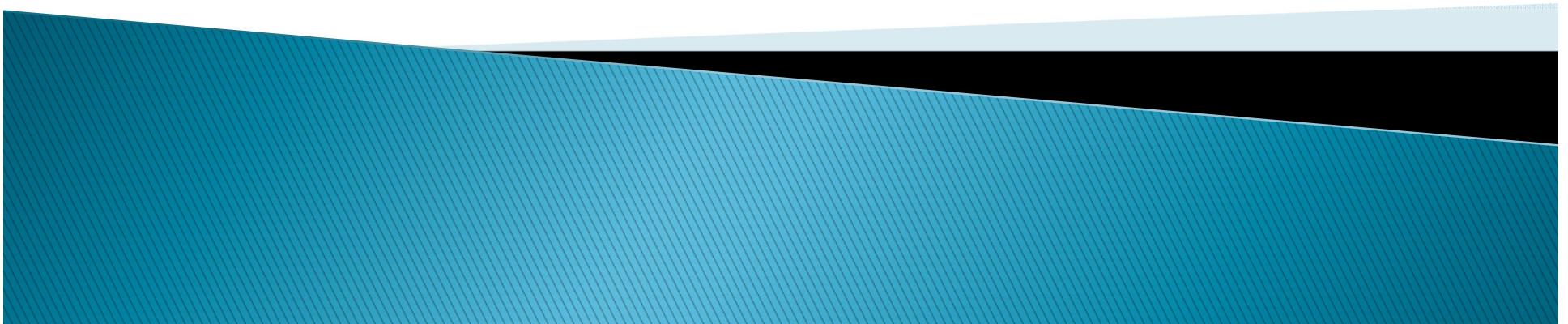


Stormwater Quality Regulations

Utilities Committee

May 27, 2014





With each rain “runoff”
water flows over the
land, into storm sewers,
and into rivers & lakes



Stormwater Impacts: Water Quality (nutrients – phosphorus)



Low Dissolved Oxygen

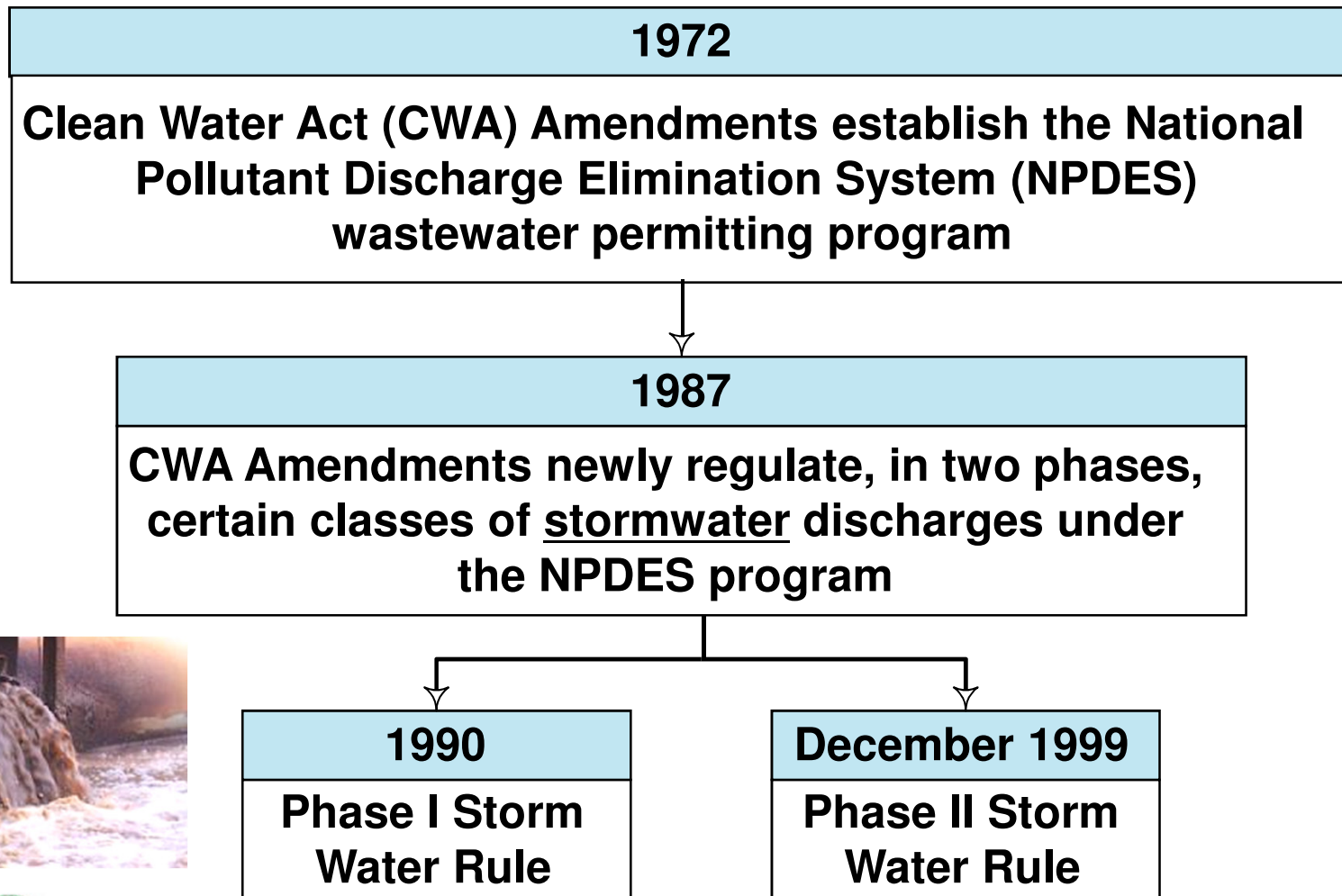


Algae & Weeds



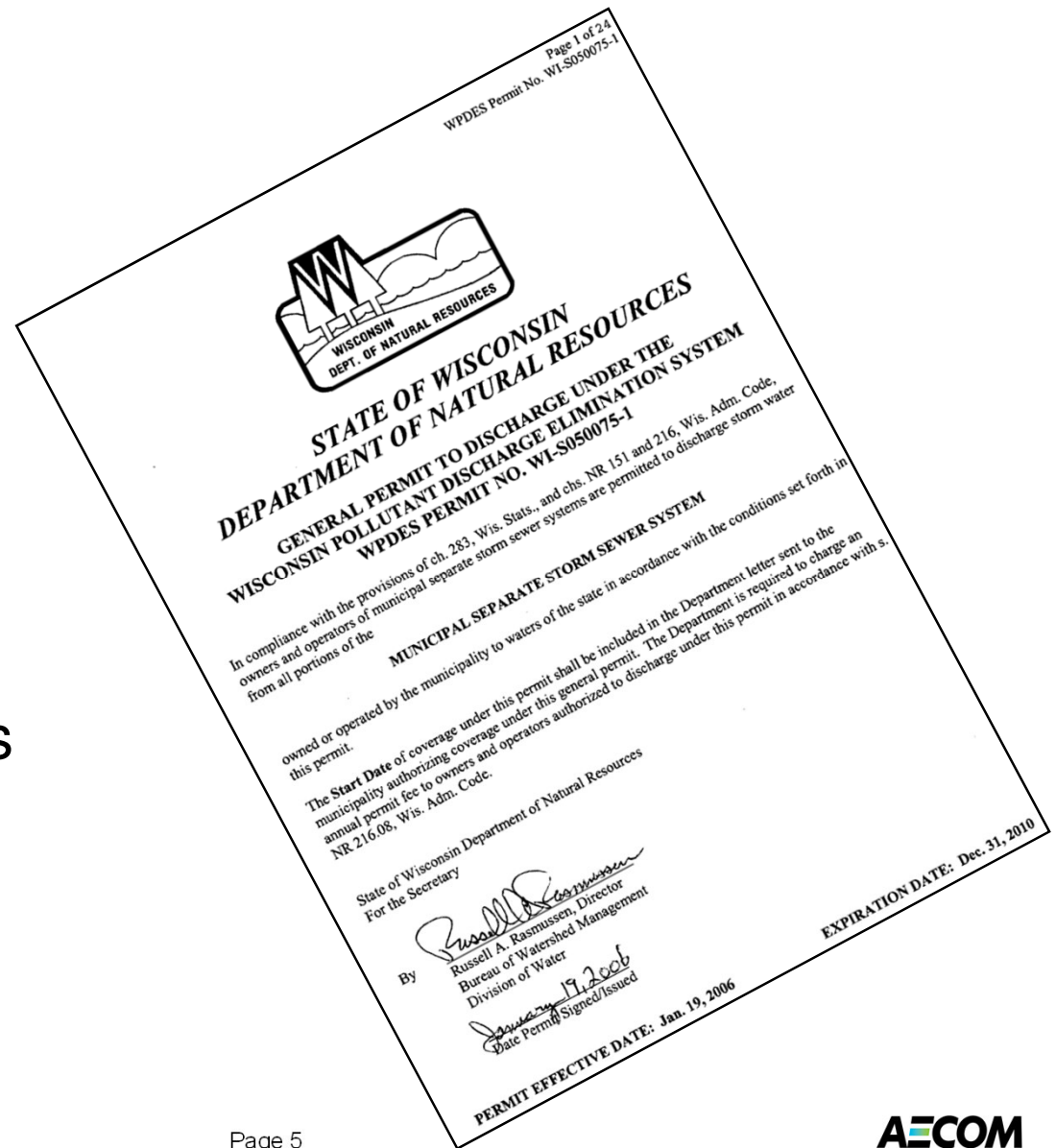
Courtesy of AECOM

Stormwater Program Regulatory History – Federal Legislation



Federal Regulations Delegated to States – Wisconsin DNR

- WDNR Established Stormwater Permit System
- State Stormwater Requirements Defined in Administrative Rules (NR 216 & NR 151)



Who is Regulated? Current Stormwater Permits in Wisconsin

Phase I Municipalities ~ 70

- Milwaukee/Madison & Suburbs

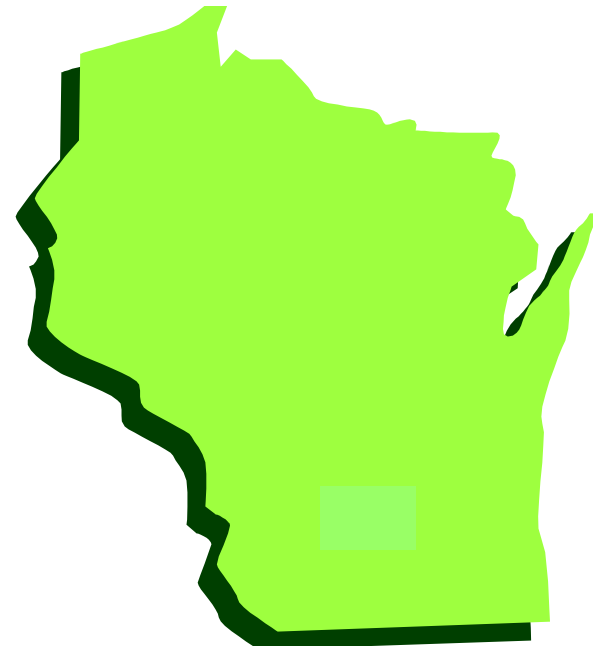
Phase II Municipalities ~ 145

- Municipalities > 10,000 pop.
- Some Counties
- 4-yr UW Campuses

Construction Sites

Industries ~ 5,700

Large Livestock Operations ~ 270



Municipal Stormwater Permit Requirements in Wisconsin

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Erosion Control Ordinance
5. Post-Construction Stormwater Ordinance
6. Pollution Prevention
- 7. *Stormwater Quality Management***



Municipal Stormwater Permit Requirements in Wisconsin

7. Stormwater Quality Management

- Reduce Sediment (TSS) Pollution from Developed Lands
 - 20% by 2008 and
 - 40% by 2013
- “40%” requirement amended in 2011 by Legislature - no longer a deadline



New Stormwater Requirements: “TMDL”

- Clean Water Goal is “Fishable and Swimmable”
- The EPA and DNR have defined “clean water” with chemical and biological numeric standards for each waterbody
- **Total Maximum Daily Loads:**
“The amount of pollution a water body can receive and still meet water quality standards”
- The Lower Fox River now has TMDLs for sediment and phosphorus

Lower Fox River Basin TMDL

Completed by DNR and
Approved by EPA in
March 2012

Document sets
“acceptable pollution
loads” from watershed
sources

*Total Maximum Daily Load and
Watershed Management Plan for
Total Phosphorus and Total Suspended
Solids in the Lower Fox River Basin and
Lower Green Bay
Brown, Calumet, Outagamie, and Winnebago Counties,
Wisconsin
March 2012*

Wisconsin Department
of Natural Resources



Prepared for:

Oneida Tribe of
Indians of Wisconsin



U.S. Environmental
Protection Agency



Prepared by:

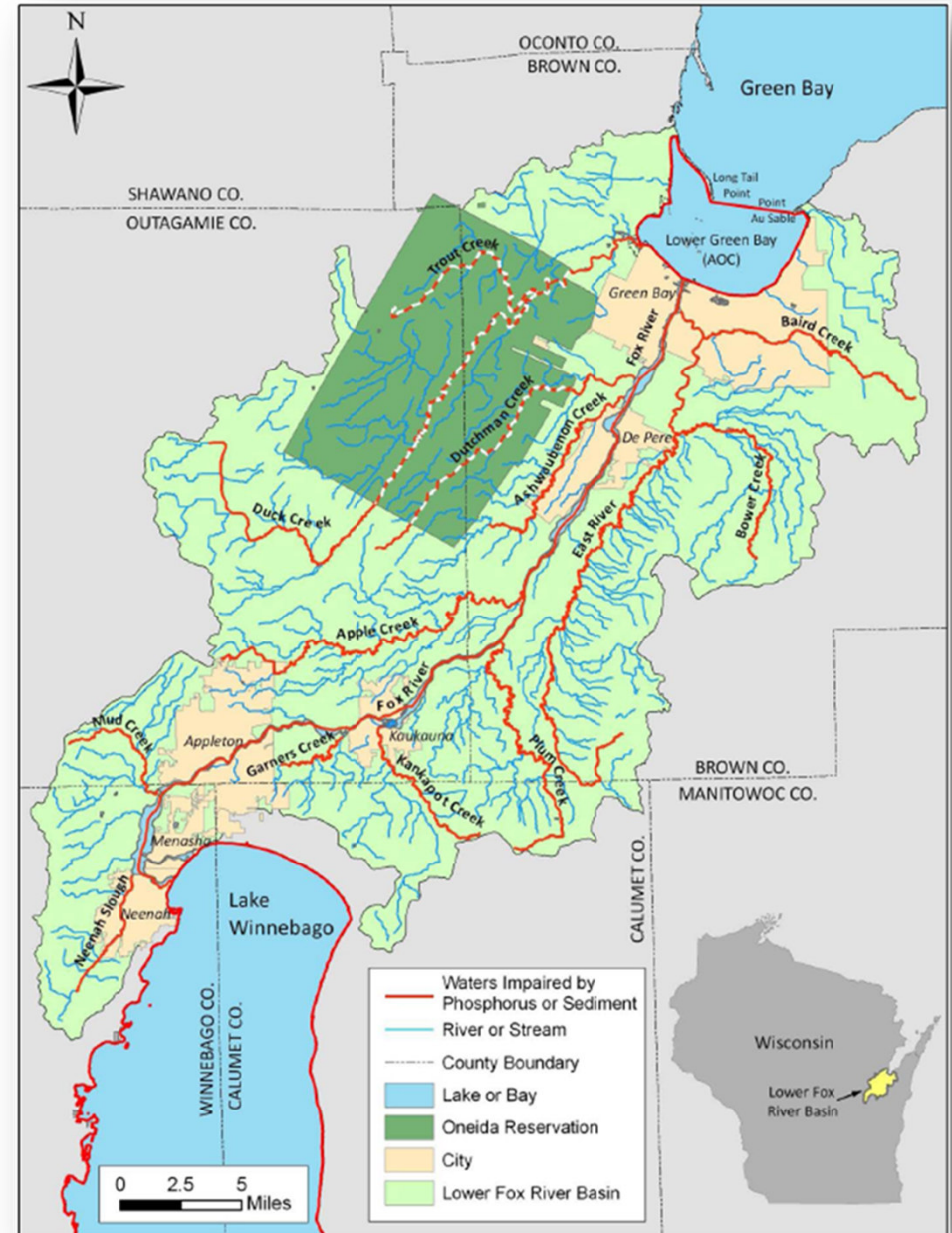
CADMUS
CONSULTING, INC.



Lower Fox River TMDL

Lower Fox River Basin

- 641 square miles
- 27 listed waters for Sediment and Phosphorus
- 45 TMDLs
- 29 Municipal Stormwater Permits
- 34 Wastewater Permits
 - 20 industrial
 - 14 municipal
- 15 Large Livestock Operations



Lower Fox River TMDL

Requirements apply to all sources with DNR permit:

- Municipal Wastewater Plants
- Industrial Wastewater Plants
- Permitted Stormwater Cities

Requirements also apply to non-permitted sources:

- Non-permitted urban areas
- Cropland runoff
- Streambank erosion
- Smaller livestock areas

.... However there are limited enforcement options for non-permitted sites



Plan Comparison

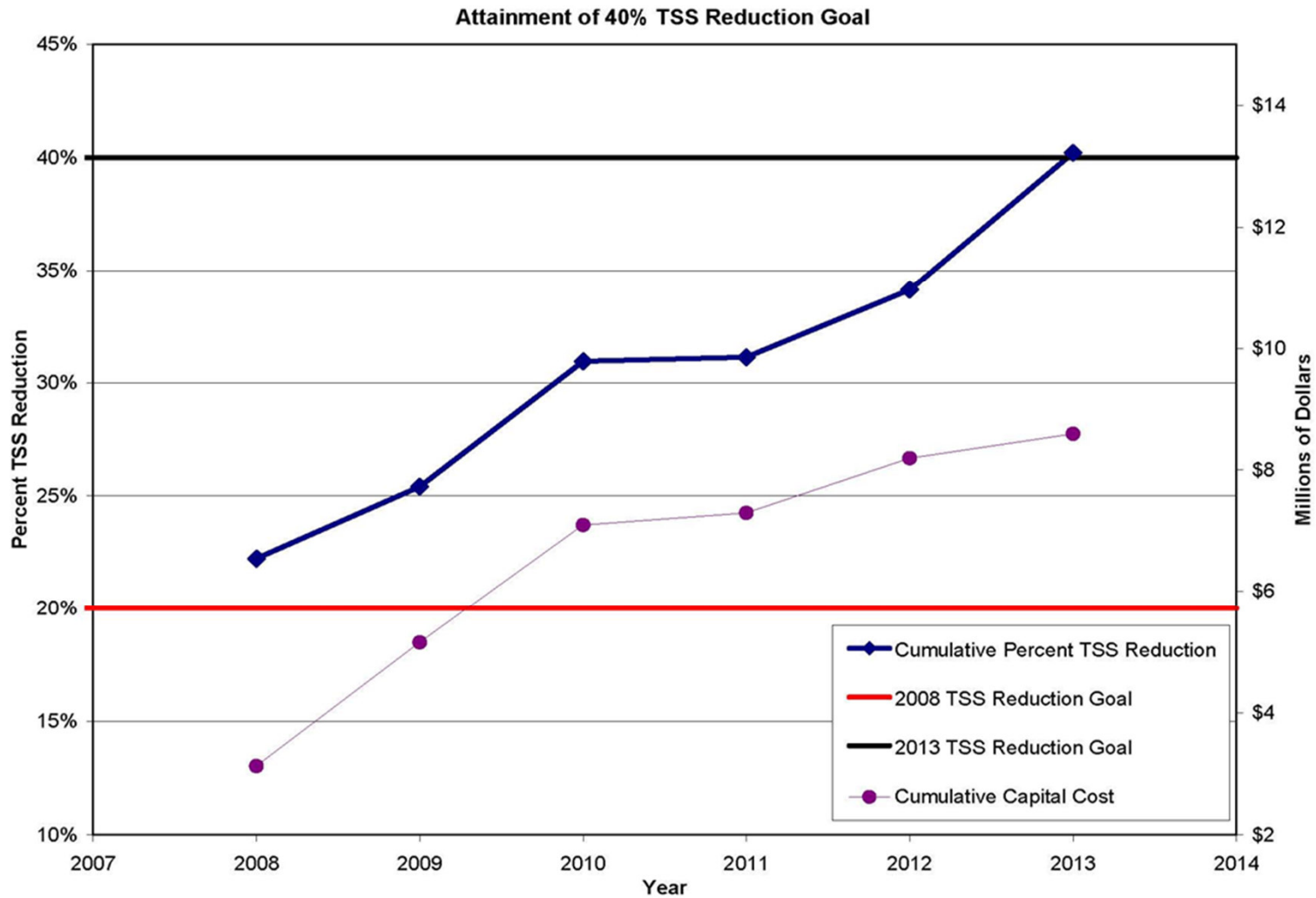
2005 and 2008

- City-wide
- Total Suspended Solids only
- State requirements
- Specific practices and compliance date

2014

- By Watershed
- Total Suspended Solids and Phosphorus
- Federal and State requirements
- Continual progress and benchmarking

2008 TSS Reduction Plan



Questions?

