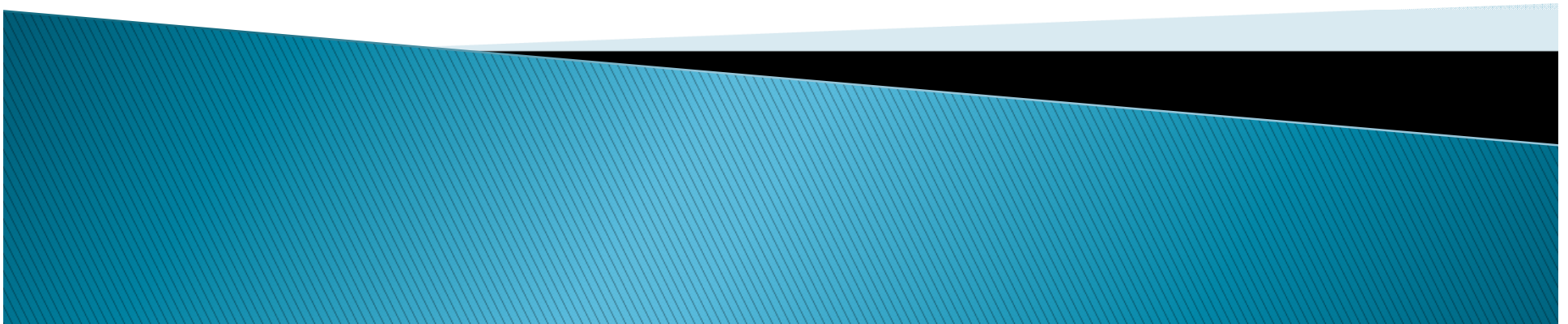


XYZ and 303d: Examining Trends in 303d Listings

Shanon Phillips
Oklahoma Conservation Commission



45+ Agencies, Tribes, Organizations at this Conference

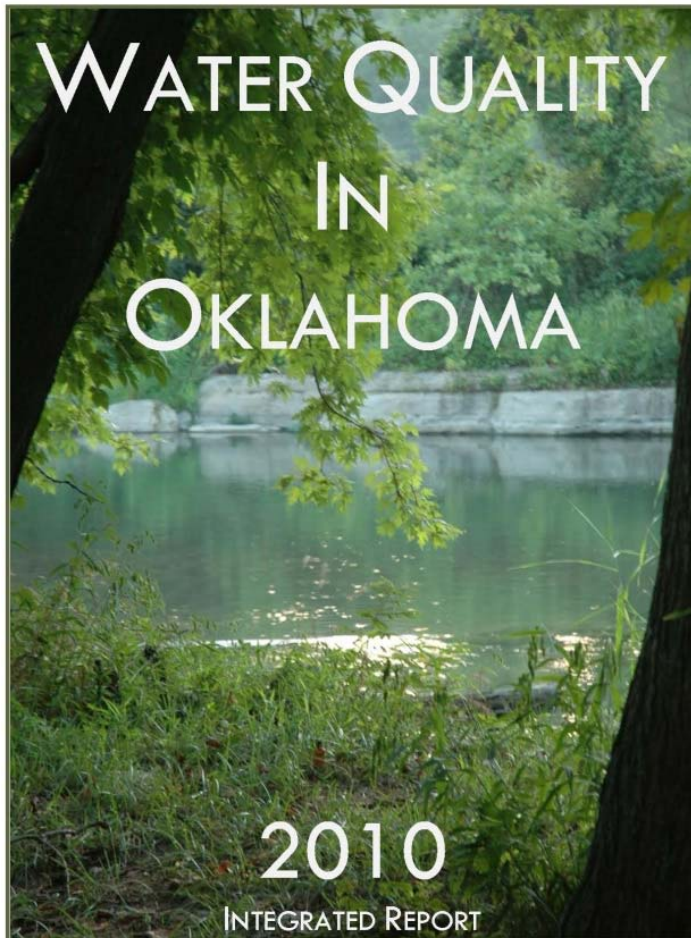
- ▶ 45 + organizations focused on protecting water quality



23rd Annual Oklahoma Clean Lakes & Watersheds
Association Symposium • Stillwater, OK

OCLWA

Yard Stick for Water Quality Success



PREPARED PURSUANT TO SECTION 303(D) AND SECTION 305(B) OF THE CLEAN WATER ACT
BY
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

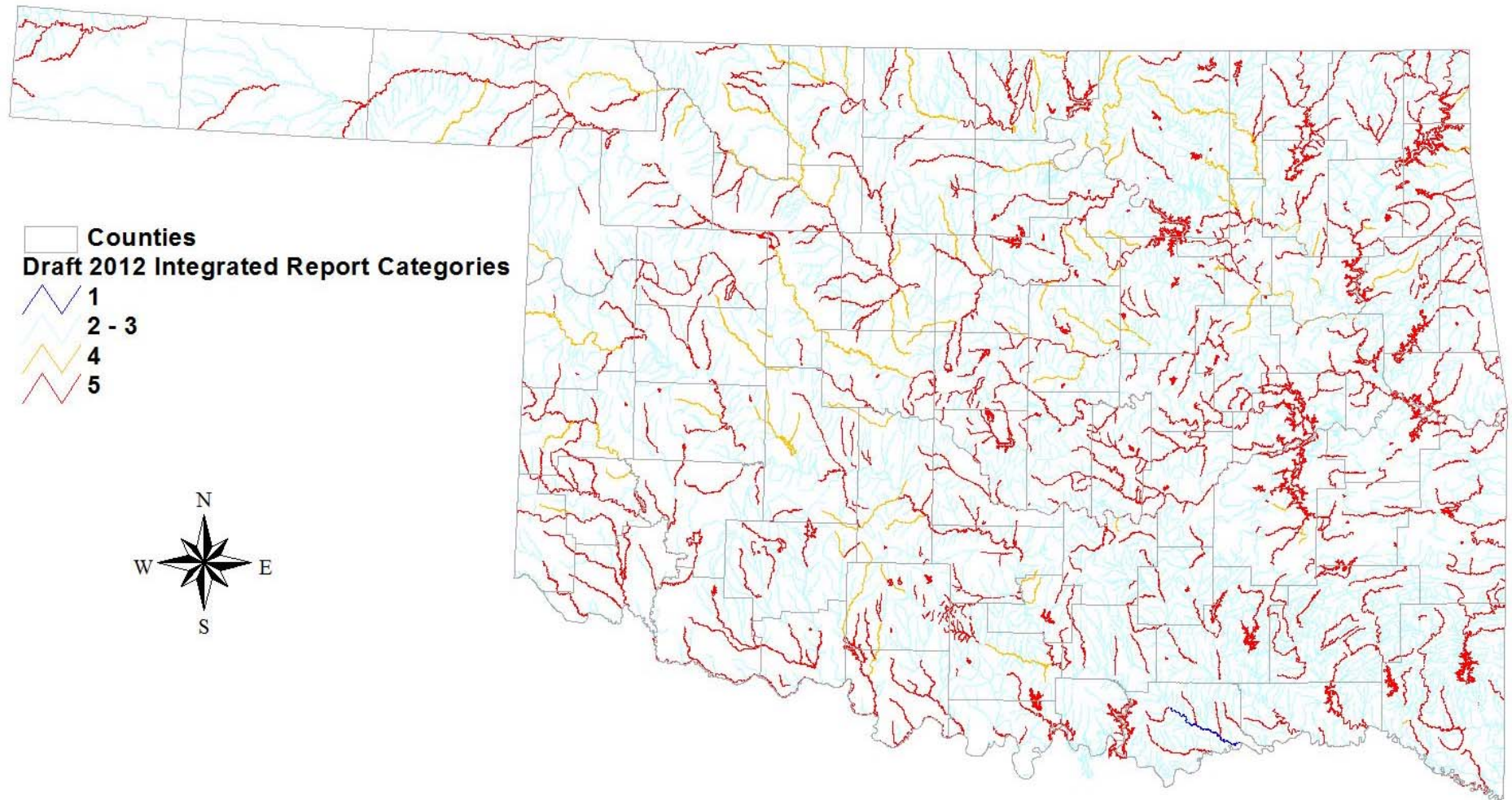
- ▶ Status of the State's Waters
- ▶ Which waters meet fishable/swimmable goals as defined by water quality standards?
- ▶ However, we've only assessed approx. 31% of our waterbodies by number

Retrospective of Integrated Report (IR)– Focused on Impairments

- ▶ This analysis is:
 - A general survey of impaired waterbody listings over time
 - An attempt to determine whether we can start to see some trends in the IR
- ▶ This analysis is not:
 - An analysis of statistically significant data
 - Complete
 - Guaranteed to be 100 % accurate with respect to absolute numbers



2012 Impaired Waterbodies

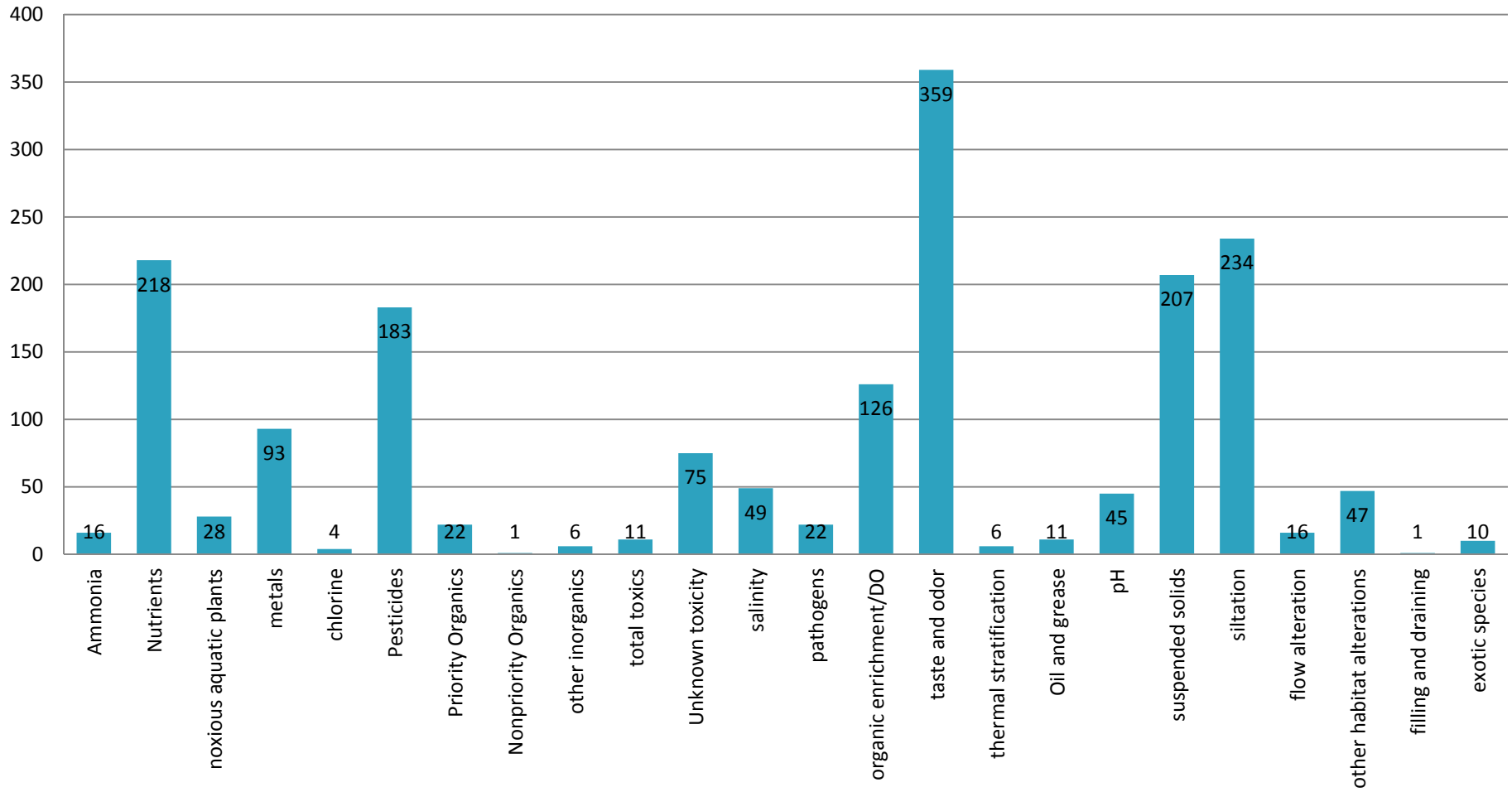


1998 List

- ▶ Many Challenges with this list
 - Lacked numeric water quality standards for many parameters
 - EPA forced OK to include the NPS Assessment Report in 303d List
 - No definitive assessment protocols
 - Segment sizes not well-linked to monitoring sites
 - Perceptions of “windshield surveys”



1998 303d List

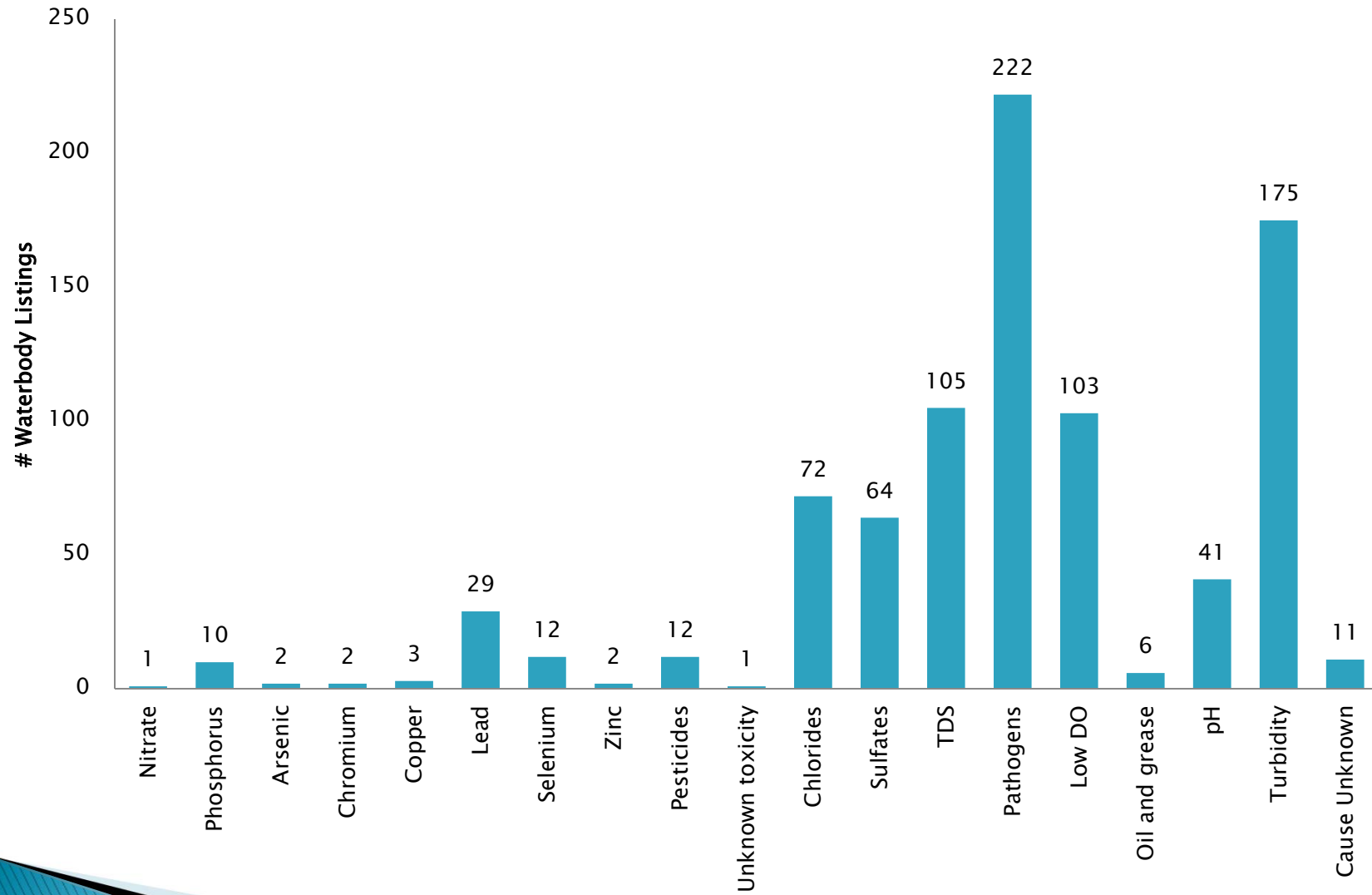


Changes Between 1998 and 2002

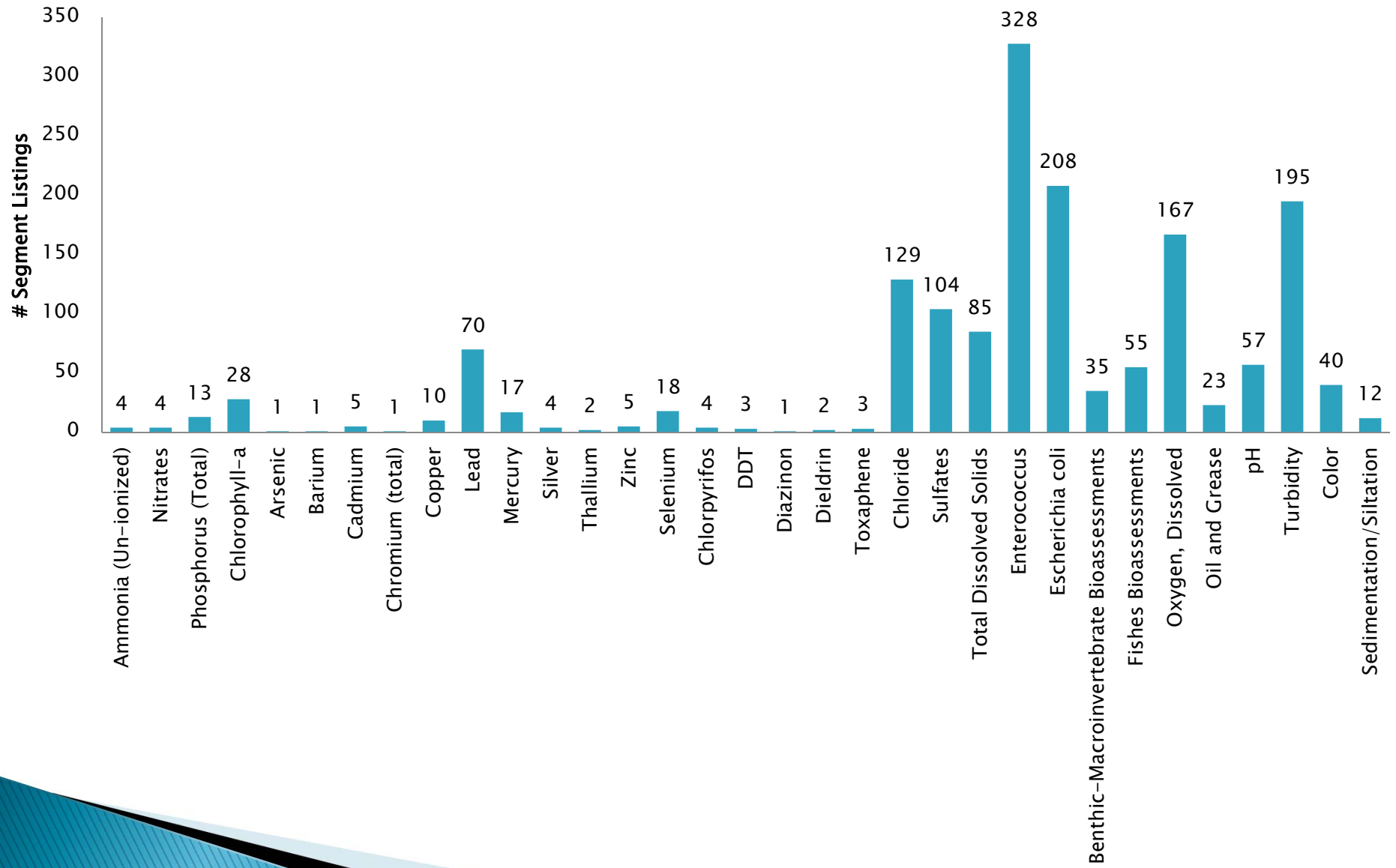
- ▶ Massive data reassessment
- ▶ Development of assessment protocols
- ▶ 1441 segment/cause pair code delistings
 - Many of which due to insufficient data or previous assessments not supported by new protocols
- ▶ 245 waterbody segments were delisted not to be relisted
- ▶ Only 101 (20%) of Streams listed on 1998 list Remained on 2002 list
- ▶ Listings Changed from Perceived Problems to Measured Problems



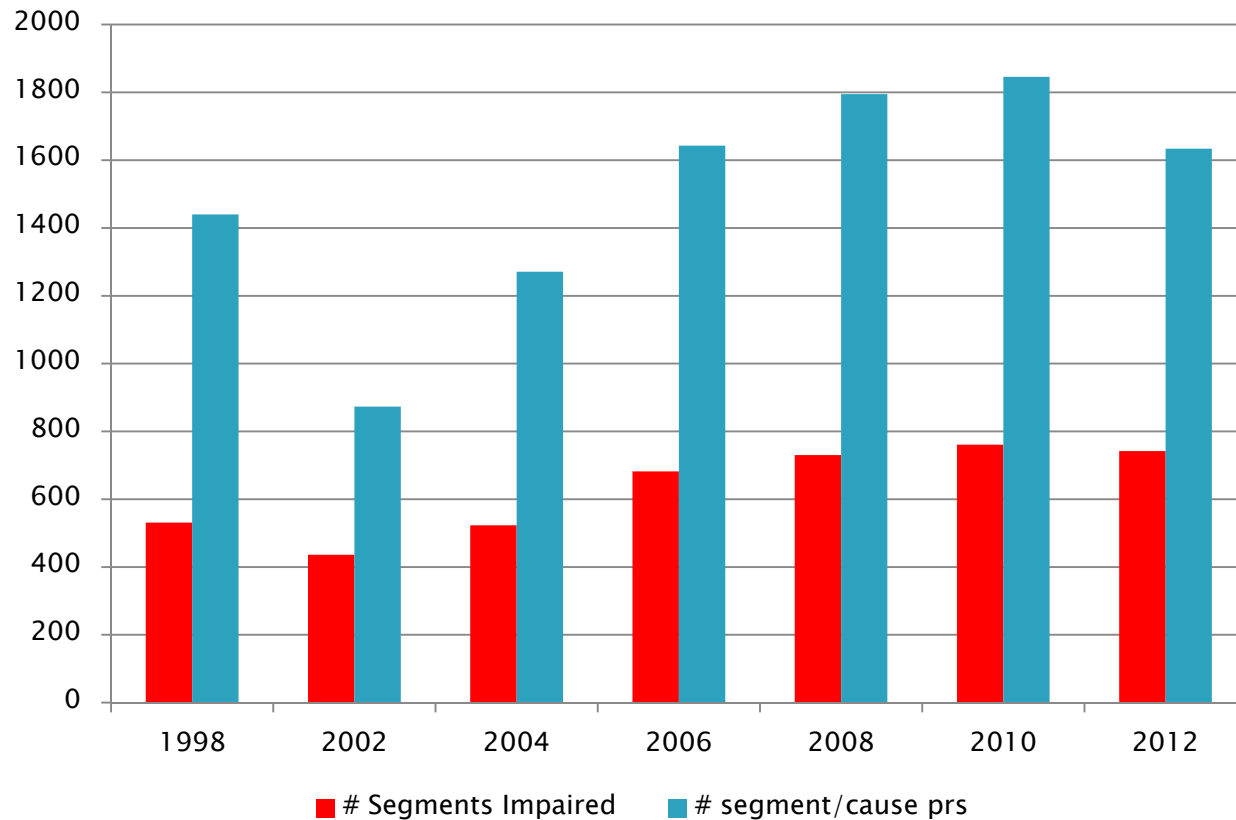
2002 303d List



2012 Impaired Waterbodies



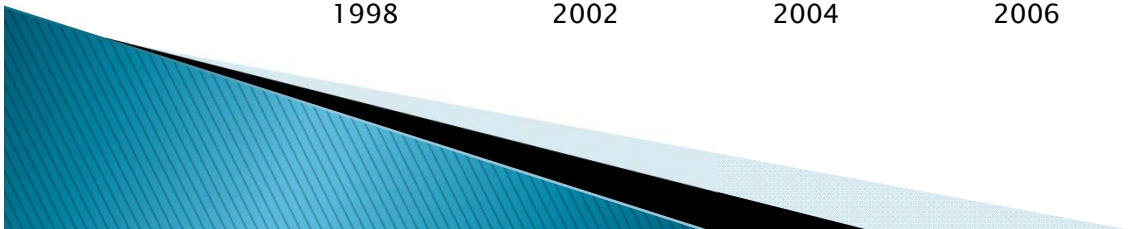
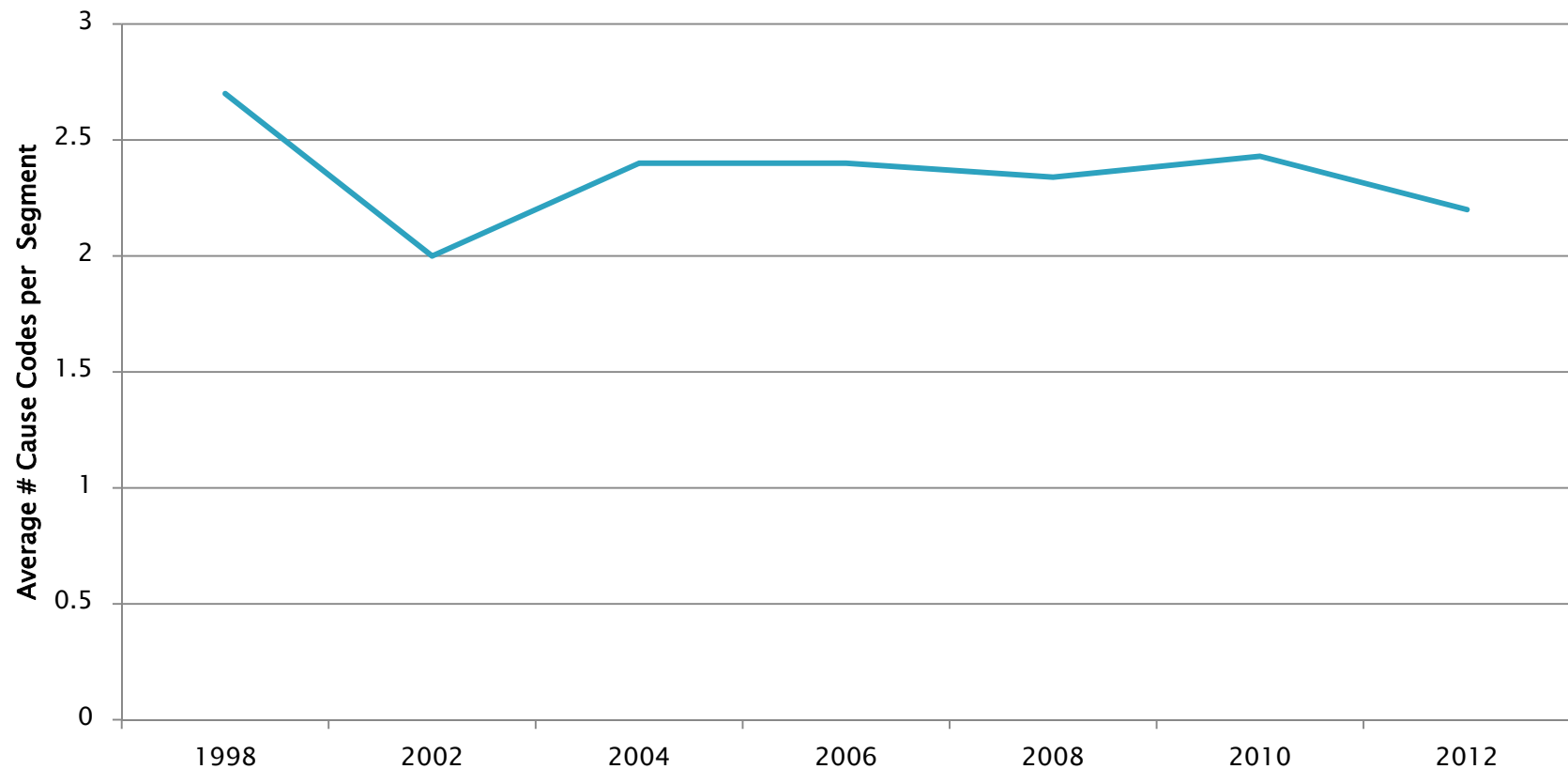
Changes in Listings Over Time



- ▶ # of Impaired Segments has increased from 531 to 742
- ▶ # segment/cause pairs has 1440 to 1634

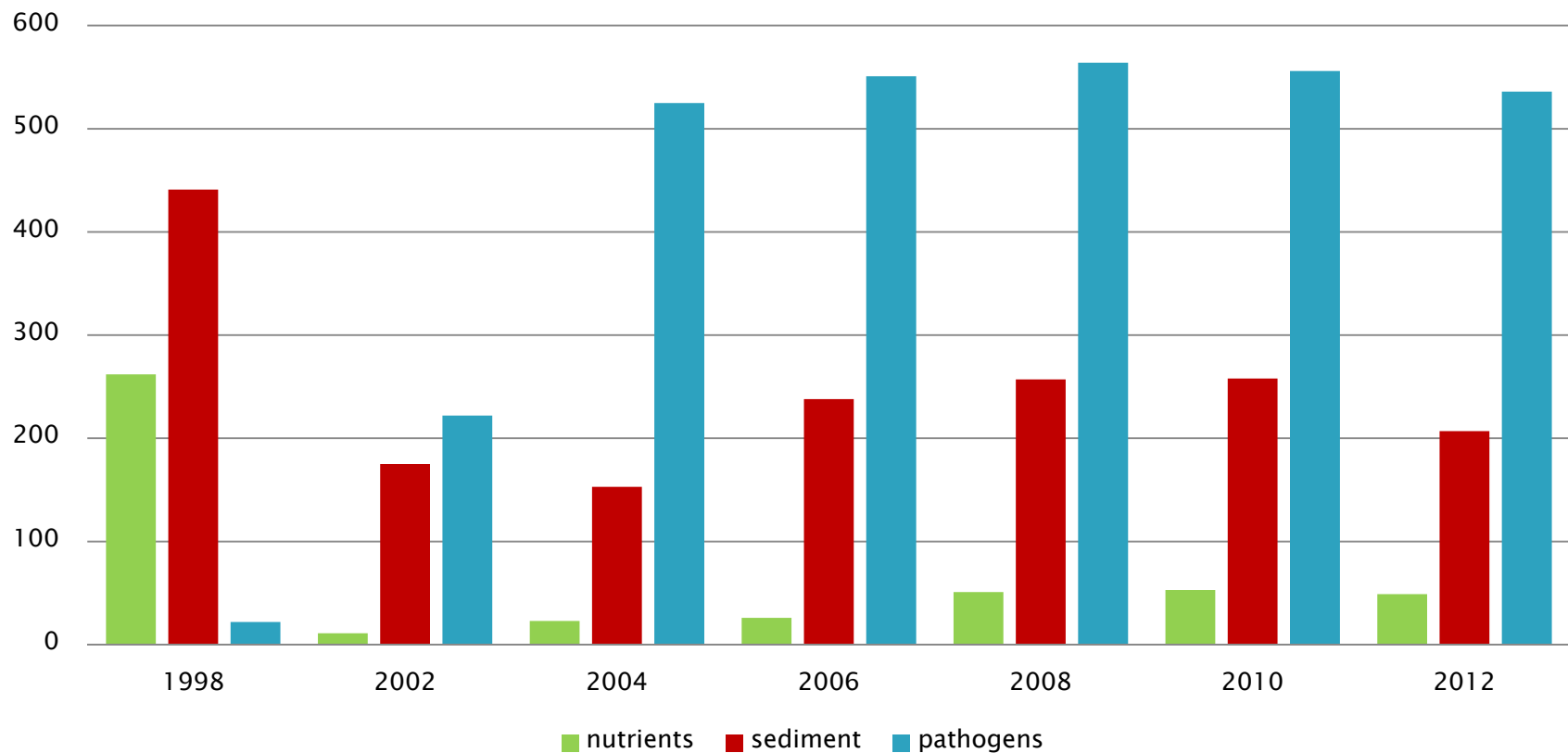
Are Waters Listed for Fewer Causes?

Average # Cause Codes Per Segment

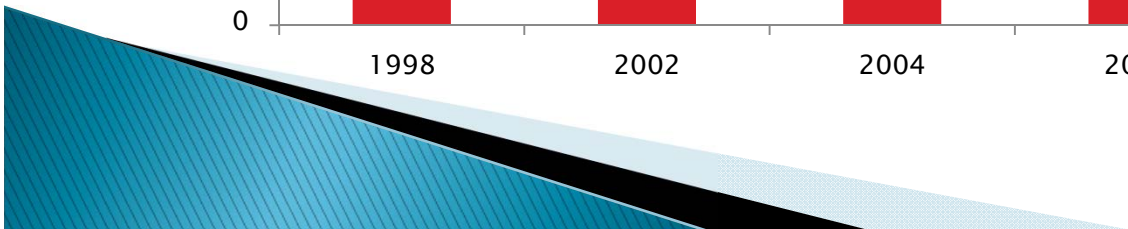
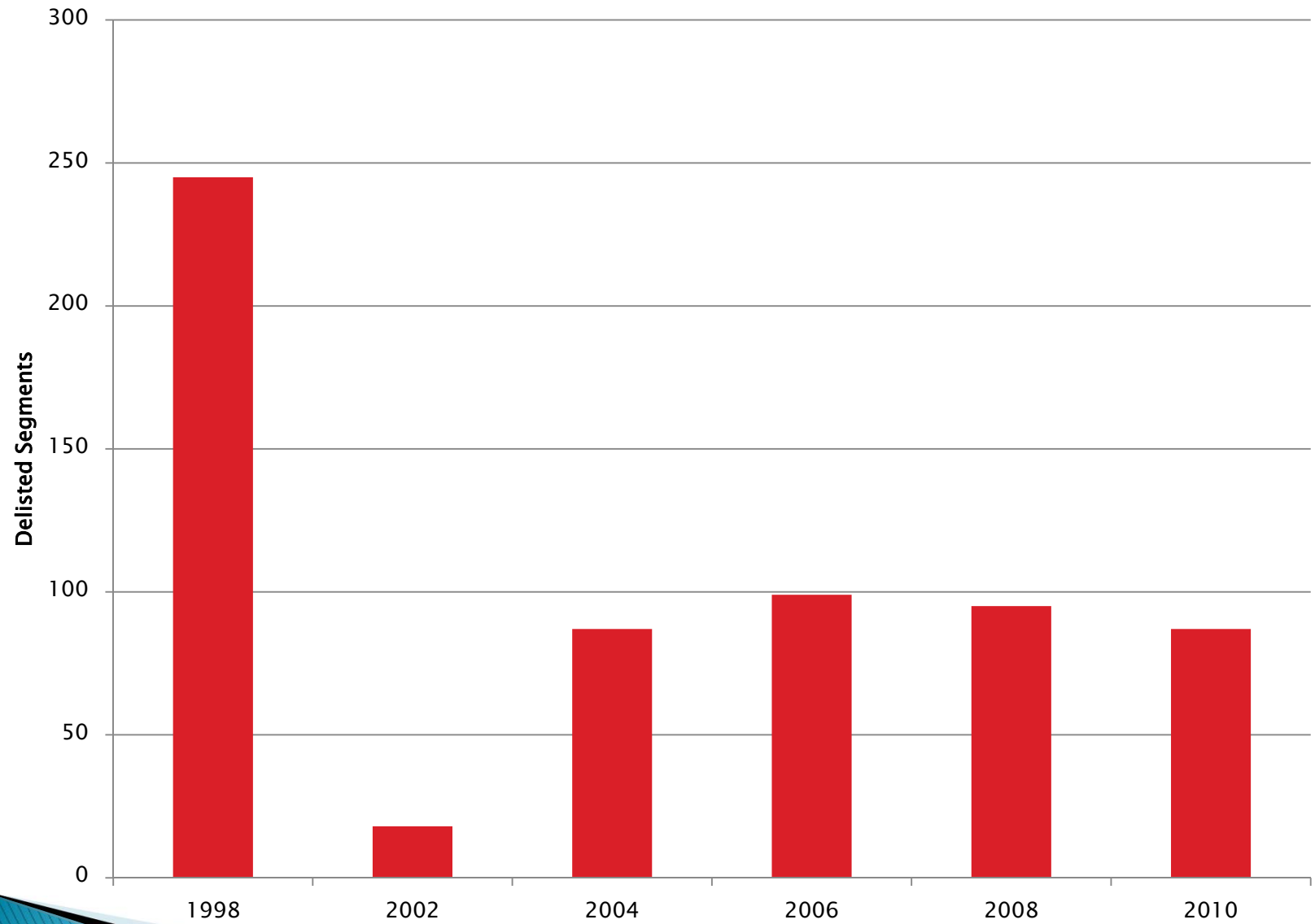


What Problems Are We Documenting?

Changes in Major Cause Code Type

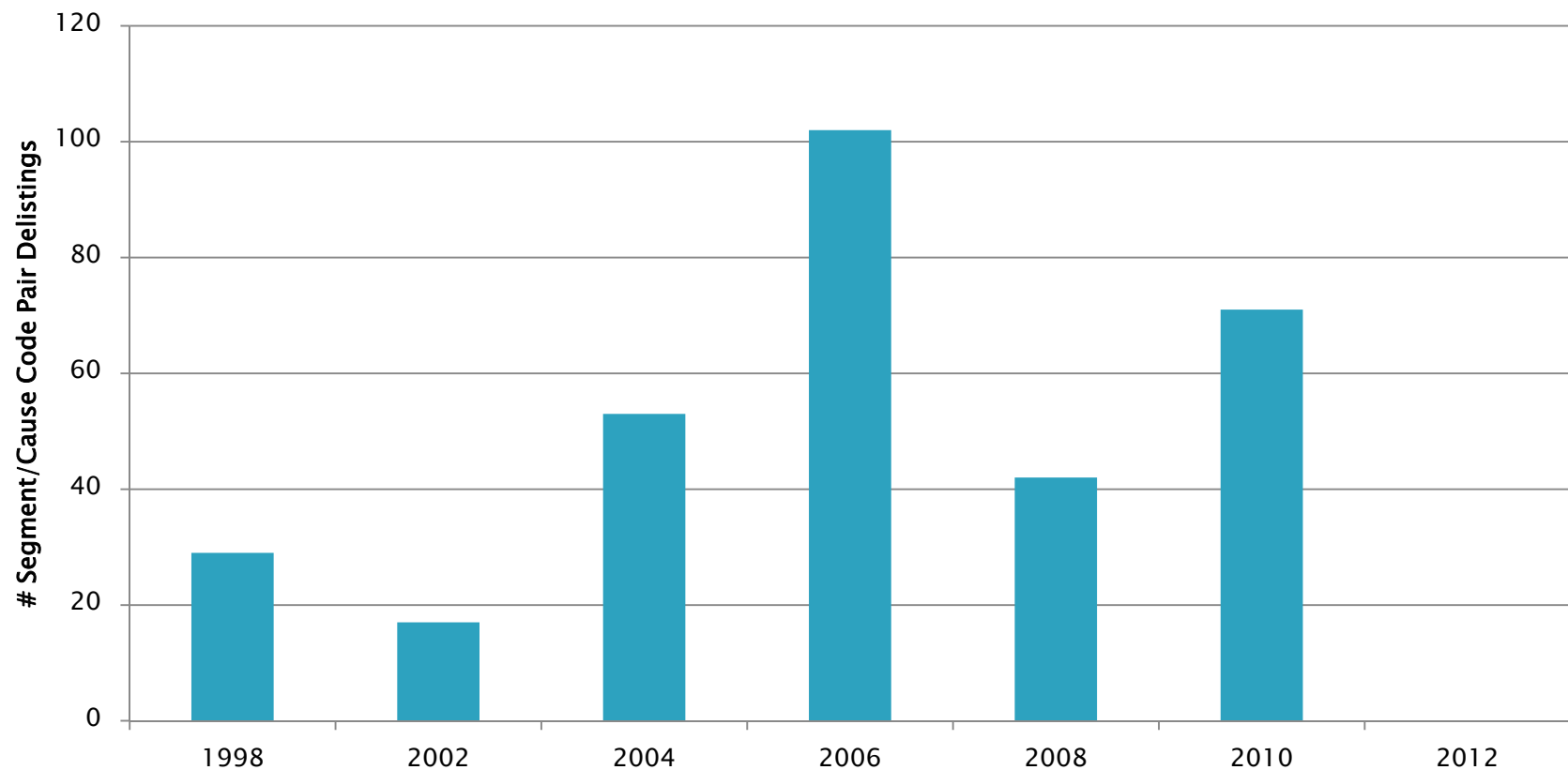


Waterbodies Later Delisted



Causes of Delistings:

Delistings for WQ Improvement



Summary of Changes

- ▶ More and Better Data Used for Assessments
- ▶ More listings for a wider variety of Cause Codes
- ▶ Listings more effectively tied to definitive stream segments
- ▶ Preliminary assessment suggests some increases in the numbers of delistings that appear to be tied to actual WQ improvement



Maybe the 1998 list wasn't so bad after all...

- ▶ 287 or 54% of streams listed on the 1998 list were later relisted on subsequent lists



Questions??

- ▶ Shanon Phillips, Water Quality Division Director, Oklahoma Conservation Commission
 - Shanon.phillips@conservation.ok.gov

