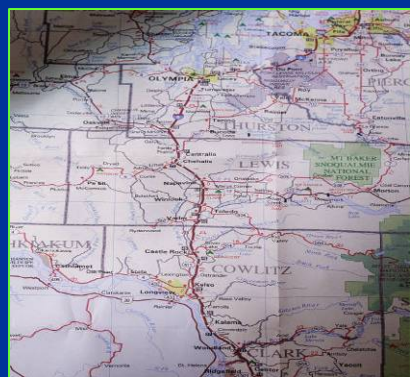


Listing and Total Maximum Daily Load: A Watershed Planning Tool for Counties and Agriculture



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U.S. Environmental Protection Agency

July 14, 2008

This Presentation Covers...

- National Association of Counties (NACo) / Environmental Protection Agency (EPA) partnership
- Basics of the Total Maximum Daily Load (TMDL) and Listing Program
- Case study of agriculture, county involvement, and benefit in restoring water quality
- Funding sources for TMDL implementation

NACo / EPA Partnership Highlights

2005

- ◆ TMDL Outreach Kickoff
- ◆ Western Interstate Region and National Conference Meetings

2006

- ◆ “Tools for Protecting and Improving Water Quality” Workshop
- ◆ County issue brief with TMDL case studies

2007

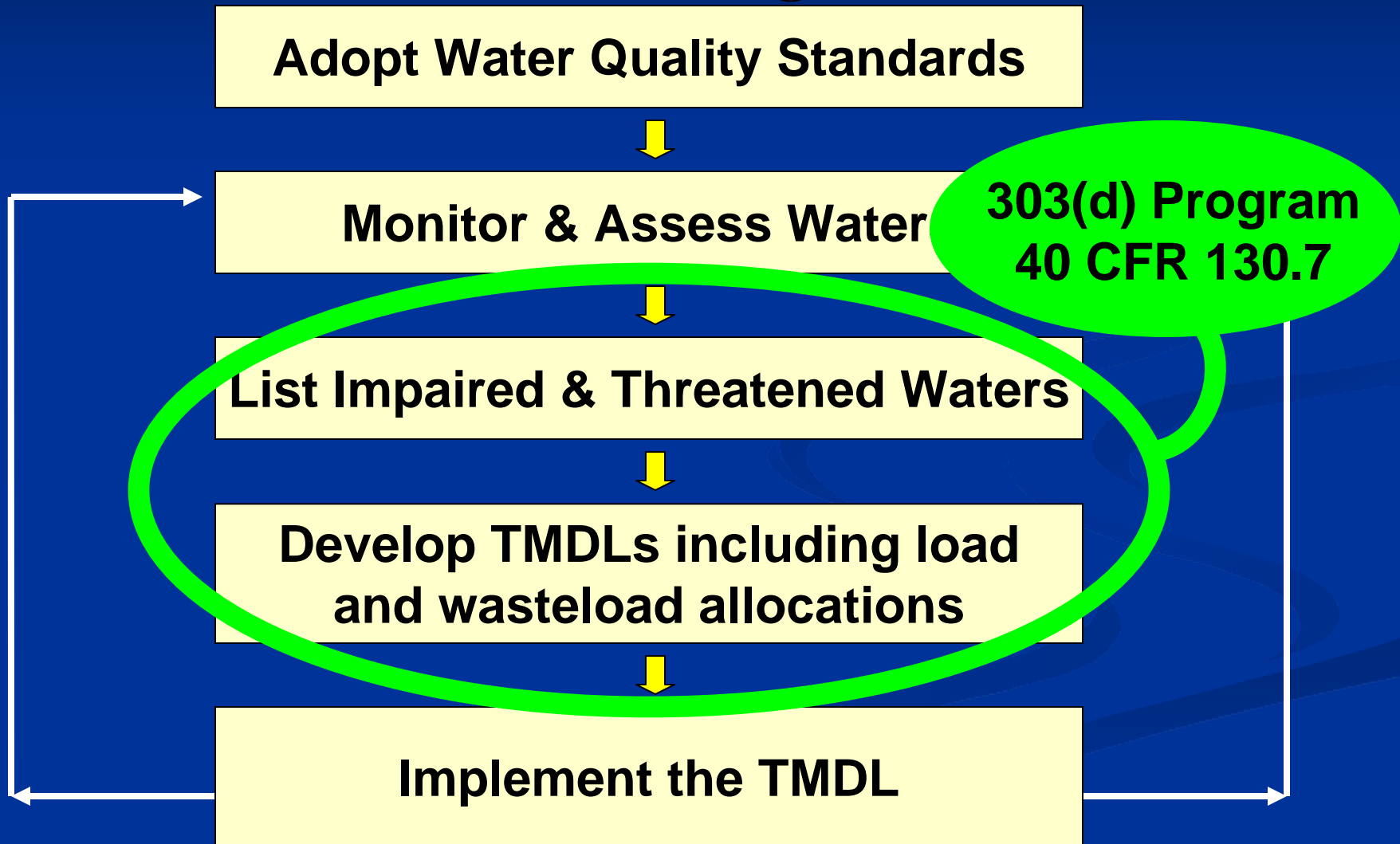
- ◆ NACo wins EPA grant for water quality capacity-building project

2008

- ◆ “Tools for Rural Counties to Protect Water Quality”
Workshop

Clean Water Act

Framework for Restoring Polluted Waters



What is the Impaired Water Listing and TMDL Program?

- The Clean Water Act's section 303(d) requires states to:
 - Solicit and compile existing and readily available water quality data and information
 - Develop lists of impaired waters every two years (2006, 2008...)
 - Establish TMDLs for waters on the list

What is a TMDL?

- A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

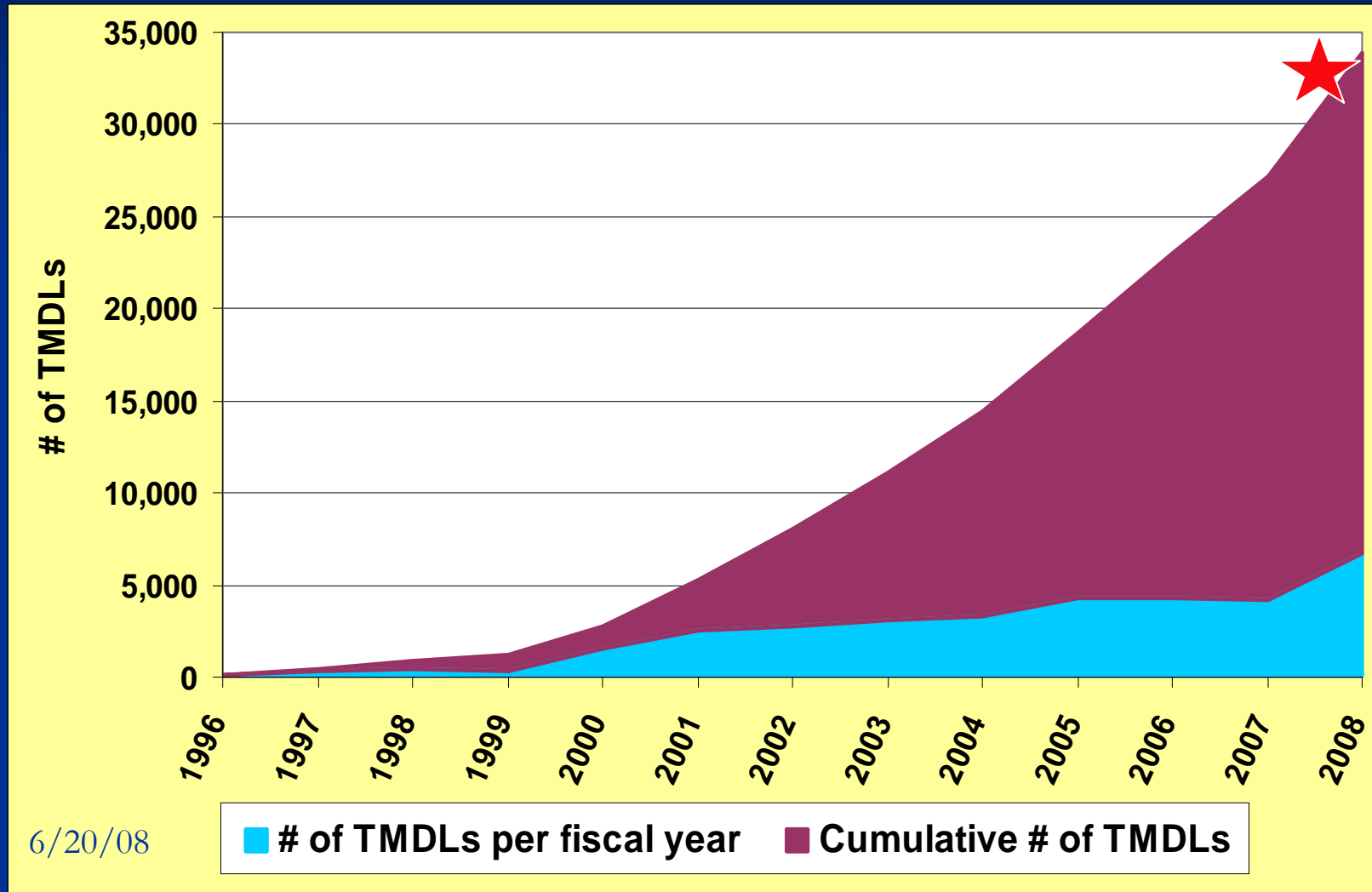
➤ “Pollutant Diet”



TMDL Requirements

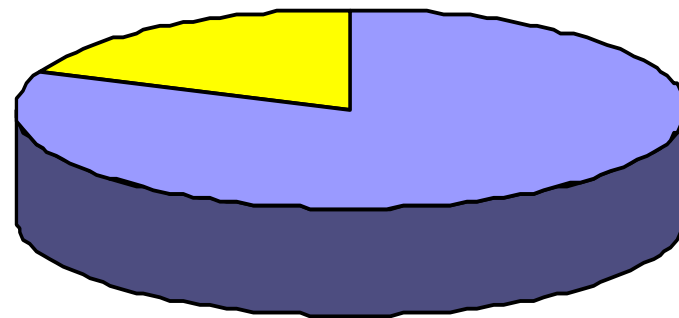
- States develop TMDLs for waters on 303(d) list, and in accordance with priority ranking
- EPA provides an 8-13 year time frame to complete the development of a TMDL once a water body is listed
- TMDL alternatives may exist in some circumstances (e.g., nonpoint source-only)


Over 33,000 TMDLs Completed



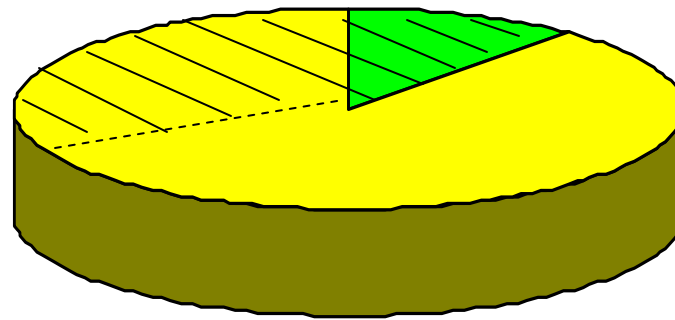
The National Picture

Estimated Total Water Size in the U.S.: Rivers and Streams (3,533,205 miles)




 Total Assessed River and Stream Length (822,721 miles)
23%

Total Assessed Rivers and Streams (822,721 miles)

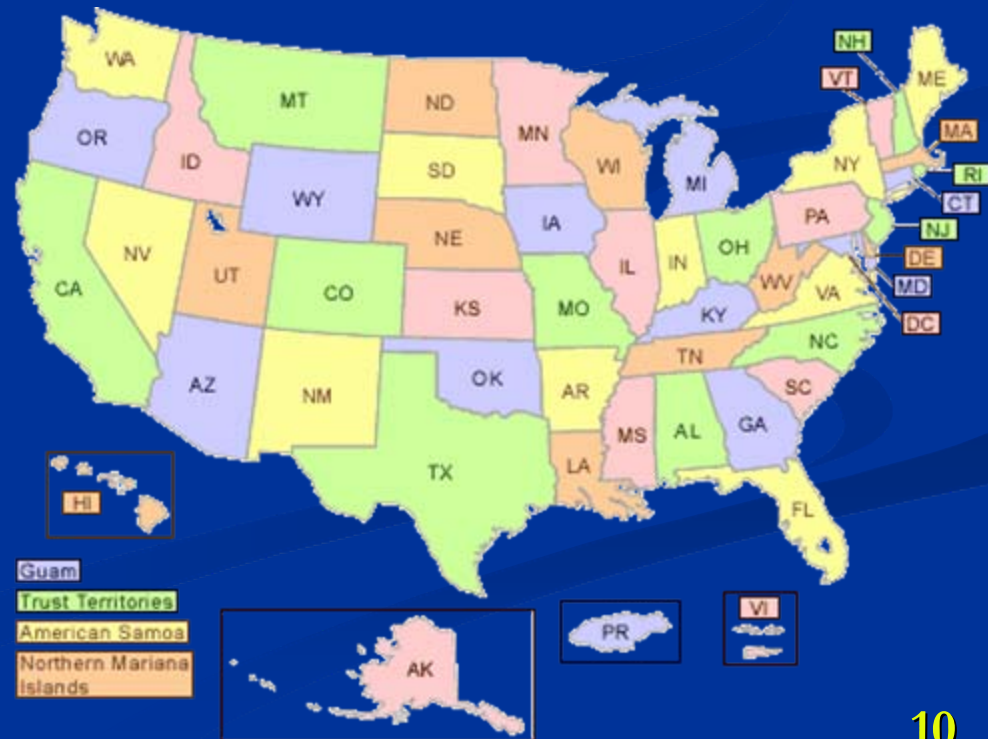


 Rivers and Streams Impaired (388,095 miles)
47%

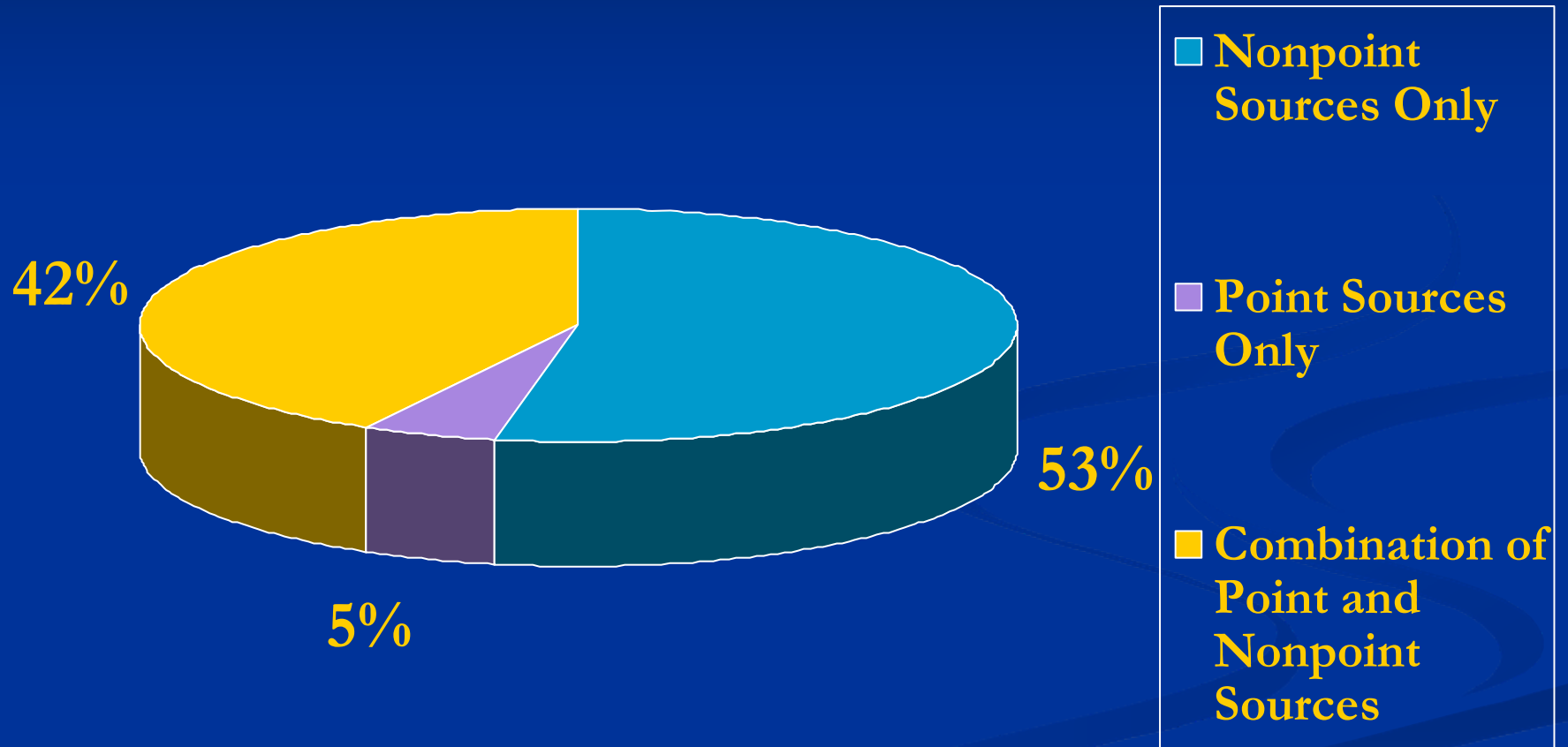
 Rivers and Streams Impaired by Agriculture (105,871 miles)
27%

The National Picture (cont.)

- ~ 40,000 waters listed as impaired
- Top causes of impairments:
 - pathogens
 - mercury and other metals
 - sediment
 - nutrients
 - low dissolved oxygen



Types of Sources Causing Impairment as of 2008



Success Story in Water Quality Restoration: Cameron and Smithville Lakes, MO

Herbicide atrazine

- corn and soybean farming
- level above acceptable standard for drinking water

Partners -- Soil and Water Conservation Districts of Clinton, Dekalb, and Clay Counties, Cities of Smithville, Plattsburg and Cameron, Environmental Resources Coalition, MO Corn Growers Assoc., MO Dept. of Natural Resources, U.S. Dept. of Agriculture, EPA, Syngenta Crop Protection, Inc., Bayer Crop Sciences

Cameron and Smithville Lakes, MO (cont.)

Process included:

- Lakes listed as impaired in 1998
- Farmers implemented:
 - No-till and minimum till
 - Selected atrazine application methods
 - Grass buffer strips
- Watershed Research, Assessment, and Stewardship Project (WRASP) conducted field demos, informational meetings, and consultations with farmers to encourage these practices



Success! Lakes removed from impaired waters list in 2003!

Cameron and Smithville Lakes, MO (cont.)

Benefits to participants:

- Public water supply use restored
- \$1 M in Clean Water Act section 319 grant funds
- Data and progress to aid in delisting other lakes in 2007 (Monroe City Route J Lake, Vandalia Lake, LaBelle Lake #2, Edina Reservoir)
- Education – farming methods and alternatives



How Can Counties Get Involved?

Clean Water Act Process

Adopt Water Quality Standards



Monitor & Assess Waters



List Impaired Waters



Develop TMDLs



Implement TMDLs
(Point Source/Nonpoint Source)

Counties:

Comment on proposed water quality standards

Submit monitoring data to state

Comment on list of impaired waters

Participate in state TMDL development;
Develop 3rd party TMDLs

Review point source permits;
Implement nonpoint source controls;
Broker water quality trading;
Monitor water quality response;
Review TMDL

Funding Sources for TMDL Implementation

<http://www.epa.gov/owow/funding.html>

- Federal
 - Clean Water Act sections 106, 319 funds
 - U.S. Department of Agriculture funds (Natural Resource Conservation Service)

- State

- Other

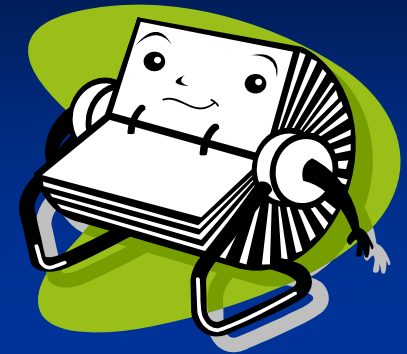


For More Information

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