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***Auditing Water Issues: An  
Examination of SAIs' Experiences  
and the Methodological Tools  
They Have Successfully Used***

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# Why We Undertook The Project

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- Asked to update the results of the Netherlands' 2004 water report
- Water issues continue to be a key area of interest to WGEA members
- SAIs are increasingly helping to address these issues through audits of government activities
- To provide insights on methods SAIs have used to successfully audit water issues and practical advice to SAIs looking to expand their efforts in this area

# Project Objectives

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1. Examine critical water challenges and describe efforts by national governments and international institutions to respond to these issues
2. Catalogue and describe SAI audits on a range of water issues, *focusing in particular on creative and innovative methods* SAIs have used to analyze and report on their priority water challenges
3. Provide information and insights on which water audit tools *proved to be most useful under which circumstances*

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# Report Outline

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- Executive Summary
  - **Chapter 1** – Introduction
  - **Chapter 2** – Global Water Challenges and the Efforts of Governments and International Institutions to Address Them
  - **Chapter 3** – An Overview of Water-Related Audits and the Approaches SAIs Have Used to Audit Water Issues
  - **Chapter 4** – Auditor’s Toolbox: How Various Audit Methods Have Been Successfully Applied to Address A Range of Water Issues
  - **Annex I**—*Bibliography and International Water Websites*
  - **Annex II**—*Water-Related Audits Analyzed for this Report*
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GAO **Chapter 2:** Global Water Issues and  
Government Actions to Address Them

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- Worked with Subcommittee members and the WGEA Steering Committee to identify a list of priority water issues
- Reviewed international literature on water issues and government responses
- Obtained country-specific information from:
  - Reviews of national water audits
  - Direct contacts with environment and water officials from some countries

## Chapter 2: Priority Water Issues

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- Availability of safe drinking water
- Competing demands for limited water supplies
- Drought
- Flooding
- Quality of surface waters
- Marine environment
- Planning and financing for water infrastructure
- Implementation and enforcement of water laws
- Challenges of managing water resources shared by multiple nations
- Adequacy of water-related data
- Impacts of climate change on water resources

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## Chapter 2: Key Messages

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- Water issues facing nations around the globe are increasing in urgency, but governments have generally been slow to adopt necessary steps to address them
- Emerging issues like climate change have further amplified the difficulties that governments face in addressing water issues, and that SAIs face in auditing them

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GAO **Chapter 3:** Water Issues SAIs Audited  
and the Approaches They Have Used

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- Obtained and catalogued 105 water-related audits
  - Audits were reviewed from 43 different SAIs, including developed and developing countries
  - Worked with Subcommittee members and other SAI partners to obtain noteworthy audits
- Conducted interviews and used questionnaires to obtain the perspectives of auditors who conducted many of these audits



# GAO Chapter 3: Map of Countries Included in Audit Analysis



Source: United States Government Accountability Office analysis.

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# GAO **Chapter 3:** Methods SAIs Have Used to Audit Water Issues

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- Design matrices used to highlight noteworthy audits in each of the priority water issue areas
- Sample design matrix template:

Objectives / Researchable Question(s)	Audit Criteria, Key Information Required, Source(s) of Information	Scope and Methodology	Challenges Encountered in Conducting the Audit or Reporting its Findings	Audit Results and Key Findings

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GAO **Chapter 3: A Tale of Two**  
Water Audits

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Vastly different circumstances each produced two excellent audit reports with compelling findings

- UK: *“Tackling Diffuse Water Pollution In England”*
- Botswana: *“Maintenance of Urban Water Supply by the Water Utilities Corporation”*

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## Chapter 4: Water Auditor's "Toolbox"

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**In assessing the usefulness of different audit tools used to evaluate water issues, we:**

- ***Analyzed*** the 105 water related audits catalogued in Chapter 3, focusing on their methodologies
- Obtained information directly from auditors about their experiences using different audit tools
- Reviewed performance auditing literature and INTOSAI, GAO, other methodological guidance

## Chapter 4: Water Auditor's Toolbox

Basic auditing tools	More specialized tools
<ul style="list-style-type: none"><li>• Interviews (&gt; 90%)</li><li>• Document Review (&gt; 95%)</li><li>• Site Visits (60%)</li><li>• Questionnaires/Surveys (35-40%)</li><li>• Case Studies (35-40%)</li><li>• Expert Opinion (25%)</li></ul>	<ul style="list-style-type: none"><li>• Expert Panel (5%)</li><li>• Focus Groups (5%)</li><li>• Database Analyses (&gt; 30%)</li><li>• Economic Analyses (&lt; 5%)</li><li>• Scientific Analyses (5-10%)</li><li>• International Benchmarking (5%)</li></ul>

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# GAO **Chapter 4:** Information Provided For Audit Tools

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- Basic descriptive information, relying on audits, methodological literature
- Frequency in which we observed their use among the audits analyzed, ***and the circumstances in which they proved to be useful***
- “Feature audit” from among the 105 water audits to illustrate each tool’s use

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# KEY OBSERVATIONS

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- Much can be learned from the work of both experienced and less experienced SAIs
- Creative use of the basic tools we all know—often in combination with each other—shows that *ALL* SAIs can audit their key water issues
- More specialized tools can be particularly helpful in addressing emerging issues like climate change
- Benchmarking with other SAIs has enormous potential to improve how we audit these issues

# Thank You!

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*And if we may be of  
assistance...*

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# Questions & Discussion

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- Questions about our methodology?
- Questions about our findings?
- Suggestions on what we might emphasize in a 2-day course based on this document?
  - *Possible presentations*
  - *Possible class exercises*