



Funding Sustainable Water Infrastructure Solutions

*WESTCAS Conference
Graham Knowles*

October 2011



New Mexico

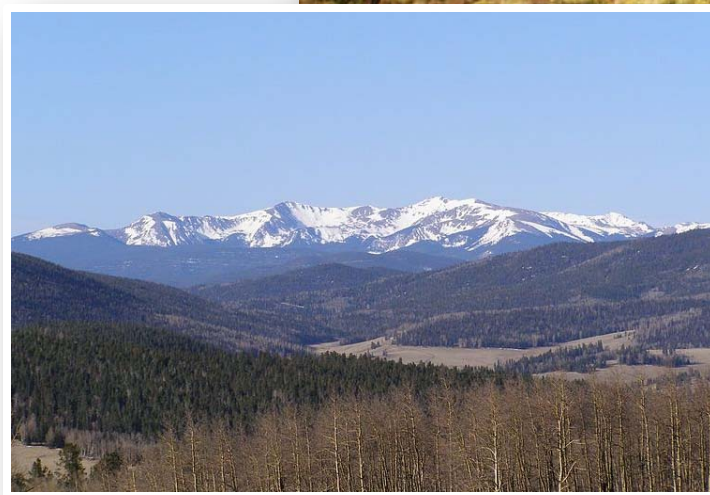
- Located in the desert southwest





Setting

- Arid, sparsely inhabited, mostly covered by mountains, high plains and desert





Land Area

- 5th geographically largest state





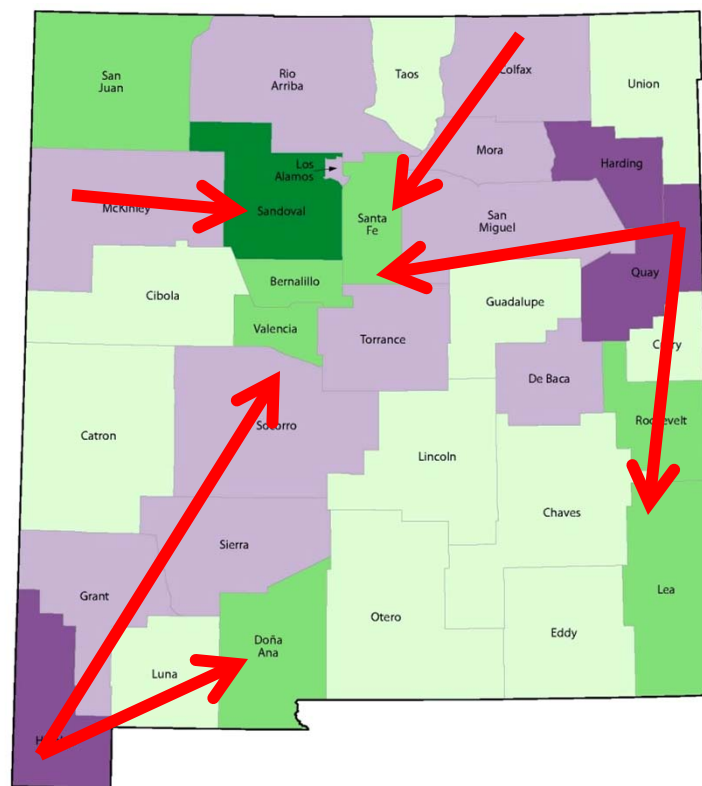
Population

- Over 2 million residents
- 14th least populated state
- 47th least densely populated
- Only 16 people every sq mile

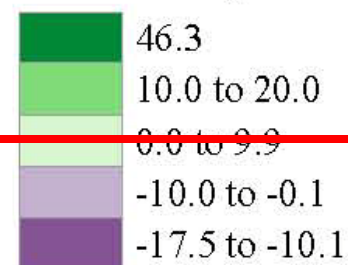




Population Migration (2000-2010)



Percent Change



Percent Change for State: 13.2%

Significant population migration from rural areas



Sustainable Water Infrastructure Management



Drought

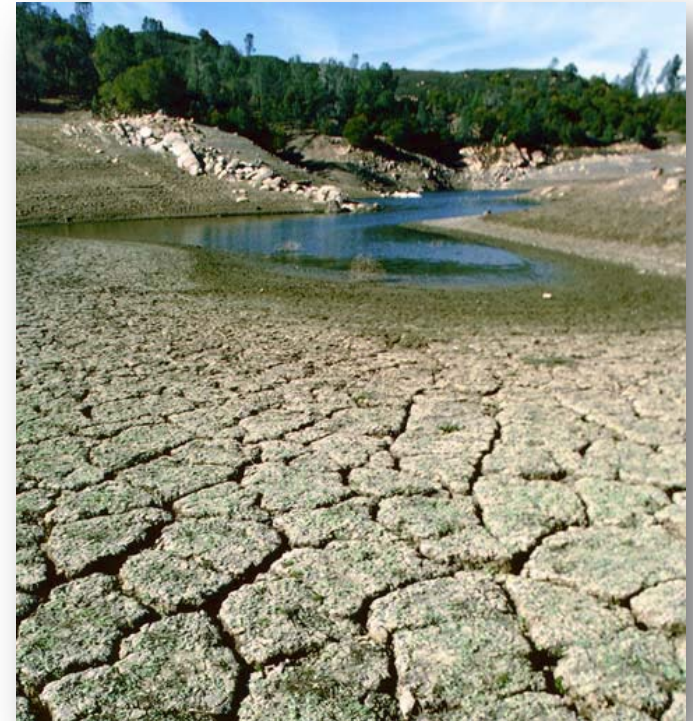
- Devastated by extended periods of drought





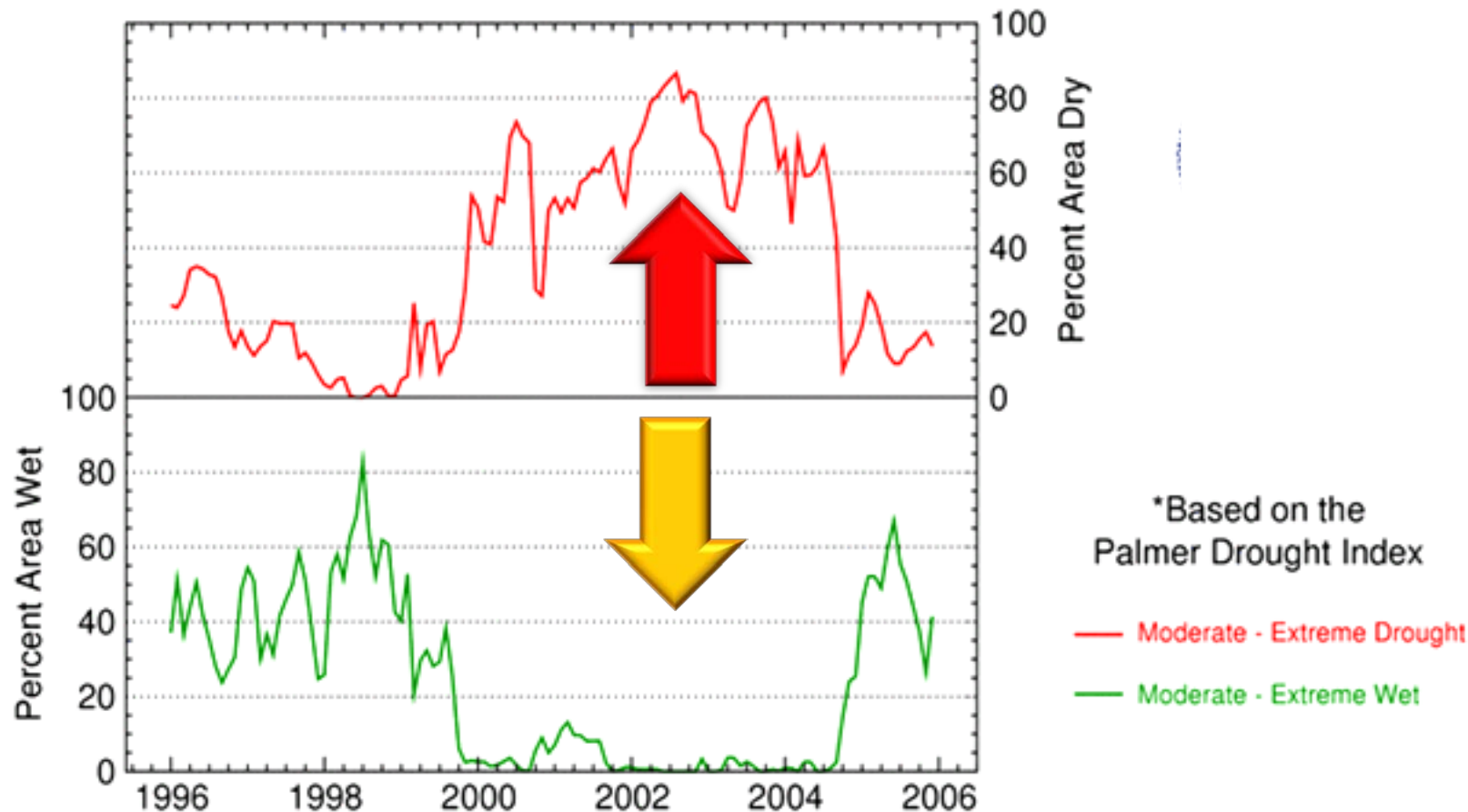
Regional Drought

- In 1995-1996 drought gripped the Southwest and southern Great Plains states
- Depleted reservoirs and increased groundwater pumping interrupted public water and irrigation supplies



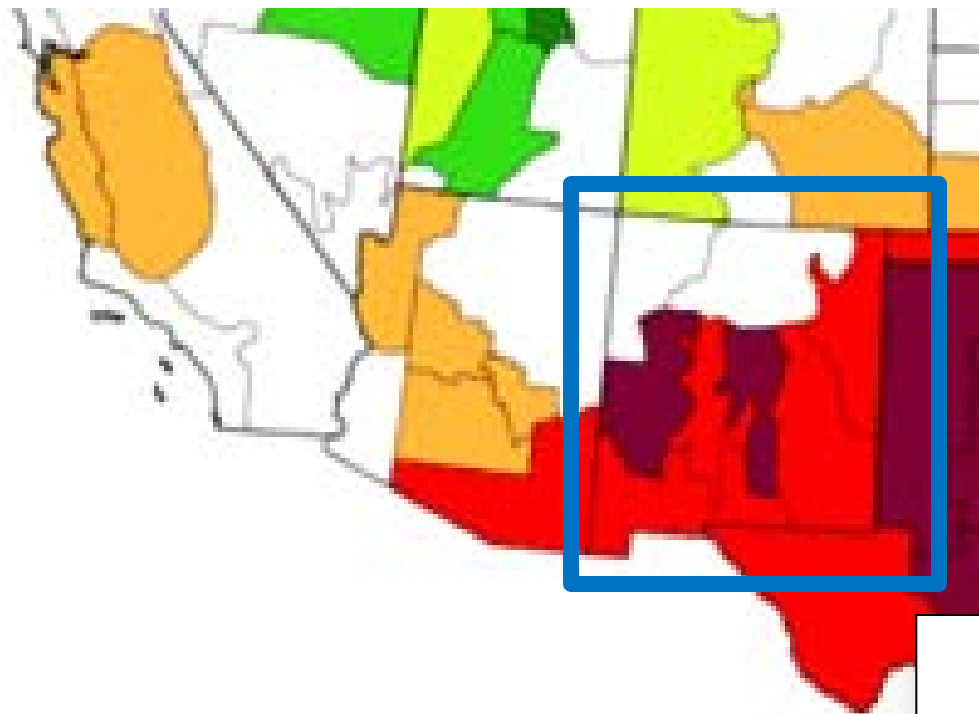


Decade of Drought (1996-2005)

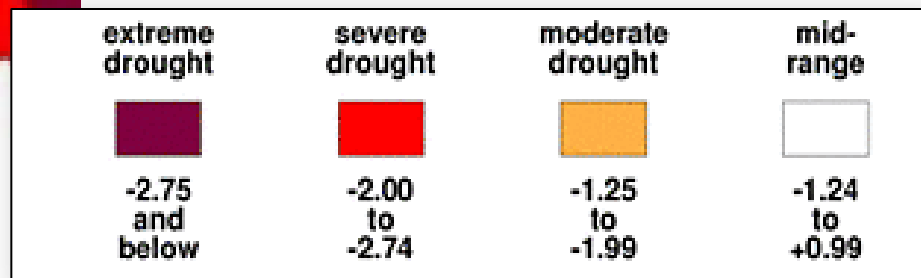




April 2011

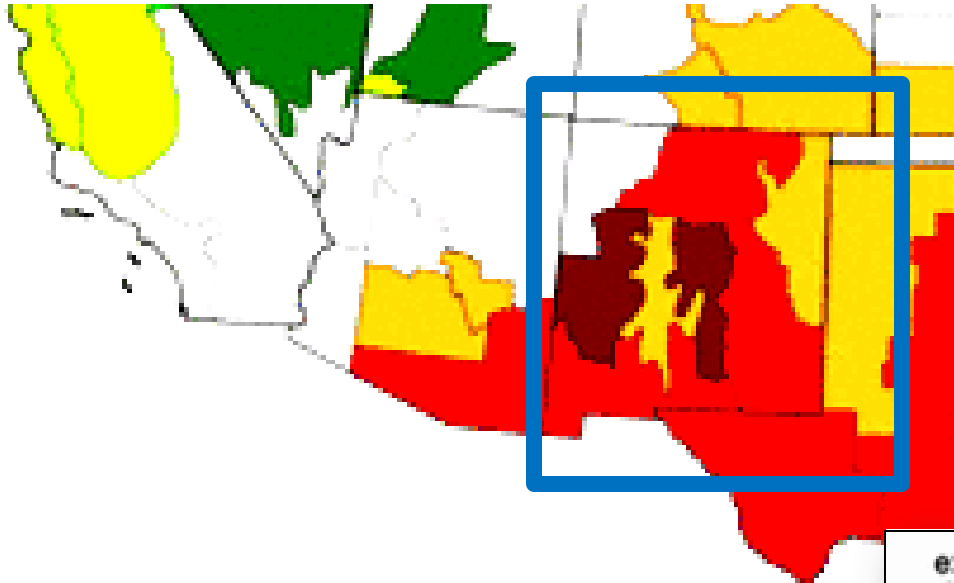


Palmer Z index
Short-term Drought Conditions

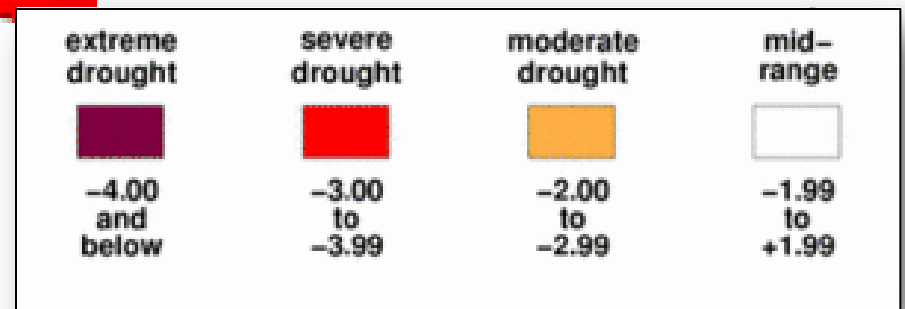




April 2011



Palmer Drought Severity Index



Sustainable Water Infrastructure Management



Water Resources

- Water is an increasingly scarce resource





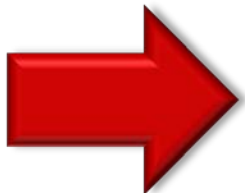
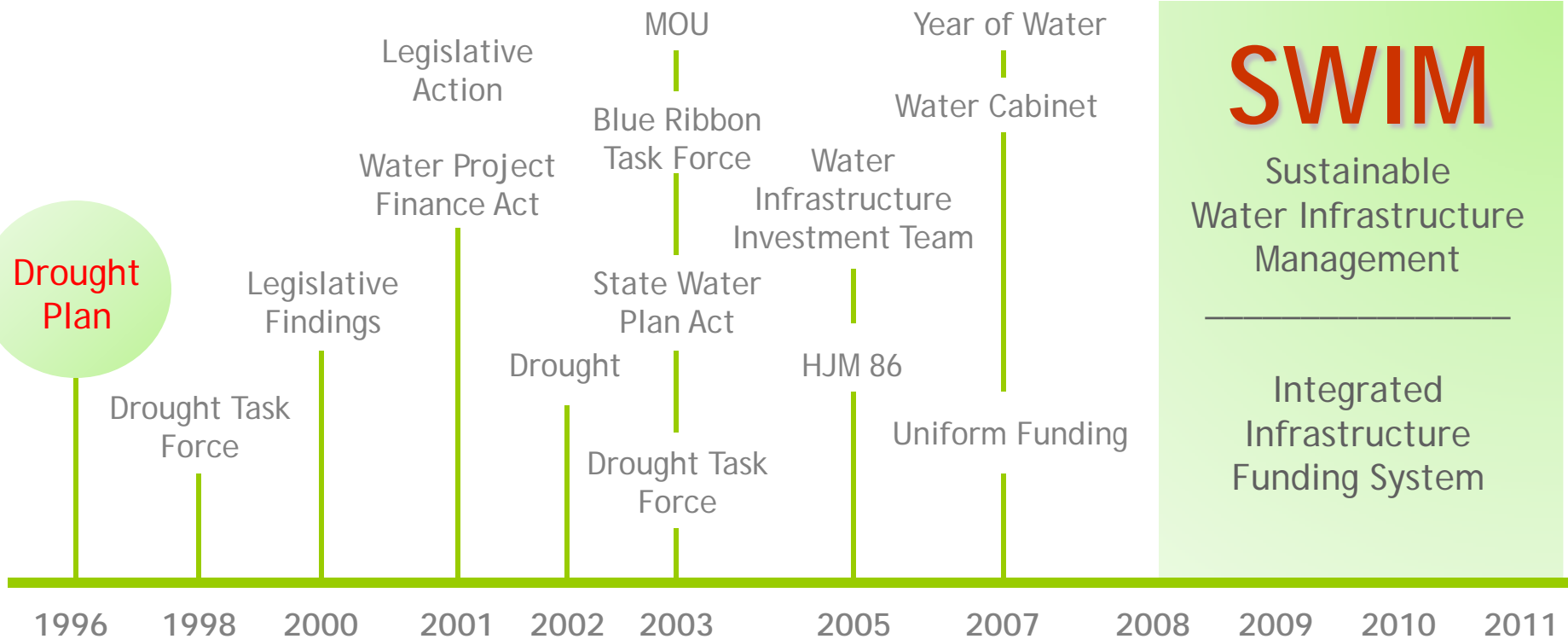
Infrastructure Funding

- Water infrastructure funding is also an increasingly scarce resource





Drought Driven Change



Sustainable Water Infrastructure Management



Drought Task Force

Challenges:

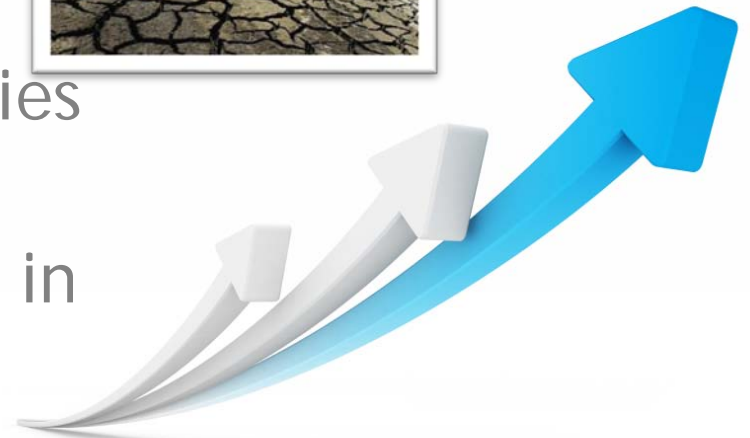
- Inadequate water systems management
- Inadequate water systems maintenance
- Lack of comprehensive planning for the management of water infrastructure
- Inadequate funding to meet needs
- Limited funding for comprehensive review and coordinated planning





Stressors

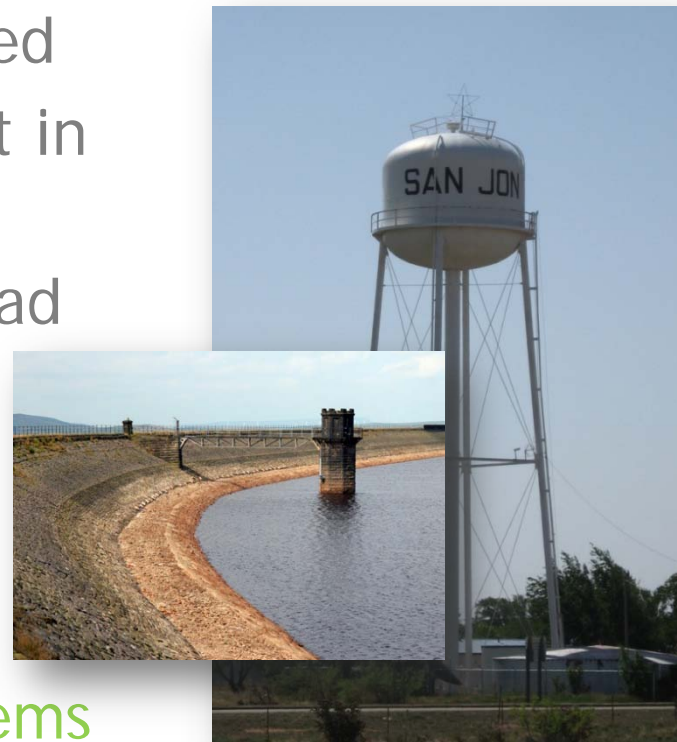
- Exponential **population growth**
- Anticipated **economic growth**
- Increasing **demand** for water
- **Aging infrastructure**
- New **infrastructure needs** to maintain reliable water supplies and meet **growing demand**
- **Worsening drought** conditions in the South





Drought Impacts

- In 2002 a **state of emergency** declared
- Reservoir levels at their lowest point in 20 years
- Snowmelt runoff was the lowest it had been since the mid-1970s
- Runoff into some major streams decreased to less than 5 percent of normal
- More than **70 community water systems** experienced emergency loss of drinking water





Meeting the Challenge

- Blue Ribbon Task Force examined water policies and laws
- DTF restructured and expanded to address drought impacts
- Drought Summit convened to develop strategies for minimizing its detrimental impacts
- Federal and state agencies began developing a process for coordinating water infrastructure funding





Interagency MOU

- In 2003 an interagency Memorandum of Understanding was signed establishing a **uniform funding process** for evaluating and prioritizing the utilization of funding with a single statewide point of contact





House Joint Memorial

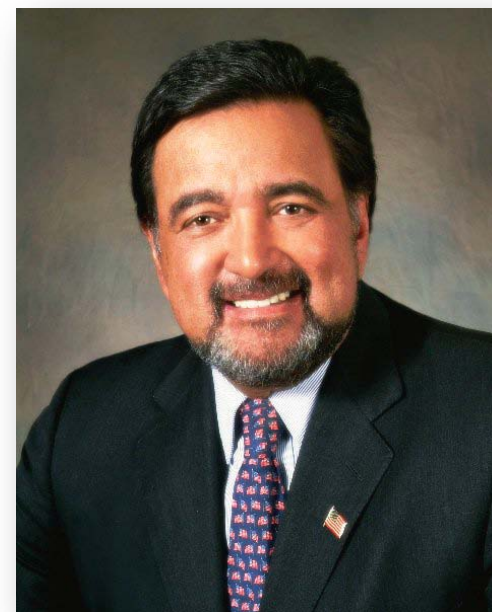
- In 2005 HJM 86 requested the development of **criteria** for water system planning, performance and conservation as a **condition of funding**
- Proposed a standard level of **financial and operational planning and management capacity** along with an **accountability** system for monitoring water use to encourage **conservation** and **efficiency**





Year of Water

- Governor Richardson declares 2007 the **Year of Water**
- Executive Order establishes:
 - Water Cabinet
 - New Infrastructure Division
 - Community Services Group
 - Uniform Funding Process





Community Services Group

- Overseeing implementation of a sustainable water infrastructure funding policy
- Developing a **framework for action** giving direction to efforts to ensure compliance, enhance capacity and move beyond utility management toward sustainability
- Identifying water infrastructure needs
- Hosting the state's **water infrastructure portal**



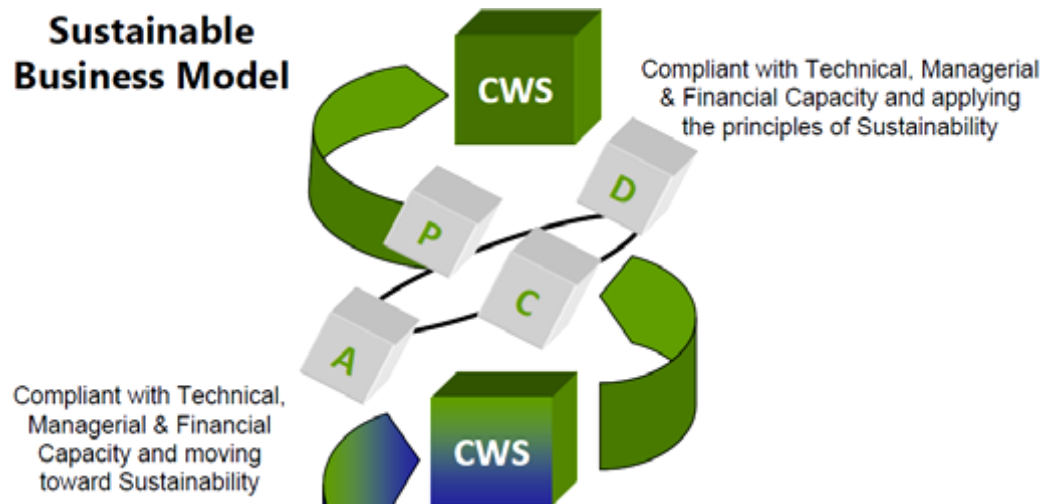


Community Services Group

- Evaluating the viability and fundability of proposed projects
- Coordinating technical assistance
- Mobilizing capacity development resources
- Providing ongoing support services
- Working with funding agencies
- Developing grant/loan funding bundles
- Leveraging funding to optimize scarce infrastructure dollars



Sustainable Business Model

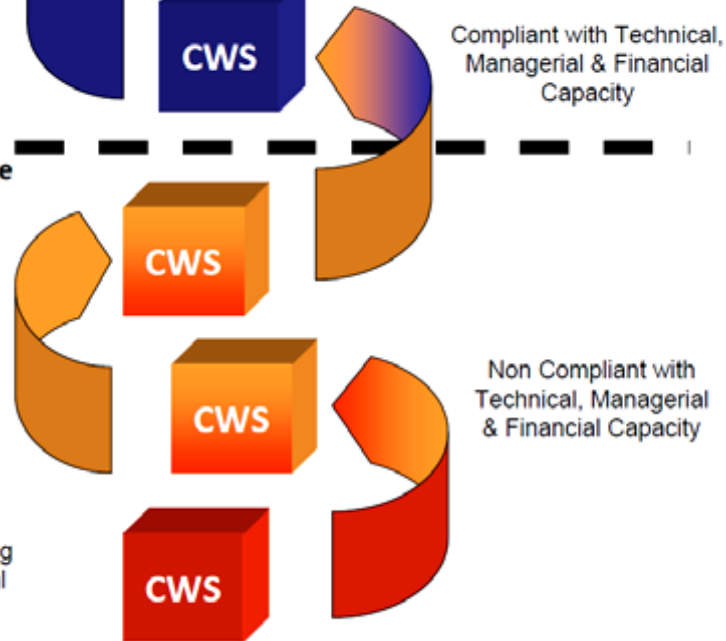


Utility Model

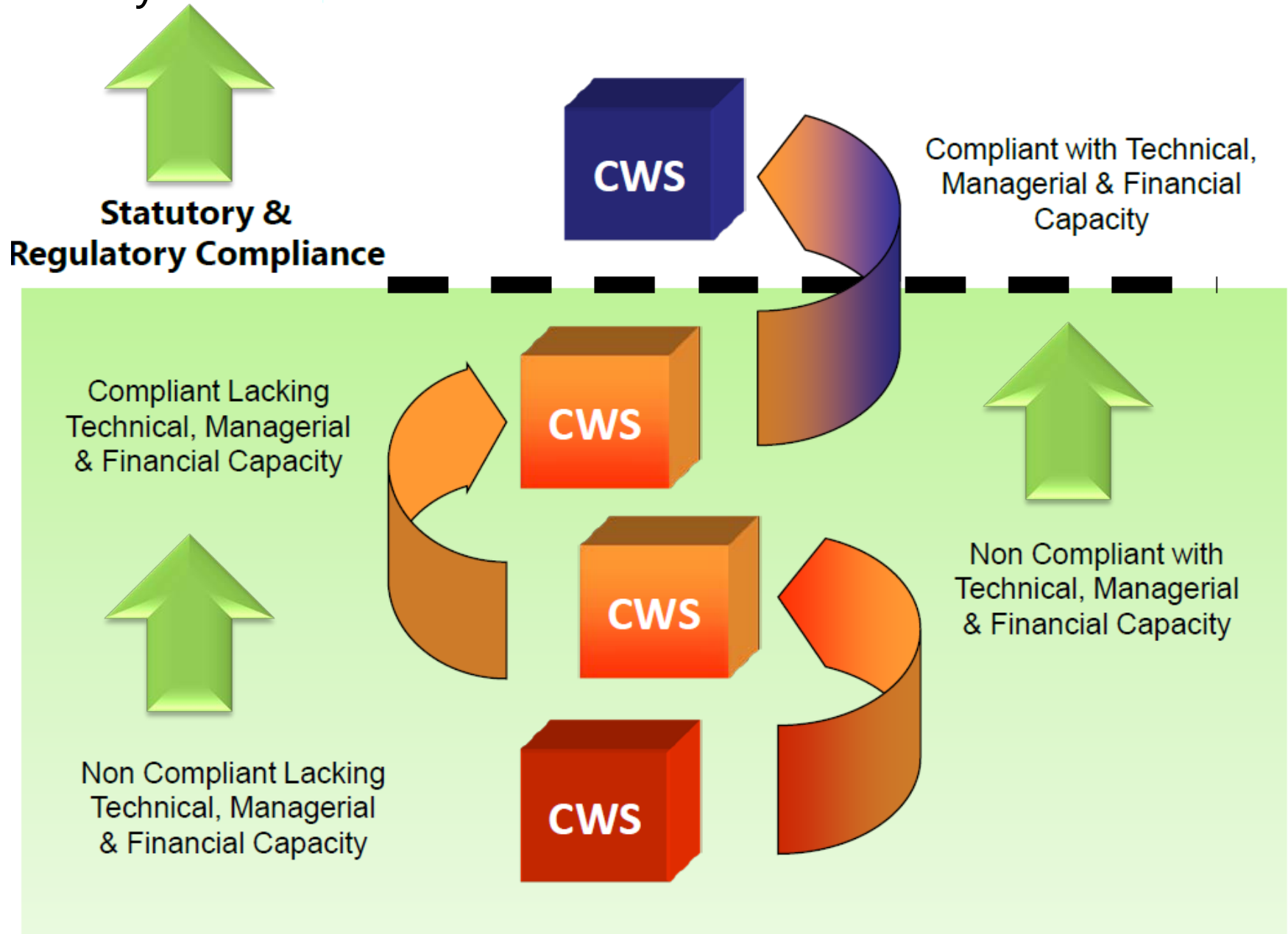
Statutory & Regulatory Compliance

Compliant Lacking Technical, Managerial & Financial Capacity

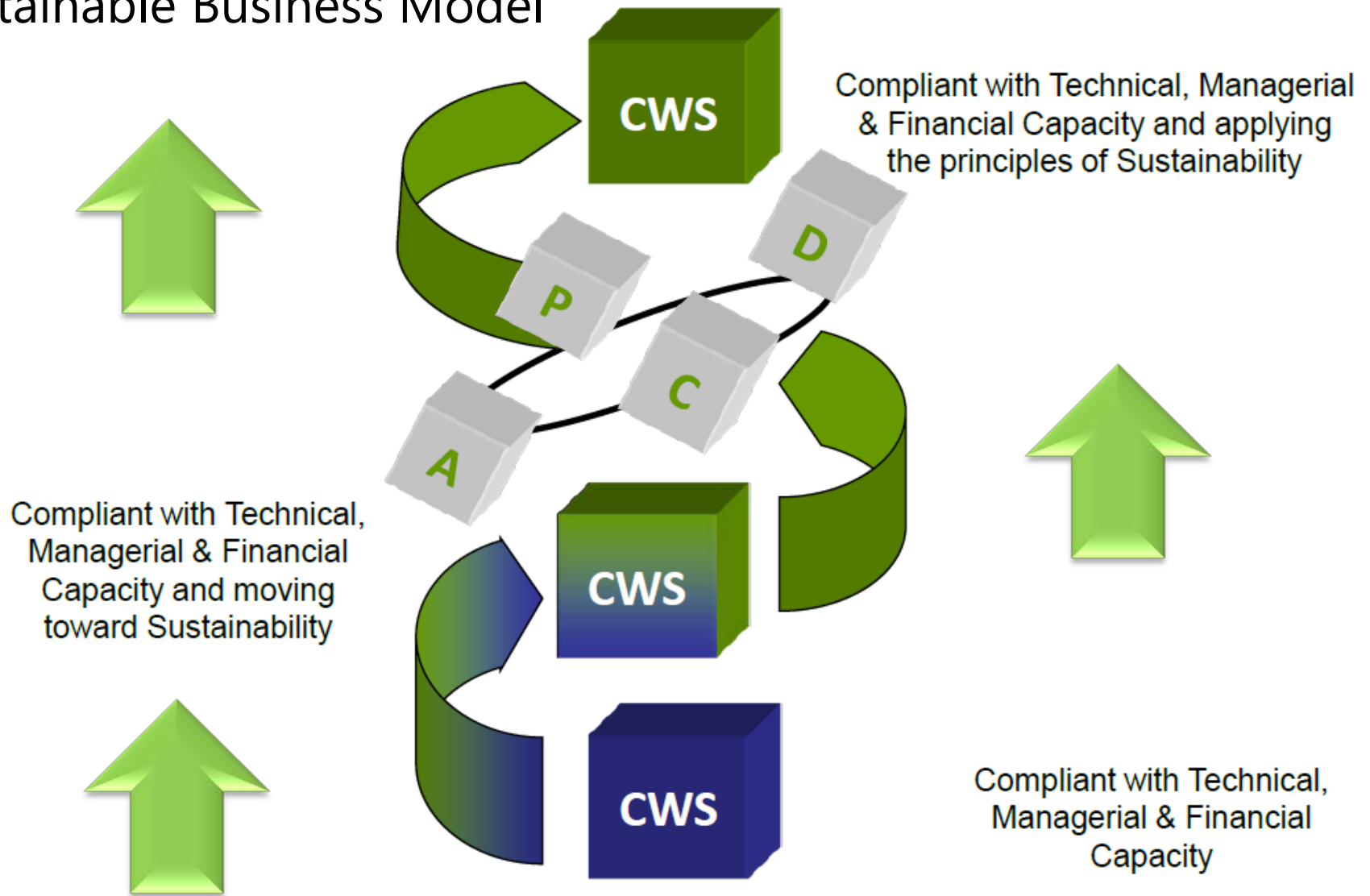
Non Compliant Lacking Technical, Managerial & Financial Capacity



Utility Model

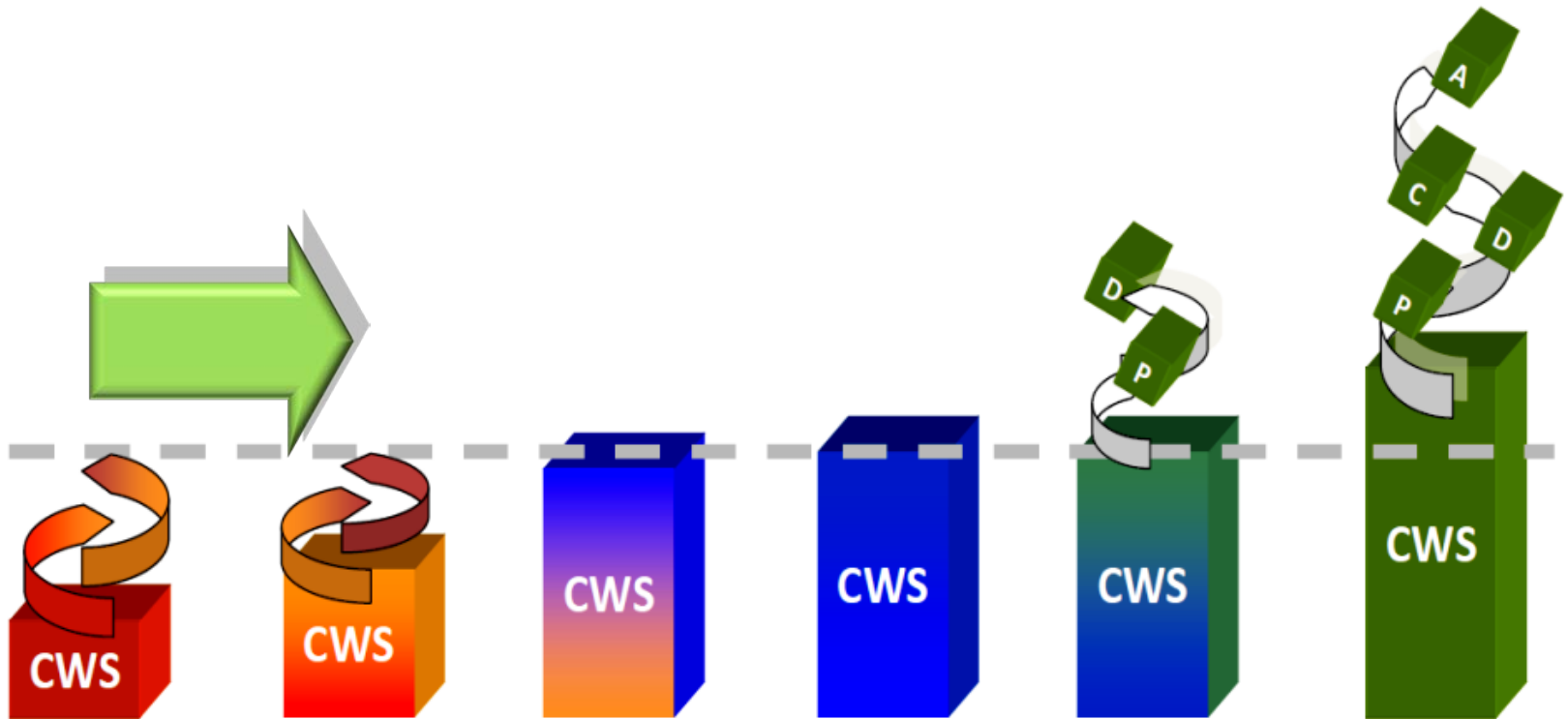


Sustainable Business Model





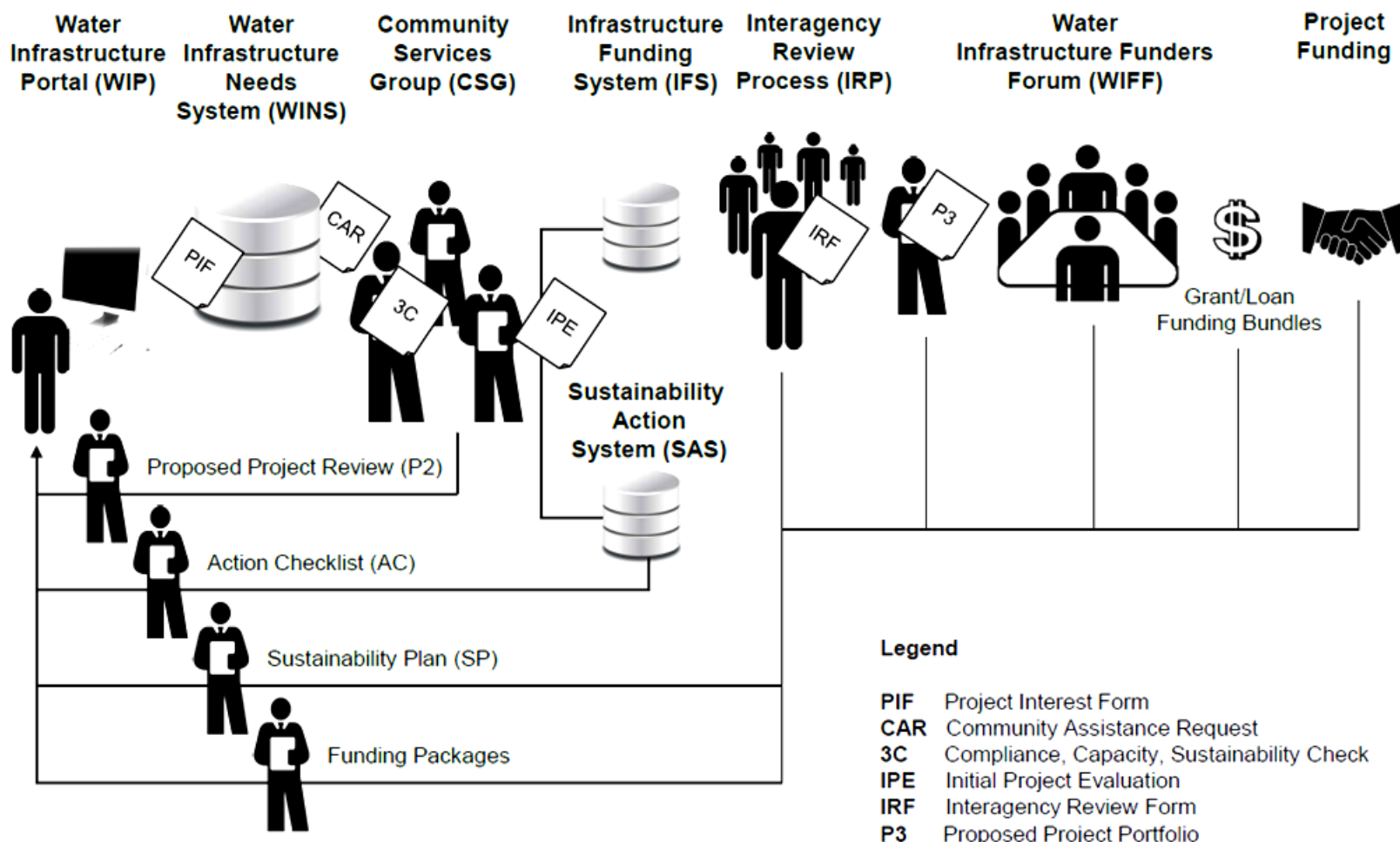
Continual Improvement Approach



Sustainable Water Infrastructure Management



Sustainable Water Infrastructure Management (SWIM) Process



Sustainable Water Infrastructure Management



Water Infrastructure Portal

New Mexico's One-Stop-Shop for Infrastructure Funding Solutions

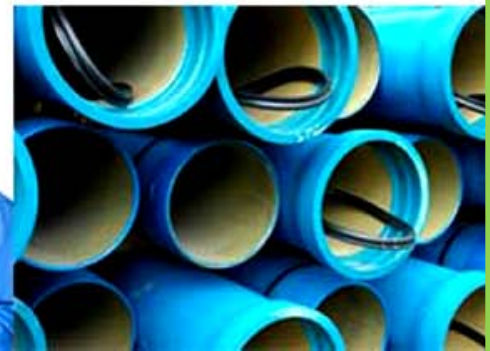
Welcome to New Mexico's sustainable water infrastructure management (SWIM) funding portal connecting you to water, wastewater and solid waste infrastructure assistance, support and funding streams.

[Click Here](#)

Click here to submit a Project Interest Form




We appreciate feedback on the usefulness of this site, if you have any comments or are experiencing difficulties and would like assistance completing a proposed project interest form, please contact Kara Moeller the Community Services Group Program Administrator at: (505) 222-9572



Project Interest Form

To assist you with your proposed project please complete and submit the following information

Date	<input type="text" value="10/26/2011"/>  mm/dd/yyyy	Title	<input type="text"/>
Name	<input type="text"/> *	Mailing Address	<input type="text"/>
Street Address	<input type="text"/> (Street or P.O. Box, City, State, Zipcode)	Business Phone	<input type="text"/> * (###) ###-####
E-mail	<input type="text"/> *	County	<input type="text" value="Please select"/> *
Fax Number	<input type="text"/> (###) ###-####	Type of Entity	<input type="text" value="Please select"/> *
Name of Entity	<input type="text"/>	Type of Project	<input type="text" value="Please select"/> *
Name of Project	<input type="text"/>		
Tribes/Nation/Pueblo?	<input type="radio"/> Yes <input type="radio"/> No		
Is this a Tribal Infrastructure Fund project?	<input type="radio"/> Yes <input type="radio"/> No		
If yes, what category of project is this?	<input type="text" value="Please select"/>		
If no, what category of project is this?	<input type="text" value="Please select"/>		
Description of Proposed Project	<input type="text"/>		



Sustainable Water Infrastructure Management



Population to be served by the proposed project?

Population currently served by the system

Has the proposed project project's Preliminary Engineering Report (PER) been completed?

☐ Yes ☐ No

Has any environmental work been completed in connection with this proposed project?

☐ Yes ☐ No

Do you believe that this proposed project is eligible for a NEPA Categorical Exclusion?

☐ Yes ☐ No

What is the total estimated cost anticipated for this proposed project?

What is the amount of funding being requested at this time for this proposed project?

If yes, date of completion

10/26/2011

mm/dd/yyyy

If yes, date of completion

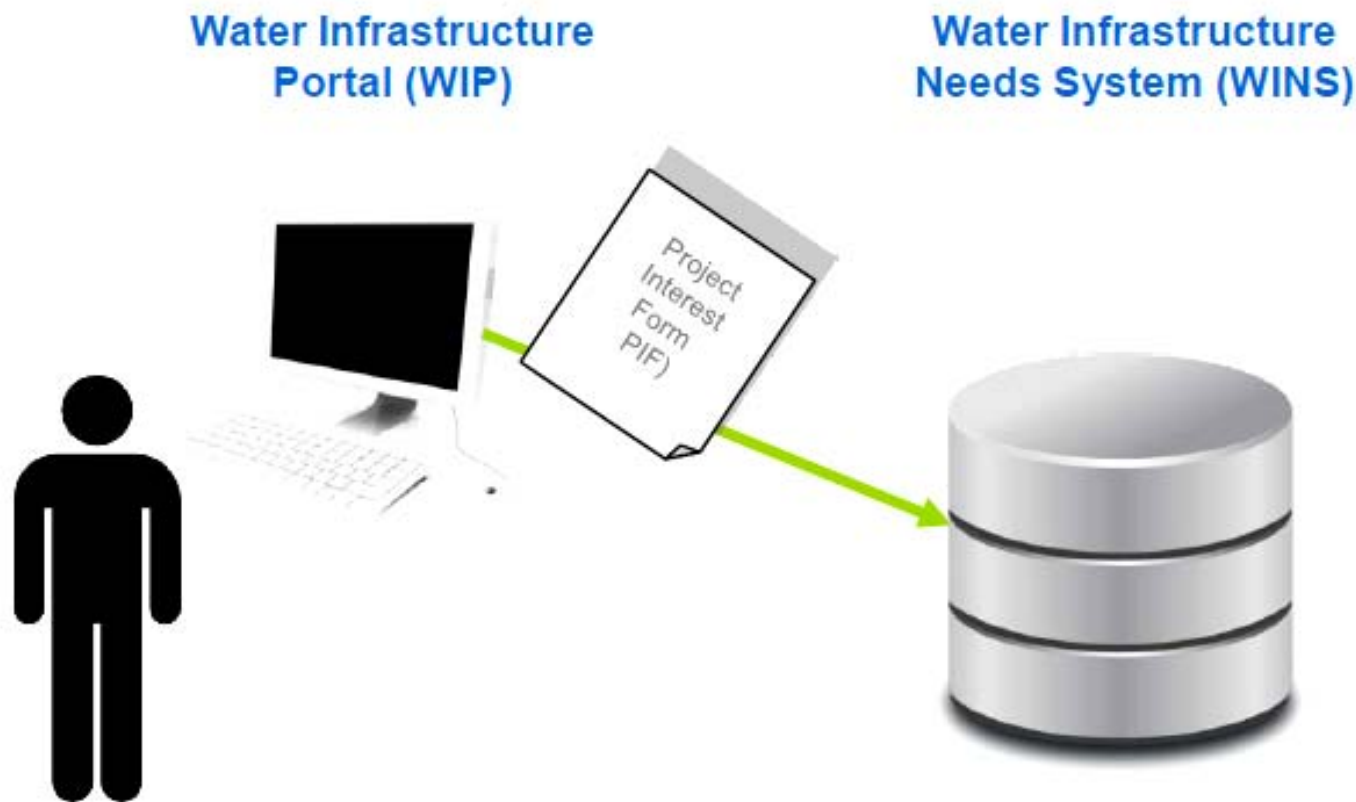
10/26/2011

mm/dd/yyyy



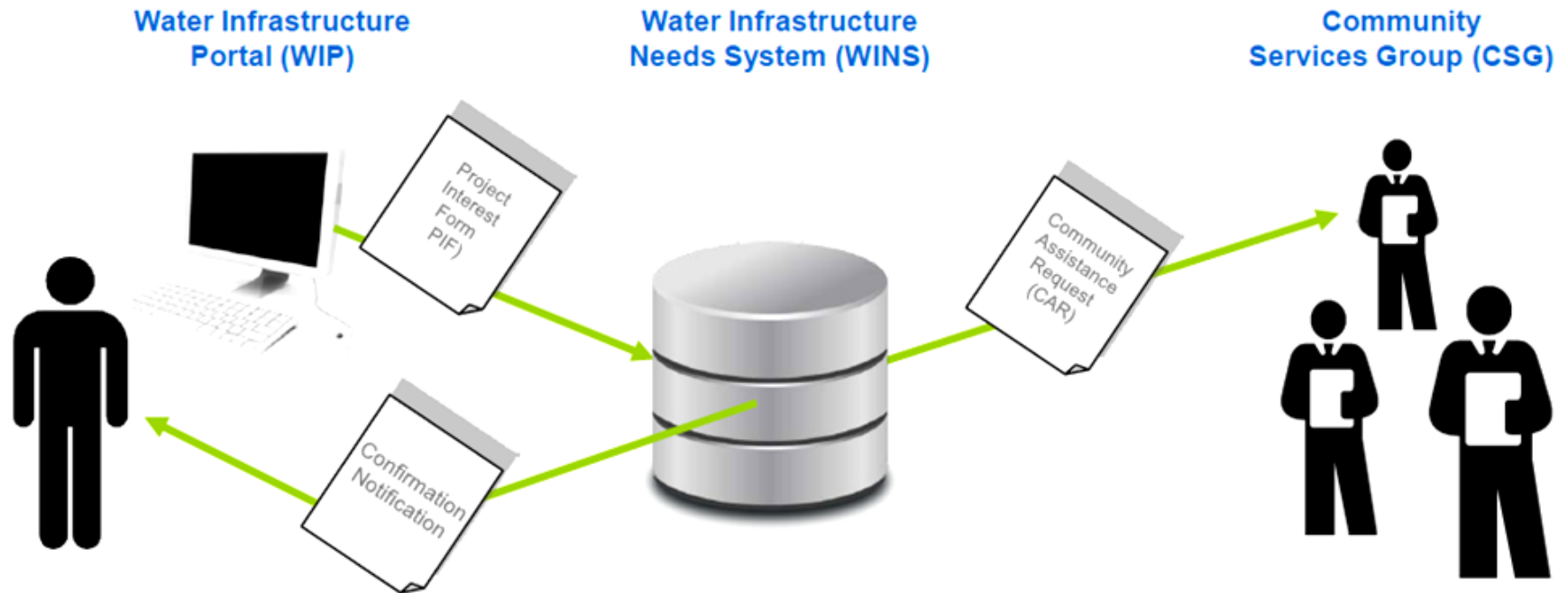


Project Interest Form





Water Infrastructure Needs System



Sustainable Water Infrastructure Management



Confirmation Notification

Thank you for your recent submission of a proposed infrastructure project at the New Mexico Environment Department's (NMED) Water Infrastructure Portal (WIP). Within five working days a member of the Community Services Group (CSG) will contact you in connection with your proposed project. At which time we will conduct an initial review of the nature and scope of the project.

Thank you

Program Administrator



Sustainable Water Infrastructure Management



Community Assistance Request

The following community has submitted a Project Interest Form (PIF) at the Water Infrastructure Portal (WIP), in connection with a proposed water, wastewater and/or solid waste infrastructure project. The community representative who submitted the PIF has been notified that you will make contact within the next five working days in connection with conducting a Proposed Project Review (P2).

ID No.:

Name:

Phone:

Name of Entity:

County:

Title:

Email:

Type of Entity:

Tribe/Nation/Pueblo





Secure Extranet Portal

User ID:

Password:

[Forgot your password?](#)

Secure Site

Application	Description	Access
Proposed Project Administrative Portal	<i>This portal provides the Community Services Group (CSG) with administrative access to input compliance, capacity and sustainability data relating proposed projects into the Water Infrastructure Needs System (WINS)</i>	Approved





Administrative Search

Search by:

Project Interest Form (PIF) ID
Number or by Name of Entity





Proposed Project Review (P2)

Proposed
Project Review

Compliance
Check

Capacity
Check

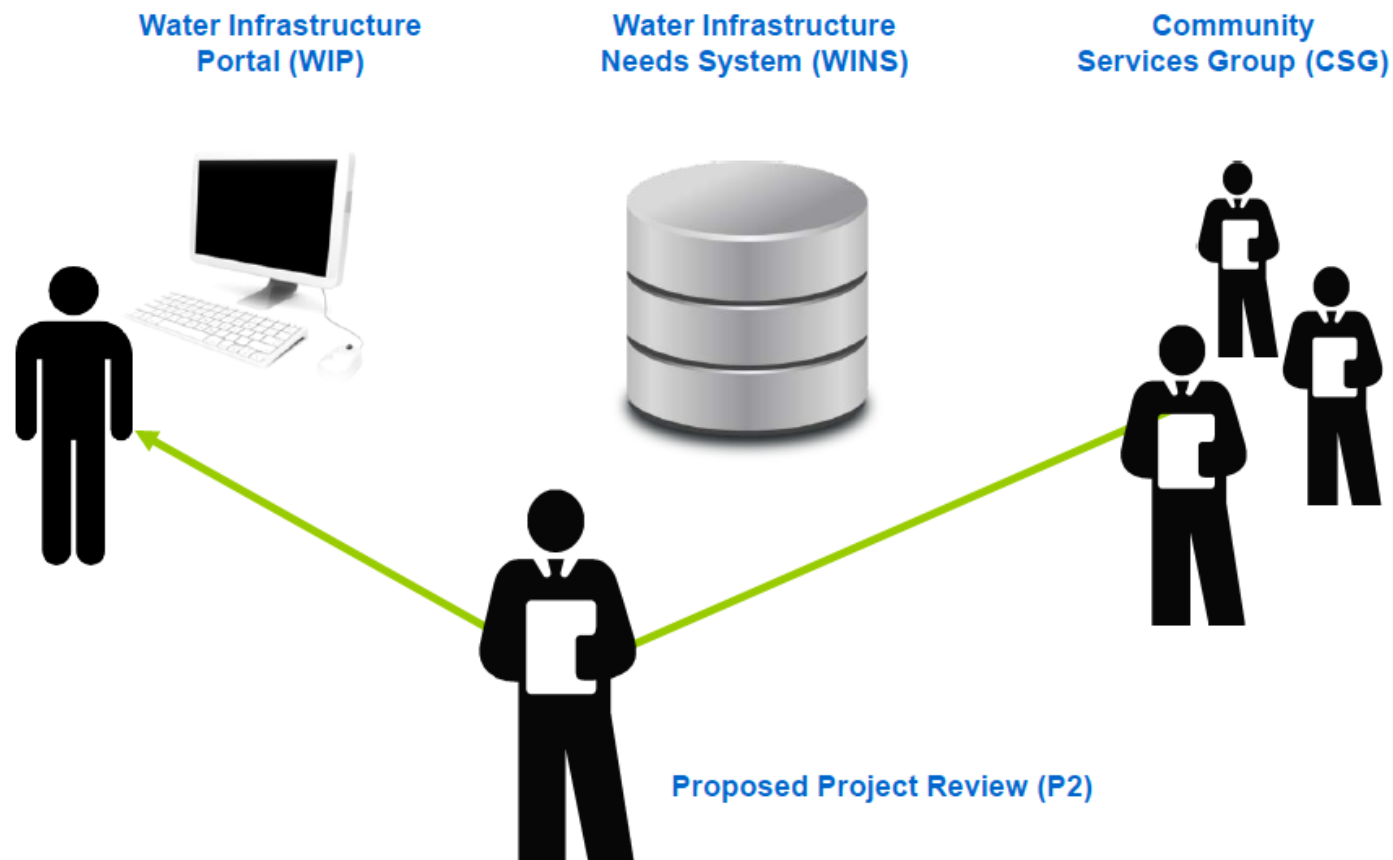
Sustainability
Check

Initial Project
Evaluation

Interagency
Reviews

Action
Checklist







3 C Process

- **Compliance Check**
 - *Statutory & Regulatory*
- **Capacity Check**
 - *Technical, Managerial & Financial*
- **Sustainability Check**





Sustainability Check

Audits

Budgets

Regionalization

Funds

Planning

Policies

Programs

Projections

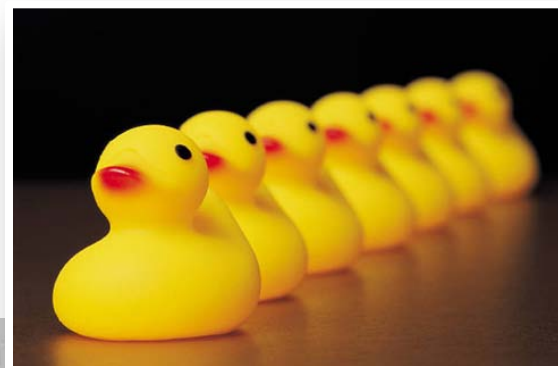
Rate Structure

Strategies

Systems

Training

Water Rights



Sustainable Water Infrastructure Management



Sustainability Checklist

Audits

Water audits

Planning

Water conservation plan

Preventive maintenance plan

Source water protection plan

Emergency response plan

Drought plan

40 year water development plan

5-year capital improvement plan

6-year financial plan

Asset management plan



Sustainable Water Infrastructure Management



Sustainability Checklist

Programs

- Water conservation program
- Cross connection program
- Asset management program

Water Rights

- Adequacy of water rights
- Verification of water rights
- Obtaining additional water rights
- Excess water rights





Initial Project Evaluation

After evaluating the proposed project information submitted along with all other supporting compliance, capacity and long-term sustainability information generated the Community Services Group recommends:

Infrastructure Funding System

Having met basic funding criteria the proposed project be logged into the Infrastructure Funding System (IFS) with a view to further funding review and consideration by funding agencies

or alternatively,

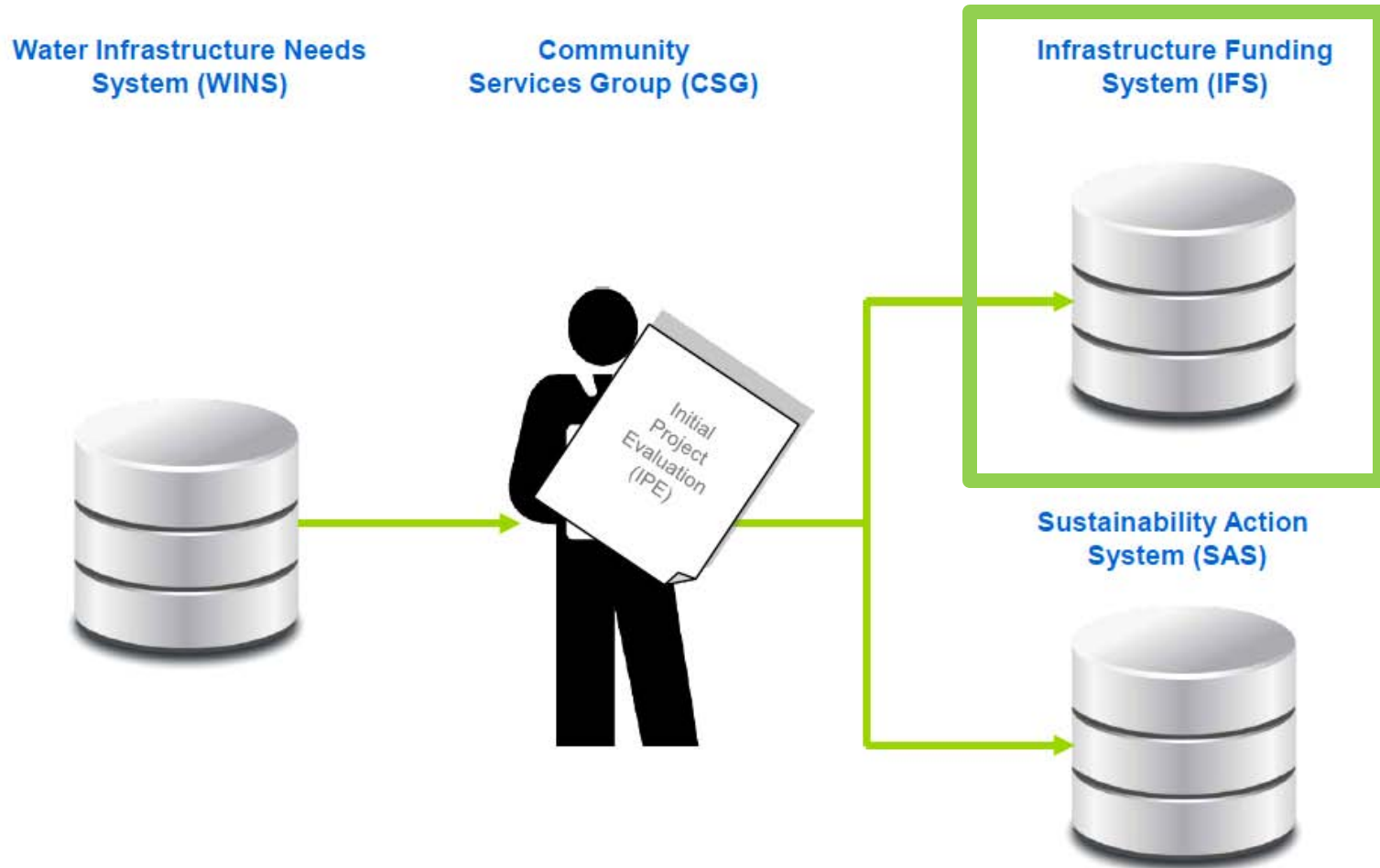
Sustainability Action System

Not having met basic funding criteria the proposed project be logged into the Sustainability Action System (SAS) with a view to the Community Services Group developing an Action Checklist (AC) of steps that the community may consider taking to increase the likelihood of funding in the future.





Infrastructure Funding System



Sustainable Water Infrastructure Management



Interagency Review





Proposed Project Portfolio (P3)

Proposed Project Information
Statutory and Regulatory Compliance Status
Technical, Managerial & Financial Capacity Situation
System Sustainability Status (Audits, Planning, Programs)
Debt Capacity



KEY

Chunking actionable Information to generate a knowledge base for informed decision making by funding agencies





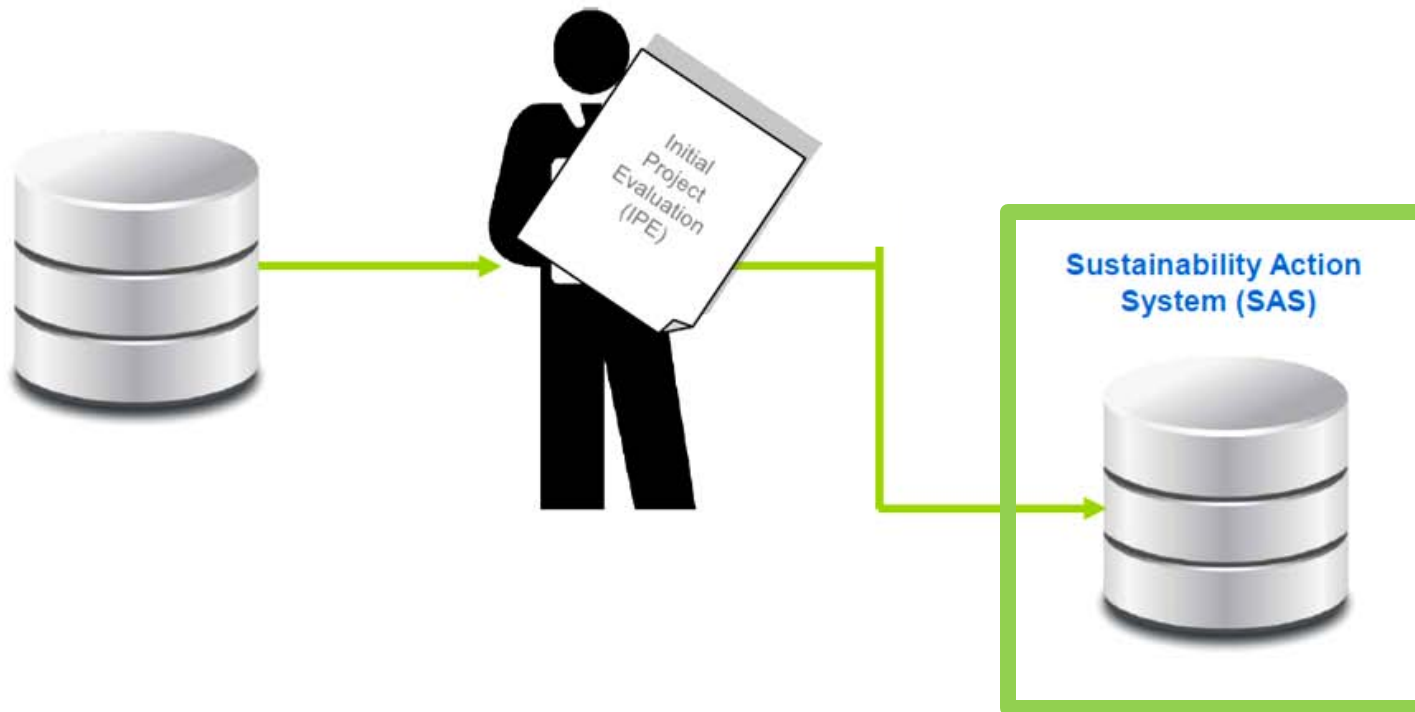
Water Infrastructure Funders Forum



Sustainable Water Infrastructure Management



Sustainability Action System





Action Checklist

After evaluating your proposed project along with all other supporting compliance, capacity and long-term sustainability information you may want to consider taking the following steps to increase the likelihood of project funding.

ACTION STEPS

- 1. Become compliant with SDWA health-based standards*
- 2. Ensure compliance with Public Regulatory Commission*
- 3. Verify water rights*
- 4. Develop a financial plan*
- 5. Develop a sustainable rate structure*



Should you be interested to consider taking action the CSG may be able to assist you by providing information, resources, guidance and mobilizing support and assistance to you in your efforts to move toward funding your proposed project.





Summary

- Over 1300 water infrastructure projects representing more than \$3.73 billion of need are logged in the knowledge bank
- More than 260 projects have been fully/partially funded
- Group coordinates the mobilization of compliance and capacity services to assist communities meet funding criteria
- Communities are utilizing the WIP investing in a growing knowledge bank to guide statewide planning and infrastructure investment





Summary

- Integrated interagency effort continues to gain traction through increasingly broad-based institutional cooperation
- Integrating planning and project prioritization processes to fund sustainable water infrastructure solutions and bring about secure and sustainable water infrastructure
- Ongoing collaboration, consultation, coordination, cooperation, communication, planning, project prioritization and consistent funding



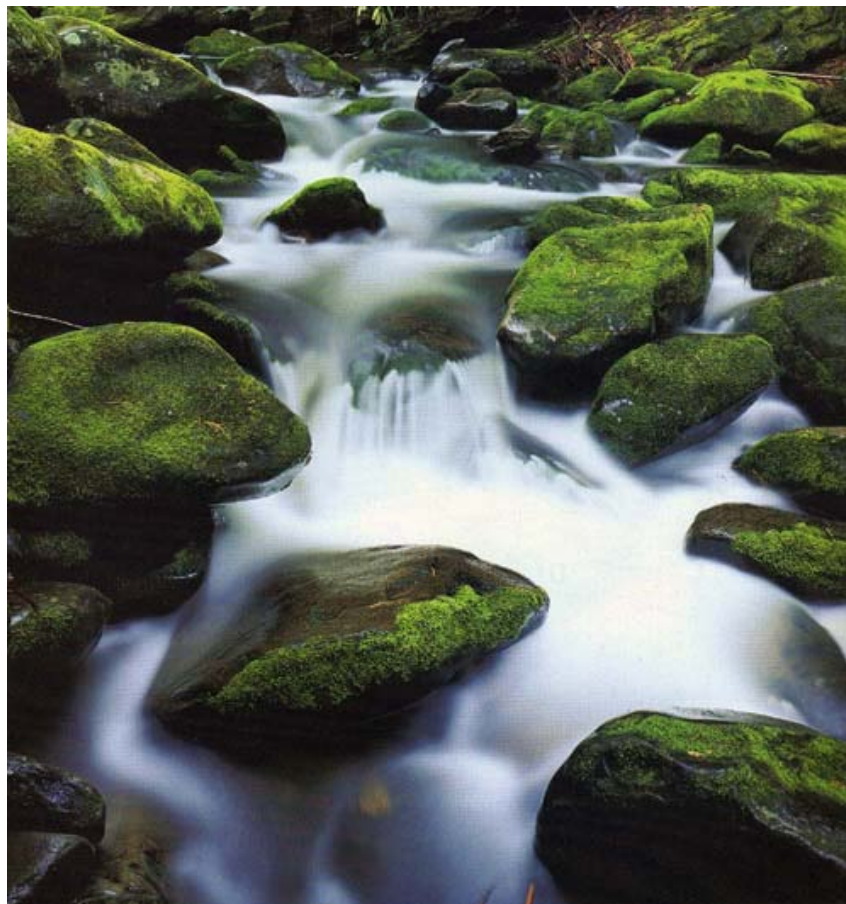


Education & Outreach





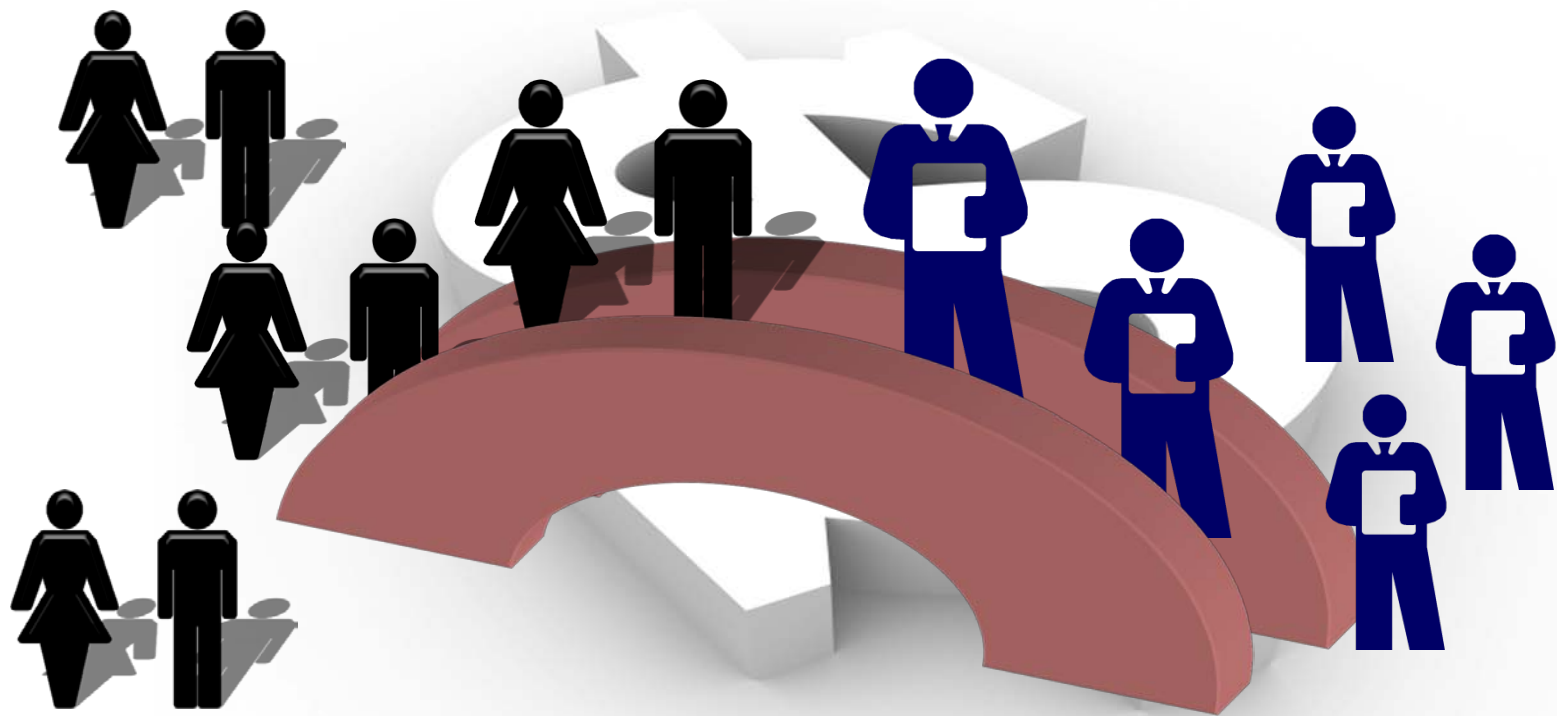
Funding Streams



Sustainable Water Infrastructure Management



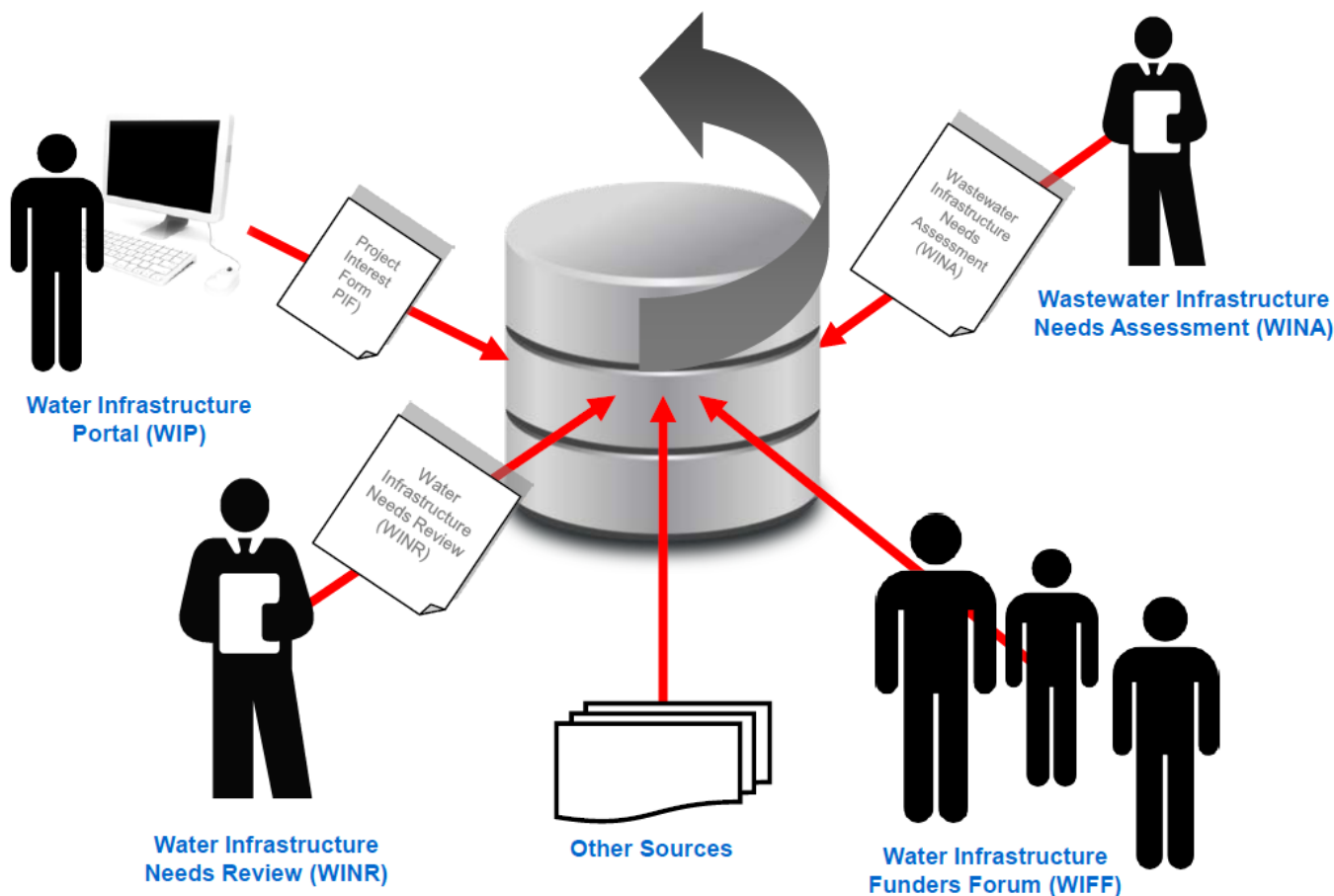
Bridging the Gap



Sustainable Water Infrastructure Management



Knowledge Bank



Sustainable Water Infrastructure Management



Graham Knowles

New Mexico Environment Department
5500 San Antonio Dr NE,
Albuquerque NM
87109 United States

Tel: 505-222-9537 Cell: 505-382-1655
Email: graham.knowles@state.nm.us



Sustainable Water Infrastructure Management