# Infrastructure in New Mexico

## Western States Water Council Infrastructure Symposium

*Phoenix, Az*


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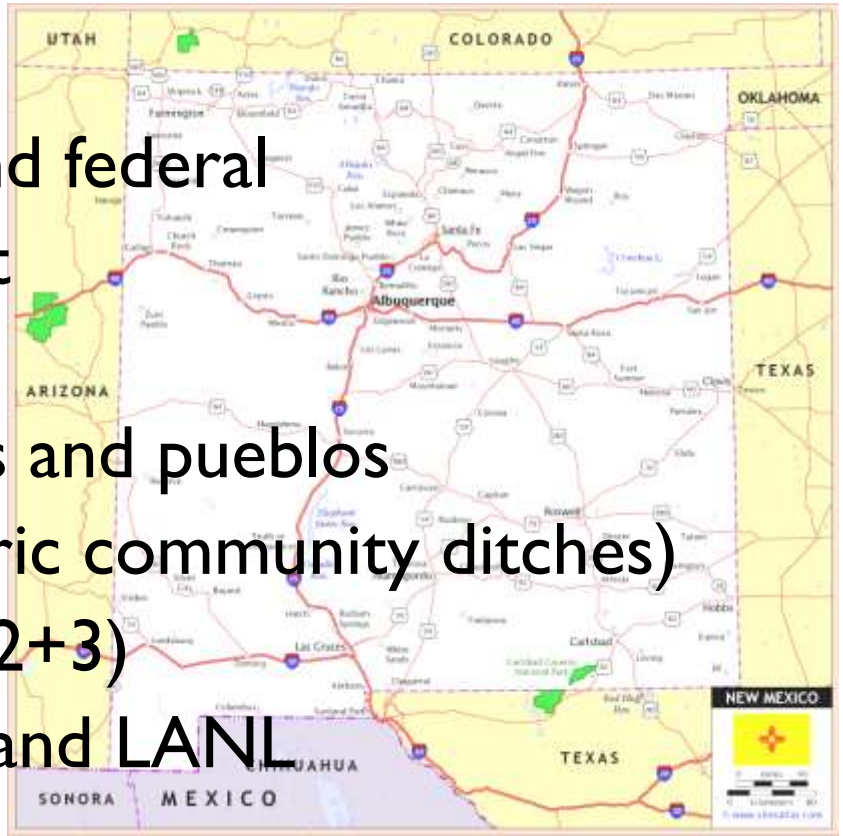
# Background on New Mexico

- Wiki
  - Population ~ 2 million fine folks
  - 5th Largest land area ~ 122,000 sq. mi.
  - 45th in population density
  - 0.2%  Water (by area)
  - Public land ~ 60% state and federal
  - Elev ~ 2850 ft to 13,200 ft
  - Semi-arid to arid climate
  - 22 Native American tribes and pueblos
  - Over 600 Acequias (historic community ditches)
  - 5 members of Congress (2+3)
  - Two national Labs – SNL and LANL



# Water and Wastewater Needs

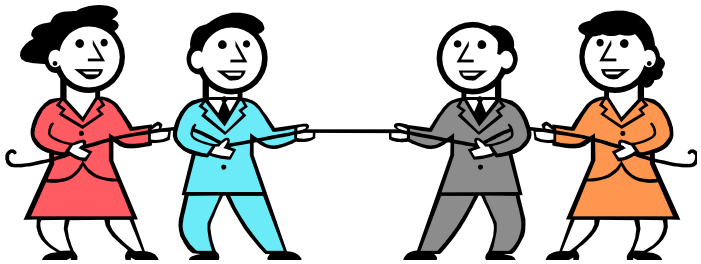
- Water treatment, storage, conveyance
- Resource and Ecosystem protection
- Wastewater collection, treatment, reuse
- Acequia and Irrigation Works
- Dams and Levees
- Measuring, metering, and data collection
- Watershed management
- Conservation and Reuse
- Planning, management, administration
- Water Quality enhancement

# State Water Plan

*2003, 2008, 2013*

- Promote stewardship
- Protect WR's and priority status
- Protect diverse customs, culture, environment and economic stability
- Protect water quantity and quality
- Promote cooperative strategies
- Meet interstate compact obligations
- Prioritize infrastructure investment
- Statewide continuity of policy and water resources management

# Challenges



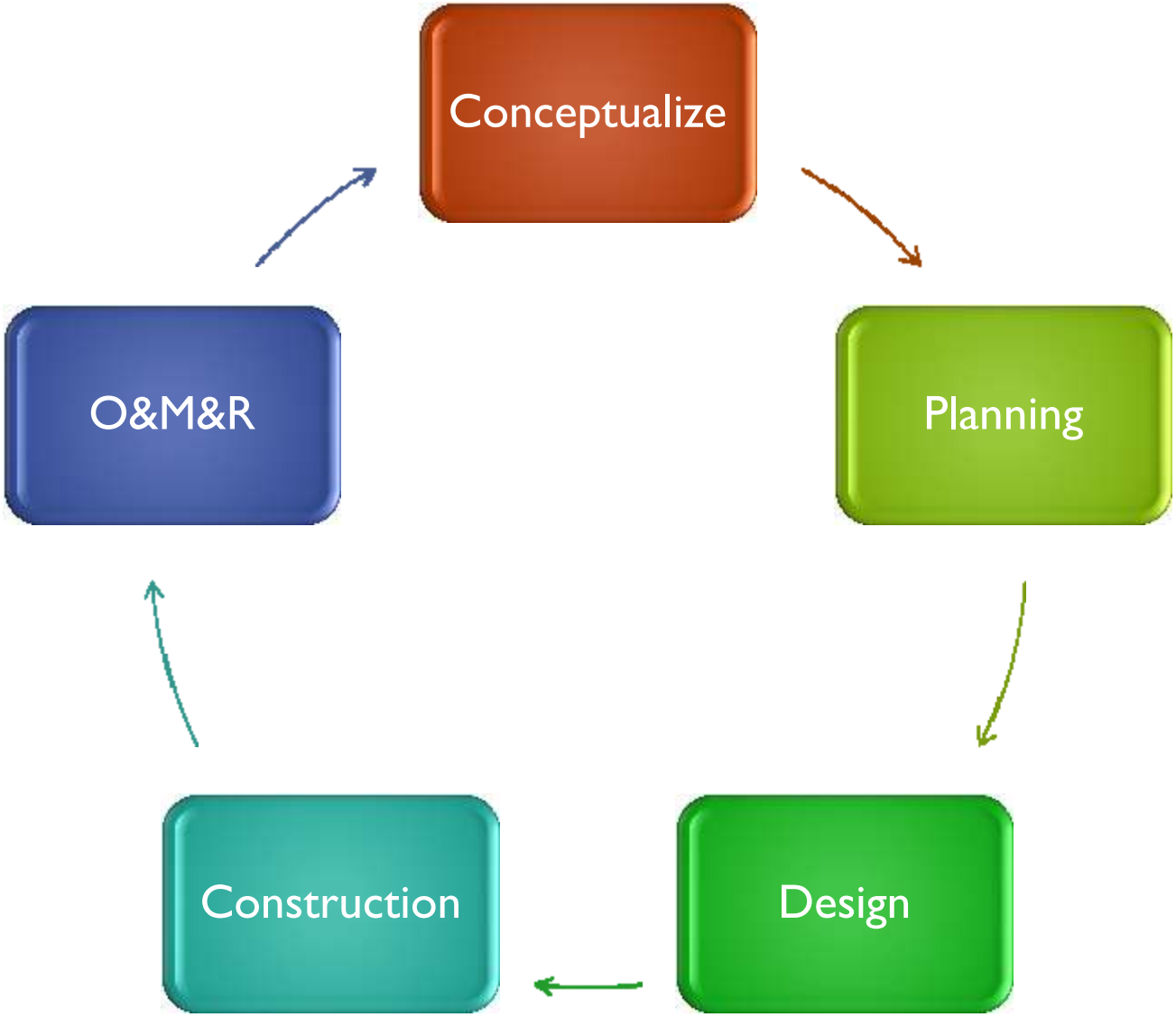
- Drought
- Where has all the free money gone?
- Planning has negative context
- Technical, managerial and fiscal capacity
- Asset Management – O&M&R
- Life Cycle cost factor
- Infrastructure appropriateness
- Willingness and Ability to Pay
- Legislative tension
- Decision support

# New Mexico Precipitation Rankings
## (through September 2012)

- The first Nine months of 2012 was the ***9th Driest January-to-September*** on record for New Mexico.
  (January – September 2011 was the driest on record at 58% of normal.)
- The last two water years (Oct '10 – Sept '12) were the driest consecutive water years on record for NM.

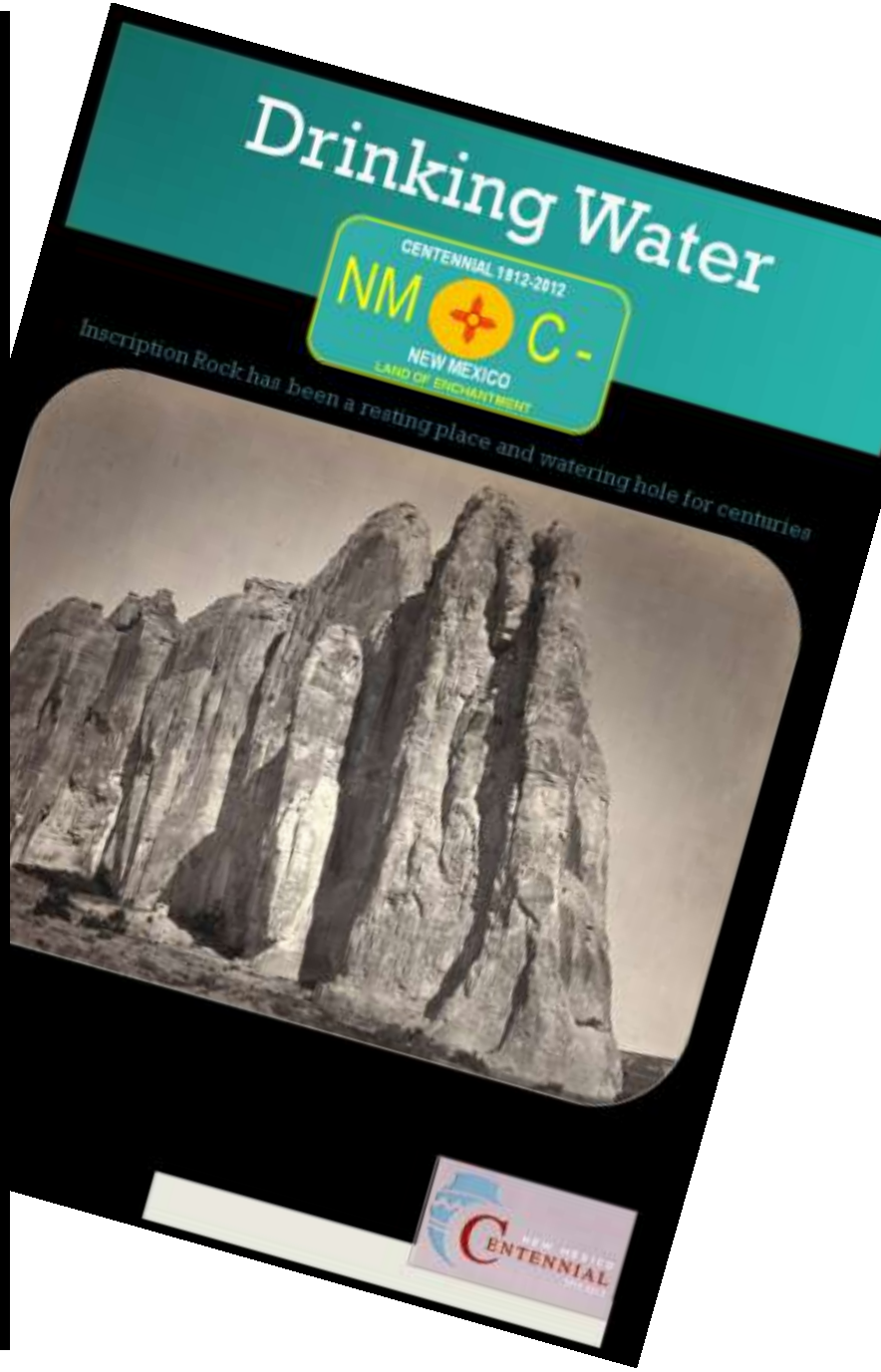
| Period | Amount | 20th Century Average | Departure | Rank | Wettest/Driest Since | Record Year |
|---|---|---|---|---|---|---|
| Jun - Sep 2012<br>4-month period | 5.58"<br>(141.73 mm) | 7.52"<br>(191.01 mm) | -1.94"<br>(-49.28 mm) | **14th Driest**<br>105th Wettest | Driest since: 2011<br>Wettest since: 2010 | Driest: 1956<br>Wettest: 1941 |
| Jan - Sep 2012<br>9-month period | 7.70"<br>(195.58 mm) | 11.06"<br>(280.92 mm) | -3.36"<br>(-85.34 mm) | **9th Driest**<br>110th Wettest | Driest since: 2011<br>Wettest since: 2010 | Driest: 1956<br>Wettest: 1941 |
| Oct 2011 - Sep 2012<br>12-month period | 10.97"<br>(278.64 mm) | 13.49"<br>(342.65 mm) | -2.52"<br>(-64.01 mm) | **23rd Driest**<br>94th Wettest<br>*Ties: 1954* | Driest since: 2011<br>Wettest since: 2010 | Driest: 1956<br>Wettest: 1941 |
| Oct 2010 - Sep 2012<br>24-month period | 18.67"<br>(474.22 mm) | 27.01"<br>(686.05 mm) | -8.34"<br>(-211.83 mm) | **1st Driest**<br>116th Wettest | Driest to Date<br>Wettest since: 2011 | Driest: 2012<br>Wettest: 1942 |

# A typical infrastructure project



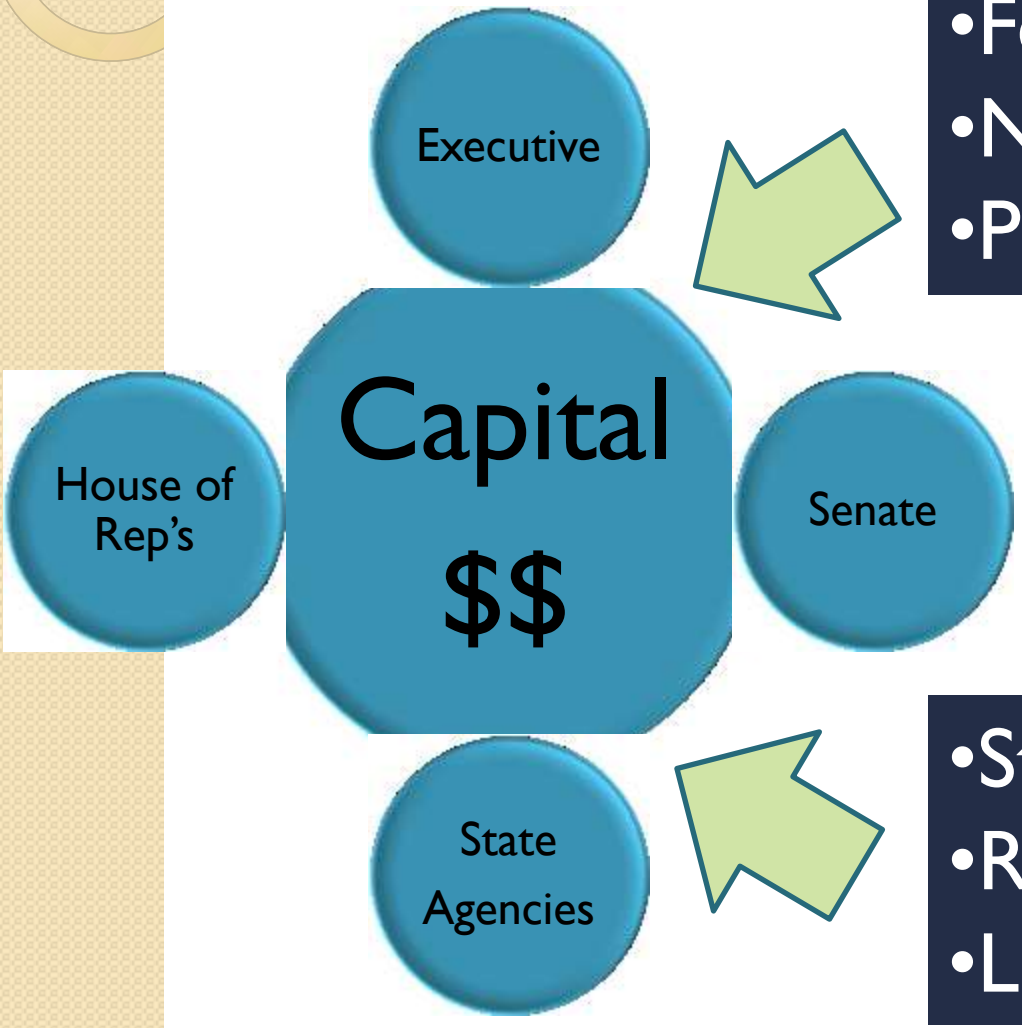
# Executive Summary

| Category | US 2009 Grade | NM 2012 Grade | NM 2005 Grade |
|---|---|---|---|
| Aviation | D | D+ | C- |
| Flood Control | -- | D+ | D+ |
| Drinking Water | D- | C- | -- |
| Bridges | C | C- | -- |
| Rail | C- | C | B |
| Roads | D- | C | B- |
| Solid Waste | C+ | C | C |
| Waste Water | D- | C | -- |
| Transit | D | C+ | C |
| Schools | D | B- | C- |
| Composite | D | C | C |



# Distribution

- NM Taxpayers
- Severance Taxes
- Congressional Actions
- Federal Programs
- NM Finance Authority
- Private Markets




- State scale
- Regional scale
- Local scale

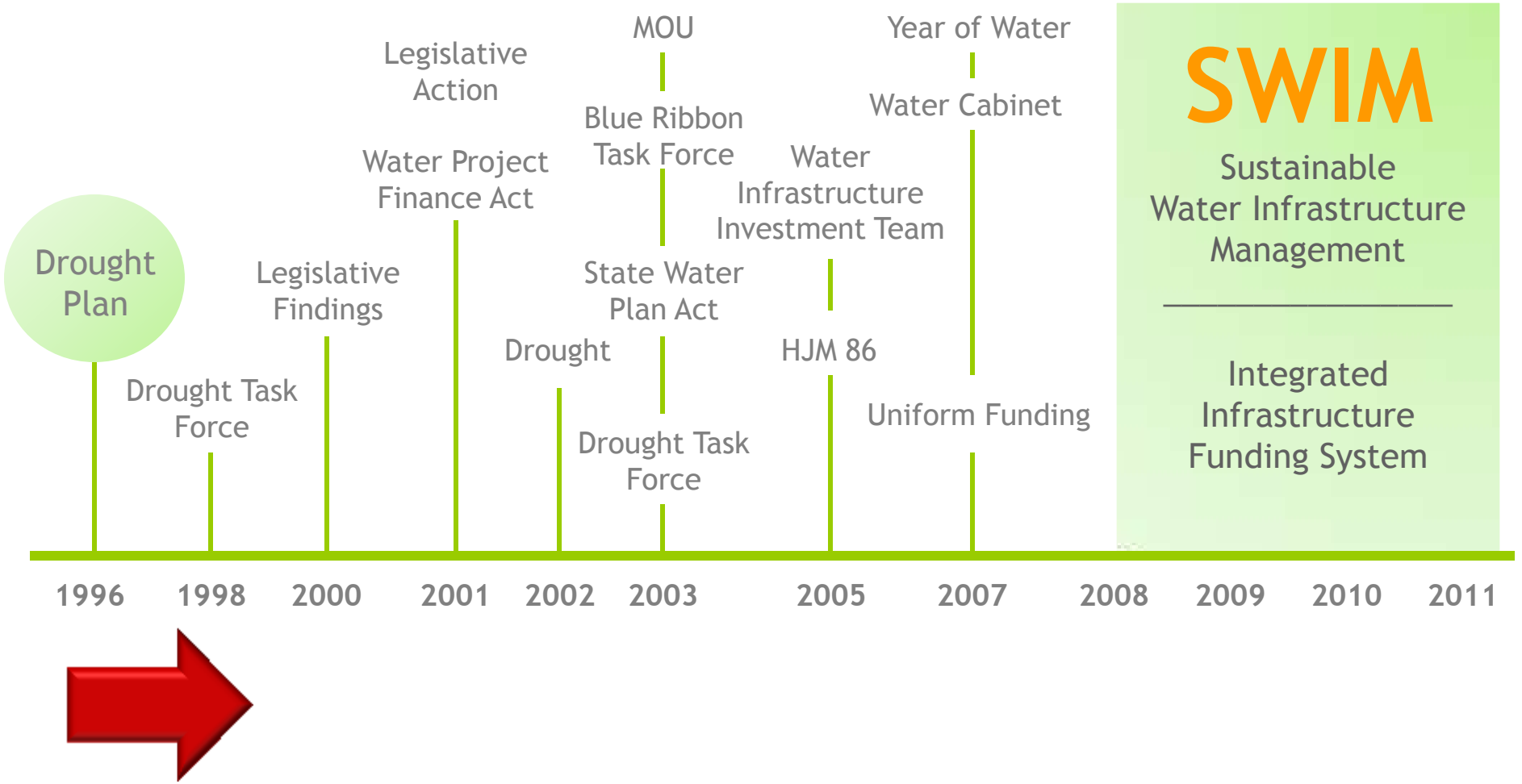
# State Programs

| Program | Agency | Funding |
|---|---|---|
| DW SRLF | NMFA, EPA | $6.6 million in loans |
| WW Plan Grant Fund | NMFA | $1 million ($25,000 per) |
| PP RLF | NMFA | $18 million in loans |
| CW SRLF | NMED CPB / EPA | Loans – varies |
| Rural Infrastructure Program | NMED CPB | Loans - varies |
| CDBG | DFA LGD | Grant - $500,000 max per |
| Water Project Fund | WTB, NMFA, STB | GROAN - $25-$40 million |
| Tribal IF | IAD, STB | GROAN - $10-$20 million |
| Colonias IF | NMFA, Colonias board, STB | GROAN - $10-$20 million |
| Emergency Fund | DFA, BoF | Grant - varies |
| Capital Outlay | Governor, Legislature | Grants – avg $30 million |

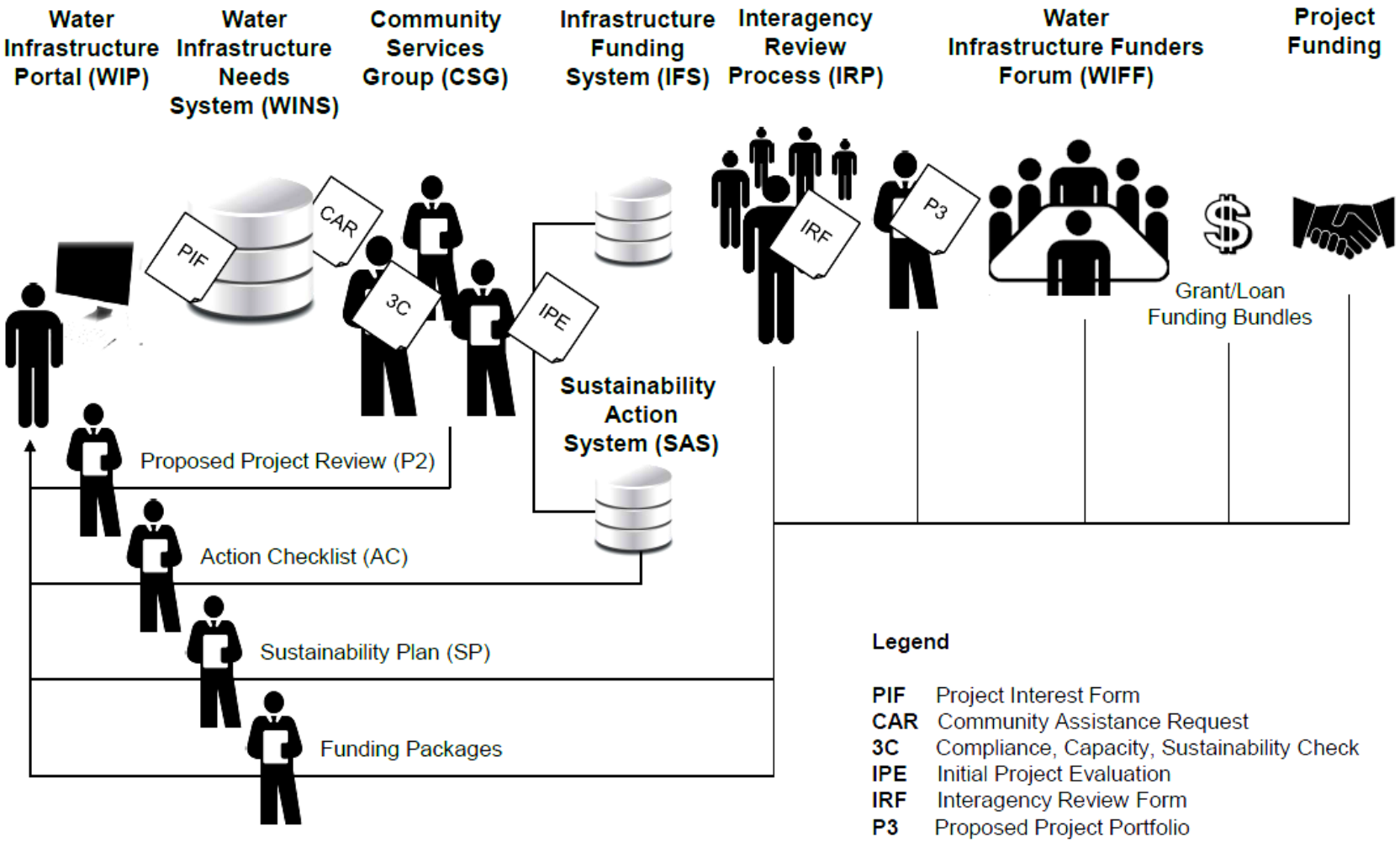
# Potential Water and Wastewater Funding Sources

- NMFA – PPRF, Planning Fund, DWRLF, WTB, Colonias Fund
- NMED – CWSRF, RIP
- USDA, Rural Development – Loan/Grants (<10K), Safe Housing, Tribal Set-aside
- DFA – CDBG
- IAD – TIF

# Drought Driven Change



# Sustainable Water Infrastructure Management (SWIM) Process



# WHAT ARE THE CRITERIA?

**HJM 86, 2005**

- Human Health & Safety
- Compliance with regulations
- Appropriate planning – ICIP, PER, EIR
- Asset Management & Rate Analysis
- O&M plan and funding
- Conservation, Reuse, and Accountability
- Adequate Governance
- Regionalization
- Leveraging
- Readiness to proceed – plans & specs

# Moving Forward

- Capital Outlay Reform
  - Two tier process
- Water Trust Board
  - Policy changes
- SWIM as model
- Vetting for success
  - Governor Martinez
- Revisit
  - WIIT
  - Portal / UFA