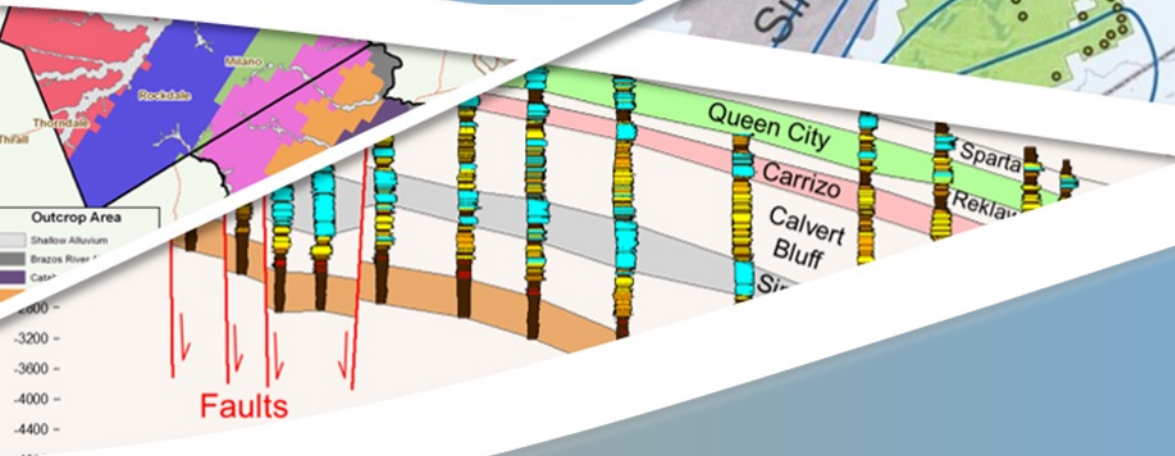


POSGCD Grant Application with Bureau of Reclamation



Presented By:



April 12, 2022

Considerations

- GMA 12 and POSGCD DFC Issues
- Sustainability
- Limitation of GAMs
- Credibility
- Funding

Objective

Develop and apply an Operations and Management Model. Model will be integrated into the District's management framework and will provide overarching set of hydrogeological relationships that promotes consistency among rules and policies such that sustainability and resiliency can be achieved.

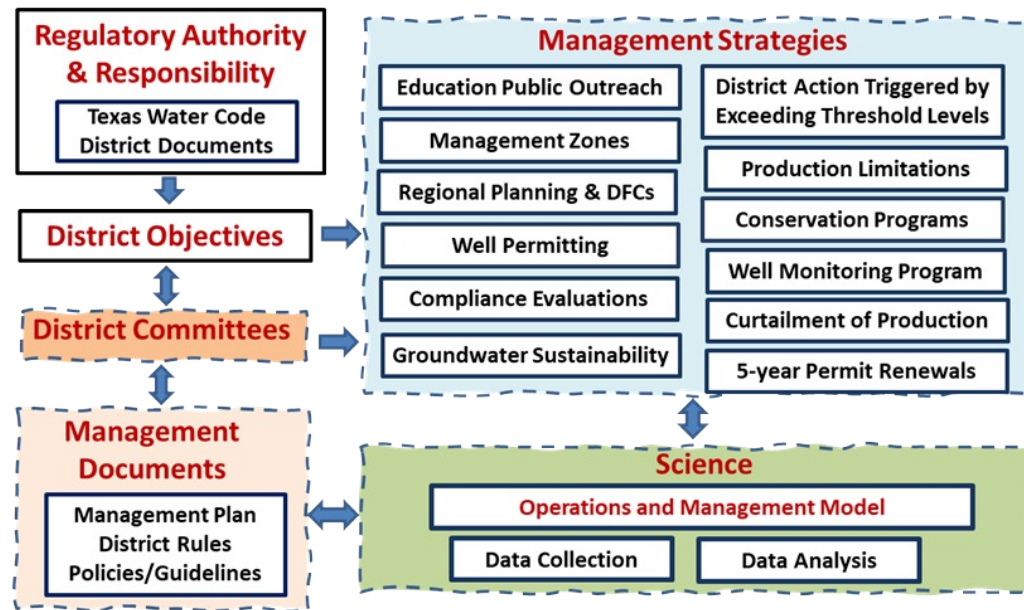


Figure 4-3. Schematic showing the integration of the Operations and Management Model into the District's framework for developing its management strategies and management documents.

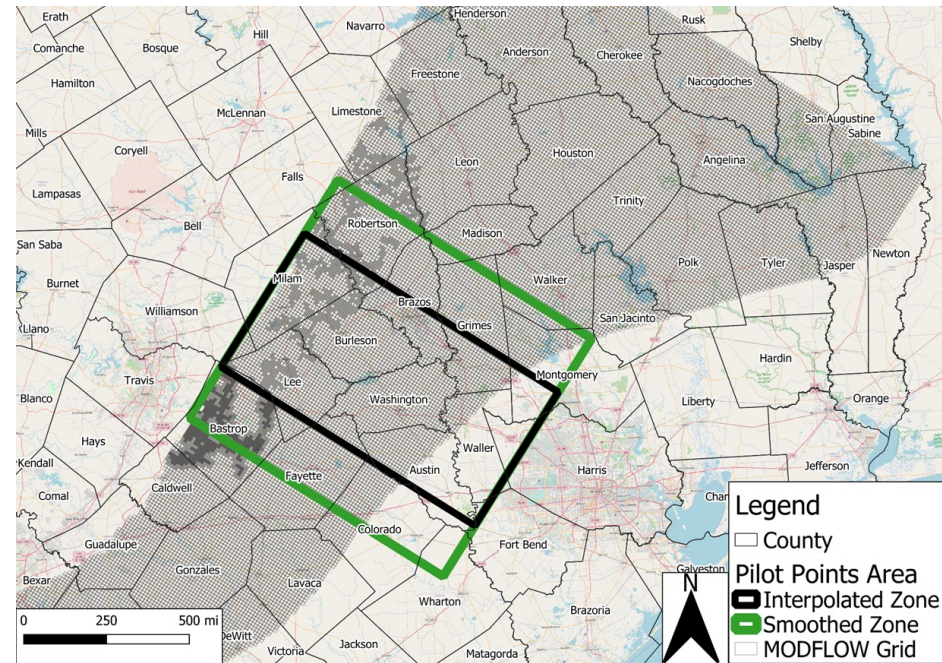
Goals

Improve District's capability to:

- accurately forecast the impact of future pumping on water users and groundwater availability
- investigate sources of, and quantify uncertainty associated with model forecasts that provide both the District and well owners with a better assessment of risks associated with impacts from future production
- generate improved estimates of the number of well owners that will be eligible for financial assistance from the District for the costs associated with lowering pumps or replacing wells because of declines in groundwater levels
- investigate the potential benefits of using adaptive management to achieve greater sustainability and improved climate-resiliency by increasing the flexibility for pumping, especially during times of drought
- investigate the potential benefits for incentivizing or requiring conjunctive management of water projects after drawdown or production thresholds are reached
- clearly articulate the conditions under which curtailment of production of permits could occur, thereby reducing some of the uncertainty associated with the permitting process.

Tasks

1. Extend GAM Simulation from 2010 to 2022
2. Build and Calibration the Operations and Management Model
3. Determine Predictive Uncertainty for Permit Renewals, Curtailment Schemes and DFCs
4. Develop Management Strategies and Climate Resilience
5. Reporting and Webinars
6. Project Management



Budget and Schedule

Task	Start Date	End Date	Cost (\$)	2023												2024									
				F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A			
Task 1: Extend GAM Simulation from 2010 to 2022	02/15/23	04/14/23	55,600																						
Task 2: Construct and Calibrate OPMAN	04/17/23	12/15/23	227,580																						
Task 3: Quantify Predictive Uncertainty for OPMAN Simulations	09/15/23	02/15/24	77,200																						
Task 4: Management Strategies for Sustainability and Climate Resilience	01/15/24	06/14/24	88,300																						
Task 5: Reporting and Webinars	05/15/24	08/15/24	71,400																						
Task 6: Project Management	02/15/23	08/15/24	30,000																						

Figure 4-5. Schedule and cost of proposed project tasks.

POSGCD: \$350,080

Reclamation: \$200,000



Questions ?