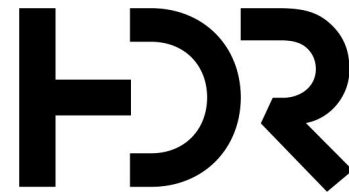


DRAFT Report Overview

DRAFT Lander Master Water Plan



Agenda

- Introductions
- Project Overview and Study Focus Areas
- Water Supply
- System Expansion
- Regionalization
- Reliable Service
- Fiscal Responsibility Recommendations
- Conclusion
- Question and Answer

Lander Water Master Plan

Public Meeting | March 21, 2023

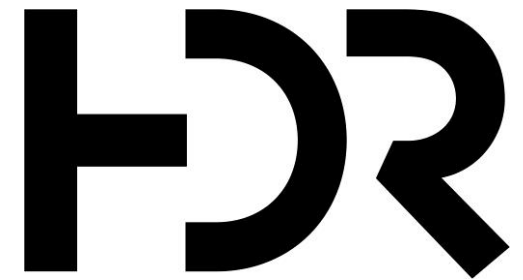
Mabel Jones
WWDO

Lance Hopkin
City of Lander

Phillip Stump
HDR Engineering

Uri Shelby
HDR Engineering

Grady Reed
HDR Engineering



Project Overview | Uri Shelby

Study Purpose

Plan for needs of and improvements to the Lander potable water system for the next **20 years**.



Study Focus Areas

- Water Supply
- System Expansion
- Regionalization
- Reliable Service
- Fiscal Responsibility



Water Supply | Phillip Stump

Water Supply – Surface Water

Middle Popo Agie – Diversion of Surface Water to Plant

- Total water right of 11.4742 cubic feet per second (CFS) or 7.41 million gallons per day (MGD)

Worthen Meadows Reservoir Storage

- Owned by the City of Lander
- Total of 1,500 acre feet storage
- Releases water in late summer in exchange for City's out-of-priority diversions
- Water administration is most years except very wet years

Water Supply – Ground Water

Infiltration Gallery (credit for discharge to Popo Agie River)

- In 1997, it was found to be under influence of surface water

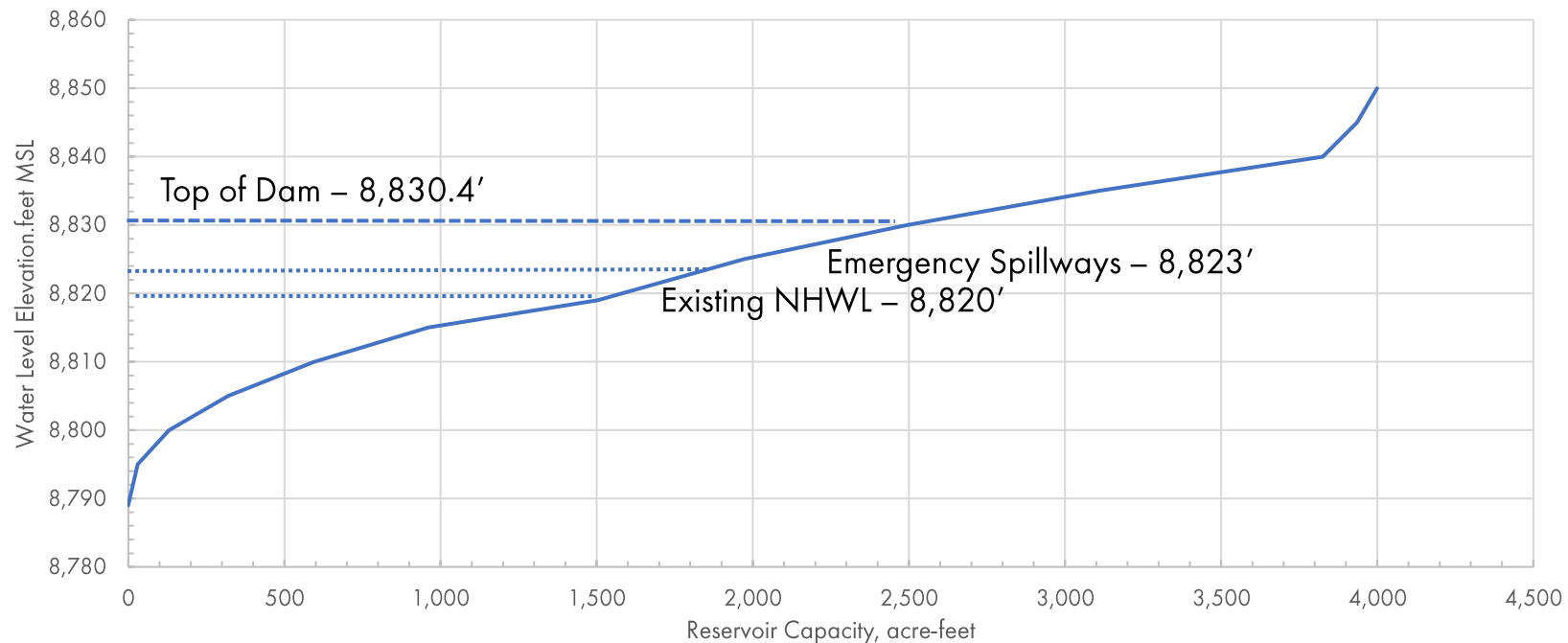
Three New Alluvial Wells

- Primary back-up supply or released as credit to Popo Agie River
- Pipe to water system this summer

Water Supply – Recommendations

Worthen Meadows Enlargement Feasibility

Preliminary Analysis indicates storage can be increased and may service municipal and other purposes.



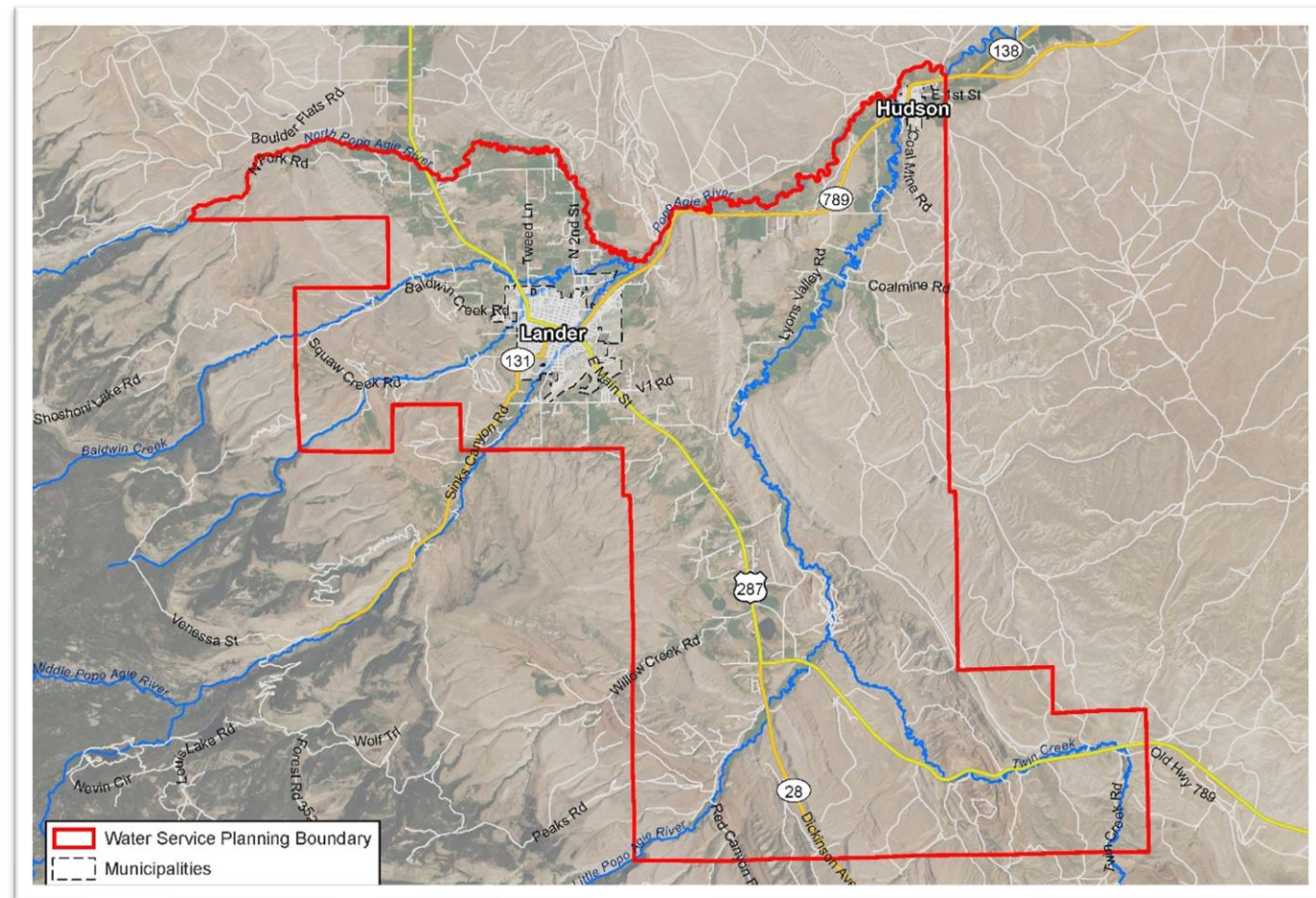
Water Supply – Recommendations

Water Right Recommendations

- Exchange petition for new alluvial wells
- Request conveyance loss determination for Worthen Meadows releases

Water Service Area – Recommendations

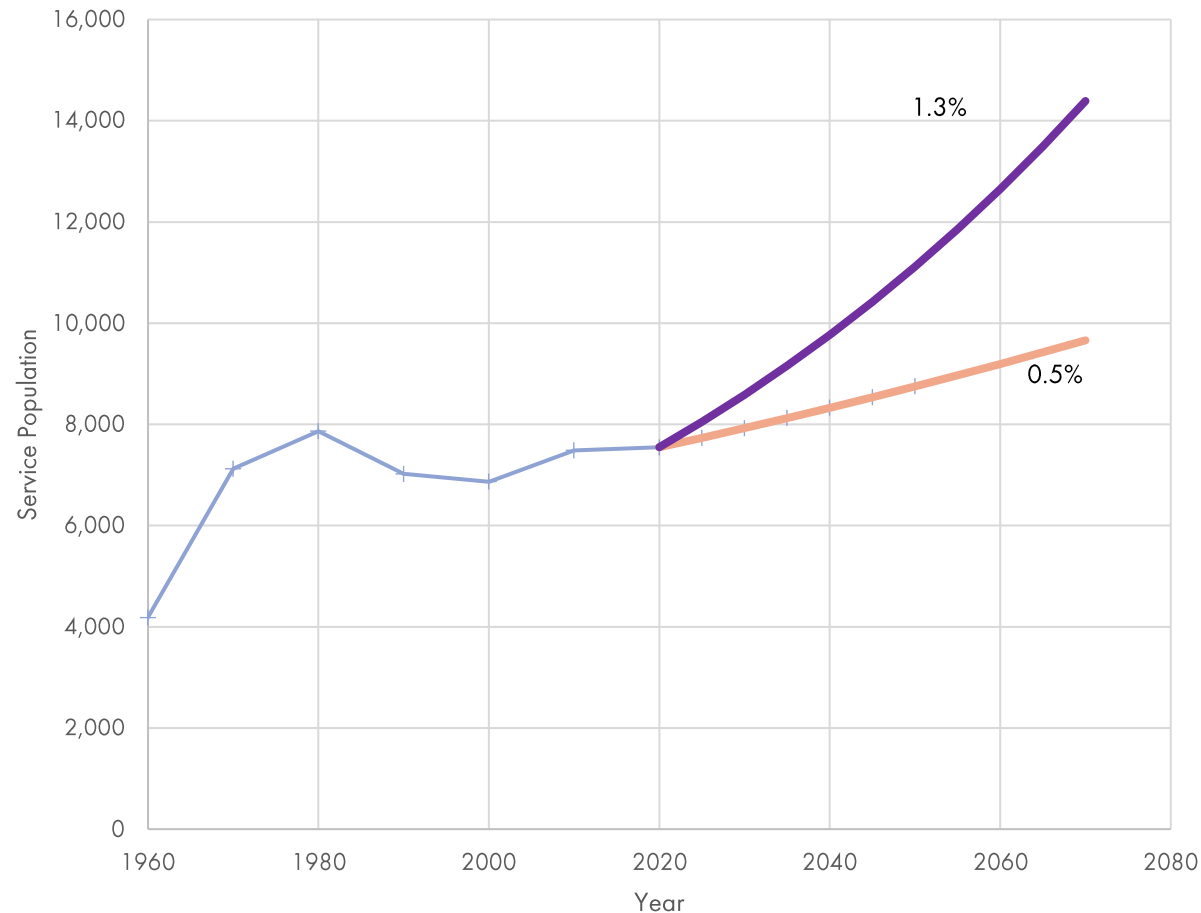
- Update Wyoming State Engineer's Office
- Pursue further water rights and water supply acquisitions with supply expansions to match growth



System Expansion | Phillip Stump

System Expansion

Existing and Projected Demands of Lander Service Area



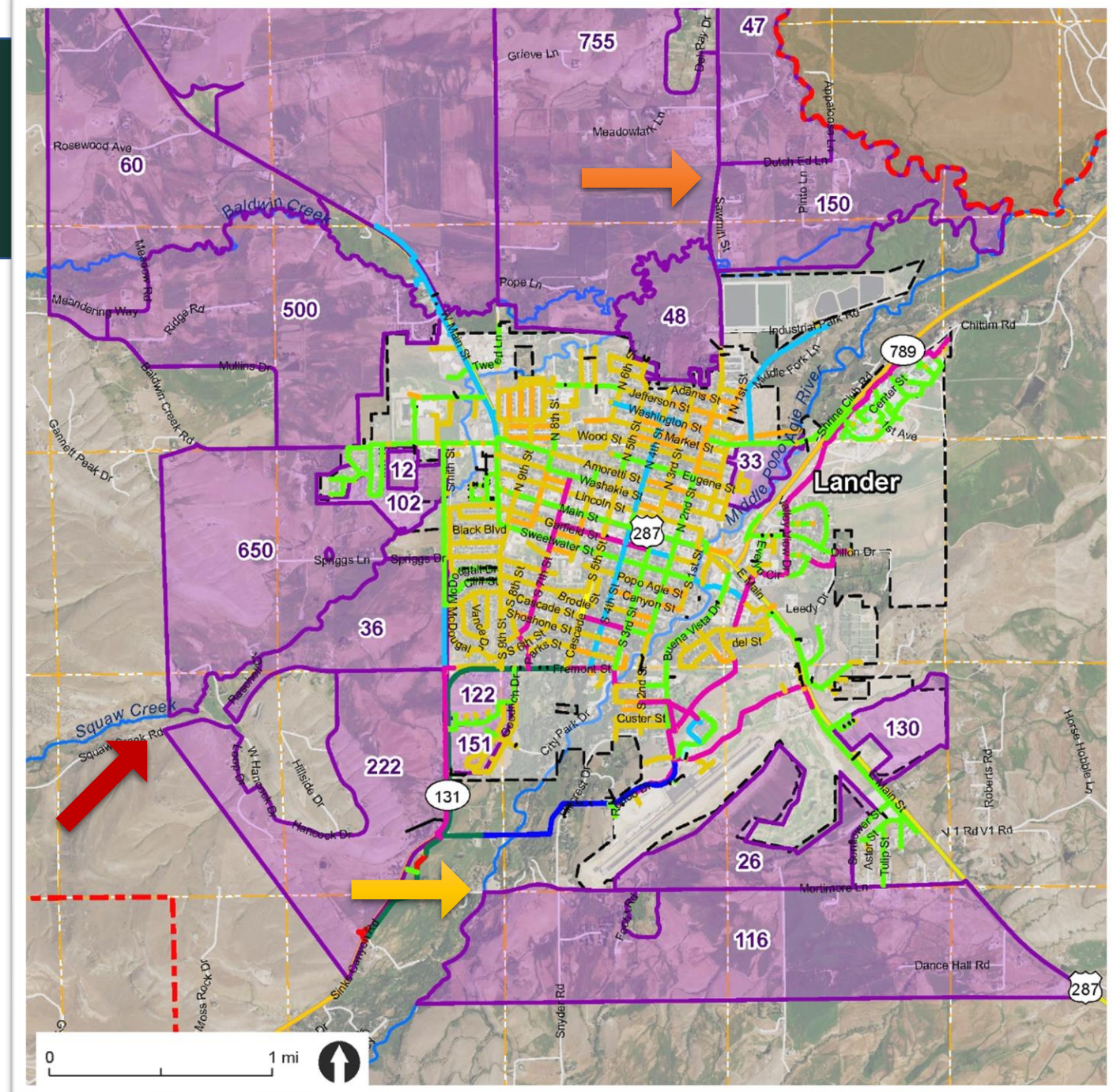
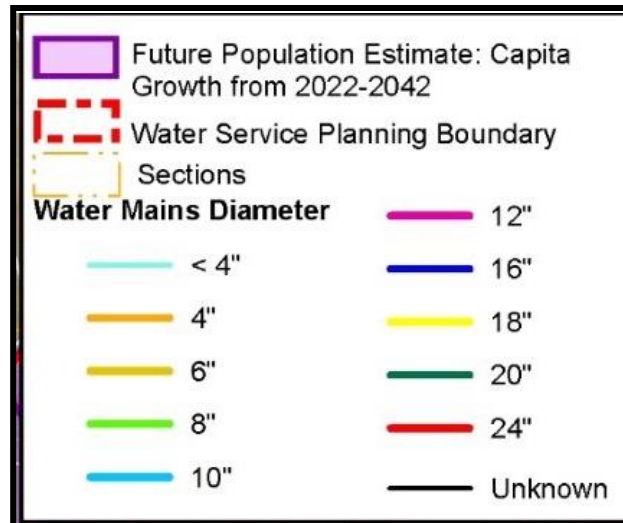
System Expansion

Existing and Projected Demands of Rural Customers at Haul Stations

		Projected Population and Water Demand			
	Base Year (2022)	2027	2032	2037	2042
Estimated Water Haul Population Served	2,000	2,135	2,277	2,429	2,591
Water Haul Average Day Demand (MGD)	0.055	0.059	0.063	0.067	0.072

System Expansion

Potential Expansion of City Distribution Main Service Areas by 2042



Regionalization | Uri Shelby

Regionalization

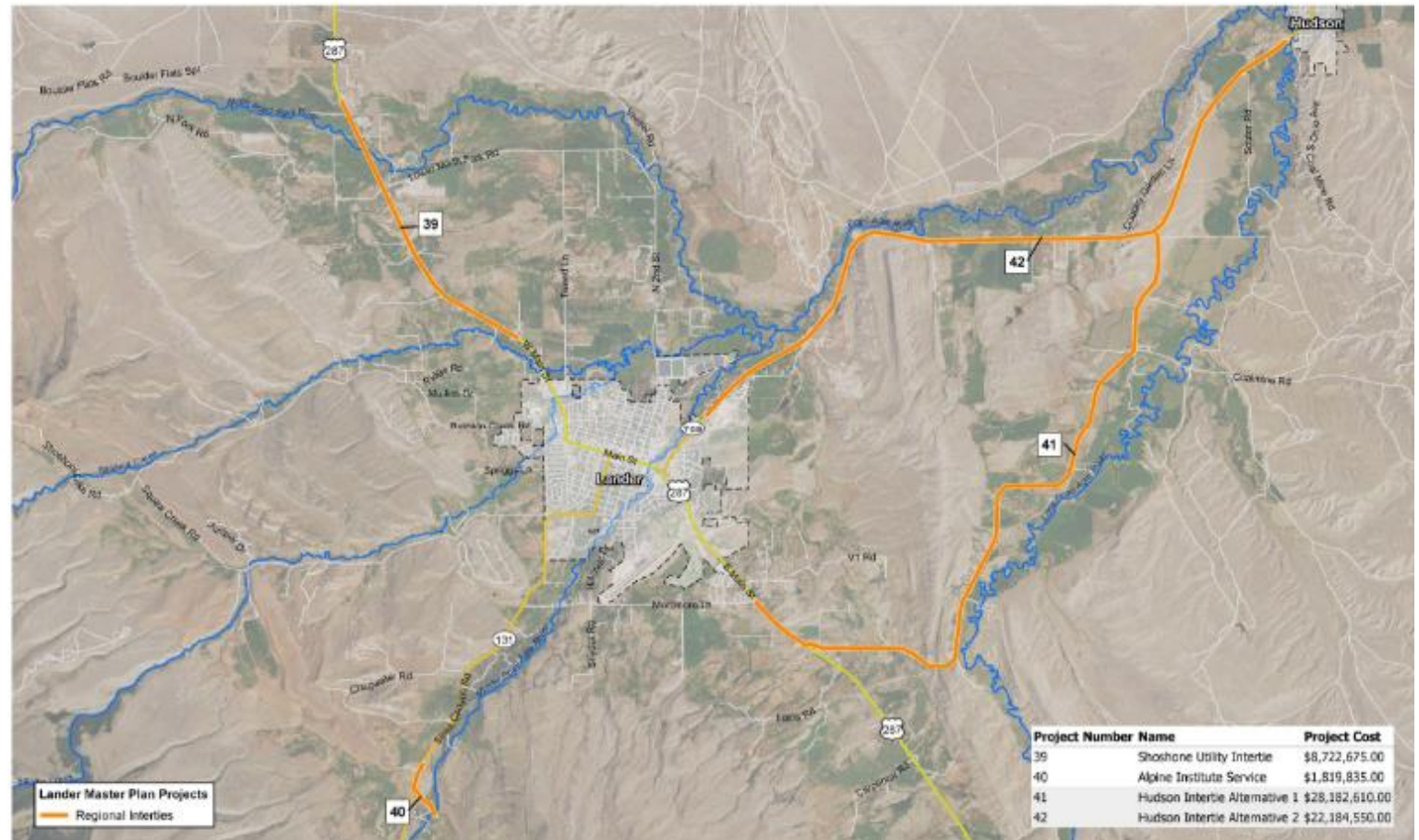
Table 9-1 Results of Operator Survey Challenges Impacts Ranked by Percentage of Respondents

	Staffing	Managerial	Operations	Billing	Supply	Reliability	Other
Most Impact	50%	0%	10%	10%	0%	10%	20%
	10%	40%	10%	10%	10%	10%	10%
	0%	10%	40%	20%	10%	20%	0%
	10%	30%	10%	20%	10%	20%	0%
	20%	10%	30%	0%	10%	20%	10%
Least Impact	10%	10%	0%	20%	50%	10%	0%
	0%	0%	0%	20%	10%	10%	60%

- Surveyed 10 public water systems in Fremont County
- 30% of respondents thought their system was financially viable
- 50% of respondents struggle to hire qualified operators
- 50% of respondents concerned about adequate water supply in the future
- 80% of respondents would be interested some form of regional agreement to help serve customers in the future
- 80% of respondents thought there are opportunities for regionalization in Fremont County
- 90% of respondents are supportive of the Wyoming Water Development Office conducting a regionalization study for Fremont County

Regional Service – Conclusion and Recommendations

- Interest in and need for different levels of regional service in Fremont County.
- Systems near Lander make the most sense: Hudson, Alpine Institute, SUO
- Regionalization study will help clarify next steps



Reliable Service | Uri Shelby

Reliable Service – Pipelines

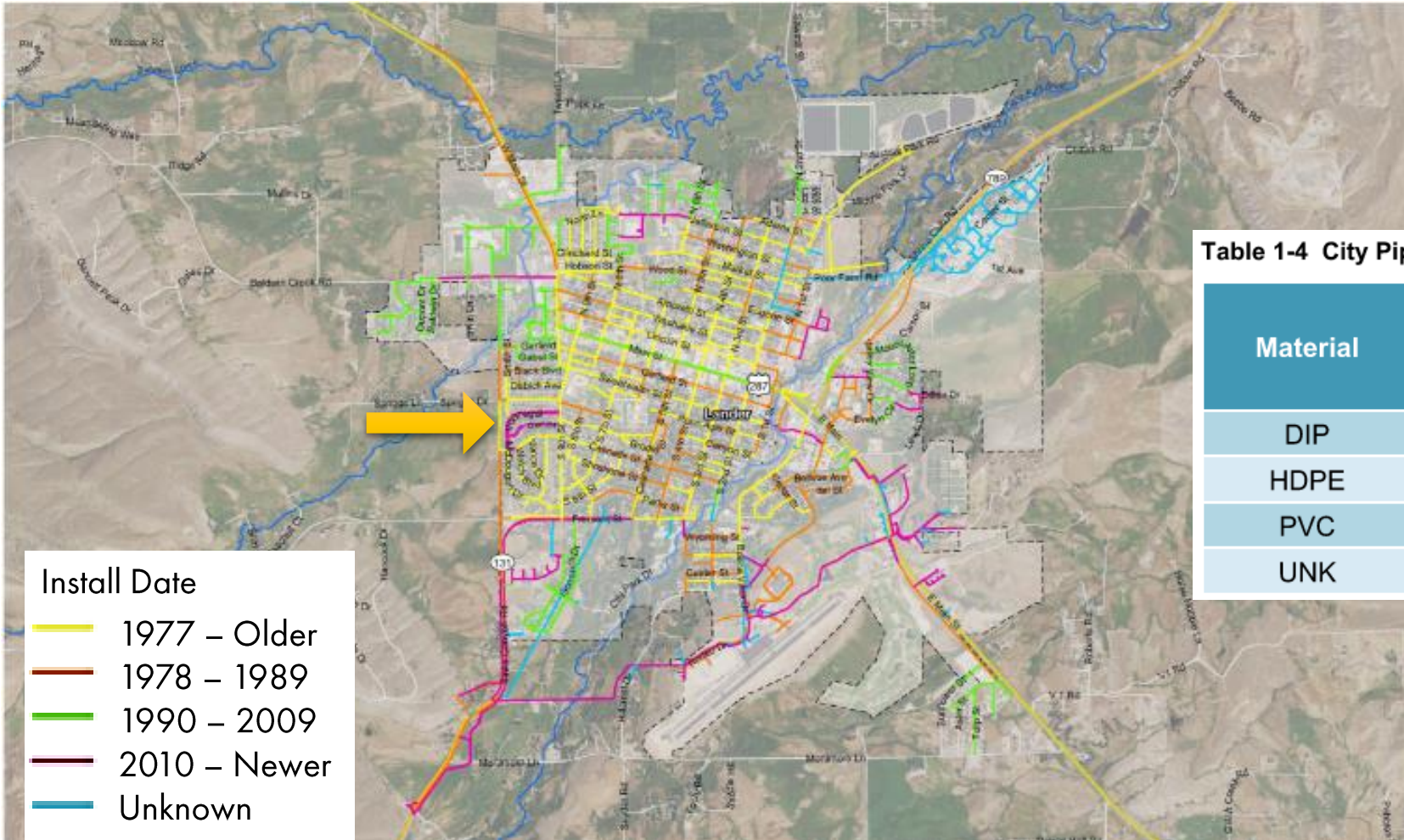


Table 1-4 City Pipelines by Pipe Material

Material	Length (Feet)	Length (Miles)	Percentage of Total Pipe (%)
DIP	164,065	31	43.5%
HDPE	1,532	0	0.4%
PVC	138,857	26	36.8%
UNK	73,072	14	19.4%

Reliable Service – Pipelines Recommendations

- Plan for replacement of priority pipelines
- Conduct condition assessment of old ductile mains
- Budget for replacement of additional ductile mains

Table 10-1 Priority pipeline renewal projects. Includes both transmission and distribution line projects.

Priority	Project #	Project Description	Issue(s)
1	34	Lincoln Street Transmission Line	age, failures
2	31	5th Street Pipeline	age, failures, improperly sized
3	36	McFarland Drive Pipeline	age, failures, undersized
4	35	Baldwin Creek Transmission Line	age, failures
5	45	Goodrich Connector Pipeline	age, failures, undersized
6	30	Buena Vista Drive Transmission Line	age, failures, undersized, water hammer
7	38	Grandview Valleywide to Table Pipelines	age, failures
8	32	North 1st Street Transmission Line	age, failures
9	33	Cascade Street Pipelines	age, failures
10	48	Mager 2 Transmission Line	age, failures
11	24	Airport Pipelines	age, failures, under existing structures

Additional Recommendations

- Miscellaneous treatment plant upgrades
- Rehabilitation of interior steel storage tank
- Improvements to and/or relocation of intake structure



Fiscal Responsibility Recommendations | Grady Reed

Financial Plan Development



Goal: provide guidance on how the selected capital improvement plan can be funded.

- Incorporates historical and projected revenue based on expected customer use and growth.
- Future expenses (non-CIP) were forecast from City provided historical budgets and escalated at **3% per year**.
- CIP cost were also escalated at **3% per year** to year of construction.

Current Utility Assessment

- Estimated that current water fund balance is around **\$1.2 million**
 - about 6-months worth of cash-on-hand
- FY23 expenses are estimated to be **\$2.5 million**
 - \$2.0 million of O&M expense
 - Remainder is debt service or cash funded capital.
- FY23 projected revenues of **\$2.8 million**
- Limited existing debt
- No new debt issued to fund the CIP
- Rate increases will be needed to fund added expenses due to cash-funded projects

Capital Improvement Plan Assumptions

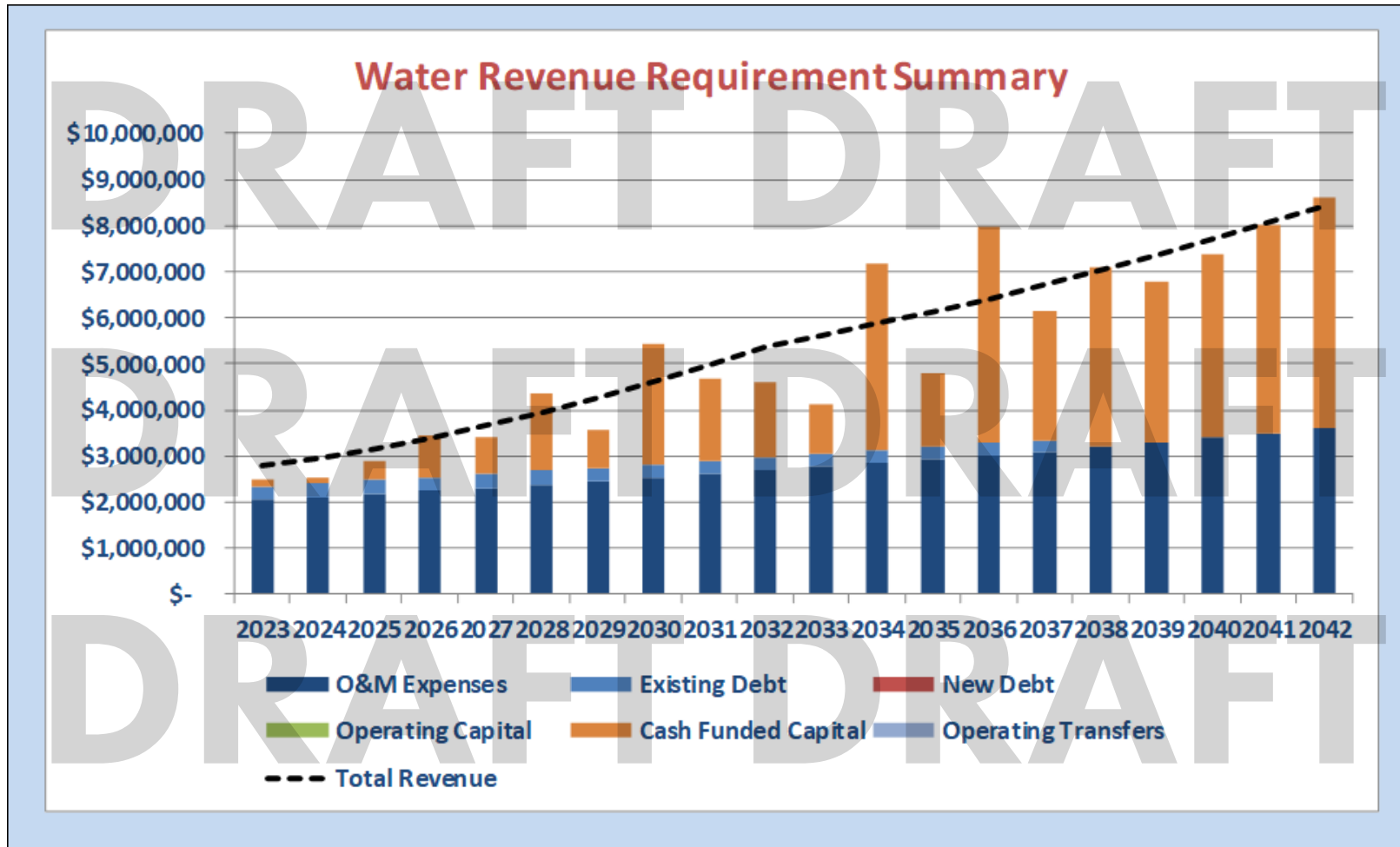
Approximately **\$45.8 million** of CIP projects identified.

- With inflation, this value become **\$66.2 million** when constructed.
- Of this total, **\$44.8 million** is cash-funded, remainder is grant-funded.
- By 2042, estimated **\$5.0 million** per year is needed to cash fund projects.
 - Total utility expenses in 2042 are estimated to be **\$8.6 million**
(**243% increase** from estimated FY23 expenses)



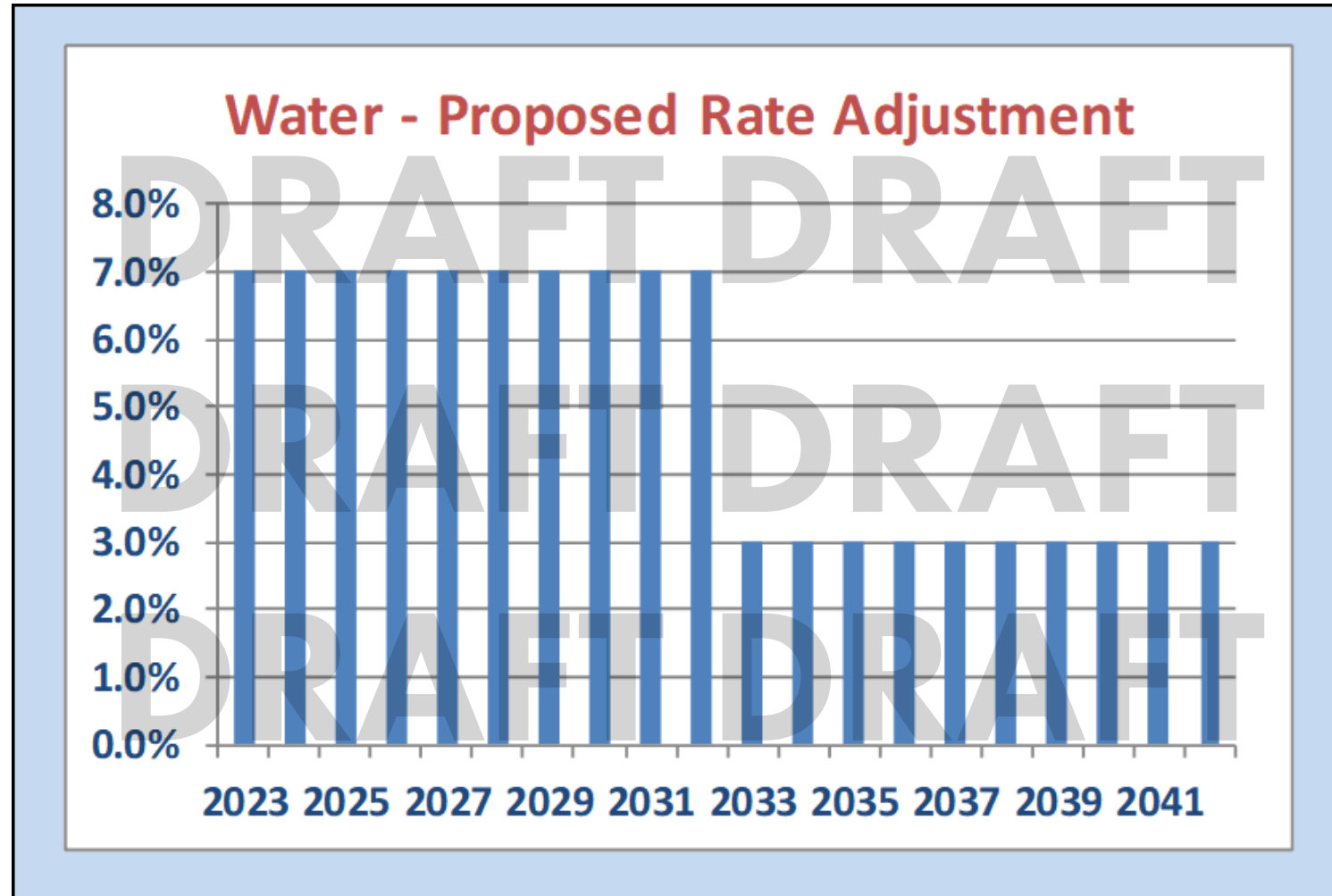
Draft Water Revenue Requirement Summary

Cash Funded (No New Debt)



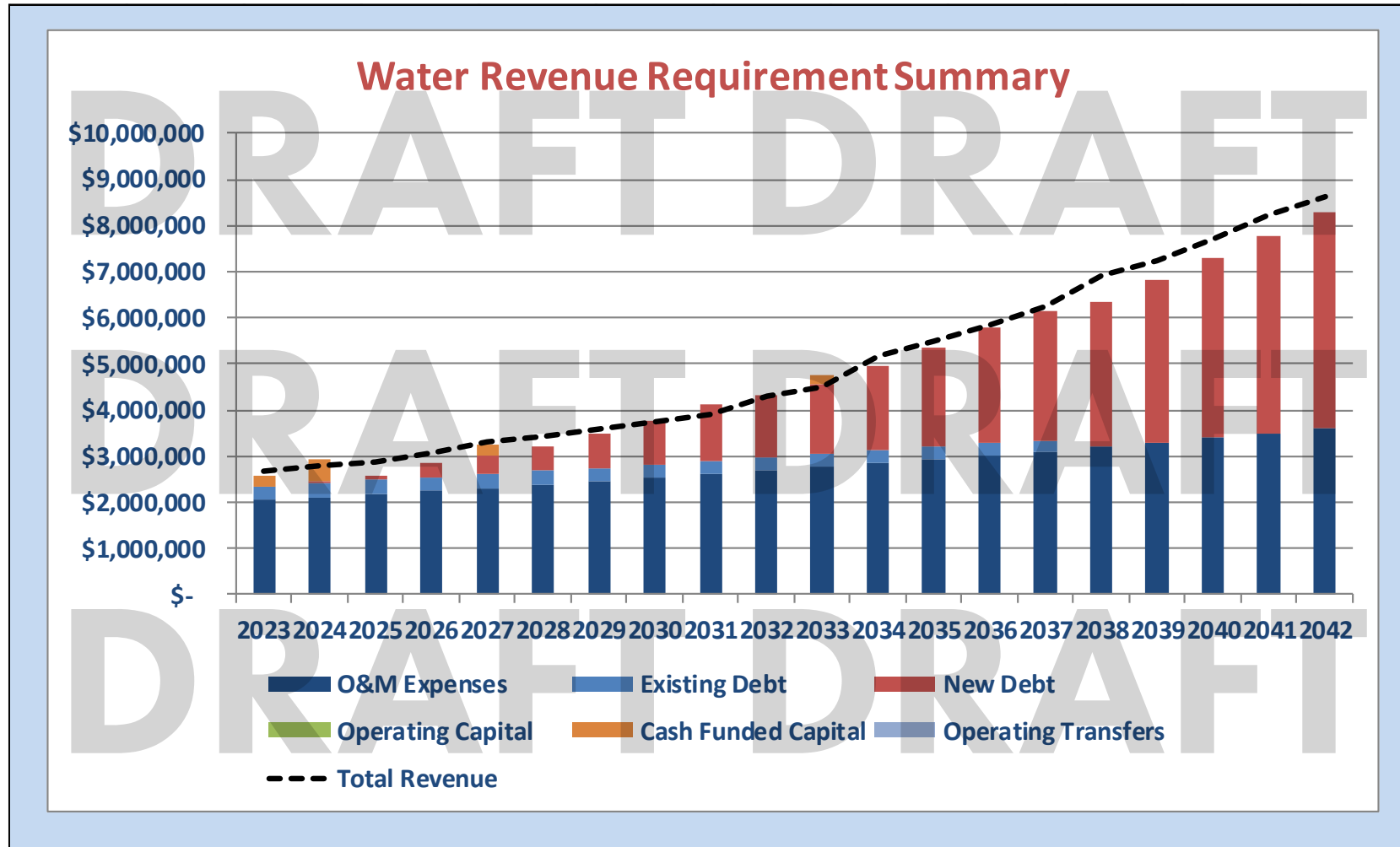
Proposed Draft Rate Adjustments

Cash Funded (No New Debt)



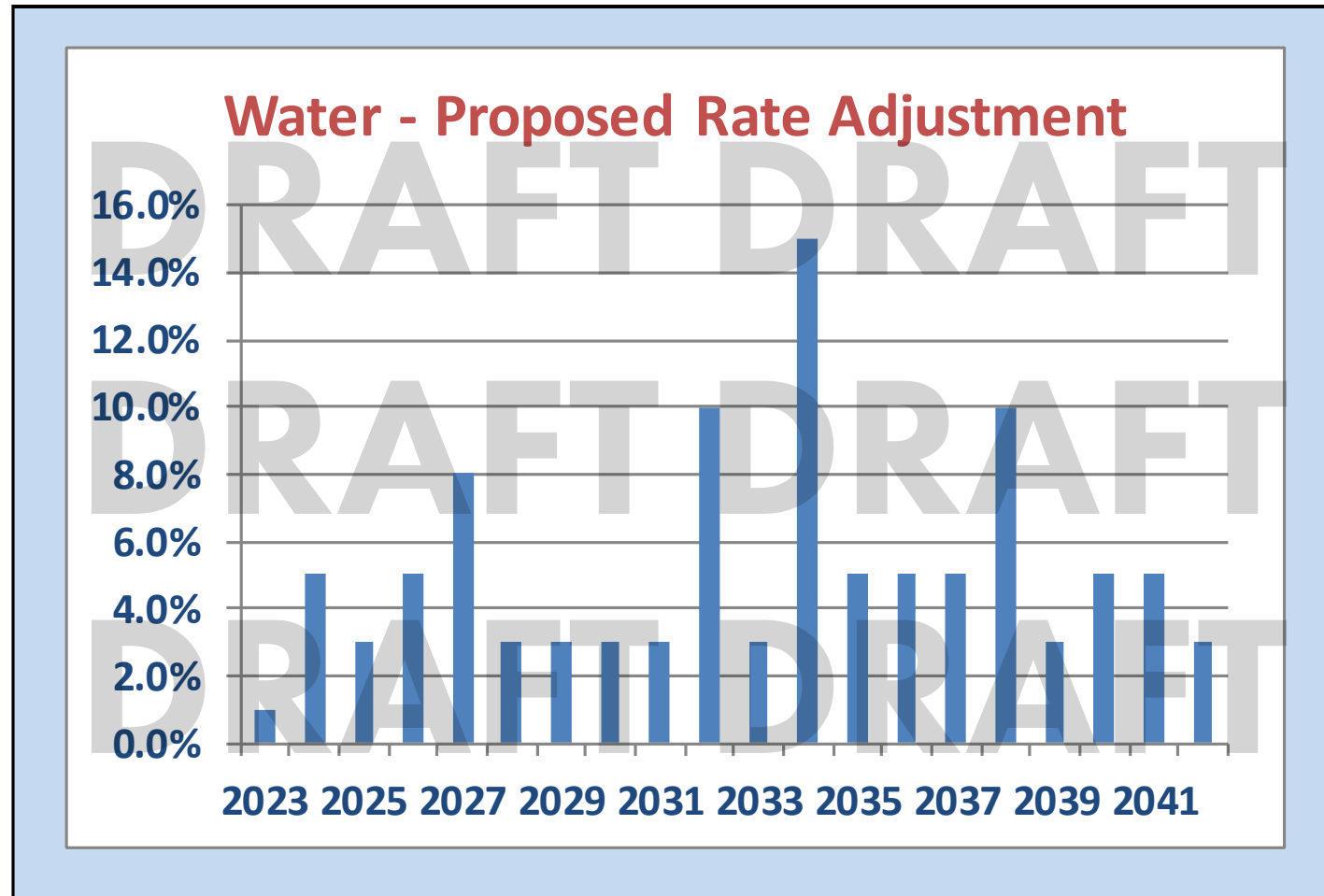
Draft Water Revenue Requirement Summary

Debt Funded



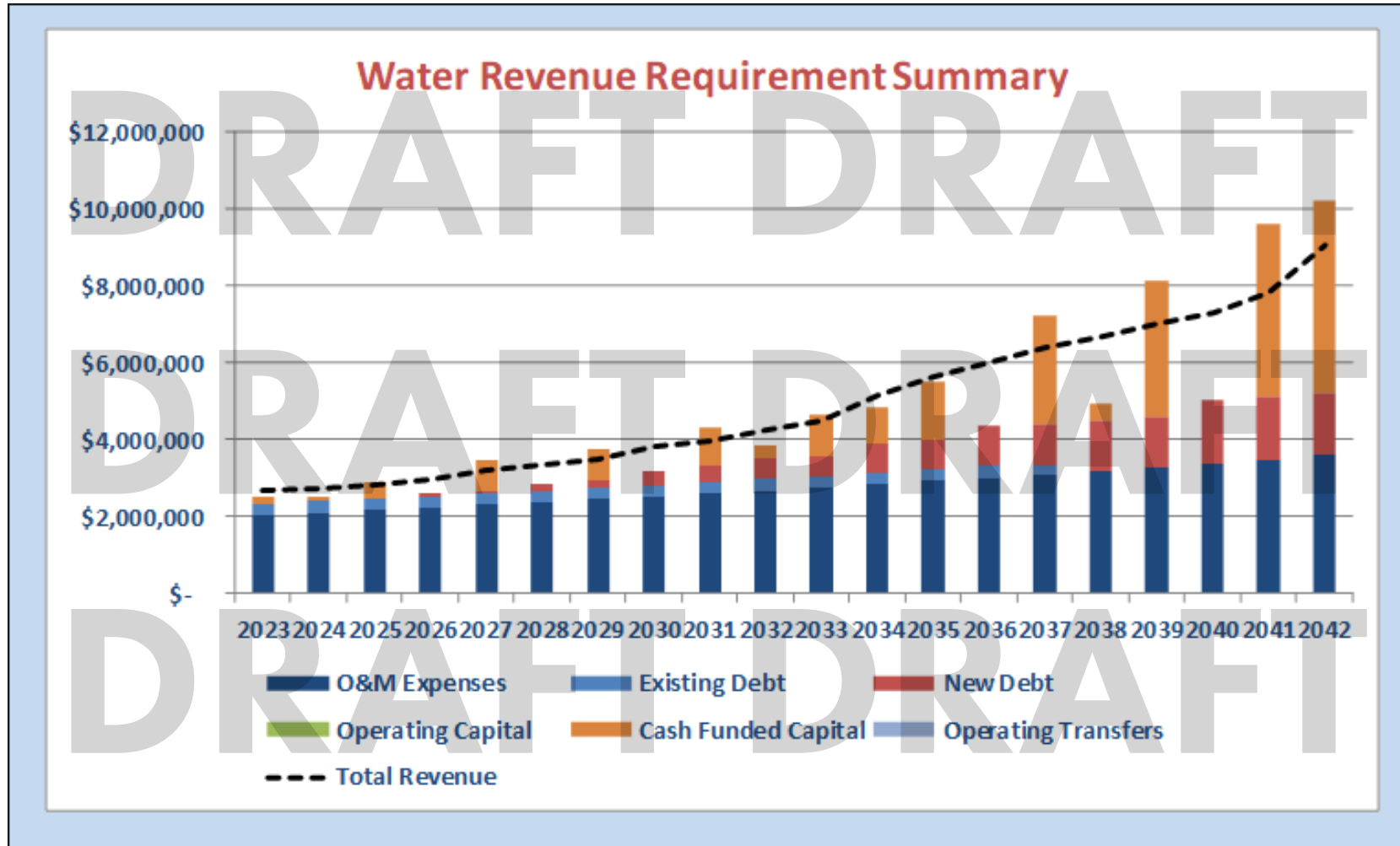
Proposed Draft Rate Adjustments

Debt Funded



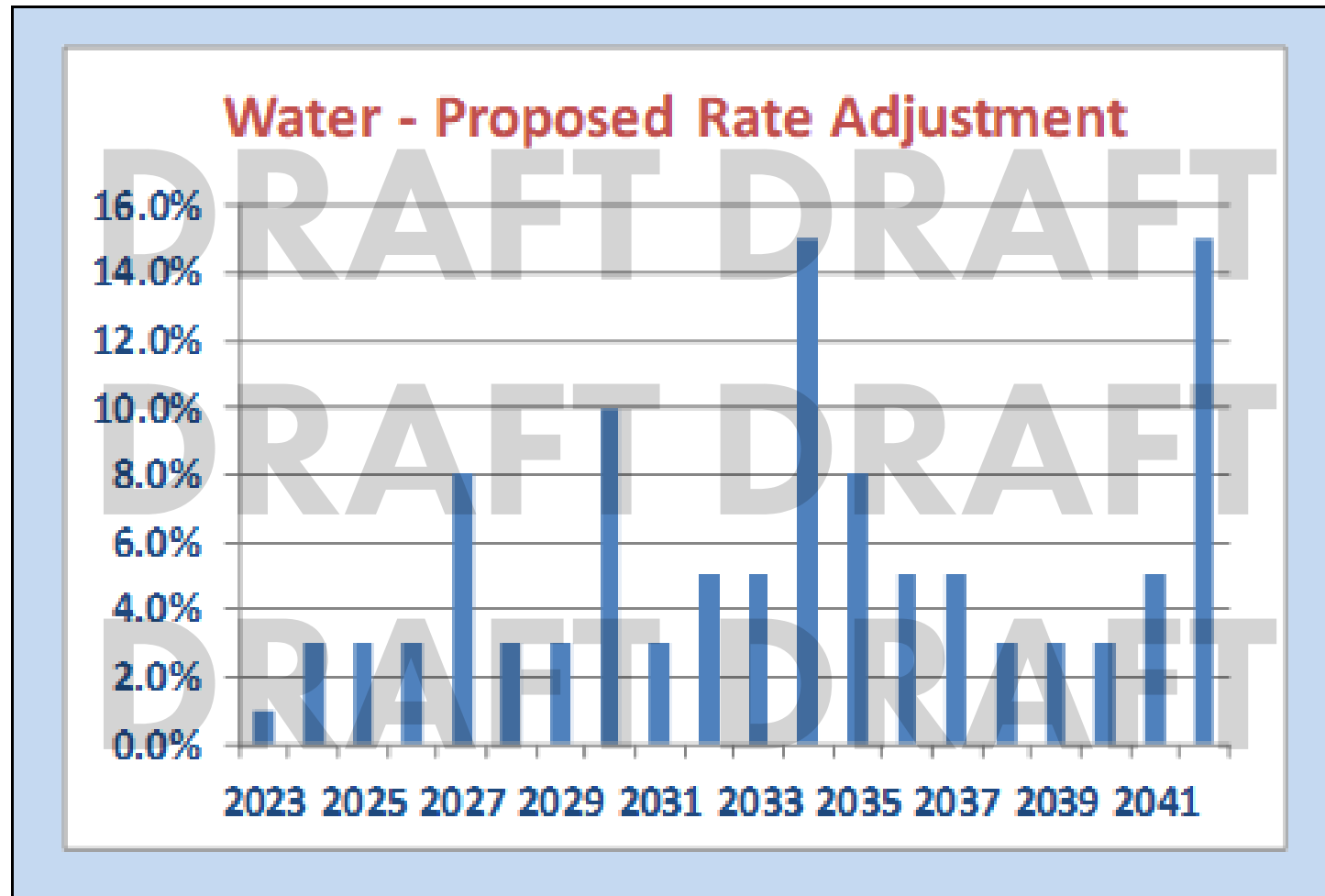
Draft Water Revenue Requirement Summary

Cash/Debt Mixed Funding

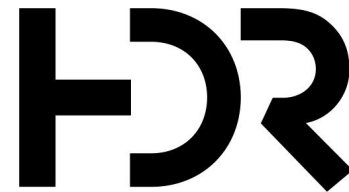


Proposed Draft Rate Adjustments

Cash/Debt Mixed Funding



Conclusion



Questions?



THANK YOU!

