

City of Enid



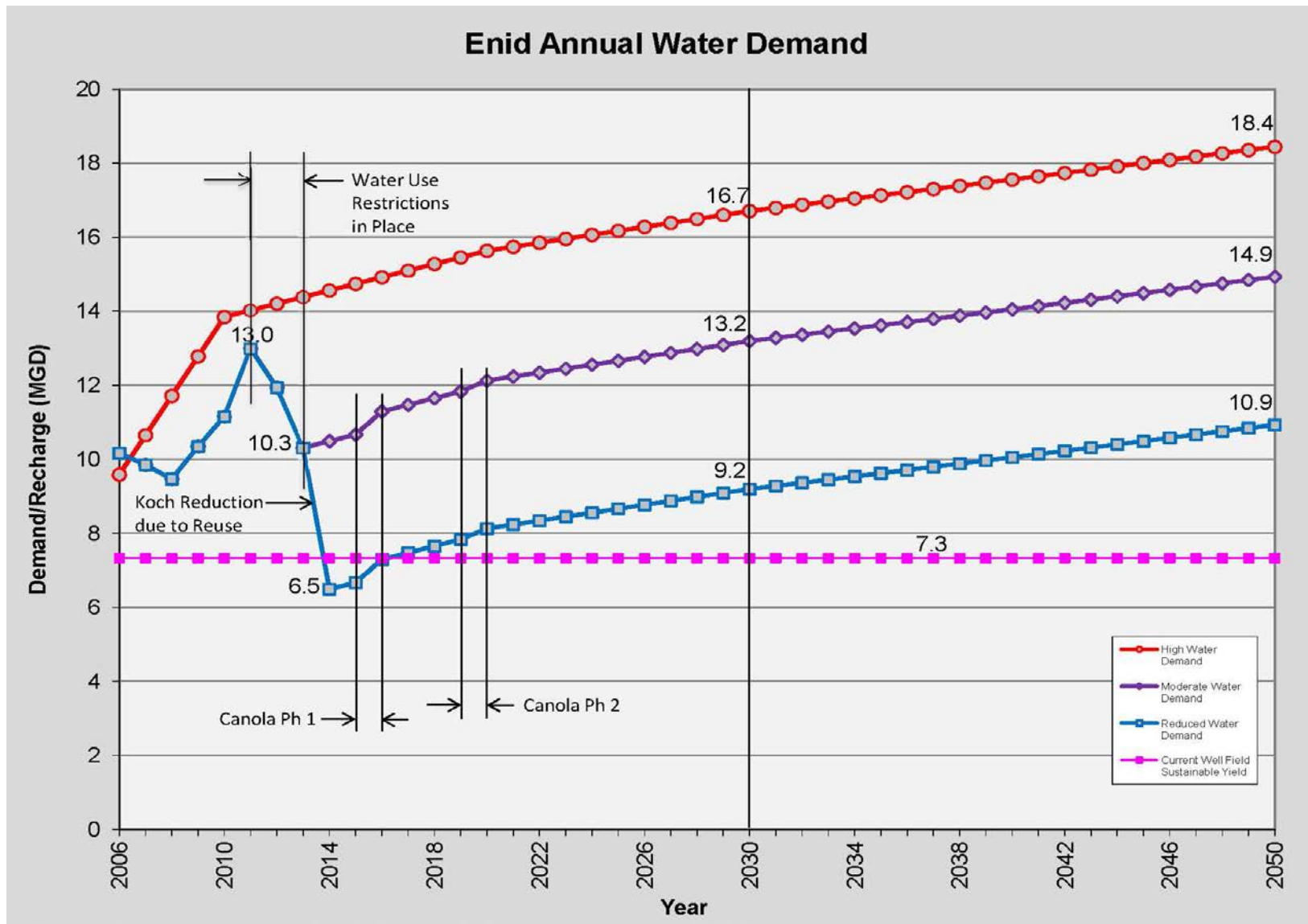
Agenda

- Goals and Objectives
- Phase 2 Update
- Executable Program
- Path Forward

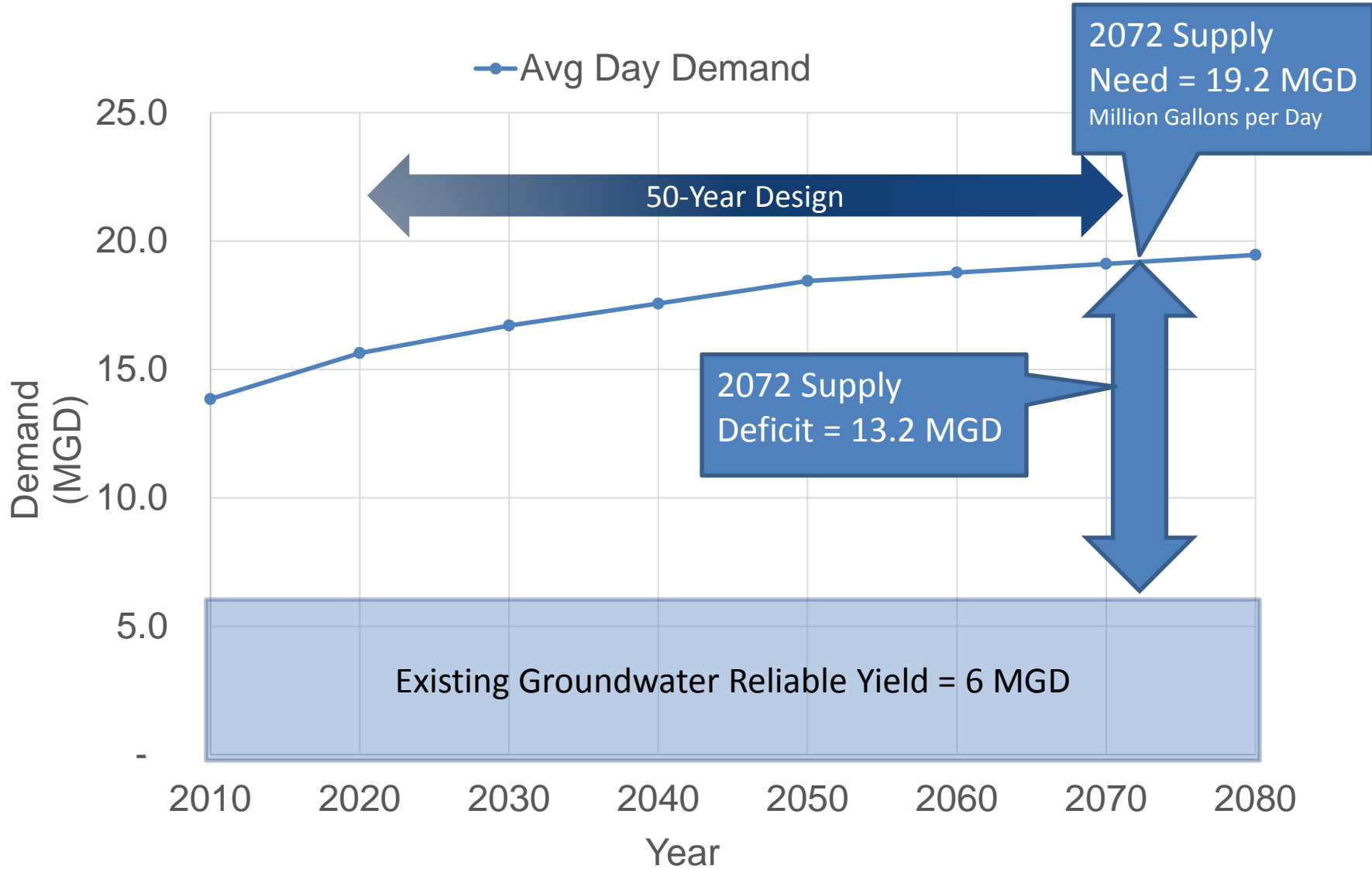
Vision, Goals, and Objectives

- **Vision**
 - To provide an alternate and reliable source of clean and safe drinking water to supplement the City’s current supply.
- **Goals**
 - Provide a regulatory compliant, reliable, and consumer acceptable source of drinking water for the City’s residents.
 - Reduce the demand on the groundwater well fields.
 - Diversify the water supply to increase the reliability of that supply.
- **Objectives**
 - Satisfy the anticipated future water supply deficit of 13.2 MGD (annual average deficit) in the year 2072.
 - Withdraw raw water from Kaw Lake and convey it to the City of Enid.
 - Store, treat, and distribute water to meet the projected demand.

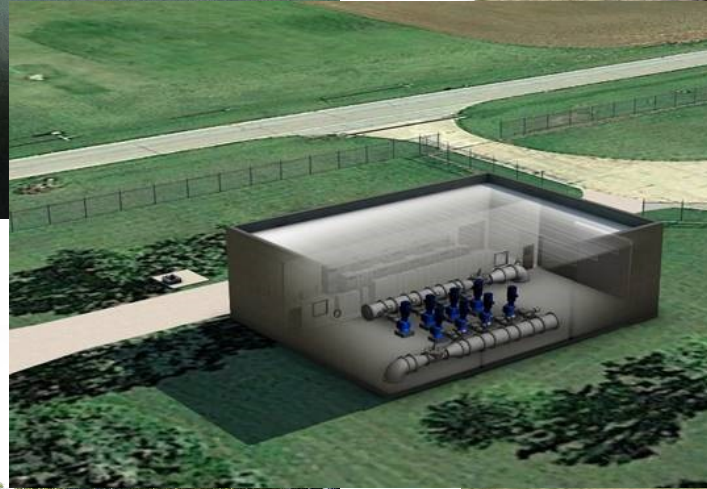
Projected Water Demands Design Criteria



Design Flows based on High Demand Curve



Surface Water System Improvements



Phase 1 – 2016 Cost Estimate

Total Program	2016 Estimate
Intake	\$ 20 M
Intermediate Booster Pump Station	\$ 12 M
Pipeline	\$ 122 M
Emergency Terminal Storage Reservoir	\$ 24 M
Equalization Terminal Storage Reservoir	\$ 17 M
Treatment Plant	\$ 66 M
Distribution Interface	\$ 30 M
Construction and Land Costs	\$ 291 M
Contingency (30%)	\$ 87 M
Program Execution and Design	\$ 73 M
Total Estimated Project Cost	\$ 451 M

Phase 2 Program Goals

Prepare 30%
Design

Update Cost
Opinion
Capital and O&M

Develop
Executable
Plan

2018 Updated Cost Estimate

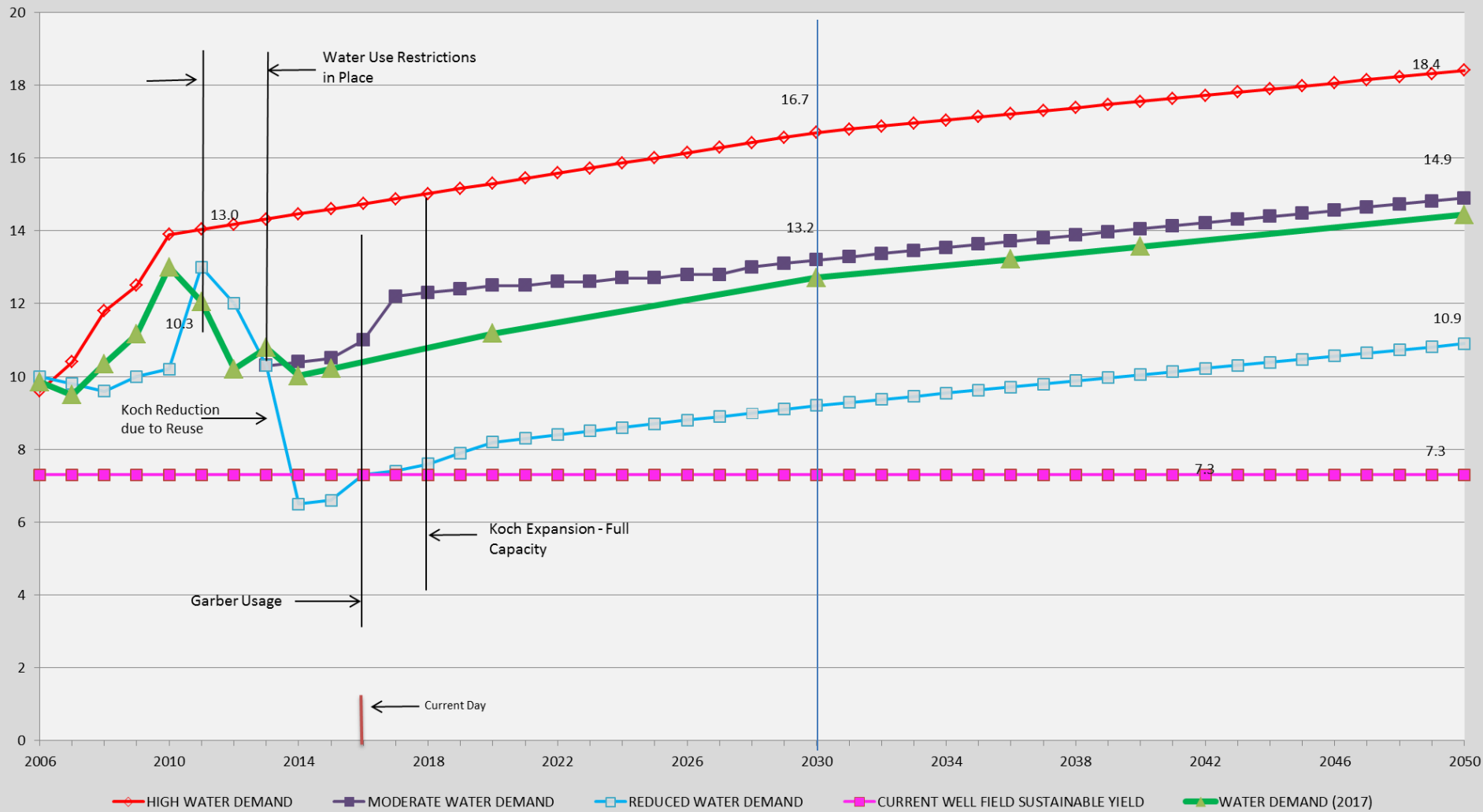
Total Program	2018 Estimate
Intake	\$ 25 M
Intermediate Booster Pump Station	\$ 12 M
Pipeline	\$ 131 M
Emergency Terminal Storage Reservoir	\$ 20 M
Equalization Terminal Storage Reservoir	\$ 19 M
Treatment Plant	\$ 109 M
Distribution Interface	\$ 36 M
Construction and Land Costs	\$ 352 M
Contingency (13%)	\$ 47 M
Remaining Program Execution and Design	\$ 71 M
Total Estimated Project Cost	\$ 470 M

Available Actions

- **Defer Certain Improvements Entirely**
 - Intermediate Booster Pump Station
 - Emergency Terminal Storage Reservoir
- **Revise Capacity of Improvements**
 - Water Treatment Plant
 - Equalization Terminal Storage Reservoir
 - Distribution Interface

Projected Water Demand

Enid Annual Water Demand-2050



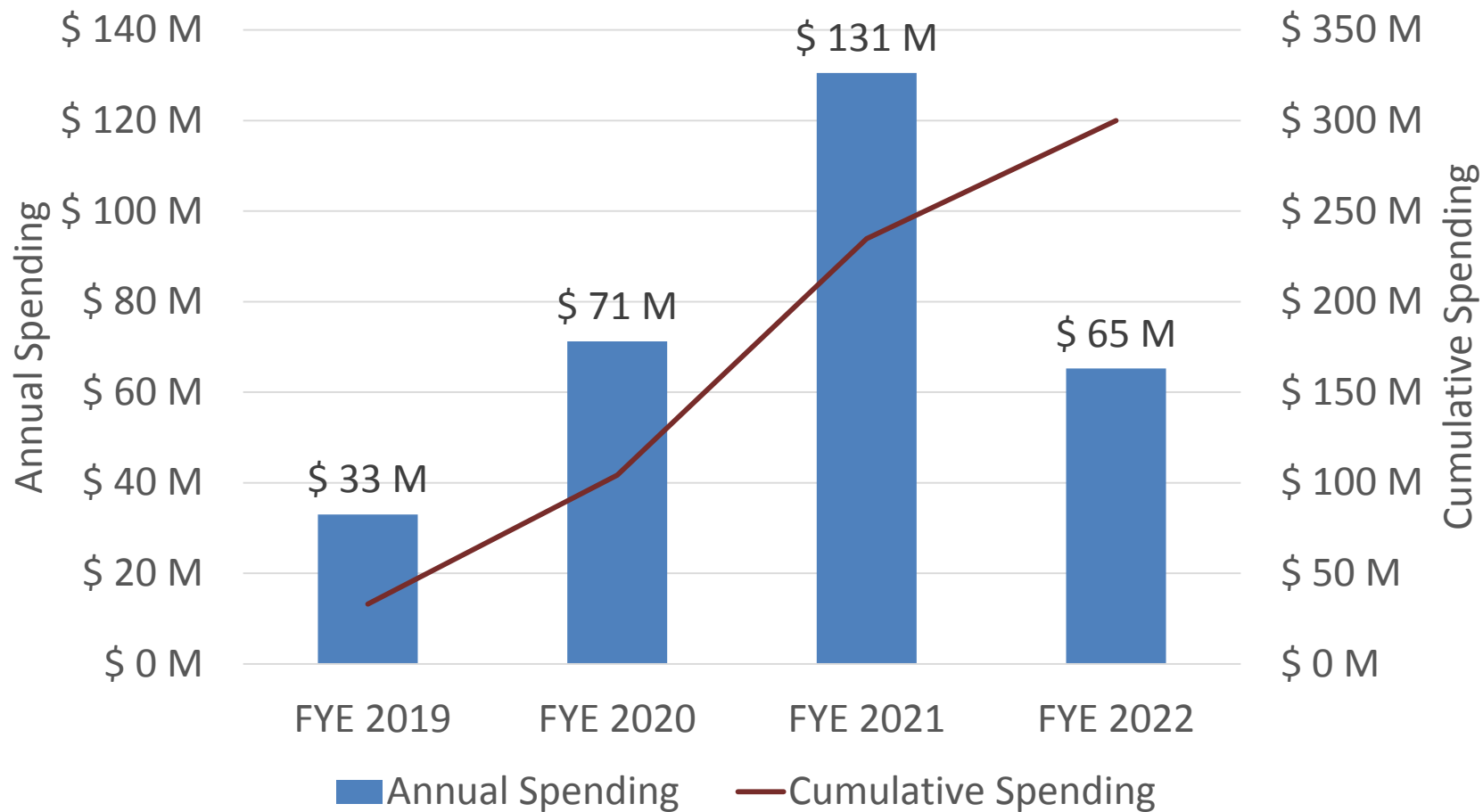


Approach to the Phasing Plan



Infrastructure	Total Program	Target Reduction	Phased Program
Intake	\$ 30 M	10%	\$ 27 M
Intermediate Booster Pump Station	\$ 14 M	100%	\$ 0 M
Pipeline	\$ 146 M	3%	\$ 142 M
Emergency Terminal Storage Reservoir	\$ 23 M	100%	\$ 0 M
Equalization Terminal Storage Reservoir	\$ 21 M	70%	\$ 6 M
Treatment Plant	\$ 125 M	55%	\$ 56 M
Distribution Interface	\$ 40 M	65%	\$ 14 M
Subtotal	\$ 399 M		\$ 245 M
Remaining PED	\$ 71 M	31%	\$ 49 M
USACE Storage Contract	\$ 6 M	None	\$ 6 M
Total Estimated Cost	\$ 476 M		\$ 300 M

Phased Program Funding Profile



2018 Dollars

Remaining Phase 2

- Complete Phasing Plan (~90 days)
- Complete Environmental Assessment

Phase 3

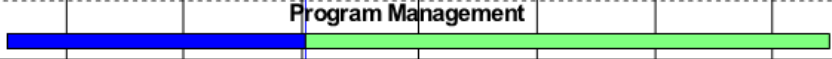










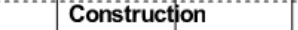
- Acquire needed easements
- Prepare Construction Documents for Bid
 - Finalize surveys, geotech, and final designs

Phase 4

- Construction

Risk Assessment

Program Schedule

Activity Name	Start	Finish	2015		2016		2017		2018		2019		2020		2021		2022		
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Kaw Lake Water Supply Program Schedule																			
Program Management	01-Jul-15 A	30-Jun-22																	
Phase 1																			
OWRB Water Rights Secured	19-Jan-15 A																		
Conceptual Design	01-Jul-15 A	30-Jun-16 A																	
Voter Approved Tax Increase		23-Aug-16 A																	
Phase 2																			
Preliminary Design	02-Jan-17 A	02-Apr-18																	
NEPA	02-Jan-17 A	31-Dec-18																	
Pipeline Property Survey	01-Nov-17 A	30-Mar-18																	
Phases 3 & 4																			
Pipeline Topographical Survey	02-Apr-18	31-Aug-18																	
Land Acquisition	02-Apr-18	29-Mar-19																	
Final Design	02-Jul-18	28-Jun-19																	
Permitting	01-Jan-19	28-Jun-19																	
Construction	01-Jul-19	31-Dec-21																	
Start Up	03-Jan-22	30-Jun-22	