2014 Master Plan
Capital Improvement Program

BLACK & VEATCH
Building a world of difference.®

James Strayer, P.E.

VALLECITOS WATER DISTRICT

2014 Master Plan Status

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

Assign approved land use to all properties

Create water and sewer models

Assign duty factors to land use categories

Generate future water and sewer demand projections

Establish design criteria

Establish project phasing and Capital Improvement Program

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Revise Projections and Update CIPs

Complete Master Plan

Final Program EIR

Updated Water and Wastewater Projections

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Water and Wastewater Specialists since 1955

- Initial Capital Improvements
  - Based on a thorough process
  - Consistent with the 2002 and 2008 plans
  - Produces conservative totals based aggressive growth projections
- Staff via Board direction asked Black & Veatch to re-look at the demands based on more recent data
  - Accessed multiple sources
    - SANDAG projections
    - SDCWA projections
    - More recent VWD data which dictate supplies.

Updated Projections

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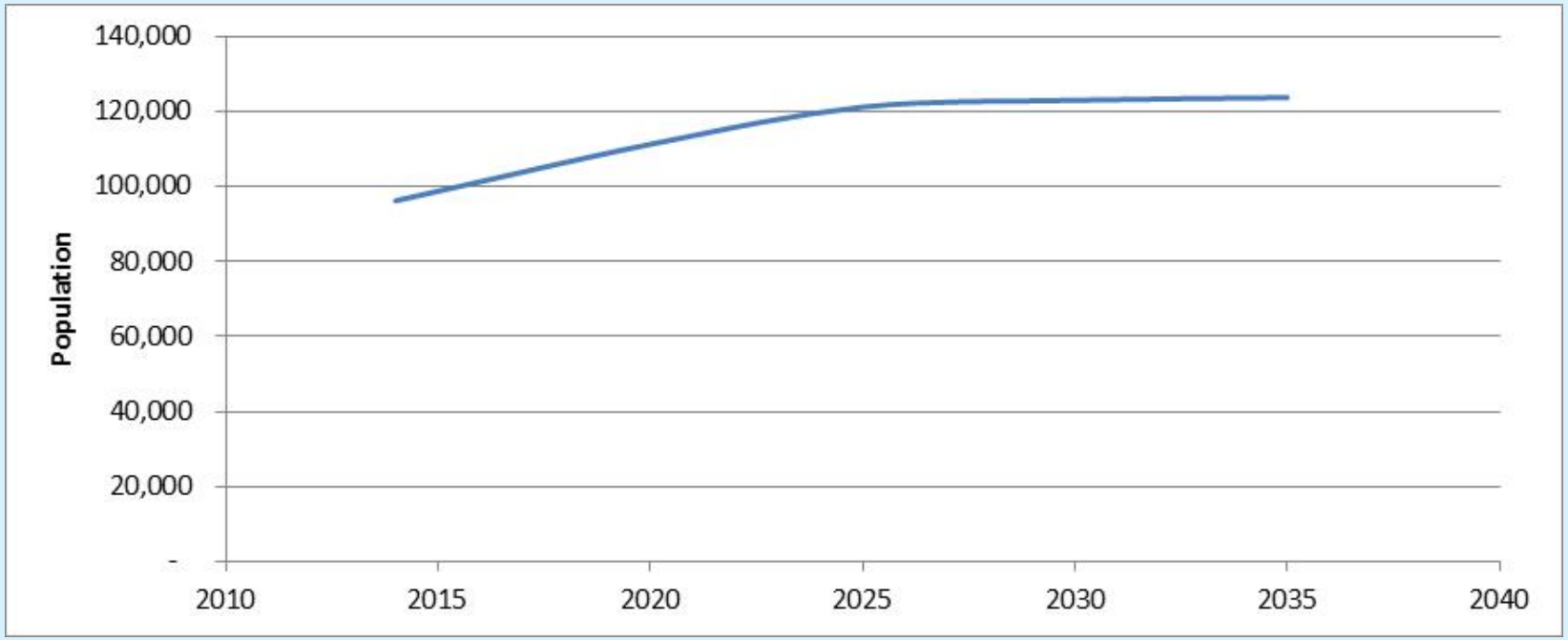
Water and Wastewater Specialists since 1955

- Re-forecasted population projections
  - Based on revised SANDAG projections
  - Results in more likely projections for interim years



Updated Water and Wastewater Projections

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Water and Wastewater Specialists since 1955

- Black & Veatch reformulated projections
  - Only approved land uses can be considered
  - Updated water demands
  - Confirmed with SDCWA that results were consistent with the projected water supply available to VWD
  - Updated sewer flows
  - Refinement of Capital Improvement Program
  - Net result: Reduced cost and deferred projects

Water Demand Projections

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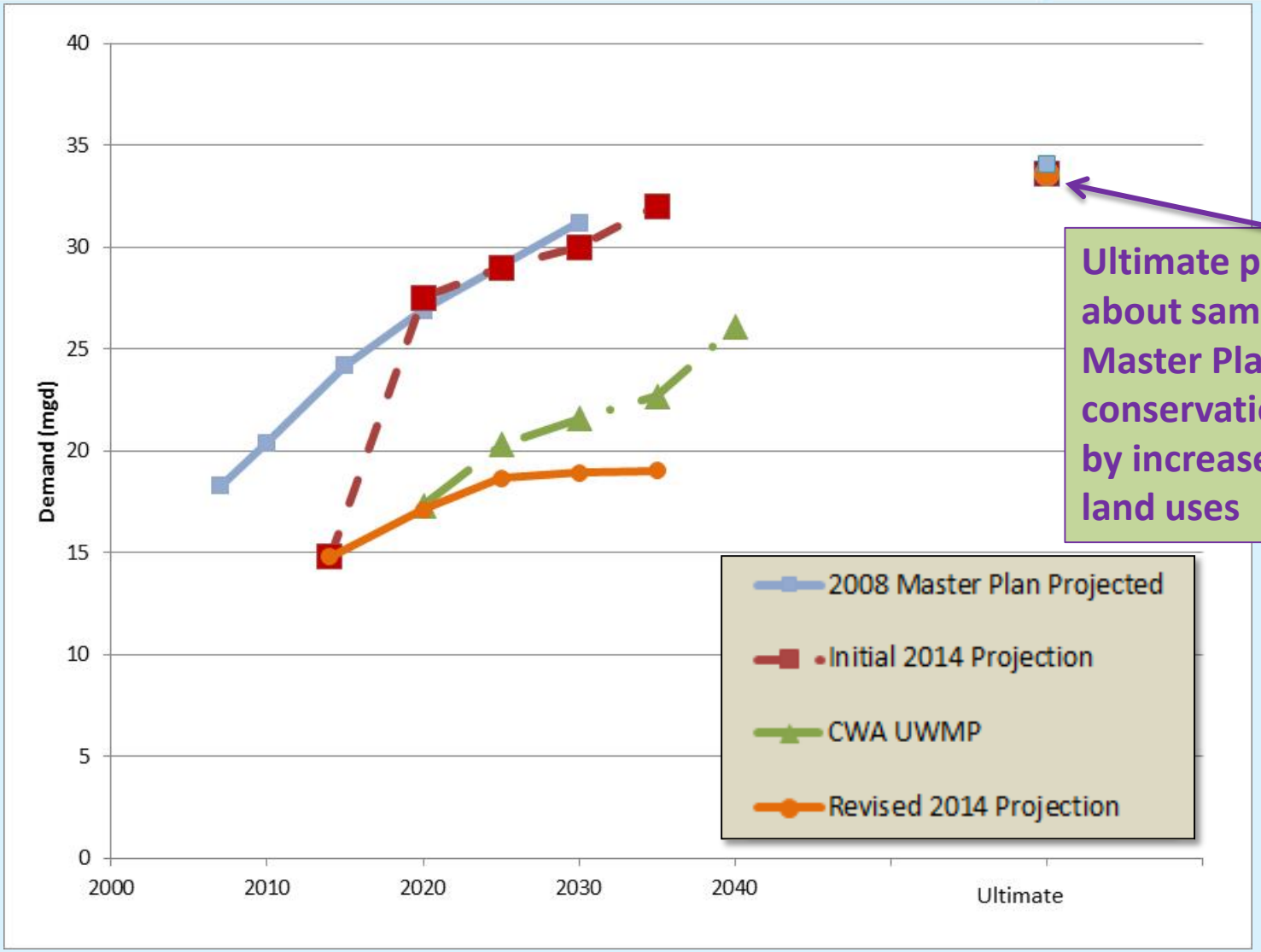

Ultimate projection about same as 2008 Master Plan as conservation is offset by increase in planned land uses

Projected Water System CIPs

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Water and Wastewater Specialists since 1955

- Population growth shift ➡ shifted demand
- Shifted demand
  - ➡ Shifted timing of needs
  - ➡ Reduction in sizes of early phased projects

Projected Water System CIPs

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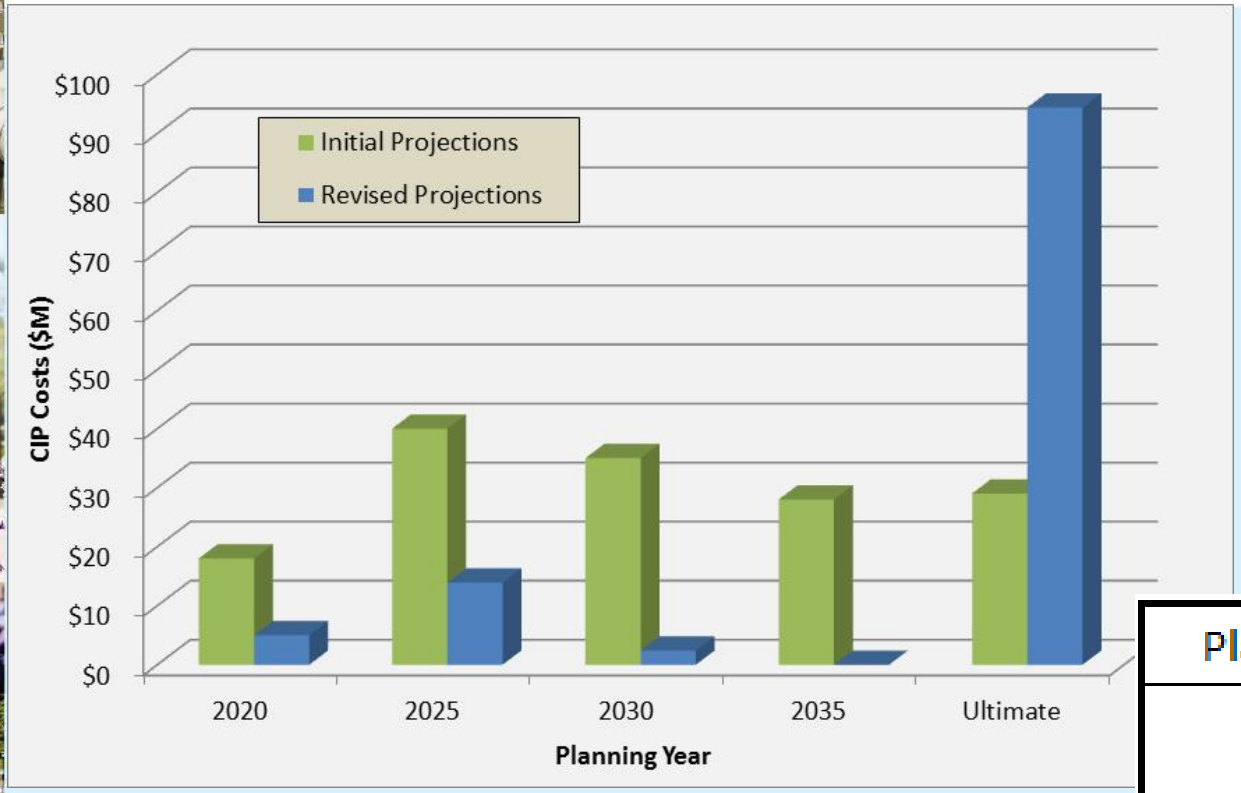
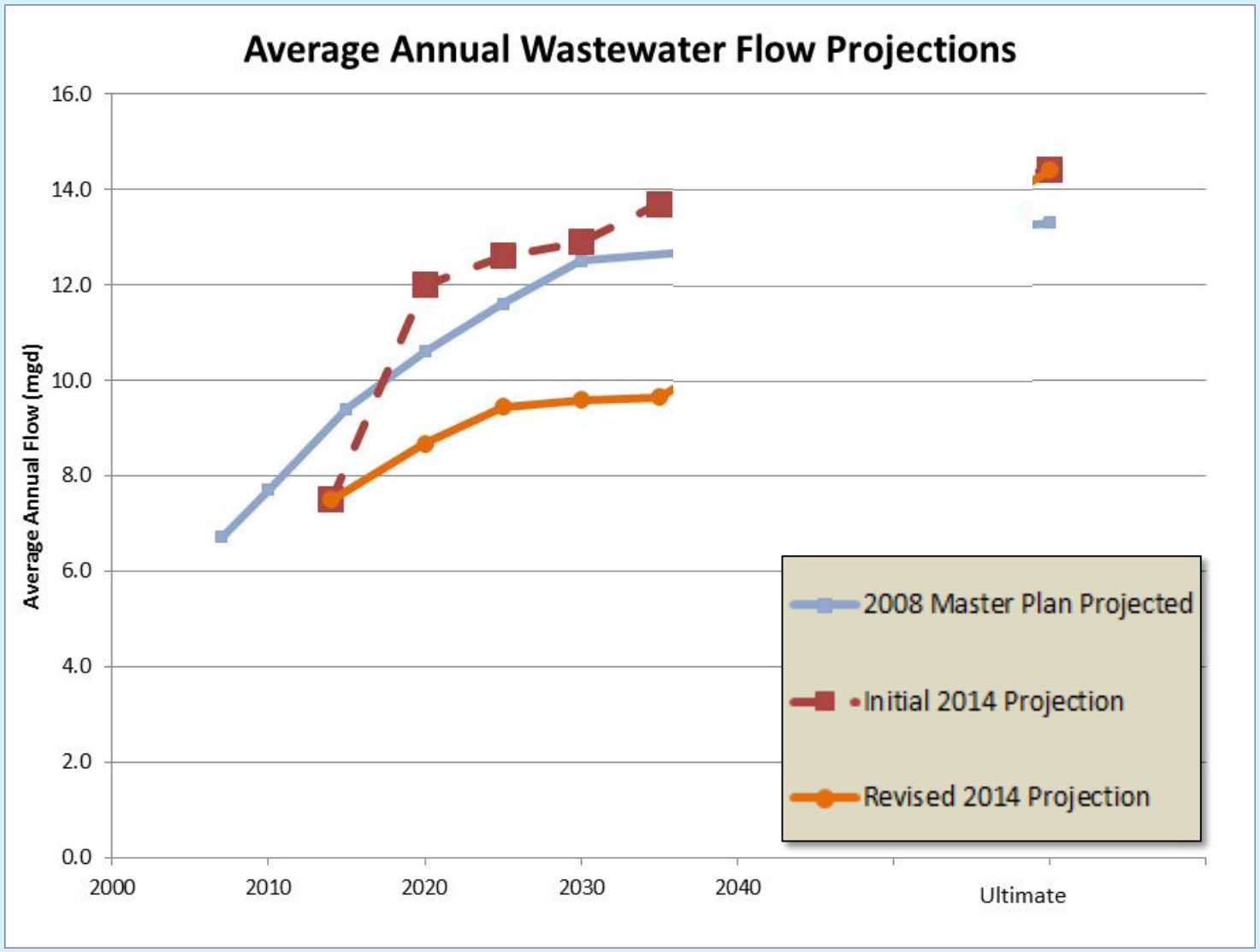
Water and Wastewater Specialists since 1955



Planning Year	Cost ($M)
2020	$5
2025	$14
2030	$2
2035	$0
Ultimate	$94
Total	**$116**

Wastewater Flow Projections

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955



Wastewater Flow Projections

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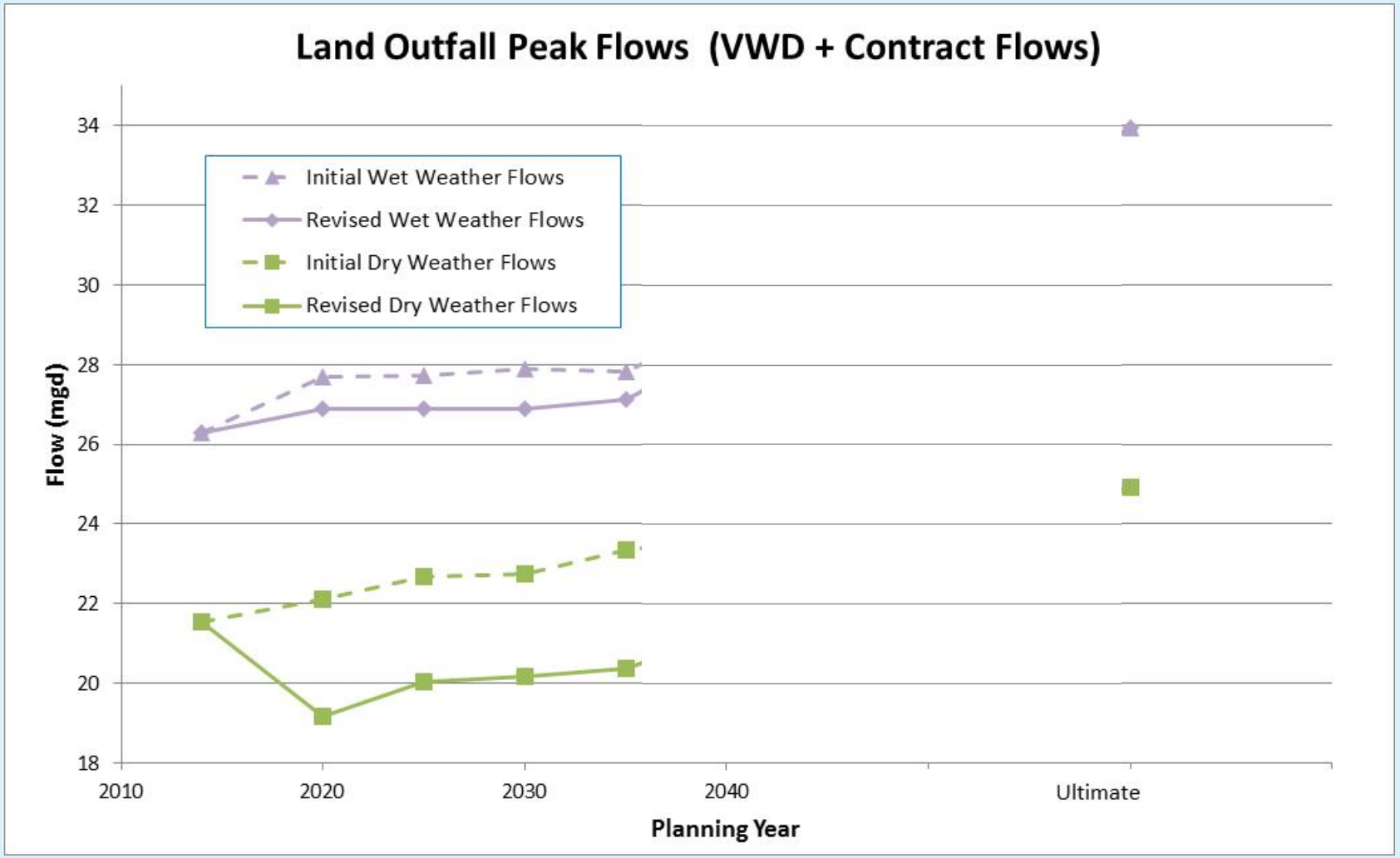
Water and Wastewater Specialists since 1955

- Average annual flows
  - Define average operational costs
  - Define average recycled water availability
- Peak dry & wet weathers flows
  - Establish maximum flows
  - Define improvement needs and sizing

Projected Wastewater System CIPs

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955



Wastewater CIP Cost Estimates

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

- Little change in peak flow projections
- Costs include sewers, outfall, and treatment
- No change in wastewater CIP needs

Wastewater CIP Total	$47,000,000
Parallel Land Outfall	$31,000,000
Wastewater Treatment	$88,000,000
Total CIP	$166,000,000

Wastewater CIP Cost Estimates

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Water and Wastewater Specialists since 1955

Planning Year	Cost ($M)
2020	$23
2025	$15
2030	$18
2035	$17
Ultimate	$92
Total	**$165**

CIP Cost Estimates by Phase

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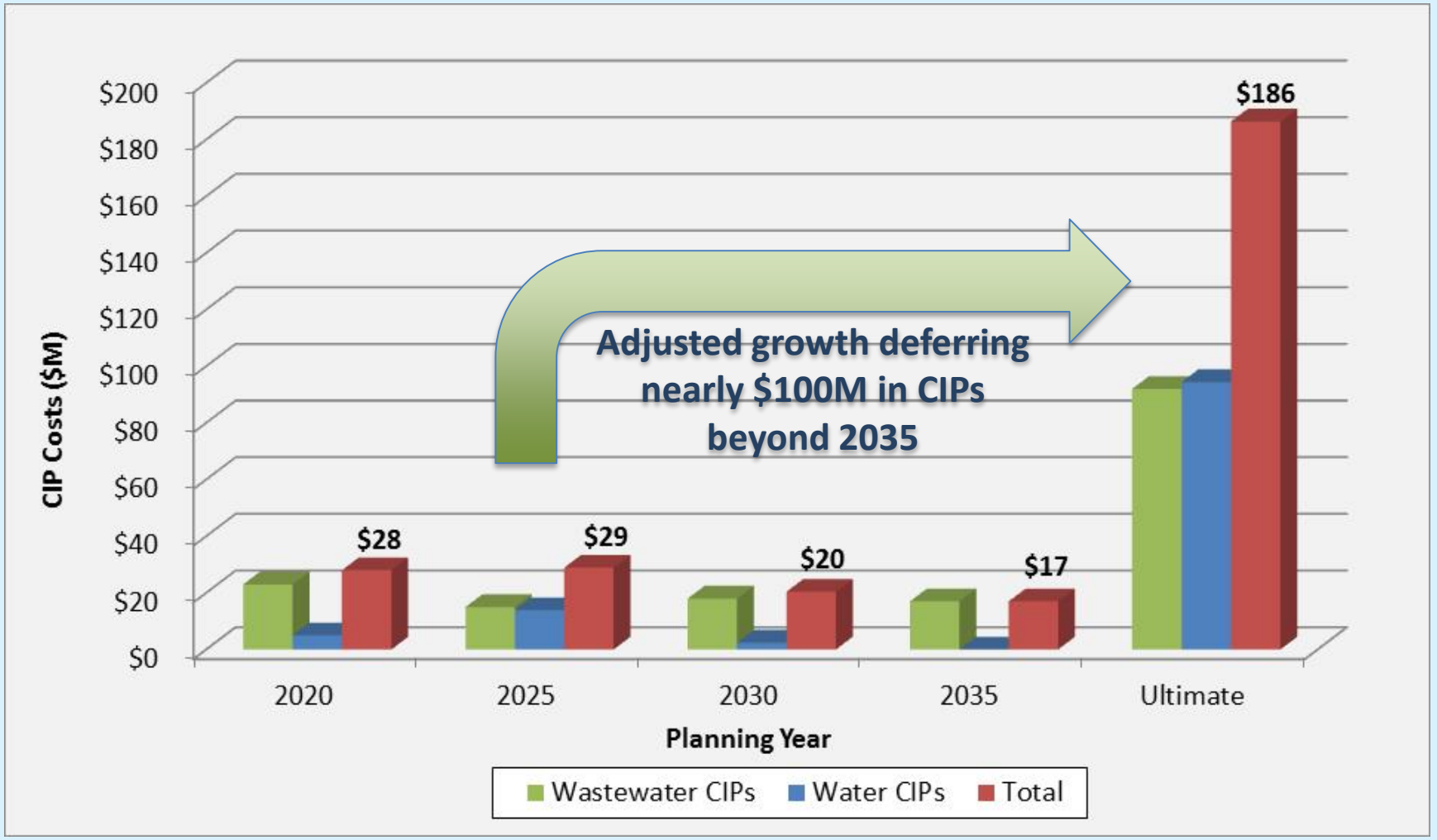

Next Steps

- Finalize CIP descriptions (Feb 2017)
- Add CIPs to Supplemental Environmental Impact Report (SEIR) (Feb 2017)
- Finalize Master Plan Report (March 2017)
- Complete and approve SEIR (Fall 2017)

Questions?

VALLECITOS WATER DISTRICT

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Backup Slides

Projected CIP Cost Estimates

- Unit costs developed based on:
  - Input from recent District construction projects
  - Input from other water agency projects
- A scaling factor has been developed to address economy of scale for large, small and challenging projects
- Unit costs applied to CIP projects to generate a planning level cost estimate

2014 Master Plan
Wastewater CIP – Land Outfall

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- 8 miles long
- Pipe diameter ranging from 24-inch to 48-inch
- Sized to transport ultimate peak dry weather flow of 22.65 MGD