

Supply vs Demand Outlook to 2050

Kansas Water Office

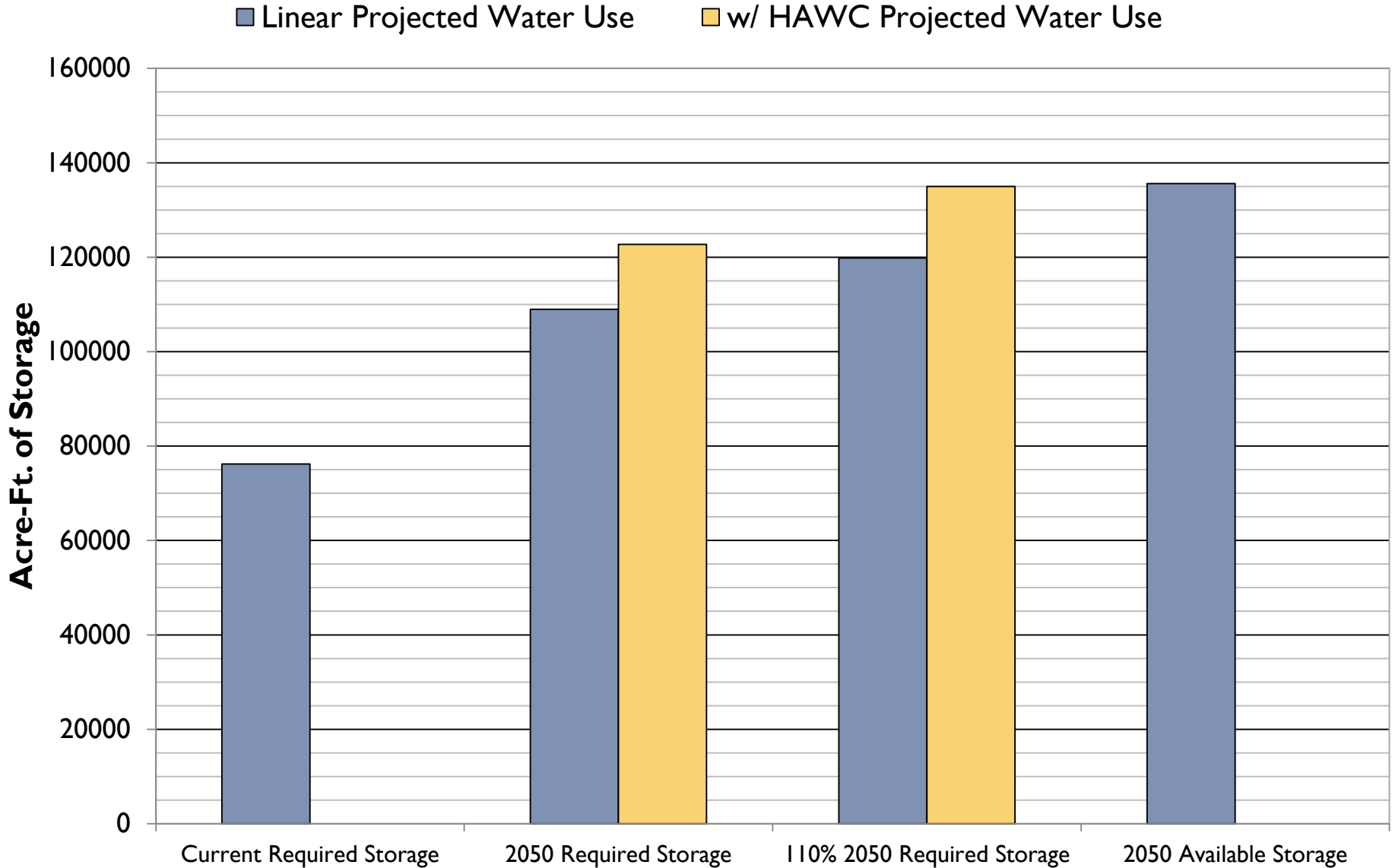
Objective

- ▶ Marais des Cygnes Regional Planning Area Goal #2:
“Increase sources of supply, at a minimum of one multipurpose structure, to meet increased demand in specific growth areas by 2035. ***In addition, ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050.***”

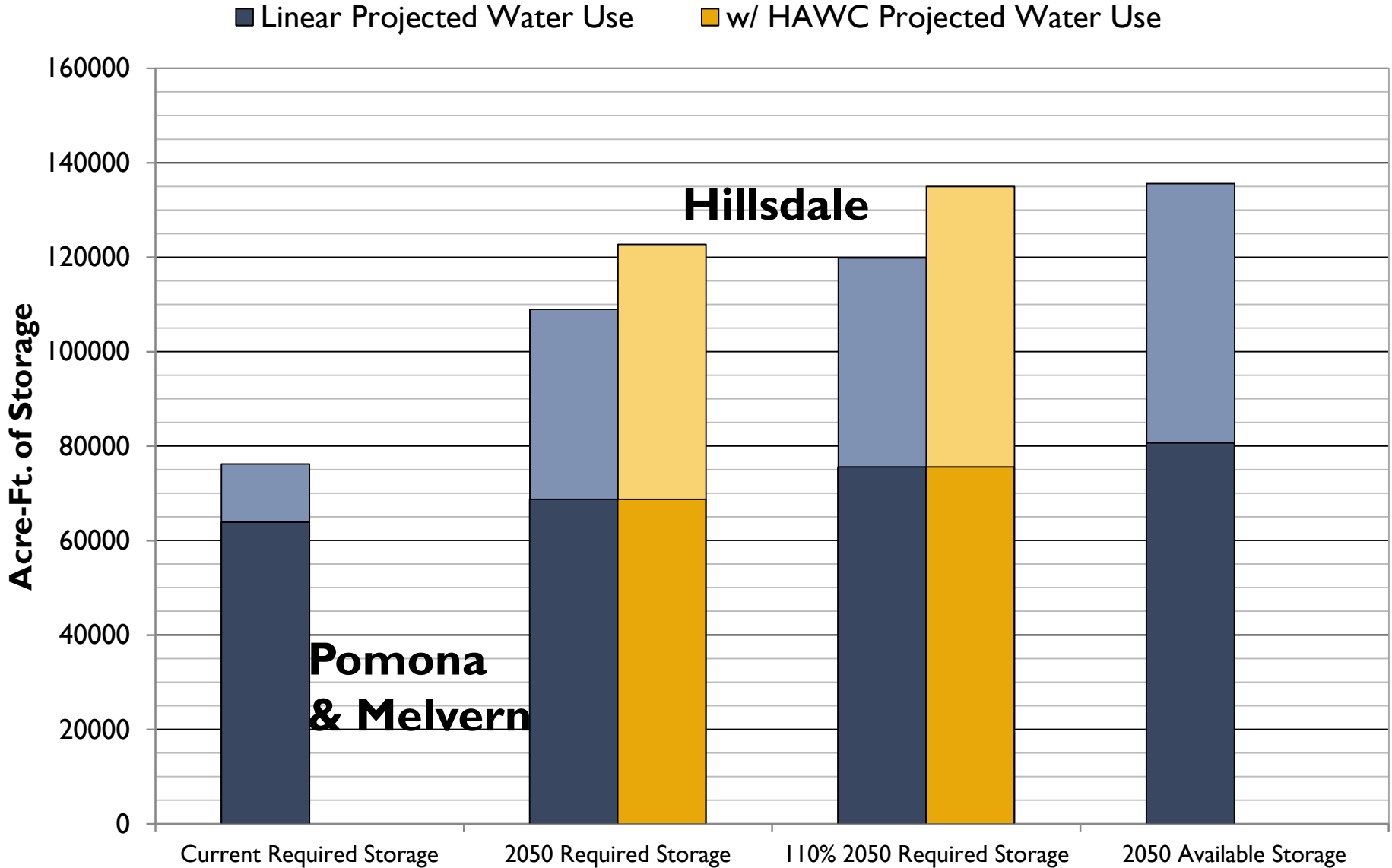
Methods

- ▶ Using the OASIS computer model, required reservoir account sizes were determined to supply estimated future demands in 2050.
- ▶ Assurance member demand was assumed to increase by 1% per year, following the trend in the Operations Agreement.
- ▶ HAWC demands were determined (1) using their demand projection and (2) using a linear projection.
- ▶ Required account sizes were then multiplied by 110%.

Results: Federal Reservoirs



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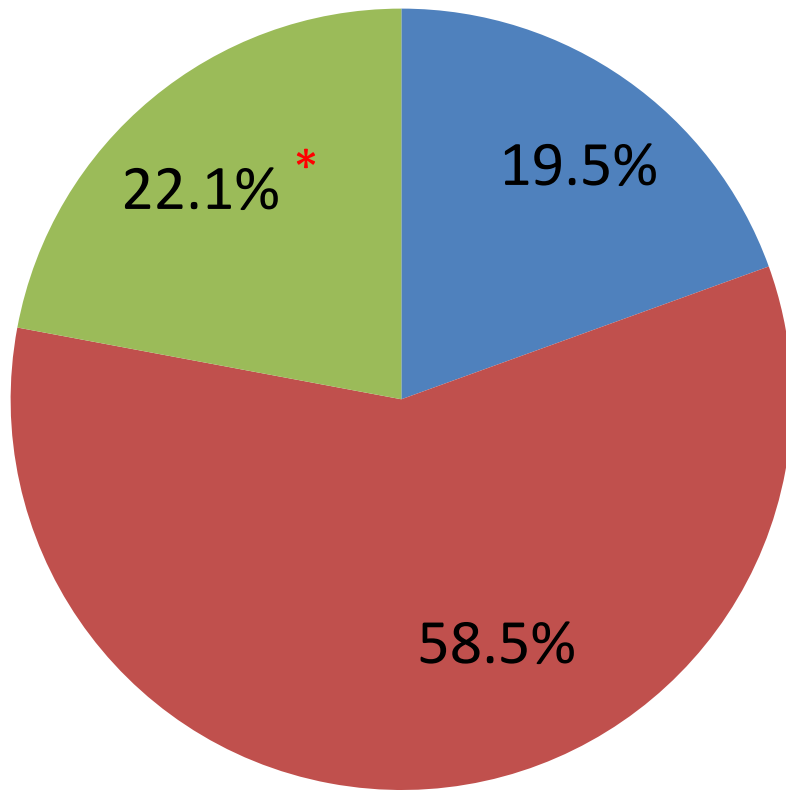
Reservoir Storage Allocations

- ▶ Water Quality Storage
 - ▶ Quality - This account serves to support streamflow.
 - ▶ Water Supply Storage
 - ▶ Future Use – Under contract with the state but has not been called into service (available when needed)
 - ▶ Industrial Assurance – Serves the downstream industrial surface water rights (La Cygne power plant)
 - ▶ Municipal Assurance – Serves all downstream municipal surface water rights
 - ▶ Marketing – Serves municipal customers that directly withdraw water from the reservoir
 - ▶ Reserve – Available for use but would need to be purchased from the state
 - ▶ Other/Local - The Other pool includes storage that has been contracted by the Corps to a local water supplier or is unallocated and currently retained by the Corps.
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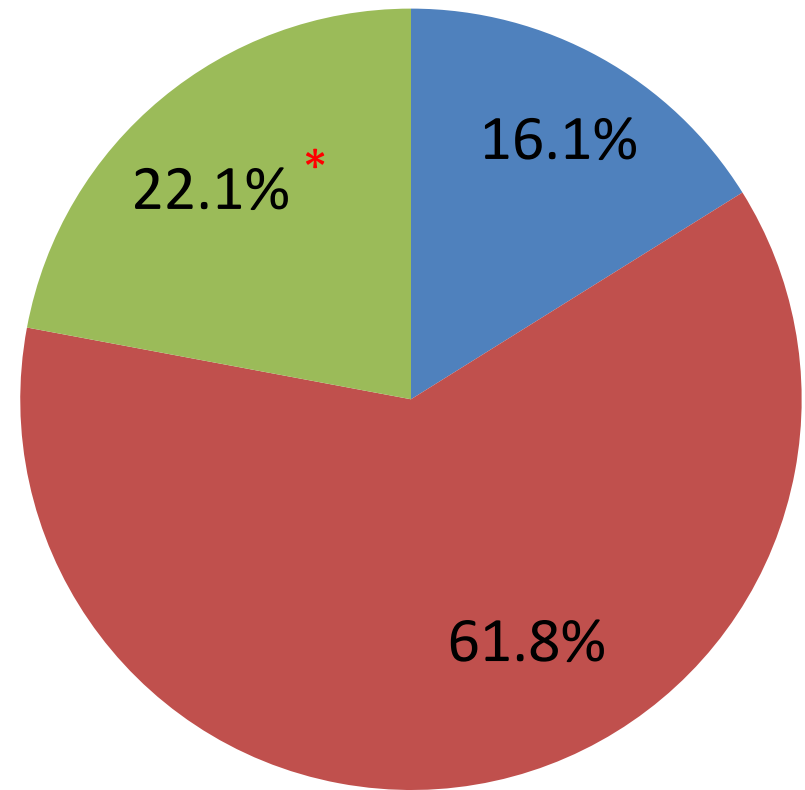


Results: Hillsdale

2018 Storage



2018 Required Storage

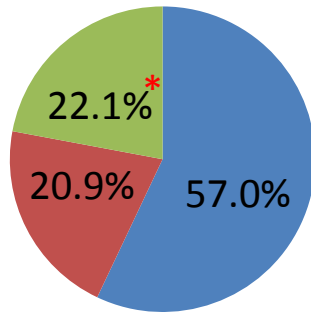


Marketing Future Use Quality

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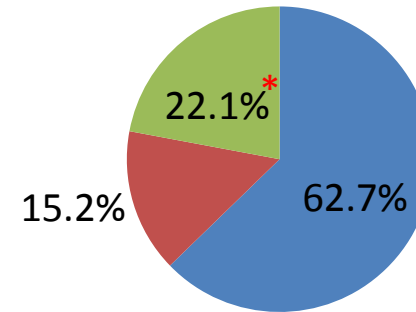
Results: Hillsdale

2050 Linear Projection



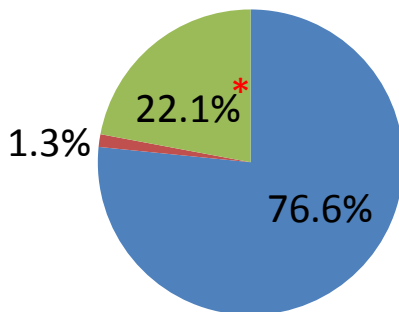
■ Marketing ■ Future Use ■ Quality

2050 110% Linear Projection



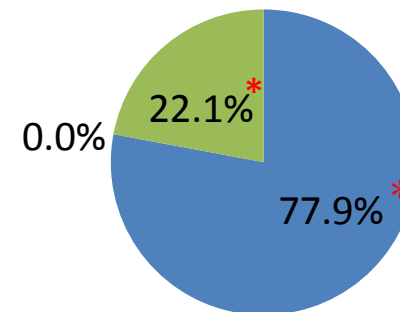
■ Marketing ■ Future Use ■ Quality

2050 HAWC Projection



■ Marketing ■ Future Use ■ Quality

2050 110% HAWC Projection

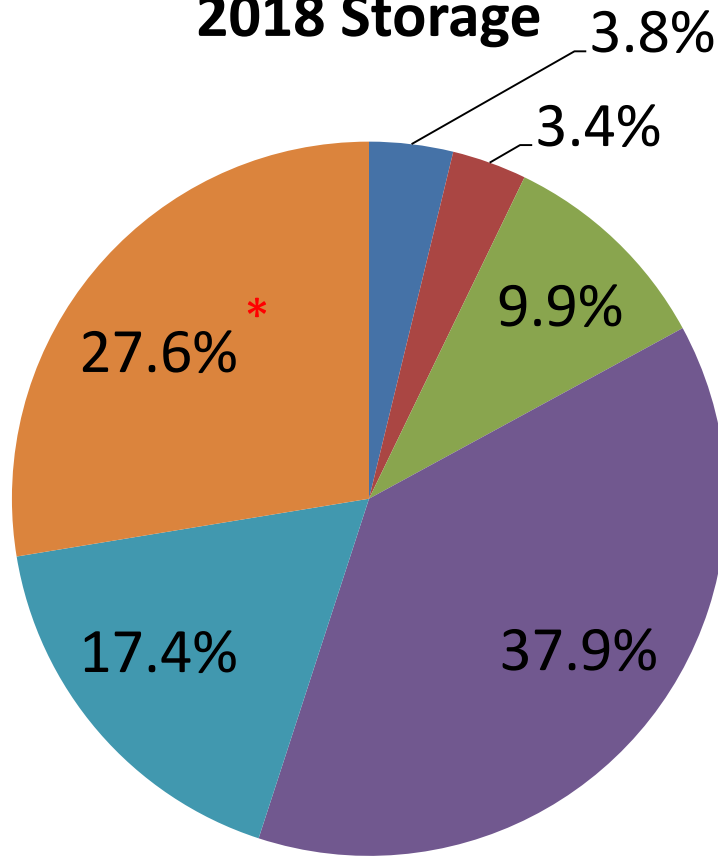


■ Marketing ■ Future Use ■ Quality

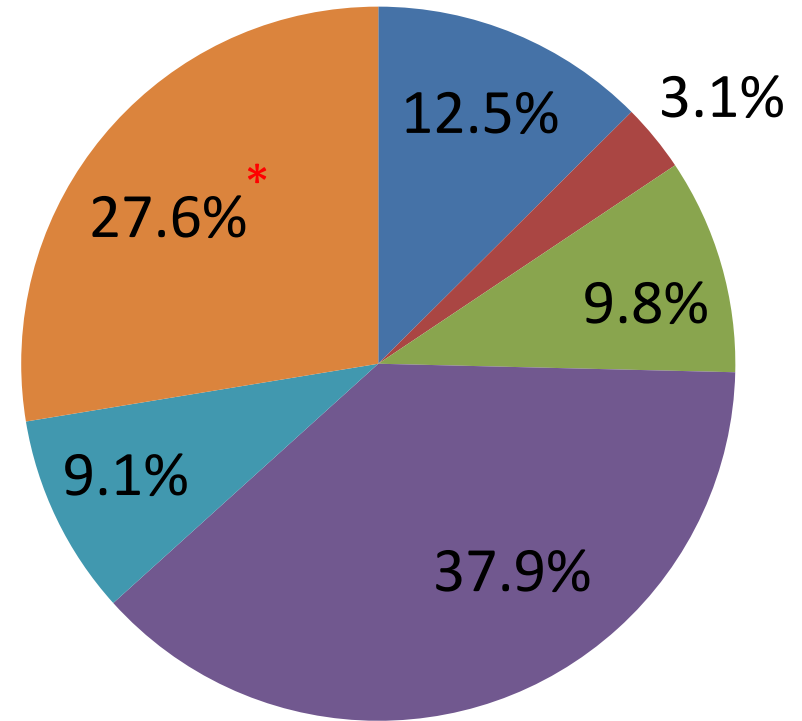
*Insufficient
Marketing
Storage

Results: Melvern

2018 Storage



2018 Required Storage



Industrial Assurance

Municipal Assurance

Marketing

Other/Local

Reserve

Quality

Industrial Assurance

Municipal Assurance

Marketing

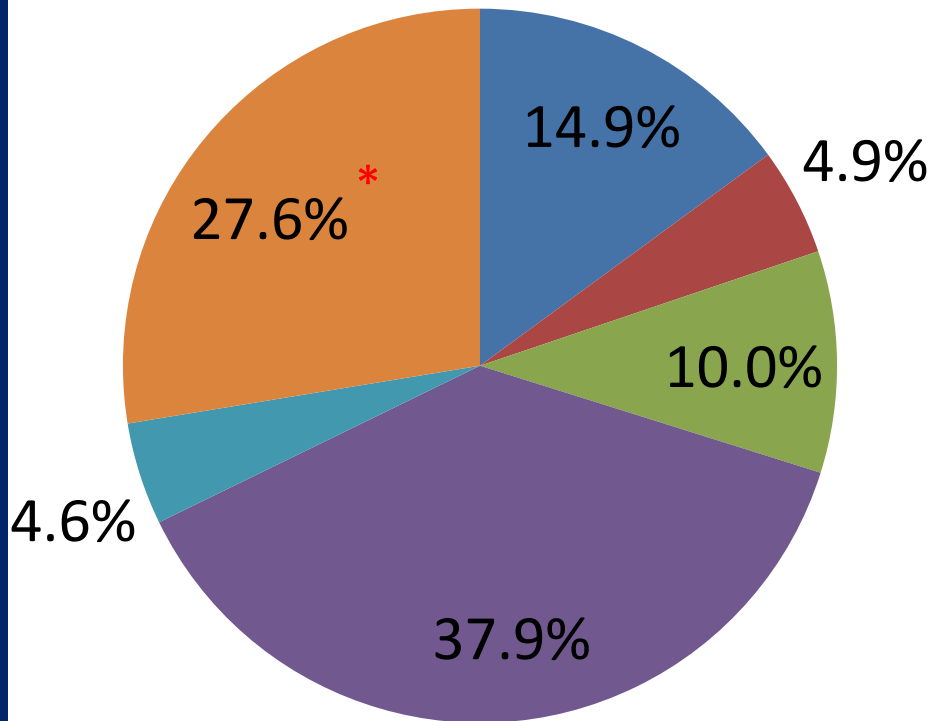
Other/Local

Reserve

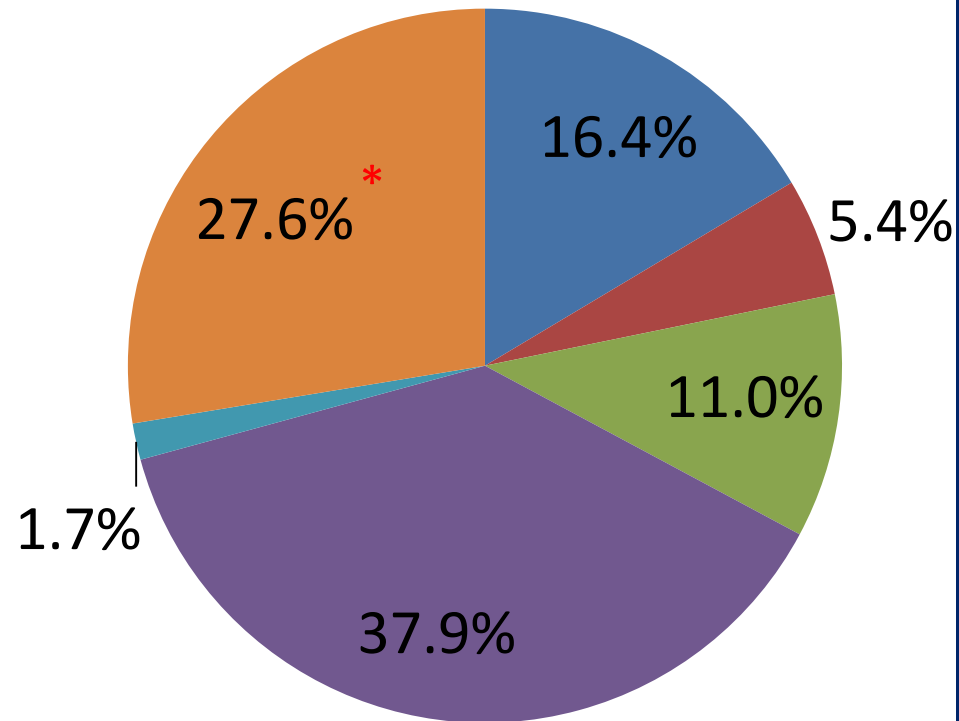
Quality

Results: Melvern

2050 Projection



2050 110% Projection



Industrial Assurance

Municipal Assurance

Marketing

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Quality

Industrial Assurance

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Marketing

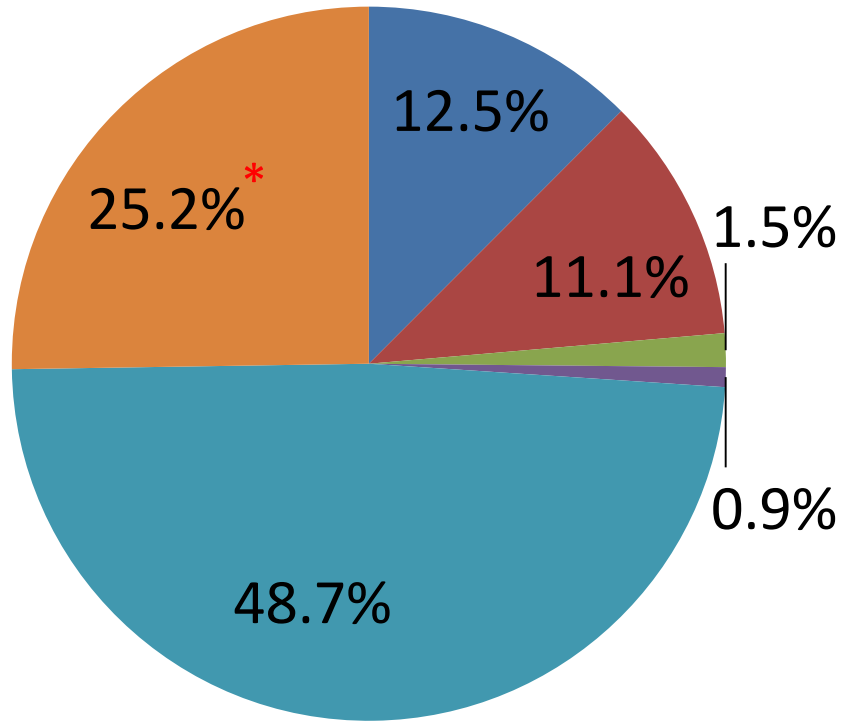
Other/Local

Reserve

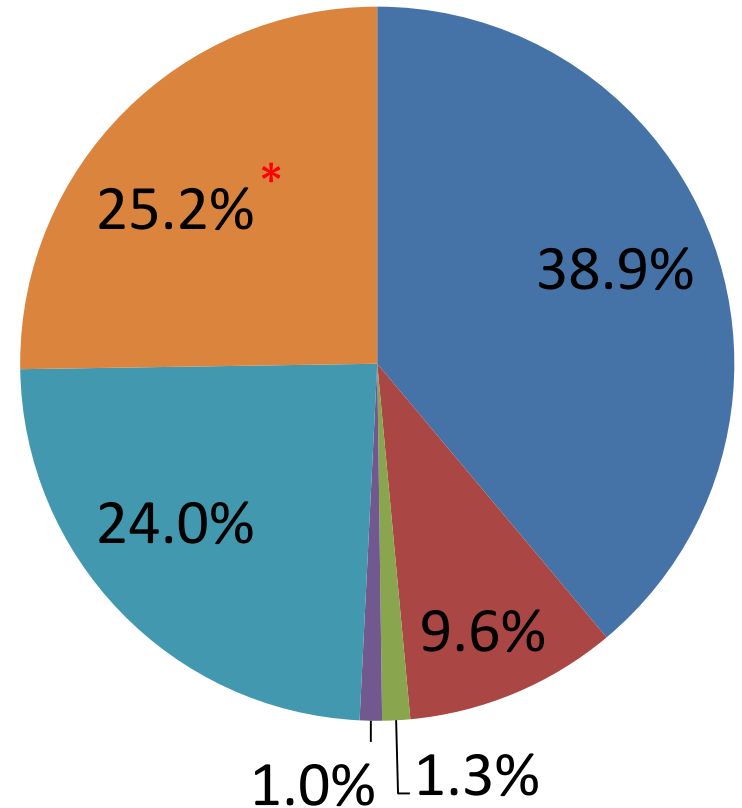
Quality

Results: Pomona

2018 Storage



2018 Required Storage



Industrial Assurance

Municipal Assurance

Industrial Assurance

Municipal Assurance

Marketing

Other/Local

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Other/Local

Reserve

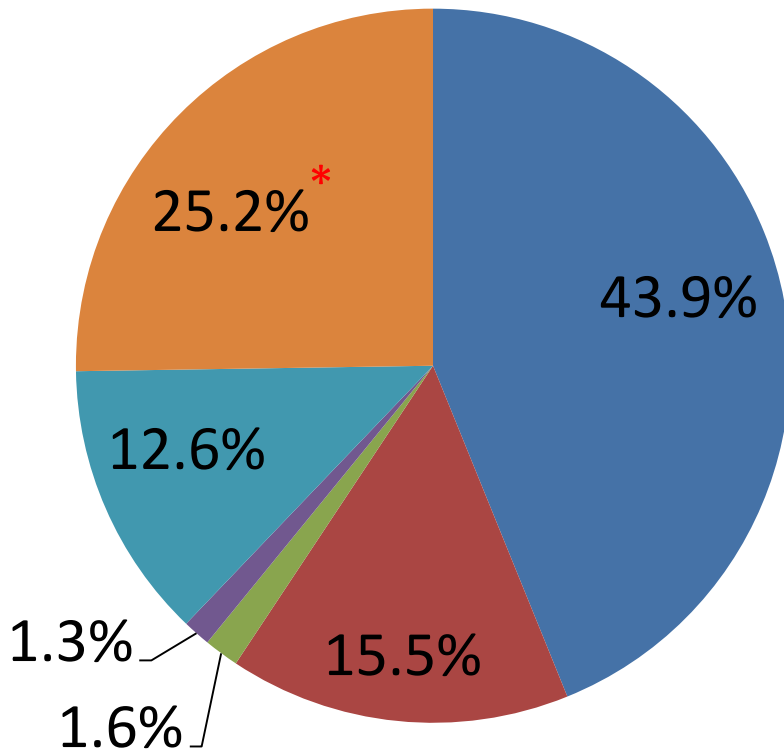
Quality

Reserve

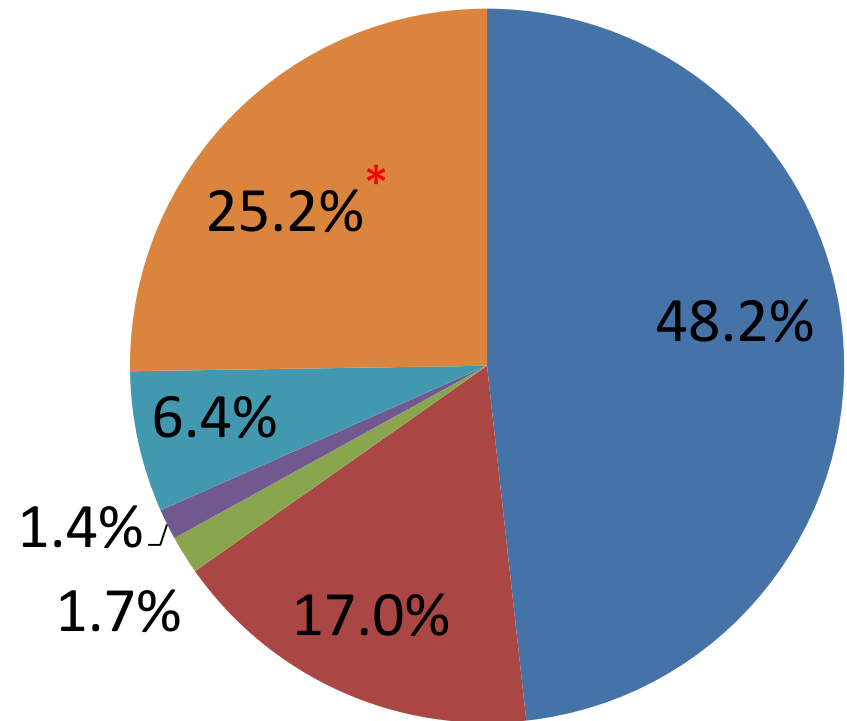
Quality

Results: Pomona

2050 Projection



2050 110% Projection



- Industrial Assurance
- Municipal Assurance
- Marketing
- Other/Local
- Reserve
- Quality

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Questions?

