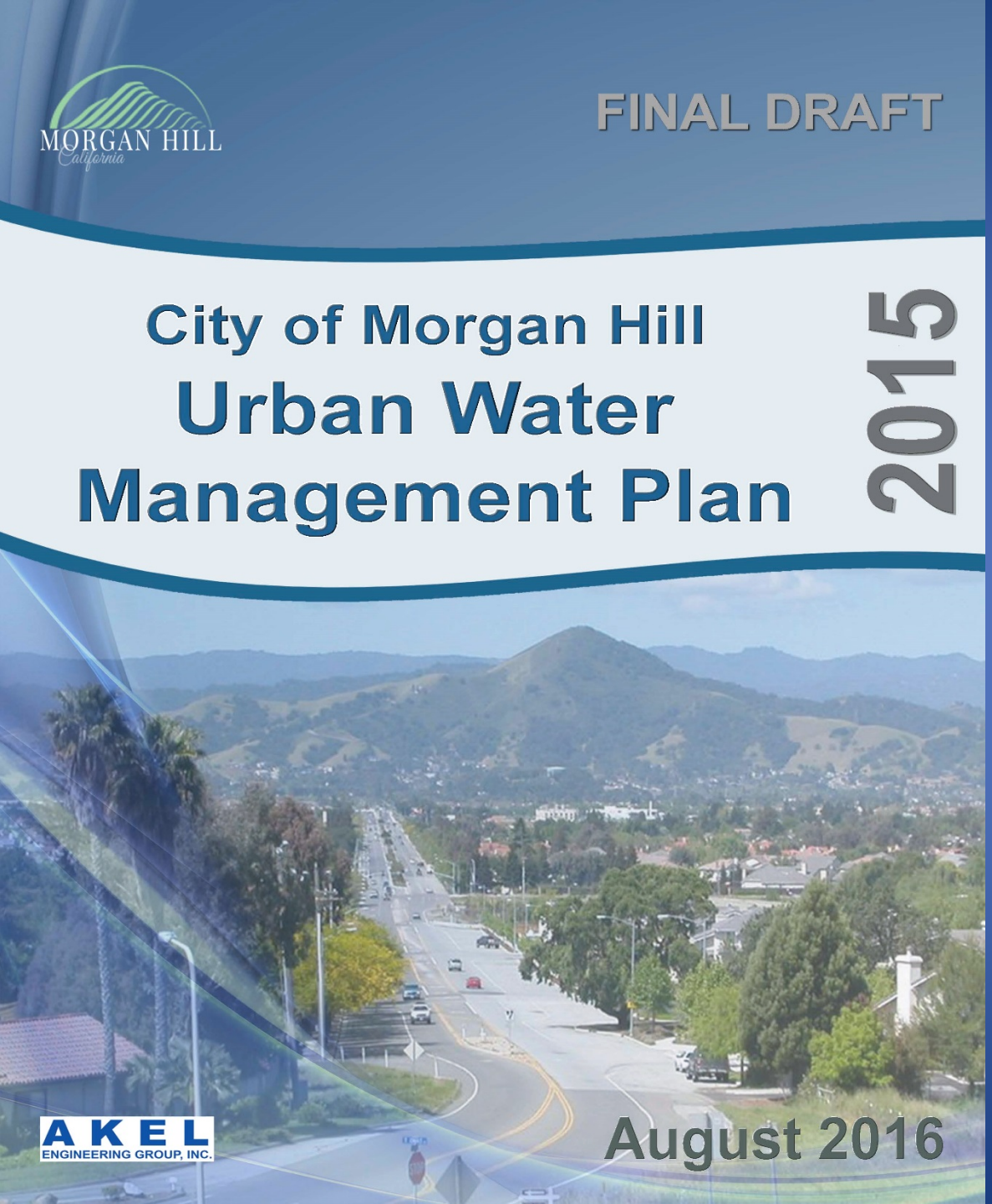


Item # 21
AGENDA DATE: 08/24/16
STAFF PRESENTATION

Public Hearing

2015 Urban Water Management Plan

August 24, 2016

Agenda

- Water Planning Overview
- UWMP Presentation
- Open/Close Public Hearing
- Adopt the UWMP

Water Planning Overview

- Definitions
- Water Planning Process
- The UWMP – What is it?

Water Planning Overview

Definitions:

- Supply = water available water to the City water system.
- Demand = how much water the City uses now and expects to use in the future
- Capacity = the City's ability to produce water (does not increase supply)
- Firm Water = water obligated through right or contract
- Planning Cycle = the period to prepare a new plan (every 5 years)
- Planning Horizon= how far in the future projections are made (25 years)
- Water Budget = provides an accounting of water in a groundwater basin

Water Planning Overview

Process

- The City's supply is based how much water is stored as groundwater. The supply is determined by the Water District who manages the groundwater in the County.

- Demand is estimated by the City using population growth and water consumption rates. Expressed as gallons per capita per day

- Compare the supply with the demand across the planning horizon.

Water Planning Overview

The UWMP – What is it?

- The State requires that the City produce the UWMP every 5 years. Council can choose to revisit at anytime.
- Largely a reporting tool for the State to monitor water utility performance
- Monitors compliance with State mandated conservation goals
- Does not include implementation details or set City policy(s)
- Does not include or address the City's Water Utility Master or Capital Improvement Plans
-

UWMP Topics

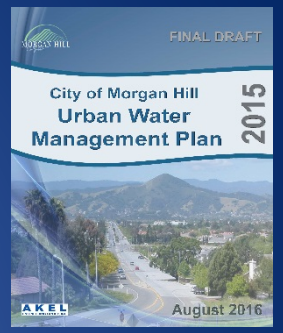
- Urban Water Management Plans
- 2010 UWMP vs. 2015 UWMP
- Public Outreach
- Demand and Supply Assessment
- 2015 and 2020 Water Conservation Targets
- Recommendations for Achieving 2020 Target
- Water Conservation – A California Way of Life

Urban Water Management Plans

Why Prepare an Urban Water Management Plan?

- Required by Law Every 5 Years (ending in 0 and 5).
  - Water Code Sections 10610-10656
  - 3,000 connections/3,000 ac-ft/yr.
- Submitted to Department of Water Resources
- Satisfy Requirements of UWM Planning Act of 1983 and Subsequent Amendments
- Drought Planning – Water Shortage Contingency Plan
- Required for Funding or Drought Assistance from State
- Requires Coordination with Other Agencies.

What the 2015 UWMP Contains



- Chapter 1. Introduction and Overview
- Chapter 2. Plan Preparation
- Chapter 3. System Description
- Chapter 4. System Water Use (Historical Demands, Projected Demands to 2035, Recycled Water Use)
- Chapter 5. SBx7-7 Baselines and Targets
- Chapter 6. System Supplies (Wells, Groundwater Basin, Water and Studies)
- Chapter 7. Water Supply Reliability Assessment
- Chapter 8. Water Shortage Contingency Planning
- Chapter 9. Demand Management Measures
- Chapter 10. Plan Adoption, Submittal, and Implementation

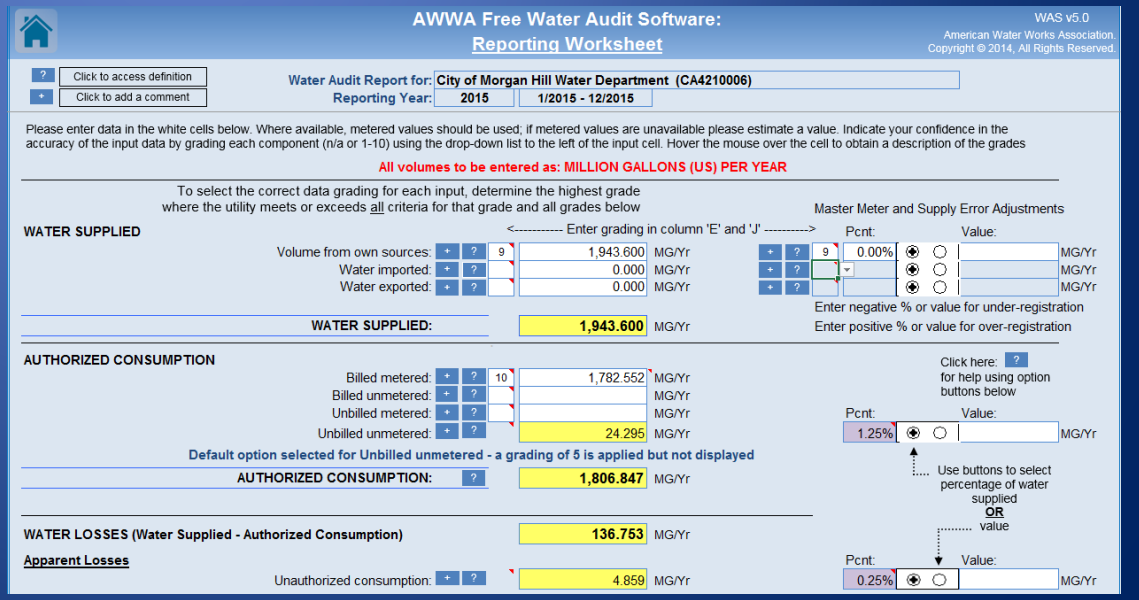
2010 UWMP vs. 2015 UWMP

New in 2010 UWMP

- Water Conservation Act of 2009 (also known as SBx7-7).
- Requires Municipal Water Purveyors to Establish Water Use Targets by July 1, 2011.
- Goal is to Achieve 20% reduction in Urban per Capita Water Usage by December 31, 2020.
- Interim Goal: 10% reduction by December 31, 2015.

New in 2015 UWMP

- AWWA Water Audit (SB 555)
  - Requires water suppliers to quantify and report their distribution system losses in accordance with AWWA Water Audit Methodology.
  - Water suppliers must complete this Water Audit annually beginning in 2016.



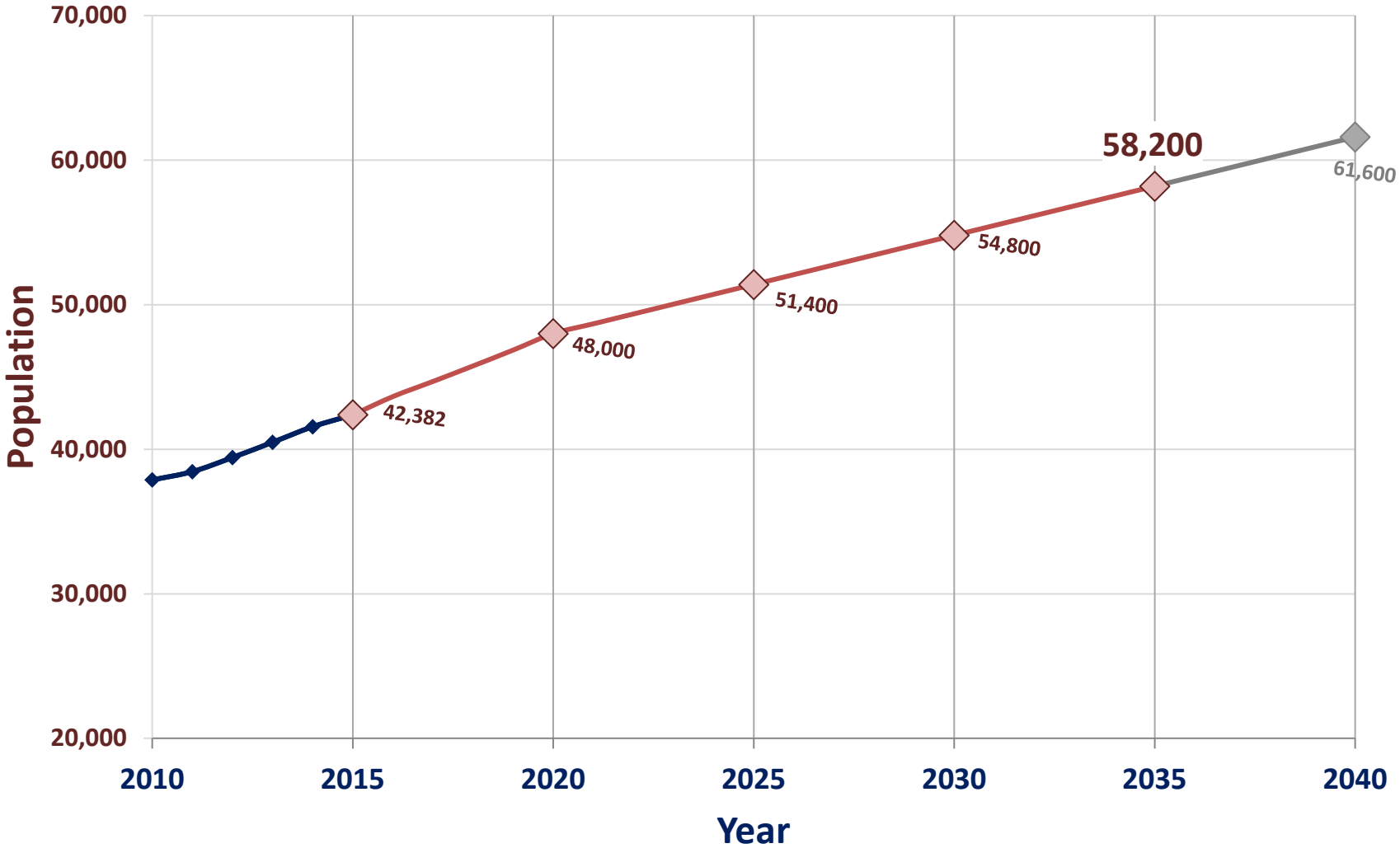
Public Outreach

Public Outreach

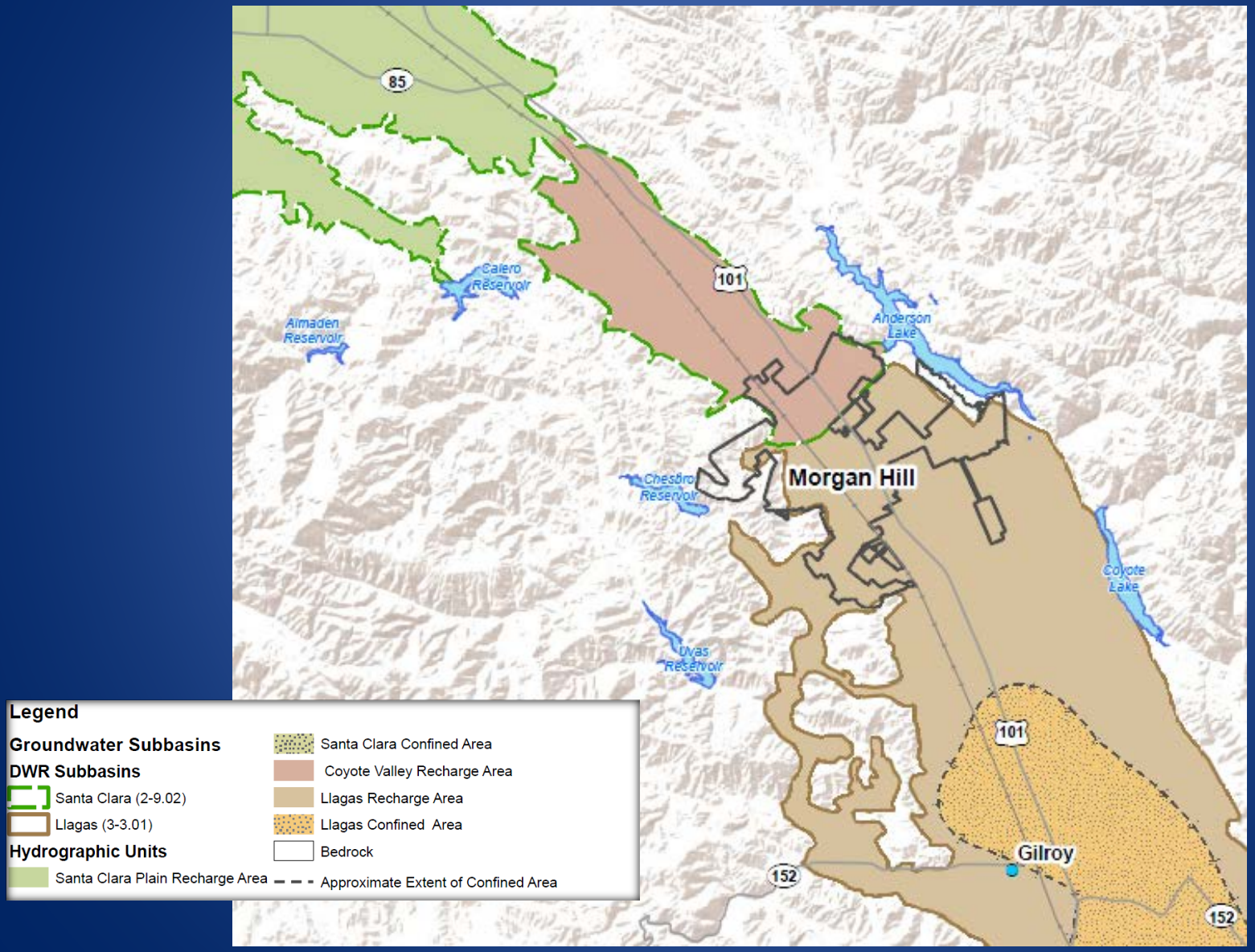
- Open House was held on June 16, 2016
- 8 members of the public attended
- Key issues included:
  - Concerns about growth in the City
  - Providing water to support projected population
  - How the UWMP relates to City General Plan
  - Groundwater sustainability

Demand and Supply Assessment

Historical and Projected Population



Groundwater Subbasins



Demand and Supply Assessment

- Demand based on water use and population increases. Reported as Acre Feet per year and/or Gallons per Capita per Day

- Supply based on ability to pump and aquifer capacity. Reported as Acre Feet per year

Demand and Supply Assessment

Llagas Subbasin

Demand Condition	2020 (afy)	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)
Projected Water Supply of the Llagas Subbasin[1]					
Natural Groundwater Recharge	22,500	22,500	22,500	22,500	22,500
Local Surface Water	16,000	18,300	20,300	21,500	21,600
SCVWD CVP Deliveries	10,600	10,700	10,700	10,400	10,200
Recycled Water Supply	2,600	3,200	3,700	3,700	3,700
Total without Recycled Water	49,100	51,500	53,500	54,400	54,300
Total with Recycled Water	51,700	54,700	57,200	58,100	58,000
Projected Average Daily Water Demand					
City of Gilroy[2]	9,186	10,306	11,650	12,882	14,114
City of Morgan Hill[3]	7,019	7,516	8,013	8,510	9,008
Other Users[4]	32,044	33,105	33,937	34,350	33,593
Total	48,249	50,927	53,600	55,742	56,715
Supply vs Demand Comparison - Excluding Recycled Water					
Difference (Supply - Demand)	851	573	-100	-1,342	-2,415
Percent of Total Supply	98%	99%	100%	102%	104%
Supply vs Demand Comparison - Including Recycled Water					
Difference (Supply - Demand)	3,451	3,773	3,600	2,358	1,285
Percent of Total Supply	93%	93%	94%	96%	98%

Demand and Supply Assessment

Coyote Valley Subarea

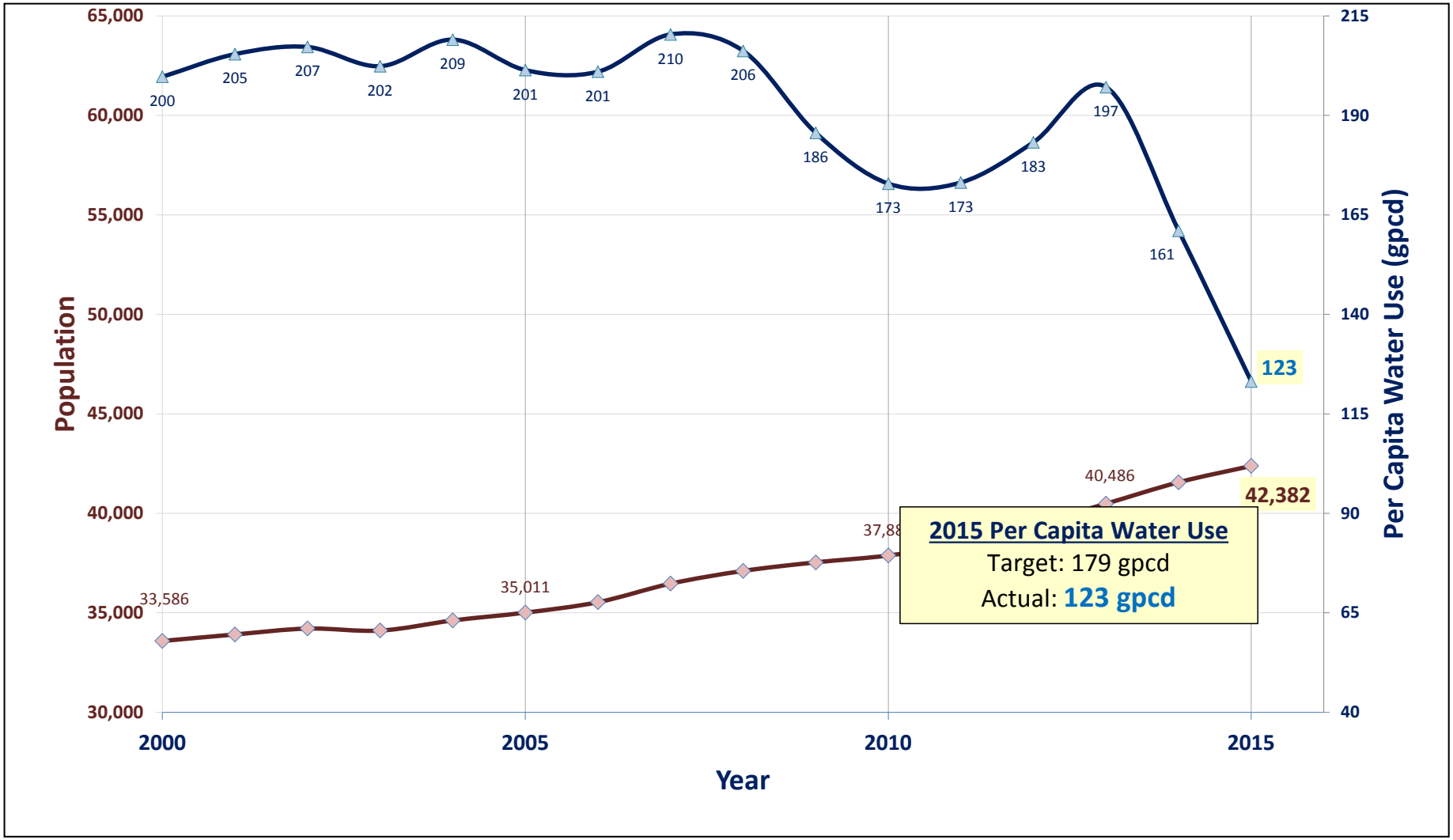
Demand Condition	2020 (afy)	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)
Projected Water Supply of the Coyote Valley Subarea[1]					
Natural Groundwater recharge	2,400	2,400	2,400	2,400	2,400
Local Surface Water	6,200	6,400	6,300	6,200	6,200
SCVWD CVP Deliveries	3,500	4,400	5,600	6,600	6,800
Total	12,100	13,200	14,300	15,200	15,400
Projected Average Daily Water Demand					
City of Morgan Hill[2]	1,530	1,639	1,747	1,856	1,964
Other Users[3]	11,986	13,063	14,295	15,474	15,736
Total	13,516	14,702	16,042	17,330	17,700
Supply vs Demand Comparison					
Difference (Supply - Demand)	-1,416	-1,502	-1,742	-2,130	-2,300
Percent of Total Supply	112%	111%	112%	114%	115%

2015 and 2020
Water Conservation Targets

Per Capita Water Conservation Targets and City's Plan to Meet Them

SBx7-7 Water Conservation Targets	Gallons per Day per Capita (gpcd)	Comment
Base for Water Conservation	199	10-year Average (1996-2005)
2015 Interim **Target**	**179**	**10% Reduction** from Base
2020 Target	**159**	**20% Reduction** from Base

City's Plan to Meet Targets	City Action	Comment
2015 Target	None. 2015 Actual Water Consumption: **123 (38% reduction)**	We Have Met the 2015 Target
2020 Target	Need to maintain Reduced Water Consumption between now and 2020	• Continued Implementation of Demand Management Measures



LEGEND

- Historical Population
- Historical Per Capita Water Use

Historical Population vs. Historical Per Capta Water Use

2015 Urban Water Management Plan
City of Morgan Hill

AKEL ENGINEERING GROUP, INC.

CITY OF MORGAN HILL

Recommendations for Achieving 2020 Target

Recommendations for Achieving 2020 Target

- Continued Implementation of Demand Management Measures
- Continued Implementation of Water Conservation Ordinance

Demand Management Measures

- Water Waste Prevention Ordinance
  - Water waste prohibitions, including Water Shortage Contingency Plan (DMM 13)
- Metering
  - All new connections receive water meters, retrofit of existing unmetered connections (DMM 4)
- Conservation Pricing
  - Pricing structure to encourage water conservation (DMM 11)
- Public Outreach and Conservation Programs
  - Water survey programs (DMM 1)
  - Plumbing fixture retrofits (DMM 2, DMM 6, DMM 14
  - Conservation and education programs (DMM 5, DMM 7, DMM 8, DMM 9)

Stage	Percent Supply Reduction
0	0% - 10%
1	11% - 20%
2	20% - 40%
3	50%

Demand Management Measures (Cont'd)

- Programs to Assess and Manage Distribution System Real Loss
  - Water audits, leak detection and repair (DMM 3)
- Water Conservation Program Coordination and Staffing Support
  - Water Conservation Coordinator (DMM 12)
- Other
  - Wholesale agency programs (DMM 10)

Water Conservation
A California Way of Life

Executive Order B-37-16 (May 9, 2016)

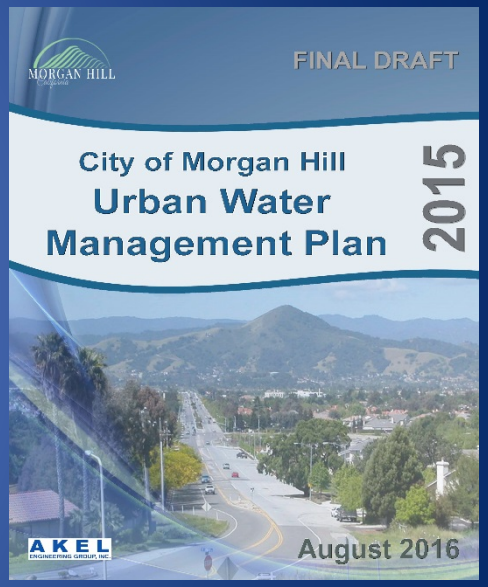
- New Order from the Governor "Making Water Conservation a California Way of Life"
  - Use Water More Wisely
  - Eliminate Water Waste
  - Strengthen Local Drought Resilience
  - Improve Agricultural Water Use Efficiency and Drought Planning
- Must build upon SBX7-7 requirements
- Draft requirements for Urban Water Suppliers expected in January 2017
- No impact to 2015 UWMP but will trigger Update to Water Shortage Contingency Plan after 2017.

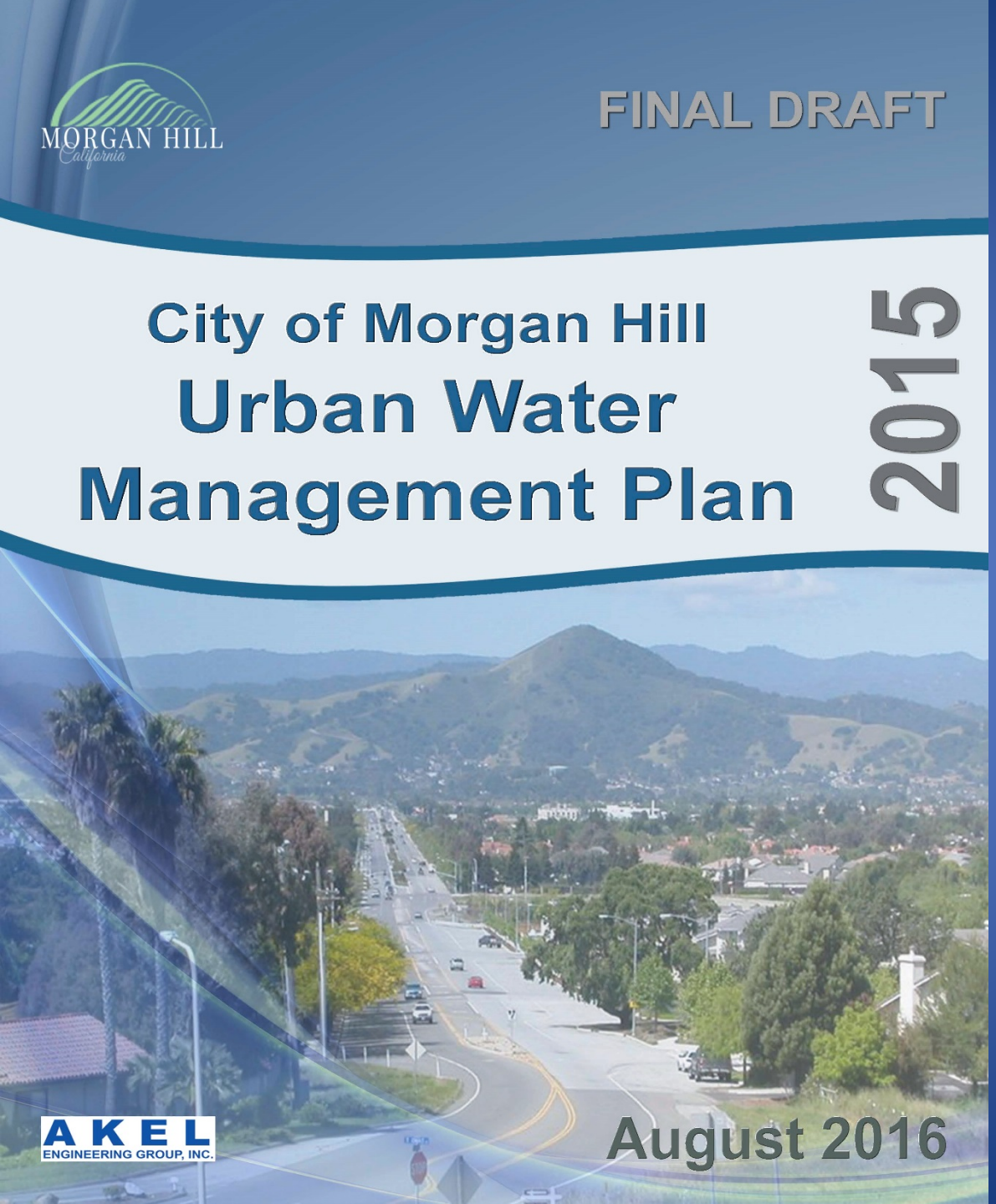
Water Planning Studies

- City Urban Water Management Plan
  - Local state required water supply
- City Water System Master Plan
  - Local water infrastructure
- District UWMP
  - Regional state required water supply
- District Water Master Plan
  - Regional water infrastructure
- District Groundwater Management Plan
  - Regional groundwater reliability

Critical Milestones for 2015 UWMP

Milestone	Date
Draft Available for Public Review	Completed
Publish newspaper notification	Completed
Open House to discuss 2015 UWMP	June 16, 2016
Council Meeting to Adopt 2015 UWMP	August 24, 2016
Submit Copies of Adopted 2015 UWMP to DWR, County, Stakeholders	August 2016
DWR Reviews 2015 UWMP	TBD





Open and Close Public Hearing

Adopt UWMP

2015

Urban Water Management Plan

August 24, 2016