

# Development of the 2018 Recharge Master Plan Update

Steering Committee Meeting #2  
March 15, 2018



# 2018 RMPU Scope of Work

- ▶ Task 1 Scoping and project management
  - Ongoing throughout project
- ▶ Task 2 Collect, compile, and review data and reports
  - 2018 RMPU builds on prior work
- ▶ Task 3 Develop groundwater production and replenishment obligations
  - Completed via Storage Framework investigation; will be summarized here



# 2018 RMPU Scope of Work

- ▶ Task 4 Describe existing recharge facilities
  - Stormwater, ASR, in-lieu
    - Assess current status
  - MS4 facilities
  - Current status of 2013 RMPU projects
- ▶ Task 5 Evaluate recharge needs
  - Future replenishment capacity requirements
  - Balance of recharge and discharge
  - Other OBMP requirements



# 2018 RMPU Scope of Work

- ▶ Task 6 Develop implementation plan (if necessary)
- ▶ Task 7 Prepare 2018 RMPU report
  - Completed by section throughout project timeline
  - Regular feedback from Steering Committee



# 2018 RMPU Section 2 – Changed Conditions from the 2013 RMPU

- ▶ What has changed since the 2013 RMPU, and how does it affect the need for recharge facilities?



# 2018 RMPU Section 2 – Changed Conditions from the 2013 RMPU

- ▶ Planning projections have been updated through Storage Framework scenario development
- ▶ Projections of replenishment obligations have been updated

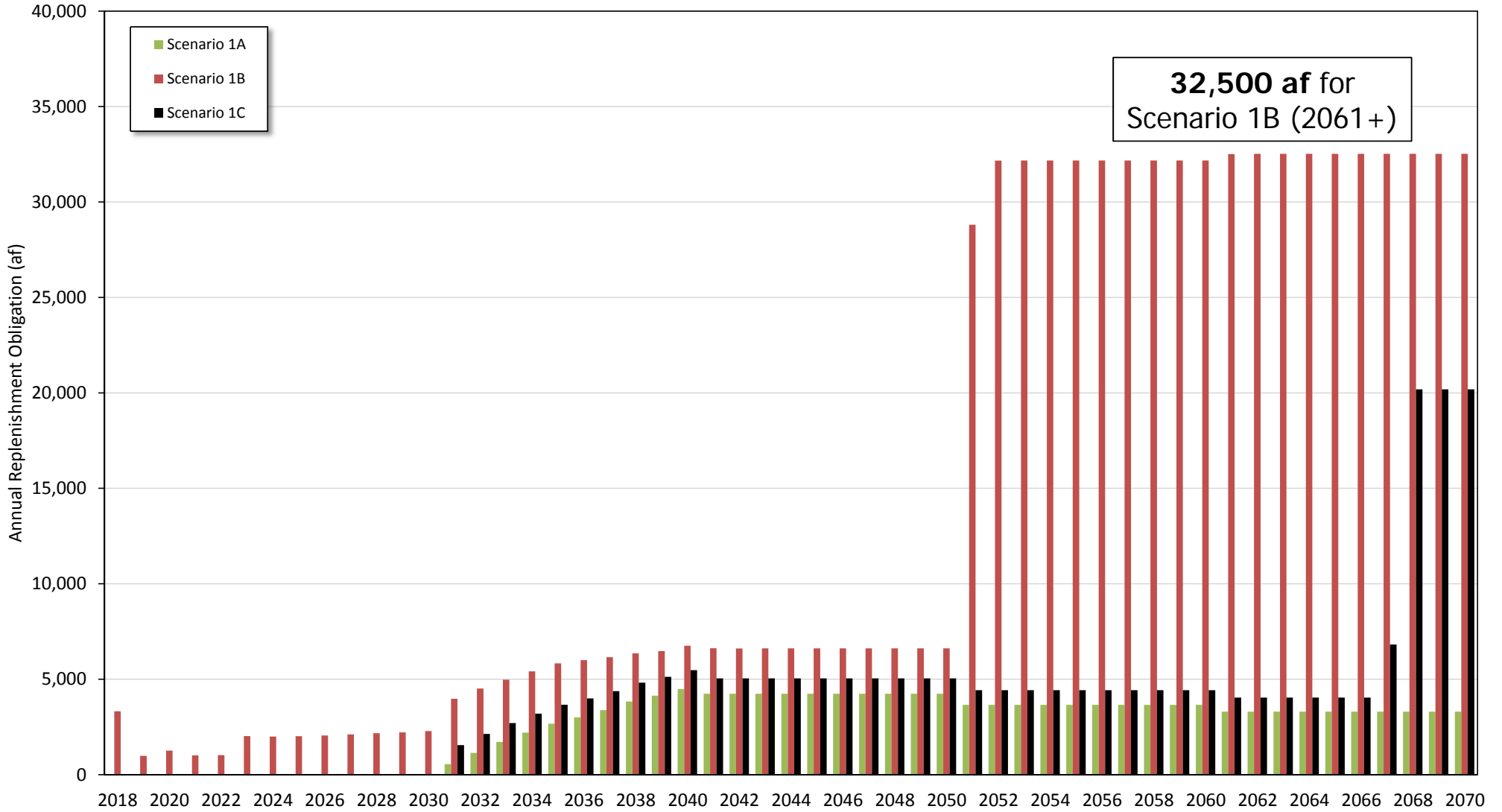


# Assessment of Replenishment Needs

- ▶ What is the maximum replenishment capacity necessary?



### Projected Annual Replenishment Obligation, 2018-2070



**32,500 af for Scenario 1B (2061+)**



# 2018 RMPU Section 3 – Groundwater Response to Projected Pumping, Recharge, and Replenishment

- ▶ Groundwater model results from the Storage Framework scenarios will be summarized here



# Assessment of Replenishment Capacity

- ▶ “[P]rovide reasonable assurance that... sufficient Replenishment capacity exists to meet the reasonable projections of Desalter Replenishment obligations.” (Peace II Agreement, §8.1)
- ▶ Replenishment via:
  - Wet-water recharge
    - Spreading basins
    - ASR wells
  - In-lieu

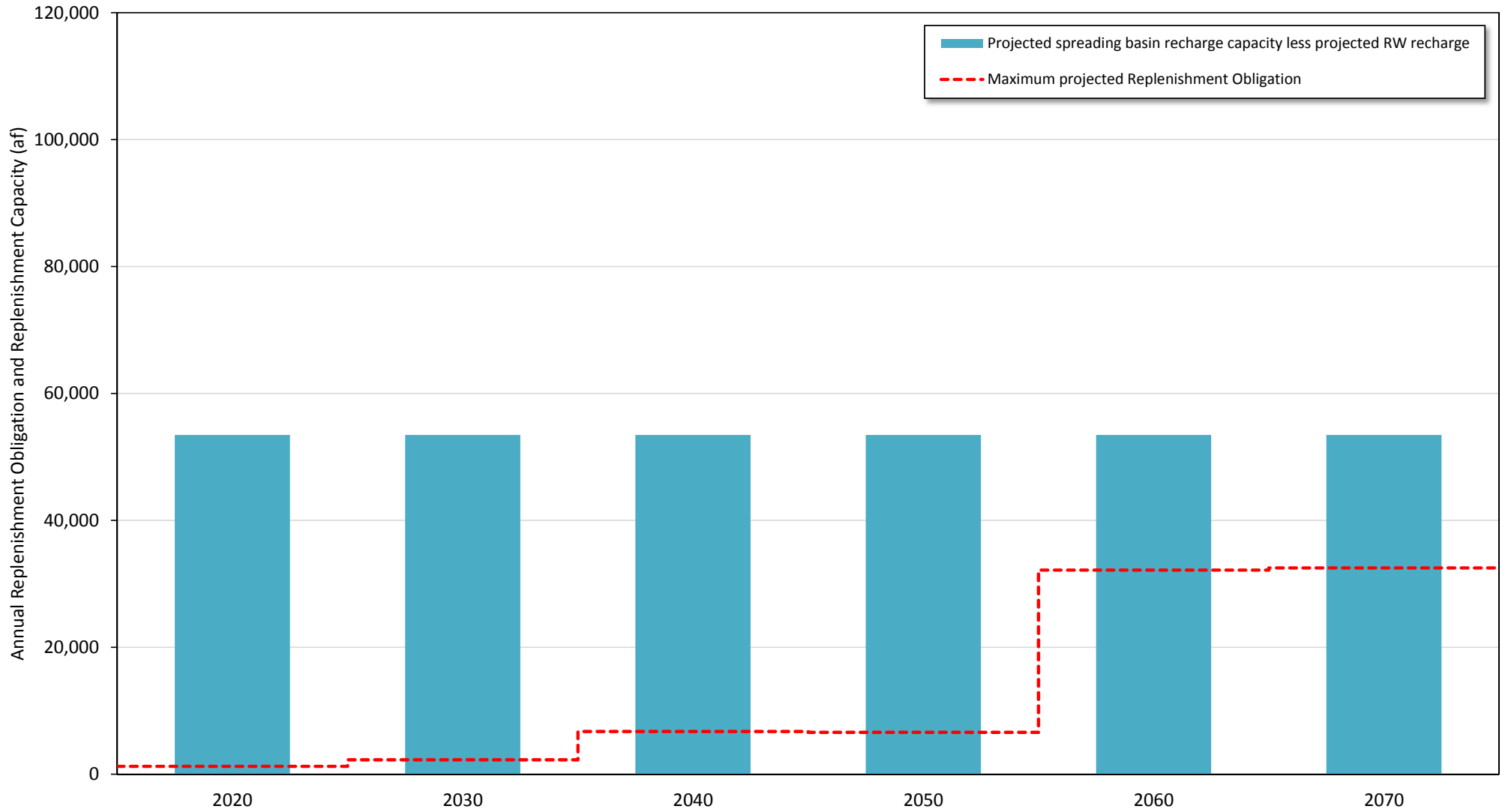


# Spreading basin recharge capacity for supplemental water

- ▶ Acquired IEUA data on spreading basins
- ▶ Developed and applied function to simulate infiltration rate decay for basins
- ▶ Estimated availability of spreading basins for supplemental water recharge
- ▶ Estimated spreading basin supplemental water recharge capacity
  - Maximum capacity = 70,000 afy



**Projected Annual Replenishment Obligation and Supplemental Water Recharge Capacity,  
2020 through 2070**



# ASR capacity

- ▶ 5,500 afy based on MVWD well capacity



# In-Lieu Recharge Capacity

- ▶ Agency's use of imported water *in lieu* of pumping Chino Basin groundwater rights
- ▶ Uses
  - Replenishment capacity
  - Storage projects (Storage Framework)



# In-Lieu Recharge Capacity

- ▶ Assumptions:
  - Only agencies that receive imported water can have in-lieu recharge
  - In-lieu recharge capacity is limited by:
    - Imported water capacity
    - Chino Basin pumping (demand)
    - Production rights from the Chino Basin
  
- ▶ In-lieu recharge capacity was calculated monthly for each agency based on planning information provided in Storage Framework investigation



# In-Lieu Recharge Capacity

- ▶ Aggregate capacity ranges from 41,000 afy to 45,700 afy over planning years 2020 through 2040



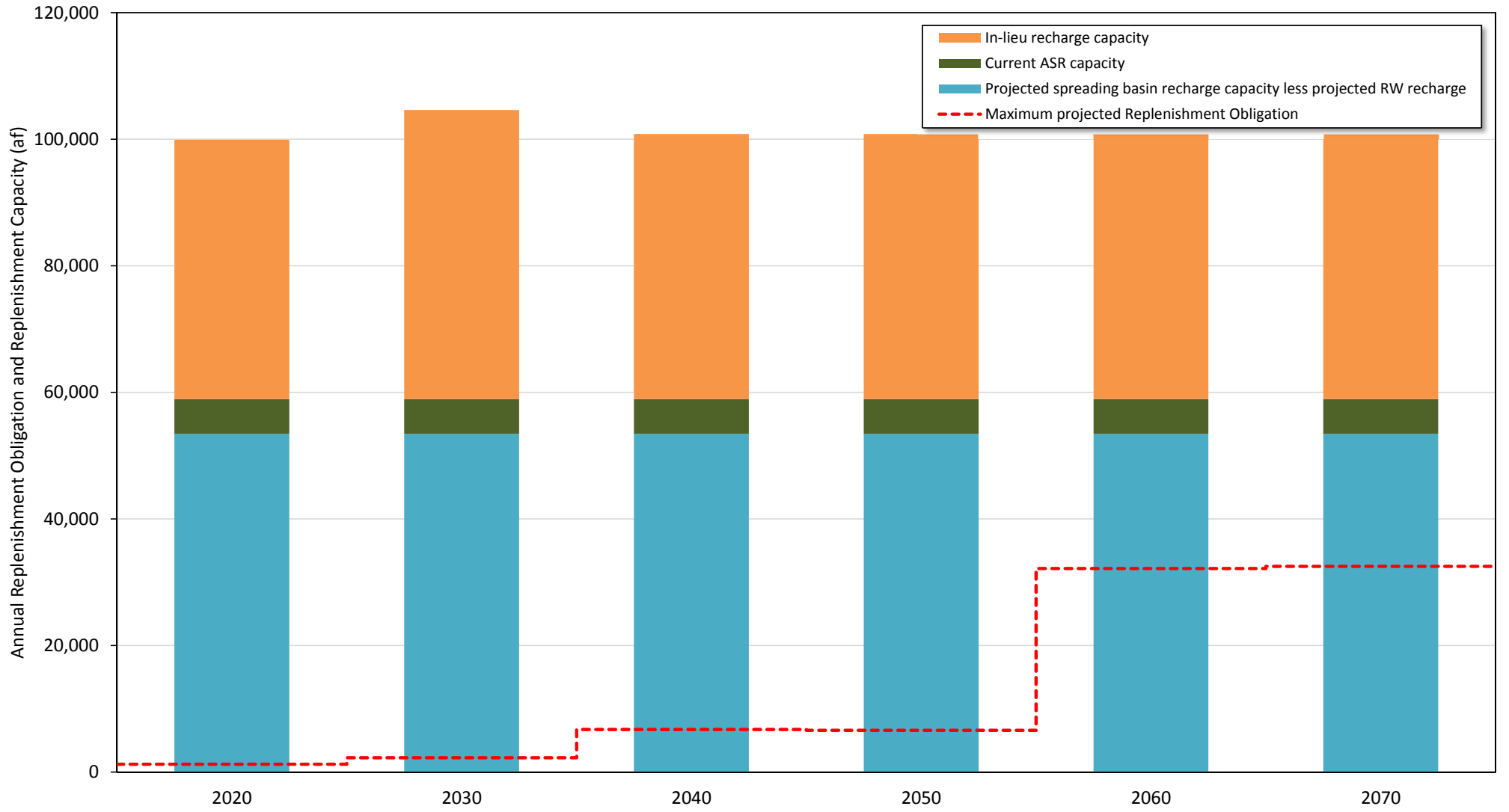


# In-Lieu Recharge Capacity

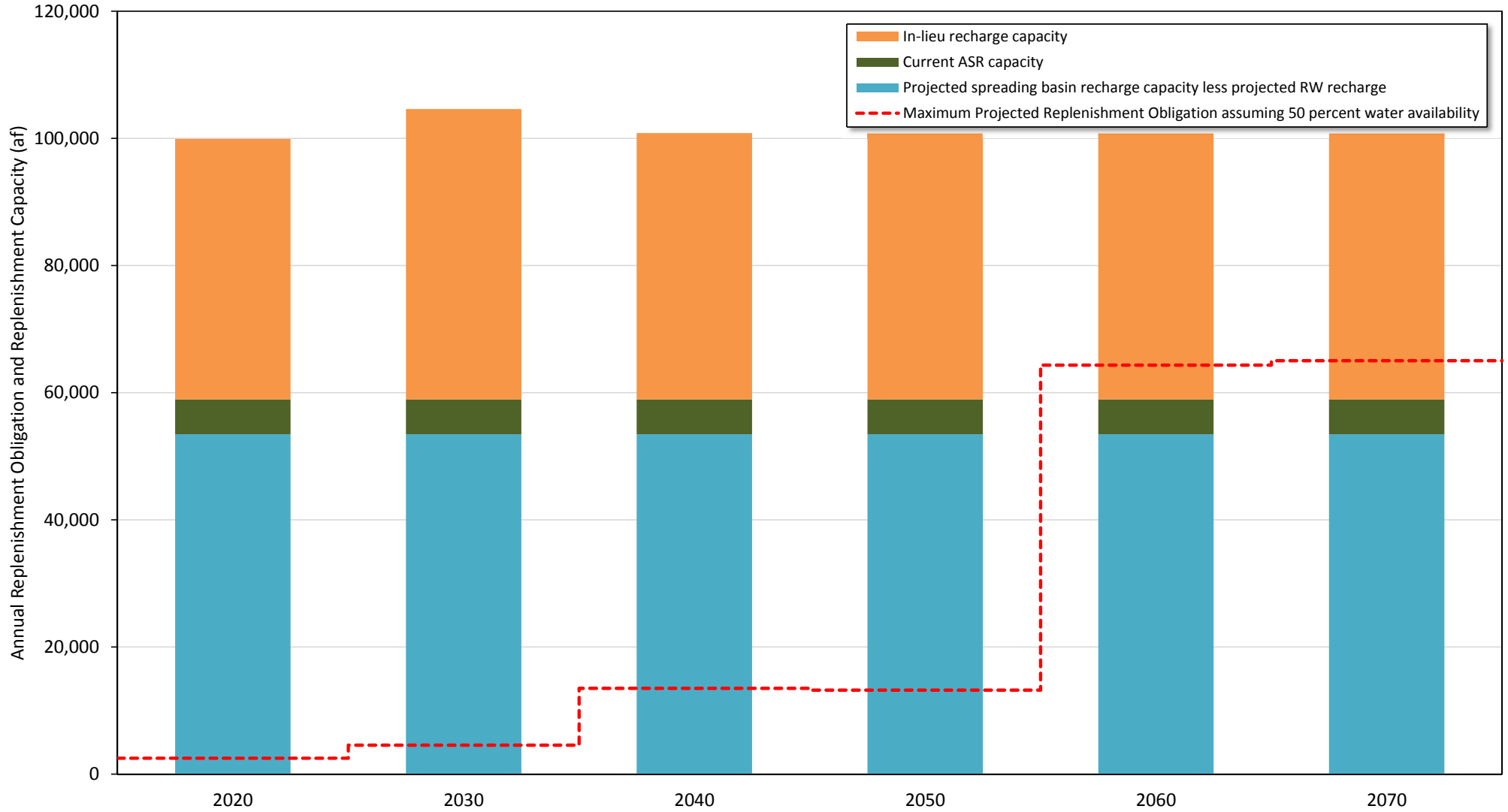
- ▶ Submitted in-lieu recharge capacity estimates in early February to the following agencies for comment:
  - Chino
  - Chino Hills
  - Cucamonga Valley Water District
  - Monte Vista Water District
  - Ontario
  - Pomona
  - Upland
- ▶ Two responses (MVWD, Upland)



**Projected Annual Replenishment Obligation and Supplemental Water Recharge Capacity,  
2020 through 2070**



**Projected Annual Replenishment Obligation and Supplemental Water Recharge Capacity,  
2020 through 2070**



# Conclusion

- ▶ No new recharge projects are needed to satisfy future projected replenishment obligations at this time.



# Next Steps

- ▶ Finish Sections 2 and 3
- ▶ Submit Sections 2 and 3 to the Steering Committee in advance of the April 19<sup>th</sup> meeting



**Task 1 Project Management**

Feb 1 - Nov 1

**Task 2 Collect, Compile and Review Data and Reports**

Feb 1 - Feb 28

**Task 3 Develop Groundwater Production and Replenishment Projections**

Feb 1

**Task 4 Describe Existing Recharge Facilities**

Feb 1 - Mar 7

**Task 5 Evaluate Recharge Needs to Ensure Future Replenishment Capacity, Balance of Recharge and Discharge and to Meet Other OBMP Requirements**

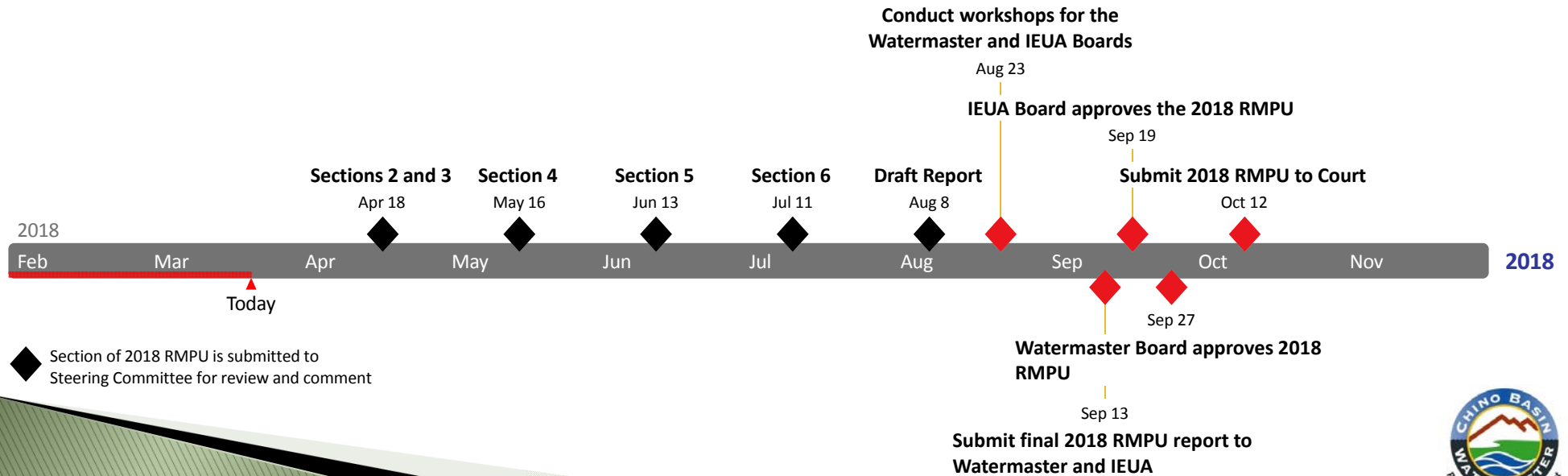
Feb 1 - Apr 25

**Task 6 Develop Implementation Plan**

Apr 26 - May 9

**Task 7 Prepare 2018 RMPU Report**

Feb 1 - Sep 13



◆ Section of 2018 RMPU is submitted to Steering Committee for review and comment

