

Use of the SAWS ASR for Springflow Protection

Optimization through Proposed Adaptive

December 14, 2017

Current Program Requirements

leasing 16,667 acre-feet of groundwater for storage in the SAWS ASR **immediately**;

leasing an additional 16,667 acre-feet of groundwater through a lease option that is called when the Ten-year Rolling Average of the Estimated Annual Recharge to the Aquifer falls **below 572,000** acre-feet per annum; and

leasing a final 16,667 acre-feet of groundwater through a lease option that is called when the Ten-year Rolling Average of the Estimated Annual Recharge to the Aquifer falls **below 472,000** acre-feet per annum.)

ASR – A Response to Circumstances

2012 = 10 YEAR AND 15 YEAR OPTIONS

2013 (JANUARY) = ADDED A 7 YEAR OPTION

2013 (OCTOBER) = ADDED 1 YEAR, 3 YEAR, AND 5 YEAR OPTIONS

2015 = EAA INCREASED THE PRICING STRUCTURE FOR ALL OPTIONS

Fill, Baby, Fill

(goal: 90k by 2019)

Lease Options	Acre-feet of Groundwater
2012 (10 and 15 year)	0
2013	1,900
2014 (with shorter options)	4,000
2015 (after price change)	12,000
2016 (focusing on 1 year commitments)	33,300
2017 (focusing on 1 year commitments)	32,600
Total	83,800

Short on Long

FOR 2018, THE EAA HOLDS APPROXIMATELY 40,500 A/F OF
LEASED WATER

(24,000 A/F = 1 YEAR LEASES)

Springflow Protection Goals/Objectives

NO CHANGES ARE PROPOSED.

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Bottom-Up Analyses Results for ASR Lease Trigger Scenarios

Year	ASR Lease Trigger Scenarios					
	Original HDR Assumptions	J-17 < 635 ft on Aug. 1 prior year	J-17 < 636 ft on Aug. 1 prior year	J-17 < 637 ft on Aug. 1 prior year	J-17 < 641 ft on Aug. 1 prior year	10-yr Avg Rechg < 500k Acre-feet two years prior
1947	ASR2	VC	VC	VC	VC	VC
1948	ASR2	VC	VC	VC	ASR3	ASR3
1949	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1950	ASR2	VC	ASR3	ASR3	ASR3	ASR3
1951	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1952	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1953	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1954	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1955	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1956	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1957	ASR3	ASR3	ASR3	ASR3	ASR3	ASR3
1958	ASR3	VC	VC	ASR3	ASR3	ASR3
Comal Min. Flow 8/31/1956	29.71	28.64 cfs	29.32 cfs	29.32 cfs	29.8 cfs	29.8 cfs
San Marcos Min. Flow 8/31/1956	48.11	47.84 cfs	47.95 cfs	47.95 cfs	48.03 cfs	48.03 cfs

Proposed Program Amendments

Three tiers will be replaced by two tiers;

The first tier will be outright leases in a sliding scale from 16,667AF/yr to 10,000 AF/yr over the duration of the ITP;

The second tier will be forbearance agreements on a sliding scale from 33,333 AF/yr to 40,000 AF/yr over the duration of the ITP – dependent upon the amount of water contained in the tier one leases; and

Forbearance will be required in the Calendar Year following the year in which the EAA receives the Estimated Annual Recharge to the Aquifer and the Ten-year Rolling Average is \leq 500,000 AF.

Additional Components Raised During Initial Outreach

A “Bail-In” Factor for extreme drought years (much like the “Bail-Out” in the VISPO program documents).

A true “middle ground” between the rolling recharge triggers associated with the current program: (i.e. $472 + 572 \div 2 = 522$)

Money, It's a Gas

Budgetary Implications:

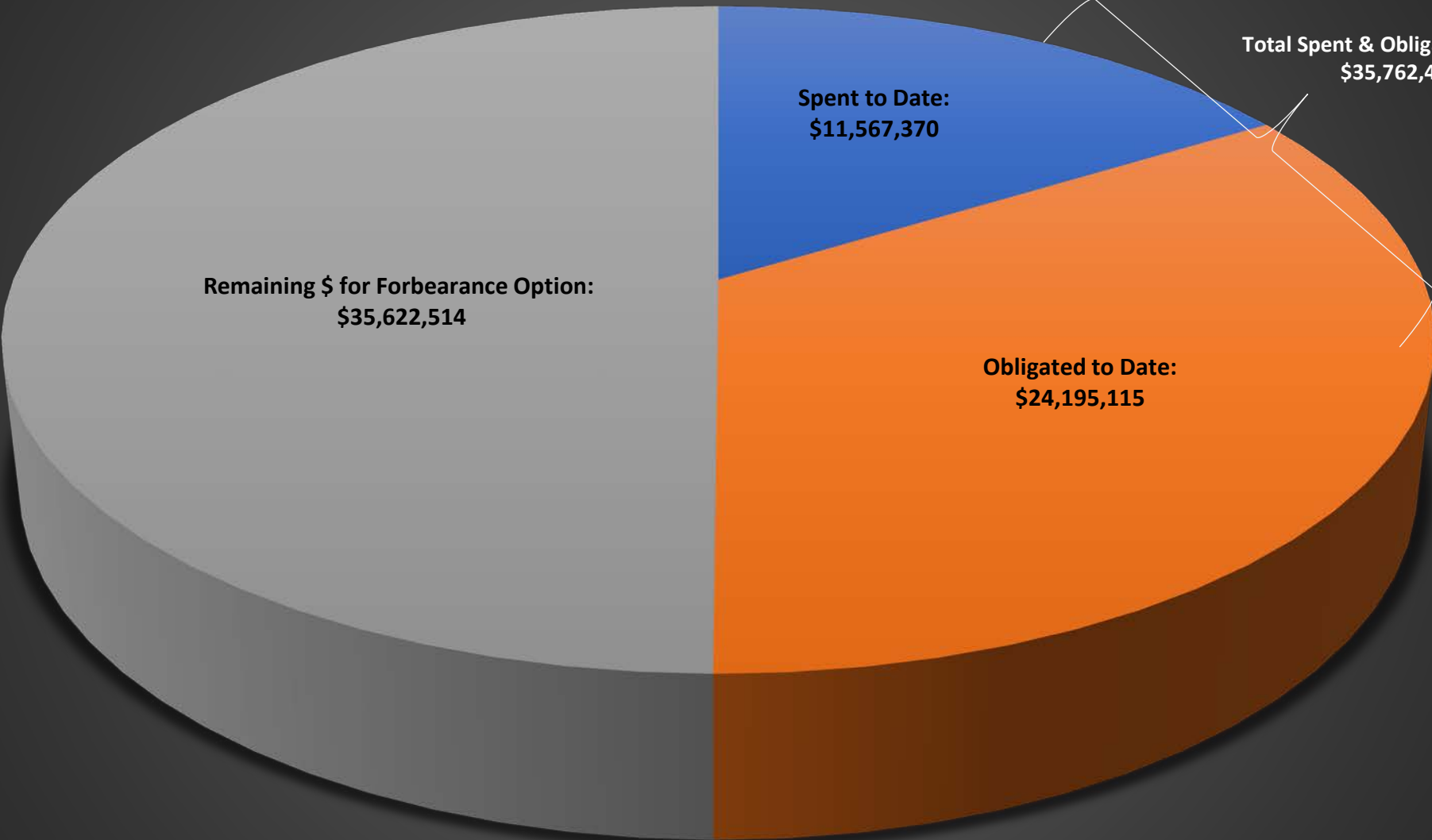
The ASR Program will no longer be “reserve dependent” – meaning that additional money will not be spent following a “trigger year.”

Fiscal Impact:

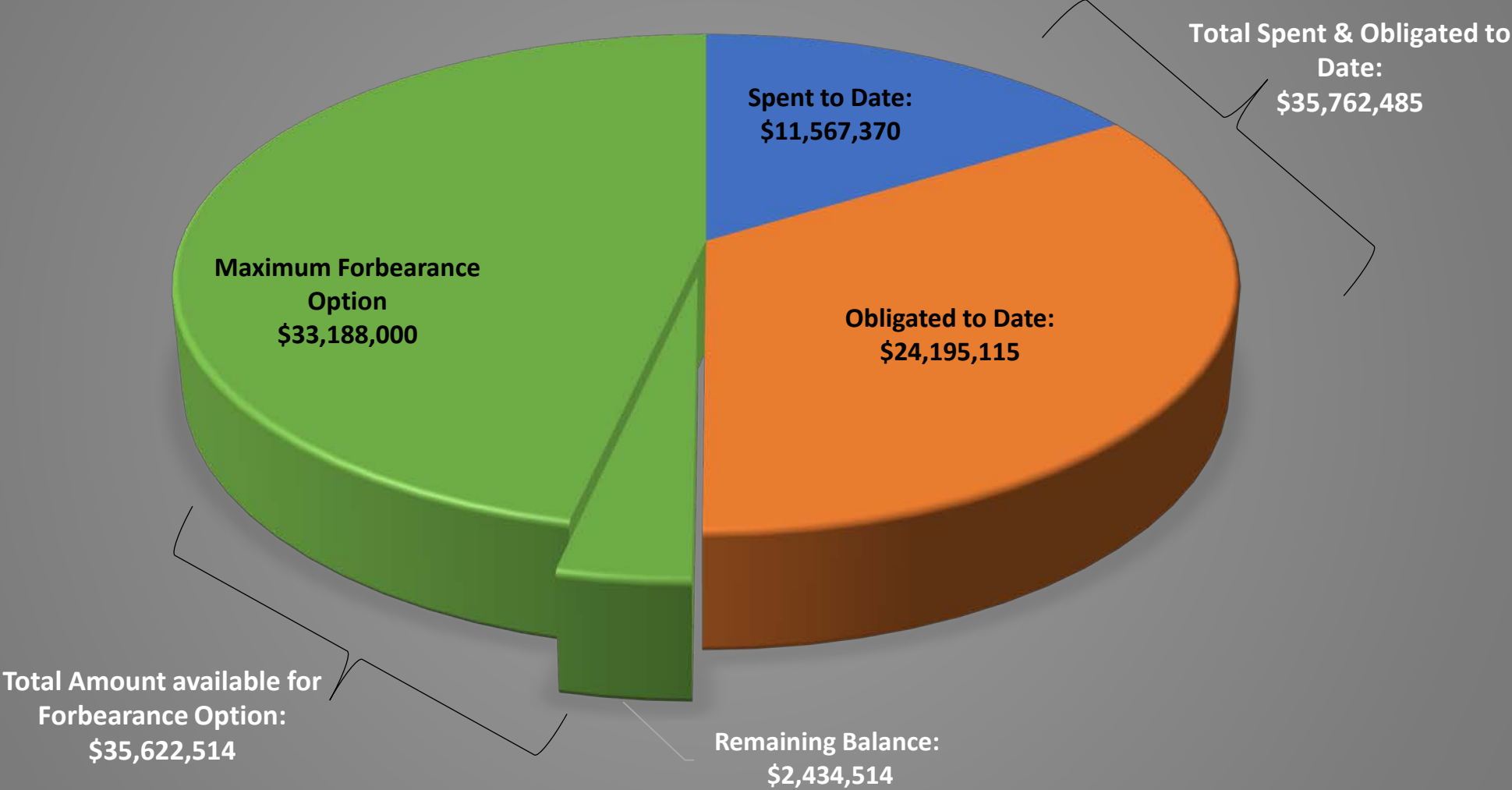
It is anticipated that the program will require the use of most of the annual HCP budget for this mitigation measure through 2027; however, the program will live within the total Table 7.1 estimated budget of \$71,385,000.

The overall EAHCP budget's reserve “floor” will not be impacted.

Total Estimated Budget: \$71,385,000



TOTAL ESTIMATED BUDGET: \$71,385,000



ASR OPTIMIZATION ADAPTIVE MANAGEMENT

- ▶ Joint Meeting/Hydro Model Workshop December 14, 2017
- ▶ ASR Advisory Group meeting January 2018
- ▶ Small Group Meetings w/
HCP Committee members January 2018
- ▶ AMP Decision Making
 - Science Committee meeting January 31, 2018
 - Stakeholder Committee meeting February 8, 2018
 - Implementing Committee meeting February 8, 2018
 - Submittal to USFWS February 9, 2018
- ▶ Marketing 2018
- ▶ Implementation 2019

Questions?