The background of the slide features a photograph of a vineyard with rows of grapevines in the foreground and a town in the distance. A semi-transparent map of California is overlaid on the right side of the image.

SGMA Updates and Alternative Plan

SCGA SGMA Subcommittee

August 18, 2016

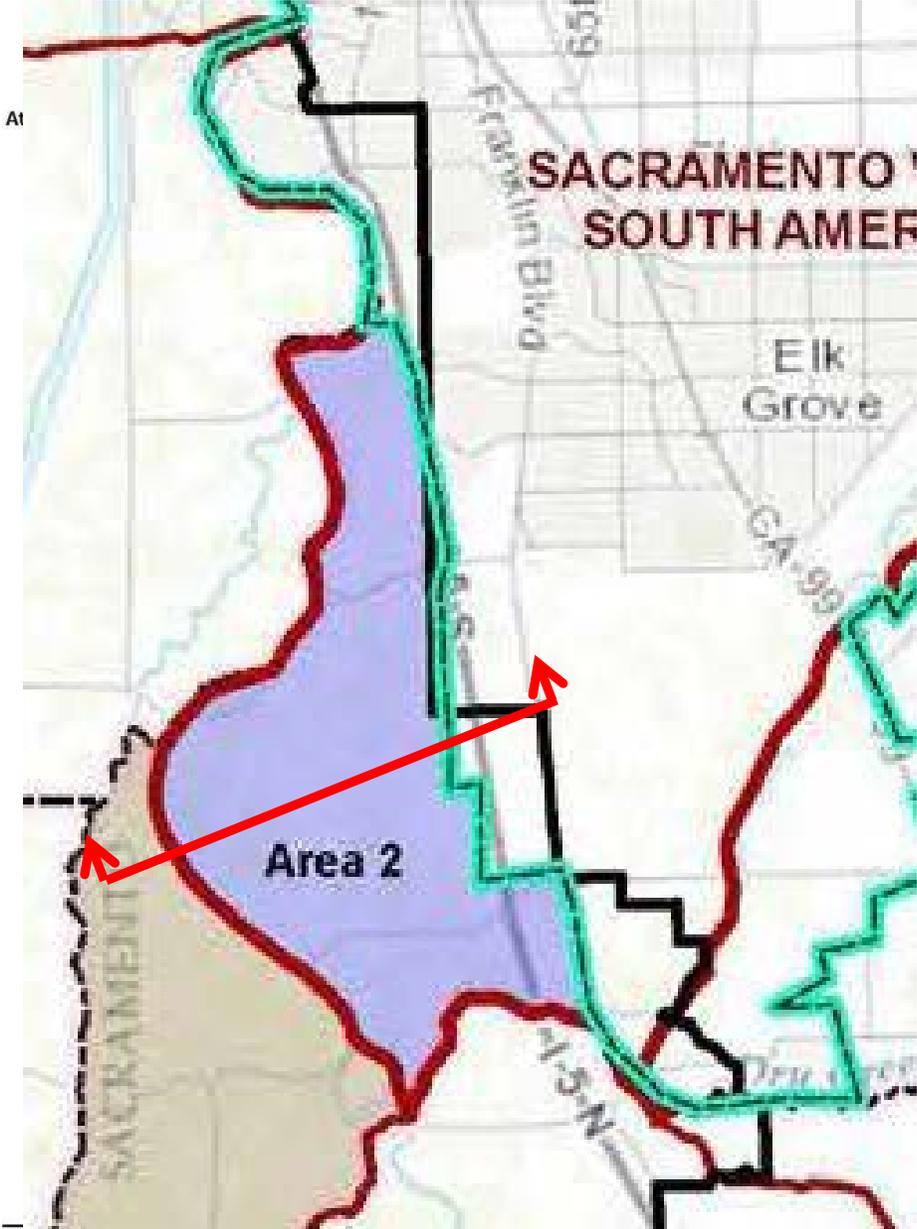
Overview

- DWR Consultation
- Delta Outreach and Reclamation District Meeting
- Water Budget Discussion

DWR Consultation

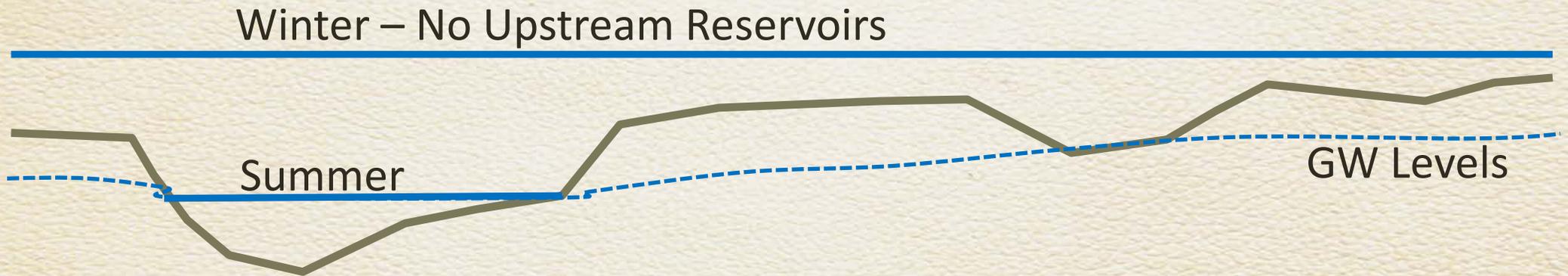
- Alternative Outline
- [Go to pdf](#)
- High Level Questions
 - Remediation
 - Coordination with Adjacent Subbasins
 - Delta Understanding

South American Subbasin – Delta Portion

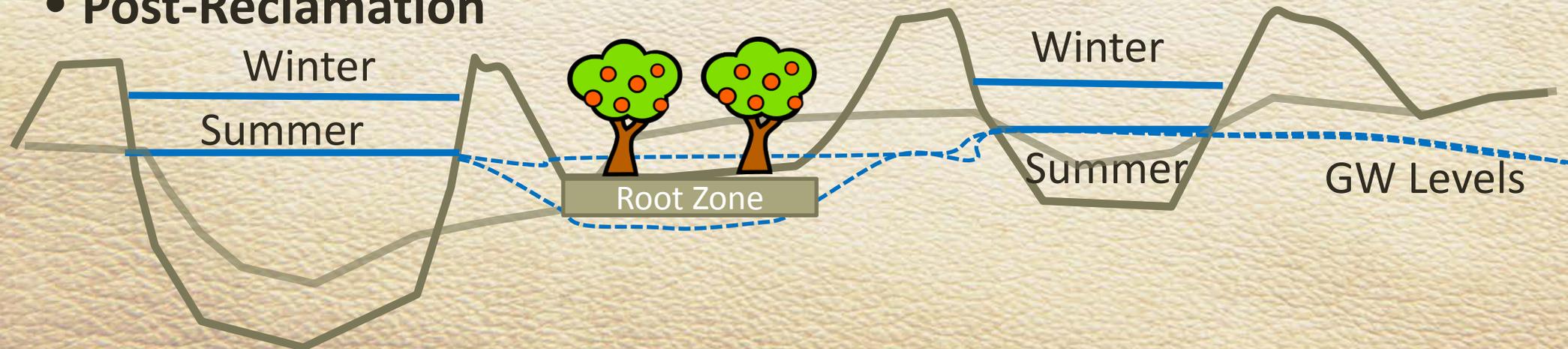


Delta Understanding

- **Pre-Reclamation, Pre-CVP, SWP**



- **Post-Reclamation**



Delta Reclamation District Meeting

- Delta Outreach – August 10th Meeting
- Delta portion of subbasin operating sustainably
- Alternative is an Interim Step to Delta's SGMA Compliance Goals
- Outcomes
 - Recommended SCGA/RD MOU
 - Sharing of Scientific Data

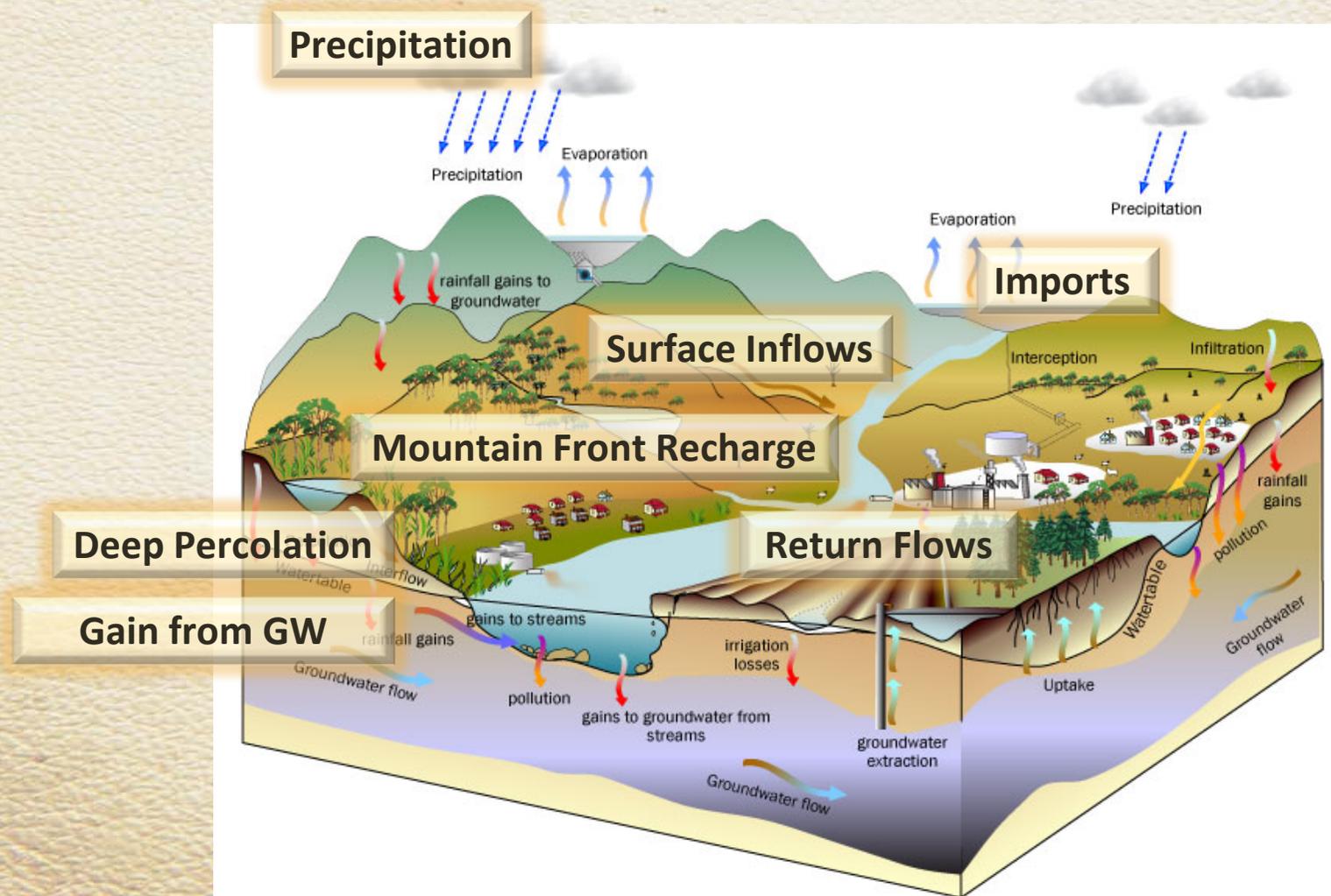


Water Budget

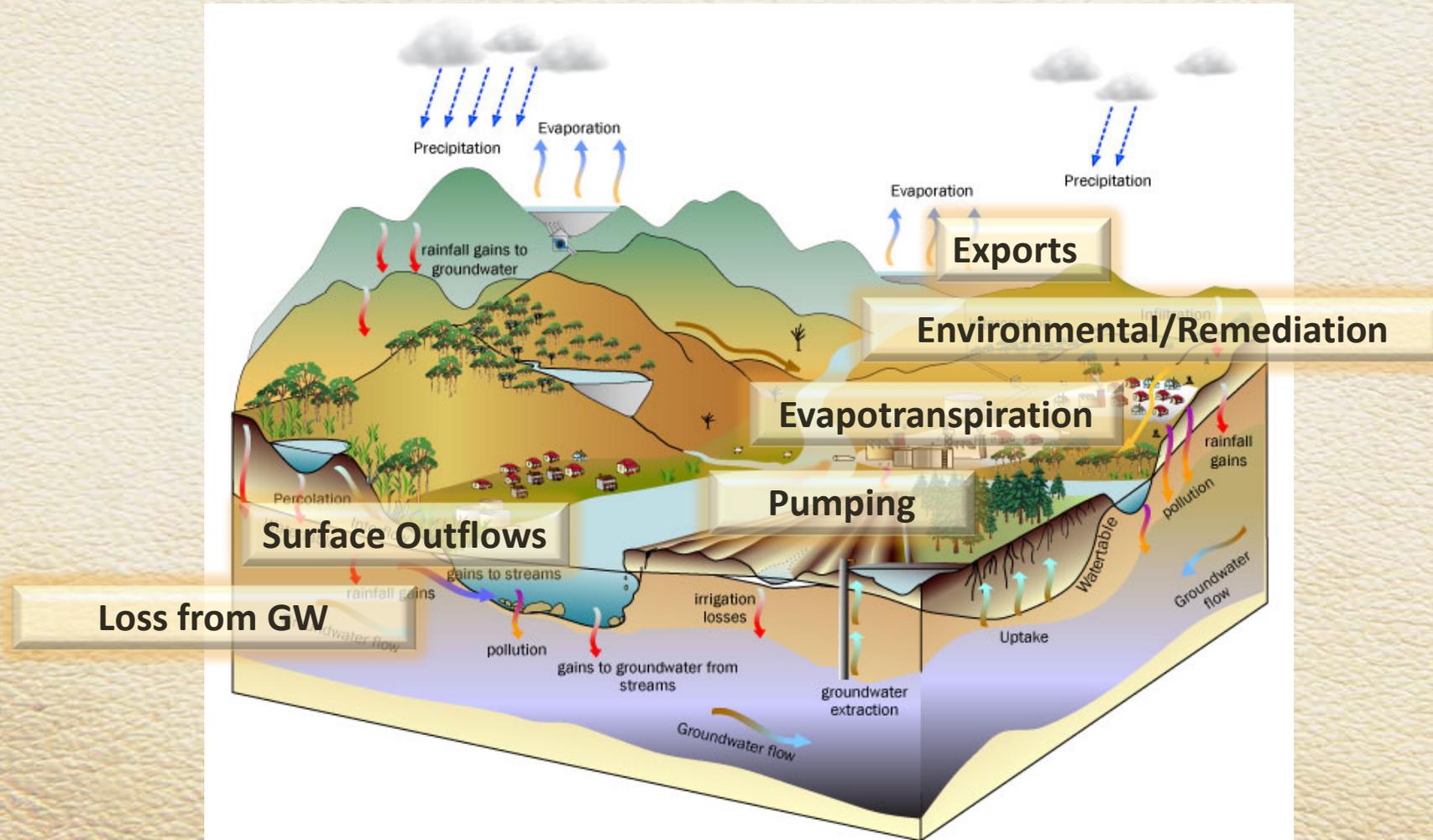
SGMA Water Budget

- § 354.18. Water Budget
- (a) Each Plan shall include a water budget for the basin that provides an accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the basin, including historical, current and projected water budget conditions, and the change in the volume of water stored...

“Post-SGMA” Water Budget - Inflows



“Post-SGMA” Water Budget - Outflows



“Post-SGMA” Water Budget - Management



“Post-SGMA” Water Budget - Management



GSP Regulation Water Budget Elements

- (1) Total **surface water entering and leaving a basin by water source type.**
- (2) Inflow to the groundwater system by water source type, including **subsurface groundwater inflow** and **infiltration of precipitation, applied water, and surface water systems**, such as lakes, streams, rivers, canals, springs and conveyance systems.
- (3) Outflows from the groundwater system by water use sector, including **evapotranspiration, groundwater extraction,** groundwater discharge to surface water sources, and **subsurface groundwater outflow.**

GSP Regulation Uses of Water Budget Elements

- (4) The change in the **annual volume of groundwater in storage** between seasonal high conditions.
- (5) **If overdraft conditions occur**, as defined in Bulletin 118, the **water budget shall include a quantification of overdraft over a period of years** during which water year and water supply conditions approximate average conditions.
- (6) The **water year type associated with the annual supply, demand, and change in groundwater stored**.
- (7) An **estimate of sustainable yield** for the basin.

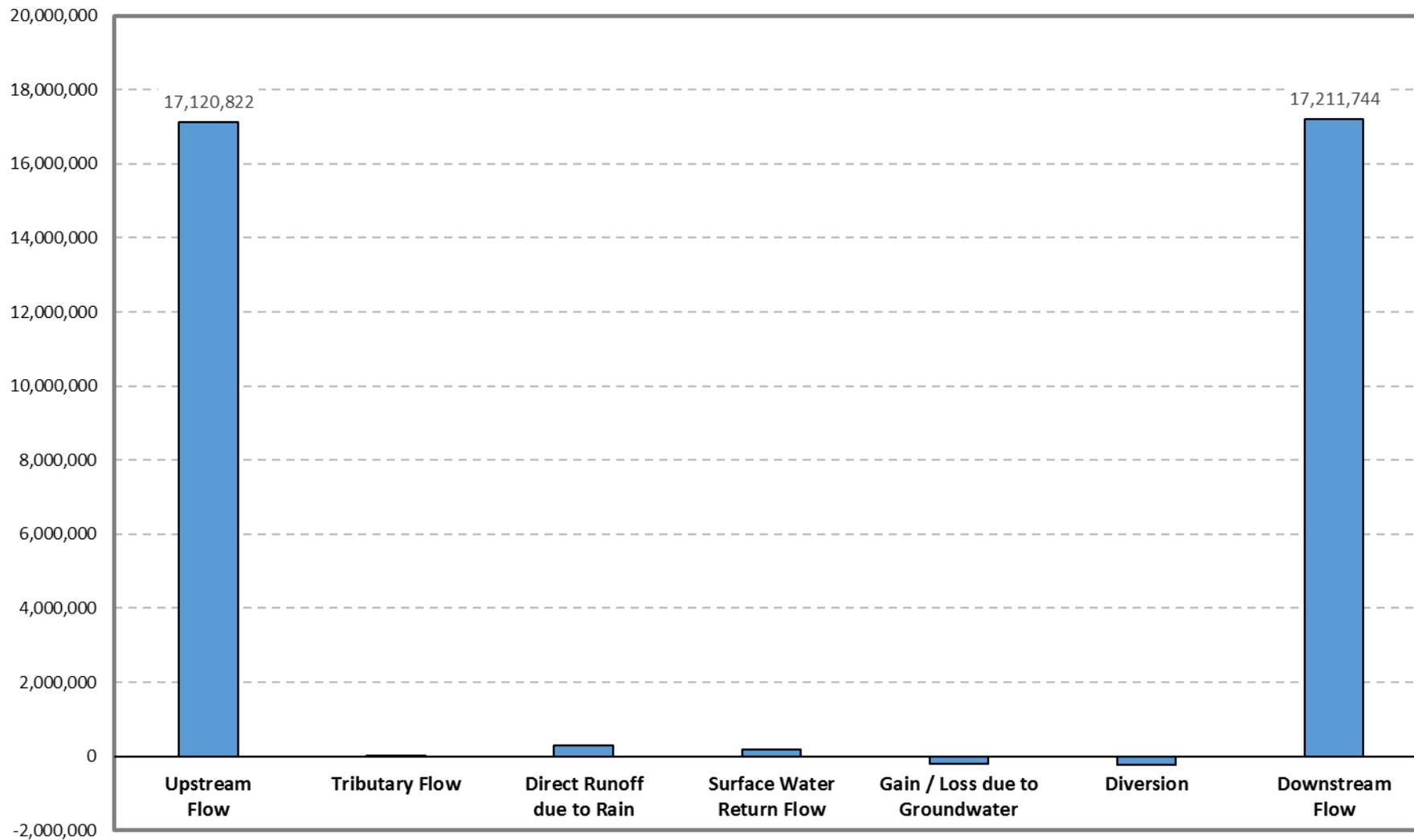
SCGA Water Budget Evaluation

- 2006 SCGA GMP
- Past Water Demand Studies, Reports
- On-line Information
- Water Forum Water Budgets
- SCGA Basin Management Reports
- 1993, 95, 2011 SacIGSM Model
- State DWR's C2VSim Model

Surface Water Budget - IGSM

Average Flows 1970 - 1990

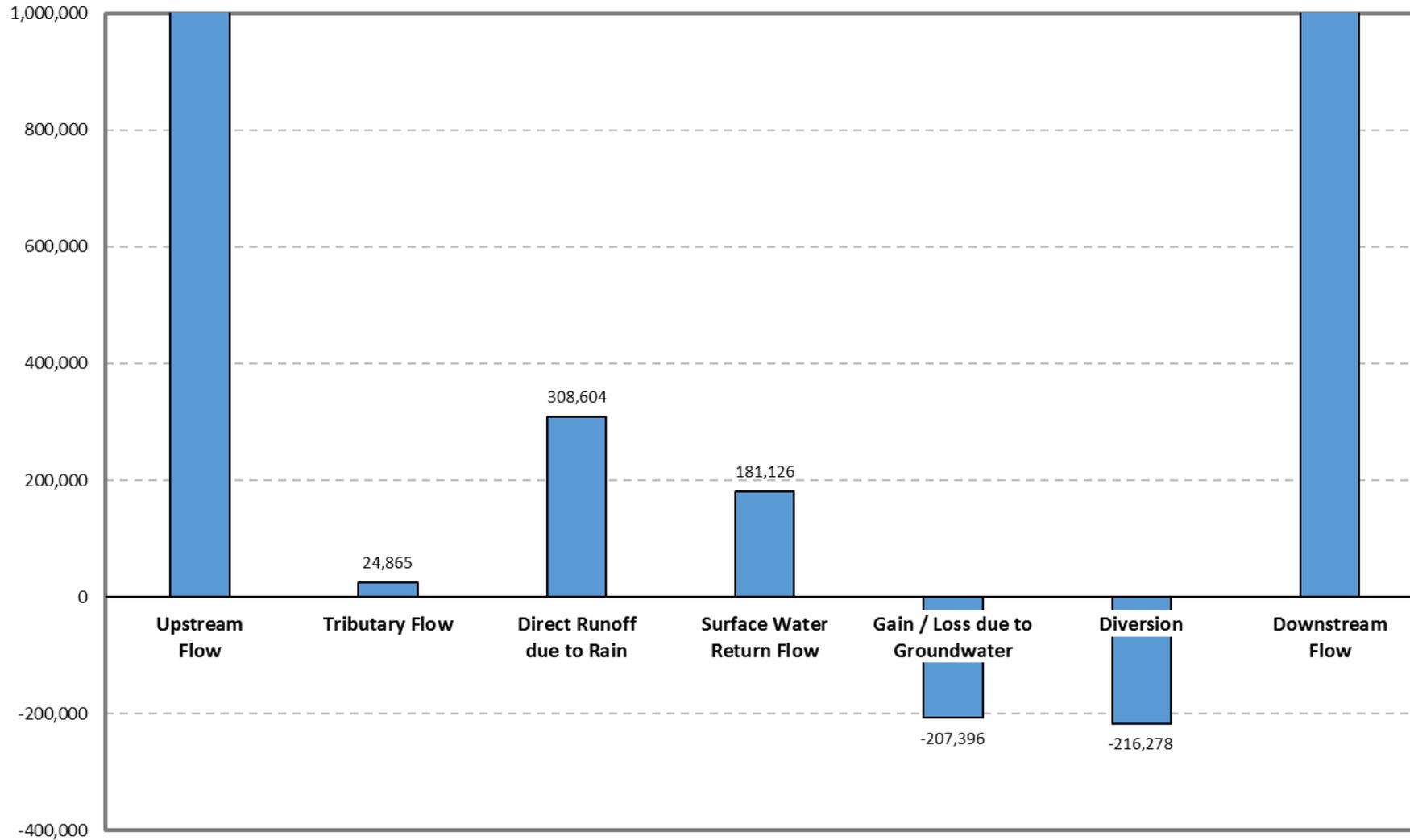
North, Central, & South Basins



Surface Water Budget - IGSM

Average Flows 1970 - 1990

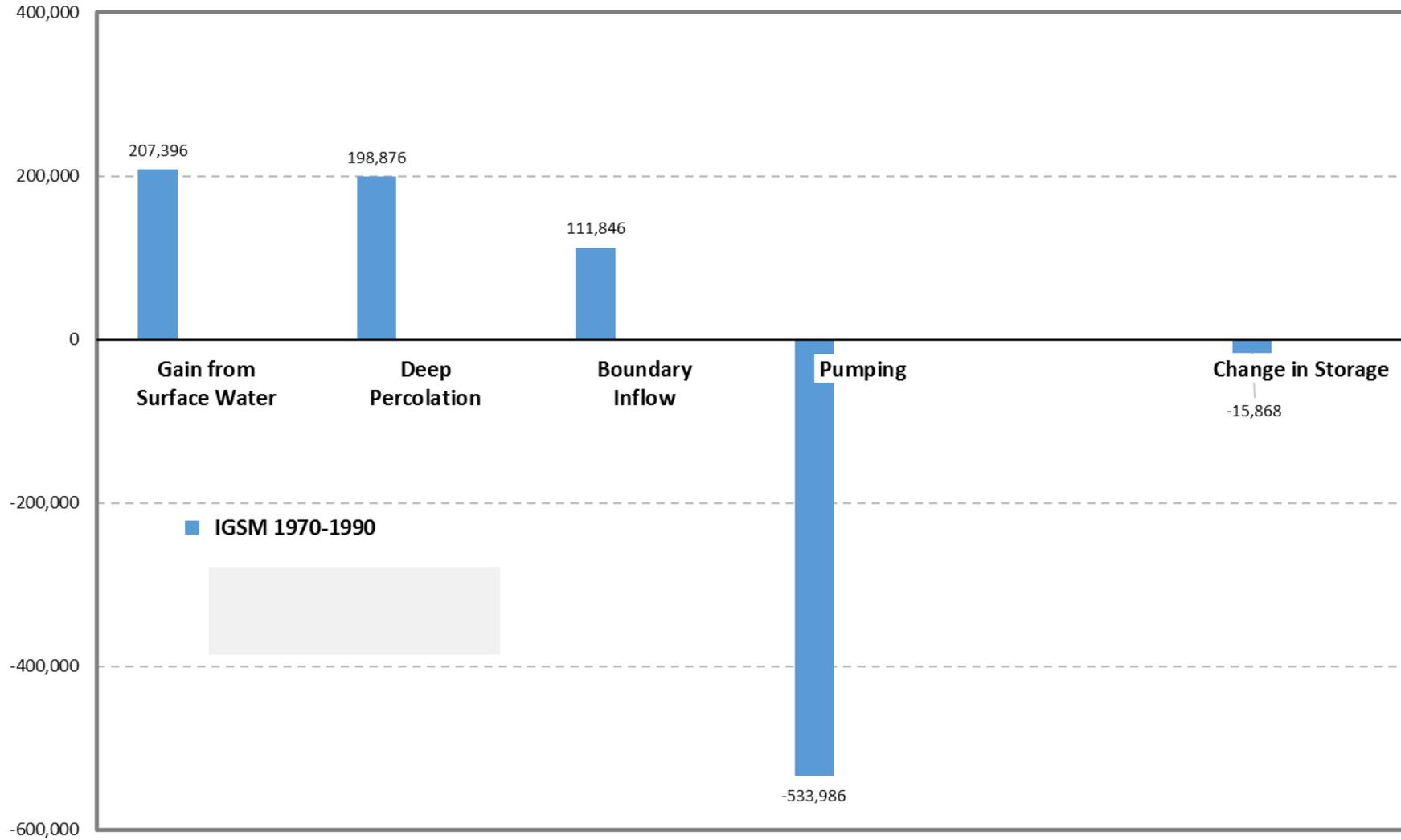
North, Central, & South Basins



Groundwater Budget - IGSM

Average Flows 1970 - 1990

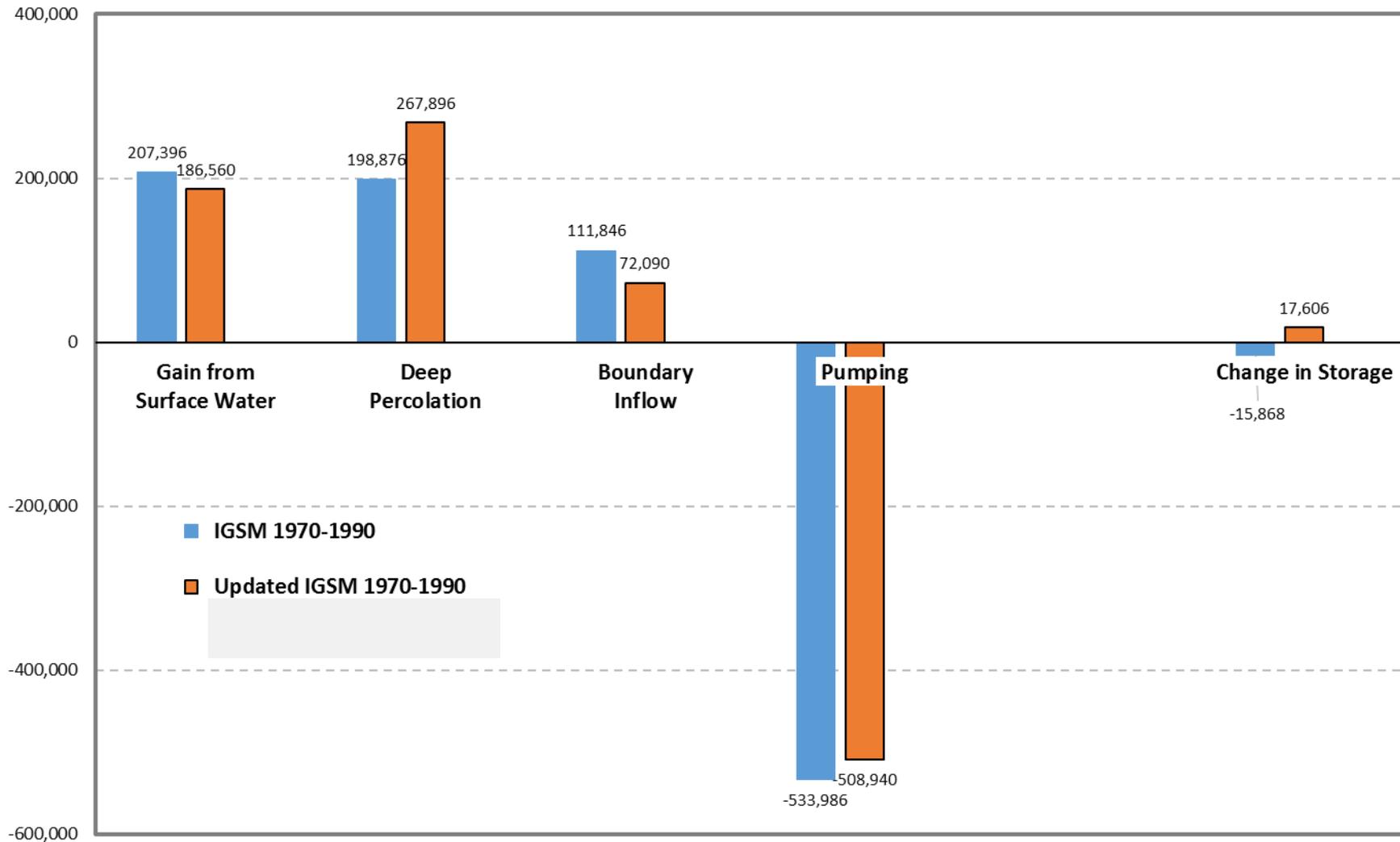
North, Central, & South Basins



Groundwater Budget - IGSM

Average Flows 1970 - 1990

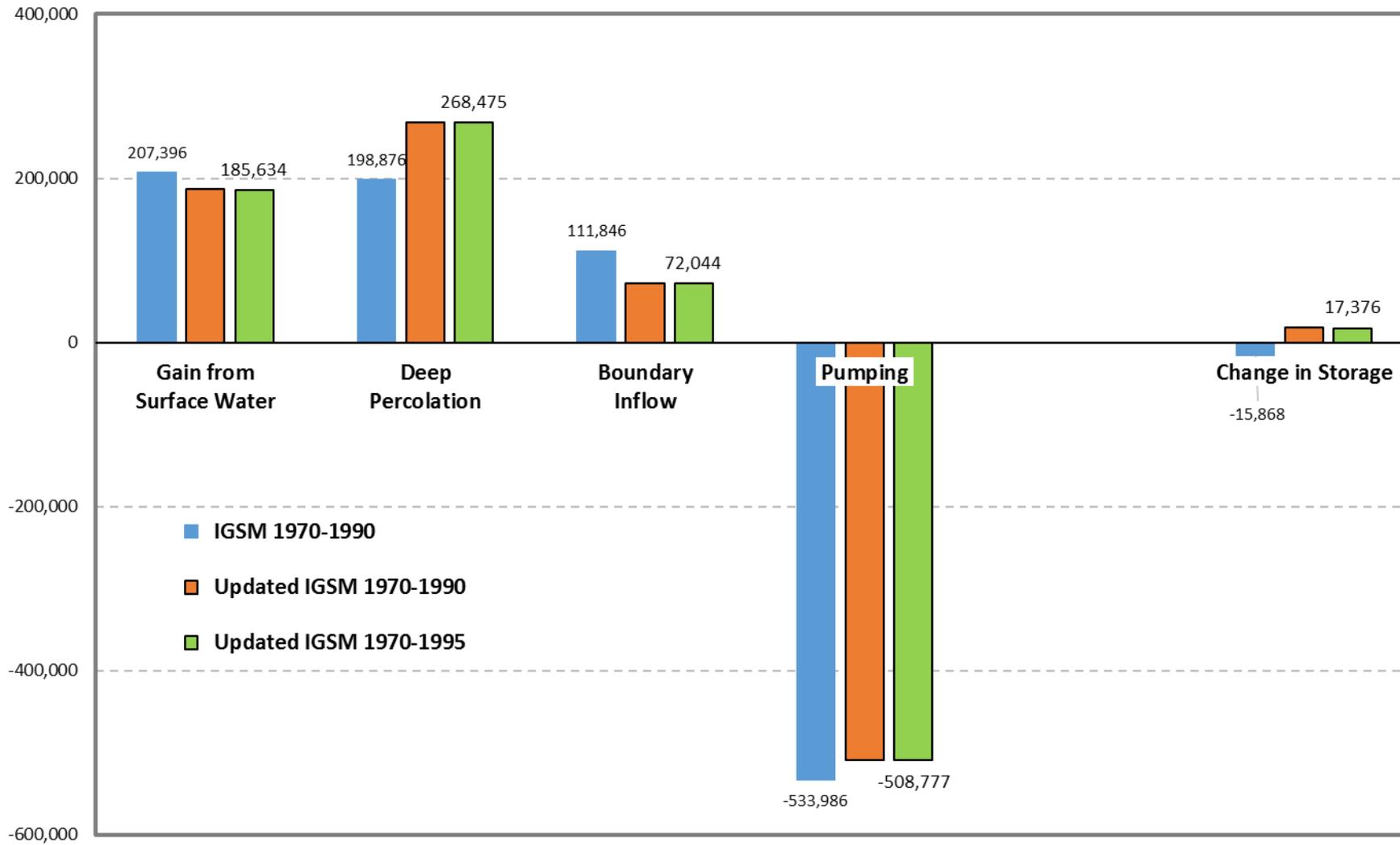
North, Central, & South Basins



Groundwater Budget - IGSM

Average Flows 1970 - 1990

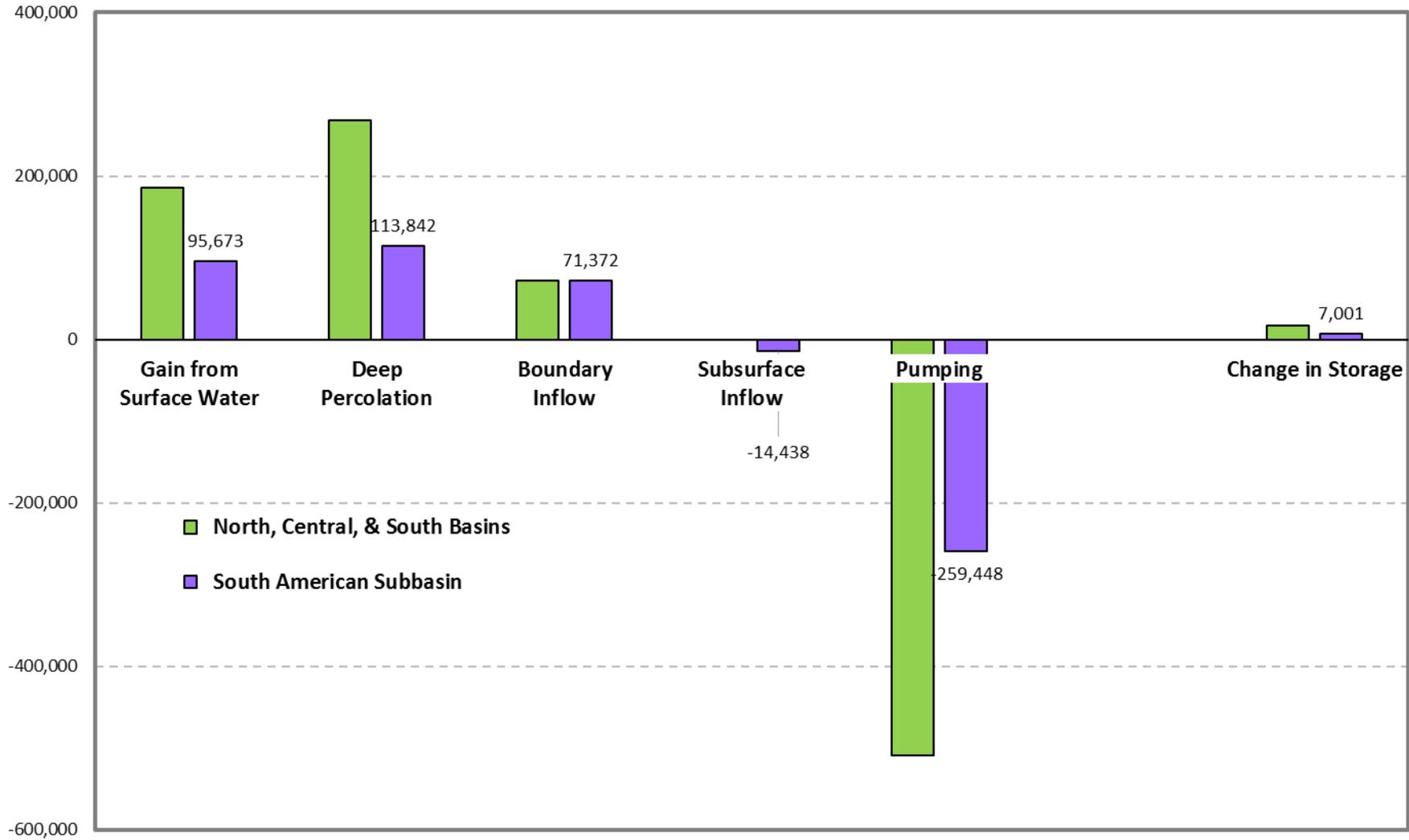
North, Central, & South Basins



Groundwater Budget - IGSM

Average Flows 1970 - 1990

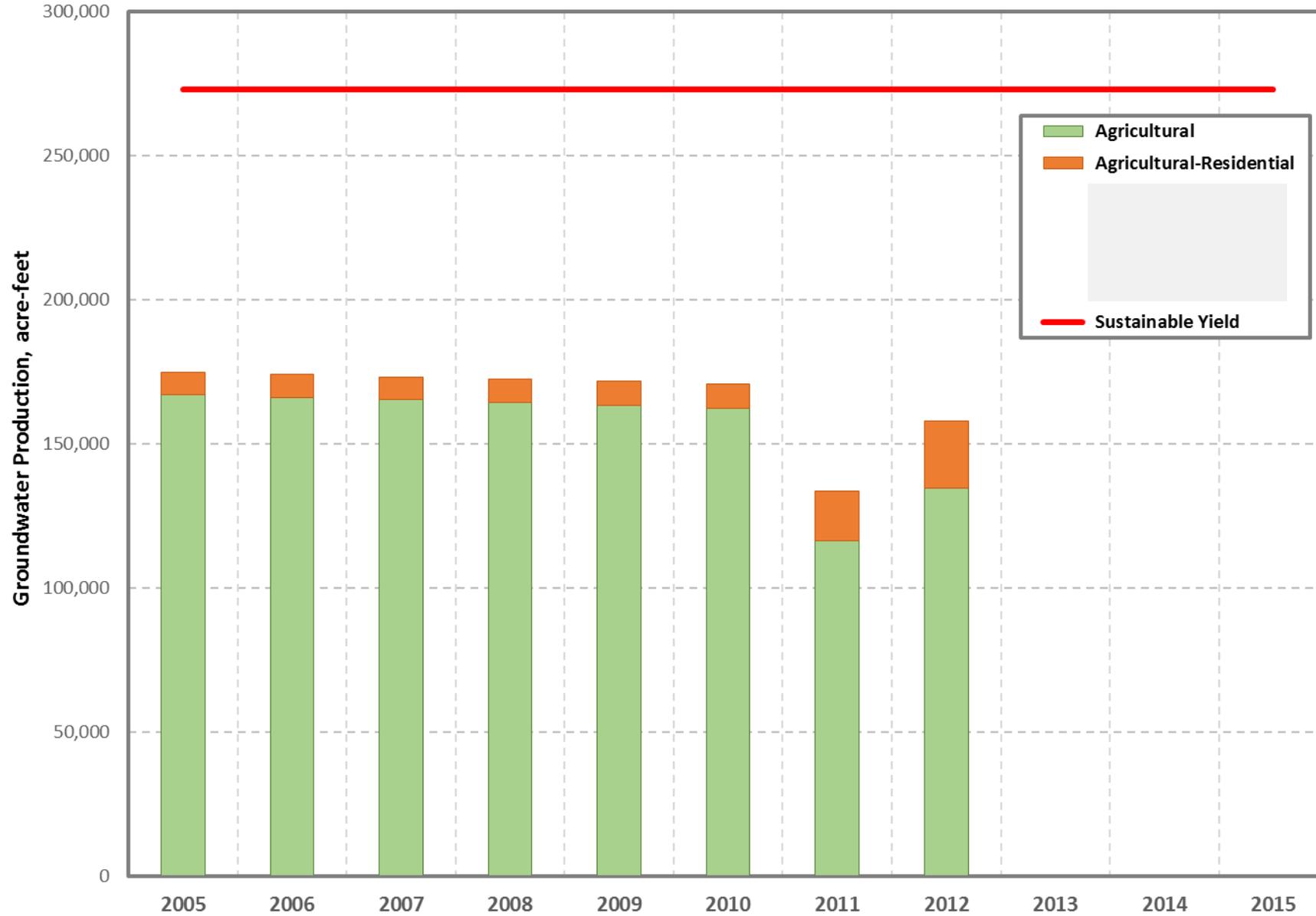
South American Basin



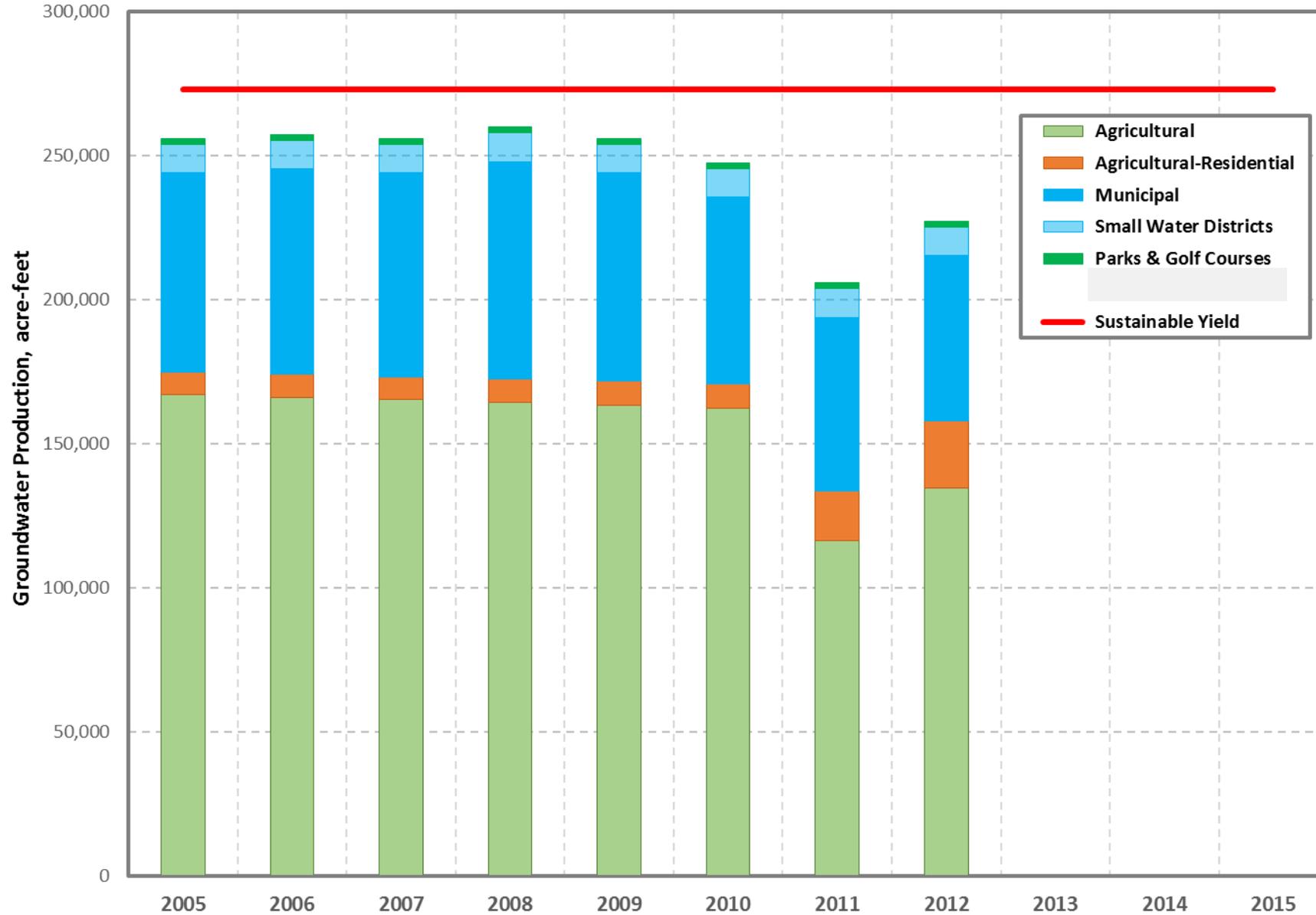
SCGA Groundwater Production

GW Production	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Elk Grove	5,397	6,365	6,963	6,460	5,407	3,784	4,615	5,562			
Cal-Am	23,391	22,775	23,651	24,769	23,659	21,525	19,413	19,173			
GSWC	12,639	13,129	9,754	9,162	8,197	6,650	5,731	6,684			
SCWA	27,685	29,019	30,450	34,220	34,248	32,171	29,809	25,363			
City of Sacramento DOU				930	837	668	544	600			
Agricultural	167,062	166,148	165,234	164,320	163,406	162,492	116,500	134,600			
Agricultural-Residential	7,852	7,946	8,041	8,136	8,231	8,326	17,200	23,400			
Tokay Park WC	160	160	160	160	160	160	160	160			
Florin County WD	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600			
Fruitridge Vista WC	7,236	7,236	7,236	7,236	7,236	7,236	7,236	7,236			
Parks and Golf Courses	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000			
Cemetery Districts											
SUBTOTAL	256,022	257,378	256,089	259,993	255,981	247,612	205,808	227,378	0	0	0
GW Remediation											
Aerojet Site	17,432	18,413	19,765	19,348	17,673	20,673	20,445	19,679	19,596	19,855	23,702
IRCTS	732	1,307	2,366	3,403	4,121	4,671	4,869	4,783	4,534	4,576	4,692
Mather Field	2,688	2,814	2,639	2,193	3,004	2,560	2,526	2,571	2,534	2,354	2,212
Kiefer Landfill								366	515	506	459
Sacramento Army Depot	610	636	619	563	506	78	91	116	16	1	1
Union Pacific Downtown	191	156	140	155	284	298	288	294	262	216	254
Union Pacific Curtis Park	93	112	71	46	74	0	0	39	77	61	48
SUBTOTAL	21,746	23,439	25,600	25,708	25,662	28,280	28,219	27,849	27,534	27,570	31,369
GW Remediation Recharge											
Aerojet Site	-1,296	-1,229	-1,107	-1,060	-899	-920	-934	-851	-413	0	0
Mather Field	-2,409	-2,514	-2,358	-1,876	-2,715	-2,351	-2,263	-1,757	-1,554	-1,918	-2,016
SUBTOTAL	-3,705	-3,744	-3,465	-2,936	-3,614	-3,272	-3,197	-2,608	-1,968	-1,918	-2,016
TOTAL	274,063	277,073	278,224	282,764	278,029	272,620	230,830	252,618	25,567	25,653	29,353
GW Remediation to Surface Water											
<u>Aerojet Site</u>											
Dredge Tailings	2,746	2,194	2,455	2,354	2,133	1,807	2,472	2,173	1,811	1,396	0
American River	12,258	13,100	14,218	13,986	12,798	16,008	15,099	14,306	15,015	15,949	20,837
Morrison Creek	1,131	1,890	1,985	1,946	1,843	1,938	1,940	2,348	2,356	2,511	2,865
<u>Morrison Creek</u>											
IRCTS	732	1,307	2,366	3,403	4,121	4,671	4,869	4,783	4,534	4,576	4,692
Mather Field	278	300	281	317	289	209	264	814	980	437	195
<u>Regional San Sewer</u>											
Sacramento Army Depot	895	904	830	764	864	375	379	449	356	278	303
Union Pacific											
Kiefer - Deer Creek								366	515	506	459

SCGA Groundwater Production

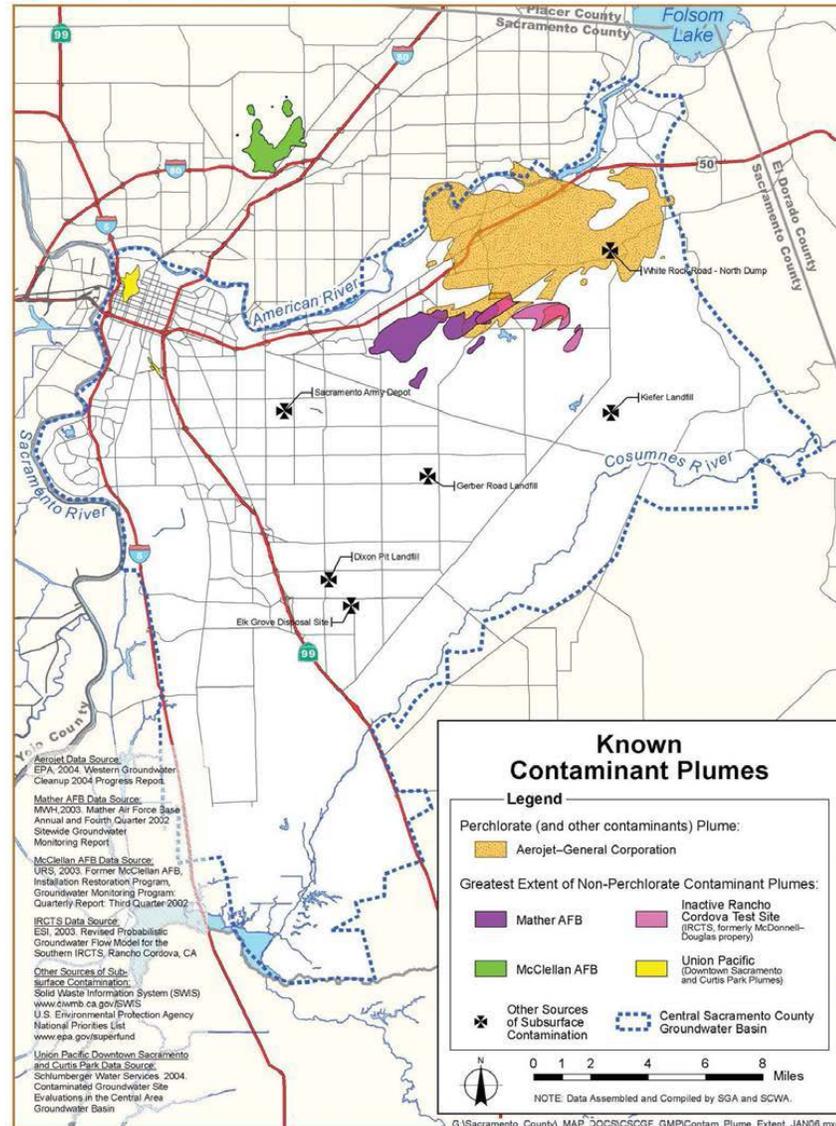


SCGA Groundwater Production

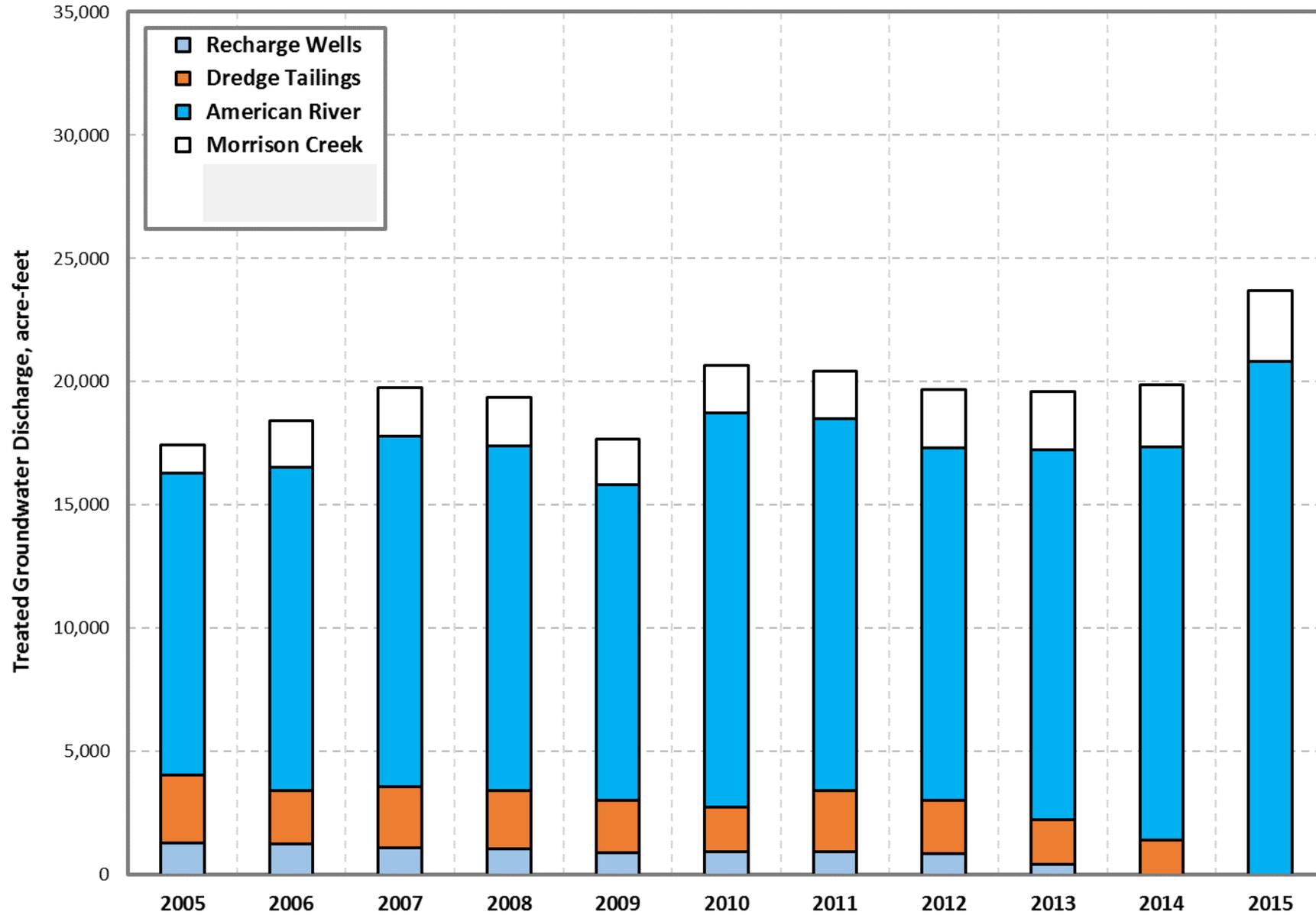


SCGA GMP Known Contaminant Sites as of 2006

Figure 2-19. Known Principal Contaminant Plumes

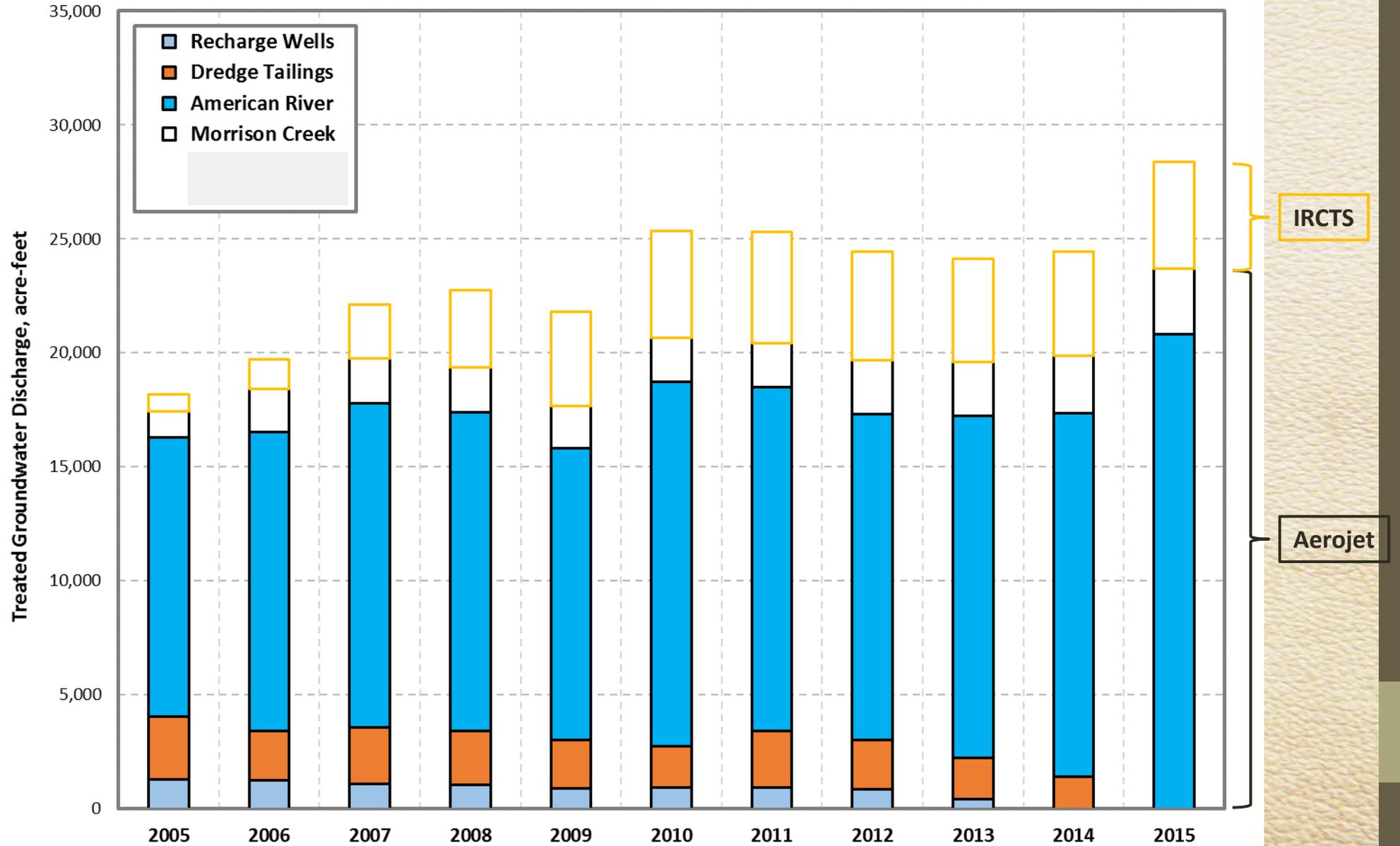


Groundwater Remediation Discharges

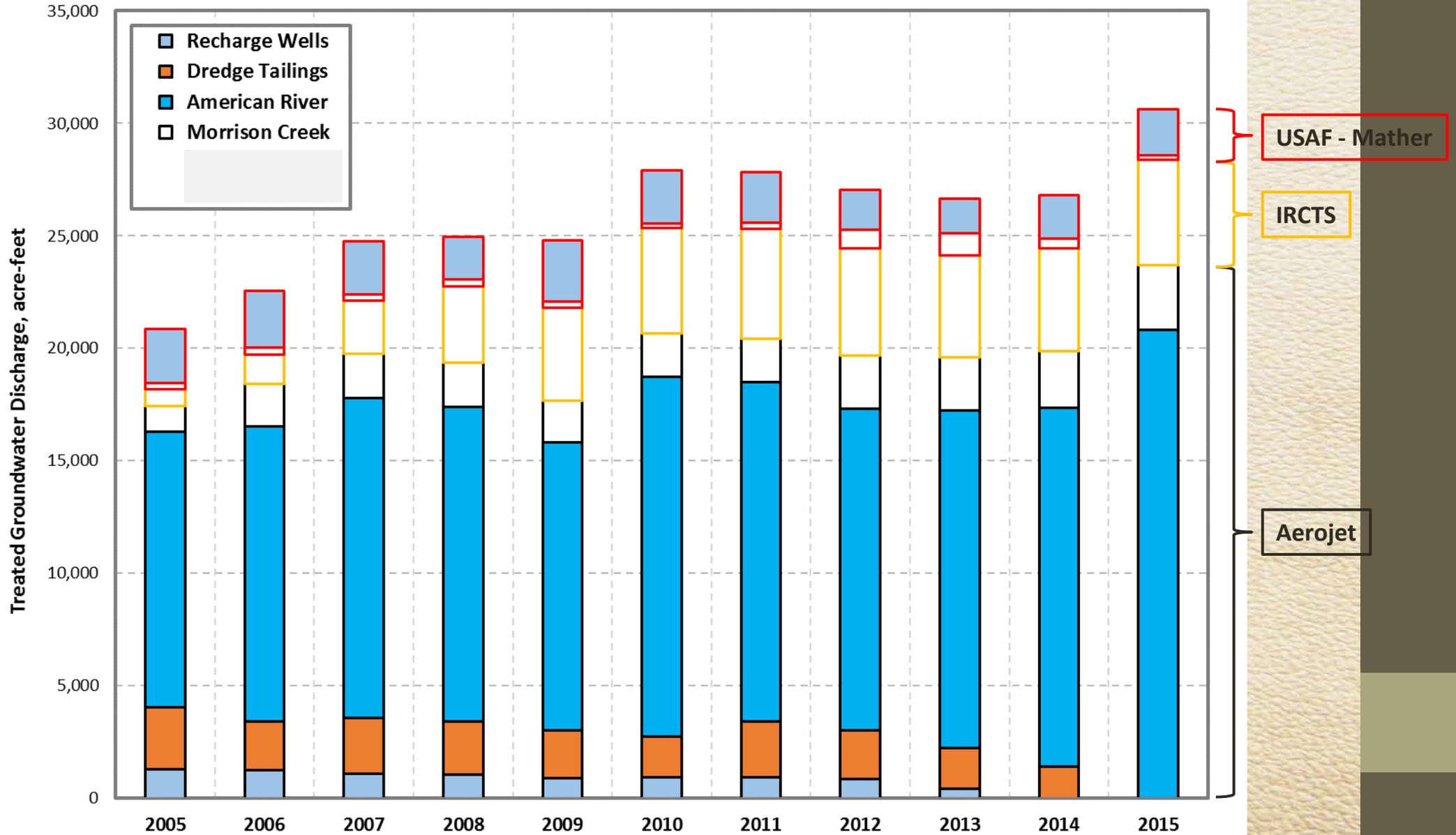


Aerojet

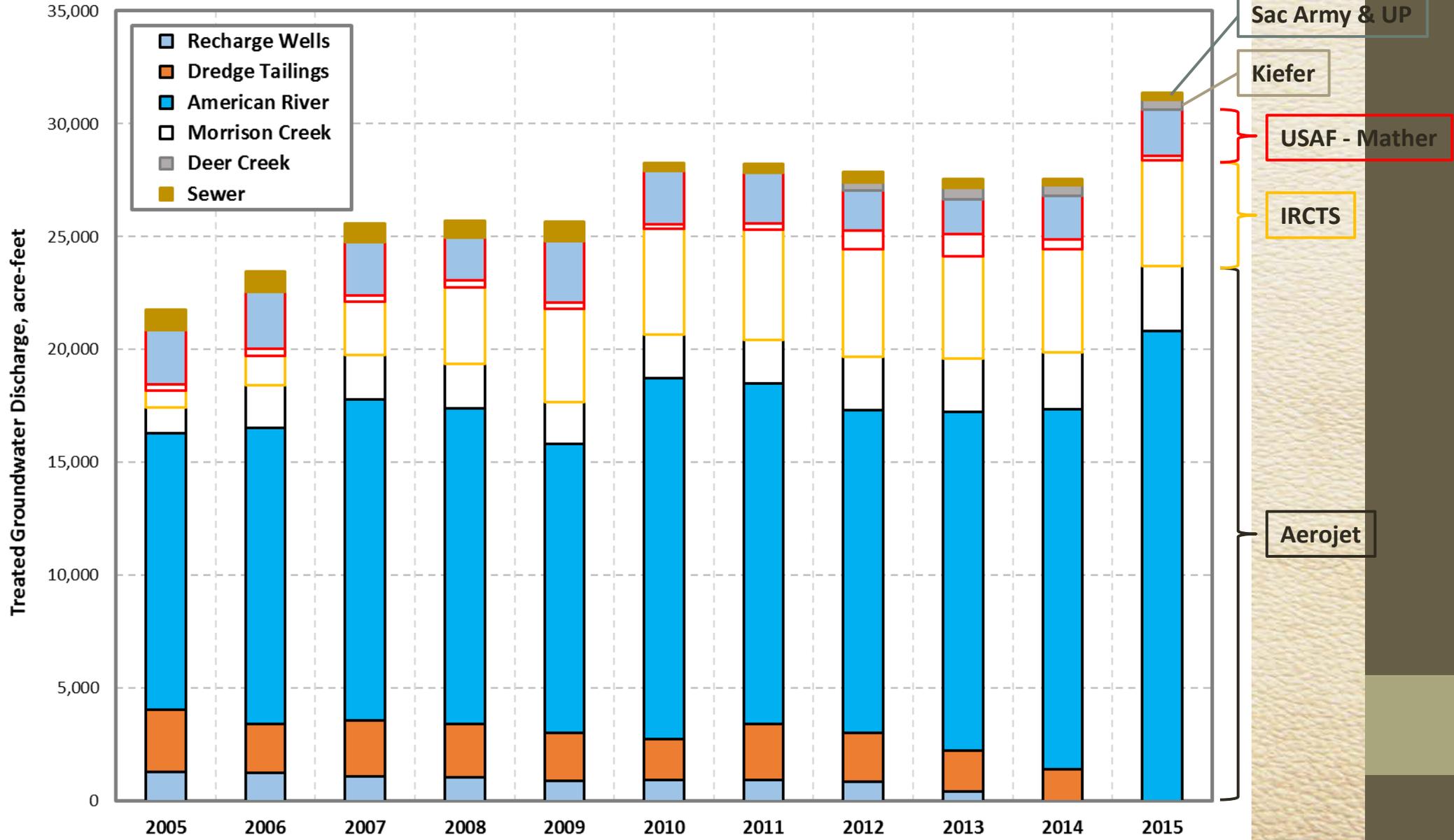
Groundwater Remediation Discharges



Groundwater Remediation Discharges



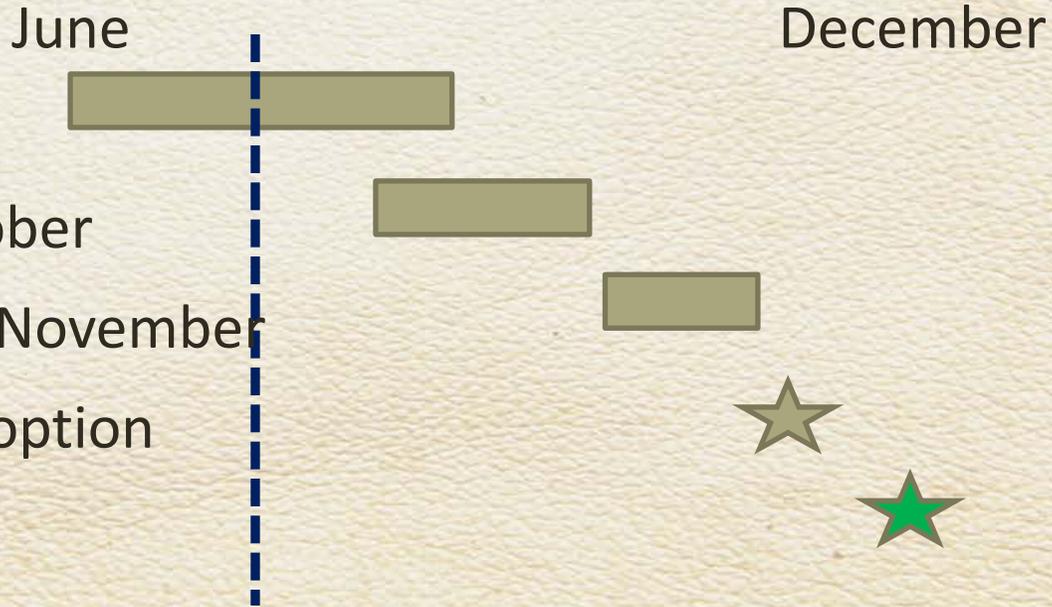
Groundwater Remediation Discharges



Alternative Plan Schedule

- Submittal Schedule to January 1, 2017

- 7-month time frame June December
- 4 months for draft
- 1 month review – October
- 1 month finalization – November
- Public Hearing and Adoption
- Submittal to DWR



End of Presentation