

Water Accounting Framework Update



April 12, 2018

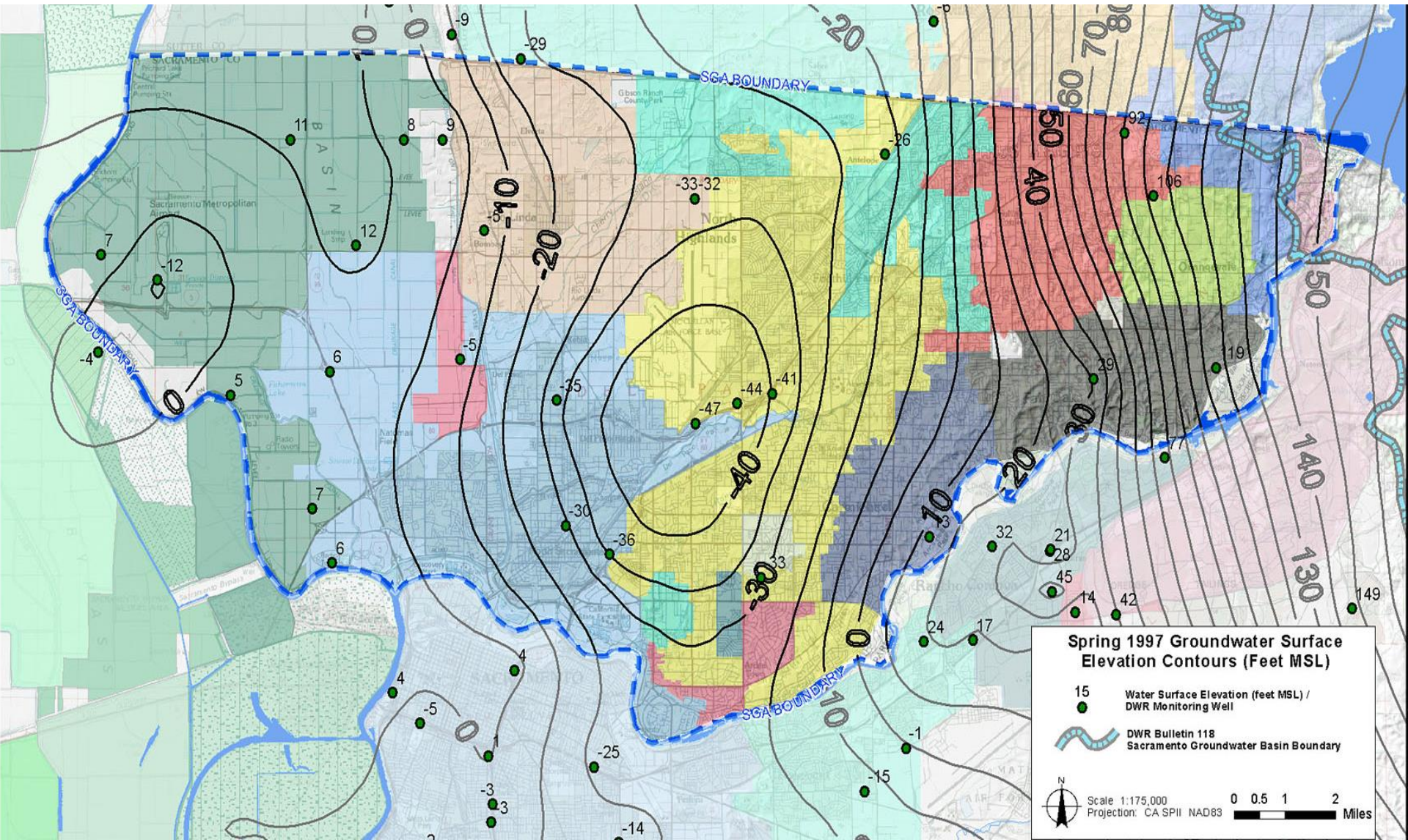
Need for a Framework

SGA formed :

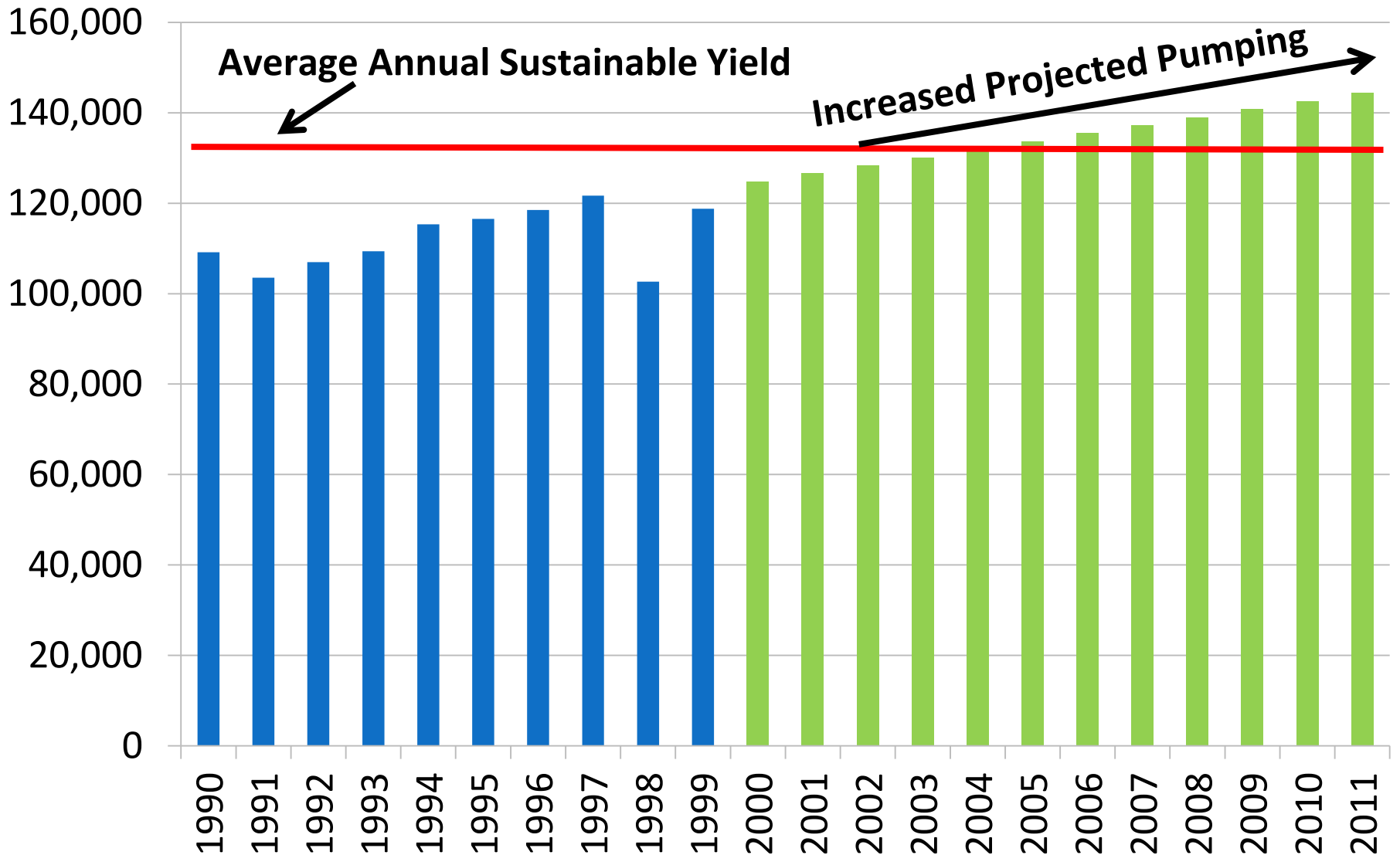
- To maintain the long-term sustainable yield of the North Area Basin.
- To facilitate implementation of an appropriate conjunctive use program by water purveyors.



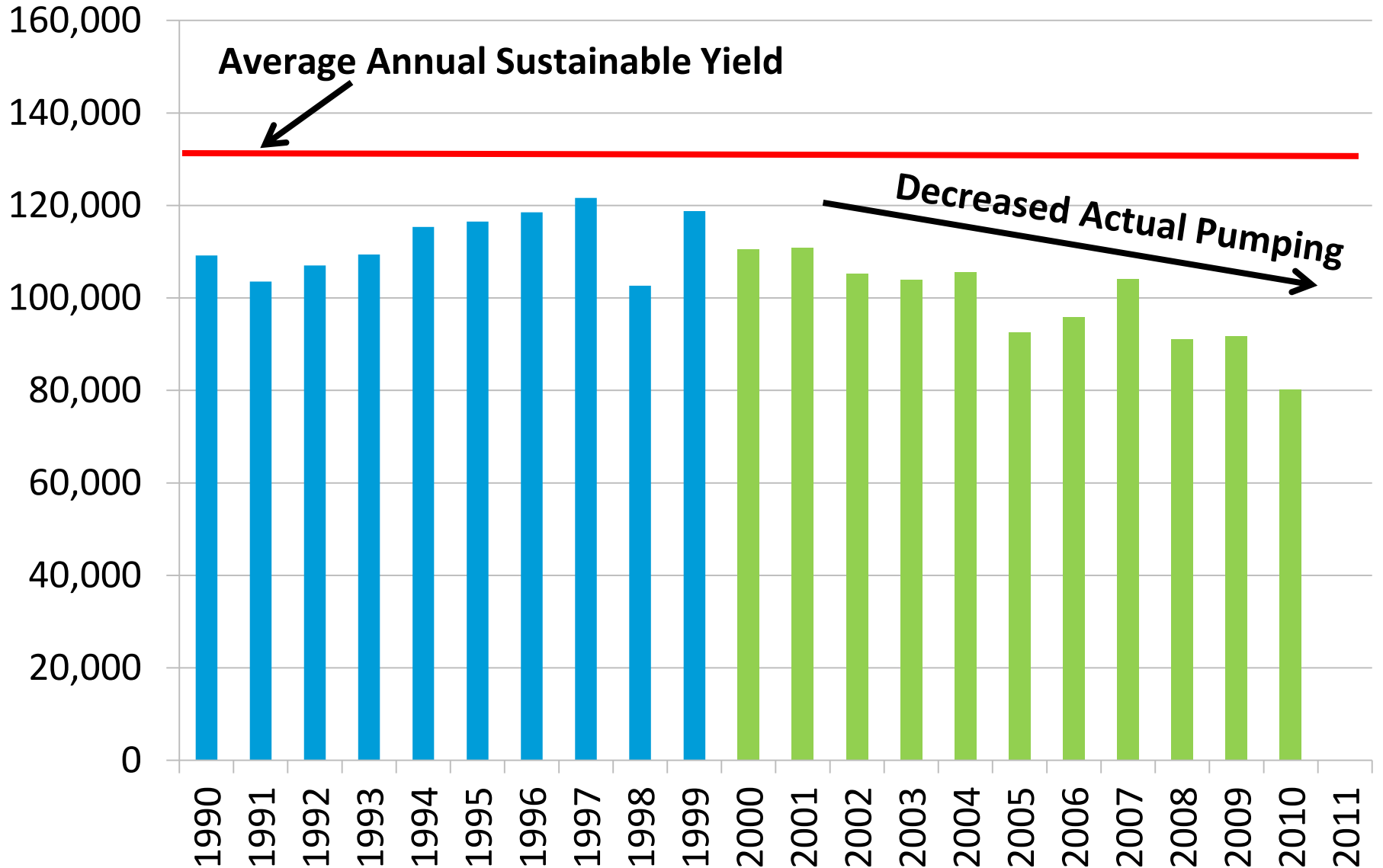
Need for a Framework



What We Thought Circa 2000



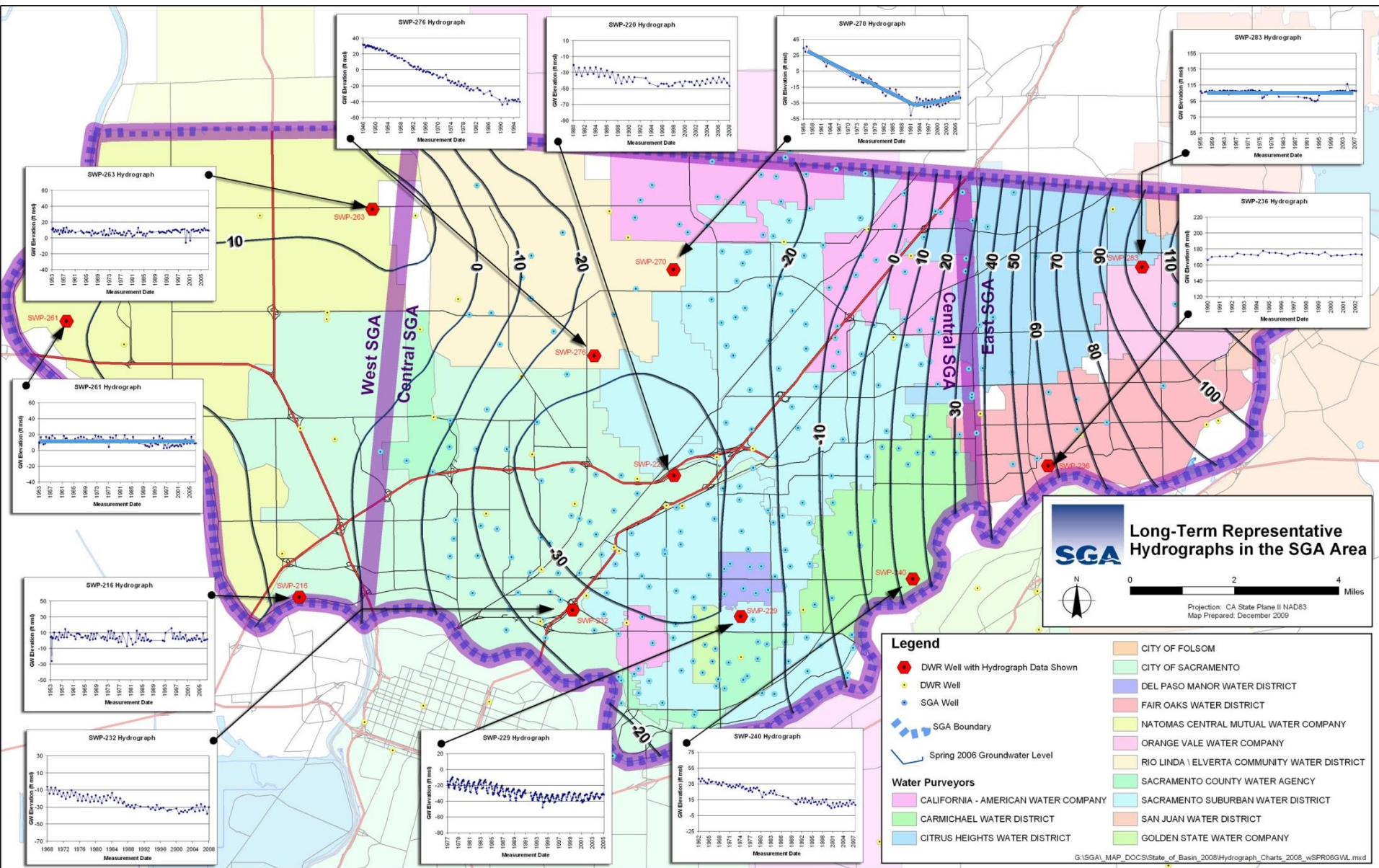
What We Since Learned....



But Still Needed a Framework

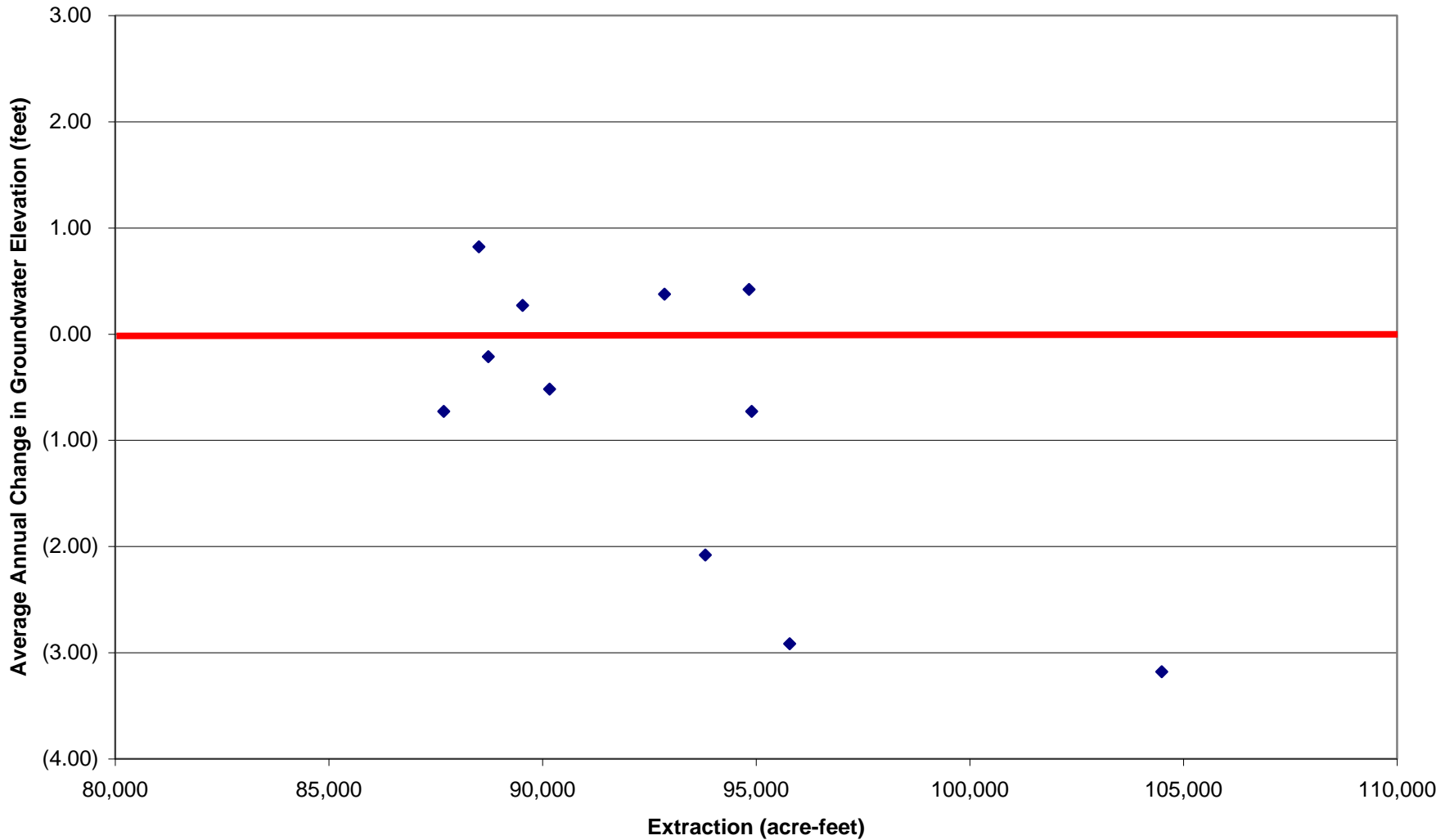
- Direct actions taken mostly by one agency
 - Invested in facilities
 - Surface water more costly than groundwater, so impacts to rates
 - How was this “appropriate” and equitable?
- Began renewed effort in 2005
- Three phases, concluding in 2010

Framework Approach



Level Analysis ('95 - '05 data)

Change in Elevation vs. Groundwater Extraction
(head measured following Spring)



Sustainability Goal

Agency	Pumping Prior to SGA (ac-ft)	Sustainability Reduction (ac-ft)	Sustainable Target (ac-ft)
Carmichael WD	7,516	870	6,646
City of Sacramento	23,287	2,696	20,591
California American Water	20,351	2,356	17,995
Del Paso Manor WD	1,657	192	1,465
Golden State WC	1,242	144	1,098
Rio Linda/Elverta Community WD	3,259	377	2,882
Sacramento County WA	4,850	562	4,288
Sacramento Suburban WD	39,622	4,587	35,035
Total	101,784	11,784	90,000

Framework Principles

- Addresses all Agencies, but Sustainability Goals only in Central Area
- Create and Track two Balances
 - Basin sustainability goal – a reduction in the demand for groundwater in the basin
 - Exchangeable water – imported surface water in excess of that needed to meet basin sustainability goal

Principles (continued)

- Two years before beginning implementation (2012)
- Sustainability goal can be met simply by pumping less than target
- Agencies start with a zero balance for basin sustainability goal
- Negative sustainability balances can accumulate
- Basin sustainability balances are not transferrable

Principles (continued)

- Exchangeable water balance may be transferred to meet sustainability balances
- Surface water deliveries in excess of goal after 1998 credited to exchangeable water
- Must have sustainability balance to transfer exchangeable water outside basin
- 5% loss factor applies to exchanges outside basin
- Revisit Framework every five years

Accounting Framework Status

Status through 2017	Basin Sustainability Balance		Exchangeable Water Balance
Carmichael WD	25,919		65,968
City of Sacramento	31,097		70,802
California American	42,581		9,940
Del Paso Manor WD	1,055		0
Golden State WC	964		0
Rio Linda/Elverta CWD	2,131		134
Sacramento County WA	-2,065		0
Sacramento Suburban WD	46,898		210,870
Central Area Total	148,580		357,714