

Post Script Appendix I

Scenario 1 modeling (Santa Cruz Design Drought)														
	Year -5	Year -4	Year -3	Year -2	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Portfolio 3 - 1st Preferred														
CA-16 Aquifer restoration/storage(from SLR) (5)	0	0	0	0	640	640	500	500	280	0	0	0	0	0
Additional possible take (6)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
"Banked" storage	0	0	0	0	640	1280	780	280	0	0	0	0	0	0
CA-03 Program C Recommended (1)	489	489	489	489	489	489	489	489	489	489	489	489	489	489
CA-04 WaterSmart	37	37	37	37	37	37	37	37	37	37	37	37	37	37
CA-01 Peak Demand Reduction (2)														
CA-02 Water Demand Offset (3)														
WCA-24 1st Year Drought Demand Mgt (4)														
Portfolio effectiveness (sub-total)	526	526	526	526	1166	1166	1026	1026	806	526	526	526	526	526
Peak Season Demand (MG)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Peak Season Deficit (MG)	0	0	0	0	0	0	929	1330	376	725	479	564	582	123
Shortfall (MG: deficit - solutions)	0	0	0	0	0	0	0	-304	0	-199	0	-38	-56	0
Shortfall (% of peak season total demand)	0%	0%	0%	0%	0%	0%	0%	-15%	0%	-10%	0%	-2%	-3%	0%
Shortfall (% of peak season deficit t)	0%	0%	0%	0%	0%	0%	0%	-23%	0%	-27%	0%	-7%	-10%	0%
Remaining gap to fill to get to 15% deficit	0	0	0	0	0	0	0	-104.5	0	-90.25	0	0	0	0
Portfolio 1 - 2nd Preferred														
CA-10 Re-use for aquifer (MG)	1330	1330	1330	1330	1330	1330	1330	1330	1330	1330	1330	1330	1330	1330
CA-03 Program C Recommended (1)	489	489	489	489	489	489	489	489	489	489	489	489	489	489
CA-04 WaterSmart	37	37	37	37	37	37	37	37	37	37	37	37	37	37
CA-01 Peak Demand Reduction (2)														
CA-02 Water Demand Offset (3)														
WCA-24 1st Year Drought Demand Mgt (4)														
Portfolio effectiveness (sub-total)	1330	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Peak Season Demand (MG)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Peak Season Deficit (MG)	0	0	0	0	0	0	929	1330	376	725	479	564	582	123
Shortfall (MG: deficit - solutions)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shortfall (% of peak season total demand)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shortfall (% of peak season deficit t)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Remaining gap to fill to get to 15% deficit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portfolio 2 - 2nd Preferred														
CA-13 Water Re-use non-potable (North Coast)	770	770	770	770	770	770	770	770	770	770	770	770	770	770
CA-03 Program C Recommended (1)	489	489	489	489	489	489	489	489	489	489	489	489	489	489
CA-04 WaterSmart	37	37	37	37	37	37	37	37	37	37	37	37	37	37
CA-01 Peak Demand Reduction (2)														
CA-02 Water Demand Offset (3)														
WCA-24 1st Year Drought Demand Mgt (4)														
Portfolio effectiveness (sub-total)	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296
Peak Season Demand (MG)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Peak Season Deficit (MG)	0	0	0	0	0	0	929	1330	376	725	479	564	582	123
Shortfall (MG: deficit - solutions)	0	0	0	0	0	0	0	-34	0	0	0	0	0	0
Shortfall (% of peak season total demand)	0%	0%	0%	0%	0%	0%	0%	-2%	0%	0%	0%	0%	0%	0%
Shortfall (% of peak season deficit t)	0%	0%	0%	0%	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%

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Scenario 1 modeling (Santa Cruz Design Drought)														
	Year -5	Year -4	Year -3	Year -2	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Remaining gap to fill to get to 15% deficit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Constants and Questions														
15% gap cf. peak season gap	0	0	0	0	0	0	139.35	199.5	56.4	108.75	71.85	84.6	87.3	18.45
15% gap cf. peak season total demand (2 BG)	300	300	300	300	300	300	300	300	300	300	300	300	300	300
(1)														
Question: What is ramp up of effectiveness?														
Question: What is real cap on effectiveness? (That is, is 489 the number, or can we get more, based on review of Maddaus work)														
(2)														
Question: What can we get from this economically?														
(3)														
Concept: Program would be funded by the SCWD (rate-payers), rather than by developers, and must be additive to Program C (that is, not merely accelerate items that are in Program C to no net gain)														
Question: How productive could a water-demand-offset program as described here be at offsetting demand due to growth?														
(4)														
Concept: we start managing demand the first year that Newell Creek dam doesn't spill														
Question: what additional system productivity can we get in later years, by retaining more water in LL earlier														
(5)														
NB: Maximum storage is 6,900 MG														
Question: What is realizable withdrawal rate and confidence?														
(6)														
Question: What additional "take" could we get with (a) relaxed turbidity standards and (b) additional water-transmission capacity?														