Step 3. Quantified Targeted Benefit Change

A. Quantified Targeted Benefit Change

source: calculated = Step 2A. - Step 1B. ug L-1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1) Critical	0.031	0.046	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2) Dry	No Reference Data available for these year types											
3) B Norm												
4) A Norm												
5) Wet												

note: based on the concentration trend in the Merced (Step 2A.) we assume that the Quantified Targeted Benefit Change is 0 from Mar-Dec

Step 4. Area Affecting Targeted Benefit

A. Stanislaus:SubRegion 11 Streamflow Diversion Ratio

source: calculated from CVGSM Stanislaus Diversions/Total Diversions Sub-Region 11 Annual

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1) Critical	0.56	0.63	0.51	0.62	0.64	0.61	0.60	0.61	0.66	0.46	0.23	0.23	0.60
2) Dry	0.76	0.60	0.50	0.59	0.61	0.61	0.61	0.60	0.57	0.51	0.27	0.19	0.59
3) B Norm	0.47	0.78	0.49	0.57	0.58	0.59	0.60	0.61	0.60	0.72	0.39	0.27	0.59
4) A Norm	0.61	0.57	0.51	0.57	0.59	0.59	0.62	0.61	0.60	0.39	0.25	0.16	0.57
5) Wet	0.72	0.81	0.63	0.58	0.61	0.60	0.61	0.66	0.62	0.49	0.18	0.26	0.60
Average	0.62	0.66	0.52	0.59	0.61	0.60	0.61	0.61	0.61	0.50	0.26	0.22	0.59

B. Ratio of Affected Crops to Total Crops

source: calculated = Total Assumed Affected Crops/Total Crops

= 0.23

Step 5. Water Flow Path Elements

A. Farm Rain Sub-Region 11 * Step 4A. * Step 4B. (inflow) Flow Path Not Affected

source: CVGSM SubRegion 11 Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	3.7	3.0	2.0	1.7	1.0	0.3	0.0	0.1	0.4	0.7	0.8	1.2	14.8
2) Dry	4.5	3.6	3.5	1.6	1.1	0.1	0.0	0.0	0.6	1.4	1.2	1.0	18.6
3) B Norm	3.9	6.7	3.0	2.6	0.9	0.1	0.0	0.0	0.1	1.4	2.8	2.1	23.7
4) A Norm	5.1	4.9	4.3	2.6	0.4	0.1	0.1	0.2	0.3	1.2	1.6	1.6	22.5
5) Wet	9.2	8.6	6.9	4.8	0.8	0.2	0.2	0.0	1.1	1.5	1.3	3.0	37.6
Average	5.1	5.0	3.7	2.5	0.8	0.2	0.1	0.1	0.5	1.2	1.4	1.7	22.3

B. Ground Water Diversions Sub-Region 11 * Step 4A. * Step 4B. (inflow) Flow Path Not Affected

source: CVGSM SubRegion 11 Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.1	0.1	1.8	1.4	1.5	2.0	2.0	0.7	0.0	0.7	0.1	0.1	10.5
2) Dry	0.2	0.1	0.5	0.7	0.9	1.9	1.9	0.7	0.0	0.6	0.1	0.1	7.8
3) B Norm	0.1	0.1	0.4	0.6	0.8	1.8	1.9	0.7	0.0	0.9	0.1	0.1	7.7
4) A Norm	0.1	0.1	0.3	0.6	0.8	1.8	2.0	0.7	0.0	0.5	0.1	0.1	7.0
5) Wet	0.1	0.1	0.4	0.6	0.9	1.8	1.8	0.8	0.0	0.5	0.1	0.1	7.2
Average	0.1	0.1	0.8	0.8	1.0	1.9	1.9	0.7	0.0	0.6	0.1	0.1	8.2

C. ETAW Sub-Region 11 * Step 4A. * Step 4B. (outflow) Flow Path Not Affected

source: calculated Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.1	0.2	2.2	6.0	11.3	14.0	15.3	13.3	9.8	3.2	0.4	0.1	76.0
2) Dry	0.1	0.2	1.1	5.6	10.8	14.5	16.2	13.6	8.4	3.3	0.5	0.0	74.3
3) B Norm	0.0	0.1	1.4	4.7	10.4	14.0	16.0	13.9	9.1	4.8	0.5	0.1	75.0
4) A Norm	0.1	0.1	1.1	4.7	11.1	14.2	16.2	13.7	9.0	2.3	0.2	0.0	72.8
5) Wet	0.0	0.1	1.3	3.4	11.2	14.2	15.9	14.8	8.6	2.9	0.1	0.0	72.4
Average	0.1	0.2	1.5	5.0	11.0	14.2	15.9	13.8	9.1	3.2	0.3	0.1	74.2

D. Farm Surface Water Return Sub-Region 11 * Step 4A. * Step 4B. (outflow, recoverable)

source: calculated Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.0	0.0	0.8	2.1	2.6	2.9	2.9	2.5	1.9	0.7	0.1	0.1	16.7
2) Dry	0.0	0.0	0.6	2.2	2.7	3.2	3.4	2.8	1.9	0.8	0.2	0.1	17.8
3) B Norm	0.0	0.0	0.6	2.2	2.6	3.1	3.4	3.0	2.0	1.0	0.2	0.1	18.3
4) A Norm	0.0	0.0	0.6	2.2	2.7	3.1	3.5	3.0	2.1	0.6	0.2	0.1	17.9
5) Wet	0.0	0.0	0.7	2.2	2.8	3.2	3.4	3.2	2.1	0.7	0.1	0.1	18.5
Average	0.0	0.0	0.7	2.2	2.7	3.1	3.3	2.9	2.0	0.7	0.2	0.1	17.7

E. Farm Runoff from Rain Sub-Region 11 * Step 4A. * Step 4B. (outflow, irrecoverable)

source: calculated Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2) Dry	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3) B Norm	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4
4) A Norm	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
5) Wet	0.4	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3
Average	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4

F. Farm Ground Water Flow Sub-Region 11 * Step 4A. * Step 4B. (outflow, recoverable)

source: calculated Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	2.5	1.4	2.9	6.5	3.6	2.2	1.3	1.1	1.1	0.4	0.5	1.1	24.5
2) Dry	3.0	1.9	3.2	6.9	4.6	3.7	3.1	2.9	2.5	0.9	0.9	1.0	34.6
3) B Norm	2.8	4.7	2.9	8.2	4.7	4.1	3.5	3.5	2.6	0.7	2.2	2.1	42.0
4) A Norm	3.8	3.2	4.0	8.2	4.3	4.2	3.8	3.7	2.8	0.8	1.5	1.6	41.9
5) Wet	7.4	6.2	6.3	10.3	4.8	4.2	3.8	3.8	3.5	1.0	1.1	3.0	55.5
Average	3.7	3.2	3.8	7.8	4.3	3.5	3.0	2.8	2.4	0.7	1.2	1.6	38.1

G. Surface Water Diversions Sub-Region 11 * Step 4A. * Step 4B. (inflow) Flow Path Not Affected

source: CVGSM SubRegion 11 Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.3	0.3	3.8	13.0	16.0	17.1	17.5	16.1	12.0	3.5	0.7	0.6	100.9
2) Dry	0.4	0.4	3.5	13.9	17.1	19.5	20.7	18.7	12.0	4.0	0.9	0.5	111.7
3) B Norm	0.2	0.5	3.7	14.0	16.9	19.4	21.1	19.7	13.1	5.5	1.3	0.7	116.1
4) A Norm	0.3	0.4	3.8	14.1	17.3	19.7	21.6	19.7	13.2	3.1	0.9	0.5	114.6
5) Wet	0.4	0.5	4.7	14.3	17.9	19.8	21.4	21.0	13.5	3.8	0.6	0.7	118.7
Average	0.3	0.4	3.8	13.8	17.0	19.0	20.2	18.8	12.7	3.9	0.9	0.6	111.3

Step 6. Idealized Agricultural Potential (Farm)

A. Idealized Agricultural Potential (Farm)

source: calculated = Step 5D. + Step 5F. Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	1.4	0.9	1.9	5.3	4.0	3.1	2.5	2.2	2.0	0.5	0.2	0.3	24.1
2) Dry	2.3	1.1	1.9	5.3	4.4	4.2	3.9	3.5	2.5	0.8	0.3	0.2	30.5
3) B Norm	1.3	3.7	1.7	5.9	4.3	4.2	4.2	4.0	2.8	1.2	1.0	0.6	34.8
4) A Norm	2.3	1.8	2.3	5.9	4.2	4.3	4.5	4.1	2.9	0.5	0.4	0.3	33.6
5) Wet	5.3	5.0	4.5	7.2	4.6	4.4	4.4	4.6	3.5	0.8	0.2	0.8	45.3
Average	2.3	2.1	2.3	5.8	4.3	4.0	3.8	3.5	2.7	0.7	0.3	0.4	32.3

B. Additional Agricultural Potential (rain runoff management)

source: calculated = Step 5E. Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2) Dry	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3) B Norm	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
4) A Norm	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
5) Wet	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Average	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Step 7. Farm Quantifiable Objective Component

The half-life of Diazinon is short enough that we assumed that it would not occur in the Ground Water Return flow path (except for fields directly linked to the Stanislaus). The only flow path of concern during Jan and Feb is Direct Runoff from Rain (Step 5E.). Eliminating this flow path during Jan-Feb should substantially reduce the Diazinon concentration in the Stanislaus River.

Possible actions that may achieve this Quantifiable Objective include tailwater retention ponds, furrow dikes, cover cropping and reduction in late season (Oct-Nov) irrigations.

Costs to be considered include cultural operations, risk associated with reducing late season irrigations and potential changes in district delivery policies.

Step 8. District Quantifiable Objective Component

There is no District Quantifiable Objective for this Targeted Benefit

Step 9. Combined Farm + District Quantifiable Objective

The combined Quantifiable Objective is the Farm Component (Step 7)

Detail 127, Decrease Nonproductive ET to Increase Water Supply for Beneficial Uses

Step 1. Quantified Targets

A. Acreage Assumed for Reduction of Nonproductive ET
source: CVGSM Sub-Region 11

Crop	Potential for ET Red	Existing	Assumed for ET Reduction*
		acres	
Pasture	No	56,500	---
Vineyard	Yes	11,000	2,147
Alfalfa	No	9,700	---
Sugar Beet	No	500	---
Field	No	20,900	---
Rice	No	4,700	---
Truck	Yes	6,200	1,210
Tomato	Yes	800	156
Orchard	Yes	81,100	15,827
Grains	No	2,000	---
Cotton	No	---	---
Citrus/Olives	Yes	---	---
Total		193,400	19,340

*The Assumed Acreage is 10% of the Total Acreage in the SubRegion. The Assumed Acreage is then proportionally split among the crops that have potential for ET reduction.

B. Existing ET
source: CVGSM

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Inches Total
Vineyard	0.0	0.0	0.0	1.1	3.7	5.8	6.6	5.5	3.5	1.3	0.0	0.0	27.5
Truck	0.0	0.0	0.0	1.4	2.2	3.9	3.7	2.7	1.8	1.2	0.0	0.0	16.9
Tomato	0.0	0.0	0.0	1.1	2.6	6.0	8.1	7.2	4.6	2.0	0.0	0.0	31.5
Orchard	0.9	1.7	1.8	3.0	5.2	6.4	7.1	6.1	4.0	2.3	1.0	0.7	40.2
Citrus/Olive	0.0	0.0	1.9	2.7	4.2	4.8	5.0	4.2	2.8	2.0	0.0	0.0	27.6
Average	0.7	1.4	1.5	2.7	4.8	6.2	6.8	5.8	3.8	2.1	0.8	0.6	37.3

C. ET from Rain for SubRegion 11
source: CVGSM

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Inches Total
1) Critical	0.7	0.8	0.7	0.6	0.5	0.4	0.4	0.2	0.1	0.5	0.5	0.3	5.7
2) Dry	0.6	0.8	1.3	0.6	0.5	0.2	0.2	0.0	0.1	0.6	0.4	0.5	6.0
3) B Norm	0.7	0.9	1.1	1.0	0.5	0.2	0.2	0.0	0.0	0.5	0.6	0.4	6.1
4) A Norm	0.7	0.8	1.3	1.0	0.2	0.2	0.2	0.1	0.0	0.7	0.7	0.5	6.5
5) Wet	0.7	0.9	1.4	1.7	0.4	0.2	0.3	0.0	0.3	0.7	0.8	0.5	7.7
Average	0.7	0.8	1.1	0.9	0.4	0.3	0.3	0.1	0.1	0.6	0.6	0.4	6.3

D. Existing ETAW
source: calculated = Step 1B.(Average Total) - Step 1A,

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Inches Total
1) Critical	0.1	0.6	0.7	2.1	4.3	5.8	6.4	5.7	3.8	1.7	0.4	0.2	31.5
2) Dry	0.1	0.6	0.2	2.0	4.3	6.0	6.6	5.8	3.7	1.5	0.4	0.1	31.3
3) B Norm	0.1	0.5	0.3	1.7	4.4	6.0	6.6	5.8	3.8	1.6	0.3	0.1	31.2
4) A Norm	0.1	0.5	0.1	1.7	4.6	6.0	6.6	5.8	3.8	1.4	0.1	0.1	30.8
5) Wet	0.0	0.5	0.1	1.0	4.5	6.0	6.6	5.8	3.5	1.4	0.1	0.1	29.5
Average	0.1	0.6	0.3	1.7	4.4	5.9	6.6	5.8	3.7	1.5	0.2	0.1	30.9

E. Target ETAW

source: calculated = Step 1D. * 90% — Inches

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.1	0.5	0.7	1.8	3.9	5.2	5.8	5.1	3.4	1.5	0.3	0.2	28.4
2) Dry	0.1	0.5	0.1	1.8	3.9	5.4	6.0	5.2	3.3	1.4	0.3	0.1	28.1
3) B Norm	0.1	0.5	0.3	1.5	3.9	5.4	6.0	5.2	3.5	1.4	0.2	0.1	28.1
4) A Norm	0.1	0.5	0.1	1.5	4.1	5.4	5.9	5.2	3.4	1.3	0.1	0.1	27.7
5) Wet	0.0	0.5	0.1	0.9	4.0	5.4	5.9	5.2	3.2	1.3	0.1	0.1	26.6
Average	0.1	0.5	0.3	1.6	4.0	5.3	5.9	5.2	3.3	1.4	0.2	0.1	27.9

Step 2. Reference Condition

For ET Reduction the Reference Condition is the existing Crop ET, Step 1B.

Step 3. Quantified Targeted Benefit Change

A. Quantified Targeted Benefit Change

source: = Quantified Targeted Benefit — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	---	---	0.1	0.3	0.7	0.9	1.0	0.9	0.6	0.3	---	---	4.9
2) Dry	---	---	0.0	0.3	0.7	1.0	1.1	0.9	0.6	0.2	---	---	4.9
3) B Norm	---	---	0.1	0.3	0.7	1.0	1.1	0.9	0.6	0.3	---	---	4.9
4) A Norm	---	---	0.0	0.3	0.7	1.0	1.1	0.9	0.6	0.2	---	---	4.8
5) Wet	---	---	0.0	0.2	0.7	1.0	1.1	0.9	0.6	0.2	---	---	4.6
Average	---	---	0.1	0.3	0.7	1.0	1.1	0.9	0.6	0.2	---	---	4.8

Step 4. Streamflow Data Conversion

This section is not applicable to this Targeted Benefit

Step 5. Water Flow Path Elements

A. Farm Rain Sub-Region 11 (inflow) — Flow Path Not Affected

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	28.1	20.4	16.4	11.7	6.5	2.2	0.0	0.9	2.5	6.4	14.5	21.2	131.0
2) Dry	25.2	25.6	29.8	11.6	7.4	0.8	0.1	0.3	4.6	11.4	18.3	22.4	157.6
3) B Norm	35.7	36.8	26.4	19.5	6.7	0.9	0.0	0.3	0.6	8.1	30.6	33.0	198.5
4) A Norm	35.9	36.6	36.1	19.8	2.7	1.1	1.0	1.4	1.9	13.6	26.6	43.6	220.4
5) Wet	54.8	45.6	46.3	35.0	5.3	1.2	1.3	0.3	7.3	13.5	29.7	49.2	289.5
Average	34.7	31.6	29.8	18.4	5.7	1.3	0.4	0.7	3.3	10.4	22.9	32.7	191.9

B. Surface Water Diversions Sub-Region 11 (inflow) — Flow Path Not Affected

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	2.1	2.2	31.8	89.9	106.1	119.6	124.8	113.3	77.5	32.5	13.2	10.2	723.1
2) Dry	2.2	2.7	29.8	101.1	119.6	136.4	144.5	132.7	89.9	33.2	15.1	11.4	818.5
3) B Norm	2.2	2.7	32.6	104.8	124.0	140.8	148.8	137.1	93.3	32.6	13.8	10.8	843.5
4) A Norm	2.4	2.6	31.5	105.6	124.7	141.7	149.8	137.1	93.4	33.8	15.5	12.4	850.4
5) Wet	2.6	2.5	31.4	105.3	124.7	141.6	150.1	136.6	93.2	33.5	14.5	12.1	848.2
Average	2.3	2.5	31.4	100.4	118.7	134.7	142.1	129.9	88.5	33.1	14.4	11.3	809.3

C. Ground Water Diversions Sub-Region 11 (inflow) — Flow Path Not Affected

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	1.1	1.0	15.2	9.7	10.1	13.7	13.9	5.3	0.0	6.3	1.5	1.5	79.2
2) Dry	1.0	0.5	4.6	5.0	6.4	13.4	13.4	5.1	0.0	5.3	1.4	2.0	58.2
3) B Norm	1.0	0.6	3.4	4.8	6.1	13.2	13.7	5.0	0.0	5.2	1.4	1.7	56.1
4) A Norm	0.9	0.6	2.4	4.6	6.1	13.0	13.6	4.9	0.0	5.1	1.4	1.5	54.0
5) Wet	0.6	0.7	2.4	4.6	6.0	13.0	12.9	4.9	0.0	4.8	1.5	1.2	52.6
Average	0.9	0.7	6.4	6.0	7.2	13.3	13.5	5.1	0.0	5.4	1.4	1.6	61.6

D. ETAW Sub-Region 11 (outflow)

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.5	1.4	18.6	41.5	75.1	98.2	108.9	93.9	63.5	29.6	7.0	2.5	540.9
2) Dry	0.8	1.3	9.4	41.1	75.6	101.3	112.8	96.6	62.5	27.3	7.4	0.1	536.2
3) B Norm	0.3	0.7	12.2	35.2	76.5	101.5	112.8	96.6	64.9	28.3	5.4	1.0	535.4
4) A Norm	0.5	0.9	8.9	35.1	80.2	102.1	112.1	95.5	63.8	25.5	3.2	0.4	528.2
5) Wet	0.0	0.6	8.5	24.8	77.8	101.2	111.8	96.4	59.6	25.3	2.3	0.0	508.4
Average	0.5	1.0	12.0	36.4	77.0	100.7	111.5	95.6	63.0	27.4	5.3	0.9	531.1

E. Farm Surface Water Return Sub-Region 11 (outflow, recoverable) — Flow Path Not Affected

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.0	0.0	7.0	14.8	17.3	20.1	20.8	17.8	12.5	6.1	2.4	1.6	120.4
2) Dry	0.0	0.0	5.2	15.7	18.6	22.4	23.5	20.3	14.4	6.2	2.9	1.6	130.8
3) B Norm	0.0	0.0	5.3	16.1	19.3	22.6	24.2	21.0	14.5	6.0	2.5	1.6	133.0
4) A Norm	0.0	0.0	4.8	16.1	19.3	22.6	24.2	21.0	14.5	6.3	3.0	1.6	133.4
5) Wet	0.0	0.0	4.8	16.1	19.3	22.6	24.2	21.0	14.5	5.9	2.6	1.6	132.6
Average	0.0	0.0	5.5	15.7	18.7	21.9	23.1	20.0	14.0	6.1	2.7	1.6	129.3

F. Farm Runoff from Rain Sub-Region 11 (outflow, irrecoverable) — Flow Path Not Affected

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
2) Dry	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.3
3) B Norm	1.2	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	3.5
4) A Norm	0.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	3.9
5) Wet	2.2	2.1	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8	9.4
Average	0.8	0.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	3.3

G. Farm Ground Water Flow Sub-Region 11 (outflow, recoverable) — Flow Path Not Affected

source: CVGSM Sub-Region 11 — Thousand Acre Feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1) Critical	18.8	9.8	24.5	44.9	23.6	15.1	9.2	7.9	6.9	3.8	9.8	19.3	193.6
2) Dry	16.8	13.5	27.6	50.1	32.0	26.0	21.3	20.7	18.9	7.3	14.2	22.8	271.1
3) B Norm	25.6	25.8	25.3	61.1	34.4	29.6	25.1	24.3	18.2	4.2	24.3	32.7	330.7
4) A Norm	26.4	24.1	33.5	61.7	31.3	29.9	26.4	25.5	19.8	9.2	24.9	43.7	356.4
5) Wet	43.7	32.8	42.8	75.7	33.6	30.0	26.4	24.5	24.3	8.9	26.8	49.4	418.9
Average	25.1	19.9	30.2	57.1	30.3	25.2	20.7	19.6	16.7	6.6	19.0	32.3	302.5

Step 6. Idealized Agricultural Potential (Farm)

Additional ET research is required to determine this component.

Step 7. Farm Quantifiable Objective Component

For ET Reduction the Farm Component is the same as the Quantified Targeted Benefit Change (Step 3A

Step 8. District Quantifiable Objective Component

There is no District Quantifiable Objective Component for this Targeted Benefit

Step 9. Farm Quantifiable Objective

For ET Reduction the Farm Quantifiable Objective is the same as Quantified Targeted Benefit Change (Step 3A).

A. ET Reduction Cost Summary

System	Capital	Annualized Capital	O&M	Total Annualized
	1999 Costs (million $)			
On-Farm Irrigation Systems	15.91	2.37	0.23	2.59
Drip Irigation Water Management Support	0.00	0.00	0.97	0.97
Total	15.91	2.37	1.20	3.56

Total Annualized per Acre Foot per year (based on 4.8 TAF) $742

IV. Complete List of Targeted Benefits

The following tables (and associated map/dividers) provide a complete listing of all 199 Targeted Benefits categorized by Sub-Region. For a description of the columns of these tables, please refer to Section III, Explanation and Examples of Quantifiable Objectives, Table 11.1.

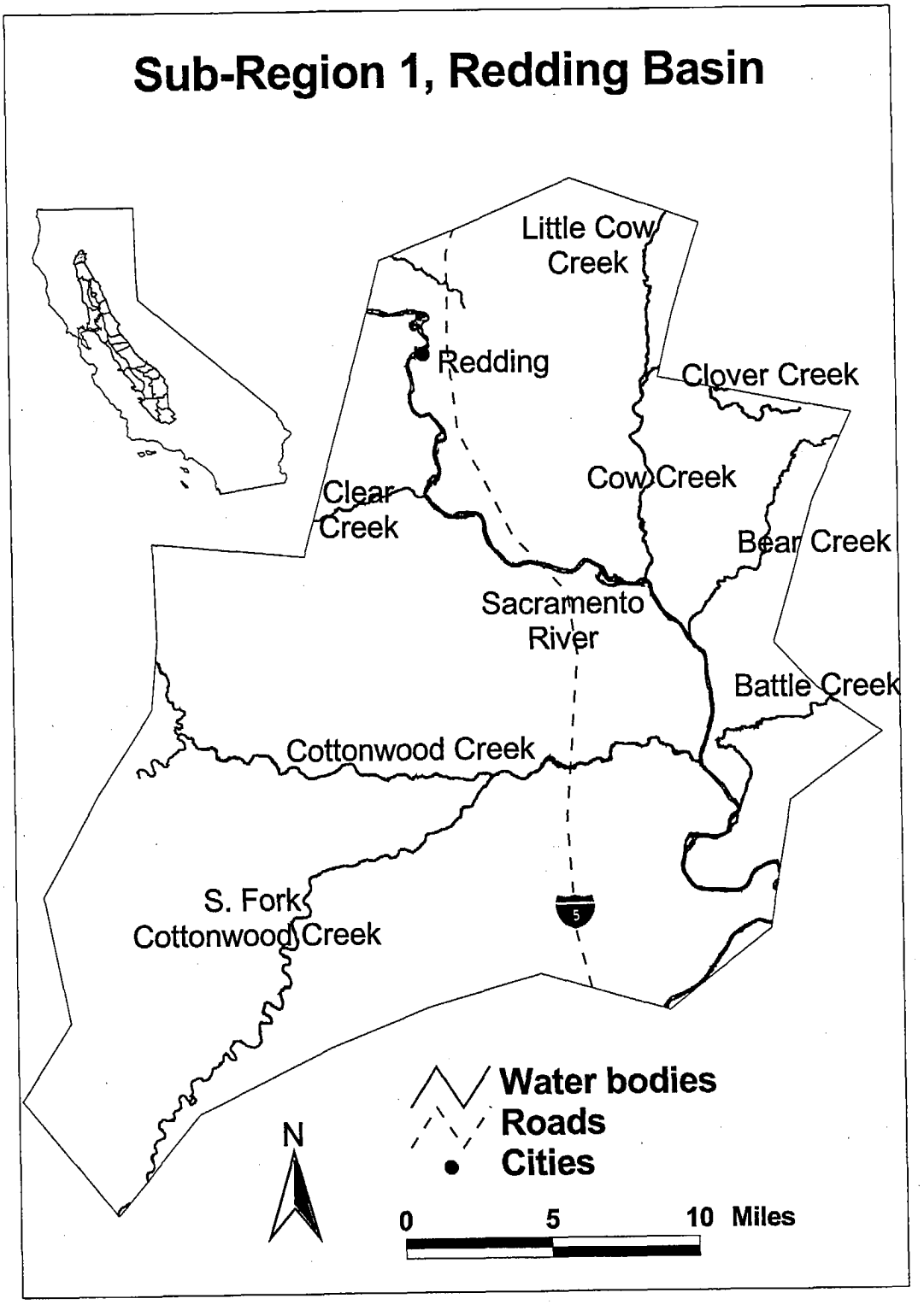
Sub-Region 1, Redding Basin
Little Cow Creek
Redding
Clover Creek
Cow Creek
Clear Creek
Bear Creek
Sacramento River
Battle Creek
Cottonwood Creek
S. Fork Cottonwood Creek
5
Water bodies
Roads
Cities
N
0
5
10 Miles

Table 1.1. Descriptive List of Targeted Benefits, Sub-Region 1, Redding Basin					
TB # (1) [duplicate]	**Location (2)**	**Category of Targeted Benefit (3)**	**Bene-ficiary (4)**	**General Time-Frame (5)**	**Conceptual Completeness (6)**
1	Battle Creek	Flow: Provide flow to improve aquatic ecosystem conditions	Eco	TBD	Incomplete
2	Bear Creek	Flow: Provide flow to improve aquatic ecosystem conditions	Eco	TBD	Indefined
3	Clear Creek	Flow: Provide flow to improve aquatic ecosystem conditions	Eco	Year round	Incomplete
4	Cottonwood Creek	Flow: Provide flow to improve aquatic ecosystem conditions	Eco	Summer & fall	Undefined
5	Cow Creek	Flow: Provide flow to improve aquatic ecosystem conditions	Eco	October	Incomplete
6 [13, 20 30, 57, 75]	Sacramento River below Keswick	Flow: Provide flow to improve aquatic ecosystem conditions	Eco	Fall - spring	Undefined
7	All affected lands	Quantity: Decrease nonproductive ET to increase water supply for beneficial uses	Eco, Ag or M&I	Year round	Complete
8	All suitable lands	Quantity: Provide long-term diversion flexibility to increase the water supply for beneficial uses	Eco, Ag or M&I	TBD	Incomplete