3010

E-003590 et seq.

D-062117

D—062117

Diversion Effects on Delta Smelt: Existing Conditions — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-13
Entrainment (export)	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-13
CCF predation	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-13
Handling	0	0	0	0	0	0	-1	-2	-1	-1	0	0	-5
Hydrodynamics	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Cross -Delta Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	-1	-1	-1	-1	-1	-1	0	0	0	0	-6
Salinity/X2	0	0	0	0	0	0	0	0	0	-1	-1	-1	-3
Agricultural diversions	0	0	0	0	0	0	0	-1	-2	-2	-2	0	-7
Total	0	0	-7	-7	-7	-7	-6	-9	-9	-9	-5	-1	-78

Diversion Effects on Delta Smelt: Existing Conditions — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Entrainment (export)	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
CCF predation	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Handling	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Hydrodynamics	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Cross -Delta Flow	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Qwest	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Old River @Bacon Island	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Sac River @ Rio Vista	0	0	0	0	0	0	-1	-2	-2	-2	-1	0	-8
SJ River @ Antioch	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Predation	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	0	-14
Food supply	0	-1	-1	-1	-2	-3	-3	-3	-3	-3	-2	-1	-23
Shallow/ nearshore habitat	0	0	-1	-1	-1	-1	-1	-1	0	0	0	0	-6
Salinity/X2	-1	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-9
Agricultural diversions	0	0	0	0	0	0	-2	-2	-3	-3	-2	0	-12
Total	-1	-2	-12	-12	-12	-22	-26	-33	-33	-30	-20	-2	-205

Diversion Effects on Delta Smelt: No Action Conditions — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-2	-2	-2	-3	-2	-2	-2	0	-17
Entrainment (export)	0	0	-1	-1	-2	-1	-2	-3	-2	-2	-1	0	-15
CCF predation	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-14
Handling	0	0	0	0	-1	-1	-1	-2	-1	-2	-1	0	-9
Hydrodynamics	0	0	-1	-1	-2	-2	-1	-2	-2	-2	-2	0	-15
Cross -Delta Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Qwest	0	0	0	-1	-1	-1	0	0	0	-1	-1	0	-5
Old River @Bacon Island	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	-1	-1	-1	-1	-1	-1	0	0	0	0	-5
Salinity/X2	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-5
Agricultural diversions	0	0	0	0	0	0	0	-1	-2	-2	-2	0	-7
Total	0	0	-7	-8	-12	-11	-8	-17	-7	-13	-13	-1	-98

Diversion Effects on Delta Smelt: No Action Conditions — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-2	0	-21
Entrainment (export)	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-2	0	-21
CCF predation	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Handling	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Hydrodynamics	0	0	-2	-2	-2	-3	-2	-3	-3	-3	-2	0	-22
Cross -Delta Flow	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Qwest	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Old River @Bacon Island	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Sac River @ Rio Vista	0	0	0	0	0	0	-1	-2	-2	-2	-1	0	-8
SJ River @ Antioch	0	0	-2	-2	-1	-1	-1	-2	-2	-2	-1	0	-14
Predation	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	0	-14
Food supply	0	-1	-2	-2	-2	-3	-3	-3	-3	-3	-2	-1	-25
Shallow/ nearshore habitat	0	0	-1	-1	-1	-1	-1	-1	0	0	0	0	-6
Salinity/X2	-1	-1	0	0	1	1	1	-1	-1	-1	-1	-1	-5
Agricultural diversions	0	0	0	0	0	0	-2	-2	-3	-3	-2	0	-12
Total	-1	-2	-12	-12	-11	-15	-21	-31	-31	-30	-21	-2	-189

Diversion Effects on Delta Smelt: Common Programs — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-14
Entrainment (export)	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-14
CCF predation	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-14
Handling	0	0	0	0	0	0	-1	-2	-1	-1	0	0	-5
Hydrodynamics	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Cross -Delta Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Food supply	1	1	-1	-1	-1	-2	-2	-2	-1	-1	-1	-1	-15
Shallow/ nearshore habitat	0	0	0	0	1	-1	-1	-1	0	0	0	0	-5
Salinity/X2	0	0	0	0	0	0	0	0	0	-1	-1	-1	-3
Agricultural diversions	1	1	1	1	1	1	2	2	2	2	2	-1	16
Total	2	2	-1	-1	1	-2	-5	-9	-6	-5	-2	-1	-31

Diversion Effects on Delta Smelt: Common Programs — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Entrainment (export)	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
CCF predation	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Handling	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Hydrodynamics	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Cross -Delta Flow	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Qwest	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Old River @Bacon Island	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Sac River @ Rio Vista	0	0	0	0	0	0	-1	-2	-2	-2	-1	0	-8
SJ River @ Antioch	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Predation	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	0	-14
Food supply	1	0	0	0	-1	-1	-1	-1	-1	-1	-1	0	-6
Shallow/ nearshore habitat	0	0	0	0	1	1	1	-1	0	0	0	0	-4
Salinity/X2	-1	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-9
Agricultural diversions	1	1	1	1	1	1	2	2	2	2	2	-1	16
Total	1	0	-10	-8	-8	-17	-20	-30	-30	-30	-20	-2	-174

Diversion Effects on Delta Smelt: Alternative 1 — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-2	-2	-2	-3	-2	-2	-2	0	-17
Entrainment (export)	0	0	-1	-1	-2	-1	-2	-3	-2	-2	-1	0	-15
CCF predation	0	0	-1	-1	-1	-1	-2	-3	-2	-2	-1	0	-14
Handling	0	0	0	0	-1	-1	-1	-2	-1	-2	-1	0	-8
Hydrodynamics	0	0	-1	-1	-2	-2	-1	-2	-2	-2	-2	0	-15
Cross -Delta Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Qwest	0	0	0	-1	-1	-1	0	0	0	-1	-1	0	-5
Old River @Bacon Island	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-8
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	0	0	1	1	1	1	1	0	0	0	5
Salinity/X2	0	0	0	0	0	0	0	0	0	-1	-1	-1	-3
Agricultural diversions	1	1	1	1	1	1	1	2	2	2	2	1	16
Total	2	2	0	0	1	1	3	1	5	0	2	2	19

Diversion Effects on Delta Smelt: Alternative 1 — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-2	0	-21
Entrainment (export)	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-2	0	-21
CCF predation	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Handling	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Hydrodynamics	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-2	0	-22
Cross -Delta Flow	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-20
Qwest	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-20
Old River @Bacon Island	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-20
Sac River @ Rio Vista	0	0	0	0	0	0	-1	-2	-2	-2	-1	0	-8
SJ River @ Antioch	0	0	-2	-2	-1	-1	-1	-2	-2	-2	0	0	-13
Predation	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	0	-16
Food supply	1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-8
Shallow/ nearshore habitat	0	0	0	0	1	1	1	0	0	0	0	0	4
Salinity/X2	-1	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-9
Agricultural diversions	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-16
Total	-1	0	-9	-11	-11	-10	-8	-29	-30	-30	-19	0	-158

Diversion Effects on Delta Smelt: Alternative 2 — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-2	-2	-2	-2	-2	-3	-2	-2	-2	0	-20
Entrainment (export)	0	0	-1	-1	-1	-1	-2	-3	-2	-1	-1	0	-16
CCF predation	0	0	-1	-1	-2	-2	-2	-3	-2	-2	-1	0	-18
Handling	0	0	0	0	-1	-1	-1	-2	-1	0	0	0	-6
Hydrodynamics	0	0	-2	-2	-2	-2	-2	-3	-2	-2	-2	0	-20
Cross -Delta Flow	0	0	-2	-2	-2	-2	-2	-2	-2	-2	-2	0	-18
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	-1	-2	-2	-2	-2	-2	-1	-1	-1	0	-14
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	-1	-1	-1	-3
Agricultural diversions	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-16
Total	2	2	-2	-3	-4	-3	-1	-5	-1	-2	-3	-1	-21

Diversion Effects on Delta Smelt: Alternative 2 — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-3	-3	-3	-3	-3	-3	-3	-3	-2	0	-26
Entrainment (export)	0	0	-1	-1	-1	-1	-2	-3	-3	-3	-2	0	-20
CCF predation	0	0	-1	-1	-2	-2	-2	-3	-3	-3	-2	0	-22
Handling	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Hydrodynamics	0	0	-3	-3	-3	-3	-3	-3	-3	-3	-2	0	-26
Cross -Delta Flow	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-2	0	-24
Qwest	0	0	0	0	0	0	0	0	-1	-1	-1	0	-3
Old River @Bacon Island	0	0	-1	-2	-2	-2	-2	-3	-3	-3	-2	0	-20
Sac River @ Rio Vista	0	0	-2	-2	-2	-2	-1	-1	-2	-2	-1	0	-13
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-2	-2	-2	-2	-2	-2	0	-15
Food supply	1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-8
Shallow/ nearshore habitat	0	0	0	0	-1	-1	-1	-1	0	0	0	0	-4
Salinity/X2	-1	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-10
Agricultural diversions	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-16
Total	-1	0	-15	-16	-17	-18	-9	-25	-26	-28	-18	0	-187

Diversion Effects on Delta Smelt: Alternative 3 — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-2	-2	-1	-1	-1	0	-11
Entrainment (export)	0	0	-1	-1	-1	-1	-2	-2	-1	-1	-1	0	-11
CCF predation	0	0	-1	-1	-1	-1	-2	-2	-1	-1	-1	0	-11
Handling	0	0	0	0	0	0	-1	-2	-1	-1	0	0	-5
Hydrodynamics	0	0	-1	-2	-2	-2	-2	-2	-1	-1	-1	0	-14
Cross -Delta Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	1	1	2	2	2	2	1	1	1	0	14
Salinity/X2	0	0	0	0	0	0	0	0	-1	-1	-1	0	-3
Agricultural diversions	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-16
Total	2	2	0	-1	1	2	3	1	0	-1	0	0	9

Diversion Effects on Delta Smelt: Alternative 3 — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-2	-2	-2	-3	-2	-2	-1	-1	-17
Entrainment (export)	0	0	-1	-1	-2	-2	-2	-3	-2	-2	-1	-1	-17
CCF predation	0	0	-1	-1	-2	-2	-2	-3	-2	-2	-1	-1	-17
Handling	0	0	0	0	-1	-1	-2	-2	-2	-2	-1	0	-11
Hydrodynamics	0	0	0	0	-1	-1	-1	-1	-1	-1	-1	0	-7
Cross -Delta Flow	0	0	0	0	0	0	0	0	-1	-1	0	0	-2
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	0	0	-1	-1	-1	-1	-1	0	0	0	-5
Sac River @ Rio Vista	0	0	-1	-1	-1	-1	-1	0	-1	0	0	0	-6
SJ River @ Antioch	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Predation	0	0	0	0	0	0	-1	-1	-1	-1	0	0	-5
Food supply	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Shallow/ nearshore habitat	0	0	1	1	2	2	2	2	1	1	0	0	13
Salinity/X2	-1	-1	0	0	-1	-1	-1	-1	0	0	-1	0	-7
Agricultural diversions	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-18
Total	-1	0	-4	-4	-7	-7	-5	-11	-9	-8	-5	-2	-83

D-062118

D—062118

DEFT Alternative 9/11/98 — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	0	0	0	-1	-2	-1	0	0	-4
Entrainment (export)	0	0	-1	0	0	0	-2	-1	-1	-1	-1	0	-7
CCF predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Handling	0	0	0	0	-1	-1	-1	-2	-2	-1	0	0	-8
Hydrodynamics	0	0	0	-1	-1	0	0	0	0	-1	-1	0	-4
Cross -Delta Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	-1	-2	-2	0	0	0	0	-1	-1	0	-8
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-9
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	-1	-1	-1	-3
Agricultural diversions	1	1	1	1	1	1	1	2	2	2	2	1	16
Total	2	2	-1	-2	0	1	3	1	3	3	-2	1	9

DEFT Alternative 9/11/98 — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	0	-1	-1	-2	-2	-2	-2	0	-10
Entrainment (export)	0	0	0	0	0	0	1	0	-1	0	-3	0	-3
CCF predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Handling	0	0	0	0	0	-1	-2	-2	-2	-2	-1	0	-10
Hydrodynamics	0	0	-1	-1	-1	-2	-1	-2	-2	-3	-2	0	-15
Cross -Delta Flow	0	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	0	-18
Qwest	0	0	-1	-1	-1	-2	0	-2	-2	-3	-2	-1	-15
Old River @Bacon Island	0	0	-1	-1	-1	-2	0	-2	-2	-3	-2	0	-14
Sac River @ Rio Vista	0	0	-2	-2	-2	-2	-1	-1	-1	-2	-1	0	-14
SJ River @ Antioch	0	0	-1	-1	-1	-2	0	-1	0	1	-2	0	-7
Predation	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	0	-16
Food supply	1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-8
Shallow/ nearshore habitat	0	0	0	0	-1	-1	-1	-1	0	0	0	0	-4
Salinity/X2	0	0	1	1	0	0	0	0	1	1	1	0	5
Agricultural diversions	1	1	1	1	1	1	1	2	2	2	2	1	16
Total	1	1	-1	-2	-3	-5	-3	-7	-6	-7	-5	0	-37

DEFT Alt-Alt 2 — **WET YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	2	2	2	2	2	2	0	2	2	0	16
Entrainment (export)	0	0	0	1	1	1	3	3	1	0	0	0	12
CCF predation	0	0	1	1	2	2	2	3	2	2	1	0	16
Handling	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrodynamics	0	0	2	1	1	2	2	3	2	2	1	0	16
Cross -Delta Flow	0	0	2	2	2	2	2	2	2	2	2	0	18
Qwest	0	0	0	0	0	0	0	0	0	0	0	0	0
Old River @Bacon Island	0	0	0	0	0	2	2	2	1	0	0	0	7
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ River @ Antioch	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	2	5	4	5	9	11	12	7	6	4	1	66

DEFT Alt-Alt 2 — **DRY YEARS**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	3	3	3	2	2	1	1	1	0	0	16
Entrainment (export)	0	0	1	1	1	1	3	3	2	3	-1	0	14
CCF predation	0	0	1	1	2	2	2	3	3	3	2	0	19
Handling	0	0	1	1	1	1	1	0	1	1	1	0	8
Hydrodynamics	0	0	2	2	2	1	2	1	1	0	0	0	11
Cross -Delta Flow	0	0	1	1	1	0	0	0	0	0	0	0	3
Qwest	0	0	-1	-1	-1	2	0	-2	-1	2	-1	-1	2
Old River @Bacon Island	0	0	0	1	1	0	2	1	1	0	0	0	6
Sac River @ Rio Vista	0	0	0	0	0	0	0	0	1	0	0	0	1
SJ River @ Antioch	0	0	-1	-1	-1	-2	0	-1	0	1	-2	0	-7
Predation	0	0	0	0	0	1	0	0	0	0	0	0	1
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	1	1	1	1	1	-1	-1	1	2	2	2	1	9
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	6	7	8	4	8	7	10	10	1	0	73

D-062119

D—062119

Net Effects Matrices with Common Programs included

Net Effects Matrices with Common Programs included

Net Effects Matrices with Common Programs included
No Action Conditions - Existing
WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	-1	-1	0	0	0	-1	-1	0	-4
Hydrodynamics	0	0	0	0	-1	-1	0	-1	-1	-1	-1	0	-6
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	-2	-2	0	-1	-1	-2	-2	0	-10

Net Effects Matrices with Common Programs included
No Action Conditions - Existing
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	0	0	0	0	0	0	-4
Hydrodynamics	0	0	-1	-1	-1	-1	0	0	0	0	0	0	-4
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	-1	-1	0	0	0	0	0	0	0	0	-2
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	-2	-2	-2	-2	0	0	0	0	0	0	-10

Net Effects Matrices with Common Programs included
Common Programs - Existing
WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrodynamics	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	1	1	2	2	2	2	1	0	0	0	11
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	1	1	1	3	4	4	4	1	23
Total	2	2	3	3	4	5	5	7	6	5	5	2	49

Net Effects Matrices with Common Programs included
Common Programs - Existing
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrodynamics	0	0	0	0	0	0	0	0	0	0	0	0	0
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	1	1	1	1	1	2	2	2	2	2	1	1	17
Shallow/ nearshore habitat	0	0	1	1	2	2	2	2	0	0	0	0	10
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	1	1	3	4	5	5	4	1	28
Total	2	2	3	3	4	5	7	8	7	7	5	2	55

D-062120

D—062120

Net Effects Matrices with Common Programs included
Alternative 1 - Existing
WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	-1	-1	0	0	0	-1	-1	0	-4
Hydrodynamics	0	0	0	0	-1	-1	0	-1	-1	-1	-1	0	-6
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	1	1	2	2	2	2	1	0	0	0	11
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	1	1	1	3	4	4	4	1	23
Total	2	2	3	3	2	3	5	5	5	3	3	2	39

Net Effects Matrices with Common Programs included
Alternative 1 - Existing
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	0	0	0	0	0	0	-4
Hydrodynamics	0	0	-1	-1	-1	-1	0	0	0	0	0	0	-5
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	1	1	0	0	1	2	2	2	2	2	1	1	15
Shallow/ nearshore habitat	0	0	1	1	2	2	2	2	0	0	0	0	10
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	3	3	5	6	4	4	1	1	28
Total	2	2	0	0	2	5	7	8	6	6	2	2	45

Net Effects Matrices with Common Programs included
Alternative 2 - Existing
WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	0	0	0	-1	-1	0	-6
Hydrodynamics	0	0	-1	-1	-1	-1	-1	-2	-1	-2	-1	0	-10
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	1	1	1	1	1	1	0	0	0	0	6
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	1	1	1	3	4	4	4	1	23
Total	2	2	1	1	1	2	5	4	4	2	3	2	27

Net Effects Matrices with Common Programs included
Alternative 2 - Existing
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-2	-2	-2	-1	-1	0	0	0	0	0	-8
Hydrodynamics	0	0	-2	-2	-2	-1	-1	0	0	0	0	0	-8
Predation	0	0	0	0	0	-1	0	0	0	0	0	0	-1
Food supply	1	1	0	0	1	2	2	2	2	2	1	1	15
Shallow/ nearshore habitat	0	0	1	1	0	0	0	0	0	0	0	0	2
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	1	4	3	4	5	5	1	1	28
Total	2	2	-2	-2	2	0	3	6	7	7	2	2	28

Net Effects Matrices with Common Programs included
Alternative 3 - Existing
WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	2	2	2	2	4	5	3	3	2	0	25
Hydrodynamics	0	0	2	3	3	3	3	3	2	2	2	0	29
Predation	0	0	1	1	1	1	1	1	1	1	1	0	9
Food supply	1	1	1	1	1	2	2	2	1	1	1	1	15
Shallow/ nearshore habitat	0	0	2	2	3	3	3	3	2	1	1	0	29
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	1	1	1	1	1	1	1	3	4	4	4	1	23
Total	2	2	9	10	11	12	14	17	13	12	10	2	145

Net Effects Matrices with Common Programs included
Alternative 3 - Existing
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	
Entrainment	0	0	2	2	3	4	4	6	5	5	3	1	35
Hydrodynamics	0	0	1	1	2	3	3	4	4	3	2	0	25
Predation	0	0	1	1	1	2	3	3	3	3	2	0	19
Food supply	1	1	0	0	1	2	2	2	2	2	1	1	15
Shallow/ nearshore habitat	0	0	2	2	[redacted]					1	1	0	19
Salinity/X2	0	0	0	0	0	0	0	0	0	1	1	0	2
Agricultural diversions	1	1	1	1	1	1	3	4	5	5	1	1	28
Total	2	2	7	7	11	15	18	22	20	21	15	3	143

D-062121

D—062121

Net Effects Matrices with Common Programs Included
DEFT 9/10/98 - Existing

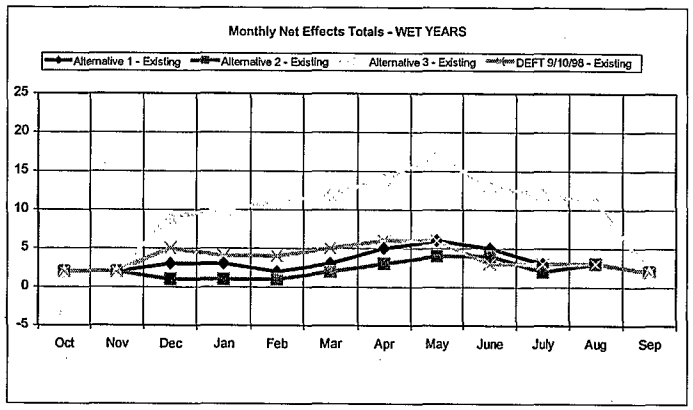
WET YEARS

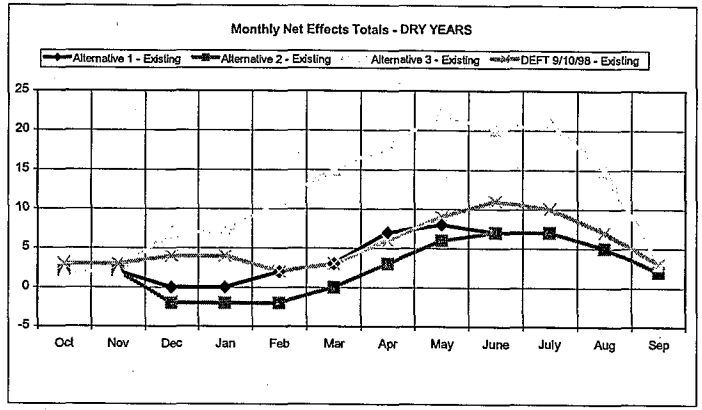
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-2	-2	0	-1	-1	0	-9
Hydrodynamics	0	0	-1	0	0	-1	1	-1	-1	0	0	0	-3
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-12
Shallow/ nearshore habitat	0	0	-1	-1	-1	-1	-1	-1	0	0	0	0	-6
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-12
Total	-2	-2										-2	-45

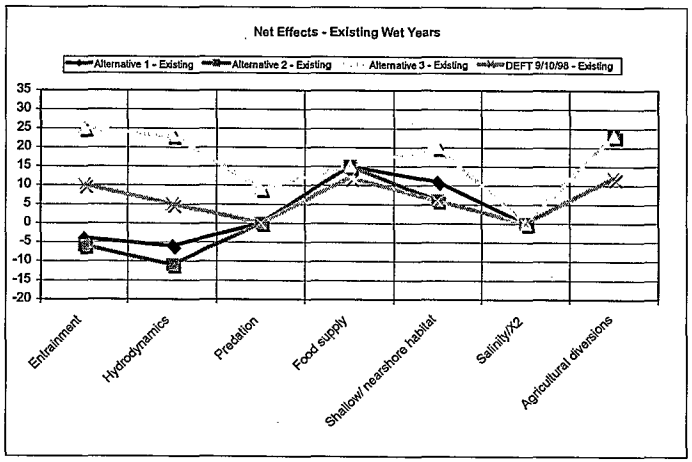
Net Effects Matrices with Common Programs Included
DEFT 9/10/98 - Existing

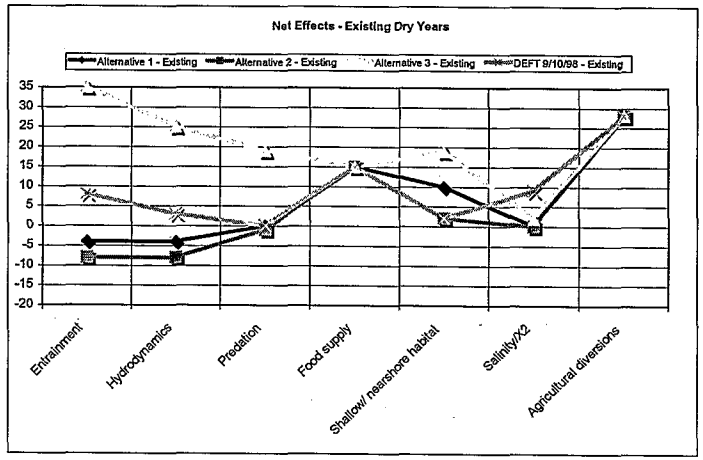
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-1	-1	-1	-1	0	0	-7
Hydrodynamics	0	0	0	0	0	0	-1	-1	-1	0	0	0	-3
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	-1	-1	0	0	-1	-2	-2	-2	-2	-2	-1	-1	-15
Shallow/ nearshore habitat	0	0	-1	-1	0	0	0	0	0	0	0	0	-2
Salinity/X2	-1	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-1	-14
Agricultural diversions	-1	-1	-1	-1	-1	-1						-1	-28
Total					-2		-6	-9	-11	-10	-7	-11	-65









D-062122

D—062122

Alternative Matrices WITHOUT Common Programs

Alternative Matrices WITHOUT Common Programs

Alternative Matrices WITHOUT Common Programs
Alternative 1 - Common Programs — WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	0	0	-1	-1	0	0	0	-1	-1	0	-4
Hydrodynamics	0	0	0	0	-1	-1	0	-1	-1	-1	-1	0	-6
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	-2	-2	0	-1	-1	-2	-2	0	-10

Alternative Matrices WITHOUT Common Programs
Alternative 1 - Common Programs — DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	0	0	0	0	0	0	-4
Hydrodynamics	0	0	-1	-1	-1	-1	0	0	0	0	0	0	-5
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	-1	-1	0	0	0	0	0	0	0	0	-2
Shallow/ nearshore habitat	0	0	0	0	0	0	0	0	0	0	0	0	0
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	-3	-3	-2	-2	0	0	0	0	0	0	-11

Alternative Matrices WITHOUT Common Programs
Alternative 2 - Common Programs — WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	0	0	0	-1	-1	0	-6
Hydrodynamics	0	0	-1	-1	-1	-1	-1	-2	-1	-2	-1	0	-11
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	0	0	-1	-1	-1	-1	-1	0	0	0	-5
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	-2	-2	-3	-3	-2	-3	-2	-3	-2	0	-22

Alternative Matrices WITHOUT Common Programs
Alternative 2 - Common Programs — DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-2	-2	-2	-1	-1	0	0	0	0	0	-8
Hydrodynamics	0	0	-2	-2	-2	-1	-1	0	0	0	0	0	-8
Predation	0	0	0	0	0	-1	0	0	0	0	0	0	-1
Food supply	0	0	-1	-1	0	0	0	0	0	0	0	0	-2
Shallow/ nearshore habitat	0	0	0	0	-2	-2	-2	-2	0	0	0	0	-8
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	-5	-5	-6	-5	-4	-2	0	0	0	0	-27

Alternative Matrices WITHOUT Common Programs
Alternative 3 - Common Programs — WET YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	2	2	2	2	4	6	3	3	2	0	26
Hydrodynamics	0	0	2	3	3	3	3	3	2	2	2	0	23
Predation	0	0	1	1	1	1	1	1	1	1	1	0	9
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	1	1	1	1	1	1	1	1	1	0	9
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	6	7	7	7	9	10	7	7	6	0	66

Alternative Matrices WITHOUT Common Programs
Alternative 3 - Common Programs — DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	2	2	3	4	4	6	5	5	3	1	35
Hydrodynamics	0	0	1	1	2	3	3	4	4	4	3	0	25
Predation	0	0	1	1	1	2	3	3	3	3	2	0	19
Food supply	0	0	-1	-1	0	0	0	0	0	0	0	0	-2
Shallow/ nearshore habitat	0	0	1	1	1	1	1	1	1	1	1	0	9
Salinity/X2	0	0	0	0	0	0	0	0	0	1	1	0	2
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	4	7	10	11	14	13	14	9	1	89

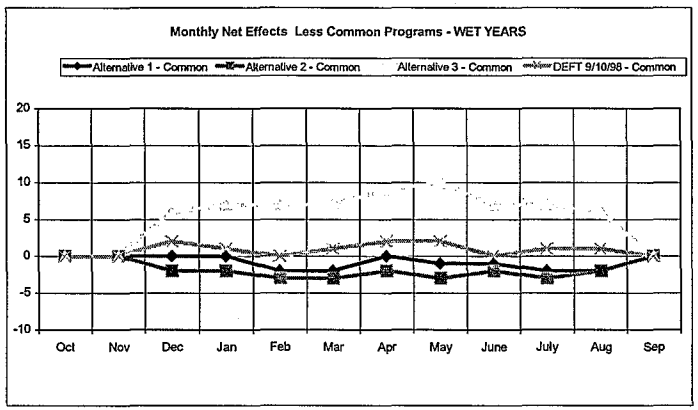
D-062124
D—062124

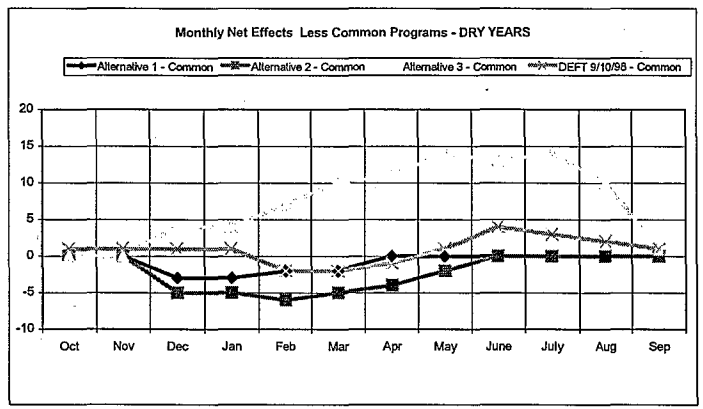
Alternative Matrices WITHOUT Common Programs
DEFT 9/10/98 - Common Programs
WET YEARS

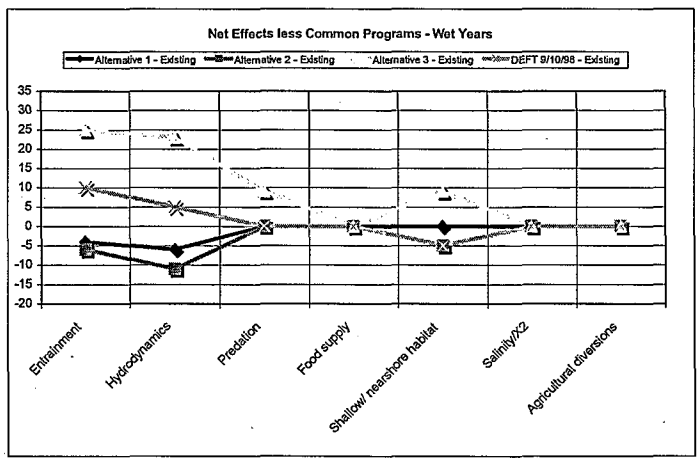
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-2	-2	0	-1	-1	0	
Hydrodynamics	0	0	-1	0	0	-1	-1	-1	-1	0	0	0	
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	0	0	0	0	0	0	0	0	0	0	0
Shallow/ nearshore habitat	0	0	0	0	-1	-1	-1	-1	-1	0	0	0	
Salinity/X2	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	-2	-1	0	-1	-2	-2	0	-1	-1	0	

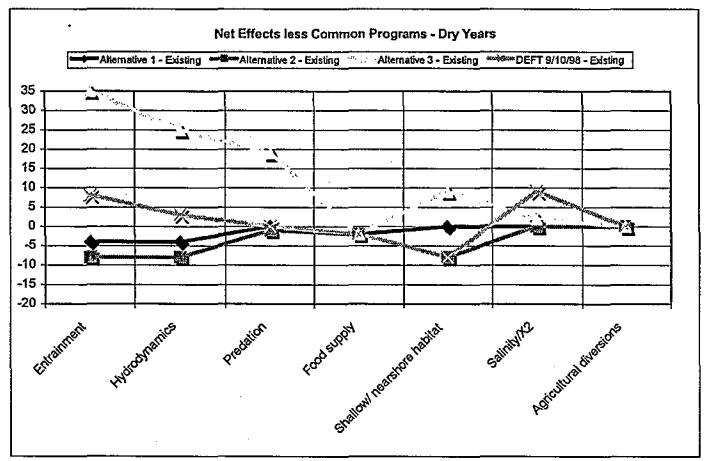
Alternative Matrices WITHOUT Common Programs
DEFT 9/10/98 - Common Programs
DRY YEARS

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total
Entrainment	0	0	-1	-1	-1	-1	-1	-1	-1	-1	0	0	
Hydrodynamics	0	0	0	0	0	0	-1	-1	0	0	0	0	
Predation	0	0	0	0	0	0	0	0	0	0	0	0	0
Food supply	0	0	-1	-1	0	0	0	0	0	0	0	0	-2
Shallow/ nearshore habitat	0	0	0	0	-2	-2	-2	-2	0	0	0	0	
Salinity/X2	-1	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-1	
Agricultural diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	-1	-1	-1	-1	-2	-2	-1	-1	-2	-2	-2	-1	

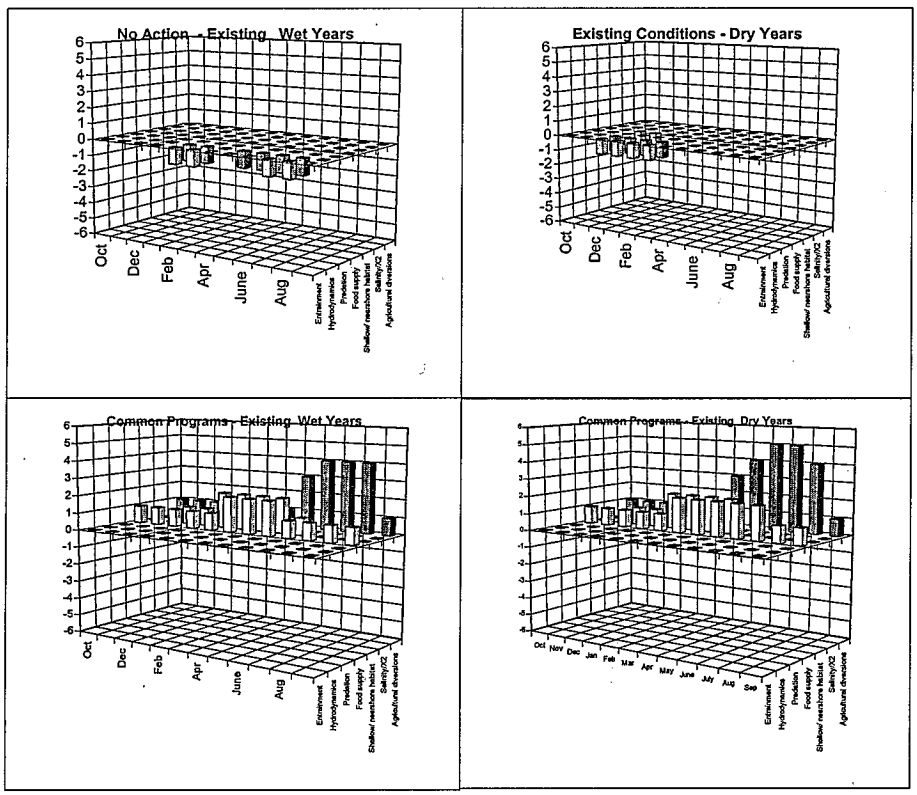




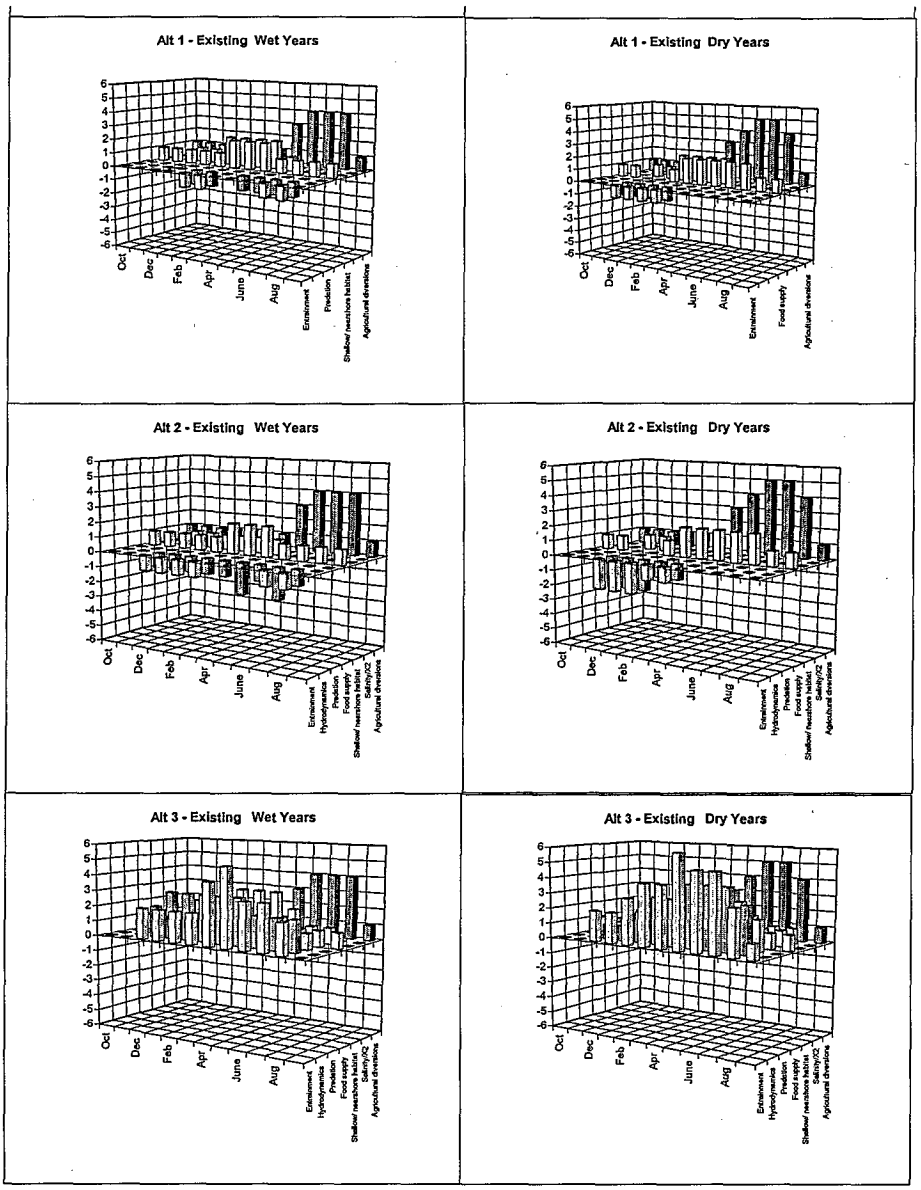


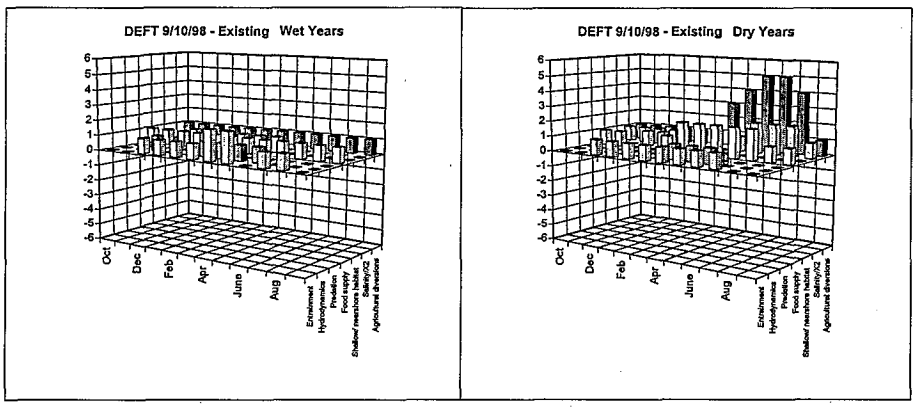


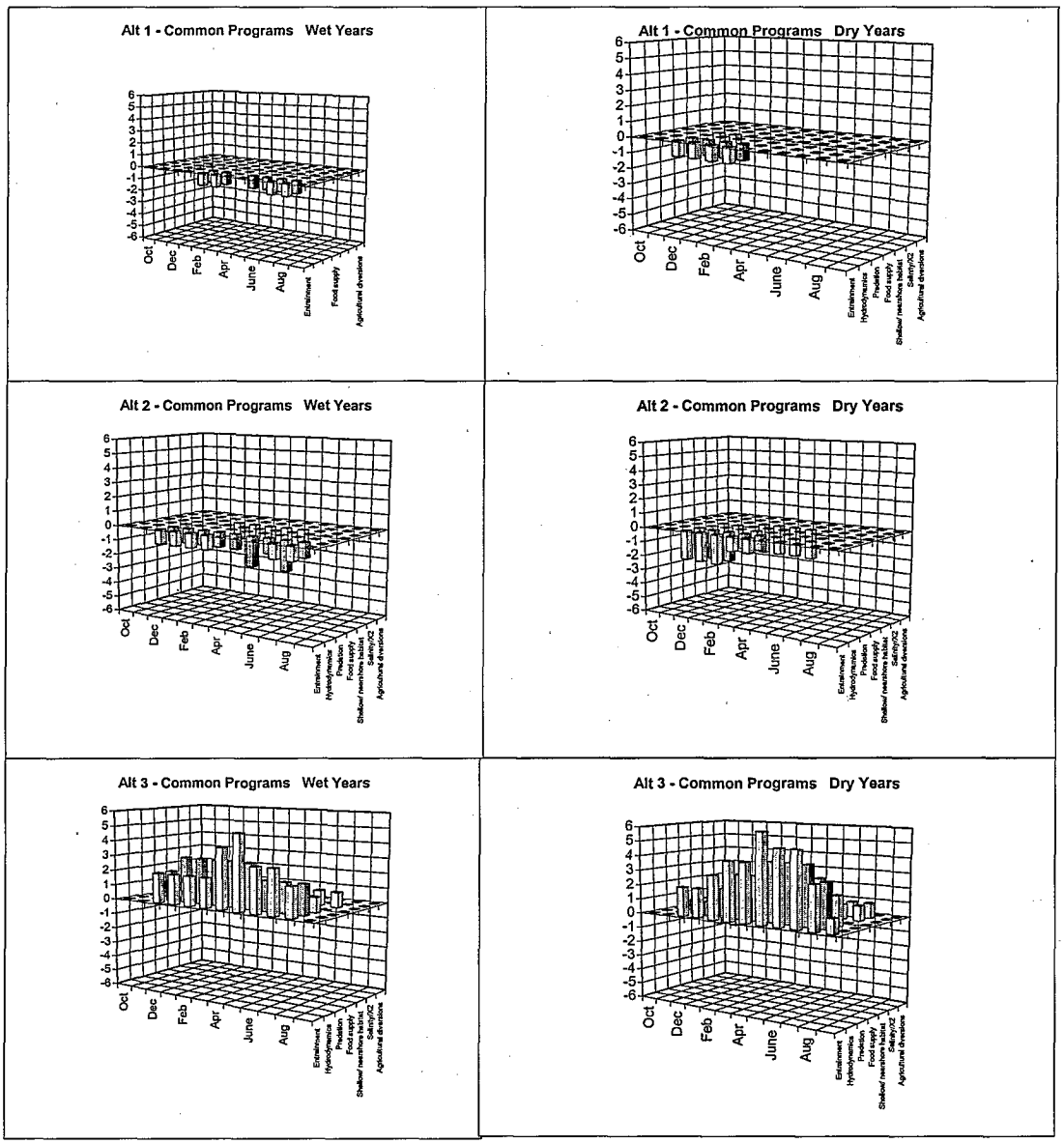
D-062125
D—0 6 2 1 2 5

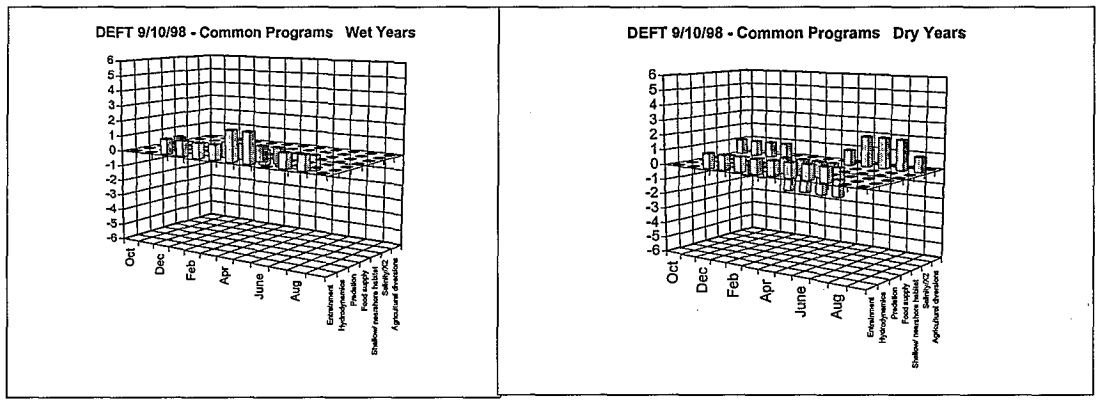

No Action - Existing Wet Years
Existing Conditions - Dry Years
Common Programs - Existing Wet Years
Common Programs - Existing Dry Years
Oct
Dec
Feb
Apr
June
Aug
Entrainment
Hydrodynamics
Predation
Food supply
Shallow reactions habitat
Salinity/X2
Agricultural diversions

D-062126


Alt 1 - Existing Wet Years
Alt 1 - Existing Dry Years
Alt 2 - Existing Wet Years
Alt 2 - Existing Dry Years
Alt 3 - Existing Wet Years
Alt 3 - Existing Dry Years
Oct
Dec
Feb
Apr
June
Aug
Entrainment
Hydrodynamics
Predation
Food supply
Shallow nearshore habitat
Salinity/X2
Agricultural diversions


DEFT 9/10/98 - Existing Wet Years
DEFT 9/10/98 - Existing Dry Years
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
-6
Oct
Dec
Feb
Apr
June
Aug
Entrainment
Hydrodynamics
Predation
Food supply
Shallow/ riverine habitat
Salinity/X2
Agricultural diversions


Alt 1 - Common Programs Wet Years
Alt 1 - Common Programs Dry Years
Alt 2 - Common Programs Wet Years
Alt 2 - Common Programs Dry Years
Alt 3 - Common Programs Wet Years
Alt 3 - Common Programs Dry Years
Oct
Dec
Feb
Apr
June
Aug
Entrainment
Hydrodynamics
Predation
Food supply
Shallow/ nearshore habitat
Salinity/X2
Agricultural diversions


DEFT 9/10/98 - Common Programs Wet Years
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
-6
Oct
Dec
Feb
Apr
June
Aug
Entrainment
Hydrodynamics
Predation
Food supply
Shallow riparian habitat
Salinity/DO
Agricultural diversions
DEFT 9/10/98 - Common Programs Dry Years
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
-6
Oct
Dec
Feb
Apr
June
Aug
Entrainment
Hydrodynamics
Predation
Food supply
Shallow riparian habitat
Salinity/DO
Agricultural diversions

D-062130