CALFED Bay-Delta Program
Water Supply Opportunities

Evaluation of Refined Alternatives

E-001972

E-001972

Alternative 1

- Increase Banks PP Capacity
- Modify Export-Inflow Ratio Standard
  - Assumption A: Existing WQCP E-I Ratios
  - Assumption B: Reduced Nov - Jun E-I Ratios
- With and Without 4.75 MAF Storage

E-001973
E-001973

Alternative 1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assumption A (Emphasis on Water Supply)												
E/I Ratio	65%	35%-45%	35% of Delta Inflow				65% of Delta Inflow					
Assumption B (Emphasis on Ecosystem Protection)												
E/I Ratio	50%	25%	25% of Delta Inflow				65% of Delta Inflow				50%	

E-001974

E-001974

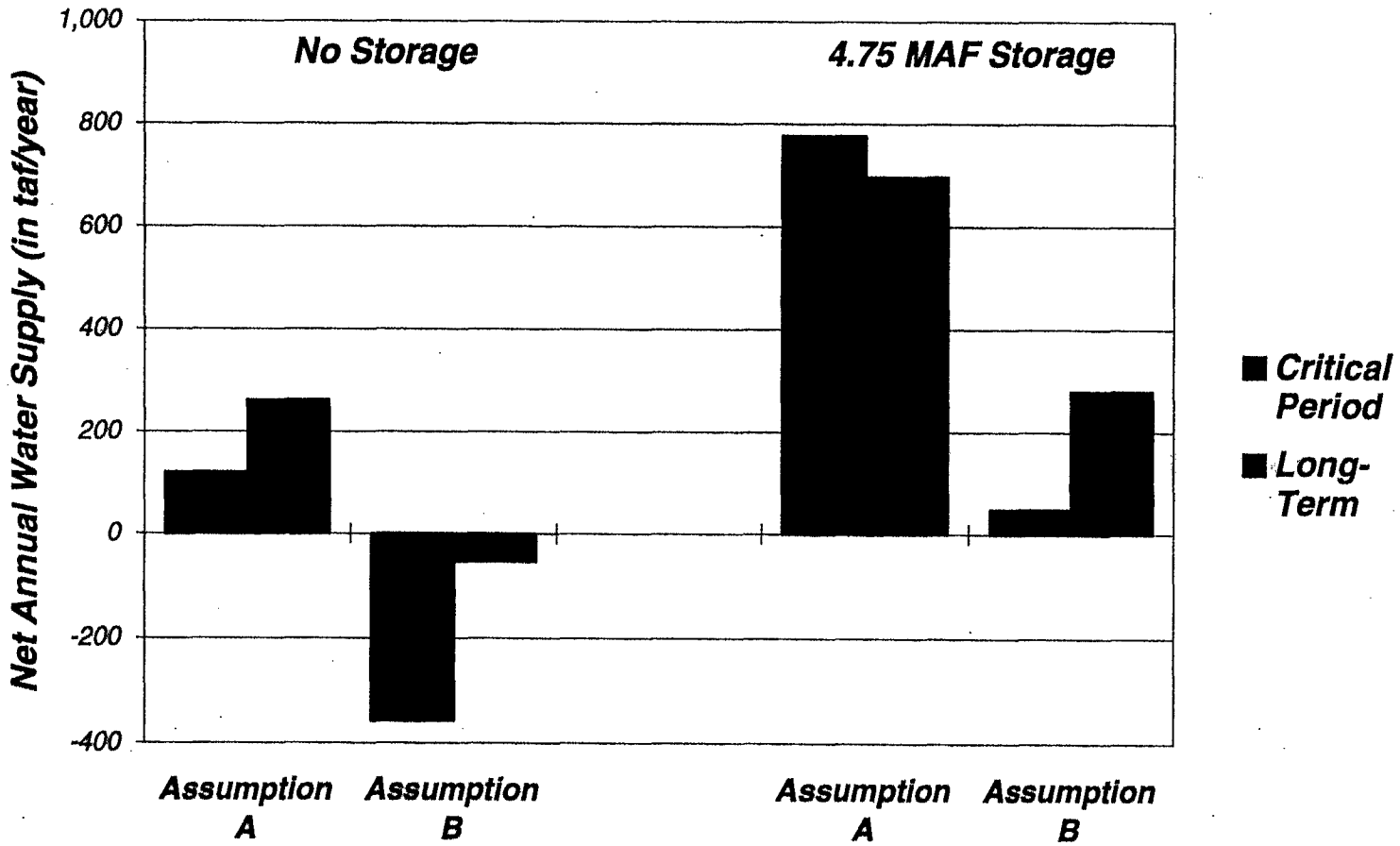
Alternative 1

Average Annual Water Supply
Compared to No Action
(in 1,000 acre-feet per year)

	Critical Period	Long-Term
No Storage		
Assumption A	*120*	*262*
Assumption B	*-357*	*-54*
4.75 MAF Storage		
Assumption A	*777*	*696*
Assumption B	*48*	*280*

E-001975
E-001975

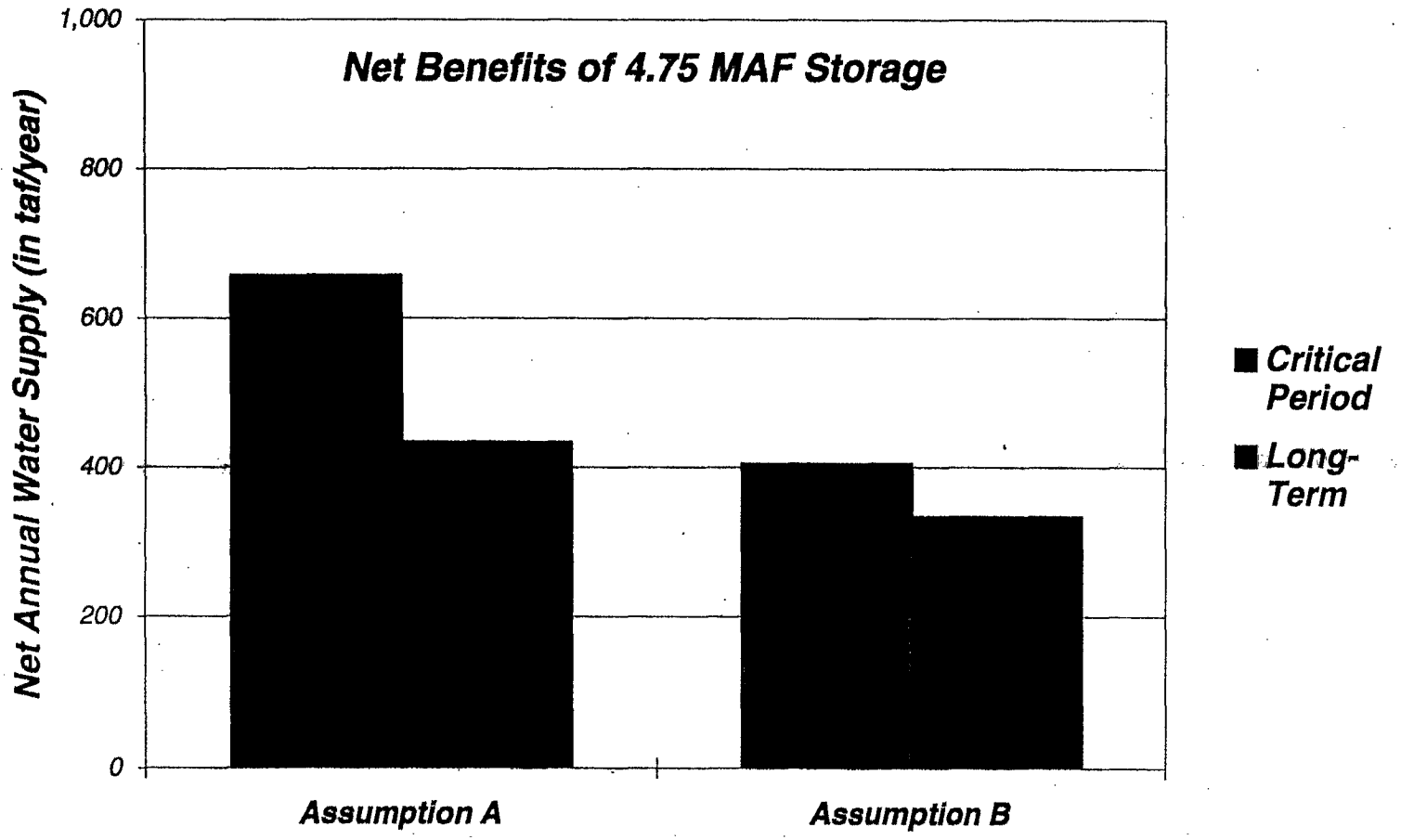
Alternative 1



E-001976

E-001976

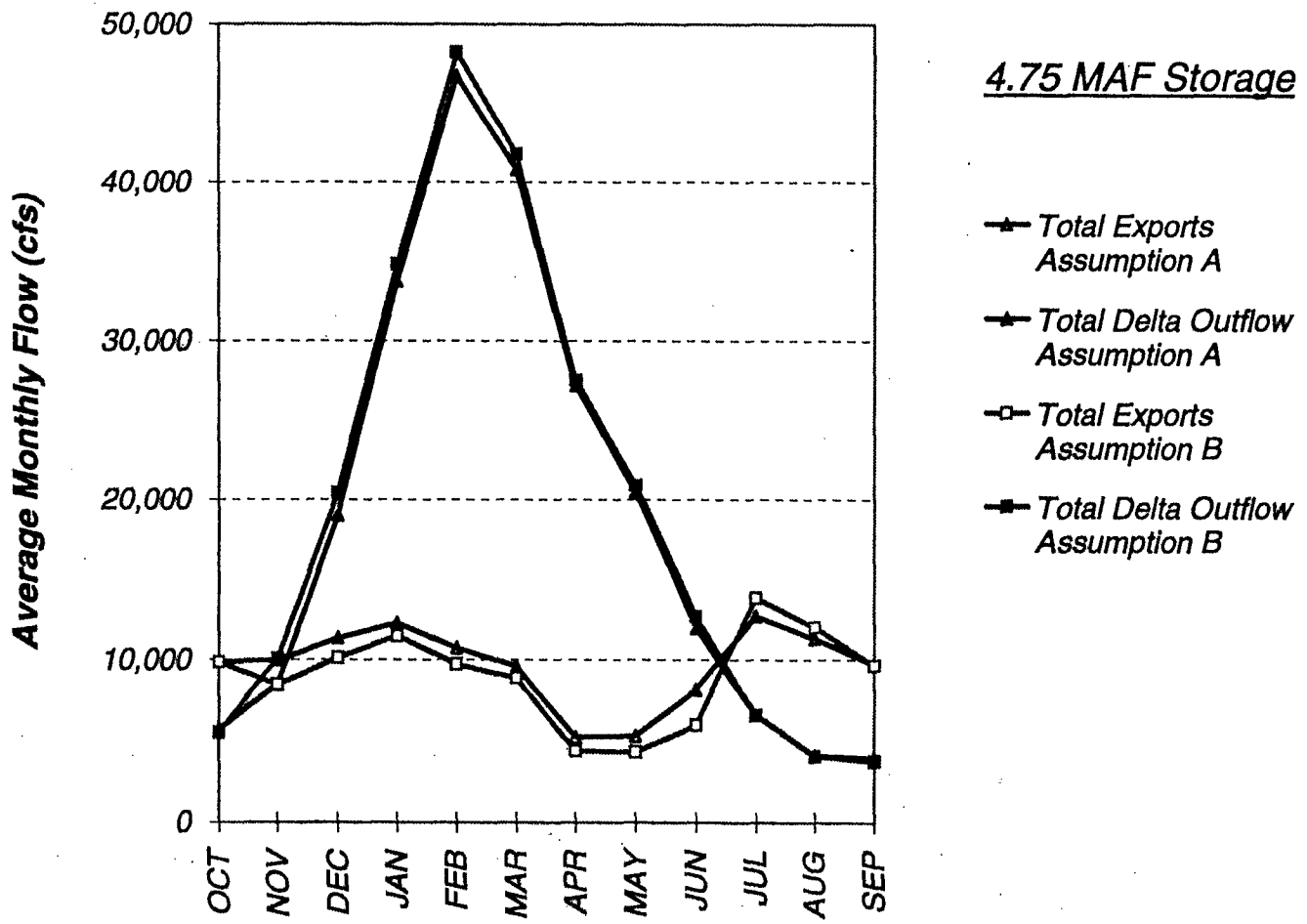
Alternative 1



E-001977

E—001977

Alternative 1



E-001978

E-001978

Alternative 2

- Increase Banks PP Capacity
- Modify Export-Inflow Ratio Standard
  - Assumption A: Existing WQCP E-I Ratios
  - Assumption B: Reduced Nov - Jun E-I Ratios
- Modify Delta Outflow Standard
  - Assumption A: X3 Requirement
  - Assumption B: Existing WQCP X2 Requirement
- With and Without 4.75 MAF Storage

E-001979
E-001979

Alternative 2

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assumption A *(Emphasis on Water Supply)*												
E/I Ratio	65%	35%-45%	35% of Delta Inflow				65% of Delta Inflow					
Delta Outflow		X3 Requirement										
Assumption B *(Emphasis on Ecosystem Protection)*												
E/I Ratio	50%	25%	25% of Delta Inflow				65% of Delta Inflow				50%	
Delta Outflow		X2 Requirement										

E-001980

E-001980

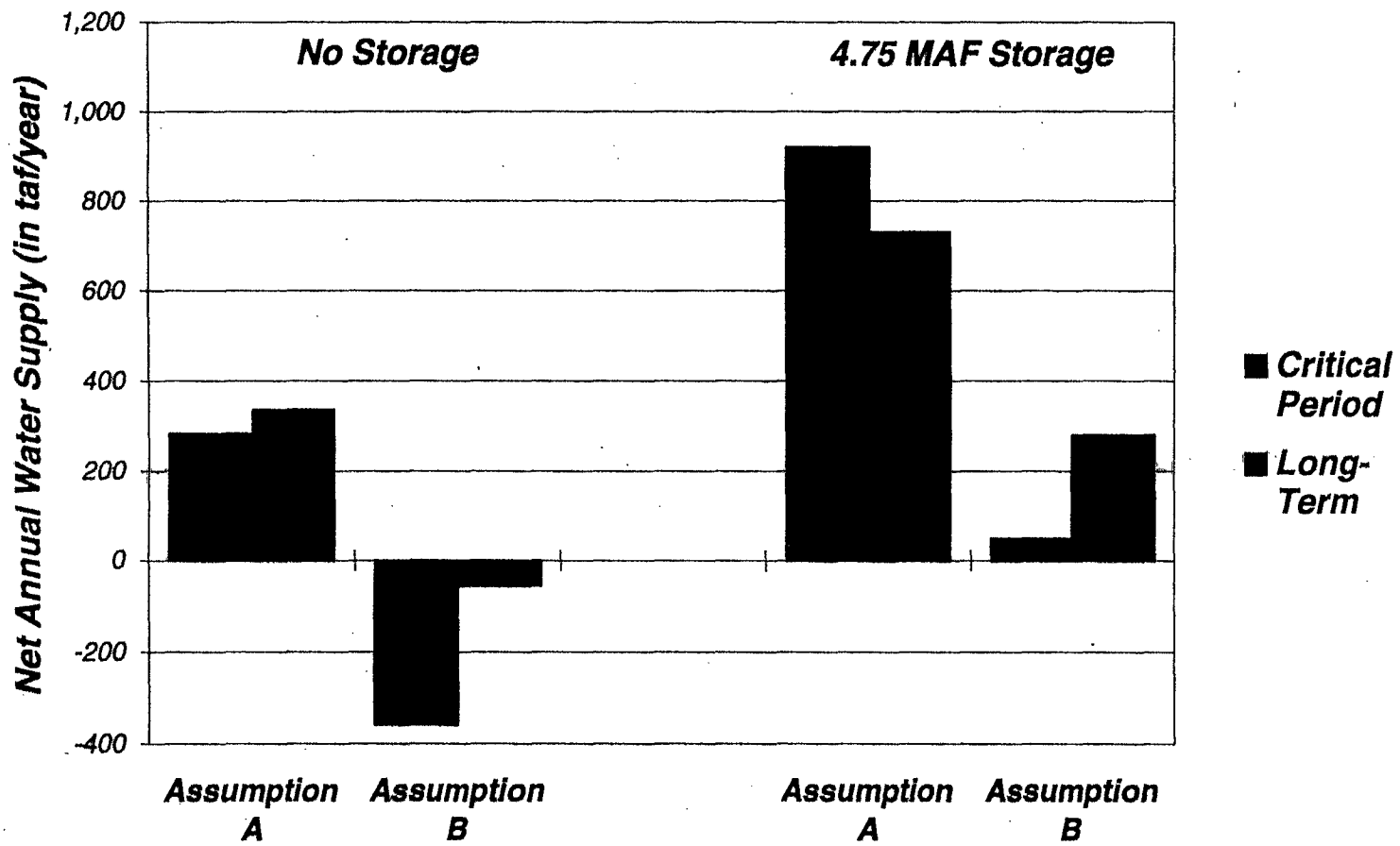
Alternative 2

Average Annual Water Supply
Compared to No Action
(in 1,000 acre-feet per year)

	Critical Period	Long-Term
No Storage		
Assumption A	283	336
Assumption B	-357	-54
4.75 MAF Storage		
Assumption A	920	730
Assumption B	48	280

E-001981
E-001981

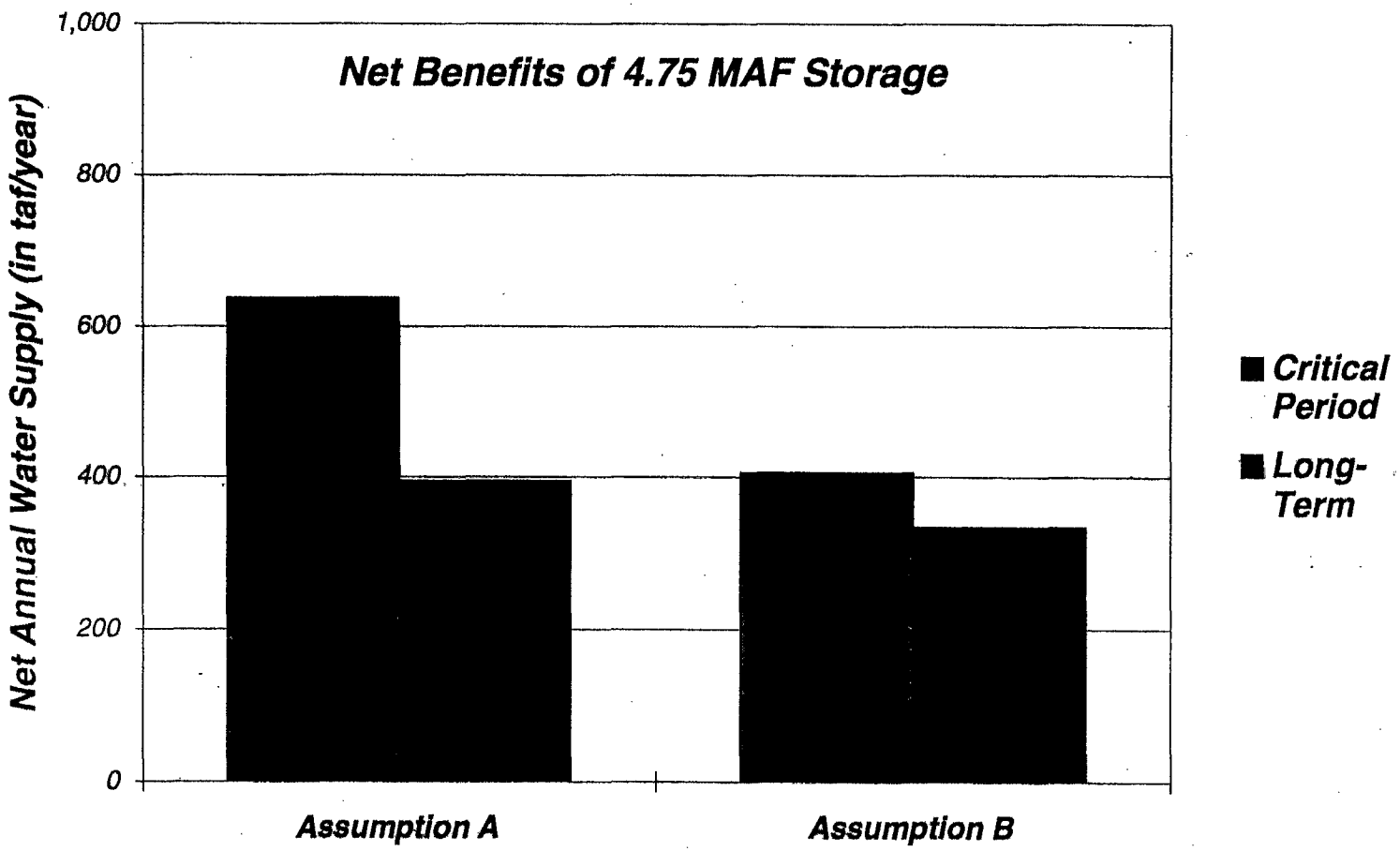
Alternative 2



E-001982

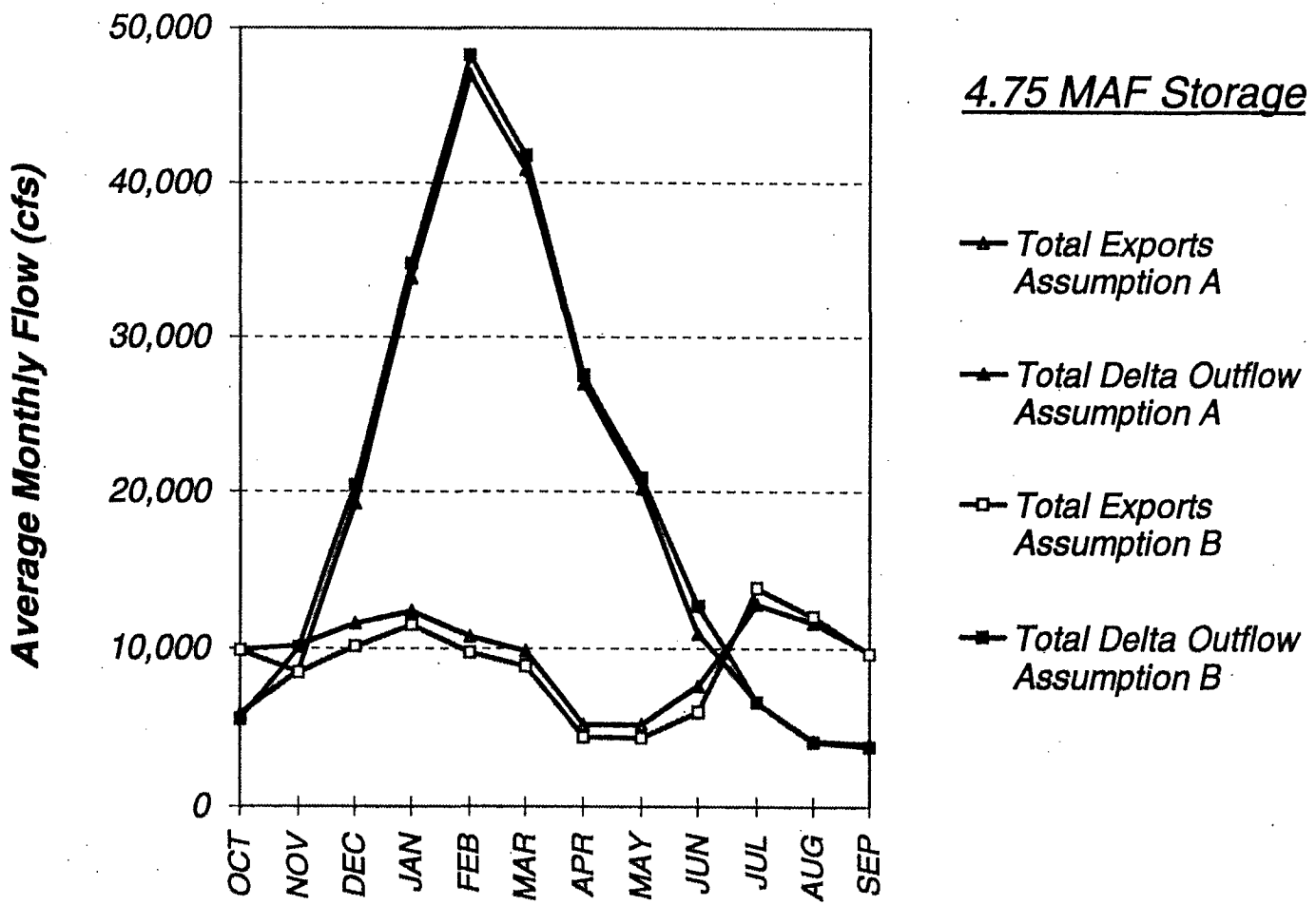
E—001982

Alternative 2



E-001983
E—001983

Alternative 2



E-001984

E—001984

Alternative 3

- Isolated Facility (5,000 to 15,000 cfs)
- Exclude IF Flow from E-I Ratio Standard
- Add Rio Vista Minimum Flow for Jul - Aug
- Limit IF Diversions in May to 5,000 cfs
- Modify Delta Outflow Standard
  - Assumption A: X3 Requirement
  - Assumption B: Existing WQCP X2 Requirement
- With and Without 4.95 MAF Storage

E-001985
E-001985

Alternative 3

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assumption A *(Emphasis on Water Supply)*												
E/I Ratio[1]	65%	35%-45%	35% of Delta Inflow				65% of Delta Inflow					
Delta Outflow		X3 Requirement										
Rio Vista							3 K cfs			3-4 K cfs	3.5 - 4.5 K cfs	
Max IF Diversion					5 K cfs							
Assumption B *(Emphasis on Ecosystem Protection)*												
E/I Ratio[1]	65%	35%-45%	35% of Delta Inflow				65% of Delta Inflow					
Delta Outflow		X2 Requirement										
Rio Vista							3 K cfs			3-4 K cfs	3.5 - 4.5 K cfs	
Max IF Diversion					5 K cfs							

Notes:

[1] Isolated Facility Flow Excluded from E-I Ratio Computations.

E-001986

E-001986

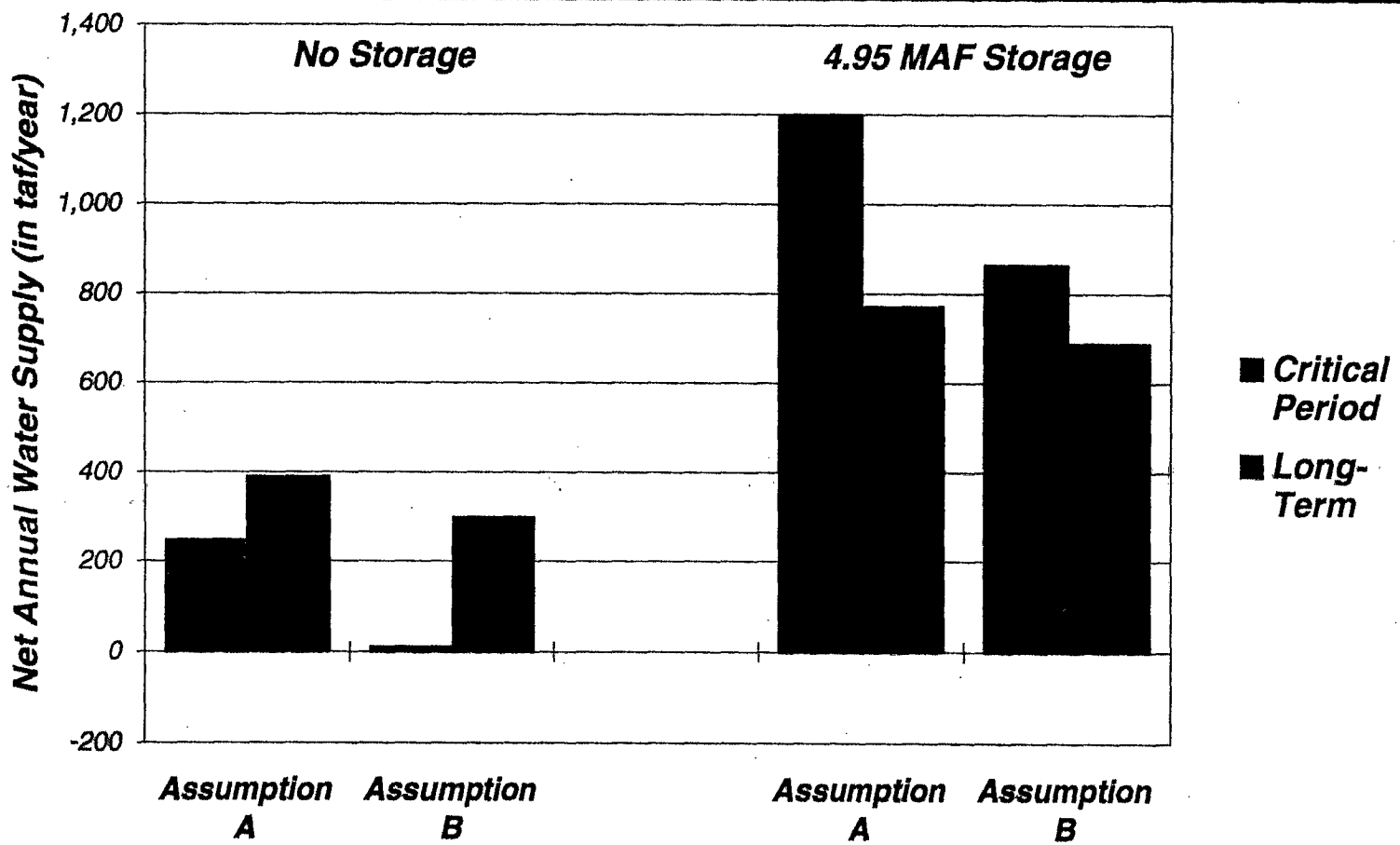
Alternative 3
5,000 cfs Isolated Facility

Average Annual Water Supply
Compared to No Action
(in 1,000 acre-feet per year)

	Critical Period	Long-Term
No Storage		
Assumption A	247	389
Assumption B	10	298
4.95 MAF Storage		
Assumption A	1,199	771
Assumption B	864	688

E-001987
E-001987

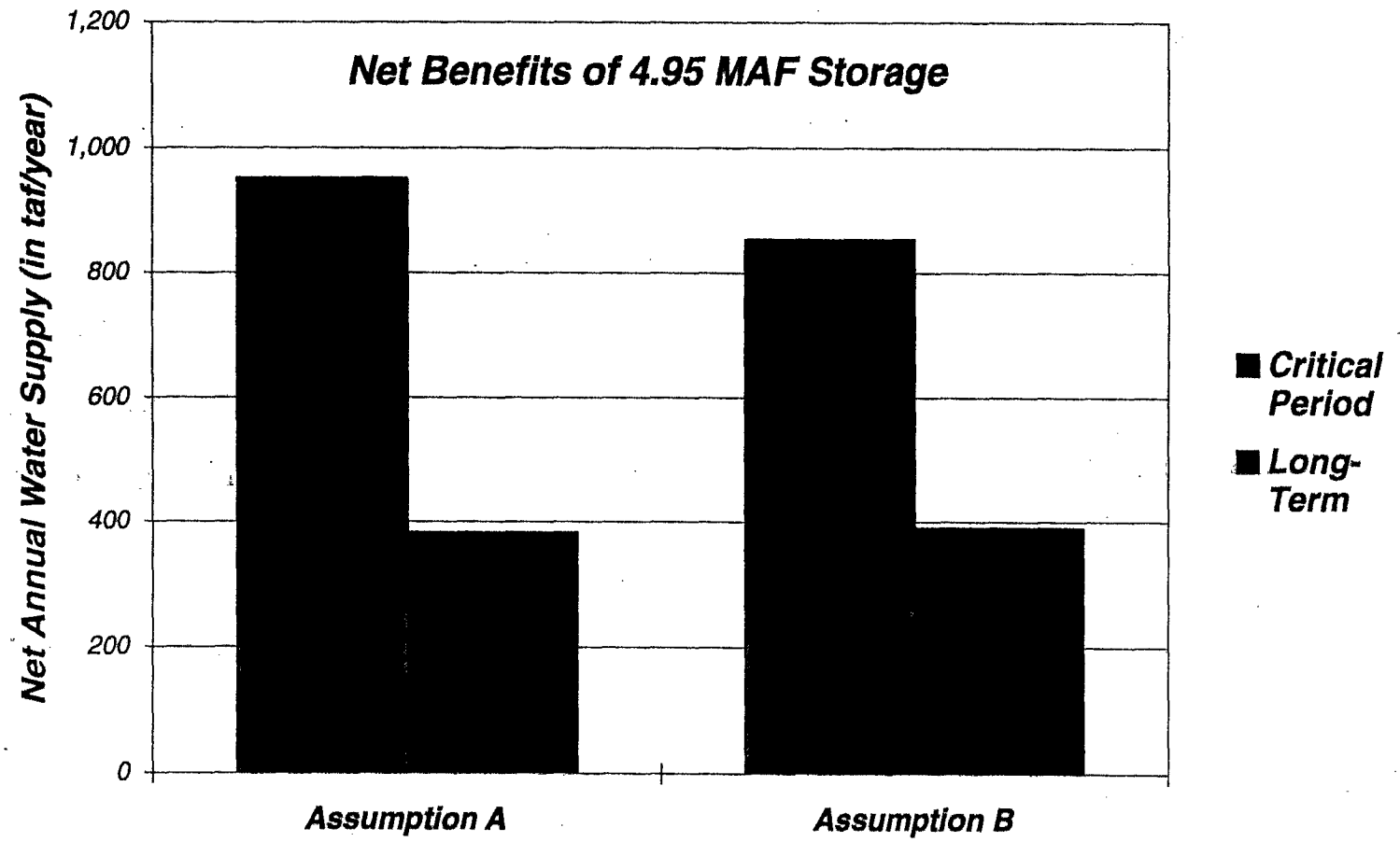
Alternative 3
5,000 cfs Isolated Facility



E-001988

E—001988

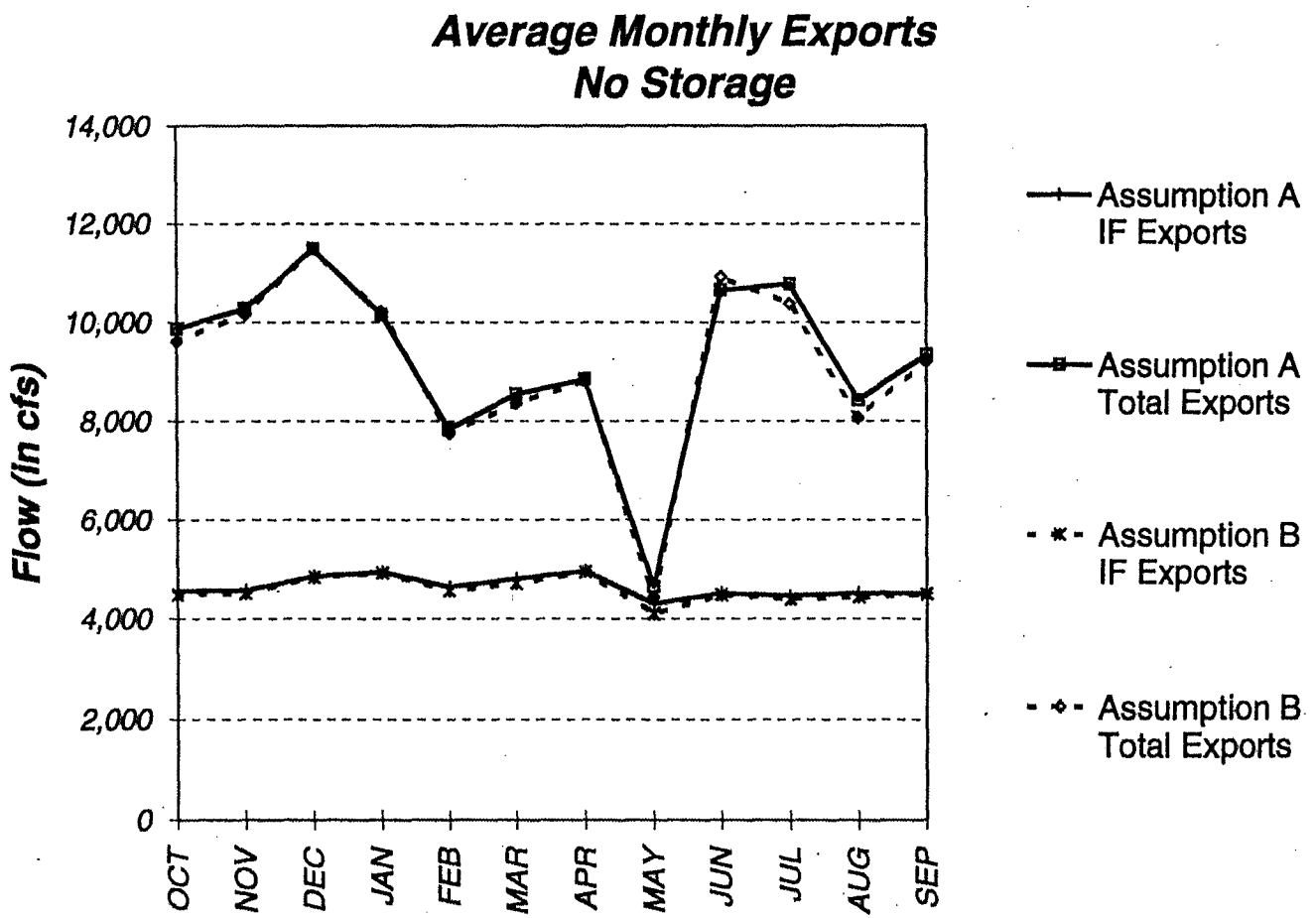
Alternative 3
5,000 cfs Isolated Facility



E-001989

E-001989

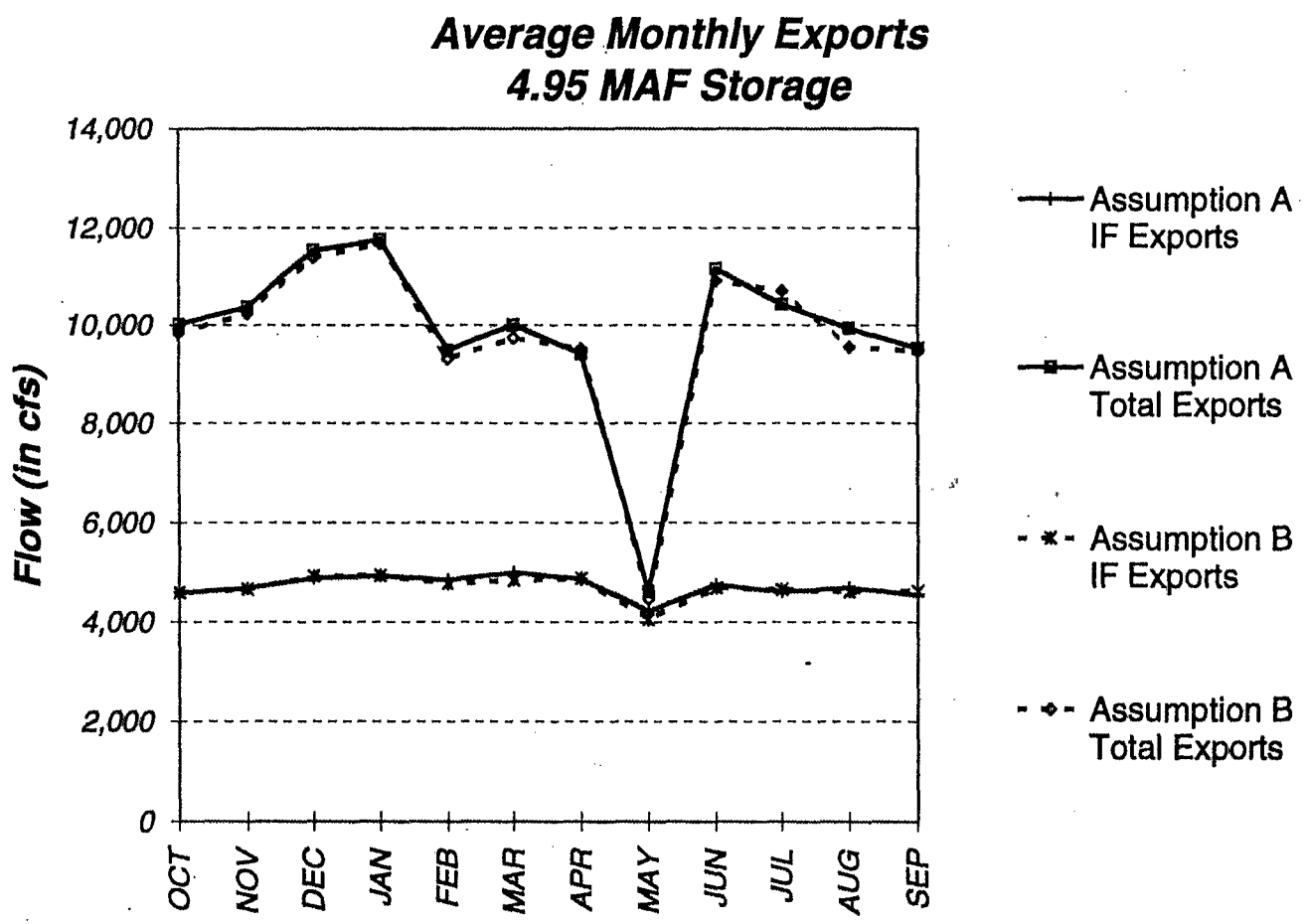
Alternative 3
5,000 cfs Isolated Facility



E-001990

E-001990

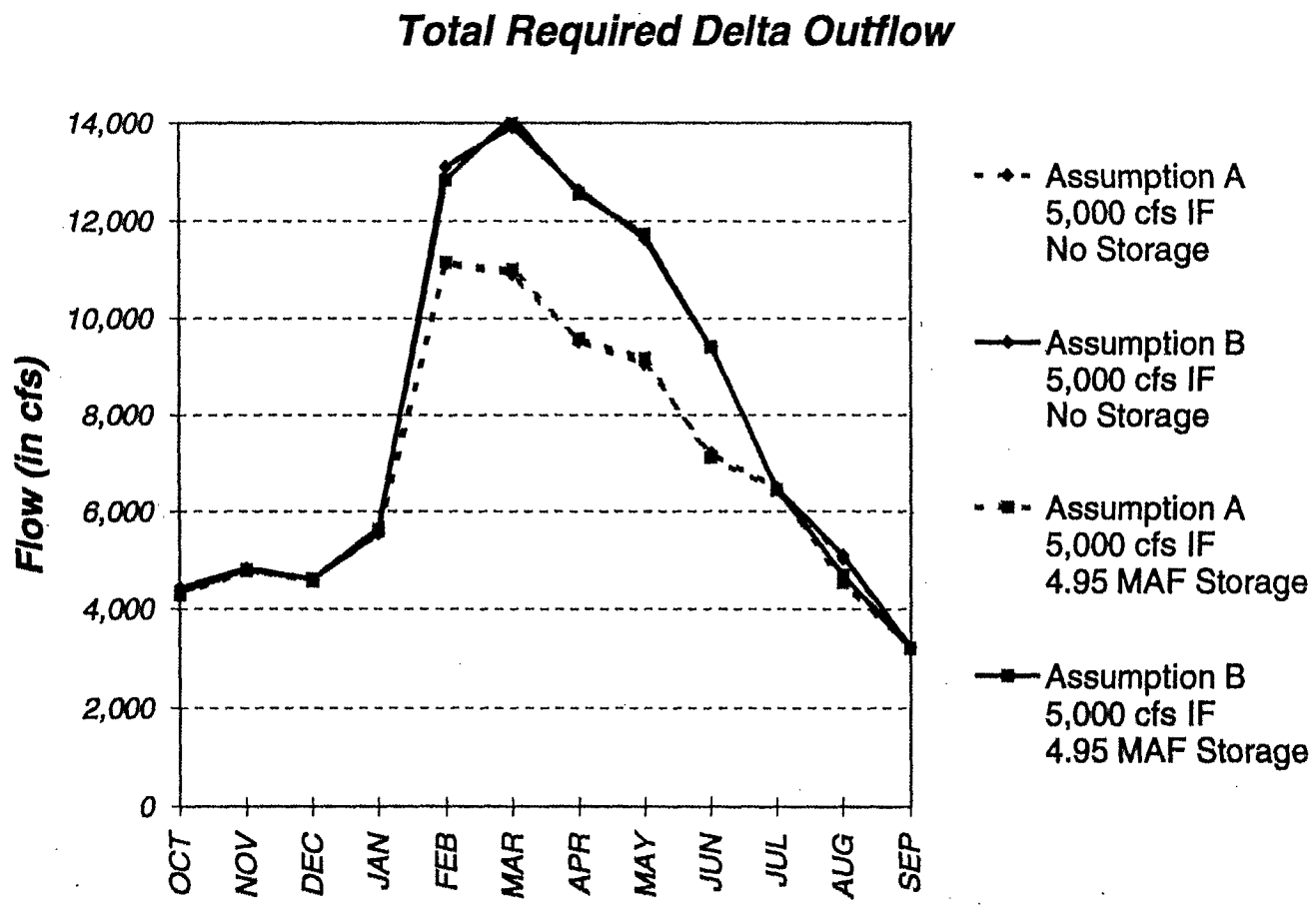
Alternative 3
5,000 cfs Isolated Facility



E-001991

E—001991

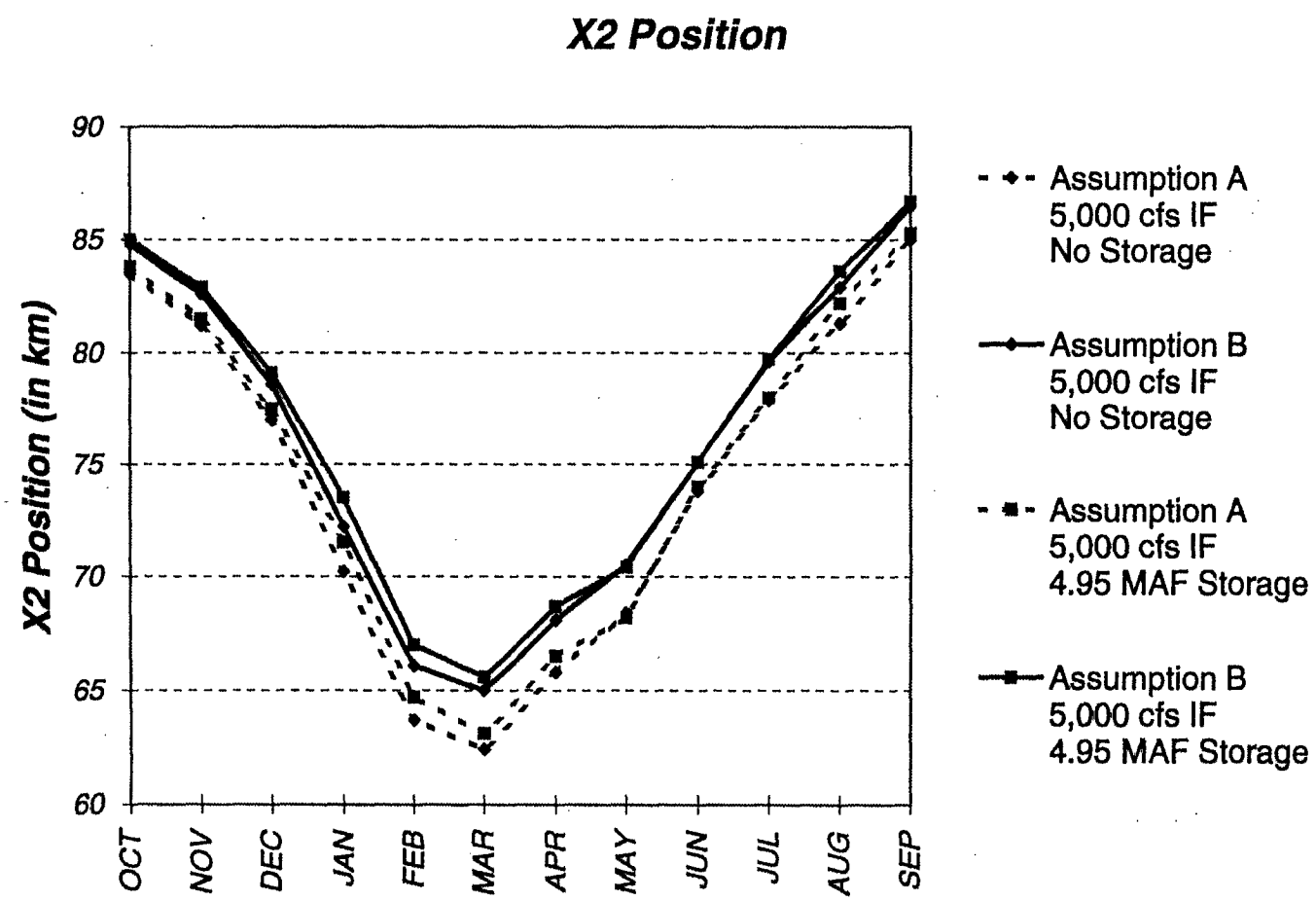
Alternative 3
5,000 cfs Isolated Facility



E-001992

E—001992

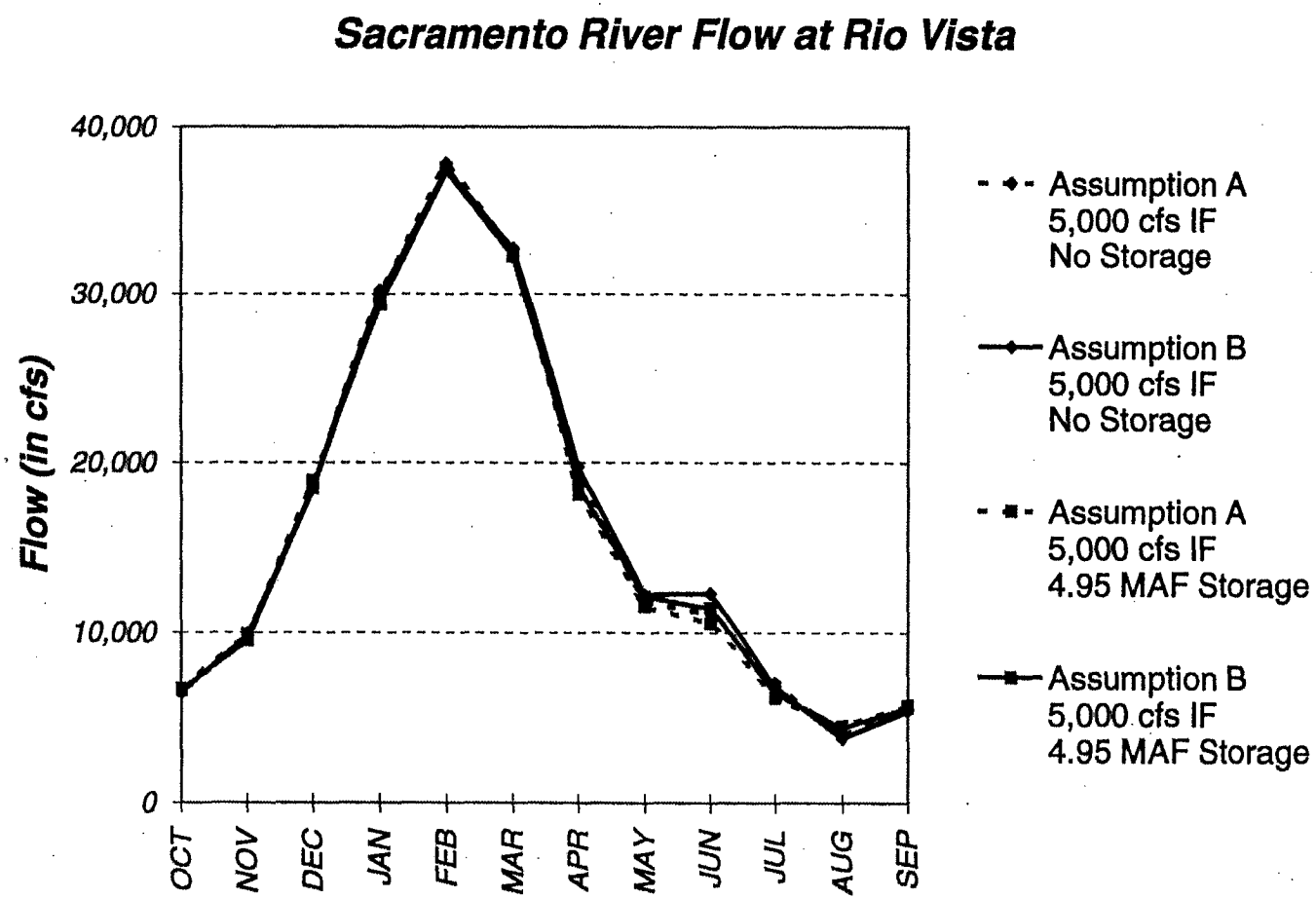
Alternative 3
5,000 cfs Isolated Facility



E-001993

E-001993

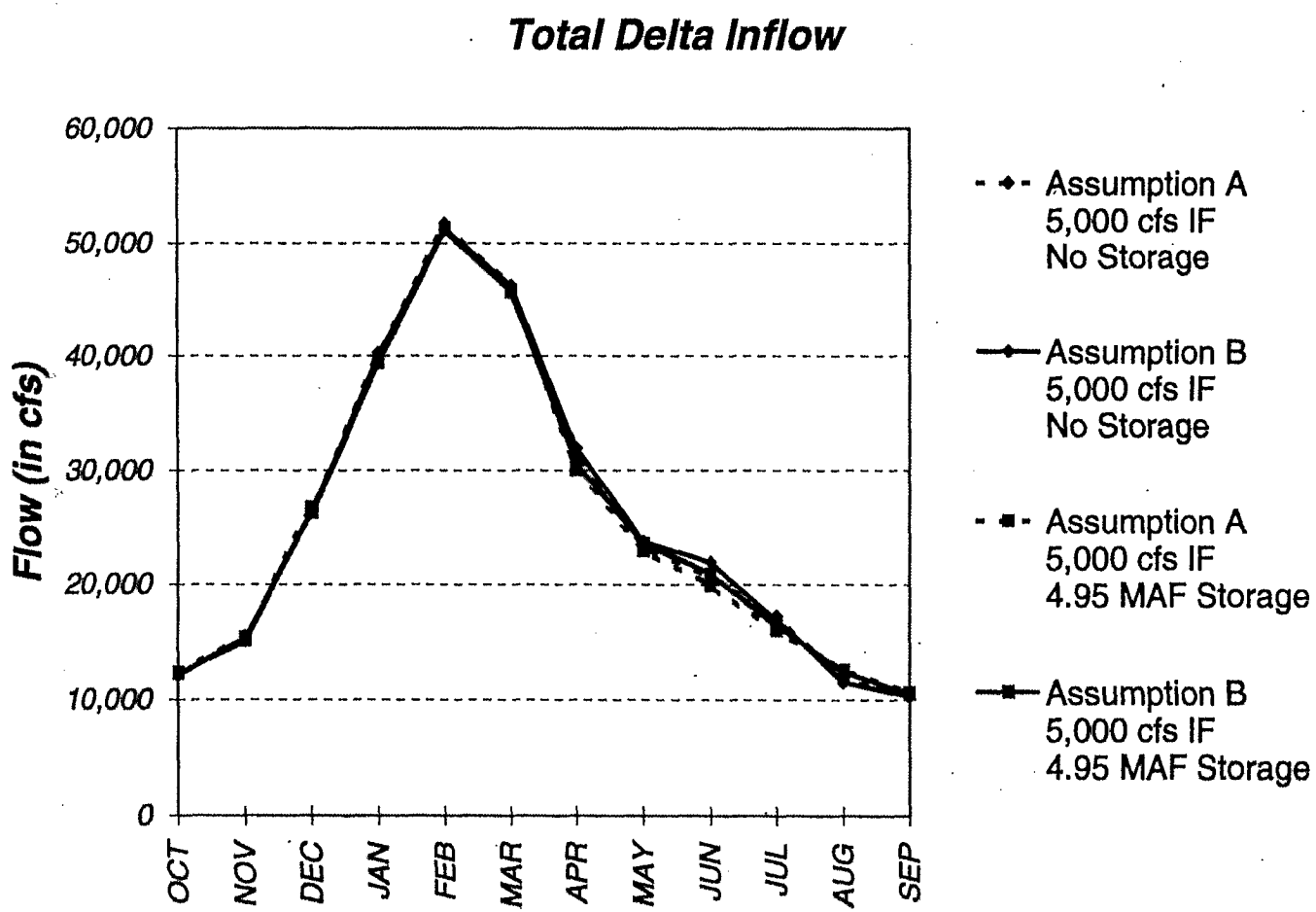
Alternative 3
5,000 cfs Isolated Facility



E-001994

E—001994

Alternative 3
5,000 cfs Isolated Facility



E-001995

E-001995

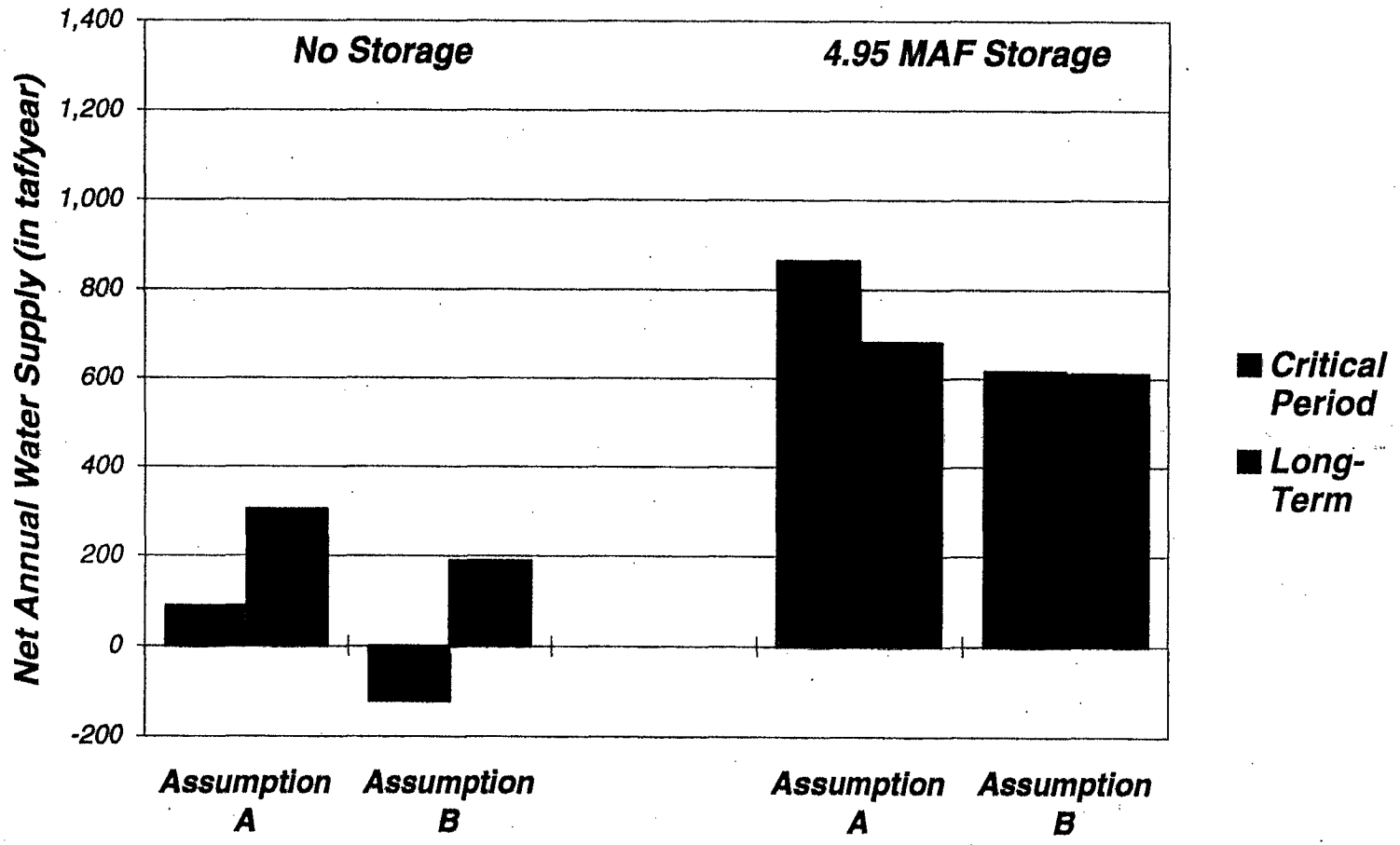
Alternative 3
15,000 cfs Isolated Facility

Average Annual Water Supply
Compared to No Action
(in 1,000 acre-feet per year)

	Critical Period	Long-Term
No Storage		
Assumption A	89	304
Assumption B	-121	189
4.95 MAF Storage		
Assumption A	864	681
Assumption B	616	611

E-001996
E-001996

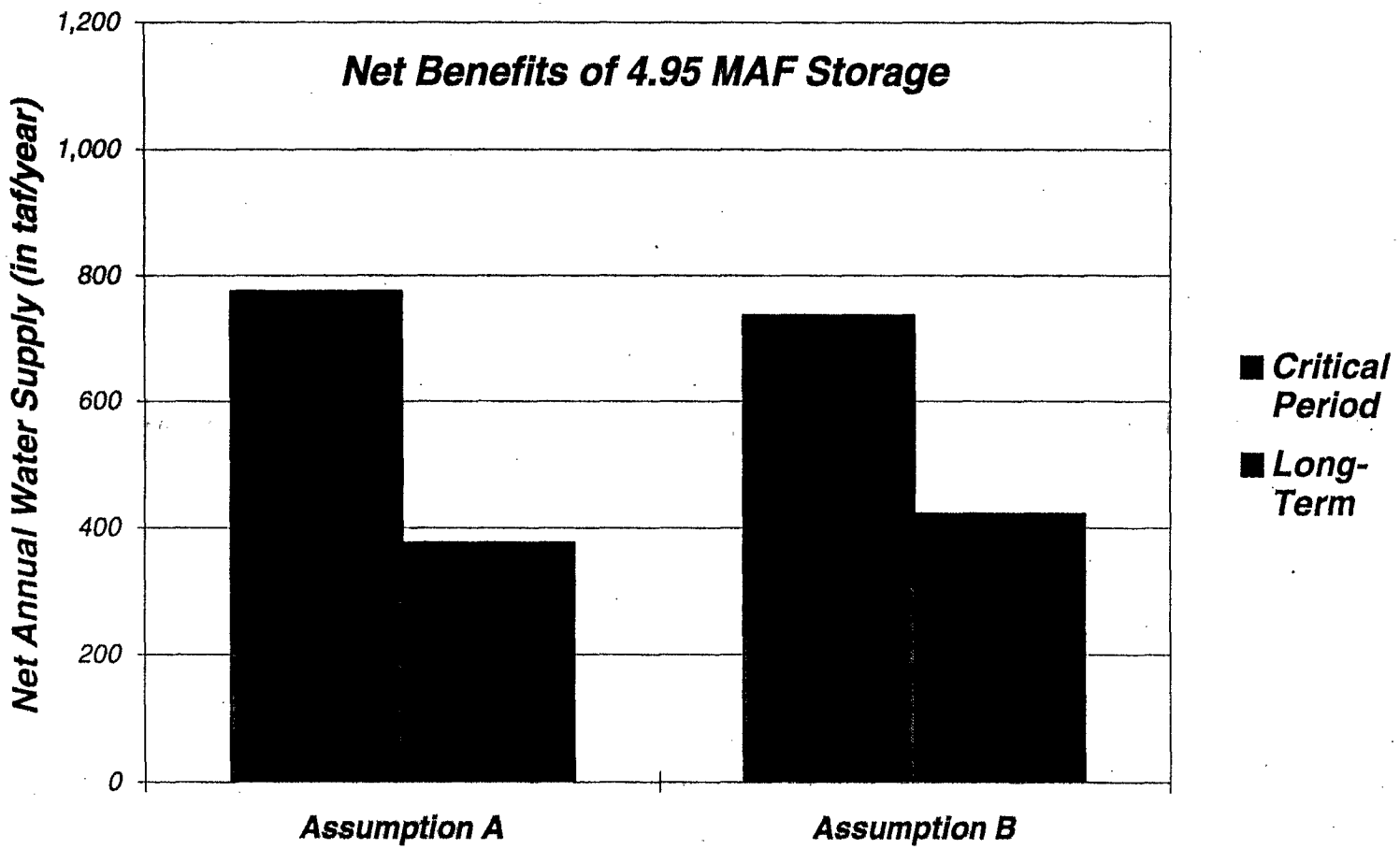
Alternative 3
15,000 cfs Isolated Facility



E-001997

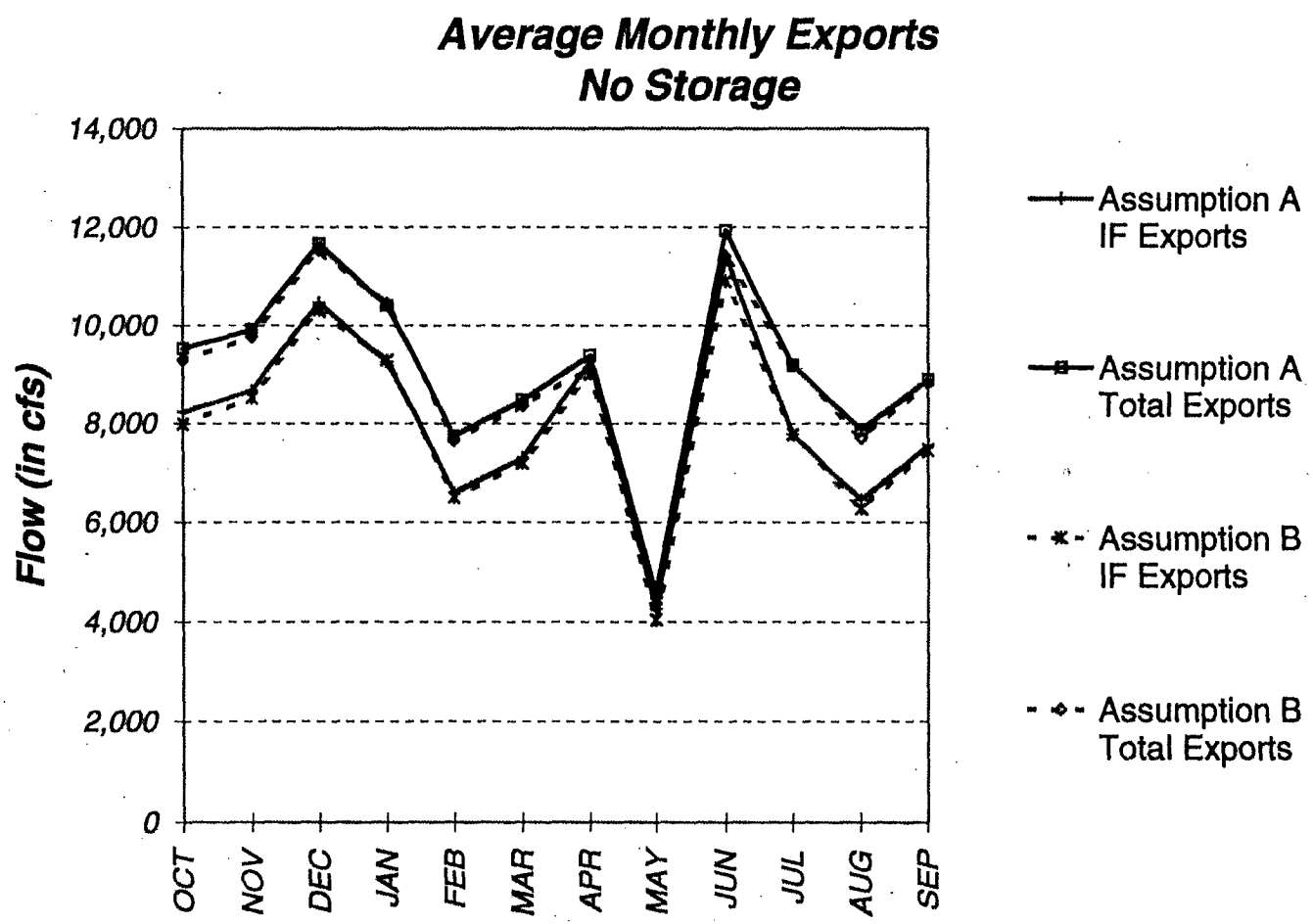
E-001997

Alternative 3
15,000 cfs Isolated Facility



E-001998
E—001998

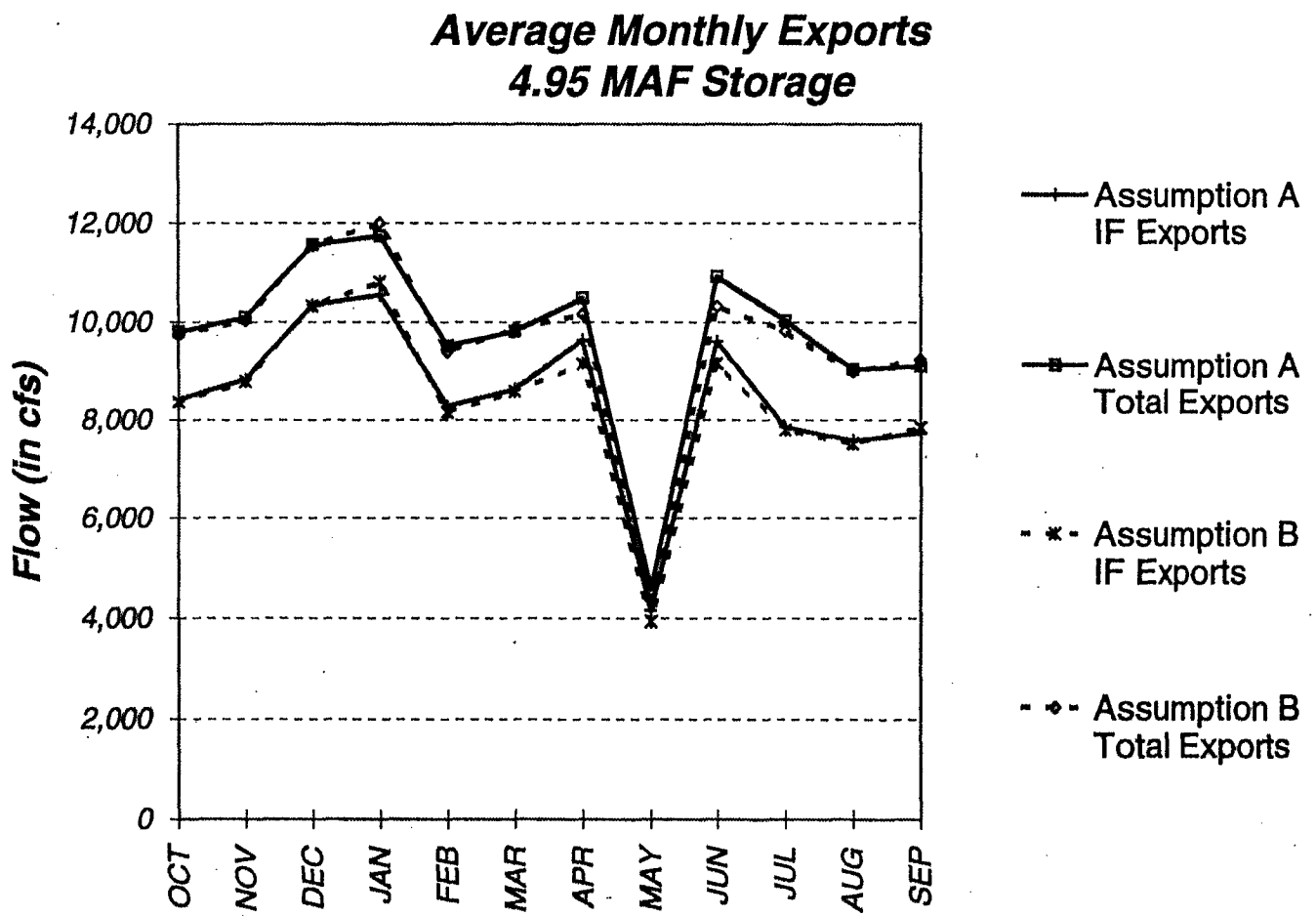
Alternative 3
15,000 cfs Isolated Facility



E-001999

E-001999

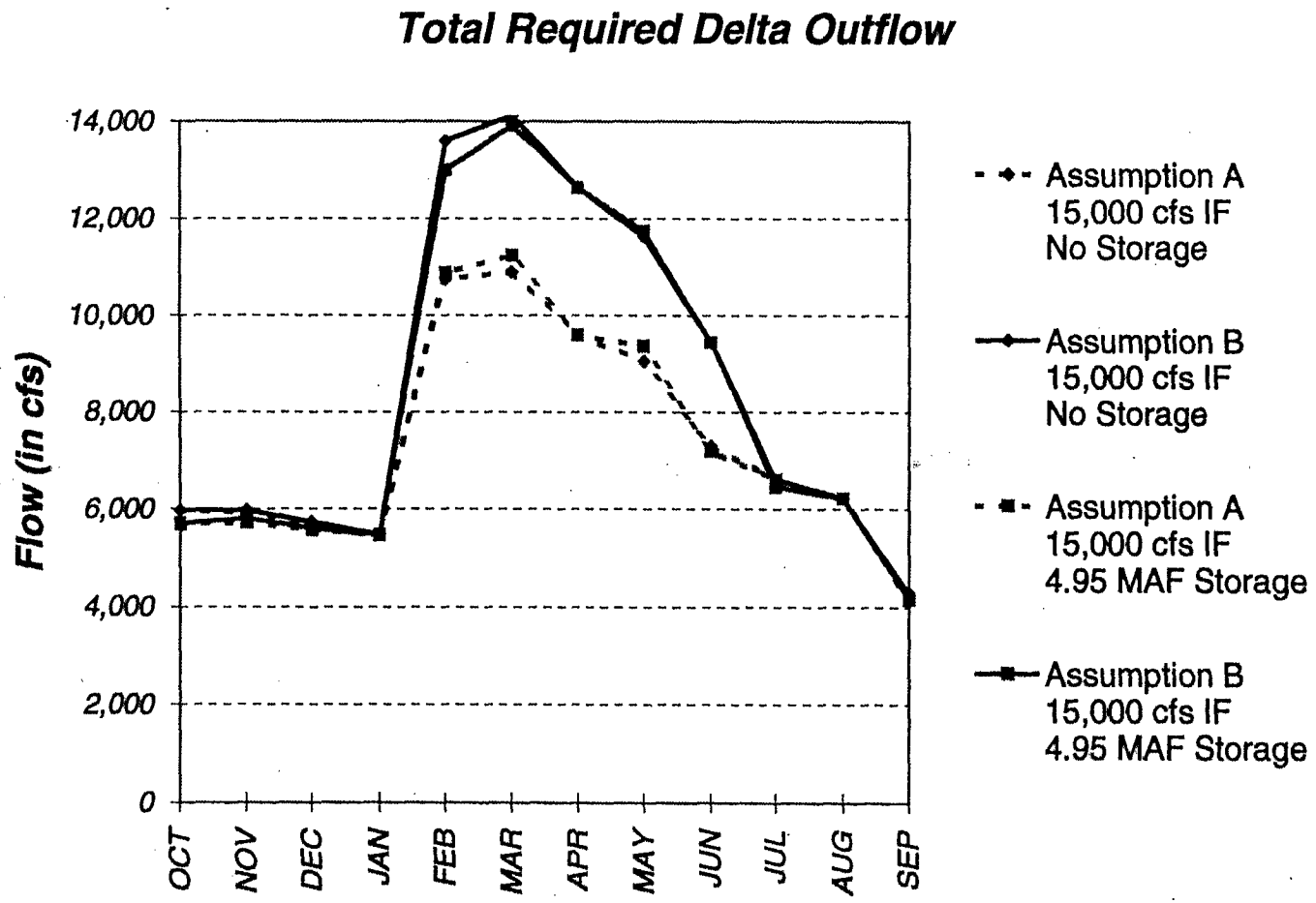
Alternative 3
15,000 cfs Isolated Facility



E-002000

E-002000

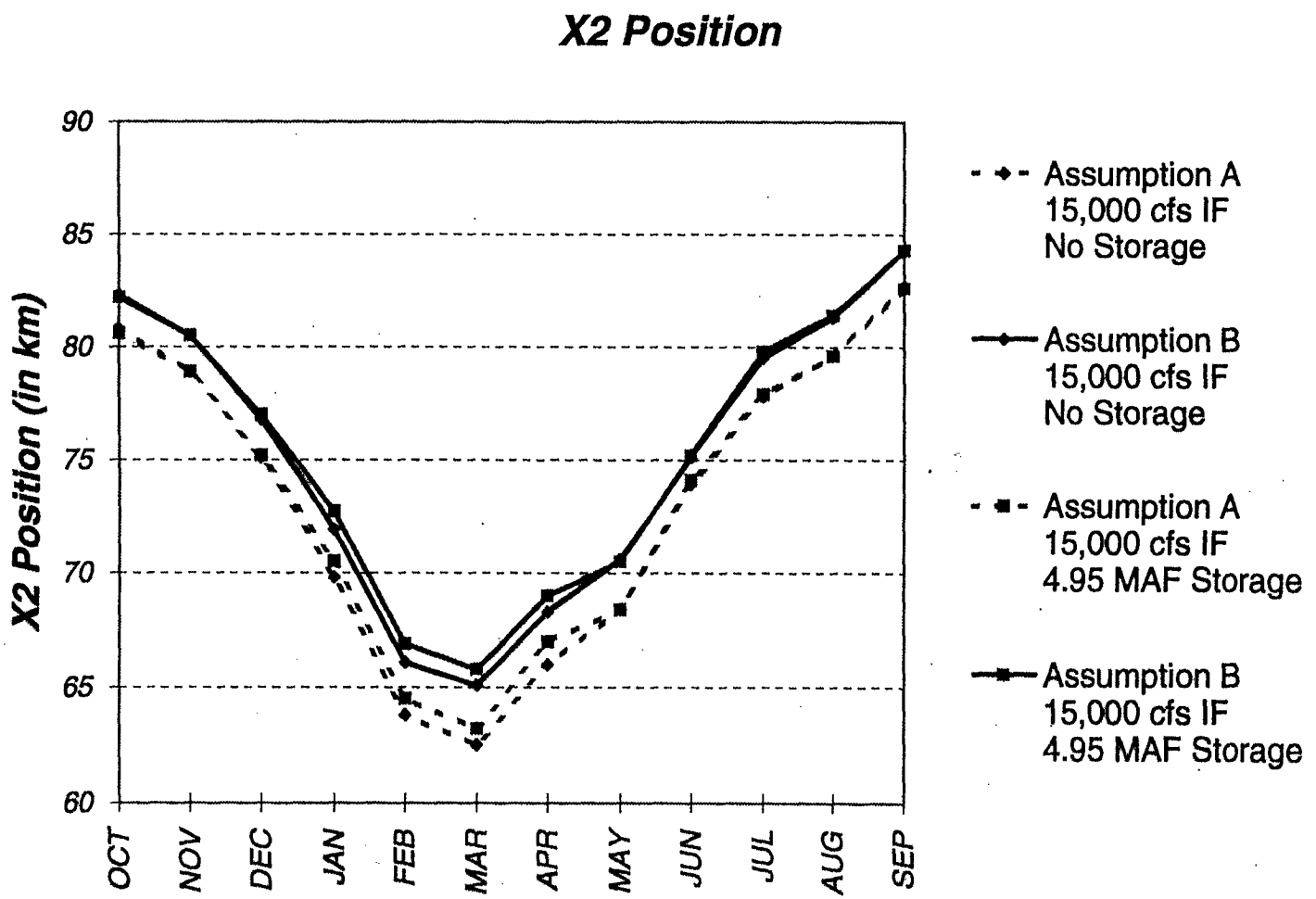
Alternative 3
15,000 cfs Isolated Facility



E-002001

E-002001

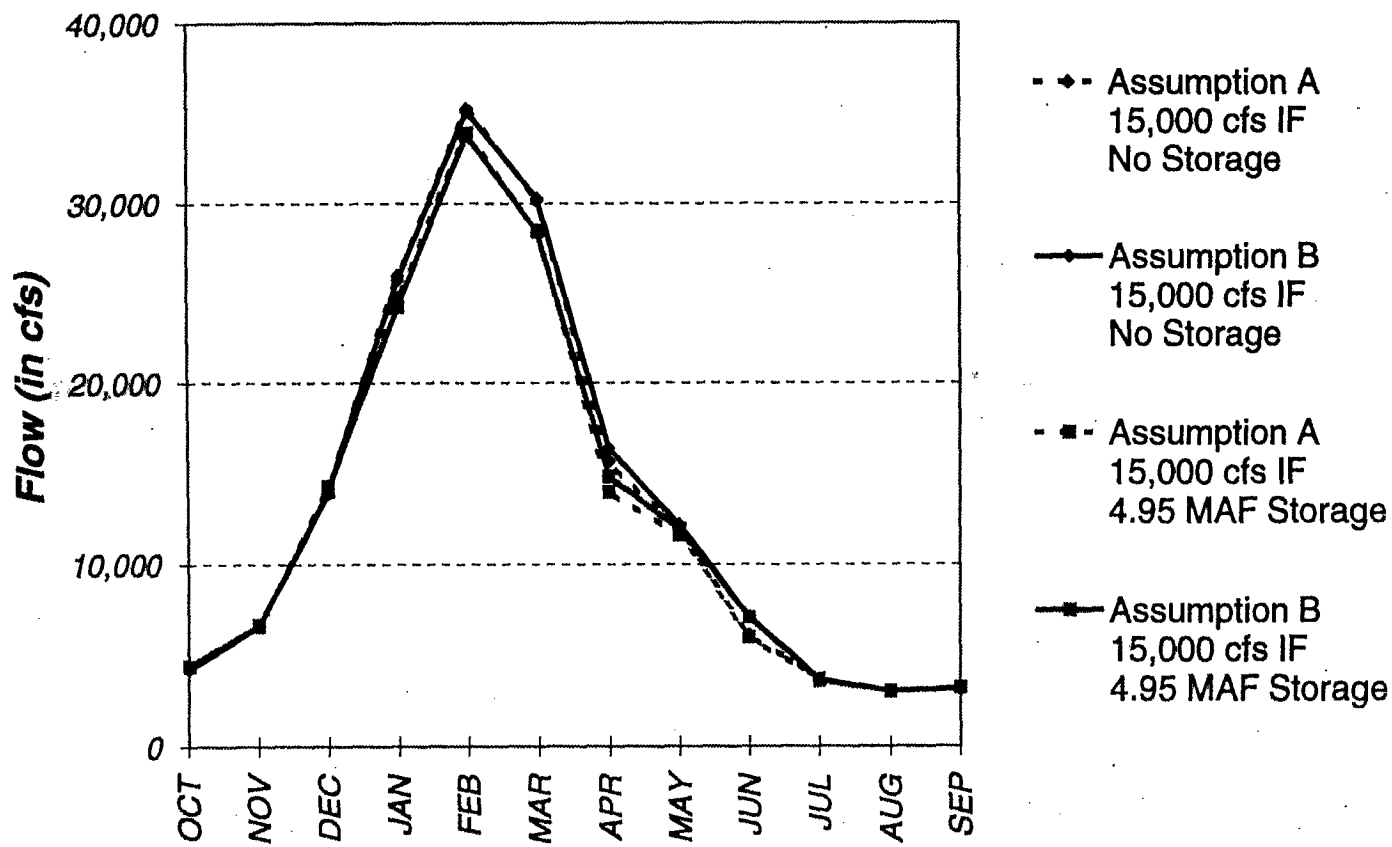
Alternative 3
15,000 cfs Isolated Facility



E-002002

E-002002

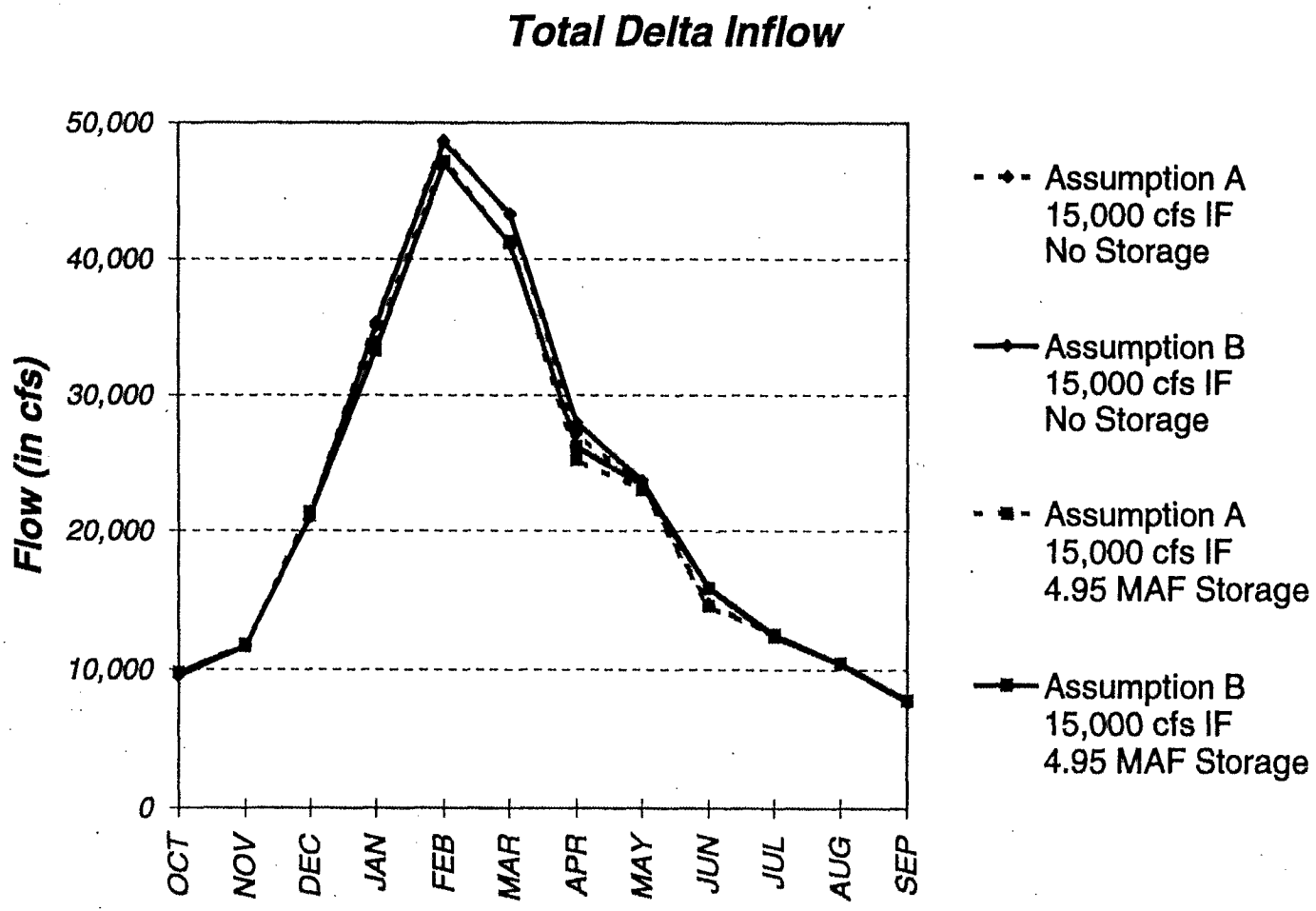
Alternative 3
15,000 cfs Isolated Facility



E-002003

E—002003

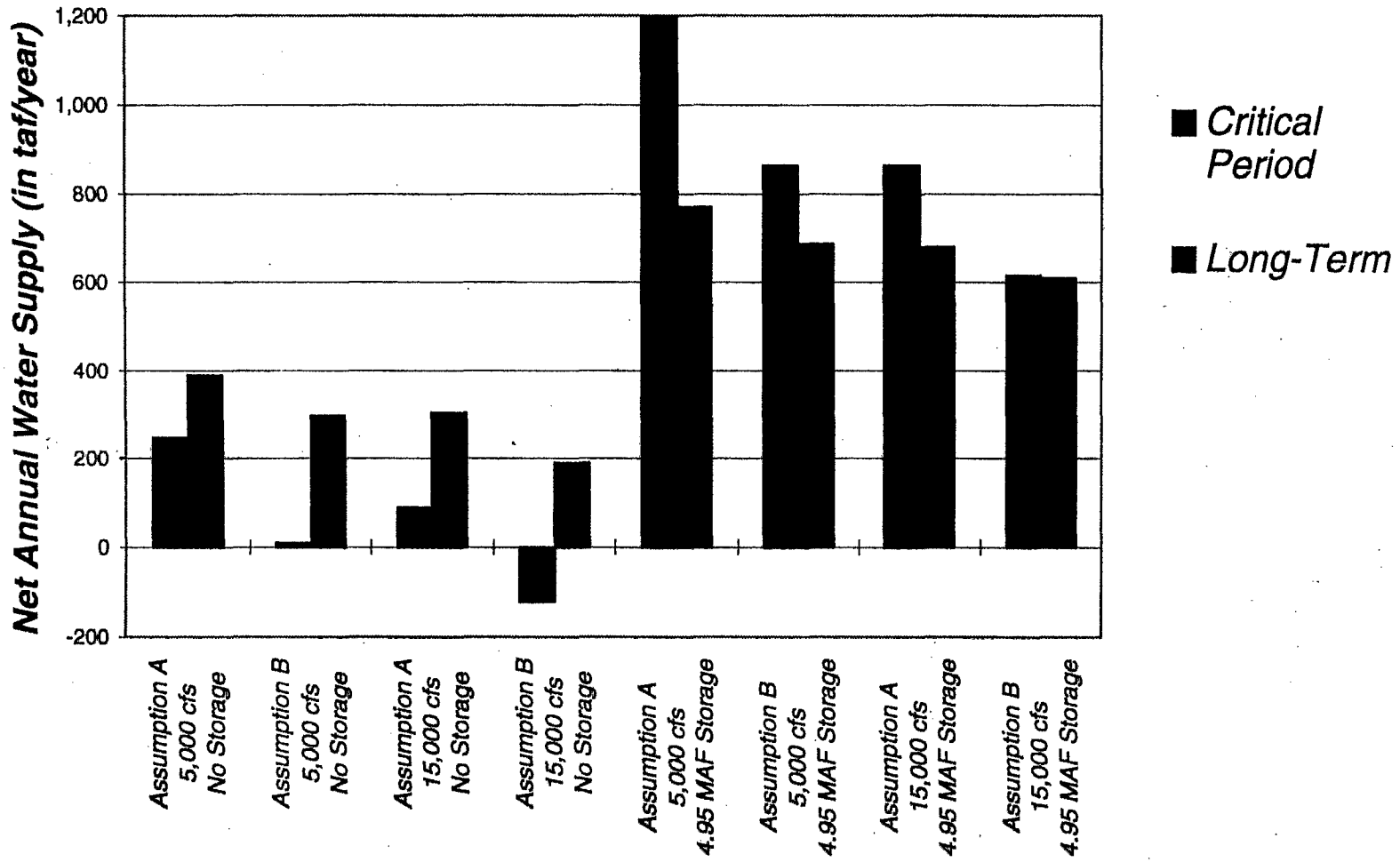
Alternative 3
15,000 cfs Isolated Facility



E-002004

E-002004

Alternative 3



E-002005

Alternative 3

1,000 cfs thru Delta vs No thru Delta

Average Annual Water Supply
Compared to No Action
(in 1,000 acre-feet per year)

	Critical Period	Long-Term
4.95 MAF Storage[1]		
No Thru Delta Diversions	-86	299
1,000 cfs min. thru Delta	487	544

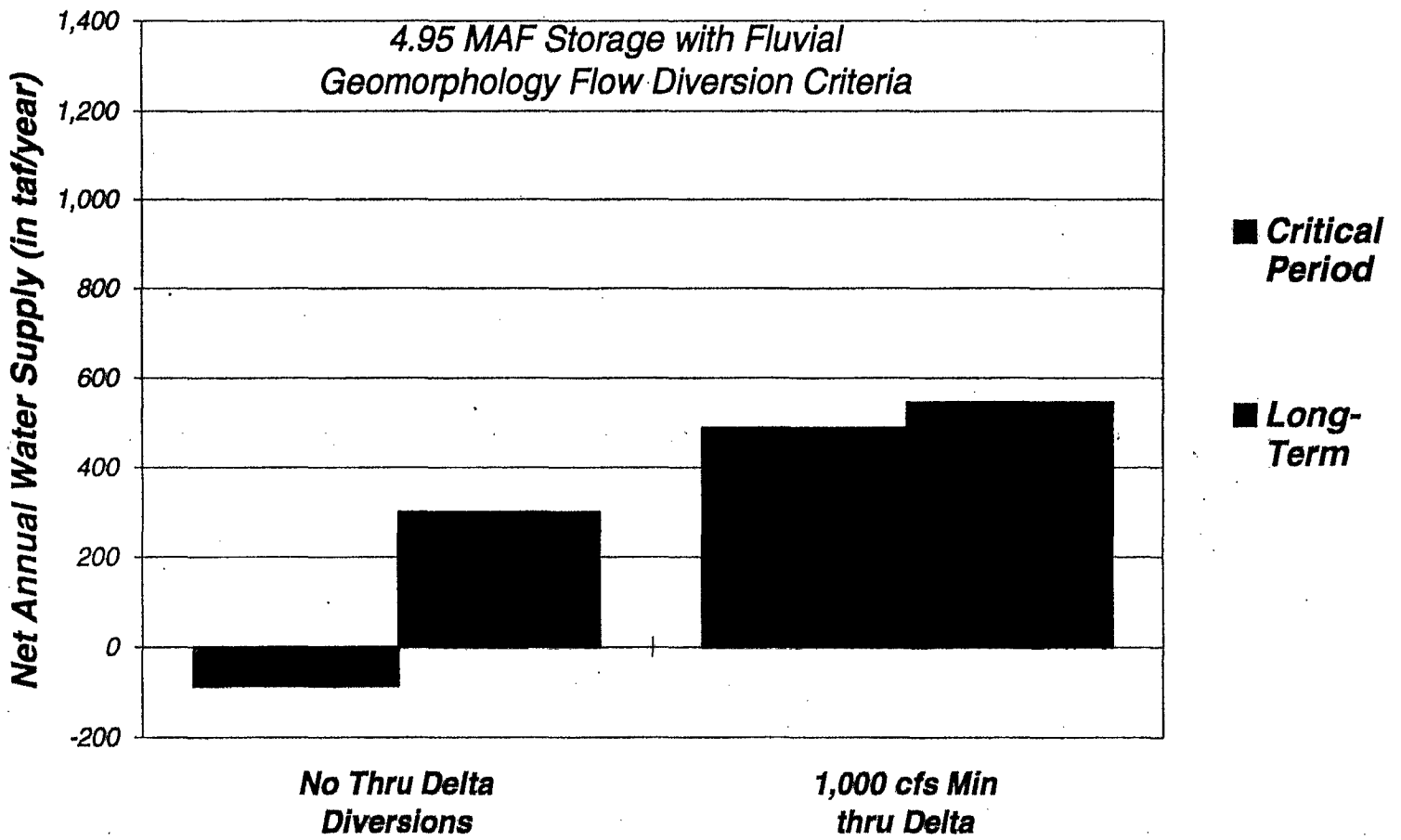
[1] Includes Fluvial Geomorphology Flow Criteria for diversions to Storage.

E-002006

E-002006

Alternative 3

1,000 cfs thru Delta vs No thru Delta

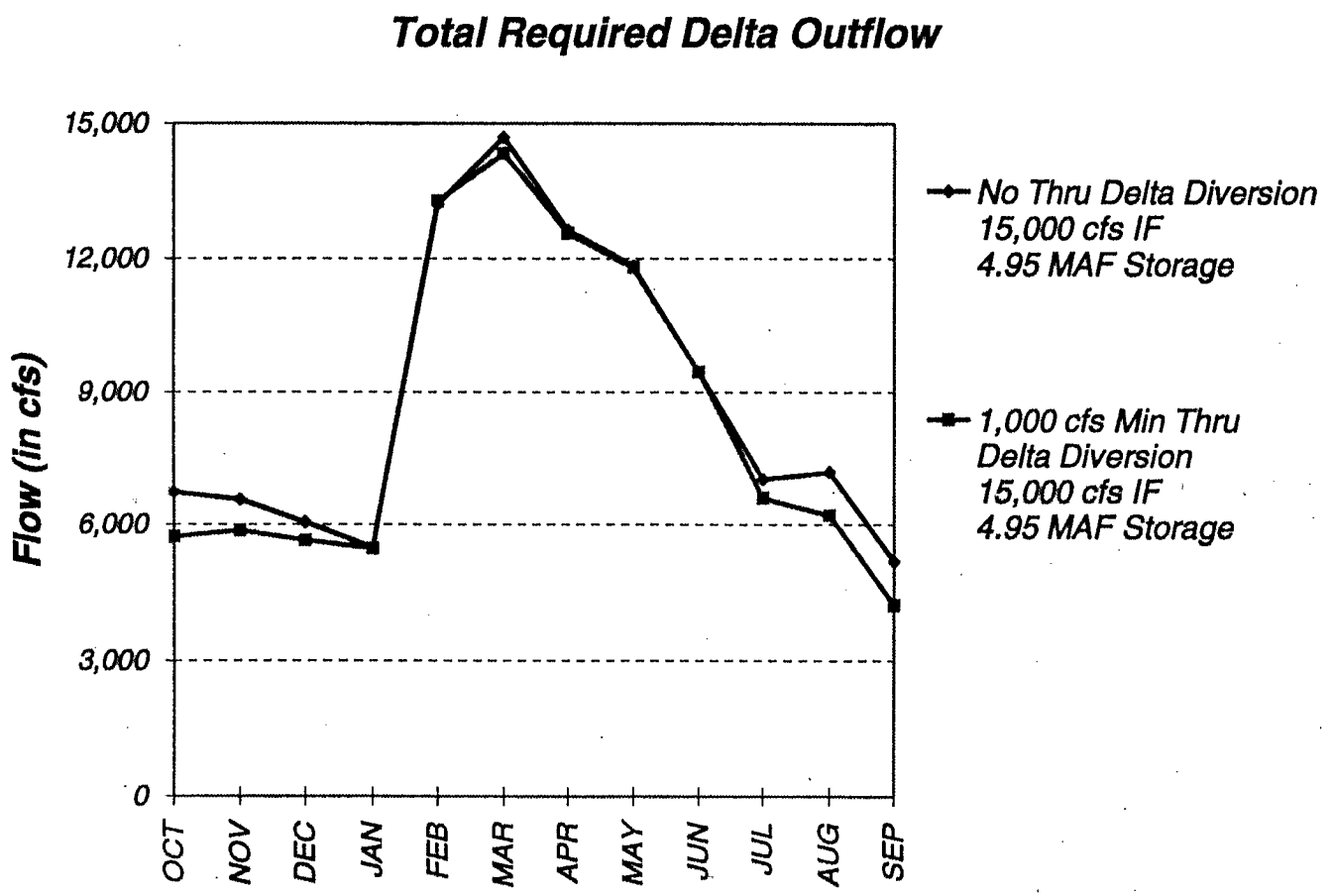


E-002007

E-002007

Alternative 3

1,000 cfs thru Delta vs No thru Delta

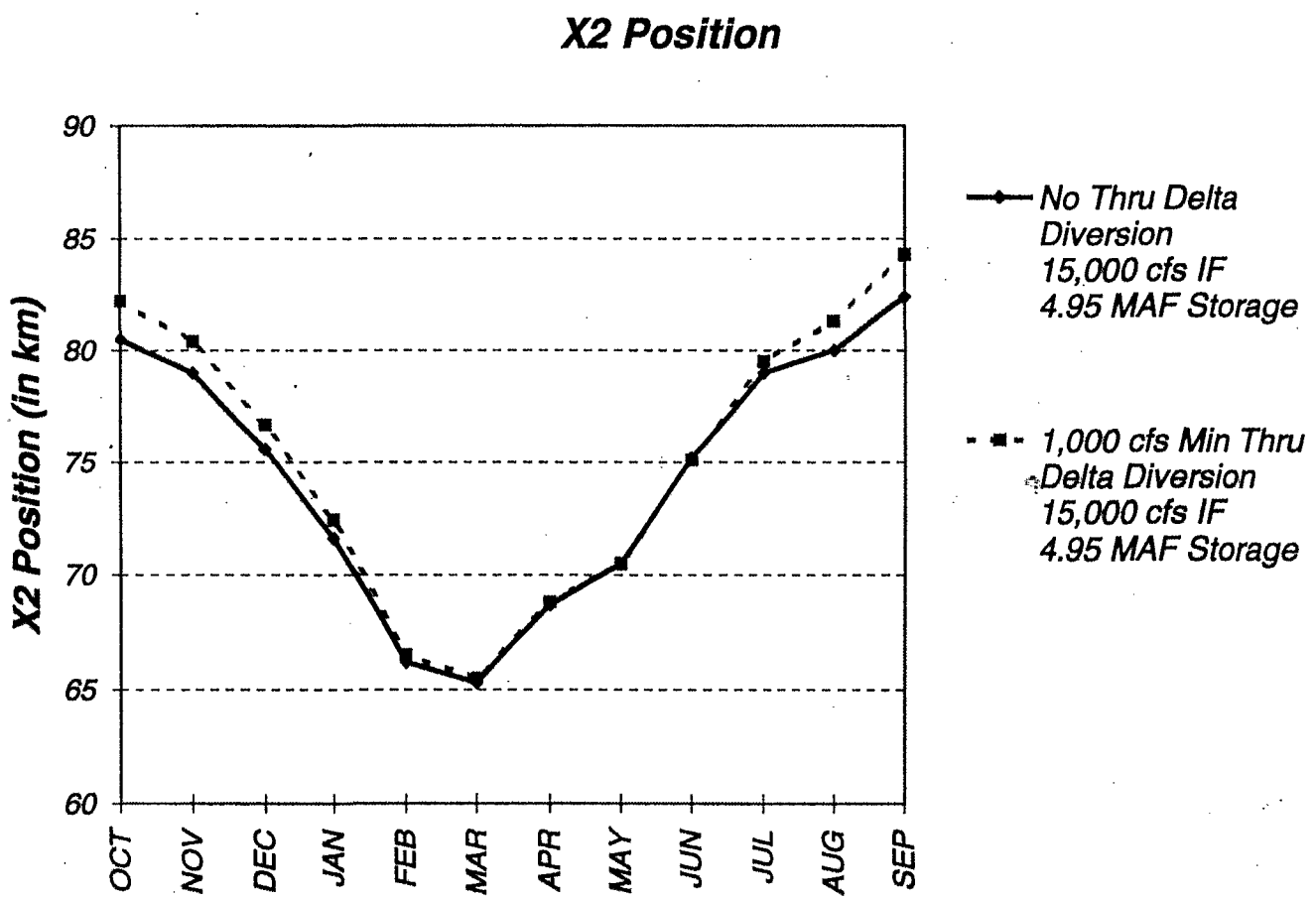


E-002008

E-002008

Alternative 3

1,000 cfs thru Delta vs No thru Delta

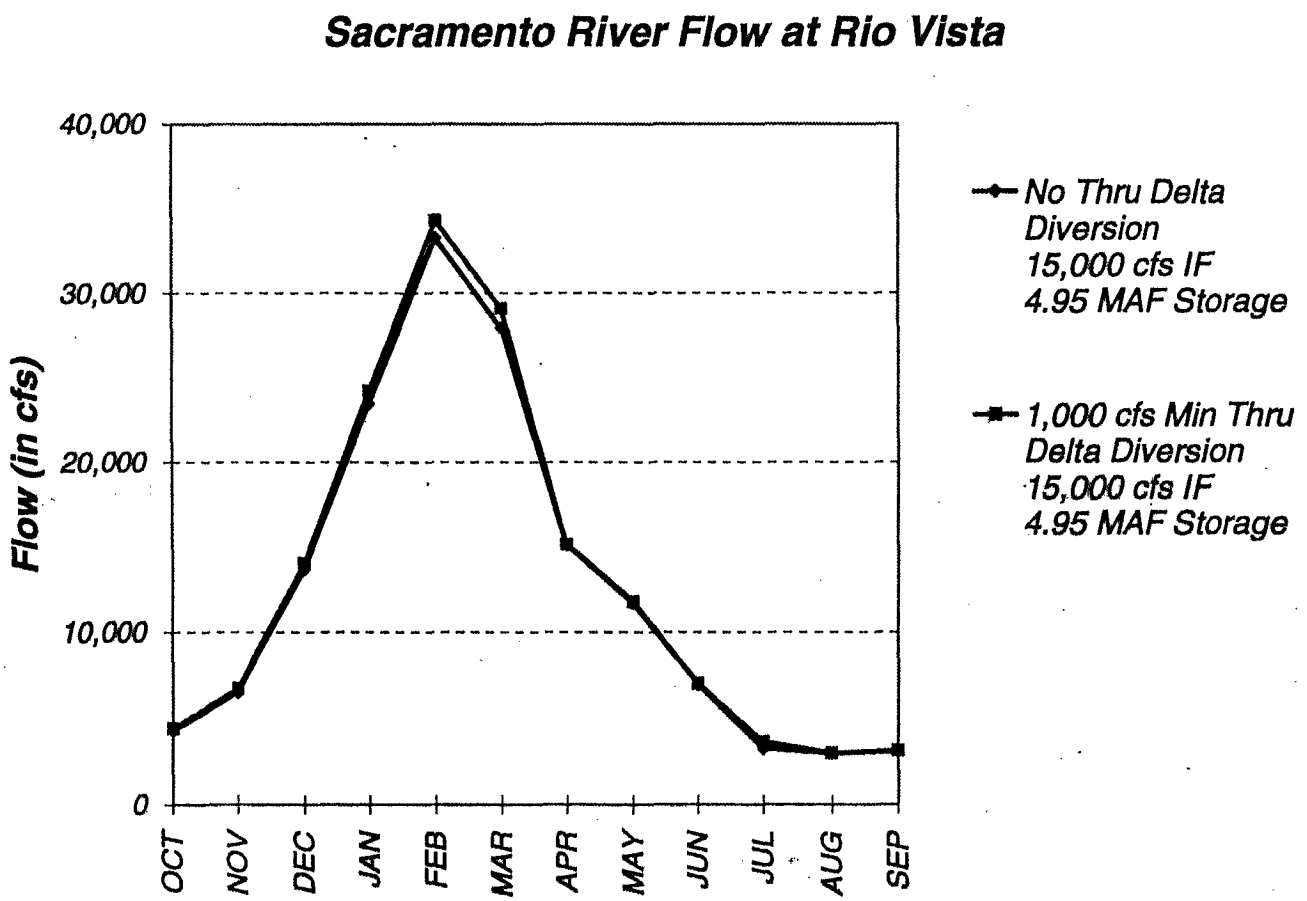


E-002009

E-002009

Alternative 3

1,000 cfs thru Delta vs No thru Delta

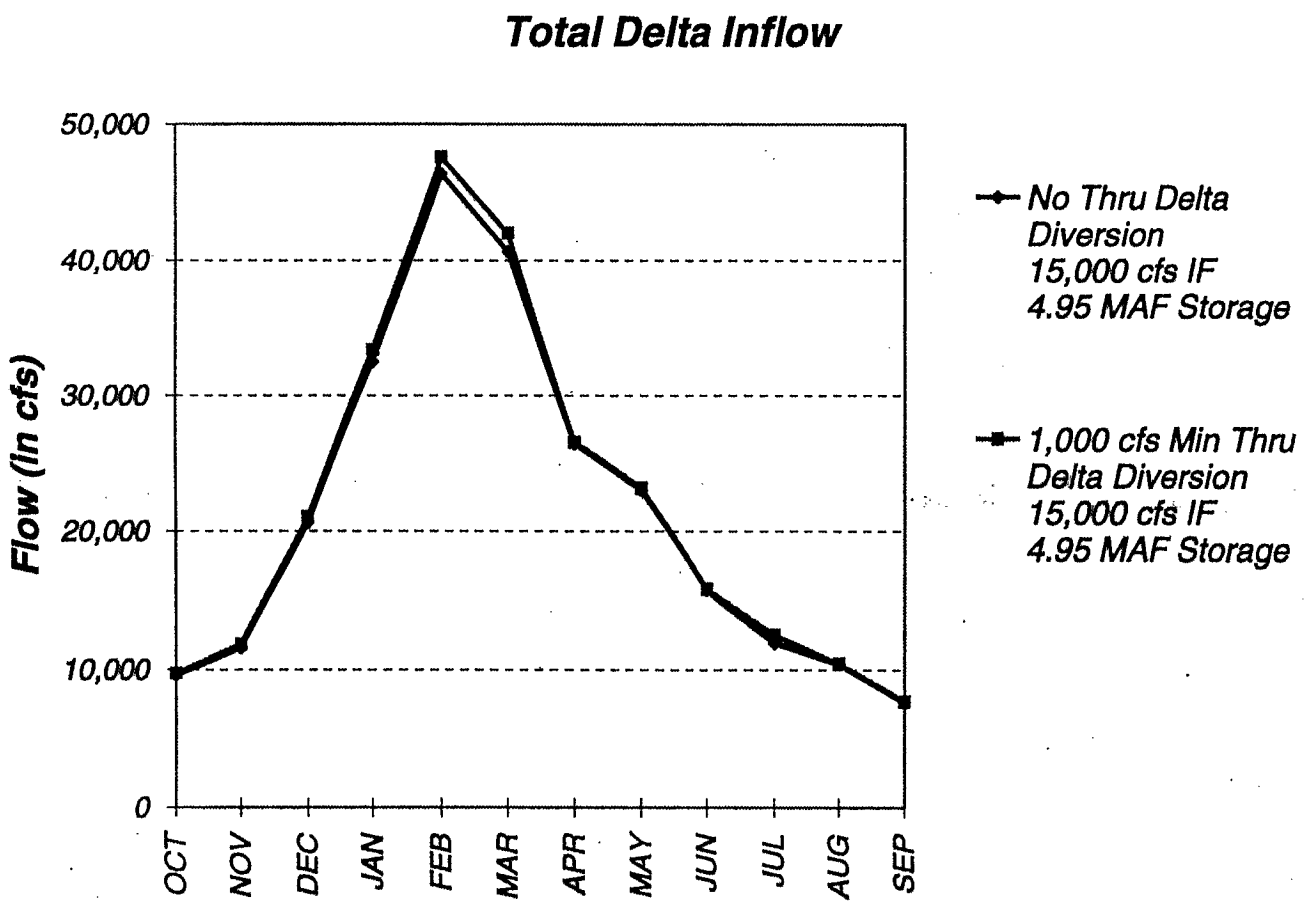


E-002010

E-002010

Alternative 3

1,000 cfs thru Delta vs No thru Delta



E-002011

E-002011

Alternative 3
With and without Delta Ag Diversions

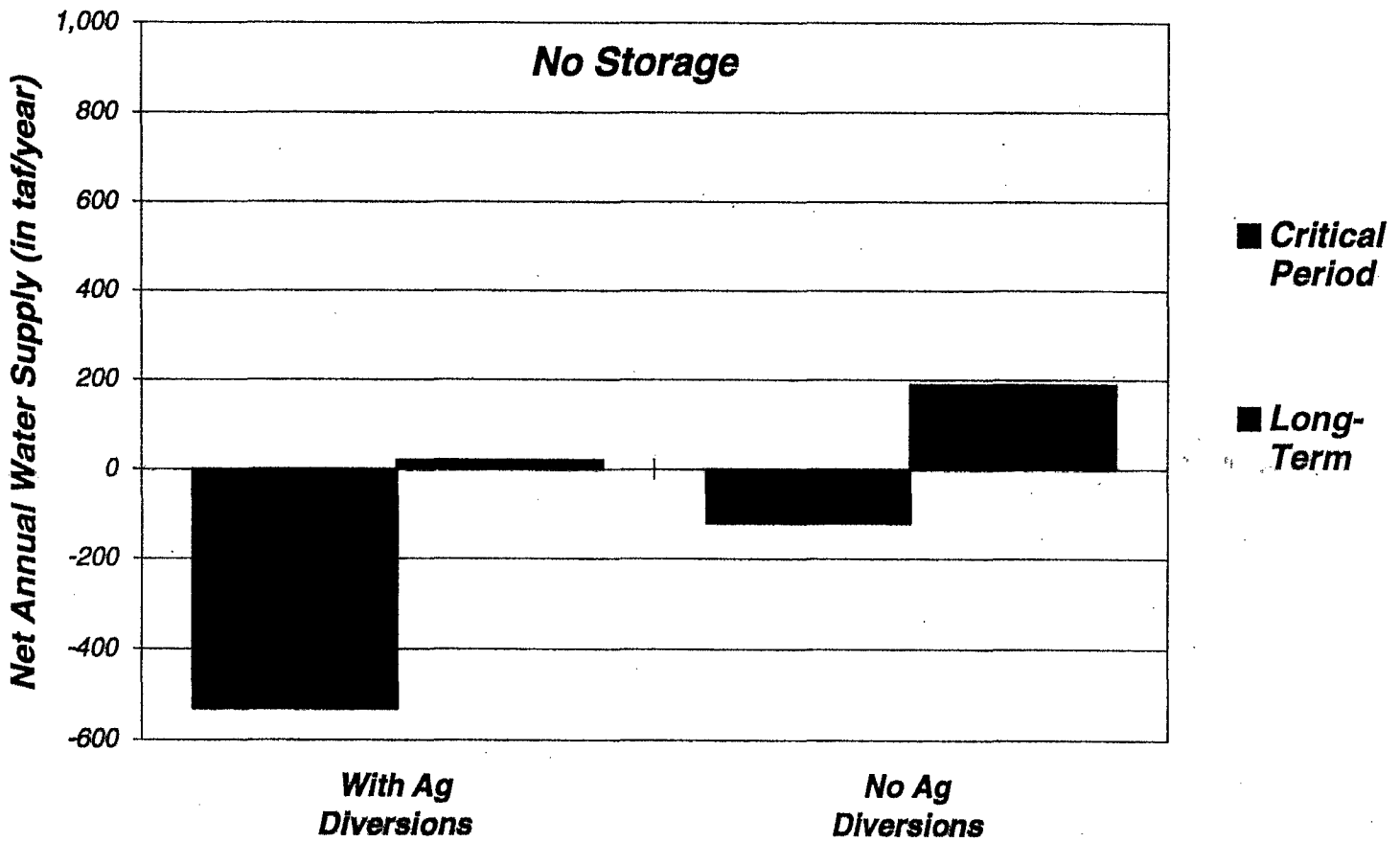
Average Annual Water Supply
Compared to No Action
(in 1,000 acre-feet per year)

	Critical Period	Long-Term
No Storage		
With Delta Ag Diversions	-531	21
No Delta Ag Diversions	-121	189

E-002012
E-002012

Alternative 3

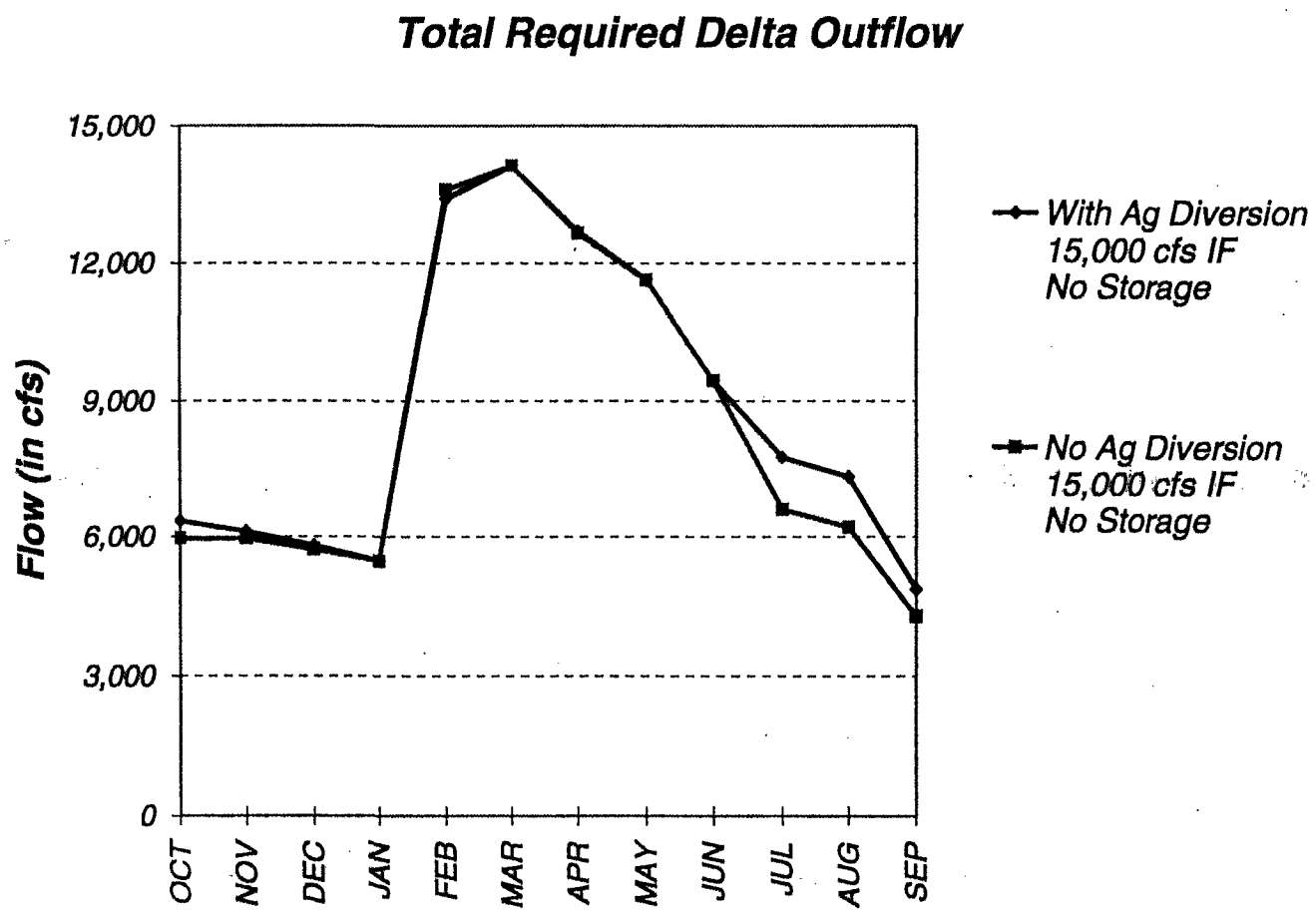
With and without Delta Ag Diversions



E-002013

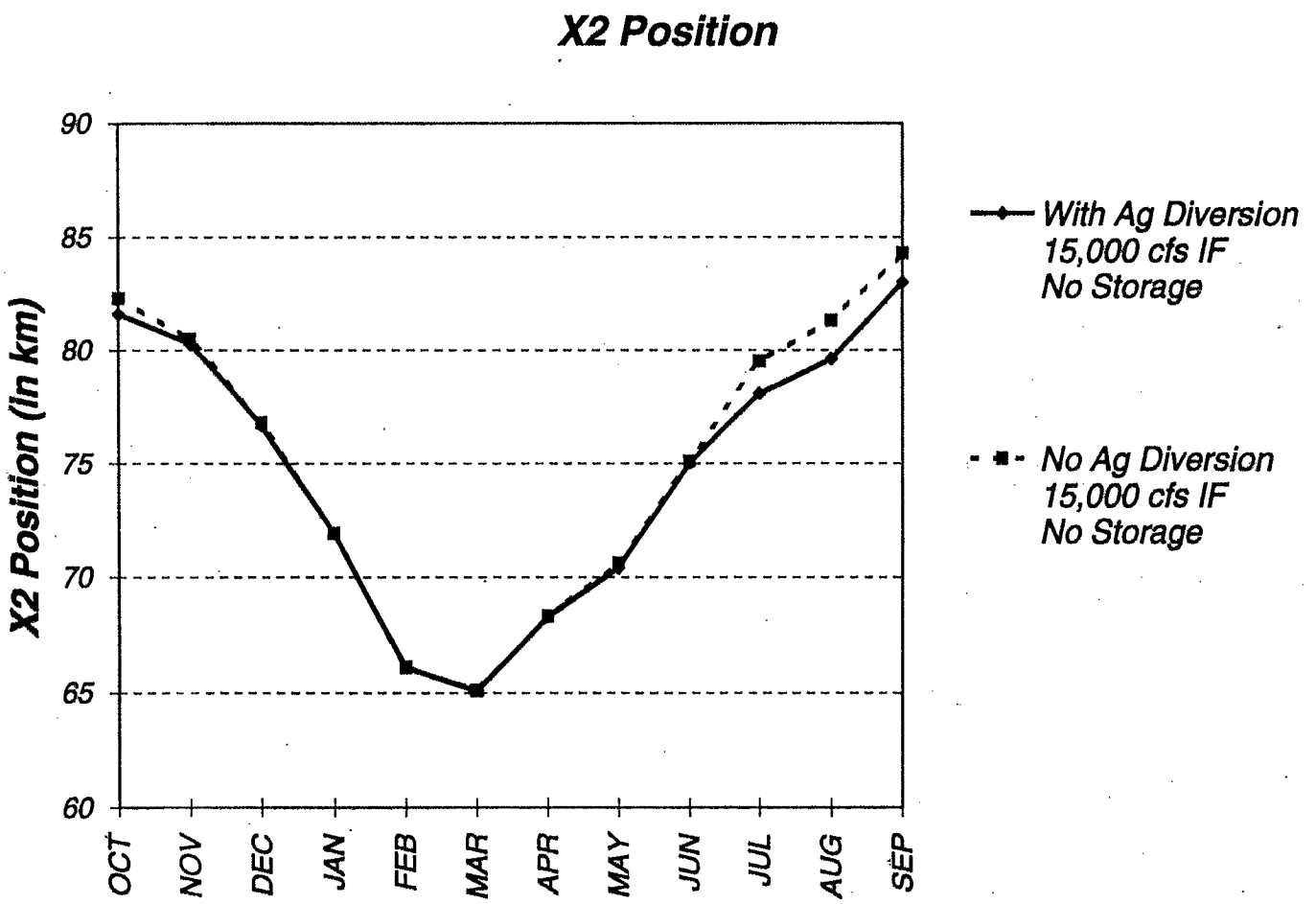
E-002013

Alternative 3
With and without Delta Ag Diversions



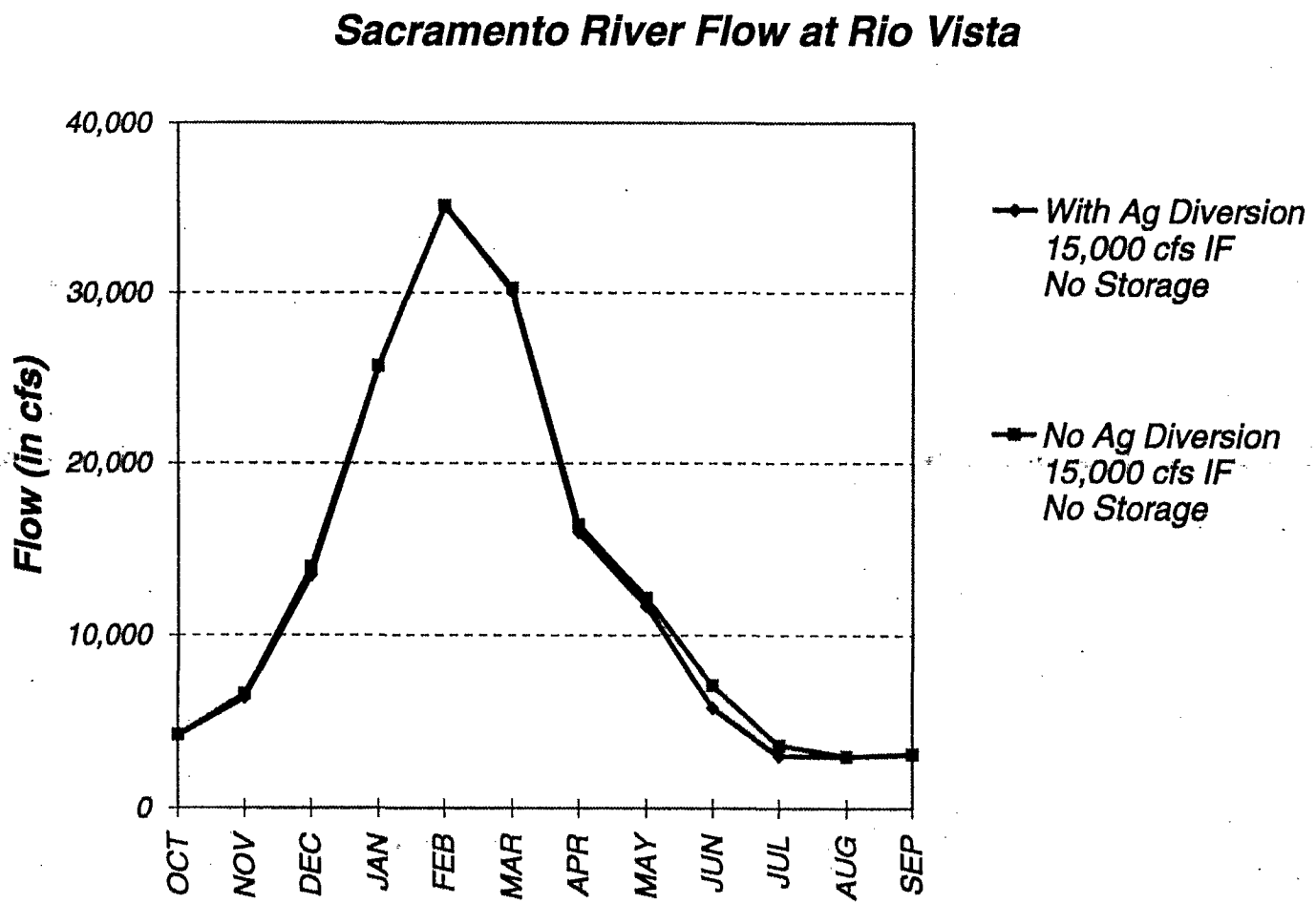
E-002014
E-002014

Alternative 3
With and without Delta Ag Diversions



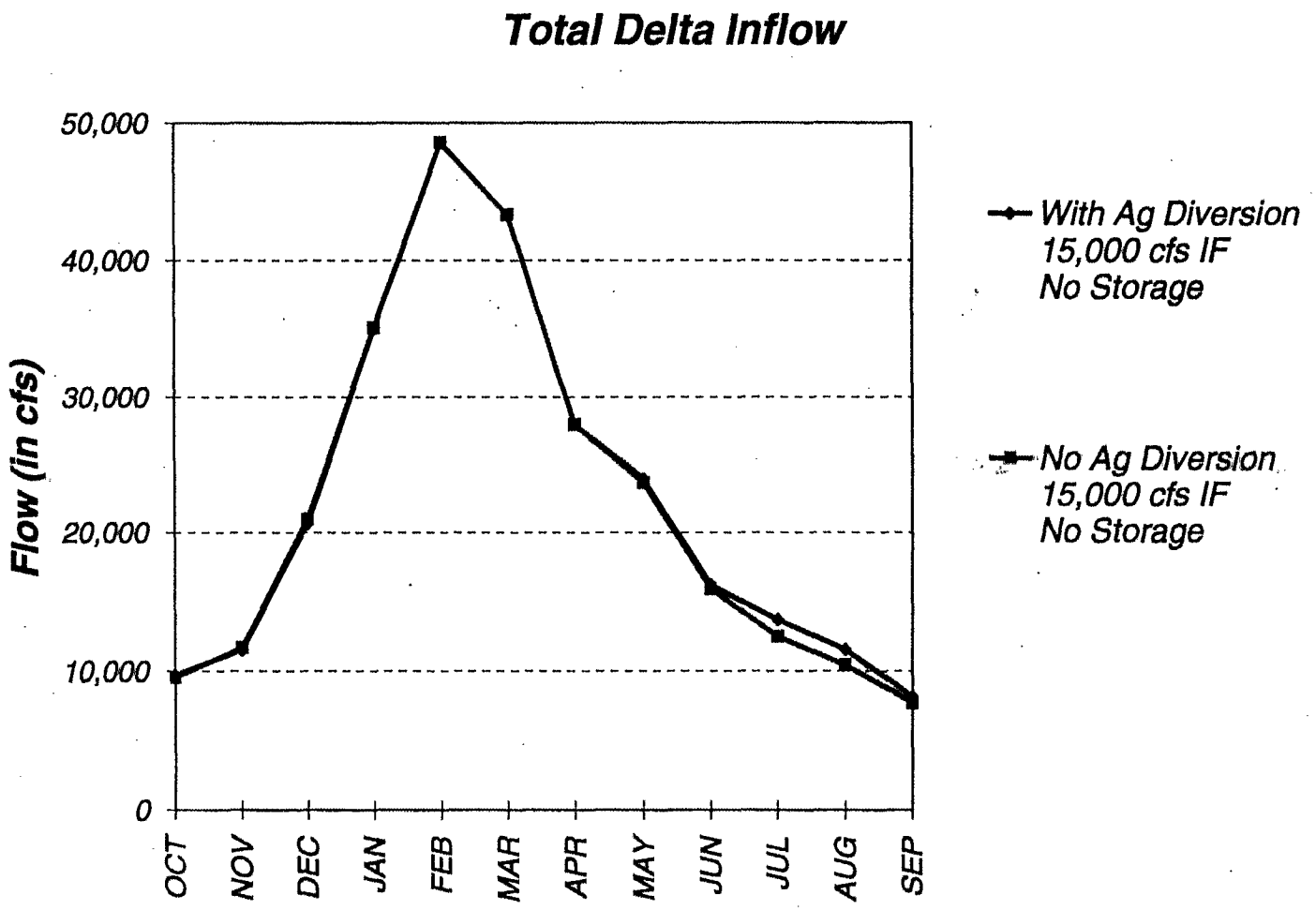
E-002015
E-002015

Alternative 3
With and without Delta Ag Diversions



E-002016
E-002016

Alternative 3
With and without Delta Ag Diversions

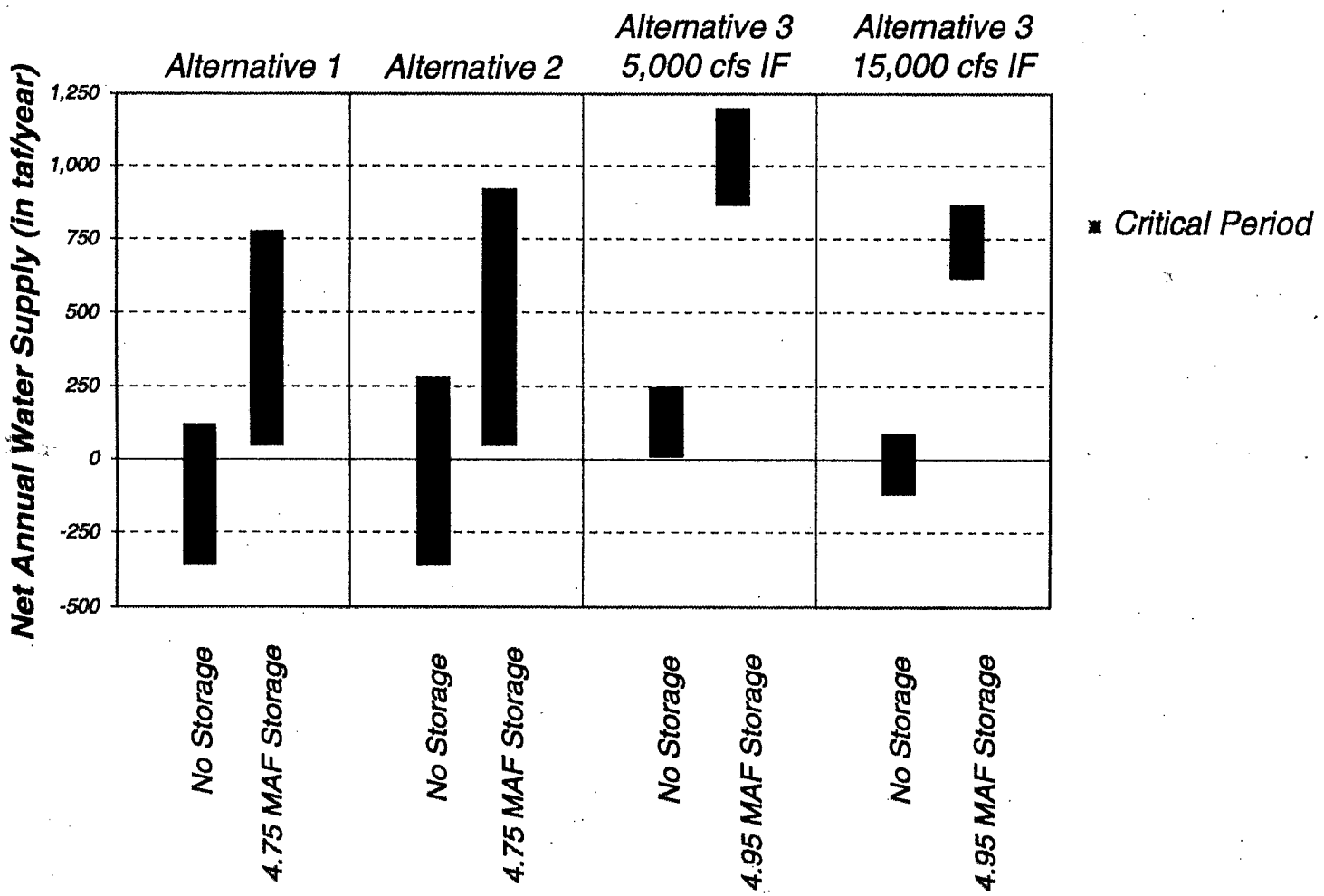


E-002017

E-002017

Comparison of Alternatives 1 - 3

Critical Period Water Supply Benefits

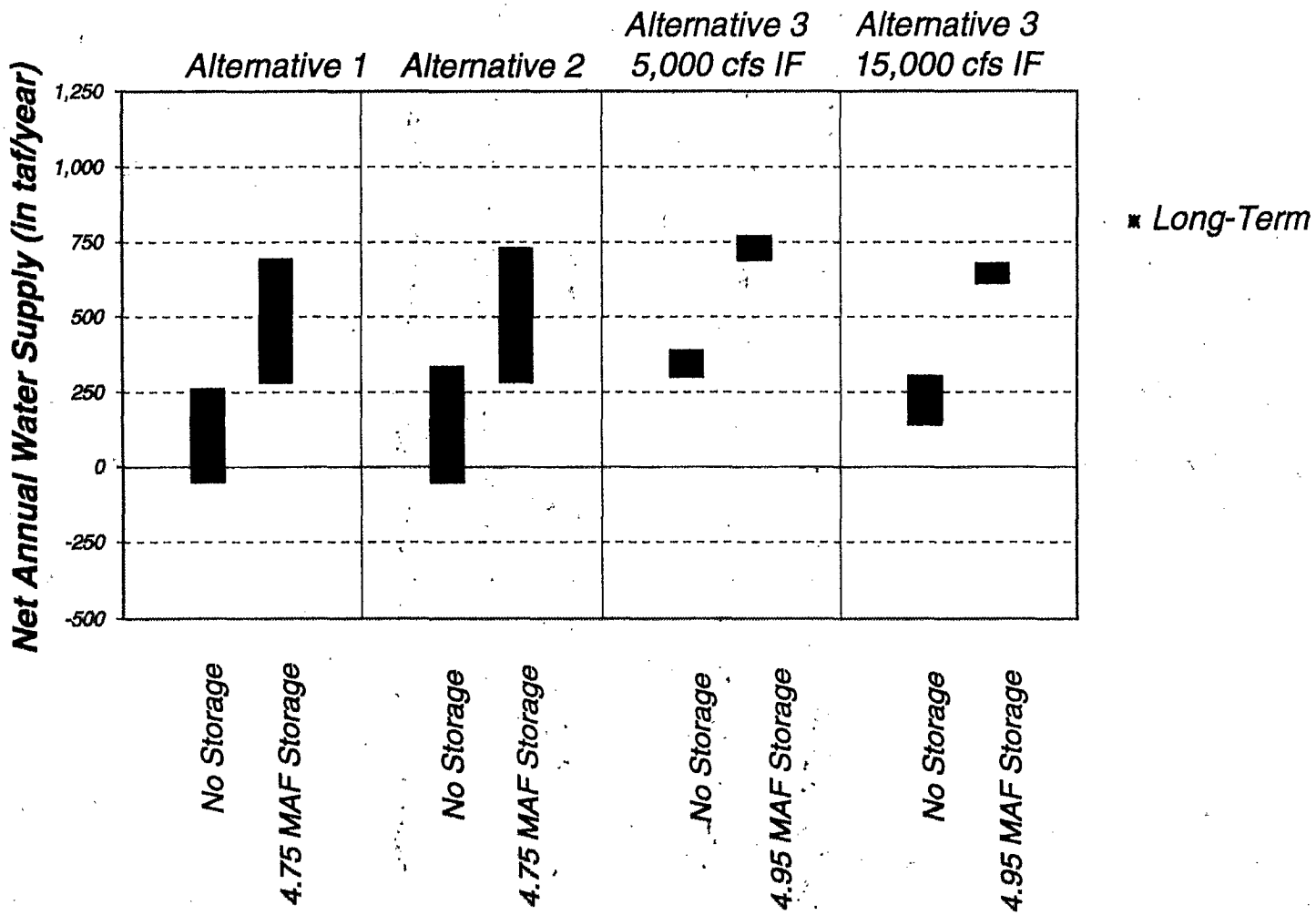


E-002018

E-002018

Comparison of Alternatives 1 - 3

Long-Term Period Water Supply Benefits



E-002019

E-002019