

System Plans - Benefits Summary

11-Nov-03

Alternative	Benefits by Goal Category							Cost
	1	2	3	4	5	6	7	
	Biodiversity	Sediment Delivery	Backwaters & Side Channels	Floodplain, Riparian, & Aquatic	Connectivity	Water Level Management	Water Quality	Estimated 10-Year Authorization (Millions)
No Action	Decline	Some Increase Delivery	Decline 1-2%/yr	No Change	Potential Improvement	More Fluctuations	Minor Improvement	No Cost
Alt 1	Regional Improvements	0% Upper Tribs 20% Peoria Tribs 0% Lower Tribs	3,600 BW acres 10 Side Channel 10 Island Protect	5,000 acres MS 5,000 acres Trib 25 stream miles		1.5% Peak Reduce 30k acre-ft	Minor Regional Improvements	\$ 250
Alt 2	Maintain Current Habitat at System Level	0% Upper Tribs 40% Peoria Tribs 0.5% Lower Tribs	6,100 BW acres 20 Side Channel 15 Island Protect	5,000 acres MS 10,000 acres Tribs 50 stream miles		2.5% Peak Reduce 45k acre-ft	Regional Improvement	\$ 400
Alt 3	Begin System Improvements - Sediment Focus	11% Upper Tribs 40% Peoria Tribs 4% Lower Tribs	8,600 BW acres 30 Side Channel 15 Island Protect	20,000 acres MS 20,000 acres Trib 100 stream miles	Fox, DuPage, Des Plaines	2.5% Peak Reduce 45k acre-ft, Auto Gates	Some System Improvement	\$ 700
Alt 4	Begin System Improvements - Tributary Focus	11% Upper Tribs 40% Peoria Tribs 4% Lower Tribs	6,100 BW acres 20 Side Channel 15 Island Protect	5,000 acres MS 20,000 acres Trib 100 stream miles	Fox, DuPage, Des Plaines, Kankakee, Spoon, Aux Sable	7.5% Peak Reduce 160k acre-ft, Auto Gates	Some System Improvement	\$ 850
Alt 5	Ecosystem Integrity Stable	11% Upper Tribs 40% Peoria Tribs 4% Lower Tribs	8,600 BW acres 30 Side Channel 15 Island Protect	40,000 acres MS 40,000 acres Trib 250 stream miles	Fox, DuPage, Des Plaines, Kankakee, Spoon, Aux Sable	7.5% Peak Reduce 160k acre-ft, Auto Gates	Some System Improvement	\$ 1,150
Alt 6	Measurable Increase at System Level	11% Upper Tribs 40% Peoria Tribs 20% Lower Tribs	12,000 BW acres 35 Side Channel 15 Island Protect	75,000 acres MS 75,000 acres Trib 500 stream miles	Fox, DuPage, Des Plaines, Kankakee, Spoon, Aux Sable	7.5% Peak Reduce 160k acre-ft, Auto Gates, Drawdown	Some System Improvement	\$ 1,750
Alt 7	Reasonable Upper Bound to System Improvements	11% Upper Tribs 40% Peoria Tribs 20% Lower Tribs	18,000 BW acres 40 Side Channel 15 Island Protect	150,000 acres MS 150,000 acres Trib 1000 stream miles	Fox, DuPage, Des Plaines, Kankakee, Spoon, Aux Sable, 3 Mainstem Dams	15% Peak Reduce 375k acre-ft, Auto Gates, Drawdown, Replace Wickets	Some System Improvement	\$ 3,400

Only rough benefits estimations are included in table, see write up for additional details.

Goal #1 - Biodiversity goal is the overarching goal and will be addressed under the other goals through prioritization and specifications on restoration measures.

Goal #2 - Sediment delivery benefits are expressed in percentage reductions in tributaries resulting from in-channel stabilization and upland practices.

Goal #3 - Backwater (BW) Benefits are expressed in acres dredged, but will benefit larger reaches. Side Channel benefits associated with increased structure and some dredging.

Goal #4 - Mainstem (MS) floodplain and riparian (trib) areas are expressed as acreages. Aquatic areas are expressed in stream miles. Data on land cover and assumptions provided in summaries.

Goal #5 - Connectivity (Fish Passage) lists reaches to be addressed (Mainstem passage is at Starved Rock, Marseilles, and Dresden Island.)

Goal #6 - Peak reductions are to the 5-year peak flow on tributaries, storage is assumed to be 1.5 acre-feet/acre, auto gates allow increase management to smooth flow releases.

drawdown would be conducted in LaGrange or Peoria pool pending further analysis.

Goal #7 - Water quality issues will be addressed through other goals. Greatest benefits likely associated with Goal #2 & 4.

Cost Estimates are for shown for an initial 10-year authorization, approximately 1/5th of the total effort anticipated. If the program shows anticipated benefits, an extension could be pursued.