

Water Supply Benefits
Phase I – Near Term Projects (0-10 Years)

	Overall Supply (Drought Year – 2005)			Additional Muni supply	Flow (Drought Year – 2005)			Flow Benefits
	TWSA (estimated or assumed)	% Proration	Carryover volume	Add'l volume supplied	April-Sept. flow @ Parker	April-Sept. flow @ Yakima Mouth	July-Oct. flow @ Umtanum	
Conservation (YRBWEP Program)	54-83 KAF increase	4-7% increase	0-30 KAF increase (estimated)	n/a	Large increase (62 KAF)	Small increase	Small decrease (6 KAF)	Improve flow in portions of Yakima River and Naches River
Municipal Conservation	To be determined	n/a	n/a	To be determined	n/a	n/a	n/a	Assume conserved water used for growth
Wymer w/Thorp Pump Station (160 KAF)	60 KAF increase	5% increase	15 KAF increase	n/a	Large increase (60 KAF)	Large increase (60 KAF)	Large decrease (210 KAF)	Improve flow in portions of Yakima River, Cle Elum River, & tributaries (Reecer, Wilson, Naneum, Cherry, and Coleman Creeks); <u>would provide improvement to north-side tributaries.</u>
Bumping Lake Enlargement (200 KAF)	66 KAF (assuming 100 KAF withdrawal, 2/3 water supply, 1/3 fish flow)	5% increase	100 KAF increase (assumed)	n/a	Increase (33 KAF) (used at discretion of fish agencies)	Increase (33 KAF) (used at discretion of fish agencies)	Small increase (assuming add'l releases from upper reservoir)	Increase flows through Bumping, Naches, and Yakima Rivers
K to K pipeline	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Improve summer flows below Keechelus (11 mi)
<u>Inactive Storage (100 KAF extracted)</u>	<u>66 KAF increase</u>	<u>5% increase</u>	<u>0 (if all water used for TWSA & flow)</u>	<u>n/a</u>	<u>Increase (33 KAF)</u>	<u>Increase (33 KAF)</u>	<u>Small increase</u>	<u>Improve flow in portions of Yakima River</u>
Wapatox	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Improve flows below Wapatox diversion (70 cfs for 7.4 mi); or below NSID diversion (1.3 additional miles)

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Roza Power subordination	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Improve spring flows below Roza Dam (50 to 300 cfs, 14.6 miles)
Chandler Power subordination	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Improve spring flows below Chandler (zero to 300 cfs, 11.3 miles)
Cle Elum 3' dam raise (assume 15 KAF)	10 KAF increase	1% increase	0 (if all water used for TWSA and flow)	n/a	Small increase (5 KAF)	Small increase (5 KAF)	Small increase	Improve flow in portions of Yakima River
KRD Main Canal/South Branch	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Improve flows in Big, Little, and/or Manastash Creeks
Enhance market transfers	0 (Redistribute 20-50 KAF to water right buyers)	0	0	n/a	No change	No change	Small increase	
Municipal ASR – City of Yakima	n/a	n/a	n/a	5-10 KAF	n/a	n/a	n/a	n/a
Ground water infiltration	20 – 50 KAF	2-4% increase	0 (if all water used for TWSA and flow)	n/a	No change or slight increase	No change	Small decrease	Small reduction in flip-flop releases, improve flow in some tribs (Wilson/Naneum), potential temperature improvements in lower Yakima,
COMBINED BENEFITS OF PHASE 1 PROJECTS	276-335 KAF increase (an additional 20-50 KAF redistributed through water marketing)	22-27% increase	115-145 KAF increase	5-10 KAF increase	Large Increase (193 KAF)	Large increase (131 KAF)	Large decrease (approx. 200 KAF)	Improve flows through Bumping River, Naches River, portions of upper and lower Yakima River, and upper Yakima tributaries