

PROJECT NUMBER	TECH. COMM.	PROJECT TITLE	Amounts in these columns may include FWS overhead, where applicable						FY 2011 COMMENTS	FY 11 Direct \$	FY 2012		FY 2013	
			FY 2011 TOTAL	FY 2011 ANN. \$	FY 2011 CAP. \$	FY 2011 O&M \$	FY 2011 SEC. 7 \$	FY 2011 OTHER \$			FY 2012 FY 2012 Program Guidance Comments	Anticipated FY 12 Cost	FY 2013 Program Guidance Comments	Anticipated FY 13 Cost
I. Instream Flow Identification and Protection														
8	WAC	Recovery Program Gage O&M (budget includes #8a)	\$177,121			\$118,373			\$58,748	\$177,121	Plus \$58K USGS & other funds.	\$118,373	Plus \$58K USGS & other funds.	\$118,373
9	WAC	Water Right Acq. Consultant	\$10,000					\$10,000			Up to \$10K Section 7 funds		Up to \$10K Section 7 funds	
19	WAC/BC	Hydrology Support	\$159,376	\$159,376						\$143,582	FY 11 shortfall will be covered with FY 10 carry-over funds. SOW revised to reflect Federal pay freeze.	\$152,409	SOW needs to reflect reality of 100% (not 90%) of hydrologist's time. Includes \$700.00 for GIS maint.	\$152,409
19-GIS	WAC/BC	GIS PIT Tag Database									-\$600 (subtract from 19 and pay w Pgm \$, not S7 funds in FY 11 if possible).		See #19	
70	WAC	Colorado Instream Flow Protection	\$20,000						\$20,000				Not Program funds, amounts TBD (est. ~\$20K)	Not Program funds, amounts TBD (est. ~\$20K)
71	WAC	Colo. R. Decision Support Sys.	\$1,000,000						\$1,000,000		MC: CRDSS increase over FY 10 is for tracking the irrigation water and completing a Colorado River water availability study with nonconsumptive water use, including flows for the fish.		Not Program funds, amounts TBD	Not Program funds, amounts TBD.
86	WAC/BC	Geomorphology Peer Review	\$10,000					\$10,000			Link sediment results with flow recommendations and biology. (Experts like Kirk LaGory, Paul von Guerard, and/or John Pitlick may be consulted.)		Up to \$10K Section 7 funds	Up to \$10K Section 7 funds
135	WAC	O&M for Ruedi Reservoir 10,825 af	\$35,733			\$35,733				\$35,733	Reduced from est. of \$39K based on FY10 ann report	\$36,000	Only goes through 2012 per the 10,825 agreement. No O&M costs anticipated in 2013 and beyond.	\$0
156	WAC/BC	<u>Aerial photography</u>								\$0			<u>Contingency: Gunn & Colo R. aerial photos in 2013 per Aspinall study plan. Bill G. says \$28-\$30K for imagery; \$84K for imagery + geo-referencing.</u>	
C-9	WAC	O&M for Elkhead releases	\$74,769			\$74,769				\$74,769	Add'l ~\$20K for diver work on fish screens in outlet towers. E-mailed Ray Tenney 12/2 re final cost. \$74,769 final cost approved by all in late March.	\$73,791	FY12 and FY13 costs will be estimated after FY10 costs finalized.	\$73,791
C-9	WAC	Elkhead lease	\$25,000			\$25,000				\$0	For lease of 500 af committed to on 5/1/10 (not used; carried forward to use by 2011)		Based on current 2011 snowpack and 500af carried from 2010 to be used in 2011, leasing additional Elkhead water in 2011 (which Program would pay for in 2012) is not currently anticipated.	Cost TBD: up to \$100K if full 2000af leased in 2012.
C-32	WAC	Ruedi Reservoir 10,825 af (capital cost)	\$735,000						\$735,000		No SOW required. Only goes through 2012 per the 10,825 agreement.	\$735K credit (not Program funds)	Only goes through 2012 per the 10,825 agreement.	
C-34	WAC/MC	OMID efficiency improvements	\$2,020,000		\$2,020,000								Reminder: need to build in \$100K for OMID O&M beginning in 2014.	
FR		Evaluate Flow Recs												
<u>FR-Sed Mon (85)</u>	WAC/BC	<u>USGS sediment monitoring</u>								\$0	<u>Based on results of SJR report in summer 2009, Recovery Program will discuss need for additional work in FY 2011 and beyond. Defer until sediment report review completed.</u>	\$0	<u>-\$65.5 - -\$84K contingency to monitor Gunnison River sediment. USGS rough estimate for traditional sediment gauging, no acoustic equipment, and data report each year (assuming 15% DOI cost-share) - \$65.5K; for acoustic equipment and interpretive report after 2nd year (assuming 40% match if funding is from a state agency like Wyoming, otherwise USGS portion will be 10-15%) - \$84K.</u>	<u>-\$68.5 - -\$67.5K contingency to monitor Gunnison River sediment. USGS rough estimate for traditional sediment gauging, no acoustic equipment, and data report each year (assuming 15% DOI cost-share) - \$68.5K; for acoustic equipment and interpretive report after 2nd year (assuming 40% match if funding is from a state agency like Wyoming, otherwise USGS portion will be 10-15%) - \$67.5K.</u>
FR-BW SYNTH	BC/WAC	Floodplain habitat vs. flow synthesis report	\$19,240	\$19,240						\$19,240	Report completion continues into FY11.	\$0		\$0

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<i>New</i>	<i>BC/WAC</i>	<i>White River Mgmt Plan & PBO</i>							<i>Defer until White R flow report complete.</i>		A White R. PBO would be similar to the Yampa, requiring a management plan then a PBO. CO roundtables may provide estimate of anticipated water development. A PBO would identify water development the Program can cover, but will need to determine mechanisms to meet flow recommendations (which will primarily describe current conditions, so PBO would address protecting existing flows). Proposed action for management plan remains uncertain and will require coordination with CO & UT. Placeholder of \$25K (S7 funds) for contractor to prepare management plan and \$5K for assistance from FWS-ES.	\$5,000	Placeholder of \$25K (S7 funds) for contractor to complete management plan and \$15K for FWS-Ecological Services to complete PBO.	\$15,000
FR-?	<i>BC</i>	Green R. floodplain investigations	\$10,000	\$10,000					Defer until floodplain synth recommendations reviewed & discussed. BC 3/2/11: Fund \$10K in FY11 as part of evaluating FG flows (need SOW).	\$10,000	<u>10K contingency: Release and monitoring of marked larval razorback suckers at the mouth of single breach wetlands to determine a larval fish's ability to access these low flow sites (Vernal-CRFP sampling, LFL identification).</u>		<u>10K contingency: Release and monitoring of marked larval razorback suckers at the mouth of single breach wetlands to determine a larval fish's ability to access these low flow sites (Vernal-CRFP sampling, LFL identification).</u>	
FR-NEW 2012	BC	Evaluation of Green River flow and temperature recommendations									<u>Contingency (cost TBD): As per Green River Study Plan, PDO compiles (or contracts to compile) conclusions and recommendations from ongoing FR-Syntheses projects, BOR, annual operations reports, and other related studies to provide an update / evaluation of anticipated effects and uncertainties associated with the Flaming Gorge flow and temperature recommendations.</u>			

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II. Habitat Restoration														
C-4bRed&GVP	BC	Redlands Selective Fish Passage Oper. (FWS)	\$76,791			\$76,791			4/5/11: Budget being revised in light of Federal pay freeze.	\$66,612		\$66,612		\$66,612
C-4bRed&GVP	BC	GVP Selective Fish Passage Oper. (FWS)	\$62,212			\$62,212			4/5/11: Budget being revised in light of Federal pay freeze.	\$51,120		\$51,120		\$51,120
C-4bRed&GVP	BC	Eval fish condition below GVP screen return	\$18,100			\$18,100			SOW being finalized.	\$18,100		\$0		\$0
C-5	MC/BC	Price-Stubb Fish Passage	\$6,000			\$6,000				\$6,000		\$6,000		\$6,000
C-23	BC	Grand Valley Project fish screen & passage O&M	\$42,000			\$42,000				\$42,000		\$42,000		\$42,000
C-28	MC/BC	Tusher Wash diversion screen												
<u>New</u>	<u>BC</u>	<u>Tusher Wash mortality investigation</u>									<u>Costs, methods TBD</u>			
C-29	MC/BC	GVIC fish screen & passage O&M	\$76,337			\$76,337			Increased from est. of \$66K with 10/1/10 receipt of FY 11 work plan from USBR.	\$66,000		\$66,000		\$66,000
C-29a	BC	Canal salvage contingency	\$34,714			\$34,714			4/5/11: Budget being revised in light of Federal pay freeze.	\$30,094		\$30,094		\$30,094
116/C-33	MC/BC	Redlands screen, passage & gage O&M	\$79,923			\$79,923			Work plan dated 10/12/10.	\$80,000		\$80,000		\$80,000
NEW 2011	BC	Maybell Ditch PIT tag array	\$52,713			\$52,713			Ditch owners amenable. \$50K (USU), no-satellite-uplink. Need SOW from Speas.	\$52,713	Costs increased over projected.	\$6,718		\$0
C-6		Floodplain Restoration Program												
EASEMENT	BC	Easement & weeds mgmt.	\$16,050			\$5,550		\$10,500	\$45K also carried over from FY10.	\$15,500	Plus \$15K non-Program FWS funding	\$50,000	Plus \$15K non-Program FWS funding	\$50,000
HYD	BC	Hydrology/geomorphology	\$5,000			\$5,000			Remove sediment from Jarvis. Defer floodplain breach evaluations until funds available	\$5,000	Also, additional capital expenditure for water control structure at Thunder Ranch?	\$5,000		\$5,000
RZ-RECR	BC	Eval. survival of young and movement of subadult RZB from floodplains into the mainstem.	\$17,579	\$17,579					11/23/10: \$5,256 report completion in SOW + \$6,241 pumping costs (BC agreed we should pump water into Stirrup before winter). Jan '11: PD approved \$6.2K increase to continue PIT tag monitoring.	\$17,579	<u>\$6.2K contingency: continue operation of remote PIT-tag detection at Stirrup</u>		<u>\$6.2K contingency: continue operation of remote PIT-tag detection at Stirrup</u>	
NEW 2012	BC	<u>Selenium toxicity in razorback sucker</u>								\$0	<u>Costs unknown at this time; seek outside funding.</u>		<u>Costs unknown at this time; seek outside funding.</u>	

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III. Reduce Nonnative Fish & Sportfish Impacts														
98a	BC	Middle Yampa smb & pike management	\$199,181	\$199,181					Post NNA workshop: Budget increased for expanded surge. Need to identify savings from not translocating SMB (almost no savings because pike are still being translocated).	\$199,181	Doesn't include expanded surge, but maybe savings from not translocating SMB will help?	\$174,817	Doesn't include expanded surge, but maybe savings from not translocating SMB will help?	\$174,817
98b	BC	Upper Yampa pike management	\$182,022	\$182,022					Budget revised to reflect Federal pay freeze.	\$163,984		\$163,984		\$163,984
110	BC	Lower Yampa bass and catfish management	\$144,630	\$144,630					Budget revised to reflect Federal pay freeze.	\$130,297	Reduce passes & budget by 20%	\$103,330	Reduce passes & budget by 20%	\$103,330
123a	BC	Green River bass management	\$200,671	\$200,671					Revised SOW Jan '11, no \$ change. FWS portion of budget reduced to reflect Federal pay freeze.	\$188,465	Reduce passes & budget by 20%	\$149,591	Reduce passes & budget by 20%	\$149,591
123b	BC	Green River bass management	\$205,734	\$205,734					Revised SOW Jan '11, no \$ change.	\$205,734	Reduce passes & budget by 20%	\$159,944	Reduce passes & budget by 20%	\$159,944
125	BC	Middle Yampa River smallmouth bass and pike management.	\$310,103	\$310,103					Post NNA workshop: Budget increased for expanded surge. Includes \$7,800 for ETS electrofishing unit & generator. 4/5/11: FWS portion of budget being reviewed in light of Federal pay freeze.	\$307,819	Doesn't include expanded surge, but maybe savings from not translocating SMB will help?	\$294,979	Doesn't include expanded surge, but maybe savings from not translocating SMB will help?	\$294,979
126	BC	Colorado River smallmouth bass removal	\$174,460	\$174,460					Revised SOW Jan '11, no \$ change. 4/5/11: Budget being revised in light of Federal pay freeze.	\$157,171	Reduce passes & budget by 20%	\$125,760	Reduce passes & budget by 20%	\$125,760
126b	BC	CDOW assistance	\$15,348	\$15,348						\$15,348	Discontinue	\$0	Discontinue	\$0
140	BC	Yampa fish response to nna mgmt	\$85,976	\$85,976						\$85,976	<u>Plus contingency: add \$24,859 for synthesis report in 2012.</u>	\$85,976		\$85,976
144	BC	Green R. fish response to nna mgmt	\$2,403	\$2,403						\$0		\$0		\$0
	BC	Colorado R. fish community response								\$0		\$0		\$0
154	BC	Duchesne R. NNA fish mgmt.									Funded by Ute Tribe		Funded by Ute Tribe	
157	BC	Weir (Duchesne)							Potential to use weir(s) to manage nonnative fishes; UDWR may seek USBR "activities to avoid jeopardy" funds.	\$0		\$0		\$0
158	BC	Green R backwater nna removal	\$104,441	\$104,441					Post NNA workshop: \$86,895 proposed mod to \$99,530 for increased number of treatment / control backwaters from 2 to 3.	\$104,441	BC 3/2/11: Pilot work should provide the necessary info by 2012 (final report prep costs included in FY 11 SOW); defer implementation.	\$0		\$0
161	BC	Programmatic synthesis of smallmouth bass removal	\$151,931	\$151,931					\$60K added to allow incorporation of 2010 data, completion of incorporation of the 2009 data, and completion of the Elkhead escapement analysis (over FY 11-12). \$60K placeholder added to initiate synthesis of Yampa R. northern pike data; pending Pgm. review and approval.	\$151,931	\$60K placeholder for northern pike synthesis.	\$60,000		\$0
C-18-19	BC	Reservoir sources of nna fish	\$64,878	\$64,878					Jan '11: BC approved add'l \$30,153 Green R. crayfish and \$3,519 Lake Powell microchemical signature; need revised SOW from Brett Johnson.	\$64,878	PD's office will develop protocol for preserving nonnative fish to determine their provenance and set up <u>mechanism for isotope analysis (contingency funds).</u>			
C-20	BC	Highline Net O&M	\$8,000					\$8,000		\$0	Replace net in 2012 or 2013 (see 2007 cost)	\$100,000		
FR-115	BC	Effects of Flaming Gorge releases on Lodore/Whirlpool Canyon fish comm.	\$86,720	\$86,720						\$84,400	Includes \$19K for smallmouth bass otolith analysis summary, 2003-2010, Green and Yampa rivers. <u>Plus contingency: add \$34,667 for synth report in 2012.</u>	\$103,400		\$84,400
	BC	Upper Yampa R. nonnative fish habitat research								\$0				
2012-2013 New	BC	<u>Trophic stable isotope analyses to assess aquatic invasive species food web/contaminant impacts.</u>								\$0	<u>Program Director's office recommends supporting work outside the Program to implement pilot trophic stable isotope analyses (tissue sampling). A massive shift in energy flow away from native species to invasive species (e.g., crayfish and smallmouth bass) is suspected (if validated, this would support the need to prevent similar ecological impacts in other parts of the basin). Part of this work should include exploring role of crayfish in mobilizing mercury into the food web (which may have negative implications for endangered fish reproduction).</u>	\$0		\$0

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IV. Propagation & Genetics Management														
29		O&M Propagation Facilities												
29a	BC	Grand Valley	\$564,776			\$562,276		\$2,500	Added \$2K for Pisces contract to analyze wild-collected razorback larvae for hybridization. FWS Bozeman FTC also provides \$2.5K in-kind services grinding/sifting razorback food. Budget revised to reflect Federal pay freeze.	\$510,816		\$508,816		\$508,816
29b	BC	Ouray	\$485,800			\$485,800				\$485,800		\$485,800		\$485,800
	BC	Ouray well-field development/repair	\$6,600			\$6,600				\$6,600		\$13,200		\$6,600
29c	BC	Wahweap	\$200,000			\$200,000				\$200,000		\$200,000		\$200,000
29d	BC	Mumma native species hatchery	\$81,900			\$81,900				\$81,900		\$81,900		\$81,900
	BC	Hatchery O&M contingency								\$0		\$0		\$0
C-7		Propagation Facilities & Equipment												
PONDS	BC	Growout pond construction	\$3,384,000		\$3,384,000				Costs still to be apportioned between Colorado River and San Juan programs?					
TAGS	BC	PIT tags & related equipment	\$120,000			\$120,000			Some PIT tags for FY11 were purchased in FY10, but Travis estimates need for \$120K more in tags & implanters.	\$120,000	PIT tag purchases over FY08-11 avg. \$170K/yr.	\$170,000		\$170,000
151	BC	Collect & maintain Gila @ Ouray NFH	\$6,906			\$6,906				\$6,222	BC to determine fate of captive Gila; if remain @ hatcheries, becomes part of O&M.	\$0	BC to determine fate of captive Gila; if remain @ hatcheries, becomes part of O&M.	\$0
C-6 BAESER	BC	Baerer Bend	\$20,946			\$20,946			Budget revised to reflect Federal pay freeze.	\$20,946	Resume stocking in 2012 after 2011 reset. Pumping costs in 2012.	\$20,000	Pumping and recovery costs in 2013.	\$35,000
V. Research, Monitoring & Data Management														
15	BC	Larval Fish Lab Identification	\$116,679			\$116,679				\$116,679		\$116,679		\$116,679
16	BC	Database Management	\$60,846			\$60,846			Cost TBD. FY 11 costs increased \$1K for support of smallmouth bass synthesis.	\$60,846		\$60,846		\$60,846
22f	BC	Yampa & middle Green CPM & RBS larval survey	\$133,372			\$133,372			FWS portion of budget revised to reflect Federal pay freeze.	\$129,492	Is funding adequate to cover sample analysis?	\$129,492		\$129,492
127	BC	Upper Colo. R. CPM est.	\$71,174			\$71,174				\$64,121		\$0	Increased FY 08 amount by 08->09 CPI	\$171,200
128	BC	Green R. CPM est.	\$405,128			\$405,128			PD: Correct budget summary. 8/18/10 BC approved budget increase for UDWR; revised SOW on web.	\$391,165	BC 3/2/11: Perhaps SMB removed as part of this minimum 3-pass per reach effort could replace some passes removed from nnf SOWs; however, this would not be factored into CPUE, so would affect synthesis.	\$391,165		\$391,165
129	BC	HBC pop est in Deso/Grey	\$65,167			\$65,167				\$65,167	Deso/Gray HBC est. resumes in 2014.	\$0	Deso/Gray HBC est. resumes in 2014.	\$0
130	BC	HBC in Cataract	\$30,607			\$30,607				\$30,607	BC 3/2/11: Suggest drop back to every-other-year CPE and don't conduct in FY12.	\$0		\$30,607
131	BC	HBC in Black Rocks	\$65,273			\$65,273			PD: Projection did not account for providing all fall 2011 funds. See comments recorded on FY 10 table. 2/11/10: May need some revisions to FY 11 SOW; need to discuss w/ Travis, Czapl, Michelle. 4/4/11: SOW revised based on Federal pay freeze.	\$59,300	Budget est. made comparable to FY09.	\$50,339		\$0
132	BC	HBC in Westwater	\$53,876			\$53,876			See comments recorded on FY 10 table.	\$53,876	See Black Rocks.	\$53,876		\$0
New	BC	<u>Understanding humpback chub population declines</u>							Cost TBD.	\$0	<u>Contingency: consider specific effort to understand humpback chub sampling program and data collected to date (Black Rocks and Westwater).</u>			
138	BC	Green R. YOY CPM monitoring	\$53,659			\$53,659			BC approved budget increase 8/18/10.	\$53,659		\$53,659		\$53,659
147	BC	Standardize electrofishing fleet	\$8,500				\$8,500			\$8,500	To be determined.			
New	BC	<u>RBS remote sensing near GR spawning bar</u>							Being tested in FY11 with Reclamation's existing floating antenna used in SJRIP.	\$0				
160	BC	Lower Green larval, juv RBS monitoring pilot study	\$27,215			\$27,215				\$27,215	Could become part of larger razorback monitoring plan.	\$27,215	Could become part of larger razorback monitoring plan.	\$27,215
New	BC	<u>Implement larval portion of RBS monitoring plan</u>	\$0			\$0			<u>Previously had \$30K placeholder here, but defer until FY 12 & 13. (Note: some work already being done in middle and lower Green).</u>	\$0	<u>Pending outcome of razorback monitoring plan</u>	\$30,000	<u>Pending outcome of razorback monitoring plan</u>	\$30,000
New	BC	<u>Bonytail monitoring plan</u>							Cost TBD.	\$0				
2012-2013 New	BC	Gunnison R fish community monitoring	\$75,000			\$75,000			From draft Aspinall study plan; pending Program review and approval of SOW.	\$75,000	Placeholder from draft Aspinall study plan; pending SOW and Program approval.	\$75,000	Placeholder from draft Aspinall study plan; pending SOW and Program approval.	\$75,000

