

Mainstem Columbia River Storage Storage Options as described in "Off-Channel Storage Assessment" Pre-appraised Report-WA State Department of Ecology & Bureau of Reclamation December 2005

Site	Map No.	Diversion Point	Storage Capacity (ac-ft)	Months of Continuous Pumping in order to fill	Pump Capacity in cfs	Wetland Inundated (in acres)	River to Reservoir (mi)	Cost per acft (Estimated)*	Infrastructure Impacts	Land Use Impacts/Land Ownership Issues	Federal Terrestrial T&E Species Impacts (E=Endangered, T=Threatened, C=Candidate for Listing)	State Terrestrial Sensitive Species Impacts (E=Endangered, T=Threatened, C=Candidate for Listing)
Ninemile Flat	2	Roosevelt Lake	1,030,000	4.0	3,900	Yes-326	0.86	\$1,410	Negligible	Colville Indian Reservation, Indian Trust Assets	No	Unlikely Fisher Listed (E)
Hawk Creek	3	Roosevelt Lake	1,550,000	4.8	4,800	Yes-50	1.00	\$1,050	Negligible	Minimal	No	Unlikely Sharp-tailed Grouse listed (T)
Goose Lake	5	Rufus Woods Lake, above Chief Joseph Dam	3,720,000	8.7	6,400	Yes-382	0.70	\$900	Negligible	Colville Indian Reservation, Indian Trust Assets	No	Unlikely
Foster Creek	6	Rufus Woods Lake, above Chief Joseph Dam	1,340,000	4.4	4,500	No NWI recorded	1.75	\$2,500	Transmission lines, state highway, local roads	Some agriculture	No	Sharp-tailed Grouse possible (T) Sage Grouse listed (T)
Mission Creek	9	Lake Entiat above Rocky Reach Dam	470,000	4.0	1,700	Yes-4	7.70	\$2,960	County highway, local roads	Extensive orchards, residence, farm structures	Northern Spotted Owl (T) habitat, one plant species (E) possible	Northern spotted owl listed (E), Loggerhead shrike (C) possible; one plant species (E) and two plant species (T) possible
Moses Coulee	10	Above Rock Island Dam	4,130,000	9.4	6,500	Yes-4	2.58	\$520	County road, local roads, abandoned RR line, abandoned historic town site	Agriculture, range land, some residences, agricultural structures	Pygmy rabbit (E) habitat; Greater Sage Grouse (C) habitat; Washington ground squirrel (C) habitat; three plant species possible	Pygmy rabbit (E) possible; Greater sage grouse listed (T); Ferruginous hawk listed (T); one (E) plant and three (C) plant species possible
Sand Hollow	12	North of Wanapum Dam near Vantage	1,230,000	4.2	4,400	Yes-69	2.38	\$890	State highway, local roads, transmission line	Extensive agriculture	Washington ground squirrel (C) habitat	Unlikely Northern leopard frog listed (E); Ferruginous hawk listed (T)
Crab Creek	13	Priest Rapids Lake above Wanapum	2,650,000	6.8	5,800	Yes-18,663	2.50	\$720	County road, transmission lines, abandoned RR line	National and State Wildlife Refuges, minor agriculture	Washington ground squirrel (C) habitat; three plant species (C) possible	Burrowing owl (C), loggerhead shrike (C), sage sparrow (C), sage thrasher (C), black-tailed jack rabbit (C) possible; one plant species (E) and five plant species (T) possible
Alder Creek	15	Lake Umatilla above John Day and below McNary	330,000	4.0	1,200	Yes-18	1.25	\$1,670	Alderdale Road, petroleum pipeline	None	Townsend's ground squirrel (C) habitat	Western gray squirrel (T), Burrowing owl (C), loggerhead shrike (C), black-tailed jack rabbit (C) and white-tailed jack rabbit (C) possible
Rock Creek East	16	Lake Umatilla above John Day and below McNary	1,000,000	4.0	3,700	Yes-32	0.58	\$1,350	Boat ramp, picnic area, access road, petroleum pipeline	None	None	Western gray squirrel listed (T); Golden eagle (C), Lewis' woodpecker (C), Western toad (C) possible
Kalama River	21	Below Bonneville Cowlitz County	1,185,000	4.1	4,300	Yes-172	6.10	\$990	Local road, transmission line	Logging	Bald Eagle (T), Northern Spotted Owl (T) habitat	Northern spotted owl (E); possible; Bald eagle listed (T)

*Costs per acre-foot are not the total costs necessary to complete a project. They do not include preparing designs and specifications, land acquisitions, regulatory compliance and permitting activities, or environmental mitigation. See p.28 of report.

Information summarized and table created by CELP, 4/2006