Taylor Creek Restoration

High-level comparison of Option Parameters - Sediment Management

	Option A	Option B1	Option B2	Option C	Option D
SCOPE					
Structure type	Small channel spanning log structures, associated timber frames, boulder clusters	Larger, machine-placed structures in hot spots, timber frames	Larger, machine-placed structures throughout ravine, timber frames	Smaller hand-placed structures throughout ravine, smaller timber frames (less frequent than Opt. A)	Hybrid, large machine-placed structures in lower ravine, smaller machine-placed structures in the middle, small hand placed in upper
Construction method	Spider excavator mobilized up channel	Spider excavator mobilized up channel and assembled equipment	Spider excavator mobilized up channel and assembled equipment	Hand labor	Spider excavator mobilized up channel; hand installation
Material Delivery/Access	ATV up existing trail, cables/highlines, winches and hoists	Helicopter delivery to staging areas in ravine, use of Lakeridge Playfield	Helicopter delivery to staging areas in ravine, use of Lakeridge Playfield	ATV up existing trail, cables/highlines, winches and hoists	Partial access road, ATV up existing trail, highline, winches and hoists

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	Option A	Option B1	Option B2	Option C	Option D
LIFECYCLE INVESTMENTS					
Construction risk	**Medium**	**Very High**	**Very High**	**Low**	**Medium**
Adaptive management required to achieve desired performance	20 years of monitoring and six rounds of hand placed maintenance OR **10 years of monitoring and three rounds of hand placed maintenance and then small capital project**	5 years of monitoring with three rounds of hand-placed maintenance	5 years of monitoring with three rounds of hand-placed maintenance	50 years of monitoring and annual hand placed maintenance efforts OR **10 years of monitoring and annual hand placed maintenance and then small capital project**	50 years of monitoring and annual hand placed maintenance efforts OR **10 years of monitoring and annual hand placed maintenance and then small capital project**
Future O&M and capital cost*	$250K/maintenance effort **$5M for in-canyon capital project**	$100K/maintenance effort	$170K/maintenance effort	$100K/maintenance effort **$5-10M for in-canyon and downstream sediment removal capital project**	$50K/maintenance effort **$5-10M for in-canyon and downstream sediment removal capital project**

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	Option A	Option B1	Option B2	Option C	Option D
CONSTRUCTION IMPACTS IN CANYON AND PLAYFIELD					
Fish passage predictability	85%	80%	75%	95%	90%
Restored creek (ft)	2,100	2,050	3,250	3,250	3,000
Trail rehab (ft)	2,220	0	0	2,870	2,870
Access Road	No	No	No	No	Yes
Tree removal greater than 6” dia.	0	0	0	0	42
Other tree impacts	Limited. Some incidental damage to trees smaller than 6” dia.	Blowdown risk and helicopter swing damage risk	Blowdown risk and helicopter swing damage risk	Limited. Some incidental damage to trees smaller than 6” dia.	Tree removals smaller than 6” in diameter; hazard tree impacts not yet quantified but will be required.
Wetland impacts (sq ft)	750	0	0	750	3,000

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High-level comparison of Option Parameters - Sediment Management

	Option A	Option B1	Option B2	Option C	Option D
CONSTRUCTION IMPACTS IN CANYON AND PLAYFIELD (continued)					
Construction duration/impacts in Canyon	Closed for 2-3 fish windows (June-September)	Closed for 2 fish windows (June-September)	Closed for 3-4 fish windows (June-September)	Closed for 2 fish windows (June-September)	Closed for 2 fish windows (June-September)
Other construction impacts to community and parks		Assume 6-week closure of Playfield for staging and restoration and 3-week resident relocation (4 homes)	Assume 8-week closure of Playfield for staging and restoration and 4-week resident relocation (4 homes)		

*O&M costs could vary widely depending on the frequency and severity of storms and landslide events. Severe landslide events are not covered. This table provides an estimated frequency of O&M efforts for the sake of comparing options.

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