

Table 1: Road Relocation Option Summary

Option	Length (feet)	Maximum Grade	Direct Wetland Impact (acres)	Indirect Wetland Impact (acres)	Floodplain Reconnected (acres)	Cost*
1	9804	1.76%	4.54	4.06	68.4	\$11,095,943
2	8800	3.85%	1.45	0	75.55	\$12,960,382
3	7350	4.00%	2	3.5	71.5	\$12,163,134
4	9996	4.00%	2.3	0	74.7	\$10,543,990
5	9950	4.00%	0	0	77	\$12,892,300
6	13300	4.01%	0	0	77	\$22,012,805

\*See cost estimates for more complete information

Table 2: SR207 MP 0.2 to MP 2.0 Realignment at Nason Creek - Option 1 Cost Estimate

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNITS	ESTIMATED UNIT COST	ITEM COST
1	MOBILIZATION (8% OF CONSTRUCTION ITEMS SUBTOTAL)	LUMP SUM	L.S.	381,214	381,214
2	SPCC PLAN	LUMP SUM	L.S.	2,500	2,500
3	ESC LEAD	200.00	DAY	200	40,000
4	EROSION / WATER POLLUTION CONTROL (1% CONST. SUBTOTAL)	LUMP SUM	L.S.	47,180	47,180
5	SILT FENCE	8,000.00	L.F.	4	32,000
6	HIGH VISIBILITY CONSTRUCTION FENCE	16,000.00	L.F.	4	64,000
7	CLEARING AND GRUBBING	15.00	ACRE	2,500	37,500
8	EXCAVATION HAULED OFF-SITE (NEW ROADWAY)	65,900.00	C.Y.	20	1,318,000
9	EXCAVATION USED AS FILL ON-SITE (NEW ROADWAY)	44,400.00	C.Y.	6	266,400
10	EXCAVATION HAULED OFF-SITE (EXISTING ROADWAY)	50,000.00	C.Y.	20	1,000,000
11	CULVERT PIPE, 24" DIAMETER	400.00	L.F.	75	30,000
12	CULVERT PIPE, 144" DIAMETER	200.00	L.F.	600	120,000
13	CRUSHED SURFACING BASE COURSE	18,000.00	TON	25	450,000
14	ASPHALT (HMA CL. 1/2 IN. PG 64-22)	8,500.00	TON	90	765,000
15	WEATHERING STEEL BEAM GUARDRAIL TYPE 31	4000.00	L.F.	35	140,000
16	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	8.00	EACH	2,700	21,600
17	PAINT LINE	28,000.00	L.F.	2	56,000
18	SEEDING, FERTILIZING, AND MULCHING	8.00	ACRE	2,000	16,000
19	PLANT SELECTION (VARIOUS SPECIES), #1 CONT., 12" HT. MIN	10,000.00	EACH	14	140,000
20	LIVE STAKE	2,000.00	EACH	8	16,000
21	FINE COMPOST	3,200.00	C.Y.	40	128,000
22	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	L.S.	20,000	20,000
23	SURVEYING	LUMP SUM	L.S.	50,000	50,000
24	MINOR CHANGE	5,000.00	DOLLAR	1	5,000

Construction Total = \$5,146,394

Utilities: Chelan County PUD Pole &amp; Line Relocation = \$1,250,000

Utilities: Sprint Fiber Optic Relocation = \$200,000

Utilities: BPA Tower Relocation (1 tower) = \$500,000

Right of Way = \$500,000

Contingencies @ 20% of Construction = \$1,029,279

Geotech Investigation @ 3% of Construction = \$154,392

Design and Construction Administration @ 25% of Construction = \$1,286,599

NEPA &amp; Permits @ 20% of Construction = \$1,029,279

Project Total (in year 2011 dollars) = \$11,095,943

Assuming Inflation @ 4%

Project Total (in year 2016 dollars) = \$13,500,433

Project Total (in year 2021 dollars) = \$16,424,214

Table 3: SR207 MP 0.2 to MP 2.0 Realignment at Nason Creek - Option 2 Cost Estimate

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNITS	ESTIMATED UNIT COST	ITEM COST
1	MOBILIZATION (8% OF CONSTRUCTION ITEMS SUBTOTAL)	LUMP SUM	L.S.	485,467	485,467
2	SPCC PLAN	LUMP SUM	L.S.	2,500	2,500
3	ESC LEAD	200.00	DAY	200	40,000
4	EROSION / WATER POLLUTION CONTROL (1% CONST. SUBTOTAL)	LUMP SUM	L.S.	60,083	60,083
5	SILT FENCE	8,000.00	L.F.	4	32,000
6	HIGH VISIBILITY CONSTRUCTION FENCE	16,000.00	L.F.	4	64,000
7	CLEARING AND GRUBBING	15.90	ACRE	2,500	39,750
8	EXCAVATION HAULED OFF-SITE (NEW ROADWAY)	124,100.00	C.Y.	20	2,482,000
9	EXCAVATION USED AS FILL ON-SITE (NEW ROADWAY)	60,300.00	C.Y.	6	361,800
10	EXCAVATION HAULED OFF-SITE (EXISTING ROADWAY)	50,000.00	C.Y.	20	1,000,000
11	CULVERT PIPE, 24" DIAMETER	400.00	L.F.	75	30,000
12	CULVERT PIPE, 144" DIAMETER	200.00	L.F.	600	120,000
13	CRUSHED SURFACING BASE COURSE	18,000.00	TON	25	450,000
14	ASPHALT (HMA CL. 1/2 IN. PG 64-22)	8,500.00	TON	90	765,000
15	WEATHERING STEEL BEAM GUARDRAIL TYPE 31	4000.00	L.F.	35	140,000
16	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	8.00	EACH	2,700	21,600
17	PAINT LINE	28,000.00	L.F.	2	56,000
18	SEEDING, FERTILIZING, AND MULCHING	8.90	ACRE	2,000	17,800
19	PLANT SELECTION (VARIOUS SPECIES), #1 CONT., 12" HT. MIN	11,000.00	EACH	14	154,000
20	LIVE STAKE	2,000.00	EACH	8	16,000
21	FINE COMPOST	3,520.00	C.Y.	40	140,800
22	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	L.S.	20,000	20,000
23	SURVEYING	LUMP SUM	L.S.	50,000	50,000
24	MINOR CHANGE	5,000.00	DOLLAR	1	5,000

Construction Total = \$6,553,799

Utilities: Chelan County PUD Pole &amp; Line Relocation = \$1,250,000

Utilities: Sprint Fiber Optic Relocation = \$200,000

Right of Way = \$500,000

Contingencies @ 20% of Construction = \$1,310,760

Geotech Investigation @ 3% of Construction = \$196,614

Design and Construction Administration @ 25% of Construction = \$1,638,450

NEPA &amp; Permits @ 20% of Construction = \$1,310,760

Project Total (in year 2011 dollars) = \$12,960,382

Assuming Inflation @ 4%

Project Total (in year 2016 dollars) = \$15,768,897

Project Total (in year 2021 dollars) = \$19,183,958

Table 4: SR207 MP 0.2 to MP 2.0 Realignment at Nason Creek - Option 3 Cost Estimate

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNITS	ESTIMATED UNIT COST	ITEM COST
1	MOBILIZATION (8% OF CONSTRUCTION ITEMS SUBTOTAL)	LUMP SUM	L.S.	450,315	450,315
2	SPCC PLAN	LUMP SUM	L.S.	2,500	2,500
3	ESC LEAD	200.00	DAY	200	40,000
4	EROSION / WATER POLLUTION CONTROL (1% CONST. SUBTOTAL)	LUMP SUM	L.S.	55,732	55,732
5	SILT FENCE	8,000.00	L.F.	4	32,000
6	HIGH VISIBILITY CONSTRUCTION FENCE	16,000.00	L.F.	4	64,000
7	CLEARING AND GRUBBING	13.80	ACRE	2,500	34,500
8	EXCAVATION HAULED OFF-SITE (NEW ROADWAY)	108,100.00	C.Y.	20	2,162,000
9	EXCAVATION USED AS FILL ON-SITE (NEW ROADWAY)	54,000.00	C.Y.	6	324,000
10	EXCAVATION HAULED OFF-SITE (EXISTING ROADWAY)	50,000.00	C.Y.	20	1,000,000
11	CULVERT PIPE, 24" DIAMETER	400.00	L.F.	75	30,000
12	CULVERT PIPE, 144" DIAMETER	200.00	L.F.	600	120,000
13	CRUSHED SURFACING BASE COURSE	18,000.00	TON	25	450,000
14	ASPHALT (HMA CL. 1/2 IN. PG 64-22)	8,500.00	TON	90	765,000
15	WEATHERING STEEL BEAM GUARDRAIL TYPE 31	4000.00	L.F.	35	140,000
16	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	8.00	EACH	2,700	21,600
17	PAINT LINE	28,000.00	L.F.	2	56,000
18	SEEDING, FERTILIZING, AND MULCHING	6.80	ACRE	2,000	13,600
19	PLANT SELECTION (VARIOUS SPECIES), #1 CONT., 12" HT. MIN	8,500.00	EACH	14	119,000
20	LIVE STAKE	2,000.00	EACH	8	16,000
21	FINE COMPOST	2,700.00	C.Y.	40	108,000
22	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	L.S.	20,000	20,000
23	SURVEYING	LUMP SUM	L.S.	50,000	50,000
24	MINOR CHANGE	5,000.00	DOLLAR	1	5,000

Construction Total = \$6,079,247

Utilities: Chelan County PUD Pole &amp; Line Relocation = \$1,250,000

Utilities: Sprint Fiber Optic Relocation = \$200,000

Right of Way = \$500,000

Contingencies @ 20% of Construction = \$1,215,849

Geotech Investigation @ 3% of Construction = \$182,377

Design and Construction Administration @ 25% of Construction = \$1,519,812

NEPA &amp; Permits @ 20% of Construction = \$1,215,849

Project Total (in year 2011 dollars) = \$12,163,134

Assuming Inflation @ 4%

Project Total (in year 2016 dollars) = \$14,798,885

Project Total (in year 2021 dollars) = \$18,003,871

Table 5: SR207 MP 0.2 to MP 2.0 Realignment at Nason Creek - Option 4 Cost Estimate

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNITS	ESTIMATED UNIT COST	ITEM COST
1	MOBILIZATION (8% OF CONSTRUCTION ITEMS SUBTOTAL)	LUMP SUM	L.S.	378,924	378,924
2	SPCC PLAN	LUMP SUM	L.S.	2,500	2,500
3	ESC LEAD	200.00	DAY	200	40,000
4	EROSION / WATER POLLUTION CONTROL (1% CONST. SUBTOTAL)	LUMP SUM	L.S.	46,897	46,897
5	SILT FENCE	8,000.00	L.F.	4	32,000
6	HIGH VISIBILITY CONSTRUCTION FENCE	16,000.00	L.F.	4	64,000
7	CLEARING AND GRUBBING	19.90	ACRE	2,500	49,750
8	EXCAVATION USED AS FILL ON-SITE (NEW ROADWAY)	169,500.00	C.Y.	6	1,017,000
9	EMBANKMENT FILL IMPORTED TO SITE (NEW ROADWAY)	9,800.00	C.Y.	30	294,000
10	EXCAVATION HAULED OFF-SITE (EXISTING ROADWAY)	50,000.00	C.Y.	20	1,000,000
11	CULVERT PIPE, 24" DIAMETER	400.00	L.F.	75	30,000
12	CULVERT PIPE, 144" DIAMETER	200.00	L.F.	600	120,000
13	CRUSHED SURFACING BASE COURSE	18,900.00	TON	25	472,500
14	ASPHALT (HMA CL. 1/2 IN. PG 64-22)	8,950.00	TON	90	805,500
15	WEATHERING STEEL BEAM GUARDRAIL TYPE 31	4000.00	L.F.	35	140,000
16	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	8.00	EACH	2,700	21,600
17	PAINT LINE	28,000.00	L.F.	2	56,000
18	SEEDING, FERTILIZING, AND MULCHING	12.90	ACRE	2,000	25,800
19	PLANT SELECTION (VARIOUS SPECIES), #1 CONT., 12" HT. MIN	16,000.00	EACH	14	224,000
20	LIVE STAKE	2,000.00	EACH	8	16,000
21	FINE COMPOST	5,100.00	C.Y.	40	204,000
22	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	L.S.	20,000	20,000
23	SURVEYING	LUMP SUM	L.S.	50,000	50,000
24	MINOR CHANGE	5,000.00	DOLLAR	1	5,000

Construction Total = \$5,115,470

Utilities: Chelan County PUD Pole &amp; Line Relocation = \$1,250,000

Utilities: Sprint Fiber Optic Relocation = \$200,000

Right of Way = \$500,000

Contingencies @ 20% of Construction = \$1,023,094

Geotech Investigation @ 3% of Construction = \$153,464

Design and Construction Administration @ 25% of Construction = \$1,278,868

NEPA &amp; Permits @ 20% of Construction = \$1,023,094

Project Total (in year 2011 dollars) = \$10,543,990

Assuming Inflation @ 4%

Project Total (in year 2016 dollars) = \$12,828,873

Project Total (in year 2021 dollars) = \$15,607,214

Table 6: SR207 MP 0.2 to MP 2.0 Realignment at Nason Creek - Option 5 Cost Estimate

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNITS	ESTIMATED UNIT COST	ITEM COST
1	MOBILIZATION (8% OF CONSTRUCTION ITEMS SUBTOTAL)	LUMP SUM	L.S.	466,592	466,592
2	SPCC PLAN	LUMP SUM	L.S.	2,500	2,500
3	ESC LEAD	200.00	DAY	200	40,000
4	EROSION / WATER POLLUTION CONTROL (1% CONST. SUBTOTAL)	LUMP SUM	L.S.	57,747	57,747
5	SILT FENCE	8,650.00	L.F.	4	34,600
6	HIGH VISIBILITY CONSTRUCTION FENCE	17,300.00	L.F.	4	69,200
7	CLEARING AND GRUBBING	27.30	ACRE	2,500	68,250
8	EXCAVATION USED AS FILL ON-SITE (NEW ROADWAY)	275,800.00	C.Y.	6	1,654,800
9	EMBANKMENT FILL IMPORTED TO SITE (NEW ROADWAY)	15,500.00	C.Y.	30	465,000
10	EXCAVATION HAULED OFF-SITE (EXISTING ROADWAY)	50,000.00	C.Y.	20	1,000,000
11	CULVERT PIPE, 24" DIAMETER	500.00	L.F.	75	37,500
12	CRUSHED SURFACING BASE COURSE	19,500.00	TON	25	487,500
13	ASPHALT (HMA CL. 1/2 IN. PG 64-22)	9,200.00	TON	90	828,000
14	WEATHERING STEEL BEAM GUARDRAIL TYPE 31	4300.00	L.F.	35	150,500
15	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	8.00	EACH	2,700	21,600
16	PAINT LINE	30,000.00	L.F.	2	60,000
17	SEEDING, FERTILIZING, AND MULCHING	20.10	ACRE	2,000	40,200
18	PLANT SELECTION (VARIOUS SPECIES), #1 CONT., 12" HT. MIN	28,000.00	EACH	14	392,000
19	LIVE STAKE	3,000.00	EACH	8	24,000
20	FINE COMPOST	8,100.00	C.Y.	40	324,000
21	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	L.S.	20,000	20,000
22	SURVEYING	LUMP SUM	L.S.	50,000	50,000
23	MINOR CHANGE	5,000.00	DOLLAR	1	5,000

Construction Total = \$6,298,988

Utilities: Chelan County PUD Pole &amp; Line Relocation = \$1,500,000

Utilities: Sprint Fiber Optic Relocation = \$210,000

Right of Way = \$600,000

Contingencies @ 20% of Construction = \$1,259,798

Geotech Investigation @ 3% of Construction = \$188,970

Design and Construction Administration @ 25% of Construction = \$1,574,747

NEPA &amp; Permits @ 20% of Construction = \$1,259,798

Project Total (in year 2011 dollars) = \$12,892,300

Assuming Inflation @ 4%

Project Total (in year 2016 dollars) = \$15,686,062

Project Total (in year 2021 dollars) = \$19,083,183

Table 7: SR207 MP 0.2 to MP 2.0 Realignment at Nason Creek - Option 6 Cost Estimate

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNITS	ESTIMATED UNIT COST	ITEM COST
1	MOBILIZATION (8% OF CONSTRUCTION ITEMS SUBTOTAL)	LUMP SUM	L.S.	842,275	842,275
2	SPCC PLAN	LUMP SUM	L.S.	2,500	2,500
3	ESC LEAD	250.00	DAY	200	50,000
4	EROSION / WATER POLLUTION CONTROL (1% CONST. SUBTOTAL)	LUMP SUM	L.S.	104,242	104,242
5	SILT FENCE	13,550.00	L.F.	4	54,200
6	HIGH VISIBILITY CONSTRUCTION FENCE	27,100.00	L.F.	4	108,400
7	CLEARING AND GRUBBING	38.00	ACRE	2,500	95,000
8	EXCAVATION USED AS FILL ON-SITE (NEW ROADWAY)	379,300.00	C.Y.	6	2,275,800
9	EMBANKMENT FILL IMPORTED TO SITE (NEW ROADWAY)	58,300.00	C.Y.	30	1,749,000
10	EXCAVATION HAULED OFF-SITE (EXISTING ROADWAY)	50,000.00	C.Y.	20	1,000,000
11	CULVERT PIPE, 24" DIAMETER	800.00	L.F.	75	60,000
12	BRIDGE (200' TOTAL SPAN AT DEBRIS CHUTE)	LUMP SUM	L.S.	1,720,000	1,720,000
13	CRUSHED SURFACING BASE COURSE	30,500.00	TON	25	762,500
14	ASPHALT (HMA CL. 1/2 IN. PG 64-22)	14,400.00	TON	90	1,296,000
15	WEATHERING STEEL BEAM GUARDRAIL TYPE 31	6800.00	L.F.	35	238,000
16	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	10.00	EACH	2,700	27,000
17	PAINT LINE	47,500.00	L.F.	2	95,000
18	SEEDING, FERTILIZING, AND MULCHING	26.80	ACRE	2,000	53,600
19	PLANT SELECTION (VARIOUS SPECIES), #1 CONT., 12" HT. MIN	35,800.00	EACH	14	501,200
20	LIVE STAKE	4,000.00	EACH	8	32,000
21	FINE COMPOST	5,100.00	C.Y.	40	204,000
22	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	L.S.	20,000	20,000
23	SURVEYING	LUMP SUM	L.S.	75,000	75,000
24	MINOR CHANGE	5,000.00	DOLLAR	1	5,000

Construction Total = \$11,370,717

Utilities: Chelan County PUD Pole &amp; Line Relocation = \$2,100,000

Utilities: Sprint Fiber Optic Relocation = \$310,000

Right of Way = \$500,000

Contingencies @ 20% of Construction = \$2,274,143

Geotech Investigation @ 3% of Construction = \$341,122

Design and Construction Administration @ 25% of Construction = \$2,842,679

NEPA &amp; Permits @ 20% of Construction = \$2,274,143

Project Total (in year 2011 dollars) = \$22,012,805

Assuming Inflation @ 4%

Project Total (in year 2016 dollars) = \$26,782,980

Project Total (in year 2021 dollars) = \$32,583,354

**Table 8: A comparison of channel bed shear as calculated near RM 4.55. Note that installation of culverts or bridges results in very small changes in shear forces (velocity) against the SR 207 prism.**

Location	Flow	Average Bed Shear (lbs/sq ft) in Main Channel		
		Existing Conditions	10' diameter or 30' box culvert	200' Bridges
Midpoint of Riprap near RM 4.55	May/June Typ.	0.3	0.3	0.3
	2yr Peak	1.3	1.3	1.3
	100yr Peak	3.2	3.1	3.0



**Table 9: Summary of Community Involvement, Stakeholder, and Technical Review for the development of the 6 Alternatives in 2010.**

Meeting	Date	Attendees/Notes
Wenatchee Habitat Sub-committee	Monthly April-Sept, November presentation	Monthly project status updates have been provided to the Wenatchee Watershed Action Team which consists of agency staff, interested public, and watershed planning unit members. At the November 17 meeting, the results of the alternatives analysis were presented and attendees were asked to provide comments on the alternatives.
WA Dept. of Transportation	May 6, October 6, December 1 and 22	Meetings with WSDOT regional planners and maintenance staff have indicated that WSDOT would support any of the draft alternatives, however, they do not have funds (or unfunded staff time) to contribute towards this project.
US Forest Service	May 4, May 15, October 4, January 6	Meetings with USFS staff have indicated that the USFS Nason Creek watershed action plan identifies restoration of stream processes as the highest priority. Therefore, USFS supports the road re-location (Alternative 1). USFS can seek funds for project development and permitting, however, they would need project partners to provide financial support for project construction.
Design Team	June 15	Provided a detailed project overview to agency staff and potential future funders including WA Dept. of Fish and Wildlife, Yakama Nation, Upper Columbia Salmon Recovery Board, US Bureau of Reclamation, and US Fish and Wildlife Service
Longview Timber	June 22	Met with Steve Tift, Longview Timber who expressed support for the project, however, the County GIS layer property boundaries are incorrect. Longview only owns the land west of Nason Creek and SR 207. Depending upon the final design plans and staging area locations, they may not be a landowner within the project area.
Salmon Recovery Funding Board (SRFB) Project Tour	June 23	SRFB review panel members, Regional Technical Review Team members, and Citizens Advisory Committee members visited the site and expressed interest in consideration of one additional project alternative, SR 207 relocation. This design alternative will be added to the alternatives analysis for consideration.
Regional Technical Team	July 7, December 17, January 12	July 7 presentation included a project overview and Q/A session with the SRFB review panel members and Regional Technical Team members. Written feedback from both groups indicated that the downstream connection or road relocation will likely be the recommended alternatives. On December 8, RTT members were provided a summary of project alternatives for review and the results of the alternatives analysis were presented on January 12.
Salmon Recovery Funding Board Review Panel	July and October	SRFB provided the following review comments: While relocating Highway 207 may be the ideal alternative from a fish habitat perspective, it is hard to imagine this alternative being considered in the near future.

**Table 10. Summary of Community Involvement, Stakeholder, and Technical Review for the development of the SR 207 Nason Creek Alternatives Analysis**

Meeting	Date	Attendees/Notes
Wenatchee Habitat Sub-committee	Monthly updates, August presentation	Monthly project status updates have been provided to the Wenatchee Watershed Action Team which consists of agency staff, interested public, and watershed planning unit members. At the August 17 meeting, the SR 207 relocation alternatives were presented.
WA Dept. of Transportation	April 22, June 15 and 29, Sept 6 and 12, March 26	The 2011 office and field meetings with WSDOT regional planners and engineers, Olympia CED office, and maintenance staff have focused on review of the SR 207 relocation options since 2010 meetings covered review of the other 5 alternatives. WSDOT prefers alternatives 1 – 4 due to the steeper slopes and possible avalanche hazards associated with alternatives 5 and 6. WSDOT does not have funding to contribute towards this project.
US Forest Service	April 1 and 22, June 9, 15, and 29, Sept 12 and 15, October 4	USFS owns the majority of the land for the SR 207 relocation alternative. Therefore, office and field meetings with USFS staff focused on reviewing the SR 207 relocation options to determine whether or not this alternative would be consistent with forest plan documents and designations. USFS has indicated that restoring natural stream processes in Nason Creek is a high priority for this watershed. Thus, the USFS Wenatchee River Ranger District supports working collaboratively with other stakeholders to explore in greater detail options for relocation of HWY 207.
BPA	Sept. 27 memo and October 13 meeting	Coordination with BPA engineering department has been to evaluate the construction feasibility of the SR 207 relocation options. On October 13, CCNRD provided a detailed project update to BPA fish and wildlife staff who funded the SR 207 feasibility study as part of the CCNRD-BPA Wenatchee habitat complexity contract.
CPUD	June 29	A June 29 <sup>th</sup> meeting with CPUD, USFS, and WSDOT staff discussed utility lines within the SR 207 alignment
Private Landowners	March 25, April 12, 19, 28, May 7, June 10, 16, 23 and 24, July 26, October 26	These dates represent phone calls, emails, letters, meetings, and/or field visits with private landowners in the project area and community members in the Nason Creek watershed. Future correspondence with landowners and the community will be necessary to select a preferred alternative.
Regional Technical Team	January 12 and September 14, 2011 and April 11, 2012	The results of the 2010 alternatives analysis were presented on January 12, 2011. The RTT voted to further investigate the feasibility of the SR 207 relocation. On September 14, RTT was updated on the project status with the road relocation alternative alignments and they provided feedback on how to analyze the biological benefit of this project. RTT will review the biological benefit analysis to determine if there is sufficient benefit to support the costs of SR 207 re-alignment.

**Table 11: Alternatives Evaluation Summary Criteria**

Evaluation Criteria		*	**	***
1. Design Standards and Maintenance				
	Does the project meet AASHTO design standards?	No		Yes
	Grade Changes	Large elevation gain		Little to no elevation gain
	Avalanche bypass structures	One or more		None
	Maintenance			
	Future maintenance cost	High or increased costs	Similar to existing levels	Will decrease the level of future maintenance costs
	Future maintenance impacts to fish habitat	Future maintenance will impact or degrade fish habitat	Future maintenance actions will have little to no impact or neutral impact to fish habitat	This action will reduce future maintenance impacts to fish habitat
	Potential for erosion of road prism	Stream flow velocities, and resulting erosion, will continue and likely increase causing further damage to the road prism		This alternative will reduce stream flow velocities against the road prism
	Constructability			
	Utility relocation (cost considered under cost)	May not be feasible; awaiting BPA response re. moving towers	Likely feasible, however, details need to be worked out with CPUD, Frontier, and Sprint	Not required
	Detour	Detour route undetermined and may have high temporary wetland/floodplain impacts	Temporary (a few days) road closure	Detour would not be required for construction
2. Cost		High > 5million	Moderate 1 - 5 million	Low < 1 million
3. Natural Environment				
	Biological benefit to fish habitat	Negative impacts to fish	Neutral	Improves fish habitat
	Wetland/floodplain impacts	High > 2 acres	Moderate 1 - 2 acres	Minimal < 1 acre
	Floodplain connectivity	Does not reconnect hydrologic or stream channel migration processes	Reconnects hydrologic connection to 13 acres of floodplain	Reconnects natural stream channel migration processes by reconnecting over 70 acres of floodplain
4. Meets Project Objectives				
	Travel safety	May not be safe for the traveling public	Does not meet AASHTO design standards	Meets AASHTO design standards
	Reduce current and future road maintenance impacts to fish habitat	Existing and future maintenance actions will continue to degrade fish habitat	Reduces stream flow velocity against the road prism but locks the mainstem in its current alignment	Reduces stream flow velocity against the road prism by removing the road from the floodplain
	Restoration of natural stream channel processes (floodplain connectivity)	Existing road alignment disconnects Nason Creek from 77 acres of adjacent floodplain which causes channel incision, reduced large wood accumulation, increased flow velocity, reduced channel sinuosity, and reduced instream habitat complexity/diversity	Maintains some channel sinuosity and/or reconnects some of the floodplain hydrology	Reduces stream flow velocity against the road prism by removing the road from the floodplain
5. Landowner Willingness				
	Public (USFS, WSDOT)	This alternative is not likely to be supported by the landowner(s) impacted	To be determined	Remains to be determined, however, preliminary contact indicates that this alternative is likely feasible with mitigation
	Private	This alternative is not likely to be supported by the landowner(s) impacted	To be determined	Remains to be determined, however, preliminary contact indicates that this alternative is likely feasible with mitigation

**Table 12: Alternatives Evaluation Summary of Project Alternatives**

Evaluation Criteria		Road Relocation	Causeway	Bridges	Culverts	ELJ's	No Action
1. Design Standards and Maintenance							
	Does the project meet AASHTO design safety standards <sup>1</sup>	***	***	***	***	***	N/A
	Grade	Varies	***	***	***	***	***
	Avalanche bypass structures	Varies	***	***	***	***	***
	Maintenance						
	Future maintenance cost	*	*	**	**	**	***
	Future maintenance impacts to fish habitat	***	**	**	**	**	*
	Potential for erosion of road prism	Varies	**	**	**	***	*
	Constructability						
	Utility relocation	Varies	?	***	***	***	***
	Detour	***	*	**	**	***	N/A
2. Cost		*	*	**	***	***	***
3. Natural Environment							
	Biological benefit to fish habitat	***	**	**	**	**	*
	Wetland/floodplain impacts	Varies	***	***	***	***	***
	Floodplain connectivity	***	**	**	**	*	*
4. Meets Project Objectives							
	Travel safety	***	***	***	***	***	**
	Reduce current and future road maintenance impacts to fish habitat	Varies	**	*	*	***	*
	Restoration of natural stream channel processes (floodplain connectivity)	***	**	**	**	**	*
5. Landowner Willingness							
	Public	Varies	*	**	**	**	***
	Private	Varies	N/A	N/A	N/A	N/A	***

<sup>1</sup>Preliminary design meets AASHTO standards, thus, it is anticipated that final design would or could also meet those standards

**Table 13: Alternatives Evaluation Summary Road Relocation Options**

Evaluation Criteria		Road Relocation Options					
		1	2	3	4	5	6
Design Standards and Maintenance							
	Does the project meet AASHTO design safety standards	***	***	***	***	***	***
	Grade Changes	***	***	**	**	*	*
	Avalanche bypass structures	***	***	***	***	*	*
Maintenance							
	Future maintenance cost						
	Future maintenance impacts to fish habitat	*	*	**	**	***	***
	Potential for erosion of road prism	*	*	*	*	***	***
Constructability							
	Utility relocation	*	**	**	**	**	**
	Detour	***	***	***	***	***	***
Cost		*	*	*	*	*	*
Natural Environment							
	Biological benefit to fish habitat	**	**	**	**	***	***
	Wetland/floodplain impacts	*	*	**	**	***	***
	Floodplain connectivity	***	***	***	***	***	***
Meets Project Objectives							
	Travel safety	***	***	***	***	***	***
	Reduce current and future road maintenance impacts to fish habitat	***	***	***	***	***	***
	Restoration of natural stream channel processes (floodplain connectivity)	***	***	***	***	***	***
Landowner Willingness							
	Public USFS	*	*	**	**	***	***
	Public WSDOT	***	***	**	**	**	**
	Private	**	**	**	**	**	***