STREAM SUMMARY PLATES REPRESENTATIVE PHOTOS

Bauer Brook

Segment(s): 1 - 4

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Ditch		588	Run	0.0	0	Unknown	Ditched trough fields; Bottom of Segment with Pacific willow canopy - opening up through paddock and field
2.0	Ditch		238	Run	1.5	0	Unknown	Ditched along Moyer Road
3.0	Ditch		524	Run	1.0	1-20%	Unknown	Ditched through fields; Bottom of Segment with Pacific willow canopy - opening up through paddock and field
4.0	Modified		549	Riffle/Pool	9.0	>90%	Unknown	Small stream channel through very dense willow riparian gully

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	0	100	0	0	0	0	0.45	1.00	0.05	0.10	
2.0	0	90	10	0	0	0	0.40	1.10	0.06	0.15	Gravels greater than 50% embedded in fines
3.0	0	100	0	0	0	0	0.45	1.00	0.05	0.10	
4.0	0	100	0	0	0	0	0.50	1.40	0.04	0.10	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]							
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	
2.0	100	0	0	100	0	0	0	0	Dense instream vegetation cover by Reed canary grass and northern watercress
3.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
4.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Herbs/grasses	Agriculture	Grass / Herb	<5%	No	No	High	Bottom 50m treed canopy of mature pacific willow
2.0	High Impervious	Urban_Residential	Grass / Herb	<5%	No	No	Medium	
3.0	Herbs/grasses	Agriculture	Grass / Herb	<5%	No	No	High	Bottom 50m treed canopy of mature pacific willow
4.0	Broadleaf forest	Disturbed	young forest	67-100%	<5	No	High	Pacific willow and Manitoba maple form very dense canopy with little to no understorey vegetation

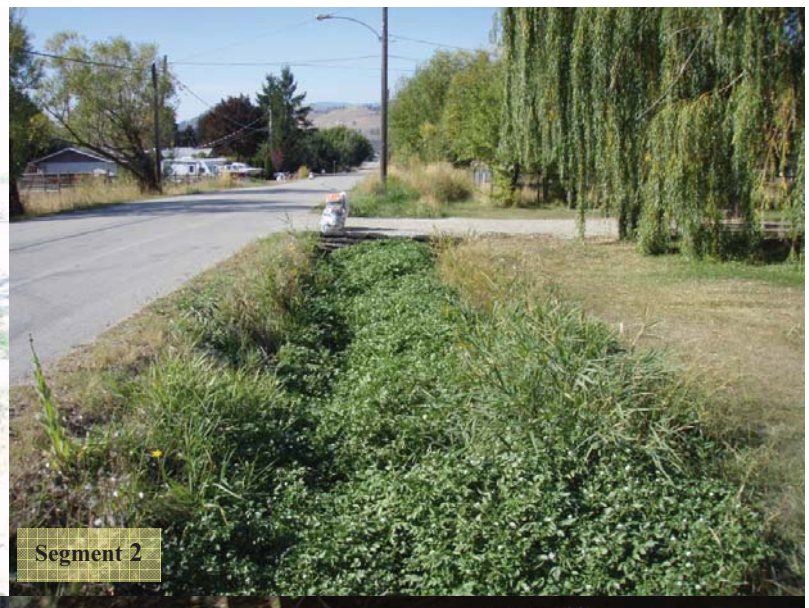
Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Herbs/grasses	Agriculture	Grass / Herb	<5%	No	No	High	Bottom 50m treed canopy of mature pacific willow
2.0	Herbs/grasses	Agriculture	Grass / Herb	<5%	No	No	Medium	Ditched along road and rural properties
3.0	Herbs/grasses	Agriculture	Grass / Herb	<5%	No	No	High	Bottom 50m treed canopy of mature pacific willow
4.0	Broadleaf forest	Disturbed	young forest	67-100%	<5	No	High	Pacific willow and Manitoba maple form very dense canopy with little to no understorey vegetation

Segment	Comment - Flora	Comment - Fauna
1.0	Agronomic grasses and weedy forbs	
2.0		
3.0	Agronomic grasses and weedy forbs	
4.0	Pacific willow, Manitoba maple, red-osier dogwood	B-SOSP, B-CAQU, B-BBMA, B-DEJU

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	Both_banks_high	Agricultural alterations and confinement	Moderate	Riparian community restoration
2.0	Both_banks_high		Low	Riparian Restoration - opportunities limited to road associated ditching
3.0	Both_banks_high	Agricultural alterations and confinement	Moderate	Riparian community restoration
4.0	1_bank_mod	Garbage and debris through gully	Low	General clean-up of garbage and debris

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 1


Segment 2

Segment 3


Segment 4

Bauer Brook

Segment(s): 5 - 8

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
5.0	Modified		224	Riffle	2.0	1-20%	Unknown	Brook running through willows and grasses in rip rap armoured channel
6.0	Channelized	Other	184	Riffle/Pool	3.0	0	Unknown	Very weedy ditch, lined with riprap
7.0	Modified	Other	50	Riffle	2.0	0	Unknown	Agricultural land
8.0	Culvert		233		2.0	0	Unknown	Piped beneath orchard

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
5.0	0	55	0	40	5	0	0.35	0.80	0.08	0.35	Coarse substrates associated with riprap armouring
6.0	0	10	10	70	20	0	0.25	1.10	0.05	0.50	Channel filled with riprap
7.0	10	80	5	5	0	0	1.10	2.00	0.20	0.80	Small natural wetted area through gully in field
8.0											Culvert

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
5.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
6.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
7.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
8.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	
6.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	
7.0	Planted Tree Farm	Agriculture	Grass / Herb	<5%	No	No	High	Orchard land
8.0								Culverted

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	No	No	High	
6.0	Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	No	No	High	
7.0	Planted Tree Farm	Disturbed	Grass / Herb	<5%	No	No	High	Orchard land
8.0								Culverted

Segment	Comment - Flora	Comment - Fauna
5.0	Willow sp., mustard sp., tall sweet clover, curly dock and other weedy forbs	
6.0	Willow sp., mustard sp., tall sweet clover, curly dock and other weedy forbs	
7.0	Orchard	
8.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
5.0	Both_banks_mod	Riparian disturbance channel armouring	Low	Riparian restoration
6.0	Both_banks_high		Low	
7.0	Both_banks_mod		Low	Weed management and riparian restoration
8.0	Both_banks_high	Piped beneath orchard	Low	Daylight

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 5


Segment 6


Segment 7


Segment 8

Bauer Brook

Segment(s): 9 - 12

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
9.0	Channelized	Other	151	Riffle	2.0	0	Unknown	Rural / agricultural land
10.0	Ditch	Other	88	Riffle	5.0	0	Unknown	
11.0	Modified		130	Riffle/Pool	4.0	41-70%	Unknown	
12.0	Channelized		310	Riffle	5.0	1-20%	Unknown	Channel lined with riprap; Minimal canopy closure

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
9.0	0	10	20	65	5	0	0.50	1.20	0.06	0.40	Channel lined with riprap
10.0	0	5	15	55	25	0	0.60	1.00	0.08	0.45	Channel lined with riprap; Dense cover of northern watercress
11.0	0	55	30	15	0	0	0.40	1.20	0.10	0.60	Riprap ends
12.0	0	5	10	65	20	0	0.40	0.70	0.06	0.50	Channel lined with riprap

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
9.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
10.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
11.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
12.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

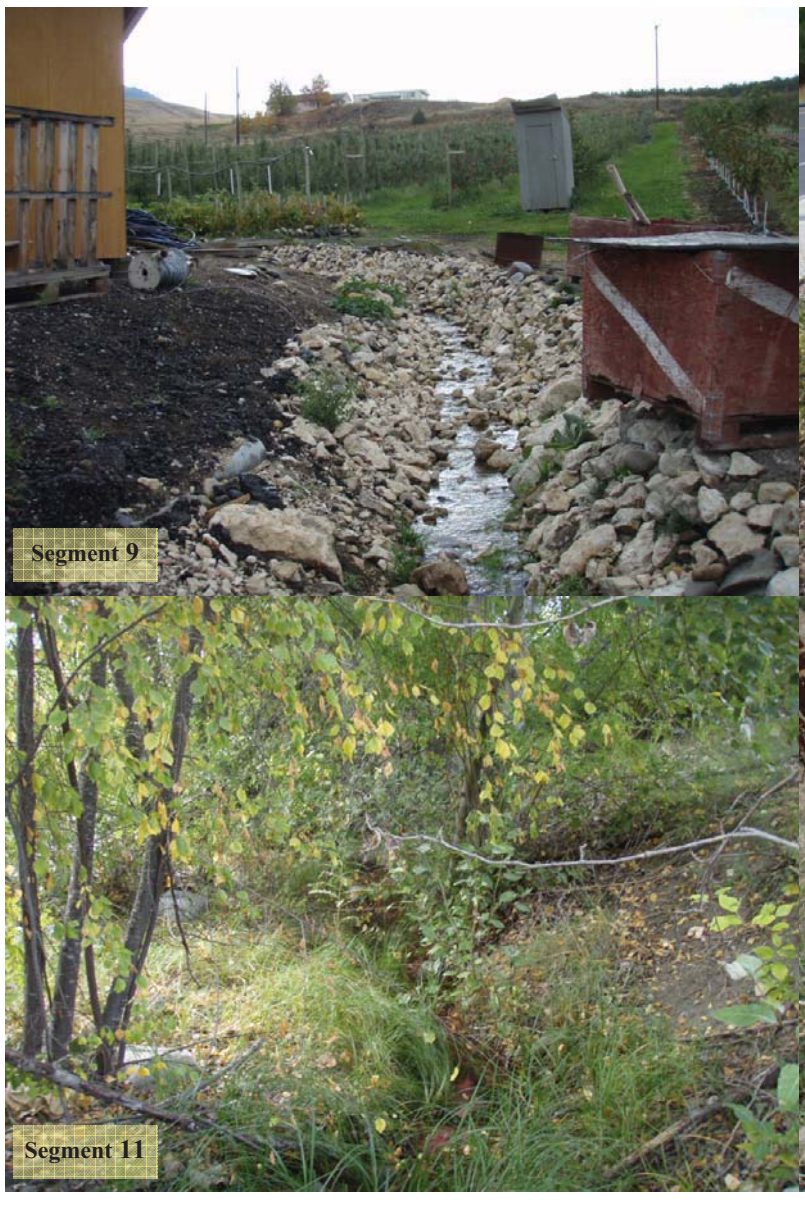
Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Herbs/grasses	Rural_Residential	Grass / Herb	<5%	No	No	High	Orchard land
10.0	High Impervious	Disturbed	Grass / Herb	<5%	No	No	High	McCurdy road
11.0	Mixed forest	Disturbed	tall shrubs 2-10m	34-66%	No	No	High	Road fill slope beyond
12.0	Herbs/grasses	Disturbed	Grass / Herb	34-66%	No	No	High	

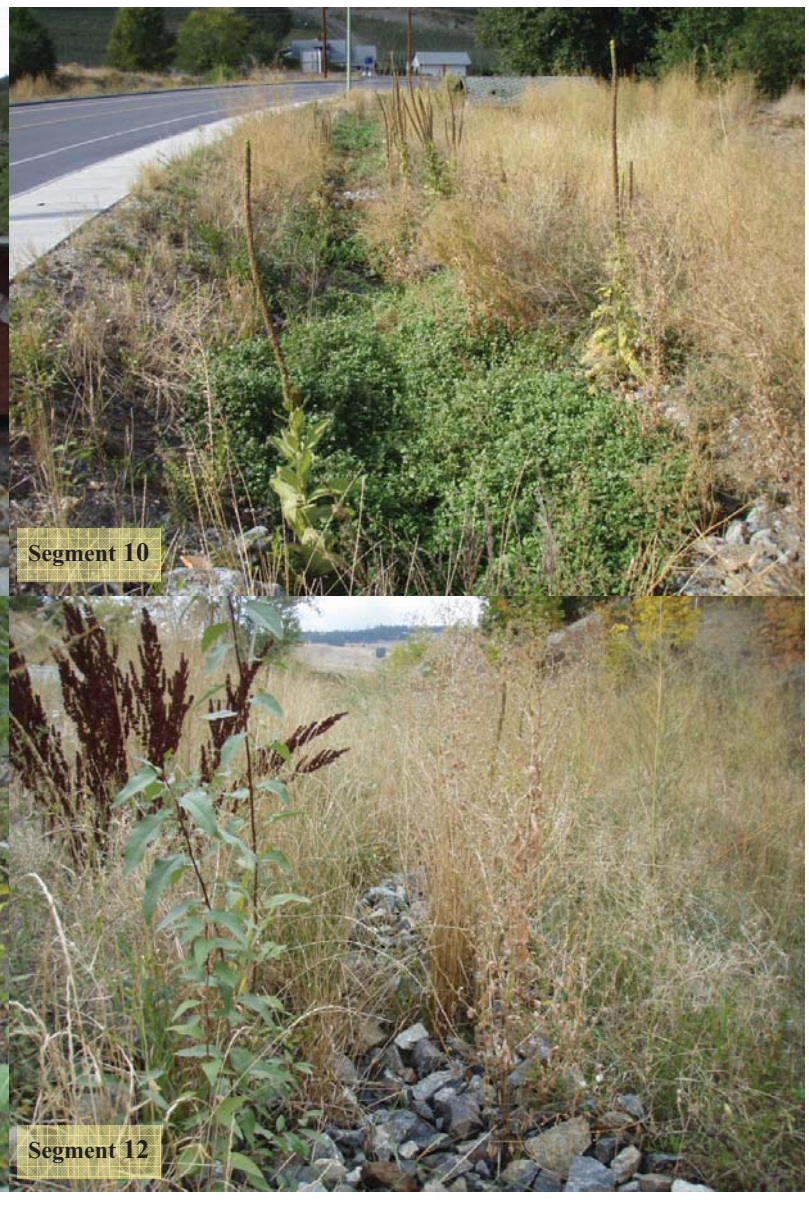
Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Herbs/grasses	Rural_Residential	Grass / Herb	<5%	No	No	High	Rural yard and adjacent orchard
10.0	Herbs/grasses	Rural_Residential	Grass / Herb	<5%	No	No	High	Rural residential
11.0	Mixed forest	Disturbed	tall shrubs 2-10m	34-66%	No	No	High	
12.0	High Impervious	Disturbed	tall shrubs 2-10m	<5%	No	No	High	McCurdy Rd.

Segment	Comment - Flora	Comment - Fauna
9.0	Apple orchard	
10.0		
11.0	Cottonwood , snowberry, maple	Shrew sp.
12.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
9.0	Both_banks_high		Low	
10.0	Both_banks_high		Low	
11.0	Both_banks_low		Low	
12.0	Both_banks_high		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high





Campbell Industry Brook

Segment(s): 1 - 4

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Modified	Ephemeral	366	Cascade/Pool	10.0	0	Unknown	Armoured with cobble/boulder
2.0	Modified	Ephemeral	64	Cascade/Pool	15.0	0	Unknown	Natural segment
3.0	Modified	Ephemeral	529	Riffle/Pool	5.0	0	Unknown	
4.0	Ditch	Ephemeral	270	Other	5.0	0	Unknown	

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	0	5	5	60	30	0	1.00	1.50	0.12	0.60	
2.0	0	92	5	2	1	0	0.00	1.50	0.00	0.60	
3.0	0	75	5	15	5	0	0.00	1.50	0.00	0.60	
4.0	0	95	5	0	0	0	0.40	1.00	0.07	0.30	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
2.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
3.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
4.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No	Medium	
2.0	Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No	Medium	
3.0	Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No	Medium	Golf course
4.0	Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No	Medium	

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	No	Medium	
2.0	Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	No	Medium	
3.0	Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	No	Medium	Golf course
4.0	Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	No	Medium	

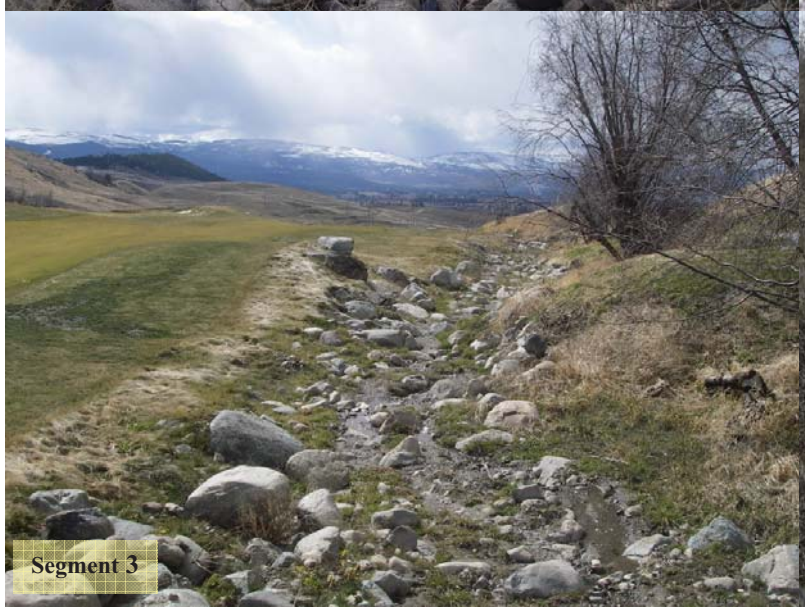
Segment	Comment - Flora	Comment - Fauna
1.0		
2.0		
3.0		
4.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	Both_banks_high		Moderate	Riparian planting
2.0	Both_banks_high		Moderate	Riparian planting
3.0	Both_banks_high	Flows through golf course	Moderate	Riparian planting
4.0	Both_banks_high	Ditched along gravel service road	Low	Riparian planting

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high









Campbell Industry Brook

Segment(s): 5 - 7

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
5.0	Modified	Ephemeral	174	Other	8.0	0	Unknown	
6.0	Natural	Ephemeral	451	Other	4.0	41-70%	Unknown	Undefined channel
7.0	Modified	Ephemeral	320	Cascade/Pool	8.0	71-90%	Unknown	

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
5.0	0	100	0	0	0	0	0.50	1.00	0.05	0.30	
6.0	20	80	0	0	0	0	0.00	0.00	0.00	0.00	Undefined channel
7.0	0	34	60	5	1	0	0.60	1.20	0.05	0.30	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
5.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
6.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded
7.0	0	0	0	0	0	0	0	0	Incapable of supporting fish therefore no instream cover recorded

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No	Medium	
6.0	Mixed forest	Natural	mature forest	67-100%	<5	No	High	Cottonwood riparian gully with wet swamp sites within
7.0	Broadleaf forest	Disturbed	Sapling >10m	67-100%	No	No	Medium	

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	No	Medium	
6.0	Mixed forest	Natural	Mature	34-66%	<5	No	Medium	Cottonwood riparian gully with wet swamp sites within
7.0	Broadleaf forest	Disturbed	Sapling >10m	67-100%	No	No	Medium	

Segment	Comment - Flora	Comment - Fauna
5.0		
6.0		
7.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
5.0	1_bank_low		Moderate	Riparian planting
6.0	1_bank_low		Low	Riparian planting
7.0	Both_banks_mod		Moderate	Riparian planting

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 5


Segment 6


Segment 7

Dewdney Creek

Segment(s): 1 - 4

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Modified		391	Riffle/Pool	0.0	71-90%	Unknown	Confirmed surface water connection to Mission Creek; Rural residential and agricultural disturbance
2.0	Natural		97	Riffle/Pool	2.0	>90%	Unknown	Channel more narrow through very moist ACT riparian with intermittent swampy areas - skunk cabbage
3.0	Natural		114	Riffle/Pool	3.0	>90%	Unknown	More confined channel than segment 2; Confirmed surface water connection to Mission Creek
4.0	Modified		150	Slough	1.0	>90%	Unknown	Constructed ponds and rural modifications; Confirmed surface water connection to Mission Creek

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	90	10	0	0	0	0	2.00	4.50	0.07	0.20	
2.0	10	90	0	0	0	0	2.60	3.10	0.08	0.18	
3.0	10	90	0	0	0	0	1.40	1.70	0.08	0.20	Small tribs along left bank where groundwater discharge occurs in swamp/low floodplain riparian
4.0	60	40	0	0	0	0	12.00	12.00	1.00	1.00	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	25	0	0	45	10	35	10	0	
2.0	25	0	0	30	5	55	10	0	
3.0	10	0	0	25	0	50	25	0	Small trib with abundant woody debris and instream/overstream veg.-low pool cover-no fish observed
4.0	30	0	100	0	0	0	0	0	Ponds constitute greatest potential cover in this segment

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

	Left Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Disturbed	tall shrubs 2-10m	67-100%	No	No	Medium	
2.0	Broadleaf forest	Natural	mature forest	67-100%	<5	<5	High	
3.0	Broadleaf forest	Natural	mature forest	67-100%	<5	No	High	
4.0	Mixed forest	Rural_Residential	mature forest	5-33%	No	No	High	

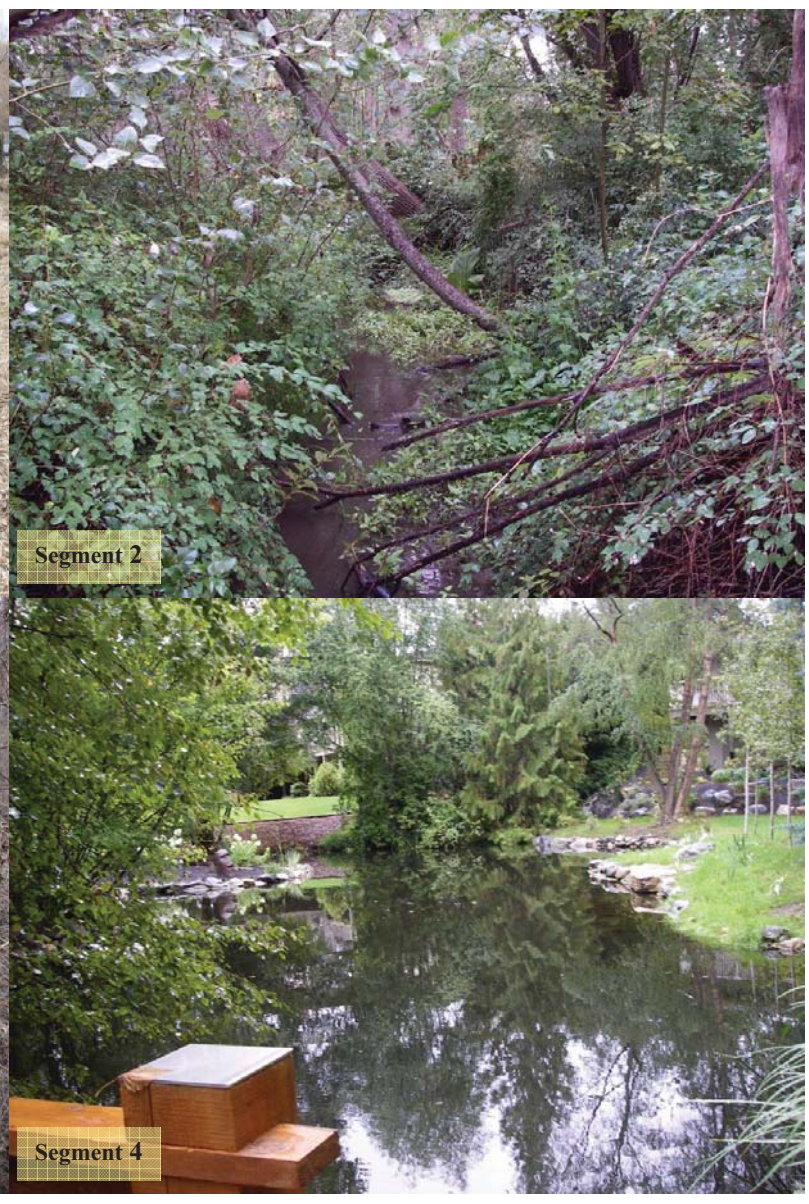
	Right Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Disturbed	tall shrubs 2-10m	67-100%	>=5	<5	Medium	
2.0	Broadleaf forest	Natural	mature forest	67-100%	<5	<5	High	
3.0	Broadleaf forest	Natural	mature forest	67-100%	<5	>=5	High	
4.0	Mixed forest	Rural_Residential	mature forest	5-33%	No	No	High	

Segment	Comment - Flora	Comment - Fauna
1.0	Cottonwood,rose,skunk cabbage, scouring rush, reed canary grass	B-BCCH,B-BBMA,B-RTHA, B-STJA, B-NOFL,B-AMGO
2.0		
3.0	Very moist to wet ACT riparian and alder - skunk cabbage swamp communities	
4.0	Mixture of native and horticultural vegetation surrounding ponds	

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	1_bank_low	Riparian management and clearing in conjunction with gas pipeline that parallels stream	Nil	Preserve this area
2.0	1_bank_low	Gas Right of Way with intermittent encroachment	Nil	Leave and protect critical riparian and swamp communities and groundwater discharge zones
3.0	1_bank_low		Nil	Leave and protect critical riparian and swamp communities and groundwater discharge zones
4.0	Both_banks_mod	Rural ponds and landscaping	Low	Private property/maintain water quality and hydrology

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high





Dewdney Creek
Segment(s): 5

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
5.0	Modified		181	Cascade	5.0	71-90%	Unknown	Confirmed surface water connection to Mission Creek; Flows through riparian gully

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
5.0	30	35	25	10	0	0	1.20	1.40	0.03	0.12	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
5.0	0	0	0	0	0	0	0	0	

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Broadleaf forest	Rural_Residential	young forest	67-100%	No	No	Medium	Disturbance and some debris on banks

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Broadleaf forest	Rural_Residential	young forest	67-100%	No	No	Medium	Minor downcutting and channel definition

Segment	Comment - Flora	Comment - Fauna
5.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
5.0	Both_banks_low		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high



Segment 5

Dewdney Creek Tributary 1

Segment(s): 1

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Natural		93	Riffle/Pool	0.5	>90%	Unknown	Confirmed surface water connection to Mission Creek; Originates from groundwater discharge in very moist riparian /swamp communities

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	40	60	0	0	0	0	1.80	2.00	0.03	0.07	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	1st order tributary

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Natural	mature forest	67-100%	<5	No	High	Very moist to wet riparian and swamp communities

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Natural	mature forest	67-100%	<5	No	High	

Segment	Comment - Flora	Comment - Fauna
1.0	Very moist to wet ACT riparian and alder - skunk cabbage swamp communities	

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	Nil		High	Priority for conservation

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high



Dewdney Creek Tributary 2

Segment(s): 1

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Modified		50	Riffle/Pool	0.5	>90%	Unknown	Confirmed surface water connection to Mission Creek

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	20	80	0	0	0	0	1.60	2.00	0.10	0.40	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	1st order tributary

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Disturbed	mature forest	67-100%	<5	No	High	Encroaching rural disturbance

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Natural	mature forest	67-100%	<5	No	High	Encroaching rural disturbance

Segment	Comment - Flora	Comment - Fauna
1.0	Very moist to wet ACT riparian and alder - skunk cabbage swamp communities	

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	1_bank_low		High	Priority for conservation

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high



Gopher Creek

Segment(s): 1 - 4

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Natural		404	Riffle/Pool	6.0	1-20%	Unknown	
2.0	Natural		385	Riffle/Pool	7.0	1-20%	Unknown	
3.0	Natural		578	Riffle/Pool	8.0	1-20%	Unknown	
4.0	Modified		606	Riffle/Pool	6.0	1-20%	Unknown	

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	0	90	10	0	0	0	0.45	0.60	0.20	0.40	
2.0	0	80	20	0	0	0	0.50	0.80	0.10	0.30	
3.0	0	70	25	5	0	0	0.70	1.00	0.10	0.30	
4.0	0	70	25	5	0	0	0.50	0.80	0.15	0.30	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
2.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
3.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
4.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

	Left Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Shrubs	Rural_Residential	tall shrubs 2-10m	34-66%	No	No	Medium	
2.0	Mixed forest	Natural	young forest	67-100%	No	No	Medium	
3.0	Mixed forest	Disturbed	young forest	34-66%	No	No	Medium	
4.0	Mixed forest	Rural_Residential	young forest	34-66%	No	No	Medium	

	Right Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Shrubs	Rural_Residential	low shrubs <2m	34-66%	No	No	Medium	
2.0	Mixed forest	Natural	young forest	67-100%	No	<5	Medium	
3.0	Mixed forest	Disturbed	young forest	34-66%	No	<5	Medium	
4.0	Mixed forest	Rural_Residential	young forest	5-33%	No	<5	Medium	

Segment	Comment - Flora	Comment - Fauna
1.0	Cottonwood, birch, snowberry, red-osier dogwood	
2.0	Ponderosa pine, birch, rose, snowberry	
3.0	Ponderosa Pine, Birch, Rose, Snowberry	
4.0	Douglas fir, birch	

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	Both_banks_mod		Low	
2.0	Both_banks_low		Low	
3.0	Both_banks_mod		Low	
4.0	Both_banks_mod		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 1


Segment 2


Segment 3


Segment 4

Gopher Creek

Segment(s): 5 - 8

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
5.0	Natural		360	Riffle/Pool	10.0	1-20%	Unknown	
6.0	Modified		522	Riffle/Pool			Unknown	No access to property - non SHIM line, air photo and topographic interpretation
7.0	Natural		70	Riffle/Pool	7.0	1-20%	Unknown	
8.0	Modified	Wetland	1141	Slough	3.0	1-20%	Unknown	Series of wetlands and culverts

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
5.0	0	50	40	10	0	0	0.50	0.80	0.15	0.30	
6.0											No access to property - non SHIM line, air photo and topographic interpretation
7.0	0	85	15	0	0	0	0.45	0.70	0.15	0.25	
8.0	50	50	0	0	0	0	19.00	22.00	0.00	0.00	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
5.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
6.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
7.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
8.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

	Left Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Mixed forest	Rural_Residential	young forest	34-66%	No	No	Medium	
6.0								No access to property - non SHIM line, air photo and topographic interpretation
7.0	Coniferous forest	Rural_Residential	young forest	34-66%	No	No	Medium	
8.0	Disturbed wetland	Disturbed	tall shrubs 2-10m	34-66%	No	No	Medium	

	Right Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Mixed forest	Rural_Residential	young forest	34-66%	No	<5	Medium	
6.0								No access to property - non SHIM line, air photo and topographic interpretation
7.0	Herbs/grasses	Rural_Residential	Grass / Herb	34-66%	No	No	Medium	
8.0	Disturbed wetland	Disturbed	low shrubs <2m	34-66%	No	No	Medium	

Segment	Comment - Flora	Comment - Fauna
5.0	Pond pine, birch, rose, snowberry	
6.0		
7.0		
8.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
5.0	Both_banks_low		Low	
6.0				
7.0	Both_banks_mod		Low	
8.0	Both_banks_mod		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 5

NO PHOTO

Segment 6


Segment 7


Segment 8

Gopher Creek

Segment(s): 9 - 12

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
9.0	Modified		118	Slough	6.0	21-40%	Unknown	
10.0	Modified		127	Riffle/Pool	3.0	1-20%	Unknown	Wetland area
11.0	Modified		678	Riffle/Pool	10.0	1-20%	Unknown	
12.0								No defined channel; Very moist to wet reed canary grass meadow/marsh

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
9.0	0	65	25	10	0	0	0.00	1.00	0.00	0.25	
10.0											Wetland Area
11.0	0	95	5	0	0	0	0.00	1.50	0.00	0.30	
12.0											No defined channel; Very moist to wet reed canary grass meadow/marsh

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
9.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
10.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
11.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
12.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

	Left Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Broadleaf forest	Rural_Residential	Grass / Herb	34-66%	No	No	Medium	
10.0	Disturbed wetland	Disturbed	tall shrubs 2-10m	5-33%	No	No	Medium	
11.0	Shrubs	Disturbed	tall shrubs 2-10m	34-66%	No	No	Medium	
12.0								No defined channel; Very moist to wet reed canary grass meadow/marsh

	Right Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Broadleaf forest	Rural_Residential	Grass / Herb	34-66%	No	<5	Medium	
10.0	Disturbed wetland	Disturbed	tall shrubs 2-10m	5-33%	No	No	Medium	
11.0	Shrubs	Disturbed	tall shrubs 2-10m	34-66%	No	No	Medium	
12.0								No defined channel; Very moist to wet reed canary grass meadow/marsh

Segment	Comment - Flora	Comment - Fauna
9.0	Cottonwood and birch	
10.0		
11.0		
12.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
9.0	Both_banks_mod		Low	
10.0	Both_banks_mod		Low	
11.0	Both_banks_mod		Low	
12.0		No defined channel; Very moist to wet reed canary grass meadow/marsh		No defined channel; Very moist to wet reed canary grass meadow/marsh

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high



Segment 9



Segment 10



Segment 11

Segment 12

No Photo

Gopher Creek

Segment(s): 13 - 15

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
13.0	Modified	Ephemeral	137	Other	3.0	0	Unknown	Pooling occurs in shallow grassland depressions - vernal pools for amphibian reproduction
14.0	Modified	Ephemeral	375	Other	1.5	21-40%	Unknown	Livestock impacts to channel and riparian association
15.0	Modified	Ephemeral	755	Other	2.0	0	Unknown	

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
13.0	40	60	0	0	0	0	1.10	1.50	0.05	0.15	Soil and fines
14.0	40	60	0	0	0	0	1.80	2.20	0.05	0.20	Through water birch-willow-dogwood floodplain/swamp association
15.0	40	60	0	0	0	0	0.30	0.50	0.07	0.30	Discontinuous/poorly defined ephemeral channel through modified grassland gully/low shrub

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
13.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
14.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
15.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

	Left Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
13.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	Through modified/disturbed grassland
14.0	Shrubs	Disturbed	sapling >10m	67-100%	No	No	High	Water birch-Douglas maple riparian gully
15.0	Shrubs	Disturbed	low shrubs <2m	5-33%	No	No	High	Mixed grassland/shrub (rose)

	Right Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
13.0	Herbs/grasses	Unknown	Grass / Herb	<5%	No	No	High	Through modified/disturbed grassland
14.0	Shrubs	Disturbed	sapling >10m	67-100%	No	No	High	Water birch-Douglas maple riparian gully
15.0	Shrubs	Disturbed	low shrubs <2m	5-33%	No	No	High	Mixed grassland/shrub (rose)

Segment	Comment - Flora	Comment - Fauna
13.0	knapweed; cheat grass; thistle; mustard; rose; sulfur cinquefoil	Killdeer; Northern Flicker; Mourning Dove; Red-tailed Hawk
14.0	Water birch; Douglas maple; dogwood; rose; willow sp.; fir	Killdeer; Northern Flicker; Mourning Dove; Red-tailed Hawk
15.0	Rose; agronomic grasses; aspen	Killdeer; Northern Flicker; Mourning Dove; Red-tailed Hawk

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
13.0	Both_banks_low	Disturbed grassland	Moderate	Weed management
14.0	Both_banks_mod	Intense livestock disturbance	Moderate	Channel restoration and build up to maintain floodplain viability (raise water table)
15.0	1_bank_mod	livestock	Moderate	Weed management

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 13


Segment 14

Segment 15

Gopher Creek Tributary

Segment(s): 1 - 4

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Natural	Ephemeral	76	Cascade	10.0	71-90%	Unknown	Aspen riparian gully/thicket
2.0	Natural	Ephemeral	88	Cascade	10.0	21-40%	Unknown	Disturbed riparian gully
3.0	Modified	Ephemeral	140	Other	3.0	0	Unknown	Vernal, shallow channel through highly disturbed grassland; Shallow drainage path
4.0	Modified	Ephemeral	139	Riffle/Pool	5.5	21-40%	Unknown	Disturbed riparian/aspen gully; Intense cattle disturbance

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	0	75	23	2	0	0	0.00	2.20	0.00	0.30	Downcut channel-1.2m
2.0	4	85	10	1	0	0	0.00	2.20	0.00	0.30	Soil; Channel downcutting less severe
3.0	50	50	0	0	0	0	0.00	0.55	0.00	0.05	Topsoil and fines
4.0	29	70	0	1	0	0	0.60	1.40	0.02	0.15	Soil and fines

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
2.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
3.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
4.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Disturbed	young forest	67-100%	<5	No	Medium	Previous encroachment into riparian gully
2.0	Shrubs	Disturbed	tall shrubs 2-10m	67-100%	<5	No	Medium	Mixed shrub, grasses, and invasive forbs
3.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	Highly disturbed grassland
4.0	Broadleaf forest	Disturbed	young forest	5-33%	<5	No	Medium	Intermittent areas off minor bank instability from livestock

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Broadleaf forest	Disturbed	young forest	67-100%	<5	No	Medium	Young aspen stand through gully past encroachment evident-not recently disturbed. Channel erosion
2.0	Shrubs	Disturbed	tall shrubs 2-10m	67-100%	<5	No	Medium	Mixed shrub, grasses, and invasive forbs
3.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	Highly disturbed grassland
4.0	Broadleaf forest	Disturbed	young forest	5-33%	<5	No	Medium	Intermittent areas off minor bank instability from livestock

Segment	Comment - Flora	Comment - Fauna
1.0	Aspen; water birch;hawthorn;rose;red-osier dogwood	Northern Flicker; Black-capped Chickadee; American Goldfinch; Crow; House Finch
2.0	Aspen; red-osier dogwood; hawthorn; rose; reed canary grass; burdock; hounds tongue	Northern Flicker; Black-capped Chickadee; American Goldfinch; Crow; House Finch; Magpie
3.0	Sow thistle; mustard sp.; dock; mullein; orchard grass; cheat grass; quack grass	Northern Flicker; Red-breasted Nuthatch; American Goldfinch; Red-tailed Hawk; House Finch; Magpie
4.0	Aspen; Douglas maple; thistle; agronomic grasses; hounds tongue; rose; mullein; red-osier dogwood	Northern Flicker; Red-breasted Nuthatch; American Goldfinch; Red-tailed Hawk; House Finch; Magpie

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	Both_banks_low	Past disturbance-not recently disturbed	Low	
2.0	Both_banks_low	Past disturbance-not recently disturbed	Low	
3.0	Both_banks_high	livestock;grazing;oldfield	Low	Weed management
4.0	1_bank_high	Livestock	Moderate	Weed control/management

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high









Gopher Creek Tributary

Segment(s): 5 - 8

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
5.0	Modified	Wetland	243	Wetland	0.0	0	Unknown	Wetland complex with high cattle use, disturbance; Beneath Fortis power line along R.O.W.
6.0	Modified	Ephemeral	70	Riffle/Pool	1.0	41-70%	Unknown	Aspen seepage / riparian gully
7.0	Modified	Ephemeral	182	Wetland	0.0	0	Unknown	Transition association; Intense cattle use of area
8.0	Modified	Ephemeral	86	Other	3.0	71-90%	Unknown	Thicket at bottom to mixed forest with mature pine/fir overstorey-Aspen sub-canopy; No defined channel - sub surface flows

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
5.0	95	5	0	0	0	0	10.00	31.00			
6.0	50	50	0	0	0	0	0.00	1.40	0.00	0.05	Soil and fines
7.0	100	0	0	0	0	0	0.00	70.00			
8.0	25	75	0	0	0	0	0.00	0.00			No defined channel

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
5.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
6.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
7.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
8.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Disturbed wetland	Disturbed	low shrubs <2m	5-33%	<5	No	High	
6.0	Broadleaf forest	Disturbed	young forest	5-33%	No	No	High	Cattle have removed much of shrub stratum. Mature pine along slope toe
7.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	Transition association with adjacent grassland/conifer woodland steep slope
8.0	Mixed forest	Natural	mature forest	<5%	No	<5	High	

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Disturbed wetland	Disturbed	mature forest	5-33%	<5	>=5	Medium	Wetland through gully with veteran fir along mid slope to slope toe adjacent wetland
6.0	Broadleaf forest	Disturbed	young forest	<5%	<5	<5	High	Cattle have removed much of shrub stratum. Mature pine along slope toe
7.0	Herbs/grasses	Disturbed	Grass / Herb	<5%	No	No	High	Disturbed grassland
8.0	Mixed forest	Disturbed	mature forest	5-33%	<5	<5	High	

Segment	Comment - Flora	Comment - Fauna
5.0	Cattail; smartweed; water avens; rushes; reed canary grass; willow sp.; Douglas maple; water birch	Northern Flicker; Red-breasted Nuthatch; Goldfinch; Red-tailed Hawk; House Finch; Magpie, Junco
6.0	Aspen; pine; fir; rose; hawthorn; hounds tongue	Flicker; Boreal Chickadee; squirrel; Magpie; Red-breasted Nuthatch; Red-wing Blackbird
7.0	Reed canary grass; smartweed; water avens; water hemlock; willow sp.	Flicker; Red-wing Blackbird
8.0	Fir; pine; Douglas maple; aspen; rose; hawthorn	American Robin; Varied Thrush; Red-breasted Nuthatch; Hairy Woodpecker

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
5.0	Both_banks_mod	Livestock	Moderate	Potential enhancement area - increase wetted levels and maintain vernal shallow open water community
6.0	Both_banks_low	Livestock	Moderate	Weed management
7.0	Both_banks_high	Intense cattle use-power corridor maintenance	Moderate	Weed management
8.0	1_bank_mod		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 5


Segment 6


Segment 7


Segment 8

Gopher Creek Tributary

Segment(s): 9 -11

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
9.0	Natural	Ephemeral	90	Cascade/Pool	45.0	71-90%	Unknown	Steep gully; Predominantly shrub/thicket cover over channel
10.0	Natural	Ephemeral	168	Other	10.0	41-70%	Unknown	More open shrub thicket at bottom becoming more closed fir canopy near top at riparian bench area
11.0	Modified		165	Slough	0.5	1-20%	Unknown	Disturbed riparian bench follows slope toe of Black Mountain, past forestry along right bank

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
9.0	25	75	0	0	0	0	0.00	1.50	0.00	0.30	
10.0	25	75	0	0	0	0	0.50	1.80	0.02	0.10	
11.0	75	25	0	0	0	0	2.50	3.50	0.02	0.10	Very moist to wet riparian bench/floodplain-swamp association

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
9.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
10.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream
11.0	0	0	0	0	0	0	0	0	No instream cover recorded since confirmed non-fish stream

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Mixed forest	Natural	young forest	67-100%	No	No	High	
10.0	Mixed forest	Natural	mature forest	67-100%	No	No	High	
11.0	Broadleaf forest	Natural	tall shrubs 2-10m	67-100%	No	No	High	Water birch-Douglas maple-cottonwood association

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Mixed forest	Natural	young forest	67-100%	<5	No	High	
10.0	Mixed forest	Natural	mature forest	67-100%	No	No	High	Tall shrub thicket (dogwood-Douglas maple) beneath fir and aspen canopy in gully
11.0	Mixed forest	Disturbed	young forest	34-66%	No	No	High	Logged - Mature cottonwood and saplings with tall shrub (dogwood, willow, water birch) understorey

Segment	Comment - Flora	Comment - Fauna
9.0	Fir; pine; Douglas maple; rose; red-osier dogwood	Robin; Black-capped Chickadee; Red-tailed Hawk
10.0	Fir; aspen; red-osier dogwood; Douglas maple	American Robin; Varied Thrush; Red-breasted Nuthatch; Hairy Woodpecker; Ruffed Grouse
11.0	Cottonwood; water birch; red-osier dogwood; fir; aspen; willow; Oregon grape	

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
9.0	1_bank_low		Low	
10.0	1_bank_low		Low	
11.0	1_bank_low		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high


Segment 9


Segment 10


Segment 11

Hachey Creek

Segment(s): 1 - 4

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
1.0	Modified		521	Cascade	6.0	21-40%	Unknown	
2.0	Channelized		266	Riffle/Pool	5.0	21-40%	Unknown	
3.0	Ditch		186	Riffle/Pool	2.0	1-20%	Unknown	Tall 2 meter banks, erosion on both banks throughout segment
4.0	Ditch		163	Riffle/Pool	2.0	0	Unknown	Tall 2 meter banks

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
1.0	0	20	55	25	0	0	0.00	0.95	0.00	0.25	
2.0	0	70	15	15	0	0	0.00	1.50	0.00	0.35	Erosion on both banks throughout segment
3.0	0	65	15	15	5	0	0.00	1.50	0.00	0.50	Erosion on both banks throughout segment
4.0	0	70	15	15	0	0	0.00	1.50	0.00	0.50	Erosion on both banks throughout segment

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
1.0	0	0	0	0	0	0	0	0	
2.0	0	0	0	0	0	0	0	0	
3.0	0	0	0	0	0	0	0	0	
4.0	0	0	0	0	0	0	0	0	

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Mixed forest	Disturbed	young forest	34-66%	No	No	Medium	Thinned out forest with rural residence
2.0	Herbs/grasses	Rural_Residential	Grass / Herb	34-66%	No	No	Medium	
3.0	Herbs/grasses	Rural_Residential	Grass / Herb	34-66%	No	No	Medium	Rural residences closer, ravine ended
4.0	Herbs/grasses	Rural_Residential	low shrubs <2m	34-66%	No	No	Medium	

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
1.0	Mixed forest	Disturbed	young forest	34-66%	No	No	Medium	Thinned out forest with rural residence
2.0	Shrubs	Rural_Residential	tall shrubs 2-10m	34-66%	No	No	Medium	
3.0	High Impervious	Disturbed	High_impervious	<5%	No	No	Medium	Road along right bank
4.0	Shrubs	Rural_Residential	low shrubs <2m	<5%	No	No	Medium	

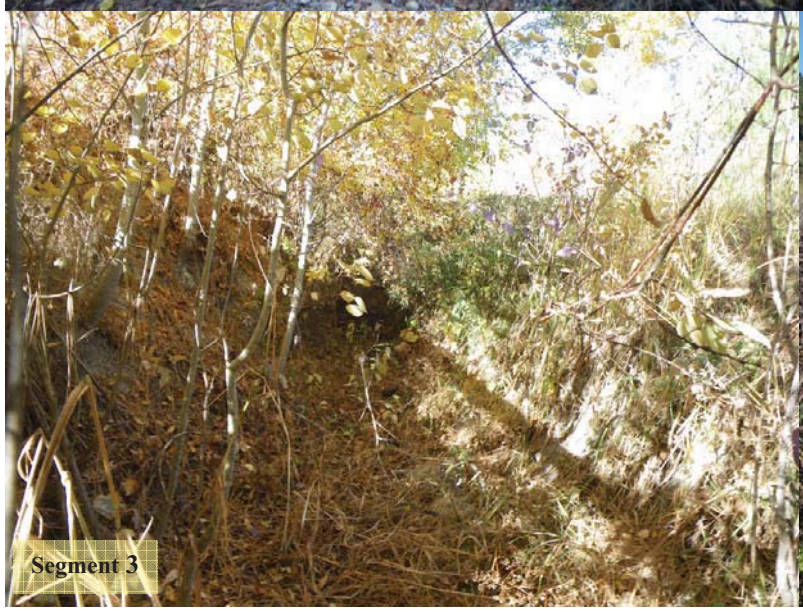
Segment	Comment - Flora	Comment - Fauna
1.0	Ponderosa pine, cottonwood, Douglas fir	
2.0		
3.0	Snowberry, rose	
4.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
1.0	1_bank_mod		Low	
2.0	1_bank_mod		Low	
3.0	Both_banks_mod		Low	
4.0	Both_banks_mod		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high









Hachey Creek

Segment(s): 5 - 8

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
5.0	Ditch		138	Riffle/Pool	2.0	0	Unknown	Banks become less tall, erosion on both banks
6.0	Modified		30	Riffle/Pool	2.0	1-20%	Unknown	
7.0	Ditch		455	Riffle/Pool	2.0	0	Unknown	
8.0	Modified		247	Cascade	12.0	41-70%	Unknown	

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
5.0	0	85	10	5	0	0	0.00	1.50	0.00	0.40	Erosion on both banks throughout segment
6.0	0	90	5	5	0	0	0.00	0.90	0.00	0.30	
7.0	0	85	5	5	0	0	0.00	1.50	0.00	0.50	Erosion on both banks throughout segment
8.0	0	60	15	20	5	0	0.00	1.00	0.00	0.20	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
5.0	0	0	0	0	0	0	0	0	
6.0	0	0	0	0	0	0	0	0	
7.0	0	0	0	0	0	0	0	0	
8.0	0	0	0	0	0	0	0	0	

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

	Left Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Herbs/grasses	Rural_Residential	Grass / Herb	<5%	No	No	Medium	
6.0	Herbs/grasses	Rural_Residential	Grass / Herb	5-33%	No	No	Medium	
7.0	Herbs/grasses	Rural_Residential	Grass / Herb	<5%	No	No	Medium	
8.0	Mixed forest	Rural_Residential	young forest	5-33%	No	No	Medium	

	Right Bank Riparian							
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
5.0	Herbs/grasses	Rural_Residential	Grass / Herb	<5%	No	No	Medium	
6.0	Herbs/grasses	Rural_Residential	Grass / Herb	5-33%	No	No	Medium	
7.0	Herbs/grasses	Rural_Residential	Grass / Herb	5-33%	No	No	Medium	
8.0	Mixed forest	Rural_Residential	young forest	5-33%	No	No	Medium	

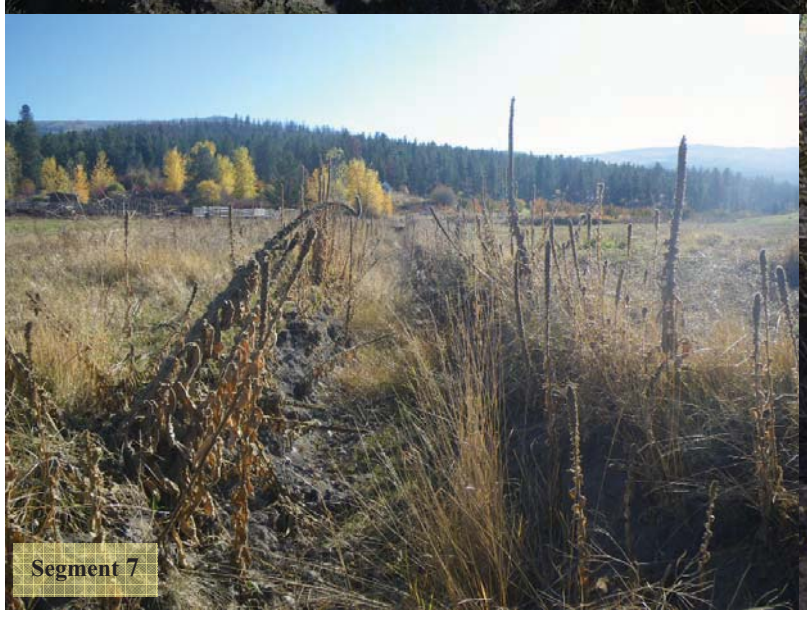
Segment	Comment - Flora	Comment - Fauna
5.0		
6.0		
7.0		
8.0		

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
5.0	1_bank_mod		Low	
6.0	Both_banks_mod		Low	
7.0	Both_banks_mod		Low	
8.0	Both_banks_mod		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high









Hachey Creek

Segment(s): 9 - 12

Segment	Primary	Secondary	Length (m)	Hydraulic	Gradient (%)	Crown Closure	Spawning Habitat	Comment Class
9.0	Natural		238	Cascade	10.0	21-40%	Unknown	
10.0	Modified		91	Cascade	12.0	0	Unknown	Cleared through power corridor
11.0	Natural		808	Cascade	30.0	21-40%	Unknown	
12.0	Natural		427	Cascade	12.0	1-20%	Unknown	Dry again

	Substrates (%) [a]						Channel (m)				
Segment	O	F	G	C	B	R	Wetted Width	Bankfull Width	Wetted Depth	Bankfull Depth	Comment Substrates/Channel
9.0	0	35	40	20	5	0	0.00	1.20	0.00	0.30	
10.0	0	20	40	30	10	0	0.00	1.20	0.00	0.30	
11.0	0	15	40	30	15	0	0.00	1.30	0.00	0.35	
12.0	0	25	40	30	5	0	0.00	1.30	0.00	0.35	

a. Substrate codes: O=organics; F=silt/sand; G=gravel; C=cobble; B=boulder; R=bedrock

	Cover (%) [b]								
Segment	Total Cover	B	DP	IV	LWD	OV	SWD	UC	Comment Cover
9.0	0	0	0	0	0	0	0	0	
10.0	0	0	0	0	0	0	0	0	
11.0	0	0	0	0	0	0	0	0	
12.0	0	0	0	0	0	0	0	0	

b. Cover codes: B=boulder; DP=deep pool; IV=instream vegetation; LWD=large woody debris; OV=overstream vegetation; SWD=small woody debris; UC=undercut bank

Left Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Mixed forest	Natural	young forest	67-100%	No	No	Medium	
10.0	Mixed forest	Disturbed	tall shrubs 2-10m	34-66%	No	No	Medium	
11.0	Coniferous forest	Natural	young forest	34-66%	No	No	Medium	
12.0	Coniferous forest	Natural	young forest	34-66%	No	No	Medium	Forest fire burned through here in 2003

Right Bank Riparian								
Segment	Class	Qualifier	Stage	Shrub cover	Snags	Veteran Trees	Bank stability	Comment
9.0	Mixed forest	Natural	young forest	67-100%	No	No	Medium	
10.0	Mixed forest	Disturbed	tall shrubs 2-10m	34-66%	No	No	Medium	
11.0	Coniferous forest	Natural	young forest	34-66%	No	No	Medium	
12.0	Coniferous forest	Natural	young forest	34-66%	No	No	Medium	Forest fire burned through here in 2003

Segment	Comment - Flora	Comment - Fauna
9.0		
10.0	Ponderosa pine, Douglas fir, snowberry, rose	
11.0	Ponderosa pine, Douglas fir, snowberry, rose	
12.0	Ponderosa pine, snowberry, rose, fireweed	

	Level of Impact [c]		Enhancement Opportunity	
Segment	Rating	Comment	Rating	Comment
9.0	Both_banks_low		Low	
10.0	Both_banks_mod		Low	
11.0	Both_banks_low		Low	
12.0	Both_banks_low		Low	

c. Impact rating: 0=nil; 1 = 1-bank low; 2 = 1-bank moderate; 3 = 1-bank high; 4 = both banks low; 5 = both banks moderate; 6 = both banks high



