City of Kimberley
Urban Interface Fuels Reduction
STAND MANAGEMENT PRESCRIPTION
Kimberley Nature Park

ADMINISTRATION			
Proponent	**Treatment Unit**		
City of Kimberley	Steep hand treatment 3-22		
Legal Description		**BCGS Mapsheet**	**Landscape Unit**
Kimberley Nature Park		**82G061**	C08

AREA DESCRIPTION (ha)

This unit is composed of three distinct stand types. Type 1 is located on south west aspects with slopes averaging 45%. The current stand density approaches 2687 sph. (Douglas-fir 92%, Western larch 4%, Ponderosa pine 3% and Engelmann spruce 1%). Type 2 is located on south aspects, slopes are approximately 55%. The current stand density approaches 519 sph. (Rocky mountain juniper 47%, Douglas-fir 35%, Ponderosa pine 17% and Western larch 1%).Type 3 is located on east aspects, slopes are approximately 60%. The current stand density approaches 2,294 sph. (Douglas-fir 75%, Rocky Mountain Juniper 13%, Western larch 8%, Lodgepole pine 3% and Ponderosa pine 1%).

SU	GROSS AREA (ha)	NON-PRODUCTIVE AREA (ha)		RESERVES (ha)	NET AREA (ha)
		NAT	UNN		
1	7.1	0.0	0.0	0.0	7.1
2	12.9	0.0	0.0	0.0	12.9
3	1.9	0.0	0.0	0.0	5.0
TOTAL	21.9	0.0	0.0	0.0	21.9

MANAGEMENT OBJECTIVES:

- To reduce the probability of catastrophic fires within the City of Kimberley's municipal boundary
- To increase the resiliency of the forests within the Kimberley Nature Parks to wildfire and lower the probability of catastrophic damage.
- To protect the value of the park as an important community asset.

  This will be achieved by reducing surface fuel loading and by lowering canopy fuel loading through stand treatments including under-storey thinning, piling and burning of conifer stems.

  Broad Overview Ecosystem Restoration/Management Plan Treatment Proposal

  Open Forest 75 – 150 sph

  Moderate Open Forest 150 – 400 sph

  Riparian

SU	CRITICAL SITE FACTORS (affecting the timing of operations and the manner in which they affect them)
All	The treatment area is within the Kimberley Nature Park and is heavily used by recreationalists. Signage should be considered for safety and public awareness.
All	Retain all Aspen
3	Trails within or adjacent to unit: Duck Pond Trail, SW Passage
All	Remove all litter and waste associated with the treatments at the end of each day.
3	Disturbance to trail surfaces should be minimized.
All	Assess wildlife danger trees to level 3 standards. Retain only high value snags or actively used snags as per the wildlife danger tree protocol.
2	Retain Rocky Mountain Juniper in the upper rocky portions of this SU.

ECOLOGICAL DESCRIPTION						
EU	SU	NDT	BEC ZONE	SUBZONE VARIANT	SITE SERIES (% composition)	GRID LOCATION (SMR / SNR)
1	1	4	IDF	dm2	03(5)02(5)	2 / B
1	2	4	IDF	dm2	01(7)03(3)	4 / C
1	3	4	IDF	dm2	03(8)01(2)	3 / B

TERRAIN DESCRIPTION								
SU	SLOPE (%) DOMINANT (RANGE)	L/U	ASPECT	SLOPE POSITION	GULLIED (Y/N)	DRAINAGE	ELEVATION (m)	
							MIN	MAX
1	40-50	L/U	SW	Upper	N	Well-Rqapid		
2	50-60	L/U	S	Mid-Upper	N	Well-Rapid		
3	50-70	L/U	N E	Mid - Upper	N	Well-Rapid		

RIPARIAN MANAGEMENT STRATEGIES					
SU	WATERBODY NAME / TYPE	RIPARIAN CLASSIFICATION			
		RIPARIAN CLASSIFICATION	RIPARIAN RESERVE ZONE RRZ (M)	RIPARIAN MANAGEMENT ZONE RMZ (M)	RIPARIAN MANAGEMENT AREA RMA (M)
3	R10	S6	0	20	20

FOREST HEALTH MANAGEMENT STRATEGIES

MANAGEMENT STRATEGIES FOR ARCHAEOLOGICAL SITES

MANAGEMENT STRATEGIES TO MANAGE AND CONSERVE ARCHAEOLOGICAL SITES

An archaeological overview assessment has been completed for this area. The area is not contained within any polygons identified as having a moderate or greater potential for containing areas of archaeological significance.

STAND MANAGEMENT TREATMENTS

PASS 1 - SURFACE FUELS REDUCTION

Objective: To reduce Coarse Woody Debris accumulations on the forest floor.

Treatment:

- **Retain Coarse Woody Debris that is not sound**, **otherwise:**
- Buck, pile and burn all sound coarse woody debris on the forest floor.
- Pile material into piles not exceeding 1.5 m in diameter by 1.5 m in height. Burn piles should be located at the bottom of existing canopy openings and on old inactive trails to minimize damage to residual stems during burning operations. See treatment standards for fuel treatments in the WUI in Kimberley.
- Piles should be located on dry rocky areas to the fullest extent possible.

PASS 1 – LADDER FUELS REDUCTION

Objective: To reduce ladder fuels by thinning, piling and burning selected species by diameter class(s).

Treatment:

- **Cut all mature, dead or dying deciduous species. *Do not* cut young and vigorous stems.**

- SU 1
  Remove all stems <20 cm dbh. Remove all Lodgepole pine.
  Target Post Treatment Stand Density = 252

- SU 2
  Remove all stems <20 cm dbh.
  Target Post Treatment Stand Density = 119

- SU 3
  Remove all stems <20cm dbh. Remove all Lodgepole pine.
  Target Post Treatment Stand Density = 204

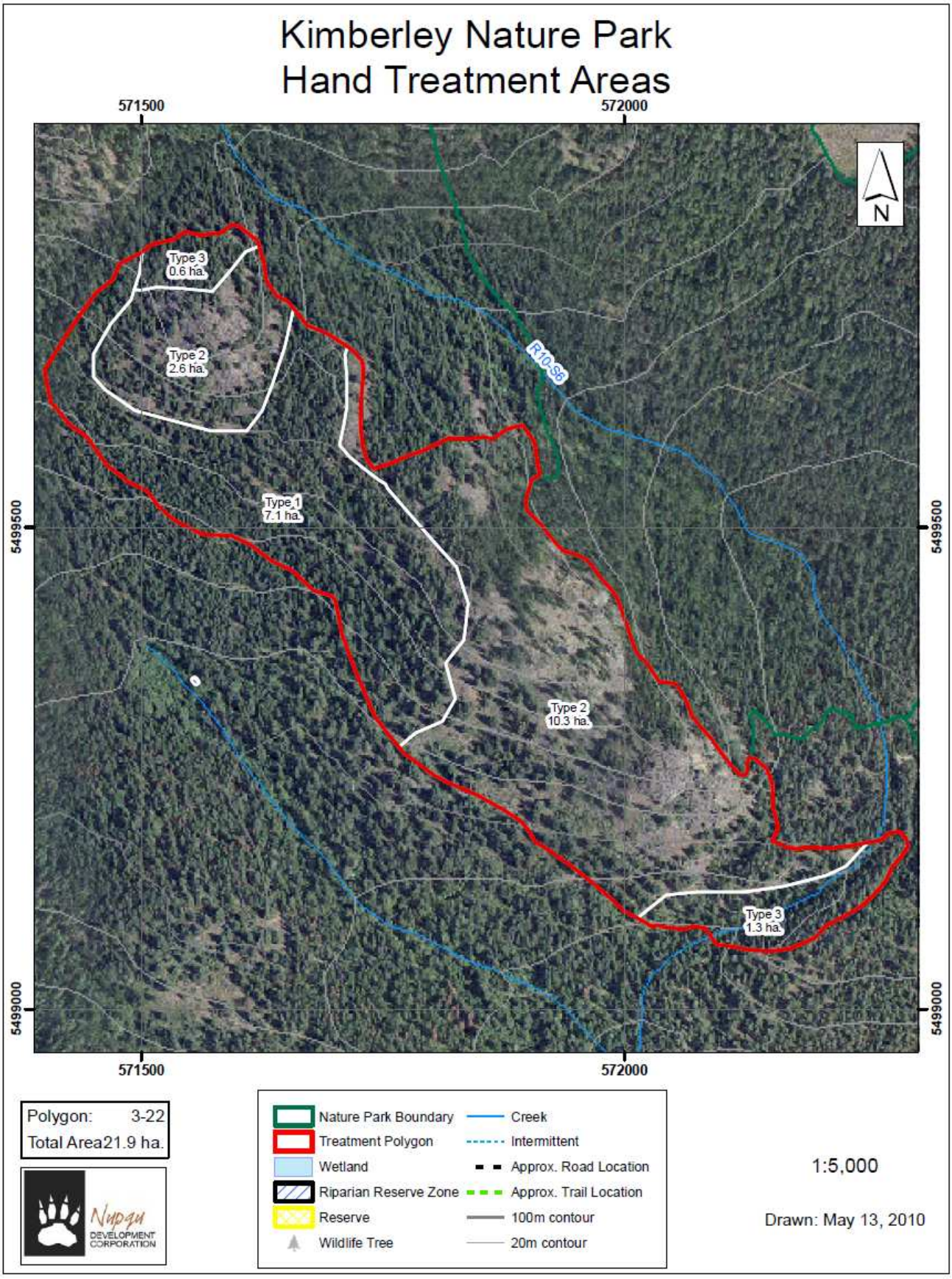
- Pile thinned material into piles not exceeding 1.5m in diameter by 1.5m in height. Burn piles should be located at the bottom of existing canopy openings and on old inactive trails to minimize damage to residual stems during burning operations. See treatment standards for fuel treatments in the WUI in Kimberley.
- Piles should be located on dry rocky areas to the fullest extent possible.
- Piles should be located on old skid trails to the fullest extent possible.

POST-BURNING TREATMENT AND FOLLOW-UP

1. Seed soil area affected by burning in the spring following burning with a seed mix suitable for areas of high burn severity.
2. Monitor wind/snow damage post-treatment and assess for follow up treatment to address overwinter snow press, wind damage, *etc.*
3. Monitor surface fuel characteristics and assess for 5 years following treatment.

I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work.

Brian Watson, R.P.F.	May 30, 2010 DATE


Kimberley Nature Park
Hand Treatment Areas
571500
572000
5499500
5499000
N
Type 3
0.6 ha.
Type 2
2.6 ha.
R10-S6
Type 1
7.1 ha.
Type 2
10.3 ha.
Type 3
1.3 ha.
Polygon: 3-22
Total Area21.9 ha.
Nupqu
DEVELOPMENT CORPORATION
Nature Park Boundary
Treatment Polygon
Wetland
Riparian Reserve Zone
Reserve
Wildlife Tree
Creek
Intermittent
Approx. Road Location
Approx. Trail Location
100m contour
20m contour
1:5,000
Drawn: May 13, 2010

SU 1

Diameter Class (cm)	PSME	LAOC	JUSC	PIPO	PICO	PIEN	Total
0.0-5.0	818	45	18	0	9	9	900
5.1-7.5	182	0	0	18	0	0	200
7.6-10.0	409	27	0	0	0	0	436
10.1-12.5	237	0	0	0	0	0	237
12.6-15.0	343	27	0	0	0	0	370
15.1-17.5	114	0	0	18	0	0	132
17.6-20.0	142	13	0	0	0	0	155
20.1-22.5	83	0	0	0	0	0	83
22.6-25.0	17	0	0	0	0	0	17
25.1-27.5	26	0	0	7	0	0	33
27.6-30.0	26	0	0	0	0	0	26
30.1-32.5	5	0	0	5	5	0	14
32.6-35.0	24	0	0	0	0	0	24
35.1-37.5	11	0	0	0	0	0	11
37.6-40.0	0	0	0	3	0	0	3
40.1-42.5	5	0	0	3	0	0	8
42.6-45.0	7	0	0	5	0	0	12
45.1-47.5	0	0	0	0	0	0	0
47.6-50.0	2	0	0	2	0	0	4
50.1-52.5	4	0	0	3	0	0	7
52.6-55.0	5	2	0	0	0	0	7
55.1-57.5	1	0	0	0	0	0	1
57.6-60.0	0	0	0	4	0	0	4
60.1-62.5	0	0	0	0	0	0	0
62.6-65.0	0	0	0	1	0	0	1
65.1-67.5	0	0	0	1	0	0	1
67.6-70.0	0	0	0	0	0	0	0
70.1-72.5	0	0	0	0	0	0	0
72.6-75.0	0	0	0	0	0	0	0
	2462	114	18	70	14	9	2687

thin
retain

SU 2

Diameter Class (cm)	PSME	LAOC	JUSC	PIPO	Total
0.0-5.0	100	0	245	18	364
5.1-7.5	0	0	0	0	0
7.6-10.0	0	0	0	9	9
10.1-12.5	0	0	0	0	0
12.6-15.0	9	0	0	9	18
15.1-17.5	9	0	0	0	9
17.6-20.0	0	0	0	0	0
20.1-22.5	19	0	0	11	30
22.6-25.0	0	0	0	0	0
25.1-27.5	0	0	0	13	13
27.6-30.0	11	0	0	0	11
30.1-32.5	0	0	0	0	0
32.6-35.0	4	4	0	4	12
35.1-37.5	7	0	0	0	7
37.6-40.0	3	0	0	6	9
40.1-42.5	5	0	0	0	5
42.6-45.0	0	0	0	5	5
45.1-47.5	4	0	0	2	7
47.6-50.0	6	0	0	2	8
50.1-52.5	0	0	0	2	2
52.6-55.0	0	0	0	3	3
55.1-57.5	1	0	0	1	3
57.6-60.0	0	0	0	0	0
60.1-62.5	0	0	0	1	1
62.6-65.0	0	0	0	0	0
65.1-67.5	0	0	0	1	1
67.6-70.0	0	0	0	0	0
70.1-72.5	0	0	0	0	0
72.6-75.0	0	0	0	0	0
75.1-77.5	0	0	0	1	1
77.6-80.0	1	0	0	0	1
	181	4	245	89	519

thin

retain

SU 3

Diameter Class (cm)	PSME	LAOC	JUSC	PIPO	PICO	Total
0.0-5.0	1238	0	300	13	0	1550
5.1-7.5	13	25	0	0	0	38
7.6-10.0	150	38	0	0	25	213
10.1-12.5	0	0	0	0	0	0
12.6-15.0	25	0	0	0	0	25
15.1-17.5	153	13	0	0	24	190
17.6-20.0	51	0	0	0	0	51
20.1-22.5	13	26	0	0	16	55
22.6-25.0	0	0	0	0	0	0
25.1-27.5	19	0	0	0	9	28
27.6-30.0	15	16	0	0	0	31
30.1-32.5	7	13	0	0	0	20
32.6-35.0	16	11	0	0	0	27
35.1-37.5	5	15	0	0	0	20
37.6-40.0	8	9	0	0	0	17
40.1-42.5	0	4	0	0	0	4
42.6-45.0	6	0	0	0	0	6
45.1-47.5	0	3	0	0	0	3
47.6-50.0	0	3	0	0	0	3
50.1-52.5	2	0	0	0	0	2
52.6-55.0	2	2	0	0	0	4
55.1-57.5	2	0	0	2	0	4
57.6-60.0	2	0	0	0	0	2
60.1-62.5	0	0	0	0	0	0
62.6-65.0	0	0	0	0	0	0
65.1-67.5	1	0	0	0	0	1
67.6-70.0	0	0	0	0	0	0
70.1-72.5	0	0	0	0	0	0
72.6-75.0	1	0	0	0	0	1
75.1-77.5	0	0	0	0	0	0
77.6-80.0	0	0	0	0	0	0
	1730	177	300	15	74	2294

thin
retain