

Executive Summary

Windy Point Lake 2004

A stocking assessment was conducted on Windy Point Lake during the fall of 2004. The original management goal for Windy Point Lake was for a moderate use fishery for rainbow trout. The objectives of this assessment were to document the status of the fishery.

Both a sinking and a floating gillnet 90 m in length (standard mesh) were set on October 21, 2004. The total sampling effort was 27.5 hours resulting in a gillnet catch per unit effort (CPUE) of 1.27 fish per hour. The rainbow trout sampled during the 2004 assessment had a mean length of 300 mm and a maximum length of 382 mm. Windy Point Lake has had problems in the past with many fish remaining spawnbound. An artificial upwelling station was installed to rectify this problem in 1993, however it was subsequently removed in 2002 because it was determined that a more cost-effective solution would be to stock sterile AF3N rainbow trout. To improve fishery quality and to better meet the management objective, the 2006 brood request will reduce the stocking rate from 2500 yearlings to 1800 yearlings in odd years as the stocking rate was not altered when sterile fish were first introduced. The 2004 stock assessment crew found evidence (four female fish 2-4 years old) that some natural recruitment may be occurring. The next stock assessment for Windy Lake is scheduled for 2009. At this time the field crew will further examine the amount of natural recruitment that is occurring.

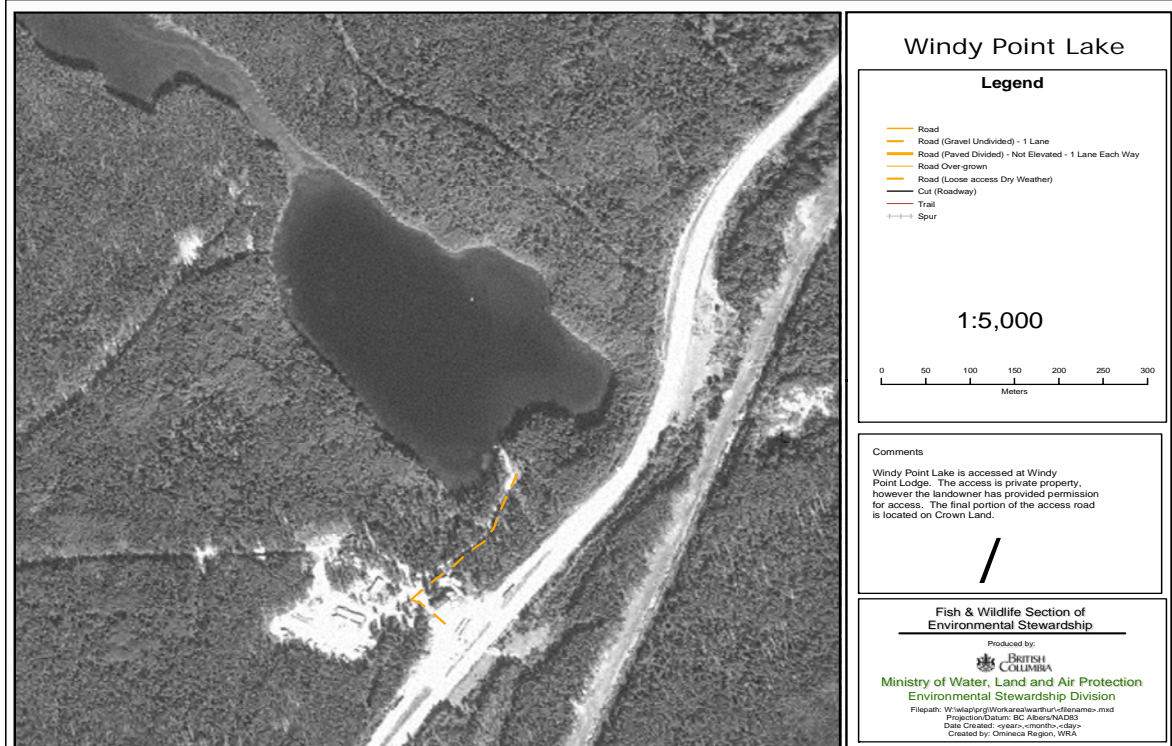


Figure 1. Orthophoto map of Windy Point Lake. Access is located directly off Highway 97N at Windy Point Resort.

Omineca Region Stocked Lake Assessment Report

**OMINECA REGION
LAKE STOCK ASSESSMENT REPORT**

LAKE NAME: Windy point **BC WBID:** 00165PARS

LAKE LOCATION: *Nearest center:* Direction & km from near *Drainage:* FRASER
UTM: 10.501218.6107611

LAKE ATTRIBUTES: *Surface Area:* 9.5 Ha *Elevation:* 715 m
Littoral Area: 5.3 Ha *T.D.S.:* na ppm
Max Depth: 18.3 m *Mean depth:* 6.9 m

MANAGEMENT OBJECTIVE:

- Objective 1 Family Fishery (High CPUE <30 cm)
- Objective 2 Average Quality (30-40 cm)
- Objective 3 Above Average (40-50 cm)
- Objective 4 Trophy (20% > 50 cm for RB, 20% > 40 cm for EB)

MANAGEMENT/SURVEY HISTORY:

Previous gill net assessment(s): no yes MOE 1983; McLean 1989
Year(s) Surveyed: 1983; 1989

STOCKING DATA:

Current Stocking Rate 263 Fish/Ha *Odd years*
Stock Type **PENNASK AF3N**
Species RB
Previous Stocking Rate 263

SURVEY METHODS:

Method	Date (yy.mm.dd)	Survey Agency	Crew
Fish	sgn 2004-10-21	BCCF	Chad Robertson, Kevin Mernickle
Chem.	DO, Cond 2004-10-21	BCCF	Chad Robertson, Kevin Mernickle
Physical	bathymetric 1961-06-01	Fish & Game	G.D.T. and M.H.
Temp.	profile 2004-10-21	BCCF	Chad Robertson, Kevin Mernickle

Netting Specs: *Net type:* Standard Experimental *Net length:* 90m (3x30m)
Setting: Sinking and Floating *Panel Mesh:* Standard

SURVEY RESULTS:

Catch

	RB	EB	RSC	LKC	LSU	CSU	NSC	CAS	BT	LT
2004	35	0	0	0	0	0	0	0	0	0
1989	13	0	0	0	0	0	0	0	0	0
1983	29	0	0	0	0	0	0	0	0	0
1968	26	0	0	0	0	0	0	0	0	0

Survey Year	2004	1989	1983	1968
Effort Hours	27.5	2	5	na
RB CPUE:	1.27	6.50	5.80	RB/Net Hour
EB CPUE:	0.00	0.00	0.00	EB/Net Hour
# of Sets:	2	1	1	na

Next Assessment **2009**

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SURVEY CONCLUSIONS:

Objective	Objectives Achieved		Reason
	Yes	No	
1. Family	<input type="checkbox"/>	<input type="checkbox"/>	
2. Average	<input checked="" type="checkbox"/>	<input type="checkbox"/>	88% of rainbow trout sampled are between 250-400mm fork length
3. Above Average	<input type="checkbox"/>	<input type="checkbox"/>	
4. Trophy	<input type="checkbox"/>	<input type="checkbox"/>	

RECOMMENDATIONS:

Assessment: The next assessment scheduled for Windy Point Lake is 2009.

Management: Windy Point Lake is providing a good fishery with average sized rainbow trout. Recommend reducing the current stocking density to 1800 yearlings in alternate years. Windy Point Lake is one of the few monoculture rainbow trout fisheries in the Omineca Region.

Comments: Some evidence of natural recruitment but minimal at this time.

Uncertainties:

Recent Brood Request Comments:

2005 Odd year stocking of 2,500

History of Angling Regulations

Electric motors only

Reported by: Adrian Clarke

Date: Mar-05

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Table 1. Rainbow trout physical attributes for sample years:

Sample Year	Sample		Length (mm)				Weight (g)				Condition (k)				
	Age	Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
1989	1	1	144				40				1.34				
2004	2	18	264	218	306	21.9	212	99	310	60.1	1.12	0.96	1.26	0.1	0.01
1989	2	1	275				235				1.13				
1989	3	8	297	255	345	34.9	308	150	490	119.6	1.12	0.90	1.22	0.1	0.01
2004	4	16	339	314	382	18.4	448	350	680	77.5	1.14	1.02	1.24	0.1	0.00
1989	4	2	332	322	342	14.1	438	430	445	10.6	1.20	1.07	1.33	0.2	0.03
1983	4	10	366	330	416	24.7	555	482	652	48.6	1.16	0.67	1.50	0.2	0.06
1983	5	17	376	348	402	15.6	643	538	793	84.2	1.21	1.02	1.34	0.1	0.01
1983	6	2	380	376	384	5.7	609	595	623	19.8	1.11	1.05	1.17	0.1	0.01

Table 2. Catch summary for all sample years.

Sample Year	Sample		Length (mm)				Weight (g)				Condition (k)				
	Age	Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
2004		35	300	218	382	43.0	328	99	680	138.0	1.14	0.96	1.30	0.08	0.01
1989		13	286	144	345	43.0	294	40	490	134.8	1.16	0.90	1.34	0.12	0.02
1983		29	373	330	416	19.0	611	482	793	81.0	1.19	0.67	1.50	0.16	0.03

Table 3. Proportion of Catch (by survey year)

Survey Year	2004	1989	1983	1968
Less than 250 mm	11.4 %	7.7 %	0.0 %	34.6 %
Between 250-350 mm	80.0 %	92.3 %	13.8 %	38.5 %
Between 250-400 mm	88.6 %	92.3 %	93.1 %	46.2 %
Greater than 400 mm	0.0 %	0.0 %	6.9 %	19.2 %
Greater than 500 mm	0.0 %	0.0 %	0.0 %	0.0 %

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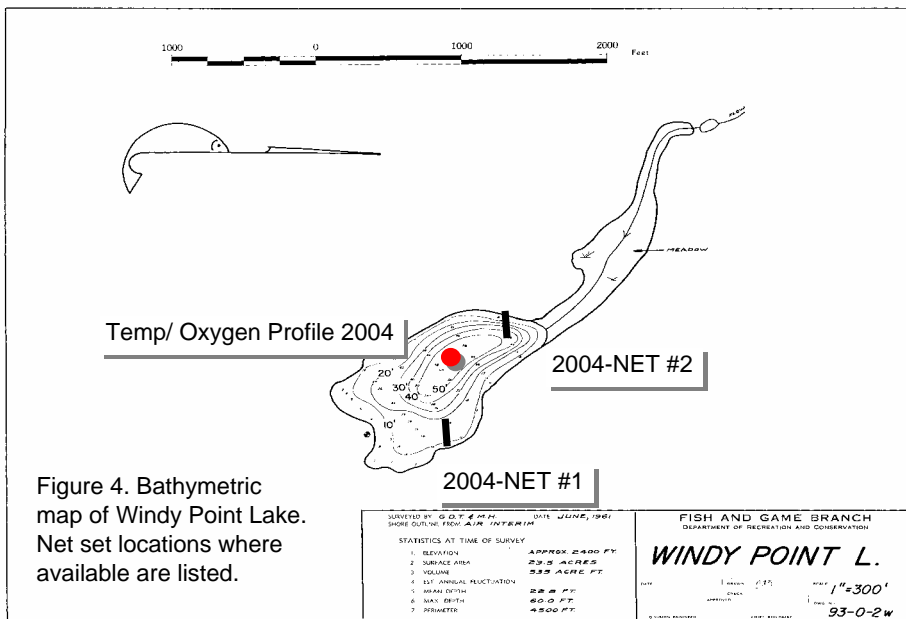
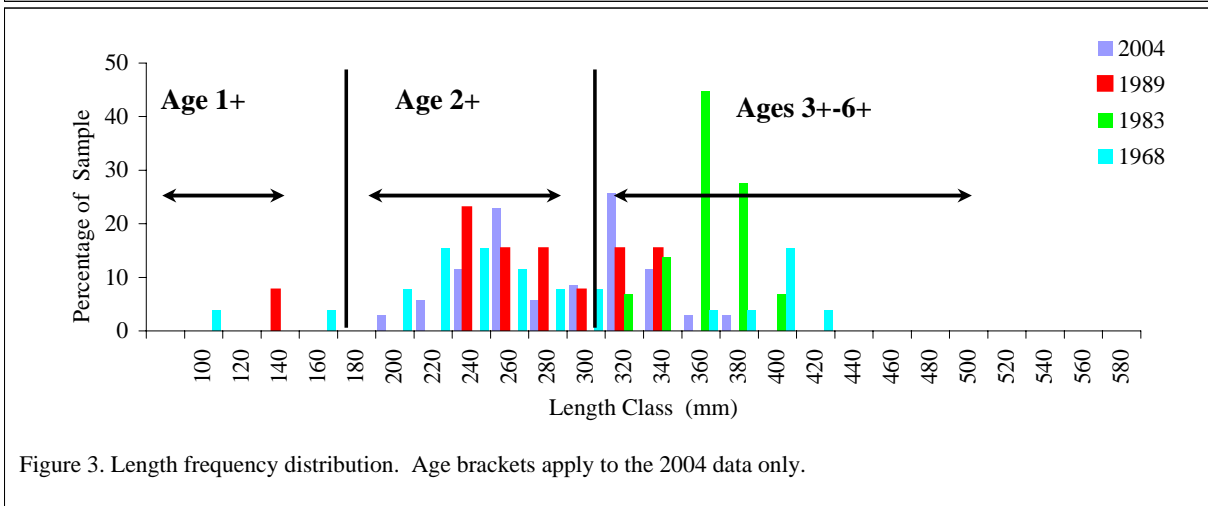
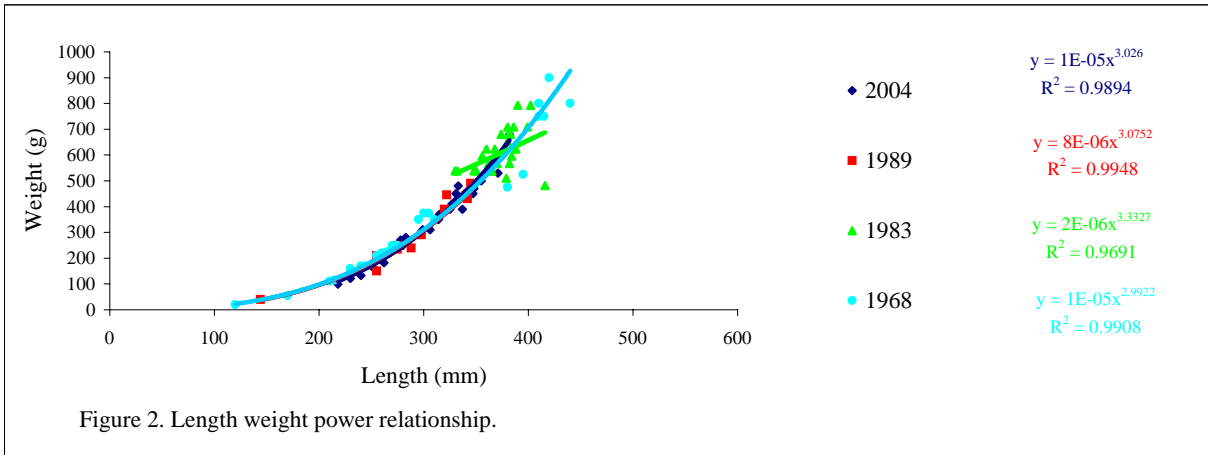


Table 4. Stocking History for Windy Point Lake to 2004.

Release Date	Species Name	Fish Count	Stock	Mark	Average Size (gm)	Life Cycle Stage
17-Jun-03	RB	2500	PENNASK AF3N		14.06	YEARLING
12-Jun-01	RB	2500	PENNASK AF3N		14.17	YEARLING
3-Jun-99	RB	2500	PENNASK BEAV AF		15.15	YEARLING
17-Jun-97	RB	2500	BADGER TUNKWA		8.33	YEARLING
27-May-95	RB	2500	NRT GENIER		10.99	YEARLING
29-May-93	RB	2500	TUNKWA		2.94	YEARLING
4-Jun-91	RB	2500	NRT PREMIER		5.1	YEARLING
6-Jun-89	RB	1000	TUNKWA		8.1	YEARLING
1-May-87	RB	2500	TUNKWA		15.3	UNKNOWN
1-Sep-83	RB	5000	DRAGON		1.9	UNKNOWN
1-Jan-79	RB	10000	NRT PREMIER		3.4	UNKNOWN
1-Jan-75	RB	10000	SWALWELL		1.5	FRY
1-Jan-72	RB	5000	SWALWELL		0.8	FRY
1-Jan-70	RB	3500	PENNASK		0	YEARLING
1-Jan-64	RB	5000	MCLEARY		1.5	FRY

Table 5. Dissolved Oxygen/ Temperature Profile

07-Jun-89			26-Oct-04 Station UTM 10.501173.6107295					
Depth (m)	DO	Temp. °C	Depth (m)	DO mg/L	DO %sat	Temp. °C	pH	Cond (25°C)
0	9.44	17.7	0	7.02	57.0	6.28	7.6	115
1	8.9	17.7	1	6.93	56.1	6.32	7.6	114
2	8.88	17.6	2	6.73	54.7	6.36	7.6	115
3	9.05	17.2	3	6.86	56.1	6.36	7.6	114
4	9.58	15.3	4	6.71	54.5	6.33	7.6	114
5	9.48	13.7	5	6.72	54.7	6.33	7.6	115
6	9.12	11.9	6	7.06	57.3	6.31	7.5	115
7	8.85	10.2	7	6.73	54.8	6.28	7.5	117
8	8.15	8.9	8	7.02	57.0	6.33	7.4	118
9	6.45	7.6	9	6.61	54.1	6.33	7.5	121
10	4.91	7	10	5.44	45.2	6.82	7.2	166
11	2.44	6.3	11	4.94	40.8	6.87	7.1	168
12	0.55	5.9	12	3.98	34.2	7.21	6.95	166

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Table 5. Stock assessment data for 2004 (see lakes files for additional survey data).

Lake	Sample#	Site	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Sex	Ageing Comments	Comments
Windy point	1	1	rb	4	371	530	1.0	4+	ot	af3n		fat fish
Windy point	2	1	rb	4	331	450	1.2	4+	ot	af3n		
Windy point	3	1	rb	4	382	680	1.2	4+	ot	af3n		thick fish
Windy point	4	1	rb	4	355	500	1.1	4+	ot	af3n		
Windy point	5	1	rb	4	328	410	1.2	4+	ot	f		tiny eggs
Windy point	6	1	rb	4	330	420	1.2	4+	ot	af3n	vague 4th annulus	
Windy point	7	1	rb	2	278	270	1.3	2+	ot	af3n		
Windy point	8	1	rb	2	261	210	1.2	2++	ot	af3n		
Windy point	9	1	rb	2	218	99	1.0	2++	ot	af3n		
Windy point	10	1	rb	2	240	133	1.0	2++	ot	af3n		
Windy point	11	1	rb	4	348	470	1.1	4+	ot	af3n	translucent	thick fish
Windy point	12	1	rb		333	480	1.3		ot	f	translucent; unreadable	bright fish
Windy point	13	1	rb	2	265	220	1.2	2+	ot	af3n		
Windy point	14	1	rb	4	339	450	1.2	4+	ot	f	opaque center; vague 1st annulus	small bright fish
Windy point	15	1	rb	4	342	460	1.1	4+	ot	af3n		
Windy point	16	2	rb	4	339	440	1.1	4+	ot	af3n		
Windy point	17	2	rb	2	252	163	1.0	2+	ot	af3n		slight red stripe
Windy point	18	2	rb	4	347	450	1.1	4+	ot	af3n	translucent	
Windy point	19	2	rb	4	337	390	1.0	4+	ot	af3n	translucent	
Windy point	20	2	rb	4	315	370	1.2	4+	ot	af3n		
Windy point	21	2	rb	2	270	230	1.2	2+	ot	af3n		
Windy point	22	2	rb	4	325	390	1.1	4+	ot	af3n		
Windy point	23	2	rb	2	259	200	1.2	2++	ot	af3n		
Windy point	24	2	rb	4	327	410	1.2	4+	ot	af3n		
Windy point	25	2	rb	2	250	178	1.1	2++	ot	af3n		
Windy point	26	2	rb	2	262	182	1.0	2+	ot	f		
Windy point	27	2	rb	2	299	310	1.2	2++	ot	af3n		
Windy point	28	2	rb	2	270	230	1.2	2++	ot	af3n		
Windy point	29	2	rb	2	306	310	1.1	2+	ot	af3n		
Windy point	30	2	rb	2	265	220	1.2	2++	ot	af3n	tip broken	
Windy point	31	2	rb	2	280	250	1.1	2++	ot	af3n		
Windy point	32	2	rb	2	283	280	1.2	2+	ot	af3n		
Windy point	33	2	rb	2	230	121	1.0	2++	ot	af3n		
Windy point	34	2	rb	2	257	210	1.2	2++	ot	af3n	translucent; vague 1st annulus	
Windy point	35	2	rb	4	314	350	1.1	4+	ot	af3n	translucent; vague 1st annulus	