2007 Cocolalla Lake Association Eurasian Watermilfoil Project
Final Report

Background

Cocolalla Lake comprises approximately 805 acres in Bonner County. The lake is located adjacent to highway 95 approximately 10 miles south of Sandpoint, ID.

An initial aquatic herbicide treatment for EWM was conducted at Cocolalla Lake during the summer of 2006. All participants in the project concluded that approximately 90 percent of the EWM in the lake was eliminated by that treatment. Initial surveys this year reinforce that conclusion.

Cocolalla Lake Association (CLA) was advised April 30, 2007 by Idaho State Department of Agriculture (ISDA) of award of Phase II Eurasian Watermilfoil (EWM) Control Program funds for fiscal year 2007 in the amount of $69,307.00. The complete funds disbursement agreement was provided on May 17, 2007.

An amendment request was submitted by CLA on August 10, 2007 in the amount of $2989.00. ISDA issued an addendum to the disbursement agreement on August 17, 2007 with an amended total of $72,296.00.

Project Summary

For 2007 CLA proposed and conducted a three-part project aimed at eradication of EWM in Cocolalla Lake.

These parts included:

1. A follow-on aquatic herbicide treatment of previously infested areas
2. The purchase of water/watershed quality education material in the form of books and literature for use by K – 6 students at Southside Elementary School in Cocolalla, ID
3. With the participation of Idaho Department of Fish and Game (IDFG), construction of a Lake Host facility at the north end of the lake near the lake's single public boat launch.

EWM Treatment

A pre-treatment EWM survey was conducted by ISDA on June 11 and 12, 2007. This survey was conducted using the rake-toss method. Results of this survey are depicted in Figure 1.

Aquatic herbicide treatment was conducted by Dave's Weed and Pest Control (DWPC), Idaho applicator license #41977, on July 9 and 10, 2007.

Mapped treatment areas are shown in Figure 3. 90 acres in Cocolalla Lake and the lake outlet stream were treated with DMA 4 IVM (active ingredient 2,4-D) at an application rate of 2.1 gal/acre-ft. Additionally, two acres in the lake outlet stream were treated with Reward (active ingredient diquat) at a rate of 1.5 gal/acre. Post-treatment water chemistry and dissolved oxygen levels are shown in Figures 4 and 5. Sample locations are shown in Figure 6. It is notable that 2,4-D chemical concentration levels remained above 70 ppb until July 29.

Post-treatment EWM survey was conducted by ISDA on September 19, 2007, again using the rake-toss method. Appreciable samples of native aquatic plants were found, with no apparent negative effects from the treatments. The results of the survey are shown in Figure 2.

No EWM was detected during the post-treatment survey, and none has been seen during visual inspection by CLA members.

Education Element

At the request of CLA, Ms. Jan Vann, Southside Elementary School sixth grade teacher, assembled a list of water/water-quality related books and literature. The cost of these books was included in CLA's request for grant monies. The books and literature have been purchased by Southside Elementary School and are now available for use by all students.

Lake Host Facility

CLA worked closely with IDFG in the completion of the Lake Host Facility. IDFG took the lead in developing the specifications and issuing the necessary contracts. The facility is located at the entrance to the public boat launch area. A 20' X 60' concrete slab for a recreational vehicle was put in place, and suitable electrical power, water, and septic system are available to the Lake Host. A vehicle and trailer turnout exists to accommodate inspection of boats and trailers. It is anticipated that the facility will be occupied during peak boating season on the lake …. Memorial Day weekend through the Labor Day holiday. IDFG will maintain the facility and select the Lake Host each season.

Sportsman Access Lake Host Facility

Financial Accounting

Financial accounting was conducted by Panhandle Lakes Resource Conservation and Development Area (RC&D) of Coeur d' Alene, Idaho. Financial ledger prepared by RC&D is included as Figure 7 and reflects all project income and expenditures to date.

Benefits of the Project

Based upon post-treatment surveys and visual inspection Cocolalla Lake appears free of EWM in all areas treated.
Placing appropriate educational materials in the hands of elementary school students will serve to increase the knowledge base of these future users of the state's sports and recreational resources.
The presence of a Lake Host will provide an effective choke point against the spread of EWM to or from the lake.

For 2008

After 2 successful treatment events, 2006 and 2007, it is conceivable that EWM can be eradicated from Cocolalla Lake. CLA will seek Phase III funds to conduct a thorough survey of littoral areas of the lake and to conduct hand-pulling, diver-dredging, spot herbicide treatments, or combinations of these approaches.

IDA - June 11-12 2007

Cocolalla Lake Survey Data

Pretreatment

Figure 1

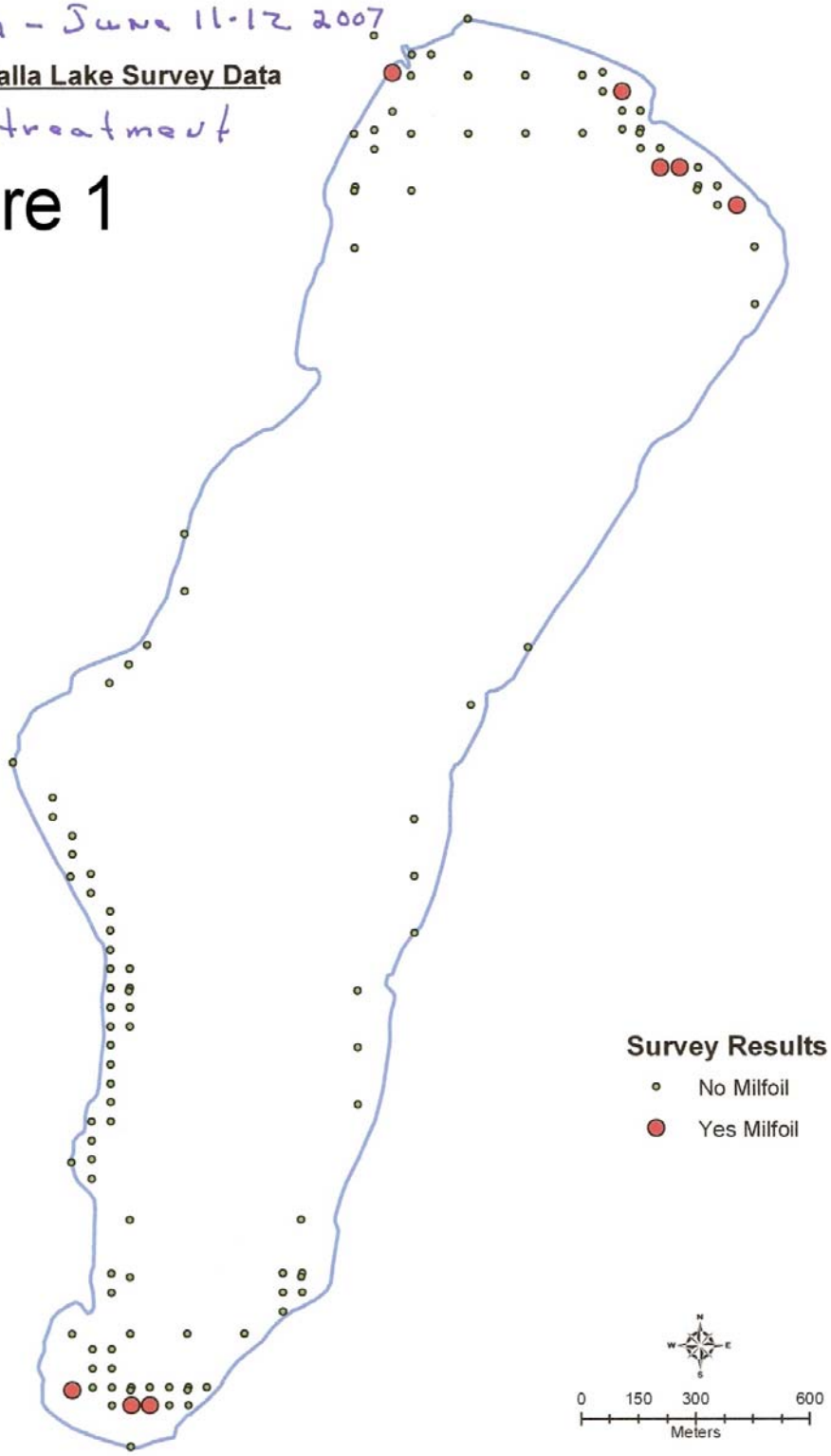

Figure 2 P1

Point Intercept Data Sheet Water Body: Cocolalla Date: 9/19/2007 Observers: TW, Rose, Ralph

Weather Conditions: GPS Type: Secchi Depth:

samp	Easting	Northing	Ewm	Big leaf	elodea	nitella	coontail	fernleaf	watershield	spatterdock	curly	fernleaf	Depth	EWM_Cover	Milfoil_cond	Sedtype	Notes
1	5328494	527959		1	1		1					1	3				
2	5328494	528009		1	1		1					1	5				
3	5328494	528059			1		1					1	2				
4	5328494	528109		1	1							1	3			muddy	
5	5328494	528159															spatterdock
6	5328544	527909		1			1					1	3				
7	5328544	527959										1	4			muddy	
8	5328544	528059										1	12				
9	5328544	528109										1	10			muddy	
10	5328544	528159		1								1	5			muddy	
11	5328544	528209		1								1	4				
12	5328594	527909										1	11			muddy	bryozoan
13	5328594	527959											13				nothing
14	5328744	528409											5			rocky	nothiing
15	5328794	528459			1							1	4			rocky	
16	5329094	527909										1	3				
17	5329144	527909										1	12				
18	5329244	527909										1	12				
19	5329444	527959		1								1	15				
20	5329594	527959										1	12				
21	5329644	527959											5			rocky	nothing
22	5329844	527909											6			rocky	nothing
23	5330394	527959											18				nothing
24	5330444	528009		1								1	3				
25	5330494	528059		1								1	6				
26	5331644	529559										1	12			muddy	
27	5331644	529609		1									4			rocky	
28	5331694	528609		1	1							1	3				
29	5331694	529509		1								1	5				
30	5331694	529559		1								1	3				
31	5331744	529409		1								1	3				
32	5331744	529459		1								1	4				
33	5331744	529509										1	3				
34	5331794	528659										1	6				
35	5331794	529359		1								1	5			rocky	
36	5331794	529409											5			rocky	nothing
37	5331844	528659										1	5				
38	5331844	529309											13				nothing

Figure 2 P2

39	5331844	529359																		skip
40	5331894	528709										1				4				
41	5331894	529309										1				4				
42	5331894	529359			1						1					3			sandy	
43	5331944	529259										1				4				
44	5331944	529309										1				2				
45	5331994	528709														4			rocky	nothing
46	5331994	529259		1								1				3				
47	5332044	528759														3				nothing
48	5332044	528809																		skip - bullrush
49	5332094	528659																		
50	5328690	527849		1	1		1					1				2			muddy	
51	5328630	527833		1								1				2			muddy	
52	5328908	527957		1								1				2				
53	5332136	528906														5				nothing
54	5331986	528756														3			rocky	nothing
55	5331986	529206														14				nothing
56	5331836	528606														3			rocky	nothing
57	5331836	529356																		skip
58	5331686	528606		1												2				
59	5331686	529506		1								1				5				
60	5331536	529656										1				18				
61	5331386	529656														18				nothing
62	5330786	528156										1				4				
63	5330636	528156										1				14				
64	5330486	529056										1				12				
65	5330336	528906														15				nothing
66	5330186	527706										1				16				
67	5329736	528756										1				8				
68	5329136	527856		1								1				2				
69	5328686	527856										1				4			muddy	
70	5328686	528306														20			rocky	nothing
71	5328536	527856		1	1		1					1				3			muddy	
72	5328536	528006										1				3				
73	5328536	528156		1			1					1				3			muddy	
74	5328386	528006																	grebe red n	spatterdock

Figure 3


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Topo USA® 6.0
Cocollala July 9 & 10, 2007
N BEACH RD
Westmond
WILLFORD RD
LOON
N TERRACE DR
95
GEENEN RD
NEIL LN
LINTZ LN
TOMAHAWK LN
SANDY DR
PINEWOOD LN
KELLEY CREEK RD
BUTLER CREEK SPUR
STEEP LN
ROOP RD
Cocolalla
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Scale 1 : 19,200
Data Zoom 12-4
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Figure 4

Post-treatment Aquatic Herbicide Concentration (ug/l)						
Sample Site	Herbicide	7/12	7/16	7/23	7/29	
#1	2,4-D	189.0	137.0	112.0	38.0	
#2	2,4-D	157.0	144.0			
#3(outlet stream)	Diquat	ND	6.4			
#3 (outlet stream)	2,4-D			93.0		
#4 (outlet stream)	2,4-D	266.0	125.0			
#5	2,4-D	297.0	123.0	112.0	9.5	
#6	2,4-D	231.0	135.0			
#7	2,4-D	155.0			36.5	

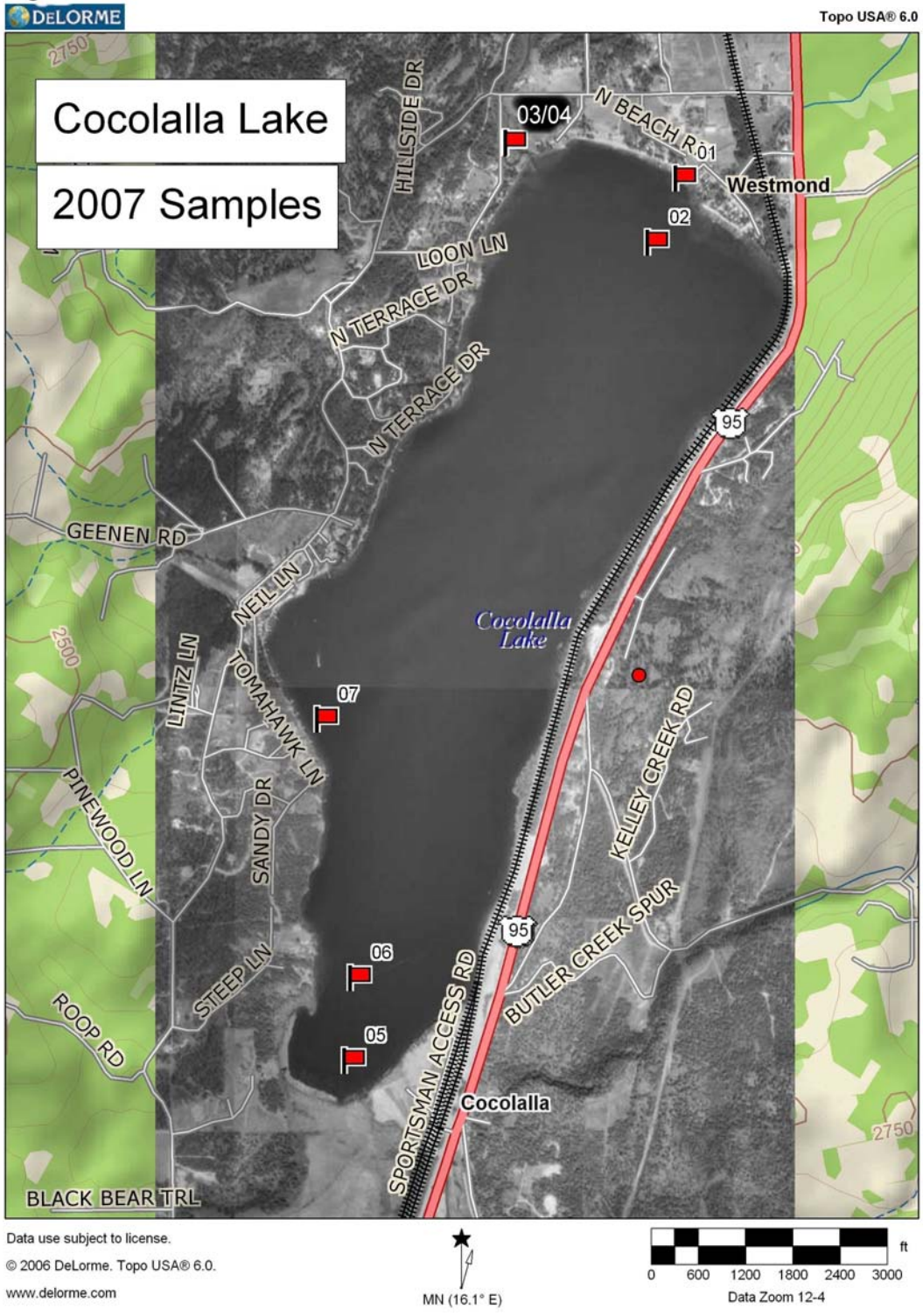
All Readings by DWPC

Figure 5

Dissolved Oxygen Readings (mg/l)								
	7/11	7/12	7/14	7/16	7/19	7/21	7/23	7/29
N End Inside Treated Area - 1	9.8		9.1		8.2	8.8		
N End Inside Treated Area - 2	9.9		9.5		7.6	8.8		
N End Inside Treated Area - 3	9.7	9.5*	9.6	7.8*	8.0	8.6	9.1	10.0
N End Outside Treated Area -1	9.8		9.4		8.4	8.9		
N End Outside Treated Area -2	9.8		9.4		8.3	8.4		
N End Outside Treated Area -3	9.9	10.1*	9.4	8.7*	8.2	8.7		
West Inside Treated Area -1	9.5		9.8		8.3	8.2		
West Inside Treated Area -2	9.4		9.6		8.3	8.1	8.8	10.0
West Inside Treated Area -3	9.5		9.6		8.3	8.4		
West Outside Treated Area -1	9.6		9.9		8.2	8.0		
West Outside Treated Area -2	9.5		9.8		8.4	8.2		
West Outside Treated Area -3	9.6		9.6		8.4	8.4		
S End Inside Treated Area -1	9.2		9.5		7.8	8.2		
S End Inside Treated Area -2	9.3		7.1	8.6*	5.4	7.9	9.4	9.6
S End Inside Treated Area -3	9.4	9.4*	9.5		4.7	8.1		
S End Outside Treated Area -1	9.5		9.5		8.1	8.4		
S End Outside Treated Area -2	9.6		9.7	8.8*	8.4	8.4		
S End Outside Treated Area -3	9.6	9.5*	9.4		8.2	8.4		
Outlet Stream at Bridge	2.5		2.1	1.6*	1.3	2.4		
Outlet Stream Midway to Bridge	4.2	4.6*	3.4		2.7	5.4	7.7	

*Readings by DWPC

Figure 6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Cocolalla Lake
2007 Samples
03/04
01
02
Westmond
HILLSIDE DR
N BEACH RD
LOON LN
N TERRACE DR
N TERRACE DR
95
GEENEN RD
NEIL LN
LINTZ LN
TOMAHAWK LN
Cocolalla Lake
07
KELLEY CREEK RD
PINEWOOD LN
SANDY DR
95
BUTLER CREEK SPUR
06
STEEP LN
ROOP RD
05
SPORTSMAN ACCESS RD
Cocolalla
2750
2500
BLACK BEAR TRL
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MN (16.1° E)
0 600 1200 1800 2400 3000 ft
Data Zoom 12-4

Figure 7

2007 Cocolalla Lake Association - Eurasian Milfoil Grant							
	Date	Description of Transaction Vendor Name	Comments	Deposit/Credit	Payment/Debit	RC&D 5% Admin. Fee	Amount Remaining
Carryover			Remaining ISDA funds from 2006 (as of 03/16/07), or carryover/ending balance from previous quarter's report				$0.00
Check #							
	6/12/2007	Deposit	Idaho Dept. of Ag. - 1st Quarter	20,792.10		990.10	19,802.00
6454	8/1/2007	Dave's Weed & Pest Control	Cocolalla Lake Treatment		19,802.00		0.00
	9/12/2007	Deposit	Idaho Dept. of Ag. - 2nd Quarter	44,274.30		2,108.30	42,166.00
6483	9/13/2007	Dave's Weed & Pest Control	Herbicide Treatment & Samples		23,470.09		18,695.91
6503	11/5/2007	United Pump & Drilling	Labor, Well Modifications, etc.		6,685.00		12,010.91
6504	11/5/2007	Clayton Tope Trucking, etc.	Excavation, Permits, etc.		12,010.91		0.00
		Ending Balance		$65,066.40	$61,968.00	$3,098.40	$0.00

Charles J. Bladsett — 11/26/2007

NAME * DATE

* PERSON AUTHORIZED TO SIGN ON BEHALF OF COCOLALLA LAKE ASSOCIATION.