



HORSESHOE LAKE MANAGEMENT COMMITTEE AGENDA

5:00 P.M. - THURSDAY, APRIL 14, 2016

Woodland Police Station - Council Chambers
200 East Scott Avenue
Woodland, WA 98674

Call to Order

Citizen Communications for items NOT on the Agenda

Citizen Communications for items ON the Agenda

I. Approval of Minutes for February 11, 2016 and March 10, 2016

II. Continued Business

A. Lake Update

- WA State Dept of Transportation
Pump/Screen/Debris Update
- WA Dept of Fish and Wildlife
Outlet Structure Repair Update
Fish Counts
- **Lake Tracking**

B. Water Quality

- Centennial Grant
Testing Update
- Milfoil
Aquatic Vegetation Management Plan

III. New Business

A. None

IV. Other

A. None

V. Adjourn - Next Meeting May 12, 2016 at 5:00 P.M.

**HORSESHOE LAKE TRACKING
2016**

Date	River Level 8:00 AM	Days High Temp	24-Hr Rainfall	Lake			Valve Status (Turns Open)	Pump (GPM)	Comments
				Level	Temp	Visibility			
1-Apr-16	10.43	76°	0.00				Closed	Off	
2-Apr-16	11.51	75°	0.00				Closed	Off	
3-Apr-16	11.29	77°	0.10				Closed	Off	
4-Apr-16	11.05	59°	0.32				Closed	Off	Pump was not turned on as planned.
5-Apr-16		68°	0.00				Closed	Off	
6-Apr-16	11.28	73°	0.00				Closed	Off	
7-Apr-16	11.59	75°	0.00				Closed	Off	
8-Apr-16	12.04	81°	0.00				Closed	Off	
9-Apr-16	12.44	71°	0.00				Closed	Off	
10-Apr-16	12.14	68°	0.00				Closed	Off	
11-Apr-16	12.08						Closed	Off	
12-Apr-16	11.90						Closed	On	Level projected.
13-Apr-16	12.30						Closed	On	Level projected.
14-Apr-16	12.58								
15-Apr-16	12.38								
16-Apr-16	12.54								
17-Apr-16									
18-Apr-16									
19-Apr-16									
20-Apr-16									
21-Apr-16									
22-Apr-16									
23-Apr-16									
24-Apr-16									
25-Apr-16									
26-Apr-16									
27-Apr-16									
28-Apr-16									
29-Apr-16									
30-Apr-16									

**HORSESHOE LAKE TRACKING
2016**

Date	River Level 8:00 AM	Days High Temp	24-Hr Rainfall	Lake			Valve Status (Turns Open)	Pump (GPM)	Comments
				Level	Temp	Visibility			
1-Mar-16		60°	0.41				Closed	Off	
2-Mar-16	13.90	58°	0.20				Closed	Off	
3-Mar-16	13.85	66°	0.51				Closed	Off	
4-Mar-16	13.65	61°	0.00				Closed	Off	
5-Mar-16		66°	0.29	-6	56°	6.5	Closed	Off	
6-Mar-16		58°	0.42				Closed	Off	
7-Mar-16	13.58	57°	0.22				Closed	Off	Screens cleaned.
8-Mar-16	13.46	47°	0.17				Closed	Off	
9-Mar-16	13.47	56°	0.87				Closed	Off	
10-Mar-16		62°	0.28				Closed	Off	
11-Mar-16		53°	0.16				Closed	Off	
12-Mar-16		50°	0.23				Closed	Off	
13-Mar-16	15.39	58°	0.83				Closed	Off	
14-Mar-16	15.40	53°	0.13	-4	50°	6.5	Closed	Off	
15-Mar-16	15.08	48°	0.25				Closed	Off	
16-Mar-16	15.16	56°	0.02				Closed	Off	
17-Mar-16	15.12	67°	0.00				Closed	Off	
18-Mar-16	14.93	68°	0.00				Closed	Off	
19-Mar-16	14.65	75°	0.01				Closed	Off	
20-Mar-16		60°	0.10	-5	52°	7	Closed	Off	
21-Mar-16		55°	0.44				Closed	Off	
22-Mar-16		58°	0.19				Closed	Off	
23-Mar-16	12.94	53°	0.13				Closed	Off	
24-Mar-16	12.85	54°	0.13				Closed	Off	
25-Mar-16	13.03	63°	0.02				Closed	Off	
26-Mar-16	12.12	62°	0.18				Closed	Off	
27-Mar-16	11.98	55°	0.18				Closed	Off	
28-Mar-16		59°	0.01	-3	52°	7.5	Closed	Off	
29-Mar-16							Closed	Off	
30-Mar-16	10.96	77°	0.00				Closed	Off	
31-Mar-16	10.53	78°	0.00				Closed	Off	

**HORSESHOE LAKE TRACKING
2016**

Date	River Level 8:00 AM	Days High Temp	24-Hr Rainfall	Lake			Valve Status (Turns Open)	Pump (GPM)	Comments
				Level	Temp	Visibility			
1-Feb-16	13.60	46°	0.09		50°	6	Fully Open	3,525	Water is ugly.
2-Feb-16	13.18	51°	0.00				Fully Open		
3-Feb-16	12.89	45°	0.29				Fully Open		
4-Feb-16		60°	0.63				Fully Open		
5-Feb-16		54°	0.08				Fully Open	3,490	
6-Feb-16	11.80	53°	0.00				Fully Open		
7-Feb-16	11.15	67°	0.00	3	50°		Fully Open		
8-Feb-16		68°	0.00				Fully Open	3,245	
9-Feb-16	11.64	67°	0.00				Fully Open		
10-Feb-16	11.78	64°	0.00				Fully Open		
11-Feb-16	11.80	56°	0.18				Fully Open		
12-Feb-16		58°	0.36				Fully Open	3,258	
13-Feb-16		49°	0.51				Fully Open		
14-Feb-16	13.68	53°	0.84	3	525°	6	Fully Open		Lots of dead weeds (may be from shoreline due to high water & wind).
15-Feb-16	14.37	60°	0.00				Fully Open		
16-Feb-16	14.22	55°	0.18				Fully Open	Off	
17-Feb-16	14.23	67°	0.39				Fully Open	Off	Weather station 9 down, used 20.
18-Feb-16	14.56	47°	0.43				Fully Open	Off	Weather station 9 down, used 20.
19-Feb-16	14.55	50°	0.40				Fully Open	Off	Weather station 9 down, used 20.
20-Feb-16		52°	0.00	0	50°	6	Fully Open	Off	Weather station 9 down, used 20.
21-Feb-16		53°	0.15				Fully Open	Off	Weather station 9 down, used 20.
22-Feb-16		53°	0.05				Fully Open	Off	Weather station 9 down, used 20.
23-Feb-16	13.21	64°	0.01				Fully Open	Off	
24-Feb-16	12.98	70°	0.00				Down 20	Off	
25-Feb-16	12.73	70°	0.00				Down 20	Off	
26-Feb-16		60°	0.30				Down 20	Off	
27-Feb-16	11.81	64°	0.31				Down 21	Off	
28-Feb-16	11.39	59°	0.07	-6	52°	6.5	Down 22	Off	
29-Feb-16	11.28	51°	0.42				Closed	Off	

**HORSESHOE LAKE TRACKING
2015**

Date	River Level 8:00 AM	Days High Temp	24-Hr Rainfall	Lake			Valve Status (Turns Open)	Pump (GPM)	Comments
				Level	Temp	Visibility			
1-Apr-15	11.41	52°	0.25				20		NO pump log available (unknown)!
2-Apr-15	10.94	57°	0.00				20		
3-Apr-15	10.68	48°	0.26				20		
4-Apr-15	10.65	57°	0.00				20		
5-Apr-15	10.64	61°	0.25	1	56°	9	20		
6-Apr-15	10.73	57°	0.06				20		
7-Apr-15	10.63	59°	0.08				20		
8-Apr-15	10.46	63°	0.00				20		
9-Apr-15	10.18	65°	0.00				20		
10-Apr-15	10.11	61°	0.00				20		Cormorants = 122.
11-Apr-15	10.03	54°	0.63				20		
12-Apr-15	9.81	57°	0.09				20		Cormorants = 40.
13-Apr-15	9.58	55°	0.50				20		Cormorants = 38.
14-Apr-15	10.08	50°	0.44				20		
15-Apr-15	9.46	60°	0.01				20		Weather station to KWAWOODL9-PW.
16-Apr-15	8.70	70°	0.00				10		Cormorants = 70+.
17-Apr-15	8.75	73°	0.00				10		
18-Apr-15	9.47	75°	0.01				10		
19-Apr-15	10.18	76°	0.00	-1	56°	8	10		
20-Apr-15	9.06	80°	0.00				10		
21-Apr-15	10.03	63°	0.00				10		
22-Apr-15	9.64	62°	0.00				10		
23-Apr-15	9.27	52°	0.16	-3		6.5	10		Tested water quality.
24-Apr-15	9.46	61°	0.18				10		
25-Apr-15	9.15	64°	0.02				10		Level projected (vacation).
26-Apr-15	9.40	64°	0.01				10		Level projected (vacation).
27-Apr-15	9.65	89°	0.01				Closed		Level projected (vacation).
28-Apr-15	9.76	64°	0.00				Closed		Level projected (vacation).
29-Apr-15	9.46	69°	0.00				Closed		Level projected (vacation).
30-Apr-15	8.85	69°	0.00				Closed		Level averaged (vacation).

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				Level	Temp	Visibility			
1-Mar-15		58°	0.00				20		
2-Mar-15		56°	0.04	1	51°	9	20	2,764	Removed weeds (10-gallons) from outlet.
3-Mar-15	8.68	58°	0.00				20		
4-Mar-15	9.92	61°	0.00				20		
5-Mar-15	8.95	62°	0.00				20		
6-Mar-15	9.05	66°	0.00	-1	51°	8	10	3,217	Just below full; valve adjusted.
7-Mar-15	9.32	68°	0.00				10		
8-Mar-15	9.29	72°	0.00				10		
9-Mar-15	9.32	68°	0.00				10		
10-Mar-15	9.24	64°	0.00				10		
11-Mar-15		56°	0.18				10		
12-Mar-15		66°	0.00				10		
13-Mar-15	9.34	68°	0.02				10	3,163	River level projected; screens cleaned.
14-Mar-15	9.23	57°	1.31				10		Heavy rain.
15-Mar-15	9.49	61°	1.23				10		Heavy rain.
16-Mar-15	10.09	64°	0.00	1	51°	9	10	3,394	
17-Mar-15	9.97	59°	0.07				10		
18-Mar-15	9.79	63°	0.00				10		
19-Mar-15	10.20	66°	0.00				10		
20-Mar-15	10.70	65°	0.13				10	3,619	
21-Mar-15	10.82	61°	0.04	2	55°	8	10		River level unavailable, averaged.
22-Mar-15	10.94	54°	0.45				10		Tested water quality.
23-Mar-15	11.25	54°	0.85				10		
24-Mar-15	11.57	57°	0.32				10		
25-Mar-15	11.41	55°	0.30				10		
26-Mar-15	11.40	72°	0.10				10	3,426	
27-Mar-15	11.61	70°	0.17				10		
28-Mar-15	11.70	63°	0.04	2	56°	8	10		
29-Mar-15	11.41	67°	0.00				10		
30-Mar-15	11.87	68°	0.00				20	3,262	
31-Mar-15	11.18	57°	0.13				20		

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				Level	Temp	Visibility			
1-Feb-15	11.14	46°	0.16				Closed	Off	
2-Feb-15	11.39	55°	0.38				Closed	Off	
3-Feb-15	11.80	51°	0.13				Closed	Off	
4-Feb-15	12.48	52°	0.09				Closed	Off	
5-Feb-15	12.77	56°	0.68				Closed	Off	
6-Feb-15	13.22	57°	0.63	-10	40°	9'	Closed	Off	
7-Feb-15	13.44	57°	0.80				Closed	Off	River level projected.
8-Feb-15	14.88	60°	0.12				Closed	Off	New weather station - KWAWOODL10.
9-Feb-15	15.19	53°	0.74				Closed	Off	
10-Feb-15	14.96	54°	0.00				Closed	Off	
11-Feb-15	15.04	55°	0.00				Closed	Off	
12-Feb-15	14.63	62°	0.00				Closed	4,487	Requested WSDOT turn pump on.
13-Feb-15	14.23	57°	0.00				Closed		Tested water quality.
14-Feb-15	13.11	60°	0.00				Closed		River level projected gauge down.
15-Feb-15	12.61	66°	0.00	-8	44°	9	Closed		River level projected gauge down.
16-Feb-15	12.27	63°	0.01				Closed		River level projected gauge down.
17-Feb-15	12.18	66°	0.00				20	3,815	River level projected gauge down.
18-Feb-15	12.43	56°	0.00				20		River level projected gauge down.
19-Feb-15	12.29	58°	0.00				20		River level projected gauge down.
20-Feb-15	12.39	57°	0.00				20	3,165	River level projected gauge down.
21-Feb-15	11.75	60°	0.00				20		
22-Feb-15	11.50	59°	0.01				20		
23-Feb-15	11.14	61°	0.00	0	50°	9	20	3,885	
24-Feb-15	11.04	60°	0.00				20		
25-Feb-15	10.97	48°	0.24				20		
26-Feb-15	10.49	51°	0.28				20		
27-Feb-15	10.13	55°	0.34				20	3,462	
28-Feb-15		59°	0.00				20		