

AEPP-238-10

Report for Half Moon Lake District (December 2013)

3 Year AIS Inspection and Education Grant - 2010-2012

As part of a grant awarded in May of 2010, Half Moon Lake District had Environmental Sentry Protection, LLC (ESP) install an I-LIDS video inspection system on June 16, 2010 at its main boat launch at the city park. The system was powered and connected directly to a Power Over Ethernet providing DSL service and 24x7 power directly to the unit. This was augmented by paid CBCW inspections, volunteer boat launch inspectors, educational materials, and training to the lake association membership on AIS issues including education and soliciting volunteer support. This final report references other documents and describes required deliverables.

- 1) An increase of 600 hours of in-person inspections over 3 years per launch
 - a. There were 706 hours of CBCW paid inspection between 2010 and 2012 reported in the table in Attachment A. In 2013 the District paid for 814 hours of CBCW inspection. See WatercraftData-2010-2013.odf. There were 2133 boaters contacted entering the launch over 4 years 2010-2013.
- 2) An increase of 6600 hours of automated inspections over 3 years per launch
 - a. There were over 8000 hours of I-LIDS uptime over the course of 3 years with 16,447 videos captured.
- 3) Generation of attendance at Clean Boats/Clean Waters training by volunteers and paid inspectors
 - a. Half Moon Lake District had a consistent inspector over 4 years and members of the District attended training. Local efforts with "Weed Rangers" to identify aquatic plants was well received by a group of volunteers on the lake. See attached.
- 4) Statistical summary of data from monitoring systems to identify trends for peak usage of lakes to more effectively schedule volunteer inspectors.
 - a. A report was done annually showing launch activity and results of reviews of the videos. These have been put into separate PDF form as 2010-Half Moon Review, 2011-HalfMoon-review, 2012-HalfMoon-review.
- 5) Capture of date/time/video of daylight boat launches
 - a. Logon to <http://environmentalsentry.us/lakemonitor/authmain.php> user: halfmoon pw: halfmoon to see statistics for all years
- 6) Enable association monitoring of videos so all launches are reviewed.
 - a. ESP provided website access to District to review videos. ESP reviewed videos monthly with District complementing video review.
- 7) Identification of AIS violators with evidence that can be used for investigation or issuance of citation of AIS launch laws
 - a. There was one suspect violation identified and that was reported to the District and the local DNR CO who followed up with the person who was taking large quantities of water out of the lake for commercial application. They were warned to not continue that practice.
- 8) Increased awareness of AIS clean-off importance and documented cleanoffs
 - a. This was accomplished thru the use of Babe Winkleman brochure and the capturing of cleanoffs by the CBCW inspector.
- 9) Babe Winkelman educational brochure for Polk county
 - a. Working with Polk County a regional map was put onto this AIS informational takeaway

I-LIDS Captured Videos

This shows that there were more videos captured earlier in the usage of the I-LIDS. Some of this was due to sensitivity adjustments overtime, and some due to a decrease in usage at this launch.

Launch	Category	2012	2011	2010	Total
Half Moon Park	Videos	2180	4945	9322	16447

Attachment A. Summary of CBCW data for 2010, 2011, 2012, and 2013 on Half Moon Lake

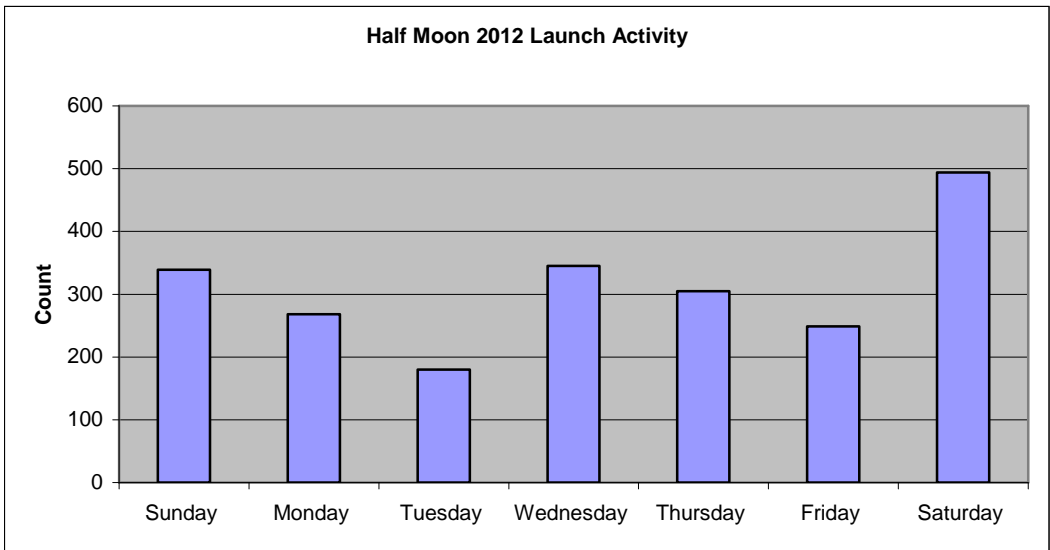
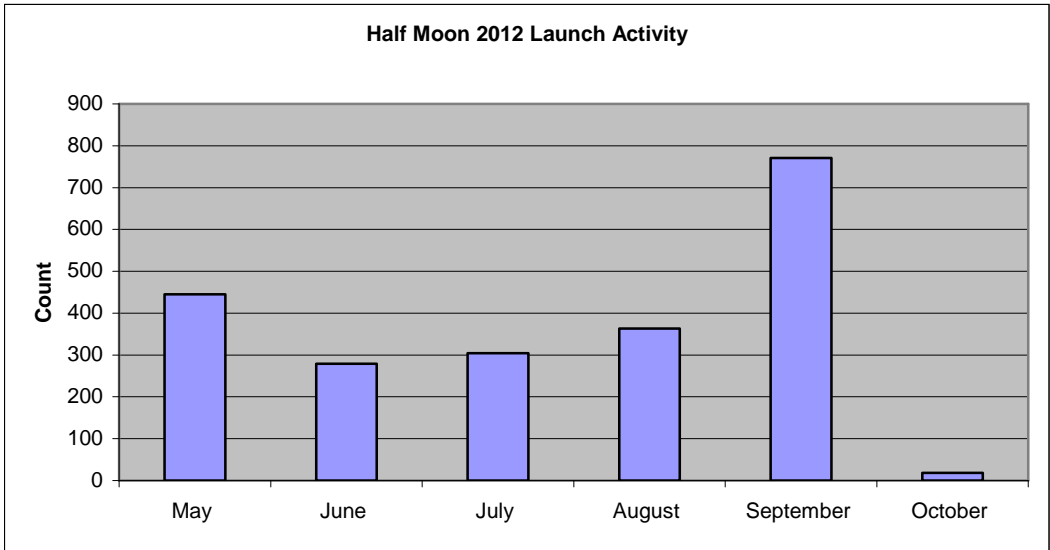
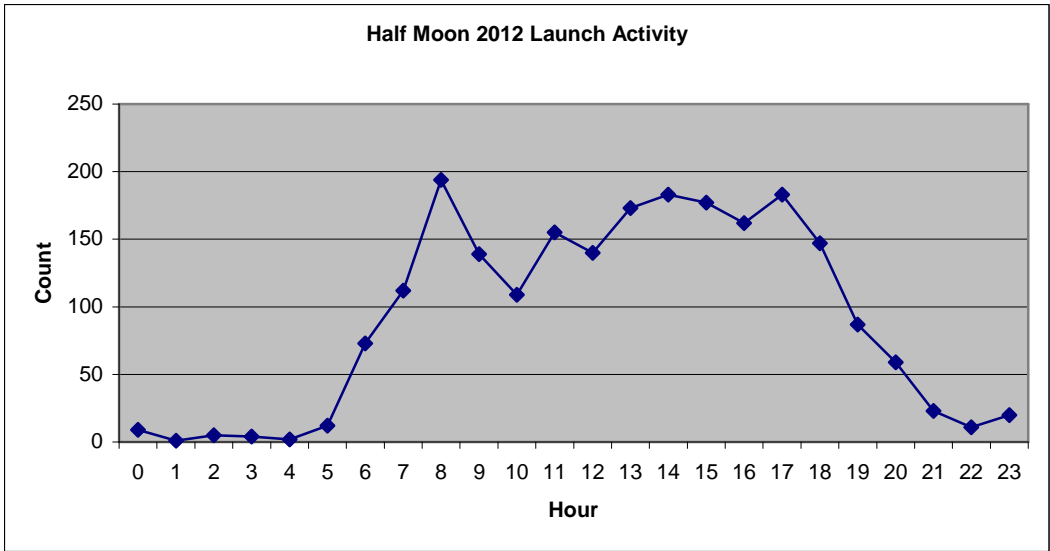
Year	Paid Hours	Entering	Leaving	Contacted 0 Times	Contacted 1-2 Times	Contacted 3-4 Times	Contacted 5 Times	Used Past 5 Days - Yes	Used Past 5 Days - No	Inspect and Remove Plants - Yes	2010-2011: Inspect and Remove Plants - No	Remove Plants Animals - Yes	Remove Plants Animals - N/A	Drain Water from Boat - Yes	2010-2011: Drain Water from Boat - No	Drain Water from Livewell - Yes	Dispose of Bait - Yes	Took no steps	Aware of Laws - Yes	Aware of Laws - No	Aware of Laws - Unsure
<u>2010 Result</u>	<u>154</u>	<u>298</u>	<u>232</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>57</u>	<u>212</u>	<u>269</u>	<u>13</u>	<u>0</u>	<u>0</u>	<u>99</u>	<u>1</u>	<u>0</u>	<u>69</u>	<u>0</u>	<u>499</u>	<u>7</u>	<u>0</u>
<u>2011 Result</u>	<u>251</u>	<u>483</u>	<u>266</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>94</u>	<u>365</u>	<u>411</u>	<u>0</u>	<u>60</u>	<u>0</u>	<u>288</u>	<u>0</u>	<u>291</u>	<u>22</u>	<u>0</u>	<u>717</u>	<u>7</u>	<u>0</u>
<u>2012 Result</u>	<u>301</u>	<u>538</u>	<u>325</u>	<u>7</u>	<u>83</u>	<u>37</u>	<u>8</u>	<u>132</u>	<u>374</u>	<u>502</u>	<u>0</u>	<u>459</u>	<u>11</u>	<u>484</u>	<u>0</u>	<u>400</u>	<u>0</u>	<u>1</u>	<u>830</u>	<u>2</u>	<u>0</u>
<u>2013 Result</u>	<u>800</u>	<u>814</u>	<u>461</u>	<u>538</u>	<u>354</u>	<u>99</u>	<u>43</u>	<u>144</u>	<u>877</u>	<u>1072</u>	<u>0</u>	<u>1013</u>	<u>89</u>	<u>365</u>	<u>0</u>	<u>370</u>	<u>6</u>	<u>1</u>	<u>1252</u>	<u>3</u>	<u>6</u>
<u>Grand Total</u>	<u>1506</u>	<u>2133</u>	<u>1284</u>	<u>545</u>	<u>437</u>	<u>136</u>	<u>51</u>	<u>427</u>	<u>1828</u>	<u>2254</u>	<u>13</u>	<u>1532</u>	<u>100</u>	<u>1236</u>	<u>1</u>	<u>1061</u>	<u>97</u>	<u>2</u>	<u>3298</u>	<u>19</u>	<u>6</u>

Half Moon Lake 2012 Summary

The I-LIDS was installed on 5/12/12 due to the late ice-out. It was stored on 10/2/12. There were no suspect violations identified. The District is responsible for performing the CBCW intern hiring and reporting of documentation.

Half Moon Lake 2012 Launch Activity

Sum of Count	Day							
Hour	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0		9						9
1					1			1
2					5			5
3			3		1			4
4	2							2
5	1	1		5		5		12
6	9	9	6	10	7	14	18	73
7	22	13	12	16	14	19	16	112
8	34	12	48	24	14	20	42	194
9	32	12	10	23	10	22	30	139
10	23	5	14	24	15	8	20	109
11	18	22	13	22	33	16	31	155
12	20	12	7	21	32	12	36	140
13	12	30	9	28	25	18	51	173
14	29	31	13	27	19	17	47	183
15	35	17	11	23	26	18	47	177
16	24	23	7	29	24	16	39	162
17	37	20	11	34	28	17	36	183
18	15	34	9	21	19	14	35	147
19	10	7	4	24	16	11	15	87
20	1	6	2	8	10	11	21	59
21	2	5	1	4	2	6	3	23
22				2	4	5		11
23	13						7	20
Grand Total	339	268	180	345	305	249	494	2180



Video Review Worksheet - 2012

Month/Year: May 2011 Lake: Half-moon lake

Launch: Half-moon lake

Week (e.g. 7/1/10-7/7/10)	Date Reviewed	Reviewer	Total Videos Pre- Review	Launches Counted	Notes
5/4/12-5/12/12	5/4-5/12	Iver	0	0	Out 5/4-5/12
5/13/12-5/19/12	5/12	Iver	70	10	
5/20/12-5/26/12	5/27	Iver	63	20	Out 5/25-5/27
5/27/12-6/2/12	5/30, 6/1	Iver	90	13	

Potential Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

Notable Videos (Date/Time/What was seen)

Date	Time	What was seen
5/18	7:55	Lawn mower
5/18	10:16	Truck goes the wrong way down the launch
5/21	16:29	Canoe is launched out of a truck
5/21	17:49	Kid goes fishing off of dock
6/1	6:20	Glassy lake with fog over it
6/1	21:27	Someone launches their boat really late
5/30	13:19	People are fishing off of the dock
5/30	18:00	Dog runs right next to the camera

Video Review Worksheet

Month/Year: June 2011

Lake:

Launch:

Week (e.g. 7/1/10-7/7/10)	Date Reviewed	Reviewer	Total Videos Pre- Review	Launches Counted	Notes
6/3/12-6/9/12	6/3, 6/9, 6/6	Iver	24	10	
6/10/12-6/16/12	6/13	Iver	54	12	
6/17/12-6/23/12	6/19	Iver	49	7	
6/24/12-6/30/12	6/24, 25, 29	Iver	46	17	

Potential Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

Notable Videos (Date/Time/What was seen)

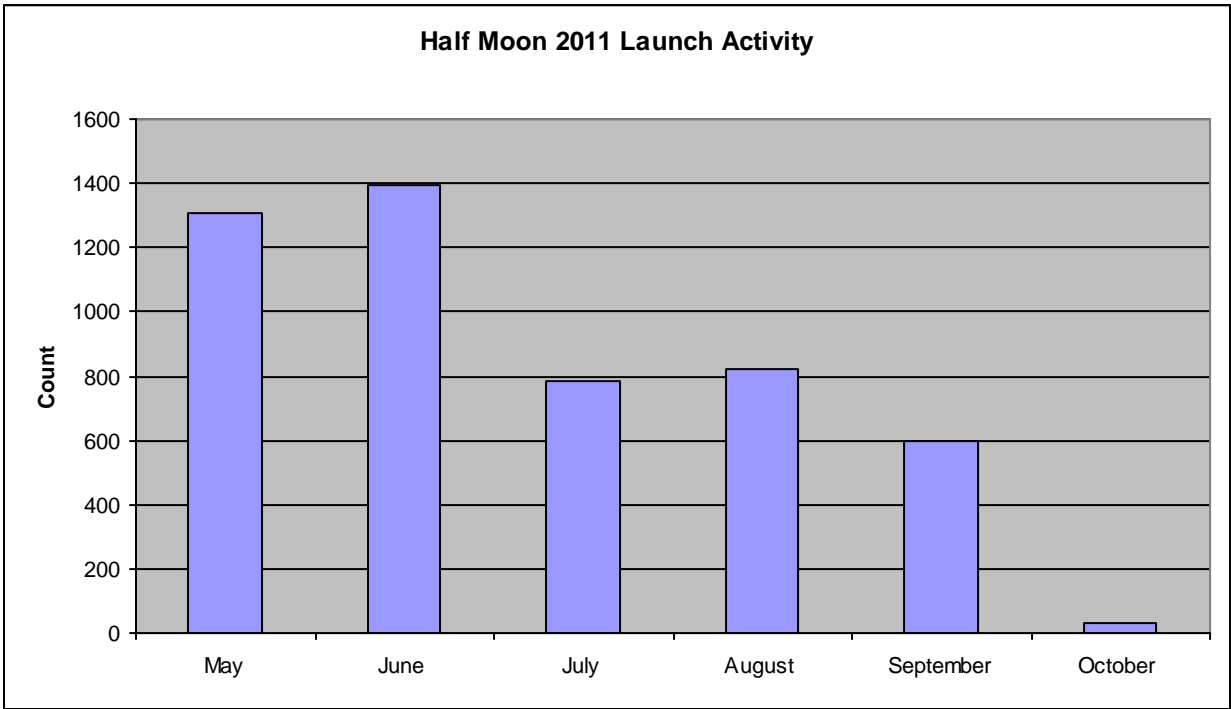
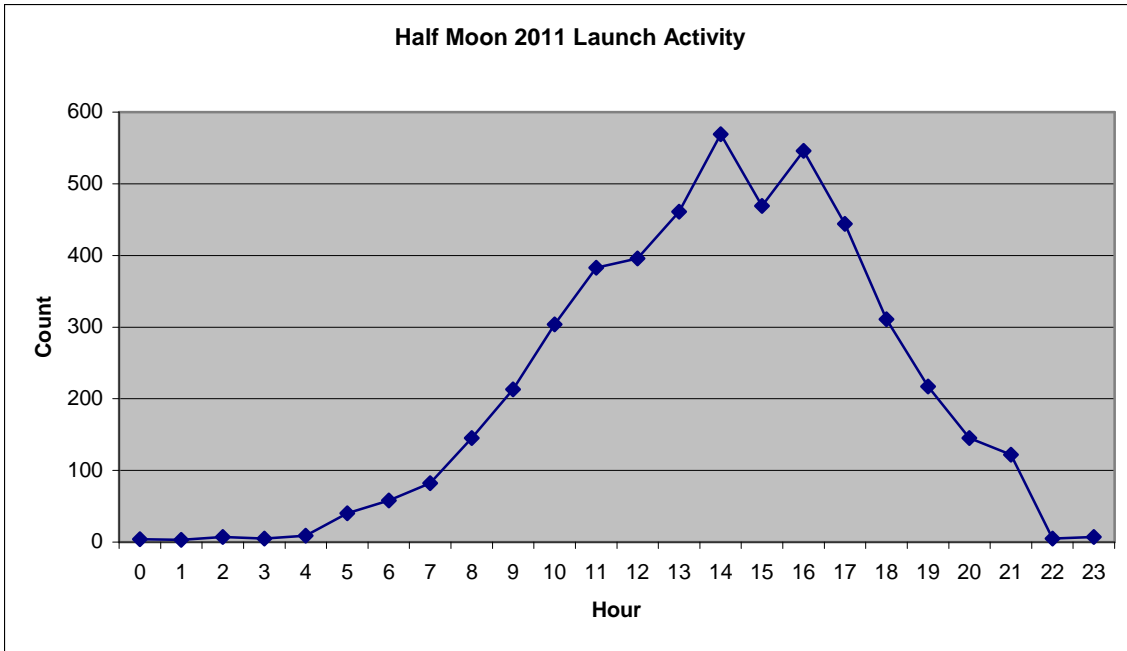
Date	Time	What was seen
6/6	9:00	A truck with a mobile home launches a boat
6/6	19:03	A goose stands right in front of the camera
6/6	19:10	A family geese walk into the water
6/13	5:33	Fog is just leaving the lake
6/13	15:01	A man walks out of the bushes pulling up his fly
6/13	17:41	Geese are sitting on the grass at the launch
6/19	23:18	Lightning
6/19	23:30	Lightning
6/19	23:13	Lightning
6/19	23:33	Lightning
6/19	23:38	Lightning
6/24	7:05	Someone puts their hand in front of the camera
6/25	8:56	A school bus backs into the launch
6/29	5:58	Geese are at the launch
6/29	7:21	A dump truck drives into the launch
6/29	7:28	The dump truck turns around at the launch

Half Moon Lake Launch Summary 2011

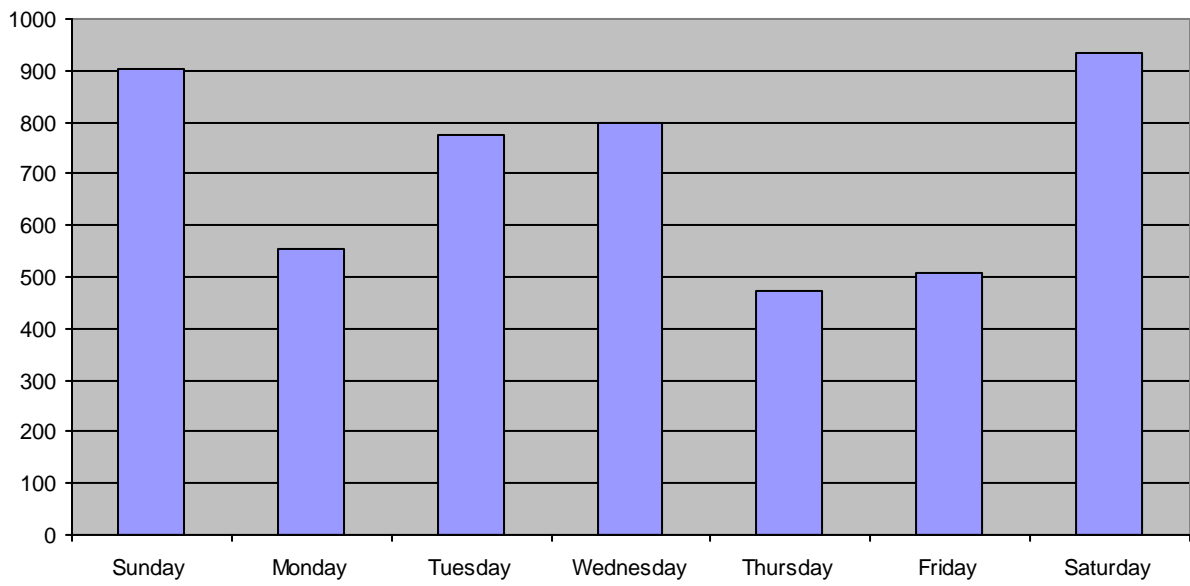
The I-LIDS was installed on 5/8/11 and uninstalled on 10/1/11. There were a total of 4945 videos captured during this time as shown in the following tables. No suspect violations were identified. The District is managing the hiring and reporting on the CBCW inspector.

2011 Half Moon Launch Activity

Sum of Count	Day							Grand Total
Hour	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0						2	2	4
1	2					1		3
2		1		4			2	7
3				4			1	5
4							9	9
5	7	3	6	5		4	15	40
6	5	4	7	13	8	8	13	58
7	12	10	9	13	8	12	18	82
8	32	19	24	13	11	13	33	145
9	44	28	34	38	11	16	42	213
10	64	30	59	43	22	29	57	304
11	88	33	84	43	32	42	61	383
12	69	48	58	71	39	34	77	396
13	54	48	65	106	70	36	82	461
14	89	69	75	117	39	72	108	569
15	80	61	72	79	32	50	95	469
16	105	61	90	57	70	65	98	546
17	92	61	72	58	32	53	76	444
18	56	29	53	55	33	22	63	311
19	52	21	39	38	18	19	30	217
20	23	18	16	27	23	15	23	145
21	29	8	12	16	23	14	20	122
22	2						3	5
23		1	1				5	7
Grand Total	905	553	776	800	471	507	933	4945



Half Moon 2011 Launch Activity



Video Review Worksheet

Month/Year: July 2011
Moon

Lake: Half Moon

Launch: Half

Week (e.g. 7/1/10-7/7/10)	Date Reviewed	Reviewer	Total Videos Pre- Review	Launches Counted	Notes
07/03/11-07/07/11	7/08	Jackie	58	7	there was only video from 7/5
07/08/11-07/11/11	7/12	Jackie	38	5	
07/15/11-07/17/11	7/19	Jackie	27	4	
07/22/11-07/24/11	7/25	Jackie	29	4	
07/29/11-07/31/11	8/01	Jackie	93	12	

Potential Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

Notable Videos (Date/Time/What was seen)

Date	Time	What was seen
7/05	09:19:33	pontoon launch
7/05	13:05:53	trailer backing down
7/05	13:58:23	boy holds vegetation to camera
7/08	13:52:12	Weeds on trailer coming out
7/08	16:59:04	Boy sees the camera
7/15	07:50:51	Man sits on the camera
7/23	13:39:32	Boat launch
7/23	14:46:43	People with boat at the launch
7/23	15:18:58	Woman with beach bag
7/23	15:25:59	Boat coming out
7/23	18:54:36	Boy looking at the camera
7/31	09:04:24	Dog on a leash
7/31	11:40:27	Large boat backing down
7/31	13:49:05	Lots of kids
7/31	16:05:59	2 people at launch
7/31	17:12:48	Pontoon comes out

Video Review Worksheet

Month/Year: August 2011
Moon

Lake: Half Moon

Launch: Half

Week (e.g. 7/1/10-7/7/10)	Date Reviewed	Reviewer	Total Videos Pre- Review	Launches Counted	Notes
08/03/11-08/04/11	8/09	Jackie	52	9	Nice launch
08/10/11	8/15	Jackie	67	7	“
08/14/11	8/17	Jackie	89	9	“

Potential Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

Notable Videos (Date/Time/What was seen)

Date	Time	What was seen
8/03	11:36:08	Boat being pulled out
8/03	12:55:20	Toddler walks by camera
8/03	15:44:49	Jet Ski coming out
8/04	20:49:05	Boat being pulled out
8/10	09:27:42	Pontoon launch
8/10	13:38:07	Small dog (Pomeranian)
8/10	14:52:51	Beagle
8/10	20:29:20	People walking up the launch
8/14	10:18:56	Several people/ launching boat
8/14	10:58:12	Unusual boat/canoe
8/14	11:23:51	Dog in front of the camera
8/14	13:57:17	Crestliner launch
8/14	15:31:21	Man and toddler look at camera

Video Review Worksheet

Month/Year: September 2011
Moon

Lake: Half Moon

Launch: Half

Week (e.g. 7/1/10-7/7/10)	Date Reviewed	Reviewer	Total Videos Pre- Review	Launches Counted	Notes
09/05/11	9/07	Jackie	115	9	Clean launches {Labor Day}
09/13/11-09/15/11	9/16	Jackie	54	3	
09/18/11-09/20/11	9/23	Jackie	17	1	
9/26	9/27	Jackie	14	0	

Potential Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

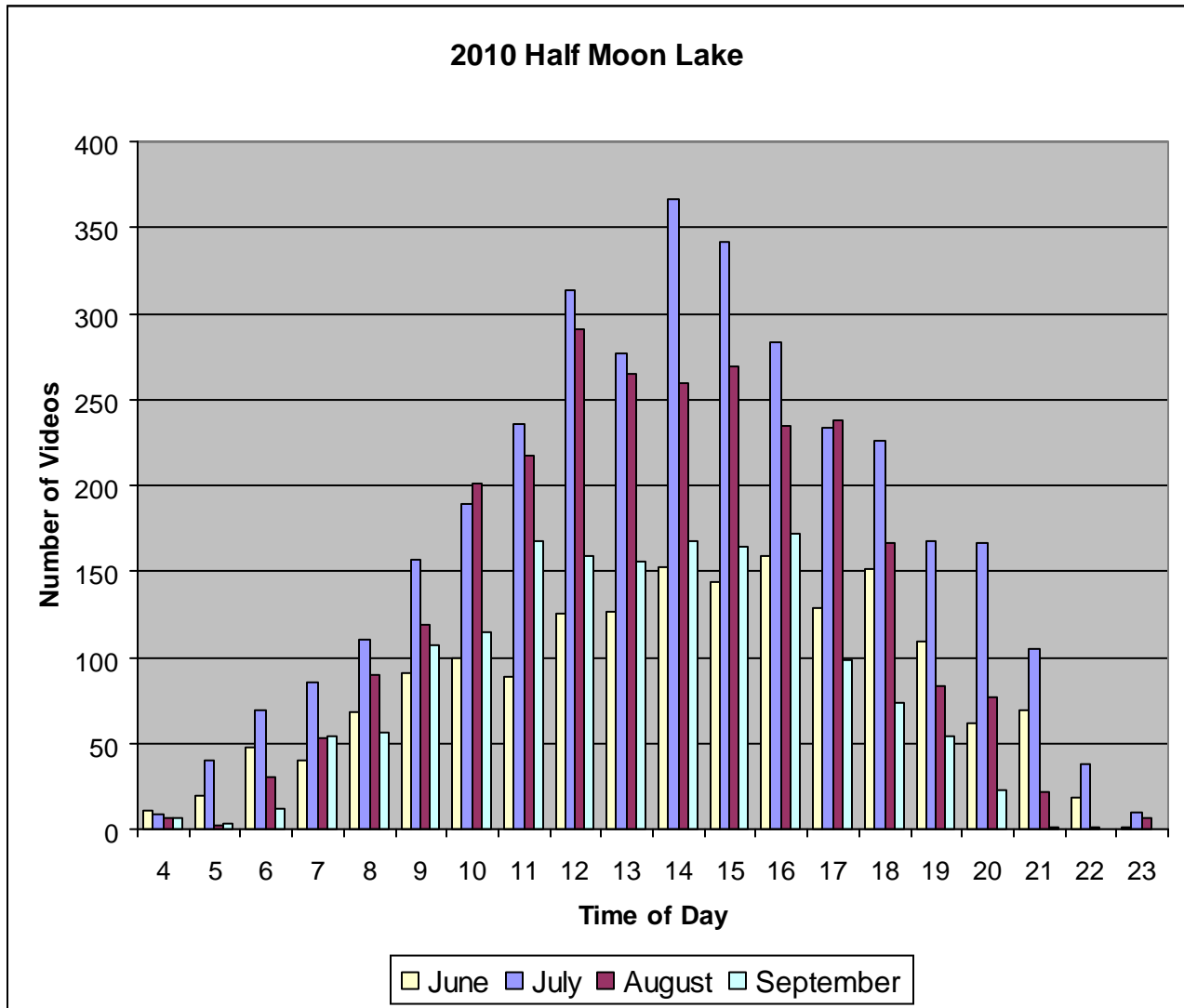
Notable Videos (Date/Time/What was seen)

Date	Time	What was seen
9/05	07:07:41	Cold morning, can see the truck exhaust
9/05	09:31:27	Woman wearing flip flops reads the AIS sign and looks at camera
9/05	10:39:20	Man stops to read the sign by the camera
9/05	11:49:13	Boat named "Creek Chub" comes up launch with boy and fishing poles on board
9/05	13:17:19	Volunteer doing some monitoring on Labor Day
9/05	15:35:24	Man checks out back of pontoon for vegetation
9/05	20:44:18	Man puts face right up to the camera
9/13	12:52:39	Canada geese at the launch
9/13	13:02:29	Close up of Cana geese right next to camera feeding
9/15	15:16:13	Extremely long trailer being backed down
9/15	19:24:25	Yellow dog trots past the camera
9/20	11:29:46	Master Craft goes in the water and then out again
9/20	14:28:18	Huge contraption on the back of a truck backing down the launch
9/26	07:17:53	Big city truck driving down the launch

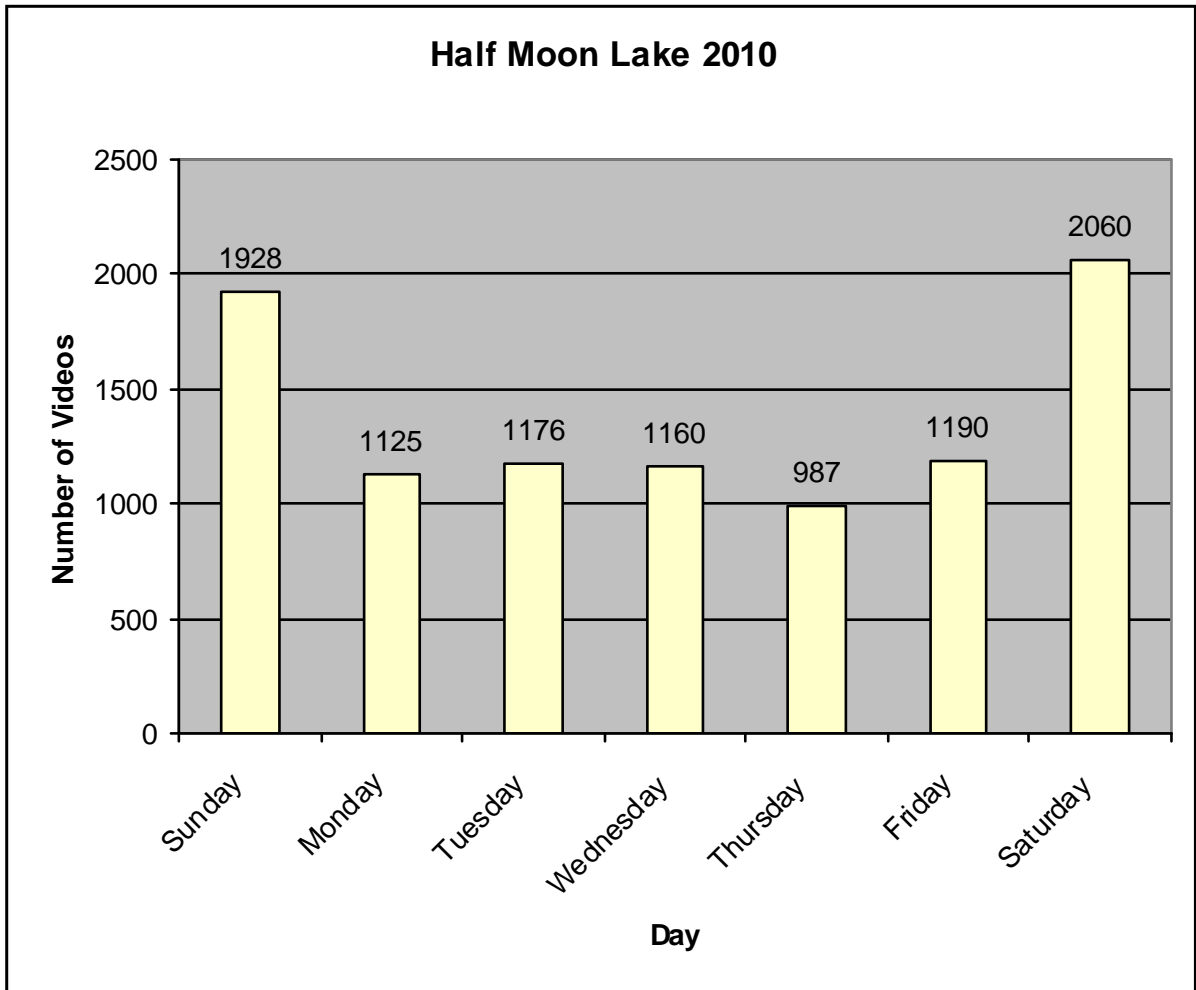
2010 Half Moon Lake Video Review

Videos were captured from 6/16/10 (initial install) through October 4, 2010. With boaters active thru November, its probably appropriate to leave DSL connected thru end of October. Graphs below don't reflect full month of June, but can otherwise be used to schedule in-person inspections during peak times.

There were a total of 9,626 videos captured. Only one suspicious video was reported to authorities related to commercial use of the launch and spreading of some dry material. As the association performed their own review, ESP only performed monitoring of 200 videos per month per agreement.



2010 Half Moon Lake Video Review



2010 Half Moon Lake Video Review

Lake and Launch Name: Half Moon Lake

Reviewer: Jackie

Month: July

Week	Total Videos Pre-Review	Launches Counted
7/04-7/05	285	31

Violations

Date	Time	Boat Desc.	License	Registration	What was seen

Notable Videos (Date/Time/What was seen)

Date	Time	What was seen
7/04	14:35:47	Aerobics for the camera
7/04	15:10:26	HI there !
7/05	14:48:40	Picking off weeds !

2010 Half Moon Lake Video Review

Video Review Worksheet

Lake: Half Moon Launch: **Half Moon Lake Launch**

September 2010

Week (e.g. 7/1/10-7/7/10)	Date Reviewed	Reviewer	Total Videos Pre- Review	Launches Counted	Notes
09/05-09/06	09/18	Jackie	193	23	Monitoring was going on

Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

Notable Videos (Date/Time/What was seen)

Date	Time	What was seen
9/05	11:49:39	Water monitoring
9/05	17:09:33	Pink polka dots



Loon Lines

HALF MOON LAKE PROTECTION & REHABILITATION DISTRICT



Fourth Grader Sarah Miller enjoys cataloging Half Moon Lake's weeds and is helping to keep our lake clean and healthy — by Kim Butler

We've all heard the expression "The apple doesn't fall far from the tree." A Half Moon Lake version of this adage might go something like, "A new Weed Ranger doesn't fall far from the rake"

This is truly the case of 9 year old Sarah Miller, who's already following in the footsteps of her dad, Rick Miller, a dedicated Half Moon Lake "Weed Ranger" since the program began in 2009 as part of the "Clean Boats/Clean Water" initiative. Approximately 6 lake residents volunteer to sample weeds from 5 locations around the lake several times each summer month. Sarah is probably the youngest "Weed Ranger". She and her parents Rick and Pam Miller have a cabin on Oscar Lane, and Sarah is the third generation of her family to enjoy summers on Half Moon.

This past summer, Sarah began accompanying her dad on all his weed collection trips on the lake. She showed an interest in the weed gathering, and began her own collection of lake weeds. She added, "I just thought it was fun." Sarah's elementary school in Inver Grove Heights, MN has an annual Project Fair each year, and she and her parents realized that Sarah's interest in lake weeds would make an excellent project. And so, Sarah's Half Moon Lake Weed Scrapbook began.

Sarah explained that she has 25 weeds in her book so far, and fortunately she has no bad weeds. The process is pretty easy according to Sarah, "You get a rake and catch weeds." She and her dad collect weeds from the lake early in the morning when the lake is quiet, sometimes with the help of neighbor Brian Belanger. Sarah then puts them in a cooler to keep them fresh till they get home. Then Sarah rinses off the weeds and dries and presses them between pieces of scrap granite. Once dry, the weeds are laminated and go into her scrapbook.

Her dad helps her identify them but Sarah is conversant about lake weeds herself, noting that "Water Celery looks like long grass and grows to about 6'." She thinks collecting weeds "is fun, and keeps the lake clean and healthy."

She explained that the bad weeds they don't want to find are Eurasian Milfoil and Curly Leaf Pond Weed. According to Sarah, bad weeds like these "make it not as much fun to play in the water and it costs a lot of money to get rid of them," She's right. These 2 weeds are particularly invasive, non-native species which can clog lakes and lower property values an average of 13%.

Lake Minnetonka and the Minneapolis lakes

in Minnesota have been particularly hard hit by Eurasian Water Milfoil. Closer to home, Bone, Balsam, and Deer Lakes all have evidence of Curly Leaf Pond Weed growth, which is costly to control and impossible to eradicate according to CB/CW Committee Chair Dan Leh. He also noted that some other county lakes are finding Eurasian Milfoil as well. Sarah knows that if she and her dad find either of these 2 weeds, they should contact Dan and Jeremy Williamson at the Polk County Land and Water Resources Department.

When asked what else she likes about collecting weeds, Sarah noted "It's fun, and it's quality family time. And you get to meet new people." In closing, Sarah stressed, "We need more Weed Rangers."

If you would like to be a volunteer Half Moon Lake Weed Ranger, please email Dan Leh at halfmoonlake@hotmail.com. Training is available in May 2011, and volunteers are provided with 2 weed identification books, a video, and a hat. Dan stressed that being a Weed Ranger is not a time consuming commitment, "It's something you can do as you boat – you're on the water anyway." Sampling weeds takes about half an hour a few times a month. The other part of the CL/CW initiative involves monitoring boats and educating boaters entering Half Moon Lake at the Public Beach Boat Landing.

Look for Sarah's scrapbook on the halfmoonlake.net website in the near future.



Going through the motions

Lake district uses camera to stress importance of controlling invasive species

by Marty Seeger
Leader staff writer

MILLTOWN - With last year's discovery of Eurasian water milfoil in Burnett County's Little Trade Lake and the more recent finding of EWM in Pike Lake near Amery, the threat of EWM and other invasive species infecting more area lakes is very real.

Over 430 of Wisconsin's lakes harbor EWM, and once the pesky aquatic plant is found, the effort to eradicate it, or simply contain it is, well, not that simple.

Take Beaver Dam Lake near Cumberland for example, which is one of Barron County's best fisheries. According to the Beaver Dam Lake Management District's proposed budget for 2010, approximately \$135,000 will be spent just to control and conduct surveys on EWM, and another \$9,000 will be spent on an aquatic management plan. In some cases, across the state, the township or county is forced to pick up the tab, making EWM just as harmful for those living off the lakeshore.

For those on the lakeshore, EWM and other invasive species can drop property values by as much as 13 percent. Fishing can also be dramatically affected as EWM crowds out native aquatic vegetation and reduces fish habitat, and in many instances, the quality of the entire fishery.

The Fourth of July weekend is one of the busiest times of the season for boaters in Wisconsin, and the Half Moon Lake Protection and Rehabilitation District in Polk County was ready to educate boaters on the importance of removing aquatic vegetation from boat trailers before backing into the lake.

"It's really interesting to see what people do here. They're so curious about it, which is what we wanted," said lake district treasurer Dan Leh, who said the dis-



The Half Moon Lake Protection and Rehabilitation District and Milltown Township are committed to keeping the lake clean for future generations. Pictured (L to R): Lake district members Rick Miller and Mike McMahon, Harlen Hegdal (Milltown town chairman), Dan Leh (treasurer), Pat McMahon (chairman), Josh Hatton (Clean Boats, Clean Waters employee) and Laurie Leh. - Photo by Marty Seeger

angler checking out the landing's newly installed motion camera recently. Prior to glancing at the camera, the angler spent a couple of minutes checking his boat trailer for weeds in a staging area before backing into the lake.

It's difficult not to notice the camera, standing just over 2 feet and enshrined in solid stainless steel case with a solid base of concrete. When you walk in front of it, it can trigger an audio message about removing aquatic plants, but more importantly, records video of the boat backing in and out of the lake.

"I designed the camera five years ago to provide an ongoing preventative tool for the lake associations and districts,"

launches where they noticed obvious weeds on trailers backing into the lake, and the following year, an ordinance was adopted in Burnett County that held the boat owner liable if they were caught backing a trailer with weeds into the lake.

Since the ordinance was put in place in Burnett County they've issued five citations to careless boaters, but have also handed out 10 gift certificates to those who cleaned their boats off at the launch. I-LIDS are capable of reading registration numbers and license plates as well.

The ordinances in Burnett County and other counties across the state eventually led to a statewide no-transport law, making it illegal to leave a boat launch without first removing aquatic plants and animals that may be attached to trailers.

"The goal here is to get people to kind of modify their behaviors before we lose our lakes to Eurasian water milfoil, zebra mussels and all the other nasty critters that can take over the lake," Lindberg said, adding, "It's designed to do education and also provide a tool for enforcement."

Along with the educational benefit and enforcement benefits, I-LIDS are helpful because they run continuously throughout the week. Volunteers for the Clean Boats, Clean Waters program generally work the busiest time of the week to educate people about invasive species. Josh Hutton, a high school junior, works at the Half Moon landing on the weekends and is paid by the lake association.

But volunteers and cameras aside, the real responsibilities of keeping a lake free of invasive species rest on the general public. Lake associations, law enforcement, townships and volunteers can only do so much and it only takes a single boat or trailer to pollute a lake.

It takes just a few minutes to pull off to the side and remove aquatic plants and animals from boats before leaving the lake.

"The board is committed to keeping this lake clean," said Half Moon Lake chairman, Pat McMahon, but added, "We have to be active, all of us."

try Protection, LLC.

Last year, in cooperation with the Milltown Township, the lake district applied for a DNR grant to help pay for half of the Internet-Landing Installed Device System, which is the first to appear on a Polk County lake. A number of lakes in Burnett County have already had I-LIDS cameras for the past four years including Yellow Lake, which has three, and Lake 26 and Mud Hen Lake each have one. So far Lindberg says the I-LIDS have had positive results. Once a camera takes video, it gets immediately uploaded to a computer that is monitored daily by a lake district member like Leh, Lindstrom or another volunteer.

**DO
YOUR
PART**



**TAKE THIS
POLK COUNTY
WALLET SIZE LAKE MAP**

**AND REMINDER
FROM **BABE WINKELMAN****

THESE RUTHLESS INVADERS ARE HARMING OUR FISHERIES!

Round Goby
Devours game fish
eggs



Zebra Mussel
Filters the bottom of
food chain

**Eurasian
Watermilfoil**
Destroys native fish
habitats



DO YOUR PART TO PREVENT THE SPREAD OF INVASIVE SPECIES!

...your boat, motor, trailer and live wells.

Inspect ✓
Clean ✓
Drain ✓



- Remove any visible mud, plants, fish or animals from equipment.
- Drain water from equipment.
- Clean and dry anything that comes into contact with water (boats, trailers, equipment, etc.).
- Never release plants, fish or animals into a body of water unless they came out of that body of water.

BEFORE YOU ENTER OR LEAVE ANY BODY OF WATER:

Environmental
Sentry Protection, LLC



Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectOurWaterways.org

**STOP AQUATIC
HITCHHIKERS!**



POLK COUNTY SURFACE WATERS

-  US Highway
-  River/Stream
-  State Highway
-  Water Body
-  County Road

- 1** Bone Lake
- 2** Big Round Lake
- 3** Balsam Lake
- 4** Deer Lake
- 5** Wapogasset Lake
- 6** Apple River
- 7** Cedar Lake

