Lake Dam Committee Meeting Minutes July Meeting held 30 June 2022

Call to Order

Roll Call Committee Members: (P)=Present; (A)=Absent; (E)=Excused; (LOA)=Leave of Absence

Lou Jackson (P) Deanne Landsverk (P) Dennis Muretta (P) Duane Landsverk (P) Tim Reber (P) Teddy Lovgren (P) John McRoberts (P) Dave Kohler (A) Maureen Glenn (P) Karen Kohler (A) Steve Glenn (P) Mandy Paradise (E) Joel Gray (P) Pat Paradise (P) Dorothy Powter (P) Jack Betterley (LOA) Jarred Foss (P) Kelly Evans (LOA) Linda Smith (A) Brian Smith (P)

Guests: John Ingemi 3-244

Chairperson's Opening Comments: Teddy Lovgren

Called meeting to order at 7:33 PM. Teddy advised the Lakes had been treated on 28 June.

Meeting Minutes approval

Joel moved to approve the 4 June LD Meeting Minutes, reference attached "1. LD Meeting Minutes (Final)"; Dennis seconded. Motion passed unanimously.

Correspondence:

LLCC received email from Dam Safety Office (reference attached "2. DSO release valve response") confirming no need for formal cycling of the dam valve at Lake Leprechaun but not allowing relief from testing the butterfly valve at the dam for Lake Limerick until additional analysis is performed allowing for alternative ways to reduce the lake level in case of an emergency need for drawdown. LLCC has requested Ken Martig (Dam Engineer) for an engineering assessment. Dennis took an action to work with CAM to regarding Ken Martig's feedback.

Status of May Motions to the Board

Motion made during the June LD Meeting to increase the amount of funds for weed/lake treatment was approved by the LLCC BOD.

CAM Report: Roger

Roger provided the attached written report prior to the meeting (reference attached document "3. LD CAM Report June 30, 2022). Teddy represented the report on behalf of the CAM.

Joel supplemented the Teddy's report out by reviewing the LD/CAM Work Order Log Sheet (reference attachment 3.1 202206023 Work Order Log Spreadsheet")

Teddy took an action to follow up with CAM re: 2022 Lake Limerick buoy replacement program (12 per year on a rotation basis) to ensure they are purchased and installed this season. Duane volunteered to work with Maintenance to have the buoy's place once they are delivered.

Teddy also took an action to get with CAM regarding getting the Lake Leprechaun core sampling results back from Lake Advocates (LA) and request summary feedback from LA regarding the water sample data received from IEH associated with the water sampling program.

Parks Report: Maureen/Steve

Maureen and Steve reviewed the parks on 21 May. Their report is attached (reference "4. Park Maint. Rpt June2022")

Lake Dam Committee Meeting Minutes July Meeting held 30 June 2022

Docks/Floats Permits: Teddy

Recommended approval of permit application for a new dock at Div. 3 Lot 55.

There are currently 2 new non-compliant boat lifts on Lake Limerick. Teddy is working with lot owners to ensure the permits are processed per LLCC permitting rules.

John McRoberts confirmed that docks built by Mitchell Lumber in Belfair are compliant with county rules.

Boat Registrations: Jarred

None this reporting cycle. Jarred noted there are 2 new pontoon boats on the lake this season that he will follow up on to ensure they are registered per LLCC requirements.

OLD BUSINESS:

Budget Update: Teddy

Draft budget was provided to LLCC on 3rd of June to support LLCC's required timeline (reference attached files "5. Lake Dam Expense Forecast and 5.1 Lake Dam Capital Projects"). Committees have until 3rd week in August to finalize them.

Duane made a motion to: "Have LD establish a 5-year Capital and Expense Budget with details identified to for the next 1 year. Add the budget to the LD Monthly Meeting Agenda so it is always in front of us and ready for the BOD 2 months prior to each due date" Brian seconded the motion. The motion was passed by the LD committee unanimously. Teddy noted someone from the committee will need to step up and support this activity. All committee members have the action review the most current budget input and LA Report (June 2022 Update) and be prepared to discuss at the August meeting.

Community Signage: Dennis Muretta

Per the CAM report, Norm to begin installation after "811 Locate" is completed.

Lake Leprechaun Clean Out Project: Steve/Maureen/Tim

We are still waiting for Lake Advocates get back to Tim and LLCC regarding the core samples at IEH (see CAM report above.).

Park Host Status: Dave

Dave not in attendance to provide status. However, Teddy reported last person showing interest did not follow up with Dave or LLCC.

Dock/Floats Compliance: Teddy

2 boat lifts currently not compliant -- see Docks, Floats Permits above

Lakes Weed Treatments - Dennis

Treatments provided by Aquatec on 28 June. More treatments expected over the balance of the season.

Long Term Health and Welfare: Brian

Brian advised there is no overall management plan for the Lakes and Parks. Dennis confirmed he was unable to find a prior Parks Plan that Dave mentioned in previous meetings may of existed somewhere. Teddy requested that the Long Term Health and Welfare Sub-Team actually meet and work on the issue. Brian took an action to develop a framework for a management plan.

Long Term Vision for Parks / Restrooms: Dennis

Survey results are in. Sub-team to review week of 6 July for near term projects that could be added to next year's budget.

Lake Dam Committee Meeting Minutes July Meeting held 30 June 2022

NEW BUSINESS

Lake Patrol Captain: Teddy

With Jared standing down as Lake Patrol Captain, Dennis will draft a lake patrol notice to members that Teddy will work with LLCC Office to post on LLCC website. Jared will then post on LLCC Facebook page.

Project Manager for new PARS: Teddy

Steve Saylor was not in attendance to provide status on advertising the Lake Dam Project Manager Position.

Focals for the New PARs: Teddy

No Updates

Future Meetings: Teddy

Teddy advised we need to move back to face to face meetings.

Establish Records/Work Network: Teddy

Mitch Robinson (BOD) is point of contact on this now.

Cranberry Lake Storm Water Detention Structure: Teddy

Advised of meeting minutes had been provided by CAM with support of Pat and other LD Members (reference attached file "6. Cranberry Lake Detention Structure 6.03.2022 Site Visit PP&RM+attendees). Currently no formal plan to address SWDS (coring, further analysis etc). Action is for Long Term Health and Welfare sub-team to address plan development and work with new LLCC Project Manager to execute the plan.

Other Topics - None

Guest Input - None

Review of Commitments & Action Items: Action items were reviewed and new action items from today's meeting will be added to the spreadsheet by Teddy and attached to these meeting minutes (reference attached file "7. Action Item Status").

Review of Motions to the Board: None

Motion to Adjourn:

Joel motioned to Adjourn; Tim seconded. Motion passed with no nays. Meeting was adjourned at 9:22PM

Next Meeting - Saturday 6 August at 9:30 AM

Look Ahead:

July 16th - Board of directors Meeting @ 9am (Hybrid)

Aug 6th - Lake-Dam Committee Meeting @ 9:30am (Zoom)

Aug 20th - Board of Directors Meeting @ 9am (Hybrid)

Sept 1st - Lake-Dam Committee Meeting, Thursday @ 7pm (Zoom)

Sept 3rd - End of Summer Bash

Sept 17th - Board of Directors Meeting @ 9am (Hybrid)

Motions to the Board

None

Call to Order

Roll Call Committee Members: (P)=Present; (A)=Absent; (E)=Excused; (LOA)=Leave of Absence

Lou Jackson (E) Deanne Landsverk (P) Dennis Muretta (E) Duane Landsverk (P) Tim Reber (P) Teddy Lovgren (P) John McRoberts (P) Dave Kohler (P) Karen Kohler (A) Maureen Glenn (P) Steve Glenn (P) Mandy Paradise (P) Joel Gray (P) Pat Paradise (P) Jack Betterley (LOA) Dorothy Powter (A) Jared Foss (P) Kelly Evans (LOA)

Guests: Tamera Ingwaldson 5-128, Dean Dyson 2-200, John Ingemi 3-244, Brian Smith 1-17, Linda Smith 1-17, Mike Berni 3-083, Dan Bussler 5-92, Steve Saylor 2-146

Chairperson's Opening Comments: Teddy Lovgren

Called meeting to order at 9:33 AM. Teddy advised of requests from Brian and Linda Smith to join the LD Committee. Advised of need to move July and September LD Committee meetings as they current dates land on a holiday weekend.

Dave moved that Brian Smith be admitted to the LD Committee, Jared seconded the motion. Passed with 10 yea and 2 nay votes.

Dave moved that Linda Smith be admitted to the LD Committee, Jared seconded the motion. Passed with 12 yea votes.

It was agreed the July Meeting will be moved to Thursday, 30 June at 7:00 PM.

It was agreed the September Meeting will be moved to Thursday, 1 September at 7:00 PM.

Meeting Minutes approval

Jared moved to approve the 7 May LD Meeting Minutes; Tim seconded. Motion passed 11 yea votes and 1 abstention.

Correspondence:

Don Bird advised that someone had recently used the LLCC Lake Razor (obtained from the Pro Shop) but did not clean up their resulting mess. Weeds etc ended up floating to neighboring members lots for cleanup. It is unclear who borrowed the razor and additional training has been provided to staff on the rake loan process. Joel will update the loan agreement to help ensure the weeds etc are removed from the lake by the member that borrows the razor.

Status of May Motions to the Board

No May Motions to the BoD. April MTB for approval of Park Survey was approved by the BoD.

CAM Report: Roger

Roger provided the following written report prior to the meeting.

Water testing plan

- IEH Labs is non-responsive and I'm getting quotes from another lab used by Water Committee

- Escalation has resulted in no test results for April and May for 2 phosphorus & 1 nitrogen tests
- Lake Advocates agreed to escalate Friday
- Waiting for final shipment of test probe equipment to measure temperature, dissolved oxygen and ph (per 1-meter depth increments)

Parks

- Olde Lyme vandalism is being assessed/repaired
- Field camera being installed
- Awaiting 811 dig reviews prior to installing entrance signs

Data level loggers - Continuing to record Limerick dam readings

Dams O&M inspections - Completed per schedule

Leprechaun spillway gate valve & Limerick butterfly valve

- Letter sent to the DSO and under engineering review
- Recontacted again for review

Budget planning 2022-23 - Subcommittee submitted June 3 expense and capital plans

Joel supplemented Roger's report based on outcomes of LD/CAM weekly WO Status meeting on 2 June. Namely:

Roger is trying to elevate the issue within IEH to obtain our April and May water samples as IEH is currently being non-responsive. Lake Advocates are also going to work to get the Lake Leprechaun Core sample report as well. If unsuccessful, LLCC may contract with another supplier.

While reported the Dam Operations Maintenance activities have been completed, Tim noted the grass is still to high and confirmation of a checklist of compliance was discuss by the Committee. Teddy will send a request to John to have a Dam Ops Checklist along with Data Logger data be provided to LD as part of this monthly CAM report. This will allow the data to be retained for community knowledge and as part of the LD meeting archives.

Roger to have Norm investigate "anti-vandalism" type swings at Olde Lyme Park. Norm has been directed to clean up the other spray-paint vandalism at the park. John will work with the BOD to reassess overall LLCC security, including our 7 parks.

Grass is coming in at Olde Lyme Park from the previous planting last season, albeit slowly. Roger requests we give it more time to come in fully.

Joel advised Roger that the water fountain at Log Toy Park is leaking. Roger to have Norm investigate.

Teddy will help Norm with placement of the 12 new buoys in Lake Limerick.

Roger and Norm will reassess buoy and log boom placement to better assure save passage for boats and other recreational activities between the Inn Park log boom and the lake buoys.

Parks Report: Maureen/Steve

Maureen and Steve reviewed the parks on 21 May. Their report is provided as Attachment A to these minutes.

Overall, the parks look great. Kudos to Norm and Gerado for their maintenance efforts.

Maureen again requested there be a mid-winter park clean up in order to get the leaves off the park lawns, thereby giving the grass a better chance to survive the winter and be more robust in the spring. Joel will add to the LD/CAM WO List.

Docks/Floats Permits: Teddy

Received permit application for a Boat Lift; David and Marjorie Warren (02-271)

Boat Registrations: Jared

No Updates

OLD BUSINESS:

Budget Update: Teddy

Teddy provided an update on the budget spreadsheet Roger, Dennis and he had developed over the last couple of weeks. A draft of the budget was provided to Roger on 3 June to support LLCC's budget development schedule.

Dave commented there are Park Host costs not included (Advertising, Cell Phone expenses). Teddy advised those costs were probably batched with other LD expense line items. Dave also observed the spreadsheet needed to be reviewed for correctness of calculations. Teddy agreed to re-review for correctness.

Teddy will talk with Roger as to what inflation / escalation rate LD should be using in the draft estimates. Dave made a motion for the LD Committee to reprioritize the Capital Projects list; Mandy seconded. It was commented that it is premature to vote to reprioritize the Capital Projects until we receive Lake Advocates updated recommendations based on the June 4th post Cranberry Creek SWDS Field Trip meeting. Vote was 2 yay and 7 nays; motion failed.

Teddy also agreed to add Park Security to the Capital Expense "Parking Lot" so the issue of security is not lost for future budgeting exercises.

Tim made a motion to increase the budget estimate to \$1400 in order to reach desired total amount of fish (370 pounds). Jarred seconded the motion. Passed unanimously Teddy will make the adjustment to our draft 2022-2023 budget request.

Community Signage: Dennis Muretta

Per the CAM report, Norm to begin installation after "811 Locate" is completed.

Lake Leprechaun Clean Out Project: Steve/Maureen/Tim

We are still waiting for Lake Advocates get back to Tim and LLCC regarding the core samples at IEH. Both LLCC and LA will continue to reach out to IEH for the core report they are to provide to LLCC. ECD remains TBD.

Park Host Status: Dave

The recent candidate to be a Park Host, fell through. Matt Jensen is currently our only park host this year and is located at Anglia Park.

Park Host Recruiting Process is estimated to be one half complete.

Dock/Floats Compliance: Teddy

No Updates.

Lakes Weed Treatments – Joel (on behalf of Dennis)

This year's treatment plan covers a larger area in both lakes requiring treatment. As a result, an additional amount of funds are required to contract with Aqua-Tec. Joel made a motion to request

additional funds be authorized by the BOD. Motion was seconded by Maureen. Motion passed unanimously.

See Motion to the Board

Tim noted that Pond Weed is beginning to show up again in Lake Leprechaun. Tim, Maureen, and Steve to pull weeds this summer.

Maureen requested that next year LD/LLCC get the weed treatment scheduled with the Treatment Applicator company as soon as practical, so LLCC's lake get priority.

Long term health and welfare: Brian

Subteam confirmed as Brian, Teddy, Dennis, Pat and John. Joel provided the outline/approach to lake health he and Jack Betterley developed in 2020 to help with the new team's efforts.

Long Term Vision for Parks / Restrooms: Teddy (on behalf of Dennis)

Waiting for Park Survey Results in order to assess next steps. John Ingemi will request LLCC office to send out email reminder to HOA membership to complete the survey.

NEW BUSINESS

Project Manager for new PARS: Teddy

Board has approved the job description. It is LD's understanding that Steve Saylor will follow up on Advertising the position. John Ingemi will ping Steve to confirm he is aware of the action.

Focals for the New PARs

No Updates

Future Meetings:

Kelly Evans (Water Committee Chair) will help with investigate in person / zoom hybrid meetings.

Establish Records/Work Network – Teddy

Mitch Robinson (BOD) is point of contact on this now.

Greenbelt Committee – Teddy (on behalf of Dennis)

Dennis sent out a map of greenbelt areas, Pat has a correction to make regarding the color coding of the map.

Cranberry Lake Storm Water Detention Structure -- Teddy

A field trip with Lake Advocates (Harry and Rob), Ken Martig (Dam Engineer), CAM and other community members was conducted on 3 June to the Cranberry Lake Storm Water Detention Structure to better understand the current status of the structure and lake environment behind the structure. Objective is to understand sediment and nutrients that negatively impact Lake Limerick. LA recommends our current water quality testing locations be expanded to outlets of the conduits from Cranberry Lake and Lake Leprechaun. Teddy to request a copy of the meeting minutes be obtained from Roger.

Other Topics -

None

Guest Input

None

Review of Commitments & Action Items: Action items were reviewed and new action items from today's meeting will be added to the spreadsheet by Teddy and attached to these meeting minutes.

Review of Motions to the Board: See Below

Motion to Adjourn:

Joel motioned to Adjourn; Mandi seconded. Motion passed with no nays. Meeting was adjourned at 12:17PM

Next Meeting - Thursday, 30 June at 7:00 PM

Look Ahead:

June 18th - Board of Directors Meeting @ 9am (Hybrid)

June 30th - Lake-Dam Committee Meeting, Thursday @ 7pm (Zoom)

July 2nd - Lake Limerick Daze

July 16th - Board of directors Meeting @ 9am (Hybrid)

Aug 6th - Lake-Dam Committee Meeting @ 9:30am (Zoom)

Aug 20th - Board of Directors Meeting @ 9am (Hybrid)

Sept 1st - Lake-Dam Committee Meeting, Thursday @ 7pm (Zoom)

Sept 3rd - End of Summer Bash

Sept 17th - Board of Directors Meeting @ 9am (Hybrid)

Motions to the Board

Motion: LD Committee requests LLCC Board of Directors increase the authorized 2022 lakes weed treatment budget from \$35K to \$40K.

Rationale: *Increased amount of area to be treated this year is greater than last year's area.

*The additional \$5K is needed to support Aqua-Tec's current quote

*Treatment needed in the June time frame



Ted Lovgren <thl9986@gmail.com>

DSO release valve response - FW: Lake Limerick

4 messages

CAM <cam@lakelimerick.com>

Thu, Jun 23, 2022 at 12:56 PM

To: Teddy Lovgren <thl9986@gmail.com>, Joel Gray <jgray662@comcast.net>, Dennis Muretta <djmuretta@hotmail.com>

Discussed with Joel this morning during WO review. We are essentially back to square 1 exercising Limerick's butterfly valve.

Re Leprechaun gate valve, DSO is not requiring exercise though recommending inspections.

See Tom's report.

Roger

From: Satterthwaite, Tom (ECY) <tsat461@ECY.WA.GOV>

Sent: Thursday, June 9, 2022 2:32 PM **To:** CAM <cam@lakelimerick.com>

Cc: Ordonez, Gus (ECY) <gord461@ECY.WA.GOV>; Goodman, Jodi (ECY) <jgoo461@ECY.WA.GOV>; Myers, Gary

(ECY) <gmye461@ECY.WA.GOV>

Subject: RE: Lake Limerick

Good morning Roger,

I took a look at your letter and I'll provide a few comments in this email. First off, to state the obvious, for a dam such as yours which impounds a recreational lake, the low outlet doesn't get much use in the course of its lifetime. There are actually quite a few dams in the state of Washington (many owned by HOA's) that have the same issues. For many of those, their low outlet is in far worse shape. They are often non-functional, and sometimes even the location of the outlet isn't known. In the past few years the DSO has been focusing a little more on dams with low outlet problems. I'll discuss Limerick and Leprechaun separately.

Limerick Dam:

For a dam like Lake Limerick Dam, the obvious advantage for having a low outlet is in the event of an emergency you can draw down the water level. With a 24 inch pipe you can do it rather quickly. In a scenario where there has been a sudden increase in seepage and there is evidence of ongoing internal erosion, having a low outlet that can quickly drop the water level in the lake could save the dam, or at least delay a potential dam breach.

The low outlet pipe and valve on Limerick Dam is relatively new (about 25 years), so it has some life left. I don't think it's an issue if you want to reduce the frequency of valve operation, it should be fairly reliable for at least the next decade. The problem though is if the valve isn't being checked and tested regularly, we would consider it to be a less reliable option for drawing down the water in an emergency situation.

In general, a diver isn't going to be able to assess the operability of the butterfly valve, and certified divers are expensive. The better option would be developing a plan for draining the lake with pumps or a siphon, but you have to consider the size of lake we are talking about. The storage volume varies from 920 to 1,600 acre-feet, which is a considerable volume. We don't have estimates of flow capacity in our records, but the outlet pipe was originally 36 inches in diameter, and after the 1994 slip-line project is still over 24 inches. With the pressure head behind it, the flow of water will be substantial. A pumping system that can even somewhat match that kind of flow is going to be substantial and will need planning, and probably an up-front financial investment into equipment. Alternatively, a siphon system may not be as complex, but it may also require some planning, initial investment and periodic training. Consider the worst-case scenario where either system would be used for: a large storm event in the middle of the night. Clearly the low outlet offers some significant advantages here.

Since the numbers don't appear to be available in DSO records, you should ask your engineer to develop a flow rating curve for your low outlet pipe and estimate the rate of drawdown in the lake with it fully open. Then research pumping or siphon systems to try and match that performance. Does anyone in your area have that kind of equipment? Does the LLCC have the personnel knowledgeable and experienced in the installation and use of siphons? When modifying your O&M Plan, you will need to have contact information of local business able to supply the equipment/materials needed, and that are readily available 24/7.

Leprechaun Dam:

As for the Leprechaun outlet, that dam is a significantly lower with a far smaller lake volume, so I'm not as concerned with Leprechaun Dam. It is a slide gate as I recall, with a lot of it accessible without having to use a diver. It is older too, so I understand if you are worried about it not working correctly. I don't think it will be a problem to stop testing that one, but it should still be checked visually. In addition, as required in our 2021 inspection report, the interior of the conduit should be inspected with a remotely controlled video camera. Like Leprechaun, you should set up a plan to pump water out of the lake if you have potential dam breach developing. Also consider replacing the gate in the future. If the outlet structure begins to fail, you may not have a choice.

For your information, the following link provides more detailed information about conduits through dams:

https://www.swc.nd.gov/pdfs/conduits embankment dams.pdf

Hopefully this email provides some clarification on our position with low outlet pipes. Please feel free to contact me if you would like to discuss further.

Tom Satterthwaite, P.E.

Department of Ecology

Dam Safety Program

tsat461@ecy.wa.gov

(360) 407-6620 (Office)

(360) 480-1397 (Cell)

This communication is a public record and may be subject to disclosure

as per the Washington State Public Records Act, RCW 42.56.

From: CAM <cam@lakelimerick.com> Sent: Friday, June 3, 2022 10:26 AM

To: Satterthwaite, Tom (ECY) <tsat461@ECY.WA.GOV>

Subject: FW: Lake Limerick

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Morning Tom,

Contacting to request your review of the attached letter Jodi forward to you.

I'm available for discussion.

Thank you,

Roger Milliman

Community Association Manager

Lake Limerick

360.426.3581

790 E Saint Andrews Drive

Shelton, WA 98584

www.lakelimerick.com

Lake Limerick C.C.



From: CAM

Sent: Monday, March 7, 2022 4:13 PM To: Jodi (ECY <jgoo461@ecy.wa.gov>

Subject: Lake Limerick

Hi Jodi,

Requesting the DSO review the attached letter written with the support of our dam engineer Ken Martig.

Lake Limerick is submitting our request for the DSO to reconsider elimination the current requirement for operating valves per our Dam Operations and Maintenance Manual.

I'm available for discussion.

FYI, our surveyor confirmed by the end of the week he will supply the 3 dam monuments location information. When received, I will forward.

Thank you,

Roger Milliman

Community Association Manager

Lake Limerick

790 E Saint Andrews Drive

Shelton, WA 98584

360.426.3581

Lake Limerick C.C.



Ted Lovgren <thl9986@gmail.com>

To: CAM <cam@lakelimerick.com>

Cc: Joel Gray <igray662@comcast.net>, Dennis Muretta <djmuretta@hotmail.com>

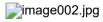
Hi Roger,

I assume we will need to do a study and planning for both Lakes to accommodate the DSO recommendations. This cost is not currently in our budget for 2022 and it is not clear how we would go about pricing this without input from someone like Ken Martig. Could we ask Ken to SWAG (scientific wild ass guess) a number for us?

Thanks Teddy

On Jun 23, 2022, at 12:56 PM, CAM <cam@lakelimerick.com> wrote:

[Quoted text hidden] [Quoted text hidden]



From: CAM

Sent: Monday, March 7, 2022 4:13 PM

Thu, Jun 23, 2022 at 2:46 PM

To: Jodi (ECY <jgoo461@ecy.wa.gov>

Subject: Lake Limerick

Hi Jodi,

Requesting the DSO review the attached letter written with the support of our dam engineer Ken Martig.

Lake Limerick is submitting our request for the DSO to reconsider elimination the current requirement for operating valves per our Dam Operations and Maintenance Manual.

I'm available for discussion.

FYI, our surveyor confirmed by the end of the week he will supply the 3 dam monuments location information. When received, I will forward.

Thank you,

Roger Milliman

Community Association Manager

Lake Limerick

790 E Saint Andrews Drive

Shelton, WA 98584

360.426.3581

image004.jpg

CAM <cam@lakelimerick.com>

Thu, Jun 23, 2022 at 3:43 PM

To: Ted Lovgren <thl9986@gmail.com>

Cc: Joel Gray <jgray662@comcast.net>, Dennis Muretta <djmuretta@hotmail.com>

I emailed Ken the DSO response requesting his swag for current release system drawdown for Limerick. As I recall, Ken engineered this system. I additionally requested a swag for Leprechaun.

On a different topic, I contacted Rob with LA who is near completion of drafting short and long term lake management priorities with swag ROI's (requested during Cranberry fieldtrip wrap-up). Planning to complete this weekend then he'll send to Harry for review.

With that LA deliverable, I've requested Ken Martig review LA's recommendations from his perspective and respond.

With that in hand, LL will have 2 points of view to consider.

Roger

[Quoted text hidden]

Ted Lovgren <thl9986@gmail.com>

Sat, Jun 25, 2022 at 7:44 PM

To: Dave - Home Kohler <dave.kohler@q.com>, Dennis and Julie Muretta <djmuretta@hotmail.com>, Dorothy Powter <dorothygail7@gmail.com>, Duane Landsverk <duane@lqh-inc.com>, Jack Betterley <jgbette@gmail.com>, Jarred Foss <fossja87@gmail.com>, Joel Gray <jgray662@comcast.net>, John McRoberts <john.mcroberts.email@gmail.com>, Karen Kohler <karen.kohler@q.com>, Kelly - LLCC Evans <klevans.llcc@gmail.com>, "Landsverk, Deanne" <Deanne@lqh-inc.com>, Lou Jackson <LJ1776@yahoo.com>, Mandy Paradise <mparadise01@gmail.com>, Maureen Glenn <Maureen.glenn@trilogypartnership.com>, Pat Paradise <patparadise@comcast.net>, Steve Glenn <jsglenn19@gmail.com>, Tim Reber <Rebertl@msn.com>, Brian Smith <smithbnl@comcast.net>, Linda Smith <travelswithlinda@comcast.net> Cc: "Milliman, Roger - LLCC CAM" <CAM@lakelimerick.com>

FYI, the DSO is unwilling to accept our recommendation/request to discontinue maintenance/testing of the Dam conduit outlet release valve without establishing the capability to quickly bring down the level of the lake. Roger is requesting an estimate from Ken Martig on the cost to perform study/planning for various options (maintaining/replacing the valves, establishing the capability to perform emergency pumping, installation of a siphon system, etc.). Will need to include this cost in our 2022-23 budget estimate.

Thanks

Teddy

[Quoted text hidden]

LD CAM Report

June 30, 2021

Parks

- Olde Lyme was retagged and cleaned again
- Removed field camera was returned with the support of MCSO and is being reinstalled
- New park signs are being installed
- Getting a quote for bathroom cleaning service

Water testing plan

- IEH Labs responded with April and May reports attached; shared with Lake Advocates
- June samples FedEx shipped to IEH and awaiting results
- Waiting for final shipment of test probe equipment to measure temperature, dissolved oxygen and ph (per Lake Advocates recommendations)

Data level loggers

- See attached June reports
- Reports available from January to present

Dams O&M inspections

- Dams are assessed twice per month
- Third mow of the season planned including shorelines
- O&M monthly checklist to be used going forward TY for Joel's support

Leprechaun spillway gate valve & Limerick butterfly valve

 With the DSO engineer rejection of eliminating the exercise of Limerick valve, Ken Martig contacted to provide drawdown calculations

Budget planning 2022-23

- LD budget is built into HOA draft budget and submitted to the Board for review

Lake Advocates

- As a result of the Cranberry field trip, short term (5 yr) and long term (>10 yr) lake management recommendations received

Lakes, Dams and Parks Work Orders Log: 23 June 2022

| | • | | Lakes, Dailis | alla i alk | 3 VVOIR C | TI GCI 3 EC | <u> </u> | unc Zozz | |
|-----------|---------------------|-------------------|--|-----------------------|-------------|--|--------------------|------------------------|---|
| Date | Priority (1,2,3) | Work Order Number | Task | Safety Issue (Y/N) | Assigned to | Due Date | Completion Date | Requestor/ Task POC | Project Status |
| 7/20/2021 | 2 | 2021-13b | Make Gate Valve at Lake Lep dam operational | γ | Norm | Pending State feedback ECD 9/30/2022 11/30/2021 | 6/9/2022 | Tim Reber | 6/23/22 State thinks it is not a problem to stop testing the gate valve. State requests LLCC develop a plan to pump water out of the lake in order to prevent a breach of the dam and consider replacing the gate at some point in the future. WO 2022-19 established as not to lose this action. 6/9/22 2nd follow up request made to DSO. No response to our 7 March letter requesting a 31 March response. ECD remains TBD. 6/2/22 Roger to follow up with State re: Letter requesting relief from maintaining dam valves. * Status prior to 6/2/21 archived. |
| 1/8/2022 | 3 | 2022-02 | Adjust/secure Lake leprechaun Spillway diverter structure so during high water events it prevents debris from being released into the spillway grate and eventually downstream into Lake Limerick. | N | Roger | 9/30/2022 | | Tim Reber | 6/23/22 No Change, On Schedule 6/9/22 No Change. 6/2/22 New ECD established with Roger. WO to be completed just prior to beginning of weir board removal. 5/26/22 No change in status. 5/19/22 No change in status. 5/12/22 Most likely to occur during summer low water level (Augustish). *Status prior to May is archived. |
| 6/1/2022 | 2 | 2022-06 | Install Park Signage | N | Norm | 7/29/2022 | | Dennis Muretta | 6/223/22 Installations commenced. Angelia and Inn Parks completed. On schedule for balance. 6/9/22 "Locate" requested. Norm to obtain sign posts etc this week and build one frame and install as a proof of concept before buying all materials to install the rest of the park signs. Roger requested LD status (Dennis) re: the 3 extra signs required resulting from the sign placement field trip. 6/2/22 "Locate" for digging to be called in by Norm. Post holes to be dug with LLCC auger. All signage to be installed incrementally over the summer. Priority to be given to the large park signs. All signs to be completed by end of July. |
| 6/1/2022 | 1 | 2022-07 | Perform Dam Maintenance IAW Dam Operations Manual / Schedule | Y | Norm | ongoing | | Roger Milliman | 6/23/22 Busy with budget prep and other high priority issues. Joel volunteered to develop a checklist for LLCC. 6/9/22 Roger to develop maintenance checklist based on current manual. As part of their recent inspection, Norm and Gerado identified a spring near the dam at Angelia Park and built a diversion to prevent water from pooling along the dam wall. 6/2/22 Roger to confirm and report to LD monthly that maintenance activities occurred the previous month. |

Lakes, Dams and Parks Work Orders Log: 23 June 2022 Priority Safety Completion Requestor/ Date (1,2,3)Work Order Number Task Issue (Y/N) Assigned to Due Date Date Task POC **Project Status** 6/23/22 -- April and May reports received and provided to LA for future planning. June's sample was taken on 6/20 and sent to IEH. Report expected in 4-6 weeks. 6/9/22 -- Roger has elevated IEH's non-responsiveness within IEH. Lake Advocates to to meet them this week. Roger working with LLCC Water Dept to access potential new vendor and has received a quote from Spectra Laboratories in Tacoma. Price to perform testing is more expensive (37%) than IEH which will result in an overrun to approved funding should LLCC go with a new vendor. LD to address this potential newer price as part of the 2022-2023 budget process. 6/2/22 -- Roger to confirm and report to LD monthly that water quality activities occurred the previous month. Our new testing contractor has yet to report out on April and May samples. Roger to considering new contractor since IEH 6/1/2022 2022-08 Perform water quality sampling IAW Plan Norm ongoing Roger Milliman has been nonresponsive. 6/23/22 -- Parts ordered, but installation will be held until recurring vandalism is successfully dampened. 6/9/22 -- Two new swing seats ordered. 6/2/22 -- Roger to have Norm look into "anti-vandalism" type Repair / Replace damaged swingset at Olde **ECD Pending** swings. Current park security protocols do not appear to be 6/1/2022 6/30/2022 2022-09 Lvme Park. Norm Roger Milliman working (topic for future discussion) 6/23/22 -- Assessment continues. 6/9/22 -- Reassess as the season progressess. New top dressing had been applied, but Roger was unsure whether that was before the recent observations. LLCC looking to expand need for security cams at parks as part of security measures for the water towers / wells. 6/2/22 -- Roger feels the grass is coming in (albeit slowly) and no action is required. We agree to reassess in a month to 6/1/2022 2022-10 Assess path forward for lawn at Olde Lyme N Norm 7/30/2022 Roger Milliman determine path forward. 6/23/22 -- Leakage to remain to keep water moving through system. Keeps water clean. WO Closed. 6/9/22 -- WO conveyed to Water Dept for repair. Awaiting feedback from new Water Manager (Chris) re: fix. 6/1/2022 2022-12 Fix water fountain leaking at log toy. Ν 6/8/2022 6/20/2022 Roger Milliman 6/2/22 -- Roger to advise Norm of need for repair Norm 6/23/22 -- Buoys deferred for this year due to budget constraints. WO Closed. 6/9/22 -- Roger requested Ted reach out to schedule time to review location of new buoys prior to ordering the buoys. 6/2/22 -- LD to work with CAM to determine which buoys to be Install new this year's new set of buoys on

Norm

6/30/2022

6/23/2022

Teddy Lovgren

replaced as part of the 2022 allocation of new buoys.

Ν

6/2/2022

2022-14

Lake Limerick

Lakes, Dams and Parks Work Orders Log: 23 June 2022

| | Lakes, Dailis and Parks Work Orders Log. 25 Julie 2022 | | | | | | | | | | |
|------------|--|-------------------|--|-----------------------|-------------|-------------|--------------------|------------------------|---|--|--|
| Date | Priority (1,2,3) | Work Order Number | Task | Safety Issue (Y/N) | Assigned to | Due Date | Completion Date | Requestor/ Task POC | Project Status | | |
| | | | | | | | | | 6/23/22 Buoys moved. WO Closed. | | |
| | | | | | | | | | 6/9/22 Two replacement buoys to be moved further | | |
| | | | | | | | | | lakelakeside (one buoy to be ordered to suppliment existing | | |
| | | | | | | | | | buoy currently in inventory). | | |
| | | | Reassess spacing of lake buoys and log boom | | | | | | 6/2/22 Roger and Norm to evaluate LD's concern re: log | | |
| 6/2/2022 | 1 | 2022-15 | to better allow for safe vehicle passage. | Υ | Norm | 6/30/2022 | 6/21/2022 | Roger Milliman | boom and buoy locations and report back to LD. | | |
| | | | | | | | | | 6/23/22 Recent work by Maintenance in that area may have | | |
| | | | | | | | | | given the perception of a root / problem. Joel will inspect and | | |
| | | | Inspect Banbury boat ramp for tree root | | | | | | update Roger this week. | | |
| | | | damage and advise LD committee re: | | | | | | 6/20/22 WO resulting from June LD Park Survey authored by | | |
| 6/20/2022 | 3 | 2022-16 | recommended next steps. | N | Joel | 7/8/2022 | | Roger Milliman | Maureen and Steve Glenn. | | |
| | | | | | | | | | 6/23/22 Mowing scheduled for next week. To be completed | | |
| | | | Mow vegetation in front of Lake Lep spillway | | | | | | by 7/1/22. | | |
| | | | to a maximum level of 8" iaw Dam | | | | | | 6/20/22 WO resulting from June LD Park Survey authored by | | |
| 6/20/2022 | 1 | 2022-17 | Operations and Maintenance Manual. | N | Norm | 7/1/2022 | | Roger Milliman | Maureen and Steve Glenn. | | |
| | | | | | | | | | | | |
| | | | | | | | | | 6/23/22 Recent vandalism has stopped further repair to the | | |
| | | | | | | | | | park. LLCC to address park building improvements (roofs, paint | | |
| | | | | | | | | | etc) based on Park Survey report and LD's future | | |
| | | | | | | | | | motions/recommendations. LLCC working with Mason County | | |
| | | | Olde Lyme Park- Bathroom side wall needs to | | | | | | Sheriff regarding field camera stolen from Olde Lyme Park. | | |
| | | | be painted with matching beige paint where | | | | | | 6/20/22 WO resulting from June LD Park Survey authored by | | |
| 6/20/2022 | 2 | 2022-18 | the graffiti was covered up | N | Norm | 7/14/2022 | | Roger Milliman | Maureen and Steve Glenn. | | |
| | | | | | | | | | | | |
| | | | Update Dam Operations Manual to address | | | | | | | | |
| | | | DOE email dated 9 June 2022 regarding | | | | | | s too too . 5 II | | |
| 6 /22 /222 | _ | 2022.40 | emergency drawn down at both Lake | | | 0 /00 /0000 | | | 6/23/22 Follow on action based on outcome of WO 2021- | | |
| 6/23/2022 | 3 | 2022-19 | Limerick and Lake Leprechaun. | Υ | Norm | 9/30/2022 | | Roger Milliman | 13b | | |
| | | | | | | | | | | | |
| | | | | | | | 1 | | | | |
| | | | | | | | 1 | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | 1 | J | | | |

PARK MAINTENANCE MONTHLY REPORT

Saturda 18 2022

| | Sati | wday | Needs |
|---------------|--|--------|-----------|
| ANGLIA BEACH | | YES/NO | Attention |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | Je3 | |
| | Dog Station has poop bags available? | Ves | |
| | Litter picked up? | Yes | |
| | Restroom is cleaned and stocked? (Done Mon & Fri May1-Oct 31 | Ves | |
| | Lawn mowed recently? | Jes | |
| | Ground debris cleaned up? | 483 | |
| | All debris removed from spillway? | | |
| | Safety floats are above the water at the spillway? | | |
| | Notes: | | |
| | Nice scans | | |
| | No (3004), DOOD (11) | | |
| | Pi | | |
| | | | |
| BANBURY PARK | | YES/NO | |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | Ves | |
| | Dog Station has poop bags available? | Ves | |
| | Litter picked up? | Yes | |
| | Restroom is cleaned and stocked? (Done Mon & Fri May1-Oct 31 | Ves | |
| | Lawn mowed recently? | Ves | |
| | Ground debris cleaned up? | 185 | |
| | Notes: | 723 | |
| | Tree roots distrouma boat launch | | X |
| | No GOOSE DOOD | | |
| | THE COURT POOL | | |
| | | | |
| CLUBHOUSE/INN | | YES/NO | |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | Yes | |
| | Dog Station has poop bags available? | Jes | |
| | Litter picked up? | Ves | |
| | Lawn mowed recently? | 1 1 1 | |
| | Ground debris cleaned up? | 125 | |
| | Are pathways swept? | 106 | |
| | Is the roof free of debris? | 113 | |
| | Notes: | 1400 | |
| | | + - | |
| | NO YOOK DOOD | | |
| | | | |
| | | | |
| | | | |

| | | E / | Needs |
|------------------|---|--|-----------|
| LEPRECHAUN PARK | | | Attention |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | YES | |
| | Dog Station has poop bags available? | Yes | |
| | Litter picked up? | Yes | |
| | Lawn mowed recently? | Yes | |
| | Ground debris cleaned up? | yes | |
| | Debris removed from spillway? | Yes | |
| | Notes: | 1 | |
| | grass by down needs cuttures | | X |
| [| | | |
| LOG TOY PARK | | YES/NO | |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | Yes | |
| | Dog Station has poop bags available? | yes | |
| | Litter picked up? | Ves | |
| | Restroom is clean and stocked? (Done Mon and Fri May 1-Oct 31 | Yes | |
| | Lawn mowed recently? | Ves | |
| | Ground debris cleaned up? | Yes | |
| | Notes: | | |
| | | | П |
| | No goode POOD 11 | | |
| | | | |
| | | | |
| OLD LYME PARK | | YES/NO | |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | 1/23 | |
| | Dog Station has poop bags available? | Ves | |
| | Litter picked up? | 100 | |
| | Restroom is clean and stocked? (Done Mon and Fri May 1-Oct 31 | Yes | |
| | | 100 | |
| | Lawn mowed recently? | | |
| | Ground debris cleaned up? | | |
| | Notes: Field comera on tree | | ~ |
| | Bathroom needs pointing where | | _ |
| | tagging was | | |
| | graffith of pole & cumbing wall i | | |
| | Swing seats cut move-being replaced | | * |
| WAY TO TIPPERARY | | YES/NO | |
| | Garbage can(s) empty? (They are emptied Mon & Fri) | Yes | |
| | Dog Station has poop bags available? | Yes | |
| | Litter picked up? | Yes | |
| | Restroom is clean and stocked? (Done Mon and Fri May 1-Oct 31 | Yes | |
| | Lawn mowed recently? | 1/095 | |
| | Ground debris cleaned up? | | |
| | Notes: | | |
| | yellow wes in lake by boat launch | Y The second sec | X |
| | Spoketo Roger & Joel already | | |

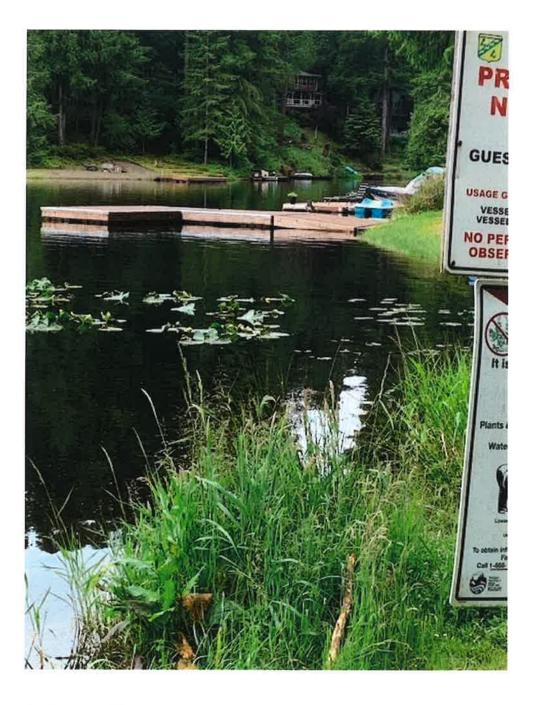
Maureen Glenn

From: Maureen Glenn

Sent: Monday, June 20, 2022 8:37 AM

To: Maureen Glenn

Subject: Yellow lake lilies-Way to Tipperary Boat Launch



Sent from my iPhone

LAKES-DAMS-PARKS 2022-23 EXPENSE BUDGET

Lake-Dam Committee

| | 2022 Oct | Nov | Dec | 2023 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Total | Comments | BOE |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|---|--|
| 63600.0 Labor | | | | | | | | • | | | , i | • | | | |
| 63600.10 Lake Dam Department Mgr | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$5,500 | \$66,000 | Plnd Job Salary | LLCC Estimate |
| 63700.0 Lake Expenses | | | | | | | | | | | | | | | |
| 63700.10 Technical Support/Analysis/Testing 63700.11 Lake Advocates Consulting/Surveys 63710.12 AquaTechnex Weed Treatment/Permits | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 \$15,000 | \$2,000 \$15,000 | \$2,000 \$15,000 | \$2,000 | \$2,000 | \$24,000 \$45,000 | Limerick/Leprechaun Limerick/Leprechaun | Historical Data Vendor Quote |
| 63710.13 Water Quality Sampling/Testing 63700.20 Geese Mitigation 63700.30 Lake Limerick Fish Plant/Derby | \$500 | | | | | | \$500 | \$500 | \$500 \$2,200 | \$500 | \$500 | \$500 | \$3,500 \$2,200 | IEH Labs As Required | Vendor Quote Historical Data |
| 63700.31 Spring Fish Plant 63700.32 Fishing Derby 63700.33 Fall Fish Plant 63700.40 Lake Leprechaun Fish Plant Total | | | | | | | \$4,000 \$2,000 \$1,400 | | | | | \$1,500 | \$4,000 \$2,000 \$1,500 \$1,400 \$83,600 | Nisqually Trout Misc. Expenses Nisqually Trout Nisqually Trout | Historical Data Historical Data Historical Data Historical Data |
| 63805.0 Licenses & Permits | | | | | | | | | | | | | | | |
| 63805.10 Fishing Derby (WDFW) 63805.20 Dam Operations (Dept of Ecology) Total | | | | | | | \$200 \$3,500 | | | | | | \$200 \$3,500 \$3,700 | Annual Permit Annual Permit | Fee Schedule Fee Schedule |
| 65000.0 Park Expenses | | | | | | | | | | | | | | | |
| 65000.1 Restroom/Shed Roof Replacement 65000.2 Park Host Advertisement Total | \$3,000 | | | 550 | | | | \$3,000 | \$3,000 | \$1,500 | | | \$10,500 \$550 \$11,050 | 5 Parks/LLCC Install | LLCC Estimate |
| 67200.0 Repairs and Maintenance | | | | | | | | | | | | | | | |
| 67200.10 Misc. Dam Repairs & Maintenance 67200.20 Misc. Lake Repairs & Maintenance 67200.30 Misc. Park Repairs & Maintenance Total | \$300 \$450 \$200 | \$300 \$450 \$200 | \$300 \$450 \$200 | \$300 \$450 \$200 | \$300 \$450 \$200 | \$300 \$450 \$200 | \$3,600 \$5,400 \$2,400 \$11,400 | Misc. Hardware Misc. Hardware Misc. Hardware | Historical Data Historical Data Historical Data |
| 67800.0 Small Tools & Equipment | | | | | | | | | | | | | | | |
| 67800.10 Misc. Tools/Equipment | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$1,200 | Misc. Hardware | Historical Data |
| 67805.0 Supplies | | | | | | | | | | | | | | | |
| 67805.10 Misc. Supplies | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$100 | \$1,200 | Consumables | Historical Data |

GRAND TOTAL \$178,150

DRAFT VERSION DATED 06/07/2022

Capital Projects & Equipment List 2022-23 Budget

Lake-Dam Committee
Escalation factor: 1.08

DRAFT Dated 9June2022

| | | 2022-23 | | | Improves | |
|--|---------------|--------------|----------|-----------|------------|-----------------------------|
| | 2021-22 | Adjusted For | Provides | Maintains | Member | |
| Project / Equipment Description | Cost Estimate | Escalation | Safety | Asset | Experience | Comments |
| 1. Lake Leprechaun Dredging (Ph 2) | \$50,000 | \$54,000 | | Χ | | Detailed Engr/Permitting |
| 2. Inn Island Rebuild; NW Corner (Ph 1) | \$5,000 | \$5,400 | Χ | Χ | | Feasibility Study** |
| 3. Inn Island Bridge Upgrade/Rebuild (Ph1) | \$5,000 | \$5,400 | Χ | Χ | Χ | Feasibility Study** |
| 4A. Cranberry Creek Retention Pond (Ph 1) | \$22,000 | \$23,760 | | Χ | | Feasibility Study** |
| 4B. Cranberry Creek Retention Pond (Ph 2) | \$40,000 | \$43,200 | | Χ | | Detailed Engr/Permitting |
| 5A. Bird Sanctuary Dredging (Ph 1) | \$12,500 | \$13,500 | | Χ | | Feasibility Study** |
| 5B. Bird Sanctuary Dredging (Ph 2) | \$50,000 | \$54,000 | | Χ | | Detailed Engr/Permitting |
| 8. Weed Harvester or Equivalent | \$100,000 | \$108,000 | | Χ | | System Analysis/Procurement |
| | | | | | | |
| Total | \$284,500 | \$307,260 | | | | |

^{**}Includes Concept Development, Design and Cost Analysis, Project Planning

Candidate Projects

| 1. Large Park Cabana (Park at the Inn) | | | Χ | Foundation & Cabana Install |
|--|---|---|---|-----------------------------|
| 2. Medium Park Cabana's (Anglia, Old Lyme) | | | Χ | Foundation & Cabana Install |
| 3. Banbury Restroom Heater/Cypher Locks | | | Χ | Upgrade for Winter Usage |
| 4. Security Cameras for Parks | Χ | Χ | | |

Cranberry Lake Storm Water Detention Structure Site Visit 06-03-2022

Attending:

Pat Paradise LLCC Lake/Dam

Ken Martig Jr Martig Engineering (Designer of Cranberry Lake Storm Water

Detention Structure (SWDS)

Steve Saylor LLCC BOD

Dorothy Powter LLCC Lake/Dam

Joel Gray LLCC Lake/Dam

Teddy Lovgren LLCC Lake/Dam

Harry Gibbons Lake Advocates

Robert Plotnikoff Lake Advocates

Tim Reber LLCC Lake/Dam

Roger Milliman LLCC CAM

Meeting Minutes:

The purpose of the site visit was to assess the viability of the storm water basin (SWDS) to collect nutrients and sediment with the goal of reducing loading into Cranberry Creek and Lake Limerick. Nutrient loading adds to Limerick weed growth.

The site visit was an opportunity to get a firsthand view of the storm detention structure and sediment retention basin. Structure was built in 1989 under directives from Dept of Ecology and Army Corps of Engineers to control rate of storm water discharge into Lake Limerick and to provide a basin to hold both storm water and sediment. The detention structure replaced an existing wood

bridge crossing Cranberry Creek, and the basin was created by hydraulically dredging the lagoon before exiting Cranberry Lake.

Notable Harry Gibbons comments:

Recommendation to take basin core samples to determine sediment accumulation levels and depth.

Sediment is visibly present in the basin based on plant life growth.

Comment from a Cranberry BoD member Laurie Cox: Beaver Dams have artificially raised the overall water level of Cranberry Lake

Cranberry Lake is a natural lake – hundreds of years old

A natural lake flushes itself – a reservoir (Lake Limerick) retains up to 90% of sediments

Probably 18 to 20 percent of the nitrogen and phosphorous entering Lake Limerick is directly attributable to rainfall and pollen resulting from climate modulation

Septic tanks/drain fields filter pathogens and are the primary source of nitrogen and phosphorous entering Lake Limerick. If Lake Limerick was being proposed/developed today – a sewer system would be a requirement.

Centennial Grant Program could be a source for a sewer system and mitigation of other negative sources of inputs into the lakes.

Geese mitigation is recommended to continue. 3lbs of phosphorus yields 10K lbs of algae.

Strong recommendation to focus on septic/drain field education of LLCC Members. Topics to include planting of vegetation and tank pumping every 2 to 3 years. Septic systems are designed to prevent pathogens and not phosphorous/nitrogen that with a properly functioning drain field will be ground absorbed prior to entering the lake. Add vegetation and calcium to drain fields, and periodically flush with a quart of organic yogurt.

Dredging at 5-to-10-year intervals will "buy-back" lake lifetime. What do we want as a community? Answer: Recreational opportunities, aesthetics, and fish habitat supporting member land values.

The bird sanctuary is the biggest area to currently focus on – needs aggressive plant management.

Harry Gibbons recommended measuring nutrients below the culverts exiting Lake Leprechaun and Cranberry Lake rather than in Cranberry Cove in order to better identify the source of nutrients that create the organic growth in Lake Limerick.

Lake Advocates was tasked to write a report prioritizing potential remedies with cost / benefits to maintain/improve the health of 2 lakes.

LA report to potentially include sedimentation retention pond/s, geese mitigation, eliminating phosphorous fertilizer usage, periodic septic system pumpings/inspections, annual weed herbicide treatments, dredging and sewer system.

Specific Ken Martig comments:

Lake Limerick and Lake Leprechaun are "new" lakes

A major source problem is that LLCC inundated existing organic land with water as a result of building the lake. The submerged organic materials and the lake are trying to reach equilibrium.

(Minutes taken by Pat Paradise and Roger Milliman)

Lake/Dam Committee Action Item Status

As of: 30June2022

| Commitments & Action Items | Date Assigned | Assigned To | Due Date | ECD / Status |
|--|------------------|---|-------------|---|
| Meet with Lake Advocates to review core sampling results and determine next steps for Phase 2 PAR | 4-Dec-21 | Maureen, Steve, Tim | TBD | Held for LA's Lab Report/Recommendation |
| Examine the parks for fit and feasibility of proposed structures. | 8-Jan-22 | Dennis (lead), Dorothy, Joel, Teddy, Pat, Steve and Deanne. | TBD | To Be addressed in Subcommittee Plan/Recommendations |
| Obtain community input on adding structures/improvements to the parks to help inform the committee's next steps. | 8-Jan-22 | Dennis (lead), Dorothy, Joel, Teddy, Pat, Steve and Deanne. | June 14th | COMPLETE Survey developed and released to LLCC membership May 24th via Survey Monkey. Results under review by SubTeam |
| Update Weed Rake Form to include instructions to users to properly dispose of their harvested lake weeds. | 4-Jun-22 | Joel | w/o June 8 | COMPLETE |
| Request Roger include data logger results in monthly CAM report | 4-Jun-22 | Teddy/Joel | Next LD Mtg | COMPLETE |
| Issue request to John Ingemi to instruct CAM/LLCC Maintenance to document Dam inspections and maintence actions in accordance with the Dam O&M document. | 4-Jun-22 | Teddy | w/o June 8 | COMPLETE Work Order document contains maintence schedule based on the Dam O&M document that could be ustilized |
| Coordinate with Roger on applicable escalation/inflation factor that should be applied to Capital Projects values | 4-Jun-22 | Teddy/Dennis | w/o June 8 | COMPLETE |

Lake/Dam Committee Action Item Status

As of: 30June2022

| 1-Jun-22 | Teddy | August LD Mtg | Post field trip meeting/discussion held in Crows nest with Lake Advocates (Harry/Rob) and Ken Martig. Pat and Roger drafted minutes; under review by LA and Ken Martig. LA's recommendations added to "Technical Montoring Rpt & Mgmt Actions" (June 2022 update). Follow-up with Roger on Ken's comments. |
|-------------|--|---|---|
| 0-Jun-22 | Dennis | August LD Mtg | |
| 0-Jun-22 | Dennis | w/o July 4 | |
| 0-Jun-22 | Teddy | w/o July 4 | |
| 0-Jun-22 | Teddy | w/o July 4 | |
| 0-Jun-22 | Teddy | w/o July 4 | |
| 0-Jun-22 | Brian | August LD Mtg | |
| 0 0 0 0 0 0 |)-Jun-22)-Jun-22)-Jun-22)-Jun-22 | Dennis | Dennis August LD Mtg Dennis w/o July 4 |

Lake/Dam Committee Action Item Status

As of: 30June2022

| Commitments & Action Items | Date Assigned | Assigned To | Due Date | ECD / Status |
|----------------------------|------------------|-------------|----------|--------------|
| | | | | |