Silver Lake Commission
July 15, 2015
5:30PM, Conference Room
Dover City Hall

****APPROVED – September 2, 2015****

Members Present	Others In Attendance
Dean Holden, Chairman	Carolyn Courtney, City Staff
Tricia Arndt	Lara Allison, DNREC
Lyle Jones	Mayor Robin Christiansan
	Sharon Duca, Public Works Director
	Robin Tyler, DNREC

WELCOME & CALL TO ORDER: 5:34 PM

The Chair introduced Tricia Arndt, a returning member of the Silver Lake Commission and thanked her for agreeing to serve.

OBSTRUCTIONS TO FISH MOVEMENT BETWEEN DIVISION STREET AND THE SILVER LAKE DAM

Dr. Robin Tyler of the DNREC Environmental Laboratory provided an e-mail chain and two photos pertaining to a fish kill that occurred in July 2012 in the creek below the Silver Lake dam and an example photo of a typical blue-green algal bloom that occurs there in most years (Attachment A). He stated that a tremendous amount of good work has been done along the Silver Lake corridor from the dam to Court Street to improve the appearance and environmental condition of the area. He asked the question that, considering the amount of money spent there thus far, how would it be perceived if in the middle of the summer another fish kill of the type shown in the picture were to occur? Dr. Tyler further added that the cleanup of such a condition creates a health hazard for the people involved with doing the work. It is Dr. Tyler's conclusion that the solution to prevent future fish kills in the area between the dam and Division Street is to remove two obstructions from the stream that prohibit fish from moving freely up and down the creek. One of the obstructions is comprised of construction/street rubble that blocks the stream at the footbridge. The other is a concrete slab that may be part of the USGS gaging station just above Division Street.

The cause of past fish kills in this area has been low dissolved oxygen. Dr. Tyler noted that he, and others have done research showing that fish will move away from low dissolved oxygen conditions if they are able to do so. The low oxygen condition that is fatal to fish in this area is related low flow caused by drought. By the time the fish feel the need to move downstream to get to water with enough oxygen to allow them to survive, the water level is so low that they cannot get past the obstructions. In the most recent fish kill (Attachment A) several species were involved including gizzard shad, carp, largemouth bass, hogchoker, catfish and more. Mr. Lyle Jones asked if Dr. Tyler thought contaminants could be flushed downstream if these obstructions were removed. Dr. Tyler stated that Dr. Rick Green would be the person to give an opinion on this subject.

That Chair noted, that he liked the approach to restore the ability of fish to move. He said he believed that taking the obstructions out would be challenging with factors involved including the USGS gaging station, the potential for mobilizing contaminants and costs and noted that the City would have to want to take that path. He asked if there were funding opportunities or support with DNREC or others to support this action. Dr. Tyler replied that he was acting on his own professional judgment and knowledge as an Ecologist in pursuing this action. Mr. Jones noted that he did see removing some of the obstruction and it would be nice to possibly notch the concrete slab near the USGS station down to the grade of the stream bed. The Chair said that the Commission will talk more about this when a full Board

is present, reiterating that challenges would be contamination issues, USGS, costs to implement and forces to overcome said challenges and that the Commission would reach out to Dr. Tyler for his input. The Chair also said that effort is made to be ecologically friendly as well as balance public use.

Ms. Arndt noted that she could reach out to USGS regarding the concrete obstruction near Division Street. The Chair said this is good and that the Commission must seek guidance from City administration to move this forward. Dr. Tyler reiterated that if a similar fish kill were to occur and some worker from the City were to have a heat-related illness or develop an infection from exposure to the rotting fish and affected water then it potentially becomes a bigger issue and costs more money. To conclude this agenda item, the Chair noted that he would take this up to the City administration to explore what can be done. Dr. Tyler then departed the meeting.

APPROVAL OF NOVEMBER MEETING MINUTES

Due to lack of quorum, minutes were reviewed for comments, however no action was taken.

PROJECT UPDATES

Mirror Lake Update

The chair reported no new updates at this time.

Central Middle Regenerative Step Pool update

The chair reported no new updates at this time. He then reviewed the project to bring Ms. Arndt up to speed on both of these projects. Mr. Jones noted he would forward information onto Ms. Arndt with on this project. There is not funding in place and we need the Capital School District to buy into the project as well. The scope of work and project design is what Ms. Arndt is hoping to see.

OLD BUSINESS

Punch List Letters: City Manager & City Council

Ms. Duca gave a little background, one of our biggest issues has been staffing over the past few years. A new fiscal year just became and we can start looking at our resources and with an environmental scientist and lead ground crew member that will be meeting soon on this so we can get as many of these maintenance items prior to your next meeting. We will also work to see if any of these items that could include don the projects we have on board and maybe have better idea of where we are on some of these capital projects. During the last drawn down some issues were raised over the valve and we will be doing some work on the valve some maybe while we are doing permitting in that area we could look at some of Dr. Tyler's concerns. I will have a response to you by the next meeting. She asked the chair if he was still interested in meeting with staff to share some of the SLC's issues and post clean up discussions. He agreed and would like to participate, noting the City Manager would like to see a Management plan for these areas and I've said the SLC would be here to assist in putting that together. Then memorialize the plan and keep these pieces together.

2015 Lake Draw Down Schedule

The chair reviewed where we are today, hoping to have a set practice in place that we mail out notices mid-summer and allow for the valve opening in the fall. This will meet the needs of the constituents who voiced concerns over previous notices. What's in the packet are drafts of what we have used in the past. We are seeking City Manger and city concurrence that we follow this practice annually. We are not draining the lake, just lowering by 18 – 20 inches. This allows for shoreline clean up and minor dock repair. We want to finalize this as a schedule.

Ms. Duca in terms of the CM, he is fine with us working together and getting this out. As the commission recommends the annual dates for the valve opening, bring those dates to us and we will work together for the letters and public notices. A plan will be written as a guideline for a regular item

that for annual scheduling.

Mr. Jones noted to replace Brittany Benson's contact name with Lara Allison in the various directions of the letter. Ms. Allison agreed she could field these calls and direct accordingly.

Buffer Herbicide Treatment, Central Middle School & Mirror Lake

It was noted the chemicals have been purchased and combined this with the June 6 Clean up. The City contractor did remove some of the wetland plants out that raised the ire of DRNEC. We had some discussions on that, however, the buffer was overgrown and providing an unsightly view and area for homeless activity. We had Dr. Temple attend the last meeting to express his concern over the Mirror Lake area. With the following of the weeding and mulching, we have solicited Mathew Grabowski to come out and spray the remaining invasives, then how do we get this back to an area the city can maintain that is visually appealing. What is there is not working and not what we expected to see from the project plan. We need to be sure our efforts are in lock step with what the city can accomplish and Ms. Allison is our liaison with the state and we will make sure future maintenance does not impact the wetland plantings.

The path moving forward, is spraying at the end of July, meeting with new city staff, and hope to this fall mitigate a repeat of what happened at Silver Lake. The commission has always tried to find a balance to greening areas up yet keep parks user friendly. At the end of the day it's the city land to take care of for their residents.

June 6 Clean Up

The HOBY youth approximately 70 of them did a great job spreading nine truck loads of mulch.

NEW BUSINESS

Fall Clean Up Date

It was suggested to tentative select the following dates: October 5 – 17 as a valve opening and October 17 as the lake clean-up day. These were agreed to as tentative dates and we'll coordinate with all of the other entities to ensure this is safe and does work for all involved. Mr. Jones noted these dates work well except we should move the next meeting date as Oct. 7 would be too close to October 17. Ms. Courtney agreed to call the Jr. ROTC group based on the Chairs statement to include them for a clean up event.

NEXT MEETING DATE

The next meeting date was moved due to the potential for a Cleanup in mid-October. Next meeting is set for Wednesday, September 2. Ms. Duca did note she would not be able to attend as she is previously committed to another meeting. She will have a response on the punch item list for this September 2nd meeting.

ADJOURNMENT

With no further business, the meeting adjourned at 6:34 PM.

Courtney, Carolyn

From: Tyler, Robin M. (DNREC) <Robin.Tyler@state.de.us>
Sent: Wednesday, July 15, 2015 1:42 PM
To: Courtney, Carolyn
Subject: FW: Silver Lake Commission Meeting
Attachments: Gasping for Oxygen Juvenile Brown Bullheads.JPG; St. Jones Creek, Silver Lake Park July 18, 2012.jpg; P9120005.JPG

Courtney,

Here you go. Please make a little package for each of the attendees out of this e-mail chain and the pictures. The combination of remarks in the e-mails and the pictures make the case. Thanks.

Robin

From: Tyler, Robin M. (DNREC)
Sent: Thursday, July 09, 2015 4:18 PM
To: 'Townshend, Ann Marie'
Subject: RE: Silver Lake Commission Meeting

Hi Ann Marie,

I'm still on track to come to the Silver Lake Commission Meeting that is on my schedule for next Wednesday, July 15 starting at 5:30. Looking back at your message below to Dean Holden, yes that would be good if we could gather over at the park below the dam prior to the meeting. If we could get Bill Cooper to come that would be useful too. If so, I can probably take care of everything I need to say at this point then and there. In any case, I need to come up early on the meeting agenda because I have another evening commitment for which I need to get on the road for by 6:15. Fortunately (for Silver Lake) and unfortunately (for building much of a case for removing the obstructions of interest) the wet weather we've had all through June and up to date has a relatively strong flow flushing through there for this time of year. The lake still looks brown as the flushing rate is strong enough that the blue-green algal bloom hasn't even occurred. Nonetheless, there will eventually be another summer drought that causes the same problems seen in 2012 and it's not too late for that this year if things happen to go dry.

Regards,

Robin

From: Tyler, Robin M. (DNREC)
Sent: Thursday, April 30, 2015 12:07 PM
To: Townshend, Ann Marie
Subject: RE: Silver Lake Commission Meeting

Sounds good Ann Marie. I will get that on my calendar. If at all possible, I do think that it would add value for Bill to contribute his experience.

Robin

From: Townshend, Ann Marie [mailto:ATownshend@dover.de.us]
Sent: Thursday, April 30, 2015 11:28 AM
To: Tyler, Robin M. (DNREC)
Cc: Courtney, Carolyn
Subject: RE: Silver Lake Commission Meeting

Unfortunately for the City, Bill Cooper retired in January 2014. However, he still lives here so maybe we can use him as a resource. The next meeting is scheduled for July 15th. I will forward your message to Dean Holden, the chair of the Silver Lake Commission, and maybe we can schedule a time to meet on-site prior to the next meeting.

Ann Marie Townshend, AICP
Director of Planning & Community Development
Planning and Inspections / Parks and Recreation
P.O. Box 475
Dover, DE 19901
(302) 736-7196
(302) 736-4217

www.cityofdover.com
"Like" us on Facebook at "City of Dover Recreation"

From: Tyler, Robin M. (DNREC) [mailto:Robin.Tyler@state.de.us]
Sent: Thursday, April 30, 2015 11:25 AM
To: Townshend, Ann Marie
Subject: RE: Silver Lake Commission Meeting

Ann Marie,

I am very sorry for not showing up at the meeting last night. I was in the field all day up in Northern New Castle County scrambling to get some sampling in ahead of projected wet weather and did not get back to Dover until after 6:00. I will be happy to come to the next meeting, or a special session if one were to be set up. Last week I was thinking about the value of maybe gathering at the site, but, had reservations about that on Friday after driving over to the park and looking at flow in the creek past the footbridge. Given that flow is up pretty good at this time of year, it's hard to envision a problem.

At such time that we are able to get together with the appropriate people I think there would be value in having Bill Cooper come and add his 2 cents worth. He and his crew are the ones that had to deal with cleaning up that rotting, stinking, human health threatening fish kill that occurred in July 2012 (photos attached). By human health threatening, I mean, just having to be working in such conditions with the ambient temperature over 90 degrees. As you probably recall, the situation was serious enough that the park was closed to the public at least for that day. In the dead fish picture, one can see the rock dam across the creek under the footbridge. In the live fish picture, Brown Bullhead Catfish are among the toughest of the tough when it comes to surviving low dissolved oxygen and juveniles tend to be tougher than adults. On that day, juveniles of this size of that species were all that was left and it's pretty clear they were hanging by a thread.

Feel free to share this message with anyone you feel may find it useful.

Robin

From: Tyler, Robin M. (DNREC)
Sent: Friday, April 24, 2015 5:14 PM

To: 'atownshend@dover.de.us'
Subject: Silver Lake Commission Meeting

Ann Marie,

Yes, I can attend the meeting next Wednesday evening. See you there at 5:30.

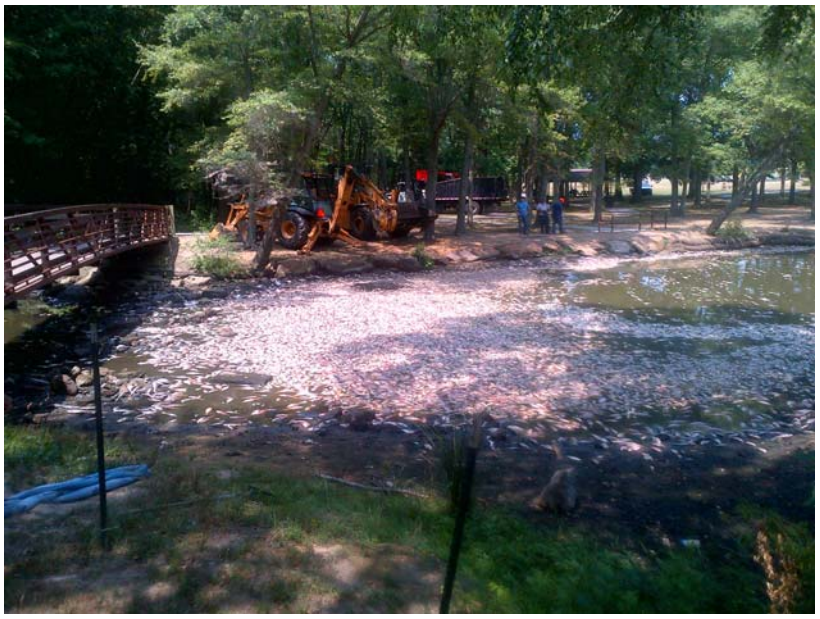
Robin

Robin M. Tyler, Ph.D. Ecologist
Environmental Scientist IV
Delaware Department of Natural Resources and Environmental Control
Division of Water
Environmental Laboratory Section
89 Kings Highway
Dover, DE 19901
302-739-9942
302-739-3491 (FAX)

Pics submitted by Robin Tyler



Juvenille Brown Bullheads gasping for air



St. Jones Creek July 2012



Algea Bloom