



## PROGRESS!

*Photo provided by award winning photographer, Peggy Douglas*

Sallie Forman, Founder/President

[“Progress is the activity of today and the assurance of tomorrow”](#)

[Ralph Waldo Emerson](#)

It is with great pleasure that I can report progress on the Silver Lake dredging project, a project initiated by SOLA3 back in 2010 with Delaware’s Department of Natural Resources and Environmental Control (DNREC). Through the capable leadership of Chuck Williams, with DNREC’s Division of Watershed Stewardship, the project is scheduled to get underway in September and is budgeted under \$200,000, a great savings from previous plans. Rehoboth’s Board of Commissioners has signed off on the project and must be greatly relieved that the City does not have to share the cost, which was anticipated prior to the State of Delaware acknowledging ownership of the lake. Details of the project are provided in Chuck’s article herein.

We would like to believe that this positive development points the way to DNREC addressing additional lakes’ issues. As we understand it, the lakes’ management plan, that identifies the scope of work for a DNREC management strategy, has not been fully funded. Until that happens, the details of how the lakes will be managed and regulated are unclear.

However, there are existing DNREC policies used state-wide that may apply to Silver Lake and Lake Comegys. DNREC’s Robert Palmer and Steven Smailer have provided details of these policies, some or all of which may apply to our lakes when the management strategy is finalized.

In the meantime, SOLA3 is in touch with local legislators to determine if there is state money that may be allocated to the management plan.

Many residents are not aware of the outfall that is intended to regulate the water levels in Silver Lake. In 2005 SOLA3 worked with DNREC to replace an old control structure that carried the lake’s water into the ocean. Unfortunately, it was easy to tamper with it and it became ineffective. Now, there is a new and expanded plan.

Stephen Wright, a Division Engineer with DNREC’s Division of Watershed Stewardship, has provided an excellent article herein on the history and plans for replacing the existing control structure and outlet pipe that flows into the Atlantic.

As is evident, we are in regular contact with DNREC staff on lake issues. They are always responsive, forthcoming with information, and understanding of SOLA3’s mission. We are very thankful for their cooperation in working with us and their dedication to protecting Delaware’s natural environment. (Continued on Page 2)

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## PROGRESS (continued)

A highlight of our annual activities is the project we sponsor for the two fifth grade classes (comprising over 100 students) at the Rehoboth Elementary School. It provides a hands-on science lesson on how to distinguish a healthy lake from one that is unhealthy. It is a learning opportunity that results in students' new awareness and involvement in protecting water resources. You'll see from the photos, attached to 5<sup>th</sup> grade teacher Jaquie Kisiel's report, that they really enjoy the experience.

I am happy to report the election of two new SOLA3 board members, Charlie Browne and Susan Gay (bios herein). Both have outstanding careers and strong ties to the Rehoboth Community. Their skills, knowledge and talents will compliment the outstanding work of our current, dedicated board – Mike Boyd, Vice President; Toni Sharp, Secretary; Dan Payne, Treasurer; Tom Childers, Director; and I continue to serve as President. My heartfelt thanks for all they do to accomplish SOLA3's mission.

WELCOME ABOARD [bad pun], Charlie and Susan

A BIG THANKS to Nancy Cullen, who served as a Director since 2011, and will be leaving the board. Among Nancy's many accomplishments for SOLA3 was enhancing our outstanding newsletter and her enthusiasm working with the Elementary School kids. We will really miss her humor and wit during our board deliberations, but know she is not far away when we need a good laugh or two.

Now into two years of our second decade, we are very optimistic about SOLA3's future and "...the assurance of tomorrow" based on our good working partnership with state and local leaders and the support we receive from our generous community. It will also require implementation of our strategic plan, developed under the leadership of Tom Childers. Our vision is to improve the quality of the lakes' waters and habitat for native wildlife; and to leave an environmental legacy for future generations.

## Silver Lake, Rehoboth Aquatic Habitat Enhancement Project

By: Charles E. Williams, II, Officer of the Director, Division of Watershed Stewardship, DNREC

The proposed project involves the creation of two wetland benches in the upper western portion of Silver Lake. Approximately 1,500 cubic yards of material, a combination of sand, silt and clay, will be excavated within the lake using a pontoon excavator and redistributed (placed) in two areas along the eastern bank adjacent to the City of Rehoboth park area (the "Tot Lot"). The material will be contained using coir fiber logs that will be secured in place prior to the initiation of excavation activities. The area proposed for excavation is approximately 37,010 square feet (.85 acre) in size. The two areas proposed for fill encompass a total of approximately 23,700 square feet (.54 acre) in size. The fill areas will be vegetated with various wetland plants and shrubs (e.g. Soft Rush, Tussock Sedge, Silky Dogwood) once the excavated material has settled and compacted within each area. The primary purpose of the project is to improve/enhance the aesthetics in the upper portion of Silver Lake by creating beneficial habitat for the flora and fauna of the lake. The acquisition of all necessary federal and State permit approvals to conduct the project is currently in progress. A September 2016 start date is planned provided all necessary approvals are in hand.



View of the West End of Silver Lake which is to be Dredged



## Silver Lake Outfall

By: Stephen G. Wright, P.E., Division Engineer, DNREC Division of Watershed Stewardship

The outfall to Silver Lake Rehoboth is currently a control structure partially hidden beneath a gazebo at the end of East Lake Drive. From this structure the water flows out to the Atlantic in a pipe underneath the private Sand Dune Drive before making two turns to go around 1 Sand Dune before continuing out underneath the dune to a jetty in the ocean. This outlet was built in at least three separate phases over many years. Prior to development in this area, Silver Lake Rehoboth had an intermittent stream as an outlet. With the construction of a modern dune system, this stream was piped through the dune with an outlet pipe protected by a jetty. Eventually East Lake Drive was built, with a control structure at the end of it that allowed water to exit the Lake and controlled the elevation of the water in the Lake. Finally, Sand Dune Drive was built and the remains of the stream between East Lake Drive and the ocean was piped. As often happens when underground construction projects are built in phases, such as this one, the system starts to fail at the connection points.

The two concerns that our project is addressing are as follows: (1) that the portion of the pipe underneath Sand Dune drive has begun to fail which is causing a sink hole to form above a

junction of the outlet pipe that goes around 1 Sand Dune Drive, and 2) that the pipe into the Atlantic is not long enough to prevent sand from partially blocking the outlet pipe due to the tide cycle.

In order to alleviate these two issues, the State hired an engineering firm (Davis, Bowen and Friedel, Inc.) to produce a set of plans that would replace the control structure on Silver Lake and the existing outlet pipe while at the same time adding more pipe so that the outlet is pushed out beyond the tide line to decrease the likelihood that the pipe will become blocked with sand. By replacing the entirety of the system including portions that are not failing, we hope to avoid the potential failure points from connecting older and newer pipe networks together. These plans have been submitted to the DNREC Drainage Program, and we have begun the review and finalization process of those plans for the work to take place as early as this winter if the permit, bidding, and funding processes go to plan.

Please note, that this project is not related to the lake dredging project that also proposed to take place in Silver Lake. This project should not alter the elevation of the water within Silver Lake. The plans are to have the control structure at the same elevation that the lake currently is.

## SOLA3's Strategic Direction

By: Tom Childers, SOLA3 Director

Last year the SOLA3 Board entered a process strategic planning, to re-vision the organization for the five- to 10-year year future. We drew input from key stakeholders in the area—government officials, community leaders, lakes and environmental experts—on challenges facing the lakes and the political, social, or scientific remedies that could address them. Then, over the course of several Board meetings, we hammered out a plan—from broad mission to detailed actions assigned to specific Board members—and formally approved it on June 4. The specificity of the Plan means that it is dynamic, as a living plan should be.

Our mission—our purpose in being—has new words, but remains fundamentally the same: “Restore, maintain, and protect the fresh water lakes of the Rehoboth area and their environments.” Under that banner, we will continue to work with the various publics and organizations of the Rehoboth region, and local and state officials to act for the benefit of the lakes.

Our action priorities include: Dredge areas of Silver Lake and Lake Gerar to remove accumulated sediment from storm water drains; Add filters to storm drains to reduce silt flowing into the lakes; Design and install a bird and waterfowl identification sign located at Silver Lake; Monitor the progress of the ocean outfall project; Reduce phosphorus and nitrogen, and increase oxygen in the lakes' waters; and Assure SOLA3 has the human and financial resources to accomplish its mission.

The Plan and the process that brought us to it have already proved their worth, as we have been able to reaffirm our purpose and develop focus within it. We invite you to stay tuned as we move forward, and to join in, or renew, as a Friend or volunteer, to lend a hand in the effort.

## SOLA3 + Envirotech + RES= Silver Lake Science

By: Jacquie Kisiel, 5th Grade Science, Rehoboth Elementary School

Take ninety-five eager 5<sup>th</sup> graders from Rehoboth Elementary, add in Envirotech founder and teacher Todd Fritchman, plus SOLA3 volunteers, and there you have it - the perfect outdoor classroom – Silver Lake!

Located 100 yards from the school's front entrance, Silver Lake is enjoyed by all of the K- 5 students of Rehoboth Elementary, who observe its aquatic life. They have named a favorite turtle Goliath and remarked on the beauty in and around Silver Lake. On more than one occasion, my 5<sup>th</sup> grade students have discussed the health of the lake, with ratings from "very healthy" to "very unhealthy."

So the debate was on! Now, it was time to incorporate many of the learning tools we have discussed in our science classes and embark on a qualitative and qualitative analysis of Silver Lake in a workshop sponsored annually by SOLA3.

Our RES 5<sup>th</sup> grade students began to notice that a person really just can't "tell" much about the quality of water simply by looking at it. Many pollutants such as herbicides, pesticides, and fertilizers are invisible to their eyes and may be present in the water. Therefore, we decided to focus on the presence or absence of macroinvertebrates. Under the watchful eye of Todd Fritchman, president of Envirotech Environmental Consulting, Inc., a



a licensed, certified State of Delaware teacher of biological sciences, we examined and compared macroinvertebrates from Silver Lake and compared those to a controlled sample from a DE state park lake.. A healthy waterway will have a large number of different types of macroinvertebrates present. A polluted waterway will have only a few different types of macroinvertebrates present, often in large numbers and generally include things like aquatic worms, water fleas and non-biting midge larvae. By sampling macroinvertebrates communities, one can get an idea for how healthy a waterway is.

Our students used their macroinvertebrate identification sheets and indicator lists to make informal assessments about the quality of their two freshwater samples. The results were as follows: Silver Lake was lacking in good water and fair water quality macroinvertebrates. Instead, it contained numerous poor water quality macroinvertebrates such as leeches, worms, and blackfly larvae. On the other hand, the control sample was teeming with Mayfly larvae, Gilled Snails, and Caddisfly larvae which are all considered good water quality indicators. The students concluded that the control sample was more biodiverse with numerous types and large amounts of macroinvertebrates that were intolerant to pollution. Therefore, the control sample had good water quality compared to Silver Lake.

Our 5<sup>th</sup> grade students noted that even though we tested just one of Rehoboth's freshwater lakes, this may not just be a local problem. Perhaps, it's a global one as well. Their goal, which they hope to pass on to next year's class, is to record their findings and find a solution on a local level. This could be a stepping-stone to solving a global problem.





## DNREC Regulations For Silver Lake And Lake Comegys Pending

By: Robert Palmer, Acting Director, Division of Watershed Stewardship, and Steven M. Smailer, Program Manager II, Wetlands and Subaqueous Lands Section

Delaware regulates all tidal waters (up to the mean high water line) as well as all non-tidal rivers, streams, lakes, ponds, bays and inlets (up to the ordinary high water line) pursuant to its "Subaqueous Lands Act" (enacted in 1969) and **Regulations Governing the Use of Subaqueous Lands** (i.e. underwater lands). In practice, Delaware's jurisdiction in non-tidal waters typically includes perennial (always wet) and intermittent (seasonally wet) watercourses.

The activities regulated in these waters include the placement of any structure in, on, over or under subaqueous lands (including docks, piers, buoys, ramps, dolphins, pilings, dams, culverts, bridges, etc.), as well as the laying of any pipeline or utility line (electric, telephone, fiber optic, water, sewer, gas, etc.), bank or channel stabilization structures (rock veins, grade controls, rip-rap, groins, gabions, breakwaters, bulkheads, biology/vegetation), any dredging, filling, excavating or extracting of materials, or establishing an anchorage for mooring more than two vessels.



Delaware law thus requires that a permit be obtained prior to conducting certain activities in tidal wetlands, as well as tidal and non-tidal waters within the State. Failure to obtain such a permit, or failure to comply with any of the permit conditions, may be punishable by monetary fines, as well as the costs of removing illegal structures and/or restoring affected wetlands.

**Silver Lake and Lake Comegys**  
At present, DNREC is reviewing applications for structures and shoreline stabilization in Silver Lake and Lake Comegys using policies established by the WSLS that are used throughout the State. In some cases, structures already

in Silver Lake exceed the dimensions recommended in our policies. In such cases, the WSLS is allowing the repair and replacement of these structures to their existing dimensions. Any new structures would need a permit and will need to comply with the current WSLS policies. Pending final review, our Web sites that provide details of the existing policies are:

Fee schedule and charges:

<http://www.dnrec.delaware.gov/wr/Documents/WSLS%20Fee%20Sheet.pdf>

Permitting and process information and application :

<http://www.dnrec.delaware.gov/wr/Information/Permits/Pages/WetlandsandSubaqueousLandsPermittingInfo.aspx>



## Silver Lake and Lake Comegys Historic Marker Replaced

By: Sallie Forman, SOLA3 , President/Founder

The Silver Lake and Lake Comegys Historical marker, that was vandalized in July, 2015, has been replaced by Delaware Public Archives. Speaker Schwartzkopf and Senator Lopez sponsored the original marker to coincide with SOLA3's 10<sup>th</sup> anniversary. They, joined by DNREC Secretary Small, community leaders and many residents, attended its dedication in August, 2014.

Ironically, I was the person who discovered the original marker had gone missing while walking along Silver Lake Drive, and I immediately contacted the Archives staff. It became a big story for all the local media. I also learned that SOLA3 owns the sign so it was our responsibility to contact the DE State Police to investigate. While the vandals were never identified, the sign was found underwater, just off Silver Lake's shore, by Kent

Signs, who went to the "scene of the crime" on behalf of the Archives. Unfortunately, the Archives determined that the original marker could not be salvaged.

SOLA3 is most grateful to the DE Public Archives staff for their diligence in finding and replacing the marker, to the DE State Police for its investigation, and especially to Speaker Schwartzkopf and Senator Lopez for agreeing to fund the replacement. What began as a shocking act of vandalism resulted in true team work by all these concerned parties.

The new, more durable marker will continue to remind us of the important history of Silver Lake and Lake Comegys, and their unique importance today as iconic features in the area's natural environment.



### SOLA3 Board Members

Mike Boyd, Vice President  
Sallie Forman, President  
Dan Payne, Treasurer  
Tom Childers, Director  
and the New Historic Marker

## Thank You Board of Directors and Advisor!!

### SOLA3 BOARD OF DIRECTORS

Sallie Forman, Founder/President (2013-16)  
Mike Boyd, Vice President (2014-17)  
Toni Sharp, Secretary (2014-17)  
Dan Payne, Treasurer (2015-18)  
Tom Childers, Director (2013-16)  
Charlie Browne, Director (2016-18)  
Susan Gay, Director (2016-19)  
Appointed Advisor: Mable Granke

SOLA3 is grateful for its partnership with the following organizations:

Rehoboth Beach HOA  
Draper Subdivision  
Lake Comegys HOA  
The Village Improvement Association



## BIRD IDENTIFICATION SIGN FOR SILVER LAKE

By: Dan Payne, SOLA3 Treasurer

SOLA3 is working with DNREC and various local birding clubs to have an interpretive sign placed at Silver Lake. This sign will identify the multitude of migratory birds and waterfowl that frequent the lake, along with the permanent avian population. Once installed, it will be a great resource for the many bird watchers who, year round, stop by the area designated by DNREC as a bird refuge to observe the birds and waterfowl.



**A Resident Mallard**



## HOW YOU CAN BECOME A “BF”, OR BEST FRIEND, OF SOLA3

SOLA3 is funded solely through private donations so your support is necessary to continue all of SOLA3’s programs. From innovative education experiences, to lakes’ clean up, to advocating for sound policies, and producing an informative newsletter - every aspect of our work must be funded. SOLA3 is the only organization dedicated to improving our Rehoboth Lakes. So please take a moment to complete the enclosed “Friends of SOLA3” form, and return with your gift in the enclosed envelope.

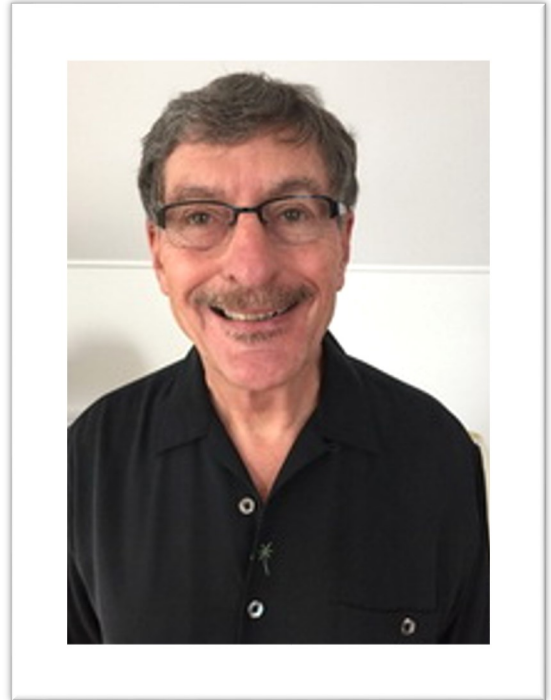
SOLA3’s outstanding board collectively contributes approximately 875 hours annually to manage our organization. But they cannot do all the work required. With the theory “many hands make light work”, we ask that you volunteer to help lighten the load by serving on one of our committee: education, water testing, lakes’ clean up, or outreach. It will require only 10 or less hours of your time annually. Simply check off your selection on the “Friends of SOLA3” form and we will be in touch with you.

## SOLA3 Welcomes Two New Board Members

### Charlie Browne

Charlie Browne was elected to a two-year term as a Director in May, 2016. His career includes working as an attorney for the federal government before transitioning to public health where he managed a variety of programs and projects that focused on access to care, income, and/or housing for vulnerable populations. Retired from 9-5 employment, Charlie maintains a busy schedule. He currently serves as the President of the Rehoboth Beach Homeowners' Association, Treasurer of Country Club Estates Property Owners' Association, and Vice President of the Pregnancy Aid Centers in College Park, Maryland. In addition, he is a member of the Johns Hopkins Medicare Beneficiary Advisory Council.

Charlie is a graduate of Emory University and the University of Georgia School of Law. He and his husband, Rod Cook, built a house in Rehoboth Beach 20+ years ago after having rented the previous 10 years. Their first rental was 34 Virginia Avenue directly on Lake Gerar. He still misses the daily visits from the ducks.

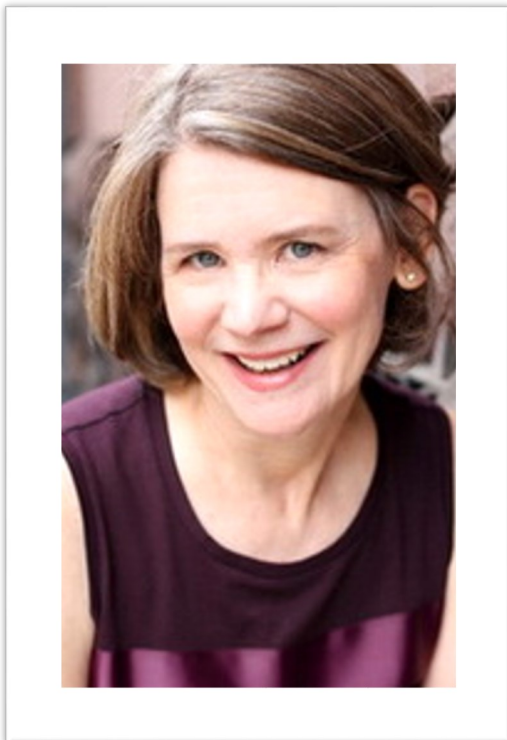


Charlie Browne

### Susan Gay

Susan Gay joined the SOLA3 Board of Directors in May 2016. She is a consultant, speaker, publisher and author, with over 25 years' experience in the healthcare industry, as a medical publisher and content strategist. Susan is a native of Atlanta. She received her BS degree from Presbyterian College in Clinton, SC, and earned a Master's degree from Emory University before heading north to begin her long career in publishing. She is also a former president of the American Medical Publishers Association. In recent years, she has focused on social media for medical practices, co-authored a book on the subject, and is working on a second book addressing risk management.

After vacationing in Rehoboth for many years, Susan and her husband, Jon Andrews, bought a home in the City 2 years ago, and she now spends more than half her time here. Susan is active in several civic organizations. She serves on the board of directors of the Rehoboth Beach Homeowners' Association and the Country Club Estates Property Owners' Association, and is active in the Rehoboth Neighbors United group. In her spare time, Susan enjoys long beach walks, cycling, and cooking. She and Jon have two children, Kate who now resides in California and Paul, a college freshman in Ithaca, NY.



Susan Gay