Lake Town Hall Meeting

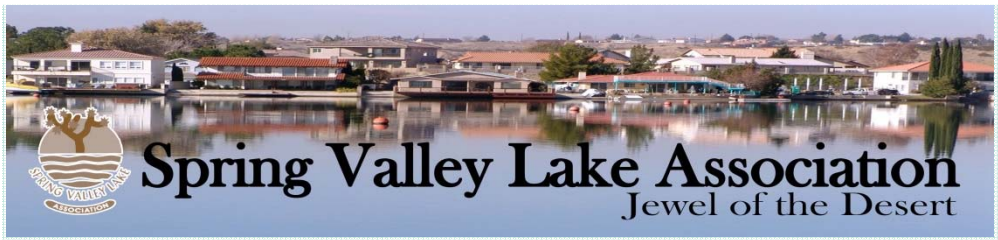
July 9, 2018

This Town Hall meeting by the Lake committee was a success!
We packed the room to provide the SVLA Members and the Board of Directors with:

History of the Lake
Past and Current Issues
Goals and plans

We have Turned in our first goal requests in for board review this Board meeting Tuesday July 24, 2018 at 6pm. Please show up to show support. We want to make sure all of us treat our biggest asset and centerpiece No.1

visit svla.com and click on Lake committee page for full details



TOWN HALL MEETING

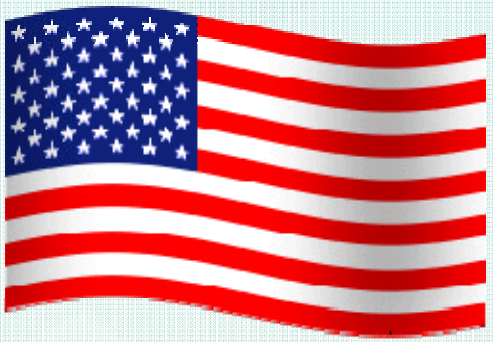
July 9, 2018 6:30PM

Welcome!

We are pleased that you are attending this Town Hall Meeting for Spring Valley Lake Associations members. This presentation is designed to inform you of our current lake conditions, our specific challenges and possible directions for addressing these issues. This has been designed to provide members with supporting information about topics regarding our lake. As a HOA Spring Valley Lake Association encourages you to e-mail us any information you feel vital to support our community, also any questions or comments are also welcomed at *info@svla.com*, our website svla.com or on our Facebook page.

The recording of any SVLA meeting without the prior written consent of the SVLA Board and verbal consent of all those in attendance at the meeting is prohibited. Always have your Membership Card with you when you are on Association Property. SVLA records the Board meetings for the purpose of the minutes only, this recording is not available for review.

1. CALL TO ORDER



Flag Ceremony - Pledge of Allegiance

Roll Call

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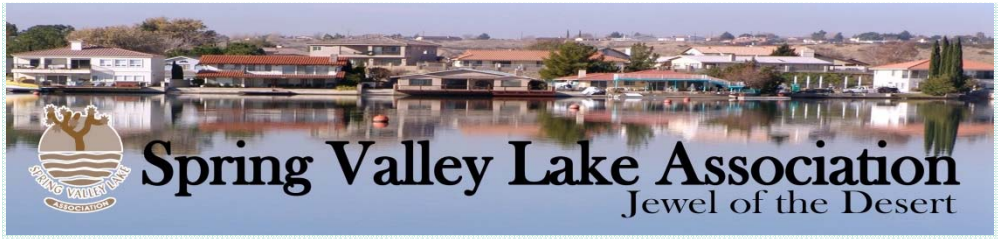
- Open discussion of the New Lake Committee
- History of SVL (Video)
- Water and Plant Powerpoint Presentation

SUB COMMIITTEES:
Hatchery
Clubcorp
Lake test and plants
Fish and fishing reports
Beach and amenities
Boats

- Dennis Teece, Director of Operations
- update on the current water conditions, review on the past years of water conditions, and review of the 2010 water treatment plan
- Closing from the Lake Committee
- Board comments
- Open discussions and questions from the public



TOWN HALL MEETING

July 9, 2018 6:30PM

Spring Valley Lake Association

Aquatic Vegetation and Our Lake

JULY 9, 2018

PREPARED BY LARRY HOOVER FOR THE LAKE COMMITTEE

Outline

Short history

What our Consultants told us

Lake Plan 2010

Grass vs weeds

Food (nutrients) from fish hatchery

Light

- **Turbidity**
- **Algae blooms**
- **Treatment history**

Conclusion

The following is an edited version of the PowerPoint presented on July 9, 2018, to add verbiage that was not on the original slides.

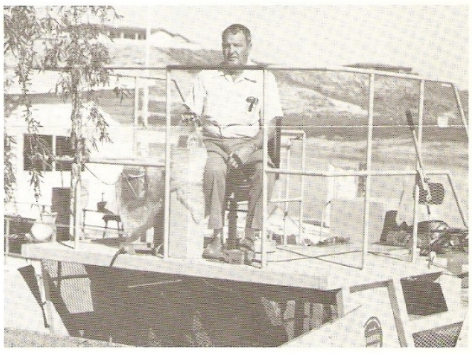
A short version of our Lake History

Boise Cascade "created" our lake in 1970.

In 1973, the responsibility for managing the lake was turned over to the Association.

Within another five years, by 1978, our lake was so crammed with milfoil weeds, the Association had to buy lake weed harvesters and operate them 5 days/week, 16 hours per day. The following is what a lake infested with Milfoil weeds looks like.

This following picture was taken from a Breeze article in 1978



Jim Robertson at console of Weed Harvester

The milfoil weed infestation continued for the next 22 years.

Throughout the 1990s, while the cost of living continued to rise, successive Boards did not raise assessments. Instead, increasing costs of operating and

maintaining Association amenities was paid for by drawing down (i.e., raiding) the Reserves.

By 2000, the Reserves were depleted and the BOD decided to kill the weeds because operating the harvesters and disposing of the weeds became unaffordable.

From 2000 on, there was virtually no vegetation in our lake. Because of the high nutrient levels in the water coming from the Fish Hatchery, and no vegetation to compete with algae to consume those nutrients, algae has consumed the nutrients and produced blooms. When blooms occur, light is prevented from penetrating the water, thus growth of vegetation on the bottom will not happen.

Another takeaway is: without vegetation to buffer the impact of "prop wash", bottom sediment (consisting of clay and silk particles) are swept into the water column. This reduces light penetration and prevents growth of vegetation

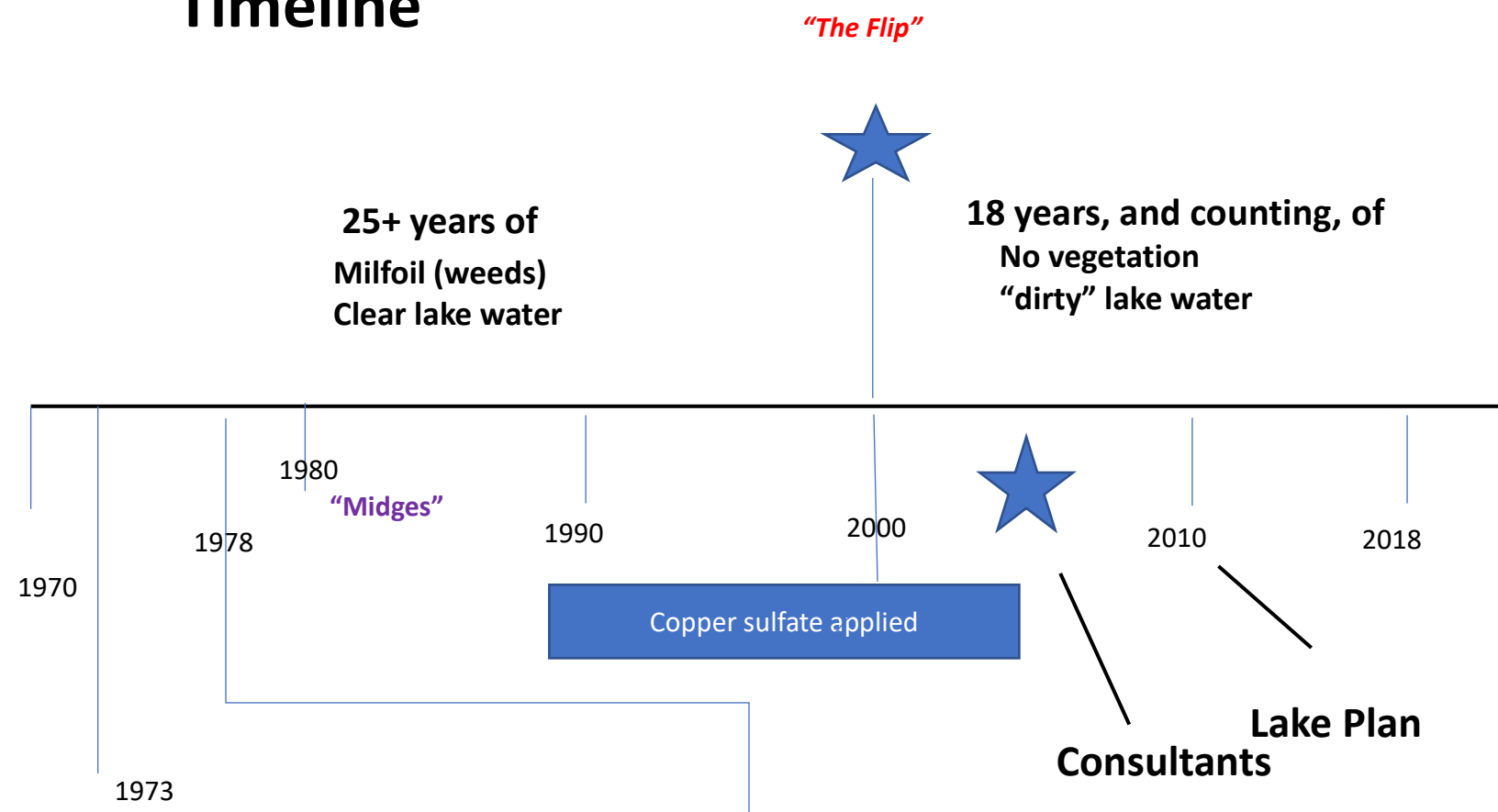
From 2000 through 2010, the Association hired various lake consultants to provide guidance on how to regain water clarity.

In 2010, AquaTechnex worked on a Lake Water Clarity Plan. A couple of Board members were involved in helping develop this plan. The full Board voted to approve the plan.

Unfortunately, this plan was never actually put into operation on any consistent basis. As membership on the Board of Directors continuously rotates, and the Management has continued to change, the plan has lacked a champion to make sure it was executed as originally intended.

The following graphic is a timeline representing the key events concerning our lake since 1970:

Timeline



The objective of the maintenance program are to achieve and maintain the following four desired use-objectives of the lake:

(1) Excellent fishing
(2) Excellent boating
(3) Safe water for swimming, (hence must be drinkable)
(4) Shore-line preservation

No specific attempt will be made to clarify the water, (but some small improvement is expected).

"Our lake weed harvester purchase in April of 1978 has been working 5 days a week, 16 hours a day clearing weeds from the lake."

Consultants' advice for which SVLA has already paid 10s of $1000s

The experts

2005 John Jones, December

2007 Dr Scott Jackson,

BASF Principle Scientist, NC, son of former/deceased SVL resident

John Jones, December 2005, advised SVLA that:

… rooted plants take nutrients away from algae

… if lake is in proper balance, expect 10,000 lbs of bass, unlimited large sunfish / year

… the benefits of limited visibility

1. increased growth rate of fish
2. reduced swimmer's itch
3. low herbicide costs

Dr Scott Jackson 2007, advised that:

… the key to a healthy lake is establishing plant communities

… because they oxygenate and detoxify the water and provide fish habitat

… a healthy ratio of nitrogen to phosphorus is 10:1

… chemistry of water and sediment plays a role in self-sustaining lake

… sediment was sterilized by persistent inorganic chemicals to eliminate weeds

… we need to:

determine if sediment will sustain life

collect sediment,

conduct aquarial experiments

select areas for planting – in checkerboard fashion

Dr Scott Jackson (continue)

… need plants that will absorb shock waves from boats

… need plants to combat build-up of nitrogen and phosphorus, prevent soil suspension

… ecological balance has been drastically disturbed, and carp have exploited the disruption

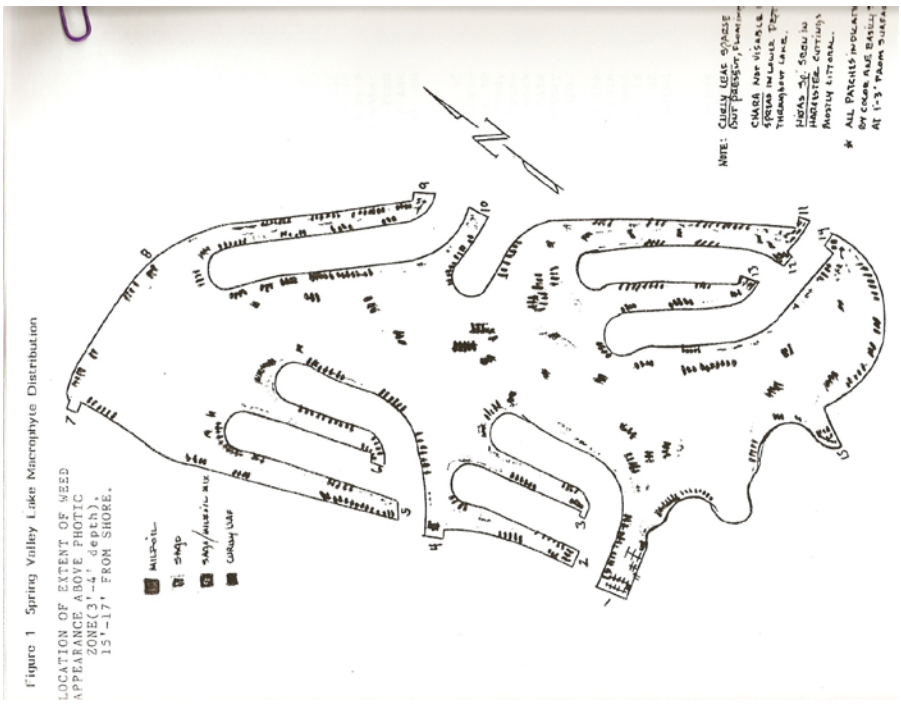
So, we paid the experts to tell us we need to establish sufficient vegetation in our lake for several reasons.

This is what the 2010 Lake Clarity Plan was designed to help us achieve. Of course, it is necessary to actually follow and execute the plan.

To understand the basis nature of the challenge, let's review what we need to do in order to establish lake vegetation (underwater grass)

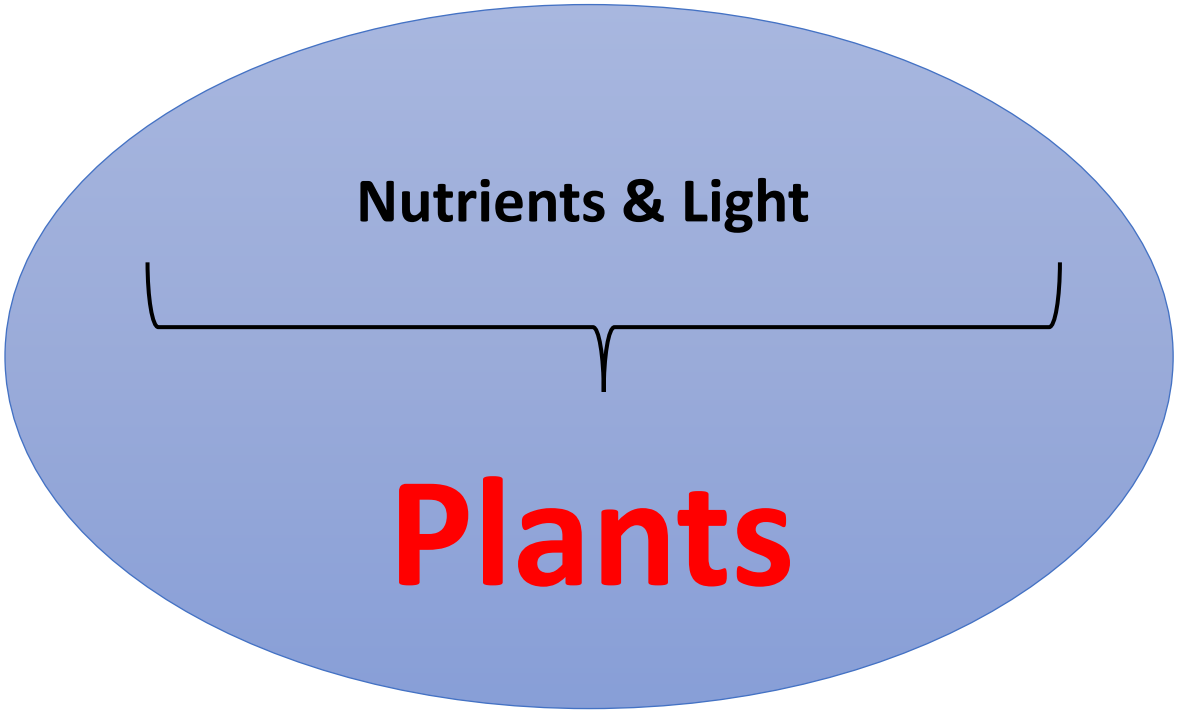
Here is an example of underwater grass (as opposed to weeds):

Here is a map from 1994 that indicates where milfoil was growing, and may be good sites for planting the grass, since we assume there is soil where the weeds grew.



To establish lake vegetation (underwater grass):

Plants need two things, more than anything else: food and light



Food, or Nutrients, consist of Phosphorus & Nitrogen

The vast majority of nutrients come to the lake from the Fish Hatchery, via the golf course. Here is a map that shows the route:

Fish Hatchery water (oxygenated and “hot” with nutrients) is mixed with anoxic (no oxygen) cold (no nutrients) water from the underground aquifers pumped from wells around the lake.

Here is a map of the lake showing where the wells are located:

The fish hatchery can provide the nutrients needed to support the aquatic life in our lake – plants, algae, fish.

The developers (Boise Cascade) planted milfoil to provide the basis of the ecological system. It grew fast, just like the cottonwood trees they planted throughout SVL to provide shade in the desert sun.

The problem was that the milfoil grew TOO fast and TOO much, just like the cottonwood trees, and eventually created real problems for the Association.

The nutrients that were once consumed by the milfoil have, since 2000, been consumed by algae, which allow algae to bloom when conditions are favorable.

With no lake vegetation, the bottom sediment has been more prone to disturbance and suspension into the water column.

So, for the last 18 years, the lake, being without vegetation, has been plagued with:

Excess nutrients because no plants have been there to consume them,

and

Bottom sediments are suspended by carp and boat prop wash

Plants need light

Question: What has prevented light from reaching plants?

Answer:

1) **Suspended Sediments (which are non-organic), and**
2) **Algae Blooms (which is organic).**

The presence of suspended sediment is called “turbidity”

Algae blooms occur when there is too much nutrients in the lake and the temperature and other conditions are favorable.

Suspended sediments consist of tiny solids in the water column: silt and clay particles. Here is an illustration of what suspended sediment does to water clarity:

Smaller amount of suspended sediments

Larger amount of suspended sediments

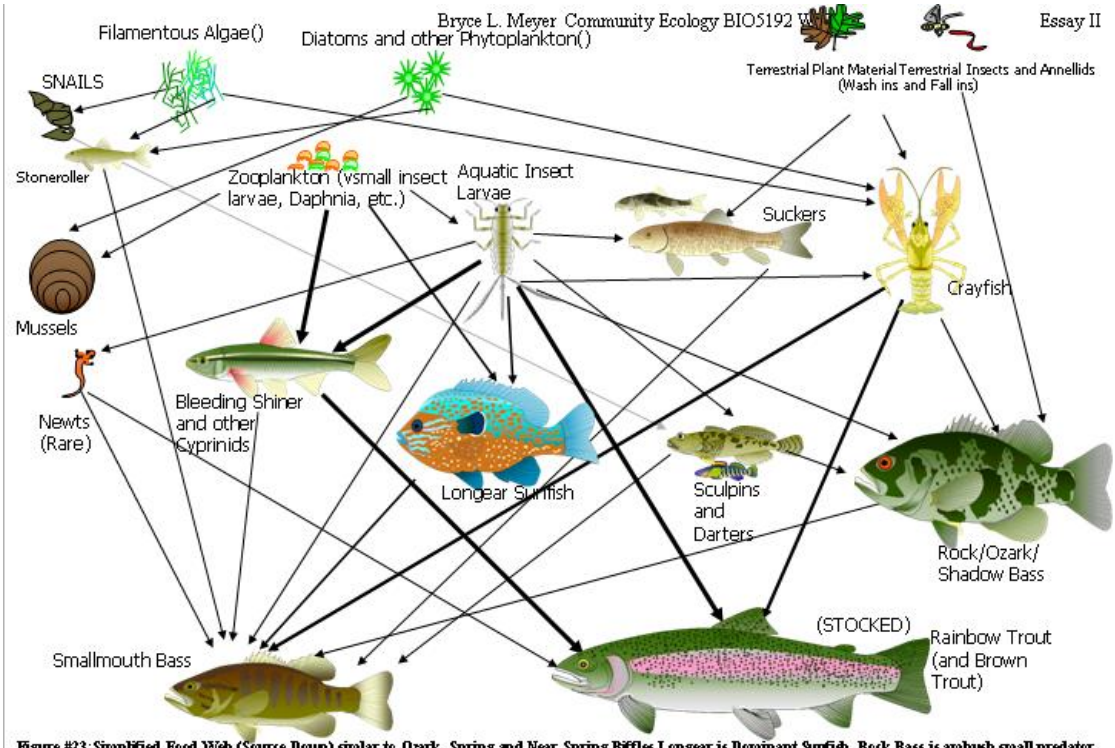
Turbidity is a year-round problem. Increasing turbidity causes a decline in submergent /underwater plant life, and causes physical and chemical changes with a biological impact on the lake.

The causes of turbidity include:

a. Boats (too much)
b. Carp (too many)
c. Plants (none or too little)

Algae

Our lake has a complex food web. Algae serves as an essential foundation of that food web. The following illustrates this food web:

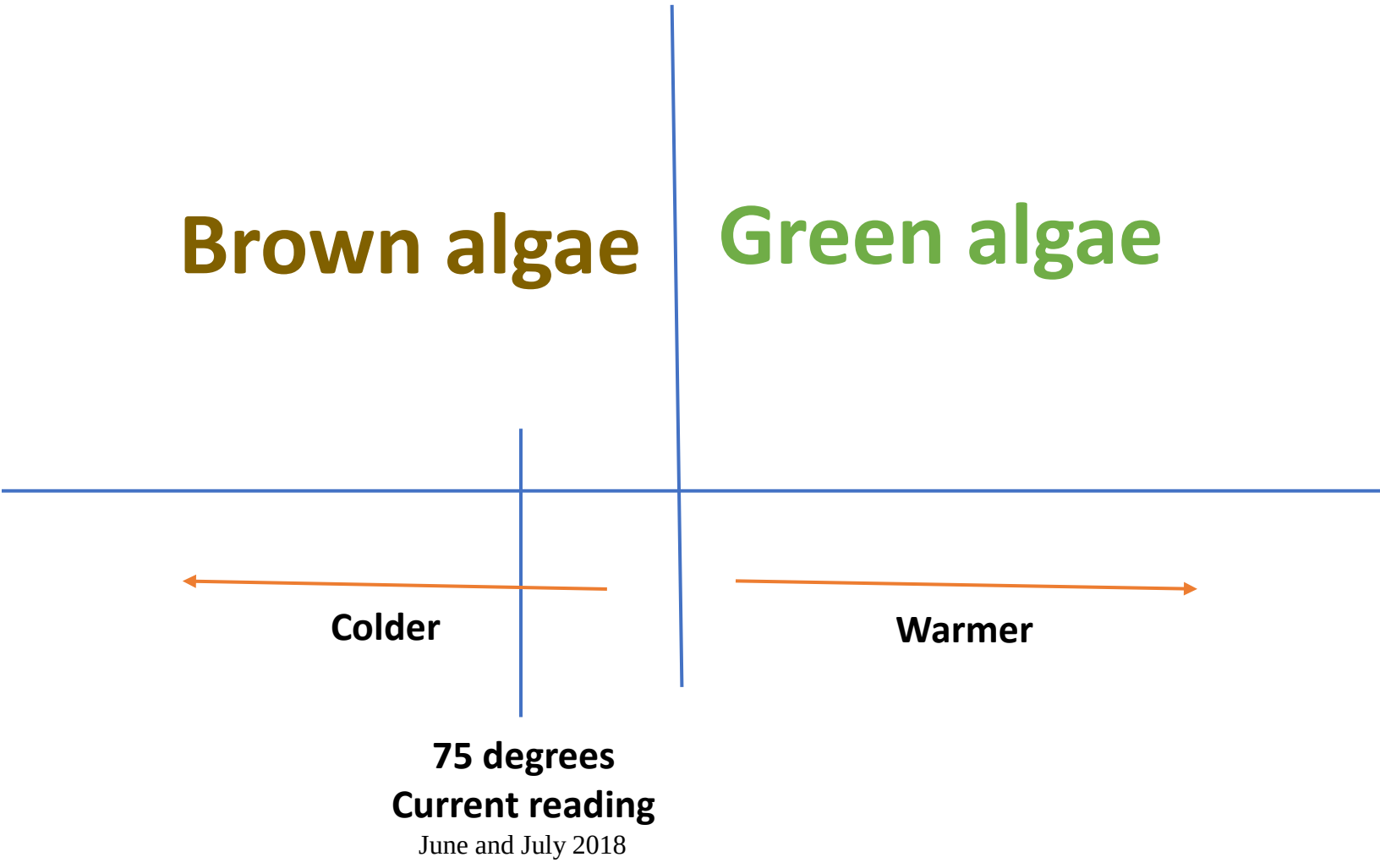


Algae are everywhere; they are the widest distributed form of plant life. Algae are mostly good; in certain cases, not so good. They are a diverse group of photosynthetic organisms that produce food and oxygen for aquatic life.

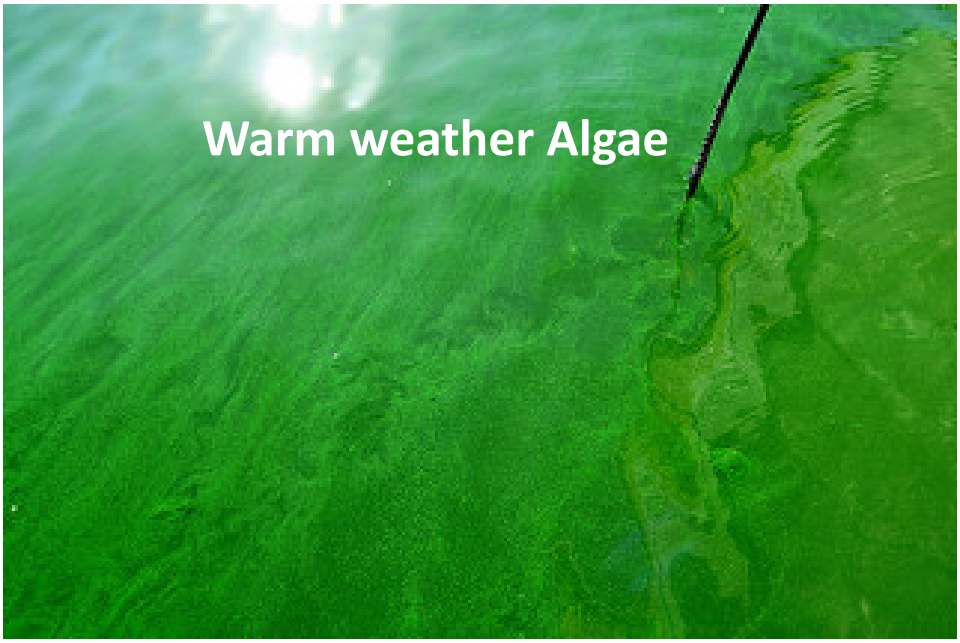
Lake Water Temperatures

Effect on algae growth

77 degrees F



Under 77 degrees is favorable for brown algae; over 77 degrees is favorable for green algae. Here is what it looks like:



Here's a key Question:

What are the primary causes that prevent enough light from reaching the plants?

Answer:

1) Suspended sediments, and 2) algae blooms

Final key question:

What, exactly, do we need to do to get light to reach the submerged aquatic plants? (once they've been planted)

Answer:

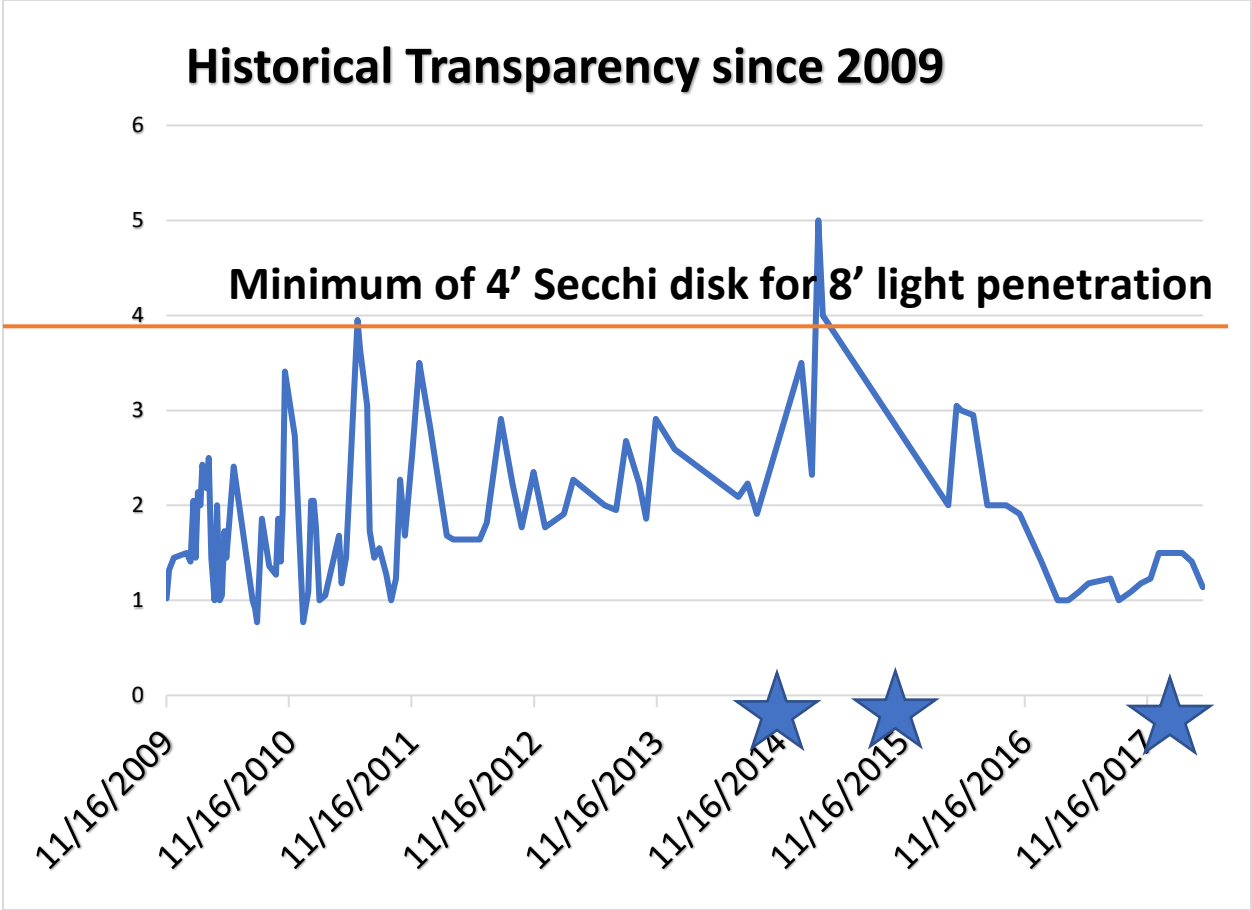
We need a consistent 8' penetration throughout the growing season, May through October, which is equivalent to a Secchi disk (transparency) reading of at least 4'

With this in mind, let's examine what we've done over the past 8 years.

The following illustrations show average Secchi disk readings for the period from November 2009 to November 2017.

With annual alum treatments, we achieved increasing transparency from 2009 to 2014. Then, starting in 2014, we did not do the alum treatments for 3 of the next 5 years, and saw decreasing transparency.

Treatment



History / Experience with Alum

2010 Alum treatment	**consistently kept the nutrient loads down, achieved some clarity, and had no algae blooms**
2011 Alum treatment	
2012 Alum treatment	
2013 Alum treatment	
2014 No Alum treatment	**no Alum treatment for 3 out of 5 years, Phosphorus spiked, clarity problems & algae blooms**
2015 No Alum treatment	
2016 Alum treatment	
2017 No Alum treatment	
2018 Alum treatment	

- Alum was supposed to provide a means toward establishing submerged vegetation.
- We spent money and expended effort, but did it inconsistently, as if we were doing it just to pacify those who complain about the dirty water (short term goal), and NOT to pursue the Lake Plan (long term goal).
- We didn't follow through by doing what the consultants advised us to do. We've been wasting our money.

Conditions needed:

1. Enough clarity: light to at least 8' depth
2. Appropriate sediment soil
3. Protection from strong movements of water and from carp (bottom feeders)

Major Challenges

Plant and encourage the underwater grass

Prevent and/or discourage resurgence of dormant milfoil weeds

1. Keep enough nutrients available for all aquatic life, including algae, fish and vegetation

Achieve and maintain a balanced lake ecological system

My main point concerning our lake:

Execute the 2010 Lake Plan: everything else must be secondary to this objective

What does executing the lake plan mean?

Executing the lake plan means:

1. Getting enough light penetration to reach at least 8 feet below the surface where we can plant underwater grass.
2. Making sure a balance is maintained – that is, nutrients (phosphorus and nitrogen from the Fish Hatcher) are properly apportioned to prevent unnecessary algae blooms that would reduce light penetration, while at the same time providing enough nutrients for the ecological system (including algae and fish) to thrive.
3. Having the needed funds available to purchase underwater grass and associated equipment, supplies and personnel to perform a more focused and intensive lake monitoring program than has existed in the past.
4. Identifying the appropriate underwater grass, and the locations for planting, that will enable us to establish a healthy lake vegetation ecosystem.
5. Continued attention paid by the entire community to maintain focus on achieving the objective of the 2010 Lake Clarity Plan (sufficient lake vegetation); in other words, MAKE OUR LAKE GREAT.
6. We must remember, our 200 acre lake is a living entity that needs constant maintenance, care, and monitoring.

Fish Hatchery and water sources

Sources of Water Coming to Lake

- Surface Waters: (Rain storm runoff - Gutter Water)
  - Organic Sediments
  - High in Phosphorous
- Well Water
  - Inorganic (clear)
  - Minerals
- Fish Hatchery
  - High in Phosphorous

RS1
RS2

Runoff / Property +Storm Drain

- Be mindful of water runoff from your property (herbicides, pesticides, oils, lawn trimmings, cleaning agents, etc.)
- Clean/maintain storm drains and gutters
- SVL approx. has 17 v-ditchs that need to be cleaned and maintained.
- Remove trash and debris from storm drain sites.

RS3
RS4

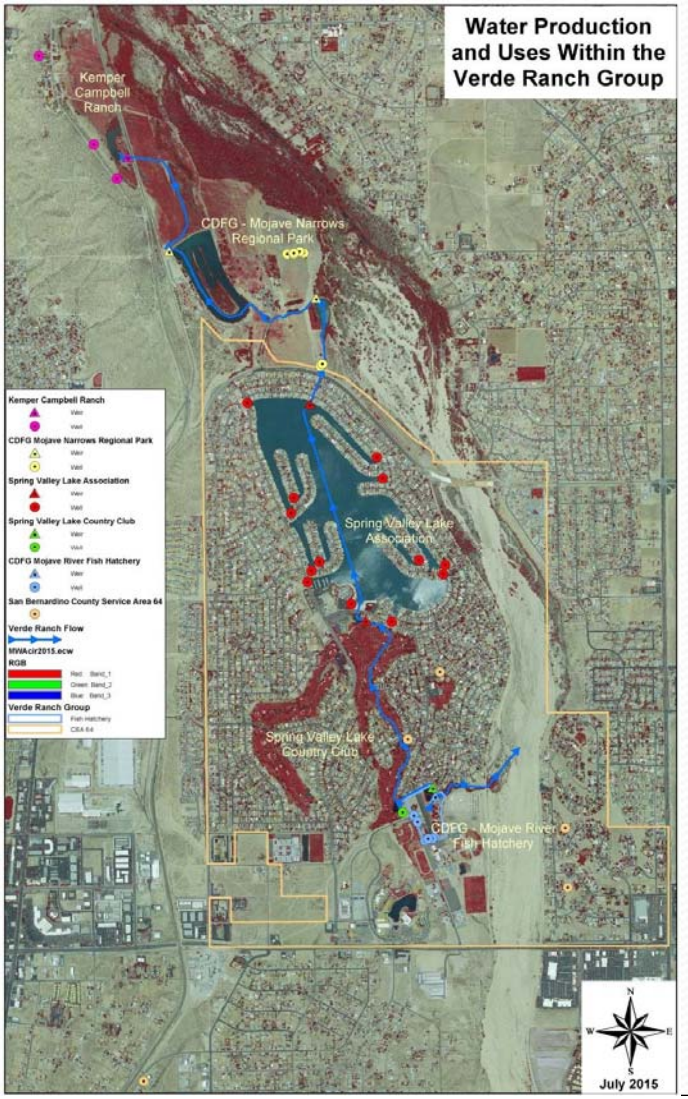
Well Water

- SVL has 13 wells set in all the channels around the lake.
- Well water is clear and usually higher in minerals
- Well water is used to replace water to the lake lost thru evaporation.
- Well water costs more $$$ due to electricity to pump the water.

RS5

Water Travel From Fish Hatchery

- Fish Hatchery
- Golf Course
- SVL
- Out to Mojave Narrows



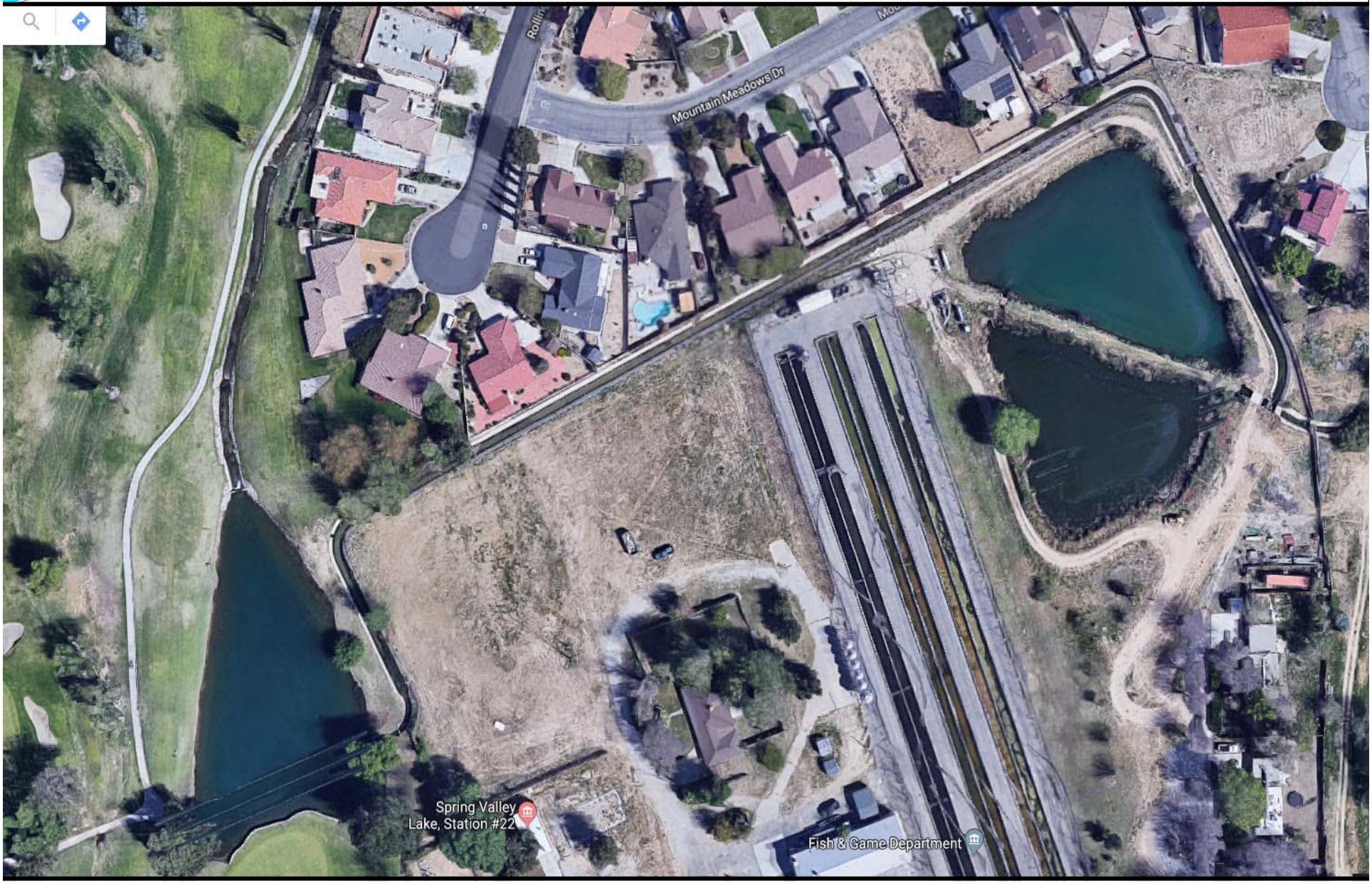
RS5

Water Travel From Fish Hatchery

RS6
RS7
RS8

- This water is high in phosphorous.
- Flows from the hatchery through the golf course and into SVL and out to the Mojave wetlands.
- Flows about 1600 gallons per minute = 2.3 mg/d
- SVL saves money on pump costs by receiving hatchery water.
- Two settling ponds at the hatchery were add to help settle out phosphorous and other organic materials.
- The golf course has four ponds which are used to help settle out phosphorous and other organic materials.

RS6
RS7
RS8


Mountain Meadows Dr
Spring Valley Lake, Station #22
Fish & Game Department

- The golf course pulls water out from pond #6 for irrigation
- The golf course benefits from the phosphorous by reduced need for fertilizer.
- SVL benefits from this because there is no fertilizer runoff from the golf course entering the lake.

RS10

What is Phosphorous?

- **Phosphorus** is a chemical element with symbol P and atomic number 15.
- Phosphorus tends to attach to soil particles (organic matter)
- It is an essential element for plant life and fish, but when there is too much of it in water, it can speed up **Eutrophication**
- Basically = Nutrient overload
- **A sign of this is, excess algae in the lake**.

RS12

To much Phosphorus

- Phosphorus can pollute water and cause excessive algae and plant growth. **Algae Loves Phosphorus**
- Water clarity/turbidity problems result from blooms.
- When algae blooms it could cause orders and will exhaust the supply of phosphorus, they die and start to decompose. During decomposition, dissolved oxygen is removed from the water by micro-organisms that break down the organic material. **The lack of dissolved oxygen makes it difficult for aquatic organisms to survive.**
- Resulting in slow plant growth and fish kills.


RS12

What to do

- Remove /cut back the amount of phosphorous coming from the hatchery.

- Results =
- Reduced alge blooms in lake
- Improving Water clarity
- Supporting stronger plant growth

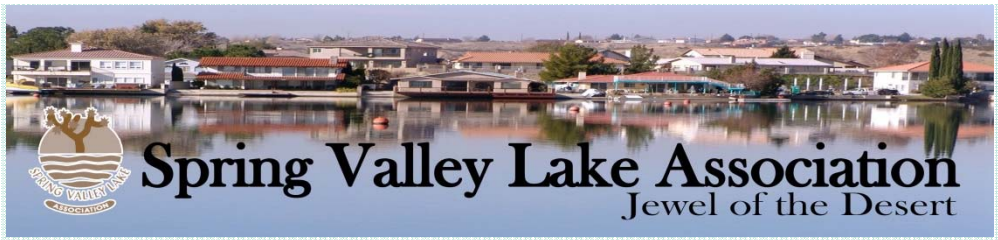
Safe vs. Healthy

- Spring Valley Lake is a **safe** lake!
- The contaminant levels indicate we have a safe lake.
- We need the removal/reduction of phosphorous from water entering from fish hatchery.
- SVL needs to have a proper ecosystem to support a **healthy** lake.
  - Strong plant growth
  - Fish
  - Balanced water column

Why is the quagga mussel a problem?

- Ecological **problems** result from **mussel** invasions. Zebra and **quagga mussels** can kill native freshwater **mussels**, these invasive species can outcompete native **mussels** and other filter feeding invertebrates for food
- They are invassive producing 1000 eggs a day
- They eat the same food as fish and reducing food chain supply.
- They live up to four years
- Quagga mussel can filter 2 litters of water in 24hrs
- Out of water they take 14 days to die
- Huge Maintenance costs to remove.

Quagga



MISSION STATEMENT

The mission of Spring Valley Lake Association is to ensure that the community remains the most desirable place to live in the Victor Valley through strong leadership, professional management, collaborative interaction with residents and enhancement of the quality of amenities.

VISION STATEMENT

Spring Valley Lake will always remain the most desirable place to live in the Victor Valley.

2018

Nutrient Level average

Date	Nitrate	Phosphorous
Before Alum 3/18	.39mg/L	.016mg/L
After Alum 4/26	ND	.0071mg/L
After Alum 5/11	<.02mg/L	.0025mg/L
SVL Lake 6/13	<.02mg/L	.0029mg/L
SVL Lake 6/25	<.02mg/L	.0017mg/L

Algae Test Results average

Date	Identification	Classification	Description	Density (cells/mL)
SVL Lake 5/18	Eunotia sp.	Bacillariophyta-Diatoms	Single-celled, planktonic	176,250
SVL Lake 6/18	Eunotia sp.	Bacillariophyta-Diatoms	Single-celled, planktonic	289,050
SVL Lake 6/18	Eunotia sp.	Bacillariophyta-Diatoms	Single-celled, planktonic	252,250

sample 5/18

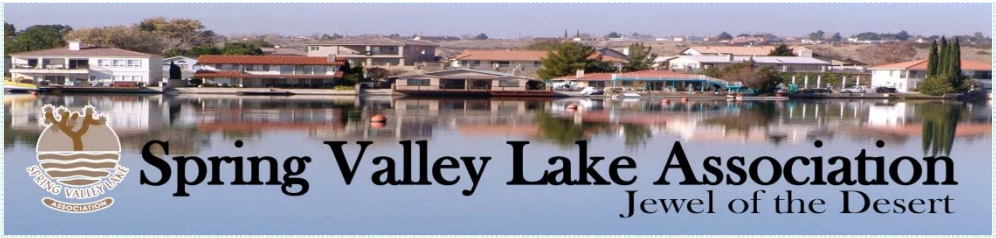
Other algae in the sample, at densities below 40 cells/mL, include: *Closteriopsis, Pediastrum, Scenedesmus, Schroederia* (Chlorophyta); *Euglena* (Euglenophyta); *Synedra* (Bacillariophyta); *Cryptomonas* (Cryptophyta); *Staurastrum* (Streptophyta)

sample 6/18

Other algae in the sample, at densities below 40 cells/mL, include: *Ankistrodesmus, Pediastrum, Tetraselmis* (Chlorophyta); *Gymnodinium* (Dinophyta); *Cryptomonas* (Cryptophyta); *Trachelomonas* (Euglenophyta); *Pseudanabaena* (Cyanophyta)

sample 6/18

Other algae in the sample, at densities below 40 cells/mL, include: *Pediastrum* (Chlorophyta); *Glenodinium, Gymnodinium* (Dinophyta); *Cosmarium* (Streptophyta); *Aulacoseira, Synedra* (Bacillariophyta); *Pseudanabaena* (Cyanophyta)



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Spring Valley Lake will always remain the most desirable place to live in the Victor Valley.

SRTC SePRO Research & Technology Campus

SeSCRIPT Analysis Report: *Spring Valley Lake*

Company: Spring Valley Lake Association
Address: 7001 SVL Box
Contact Person: Dennis Teece
Phone: 760-694-6531
Email: dteece@SVLA.com

Project Name: Spring Valley Lake
Surface Area: 200 acres
Average depth: 15 feet
Date Sample Received: 6/26/18
SeSCRIPT Analysis Performed: Algae and Water Quality Baseline Plus Bundle

Algae ID Results
Spring Valley Lake

Identification	Classification	Description	Density/Biomass (cells/mL)
West Beach Seawall			
Eunotia sp. (moderate amount)	Bacillariophyta-Diatoms	Single-celled, planktonic	237,500

Other algae in the sample, at densities below 40 cells/mL, include: *Pediastrum* (Chlorophyta); *Glenodinium, Gymnodinium* (Dinophyta); *Cosmarium* (Streptophyta); *Aulacoseira, Synedra* (Bacillariophyta); *Pseudanabaena* (Cyanophyta)

SRTC SePRO Research & Technology Campus

SeSCRIPT Analysis Report: *Spring Valley Lake*

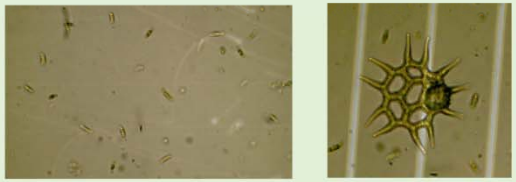
Company: Spring Valley Lake Association
Address: 7001 SVL Box
Contact Person: Dennis Teece
Phone: 760-694-6531
Email: dteece@SVLA.com

Project Name: Spring Valley Lake
Surface Area: 200
Average depth: 15 feet
Date Sample Received: 6/14/18
SeSCRIPT Analysis Performed: Algae and Water Quality Baseline Plus Bundle

Algae ID Results
Spring Valley Lake

Identification	Classification	Description	Density/Biomass (cells/mL)
North End			
Eunotia sp. (much present)	Bacillariophyta-Diatoms	Single-celled, planktonic	250,000

Other algae in the sample, at densities below 40 cells/mL, include: *Ankistrodesmus, Pediastrum, Tetraselmis* (Chlorophyta); *Gymnodinium* (Dinophyta); *Cryptomonas* (Cryptophyta); *Trachelomonas* (Euglenophyta); *Pseudanabaena* (Cyanophyta)



SRTC SePRO Research & Technology Campus AquaTechnex

SeSCRIPT Analysis Report: *Spring Valley Lake*

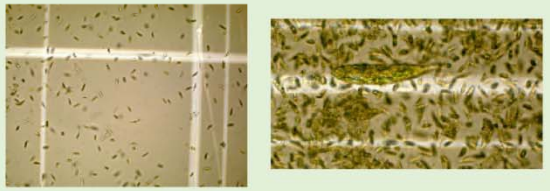
Company: Aquatechnex
Address: P.O. Box 30824, Bellingham, VA 98228
Contact Person: Cody Appling
Phone: 760-636-8267
Email: cody@aquatechnex.com

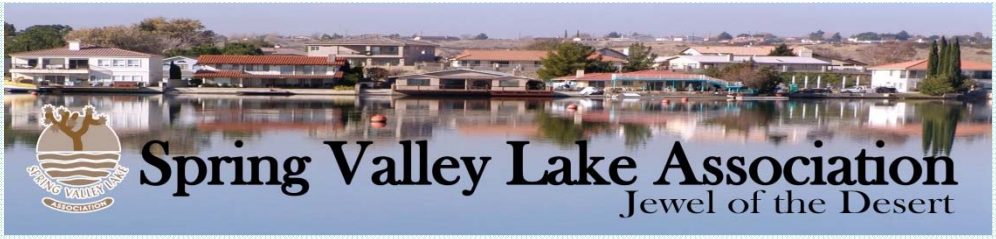
Project Name: Spring Valley Lake
Surface Area: 200 acres
Average depth: 6-9 feet
Date Sample Received: 5/11/18 (2 samples)
SeSCRIPT Analysis Performed: Algae and Water Quality Baseline Plus Bundle

Algae ID Results
Spring Valley Lake

Identification	Classification	Description	Density/Biomass (cells/mL)
Sample 1			
Eunotia sp. (much present)	Bacillariophyta-Diatoms	Single-celled, planktonic	122,500

Other algae in the sample, at densities below 40 cells/mL, include: *Euglena* (Euglenophyta); *Glenodinium* (Dinophyta)





Spring Valley Lake Association

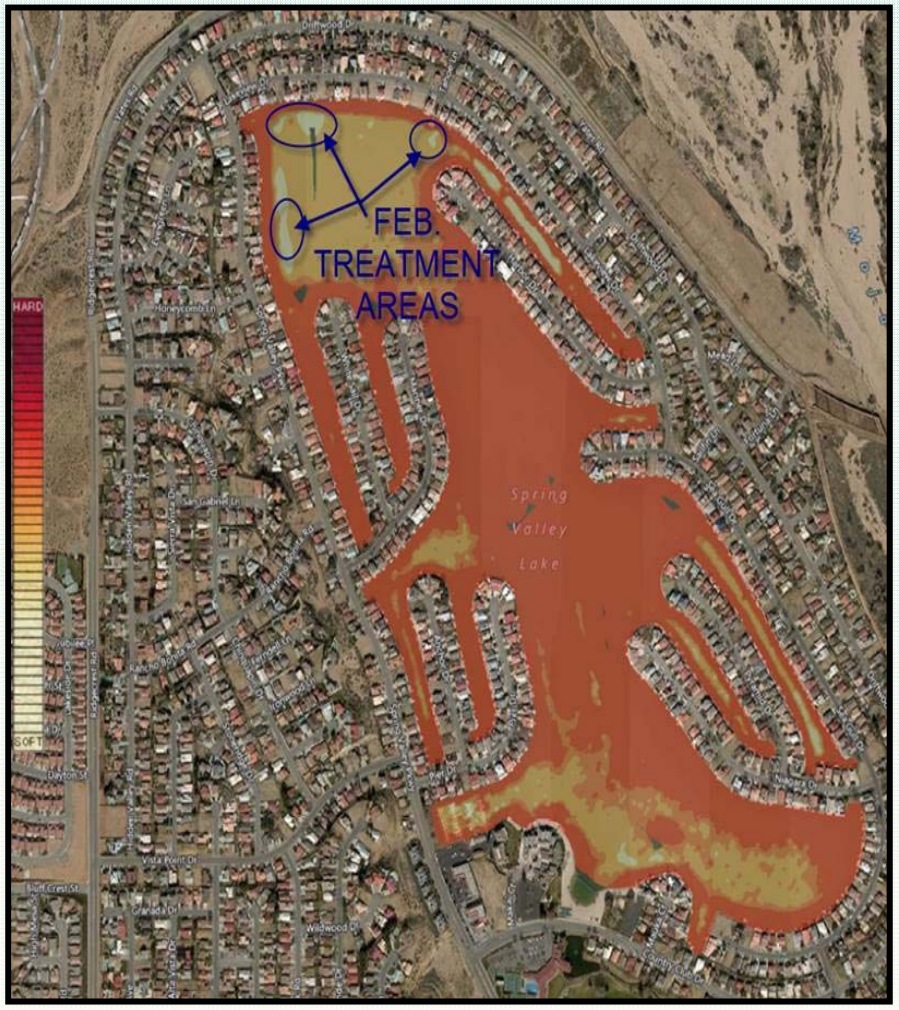
Jewel of the Desert

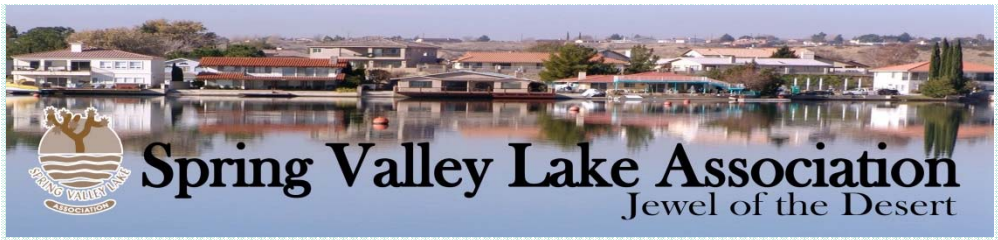
Mission Statement

The mission of Spring Valley Lake Association is to ensure that the community remains the most desirable place to live in the Victor Valley through strong leadership, professional management, collaborative interaction with residents and enhancement of the quality of amenities.

Vision Statement

Spring Valley Lake will always remain the most desirable place to live in the Victor Valley.





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CAUTION ADVISORY

We would like to alert you to a potential health risk to domestic pets associated with harmful algae detected in water samples collected from surface waters of Spring Valley Lake. Water samples collected from two locations along the East Beach area were analyzed and have tested positive for low levels of cyanotoxins – Anatoxin –A, which is produced by a cyanobacteria present in Spring Valley Lake.

It's important to remember that cyanobacteria are part of the base of our food web. There are thousands of genera, many that are beneficial, but there are 50-100 genera that are capable of producing toxins that can reach levels that present health risks.

Blooms have become more common, more intense, and of longer duration because environmental conditions for growth of cyanobacteria have been optimized. These conditions include nutrient rich waters, long summer days (with plentiful sunshine for photosynthesizing), calm, stagnant water, and warm temperatures-all conditions present in the Spring Valley Lake.

Additional Information Regarding Risk to Dogs. Though the levels of Anatoxin-A being detected in the water samples collected from the East Beach area are low, the presence of any Anatoxin-A, a neurotoxin, can be troublesome for domestic pets because their potential exposure is much greater than it is for a human. When a dog enters water impacted by the cyanobacteria, the dogs can be exposed to the toxins from water intake, grooming intake (toxins remain on a saturated coat that then dogs lick), and crust consumption (possible intake of a glob of algae or scum). Because the exposure potential for dogs (and other domestic pets that enter the water) is much greater than exposure in humans, there is a greater health risk to domestic pets that may walk in the Spring Valley Lake area.

Veterinarian Reference

Cyanobacteria blooms. *When in doubt, it's best to stay out!*

What are cyanobacteria?

- Cyanobacteria, sometimes called blue-green algae, are microscopic organisms that live in all types of water.

What is a cyanobacteria bloom?

- Cyanobacteria grow quickly, or bloom, when the water is warm, slow-moving, and full of nutrients.

What are some characteristics of cyanobacteria blooms?

- Cyanobacteria usually bloom during the summer and fall. However, they can bloom anytime during the year.
- When a bloom occurs, scum might form on the water's surface.
- Blooms can be many different colors, from green or blue to red or brown.
- As the bloom dies off, you might smell an odor that is similar to rotting plants.

What is a toxic bloom?

- Sometimes, cyanobacteria produce toxins.
- The toxins can be present in the cyanobacteria cells or in the water.

Other important things to know:

- Swallowing water that has cyanobacteria or cyanobacterial toxins in it can cause serious illness.
- Dogs might have more severe symptoms than people, including collapse and sudden death after swallowing the contaminated water while swimming or after licking cyanobacteria from their fur.
- There are no known antidotes to these toxins. Medical care is supportive.

You cannot tell if a bloom is toxic by looking at it.

To report a cyanobacteria bloom or related health event:

- Call your local or state health department.

For more information:

- https://www.cdc.gov/habs/general.html

National Center for Environmental Health
Division of Environmental Health Hazards and Health Effects

CDC

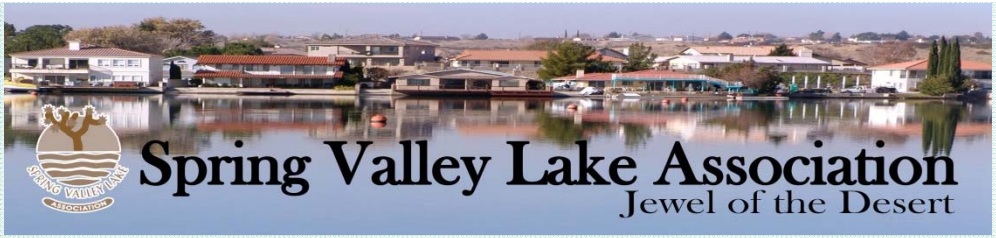
Harmful algae may be present in this water. For your family's safety:

- You can swim in this water, but **stay away from algae and scum** in the water.
- **Do not** let pets and other animals go into or drink the water, or eat scum on the shore.
- **Keep children away** from algae in the water or on the shore.
- **Do not** drink this water or use it for cooking.
- For fish caught here, **throw away guts and clean fillets** with tap water or bottled water before cooking.
- **Do not** eat shellfish from this water.

Call your doctor or veterinarian if you or your pet get sick after going in the water.

For more information on harmful algae, go to **https://mywaterquality.ca.gov/habs/index.html**

For local information, contract:



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SAMPLE RESULTS

Sample ID	Method	Target	Result	Quantitation Limit	Units	Notes
SVL-EB1	ELISA	Anatoxin-a	ND	0.15	µg/L	U
SVL-EB1	ELISA	Cylindrospermopsin	ND	0.05	µg/L	U
SVL-EB1	ELISA	Microcystin/Nod.	ND	0.15	µg/L	U
SVL-EB2	ELISA	Anatoxin-a	ND	0.15	µg/L	U
SVL-EB2	ELISA	Cylindrospermopsin	ND	0.05	µg/L	U
SVL-EB2	ELISA	Microcystin/Nod.	ND	0.15	µg/L	U
SVL-EB3	ELISA	Anatoxin-a	0.50	0.15	µg/L	
SVL-EB3	ELISA	Cylindrospermopsin	ND	0.05	µg/L	U
SVL-EB3	ELISA	Microcystin/Nod.	ND	0.15	µg/L	U

there is a greater health risk to domestic pets that may walk in the Spring Valley Lake area.

For fish caught here, **throw away guts and clean fillets** with tap water or bottled water before cooking.

Do not eat shellfish from this water.

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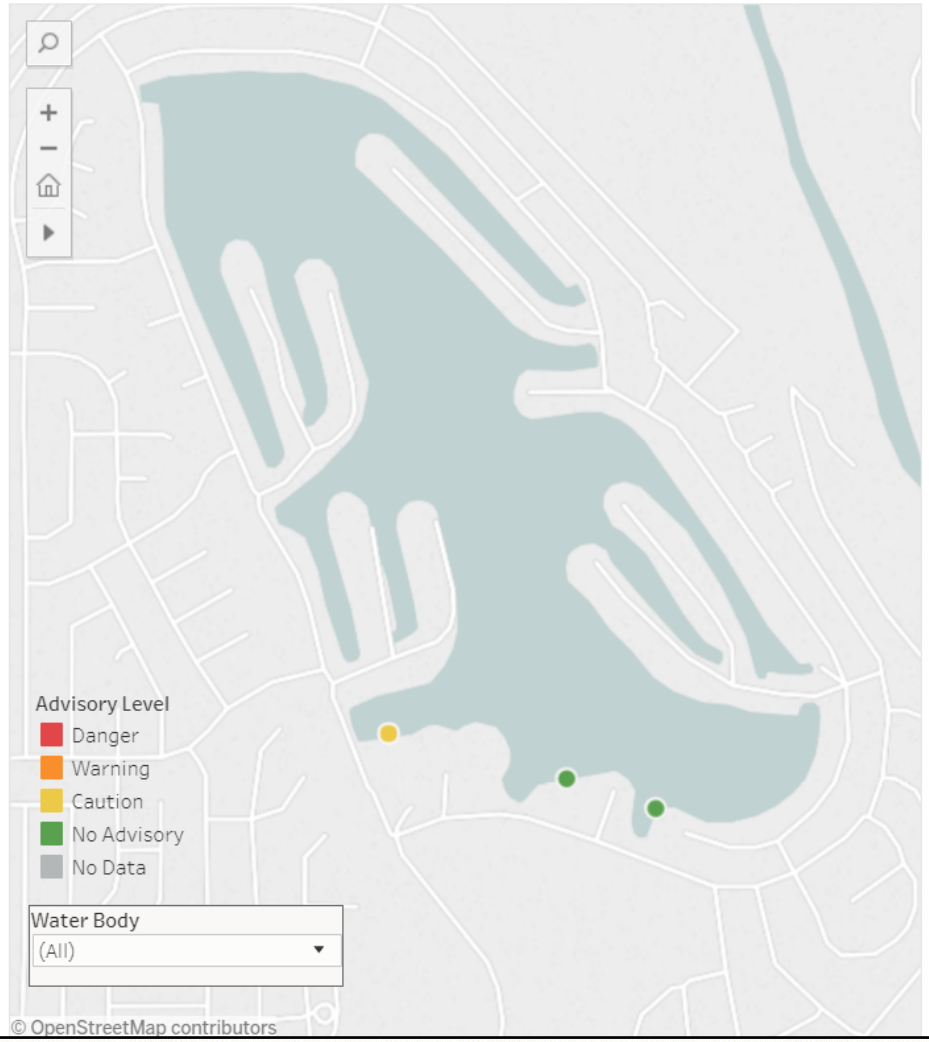
Pre-Holiday Assessment 2018

Interactive map for July 4th holiday will be posted on 6/29/18



Background

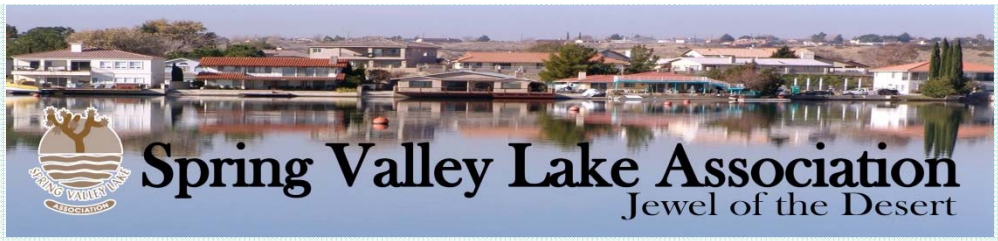
This map shows sampling locations and recommended advisory levels for approximately 40 waterbodies assessed for the 2018 pre-4th of July harmful algal bloom (HAB) assessment. California Water Boards and their partners conducted targeted sampling at some of California's most visited lakes, rivers and reservoirs that have a history of HABs. Dots represent sampling locations and are color coded by the advisory level recommended (no advisory, Caution, Warning, Danger). Recommended advisory levels are based on cyanotoxin testing results and/or visual indicators.

When a HAB is observed, it is important to communicate the potential risk so that domestic animal and public health can be protected. Advisory signs are designed to communicate that risk. Currently, there are no federal or state standards for cyanotoxins in recreational and drinking waters; however, the California Water Boards, Office of Environmental Health Hazard Assessment and California Department of Public Health developed voluntary guidance for posting advisory signs at waterbodies where a HAB is present. For more information about advisory signs and guidance, please visit: https://mywaterquality.ca.gov/habs/resources/habs_response.htn

For answers to frequently asked questions about HABs, please check out: https://mywaterquality.ca.gov/habs/what/index.html

California Water Boards

SWAMP Surface Water Ambient Monitoring Program



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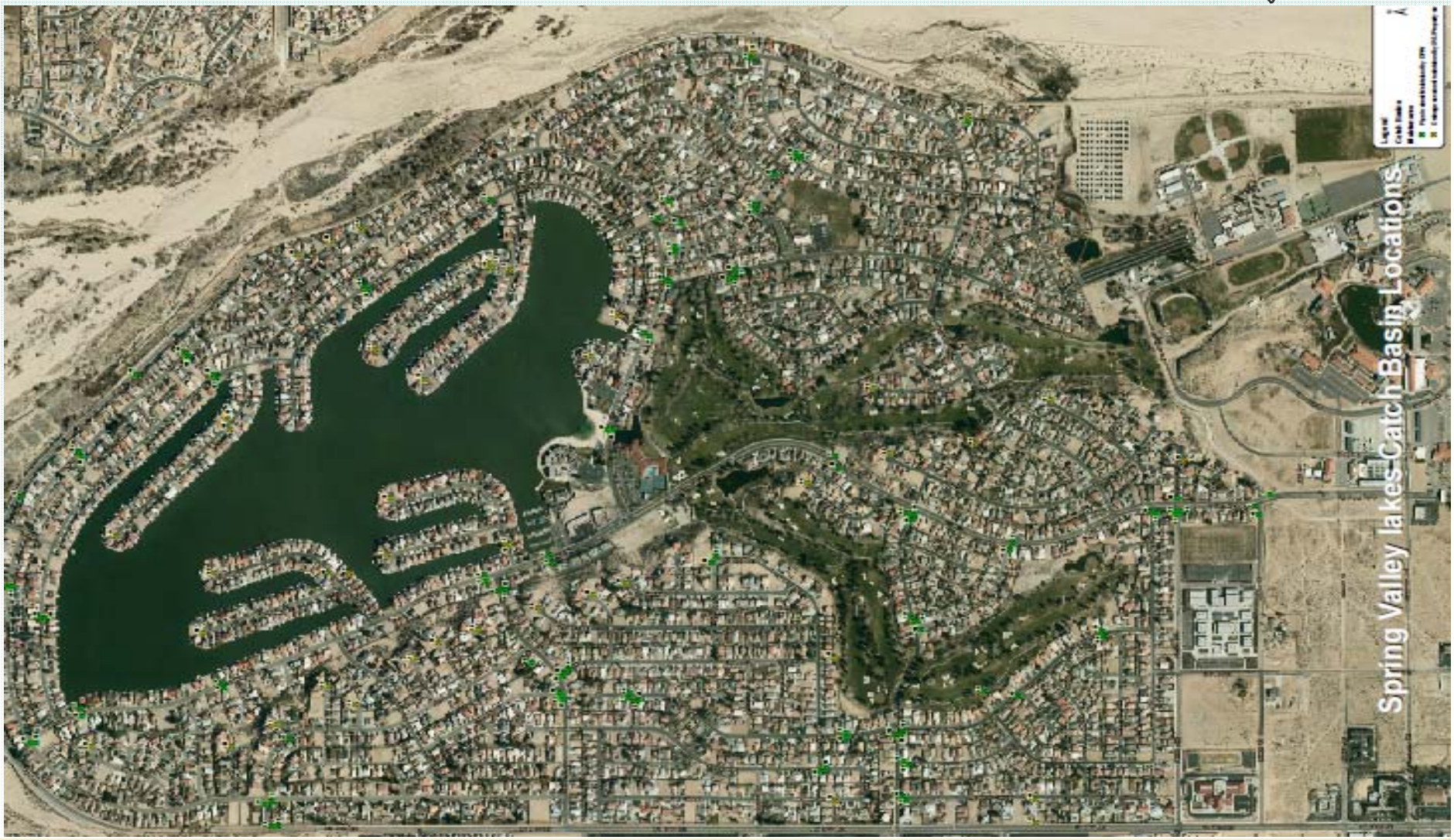

SPRING VALLEY LAKE FOOD CHAIN

waiding birds and
preditor birds

Food Web

large mouth
bass

bullhead catfish

rainbow
trout

channel catfish

DECOMPOSERS

bluegill sunfish

green sunfish

crawfish

redear sunfish

juvenile fish (fry)

shrimp, small
crustaceans

nymphs , larve

algae

zooplankton

diatoms

Energy from Sun

Food Chain

top
consumers
(bass, trout,
catfish)

secondary
consumers
(sunfish,
crawfish)

primary
consumers
(fry, small
crustaceans,
larve)

primary
producers
(algae,
plants)

Energy from Sun

Lake Town Hall Meeting

July 9, 2018

The Lake Committee recommends to the Board of Directors:

No 1: Appropriation of $30,000 ASAP for the purpose of purchasing, constructing and supplying a shed to house totes that will deliver a steady flow of Alum to treat the stream just after pond 6. The rational for the number is $27,000 for the pad, structure, piping and electrical, pumps and labor. Plus $3,000 for the first 3 totes that will be needed. these 3 totes should allow for approximately one year of continuous application to be adjusted to match flow and nutrient requirements.

No. 2: Appropriation of $115,000 in next years budget to be used for surface application of Alum treatments in concordance with the 2010 Lake Consultants Plan to reestablish a healthier, safer and more sustainable lake ecosystem.

No. 3: Appropriation of $100,000 in next years budget for the purpose of general lake maintenance above and beyond what is currently being done and presently not yet definable, but highly likely to occur and only to be used upon board approval.

visit svla.com and click on Lake committee page for full details.