

How does your bottom look?

A pictographic analysis of pond sludge reduction and its effect on aquatic vegetative growth.



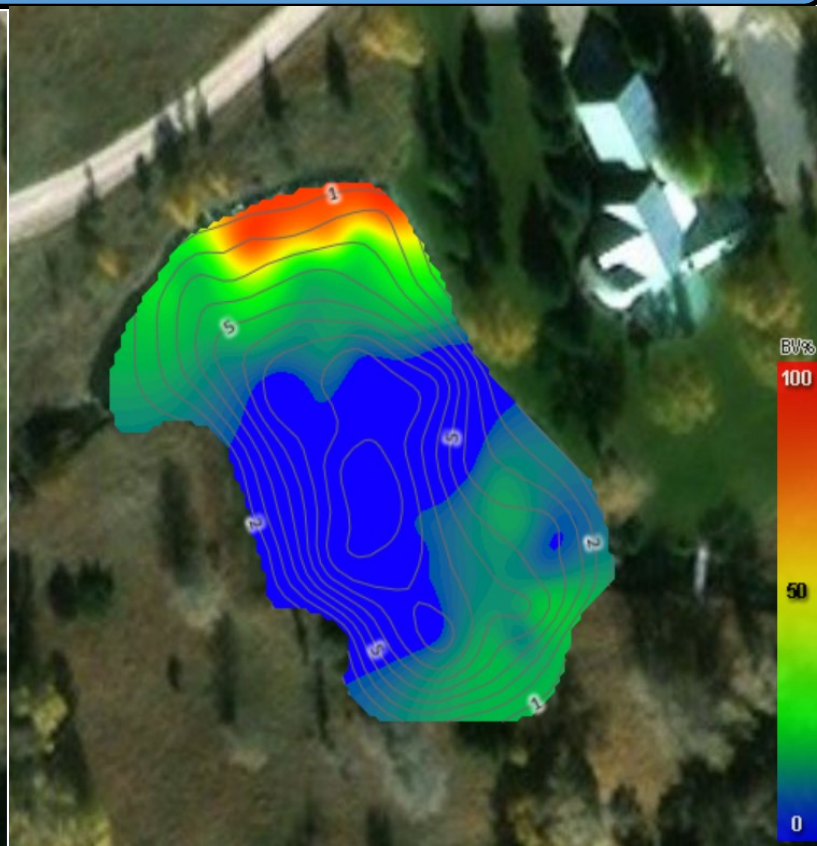
Project Overview: MTB is a private ranch in Cody, WY with 27 lakes and ponds interconnected via natural and man made streams and irrigation laterals. In addition to serving as a Blue Ribbon Trout fishery, MTB is an active cattle ranch with haying operations irrigated from its water and it shares a county with Yellowstone National Park. In 2016 MTB faced losing its fish population due to excessive submerged aquatic vegetation (SAV) and algae that were slowing flows and thereby raising water temps and diminishing O2 levels for the trout populations. Many areas were too overgrown with vegetation for proper angling.

Methods: In coordination with **Amaruq Environmental**, we developed a prescription for SAV and algae control that incorporated **Pondzilla Pro** at a rate of .25 Gal/AF and **MD Pellets @ 25#/SA**.

There were 3 applications of each product applied in May, June, & July of 2017, and subsequently applied in the same months of 2018. These products were applied in conjunction with aquatic herbicides and algae-cides selected purposefully for the site.

Results: Prior to initial applications, we completed a sonar scan of each waterbody in May 2017 and uploaded data to **CiBiobase** for complete bathymetry and aquatic vegetation and bottom composition analyses. Subsequent sonar data was collected in June of 2018, following 4 total applications—3 in 2017 and 1 in 2018. A sample of the results is below including before and after sonar data and photos.

Chateau Pond - Size: .61 Acres Volume: 4.88 af



Chateau Pond Bio Volume Essay May 2017 Pre—application

Chateau Pond Bio Volume Essay June 2018 Post applications



Chateau Pond Bottom Composition May 2017

Chateau Pond Bottom Composition June 2018

* Analysis incomplete due to vegetative overgrowth

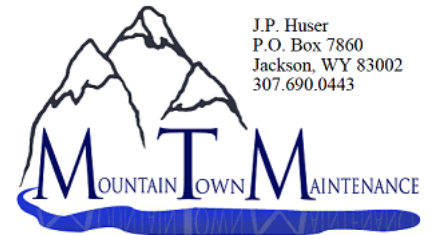


Chateau Pond
Pre
Treatment
May 2017

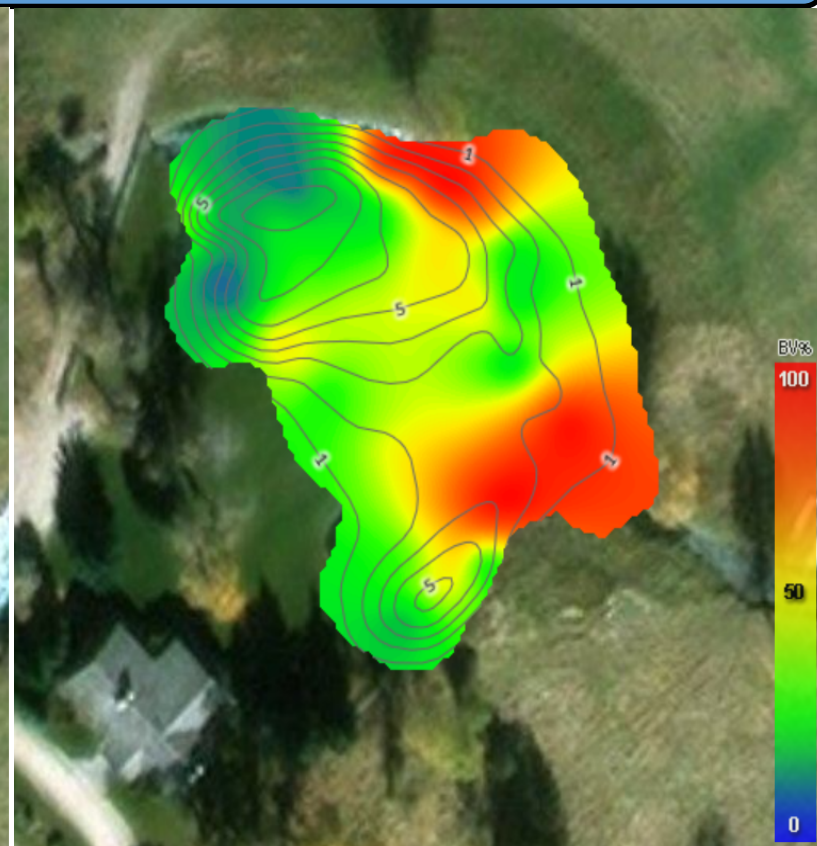


Chateau
Pond
Post Treat-
ment

July 2018



Lodge Pond - Size: .64 Acres Volume: 5.12 af



Lodge Pond Bio Volume Essay May 2017 Pre—application
*Analysis incomplete due to aquatic vegetation

Lodge Pond Bio Volume Essay June 2018 Post applications



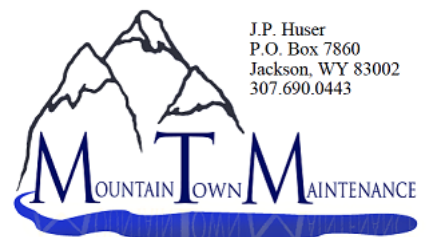
Lodge Pond Bottom Composition May 2017
*Analysis incomplete due to aquatic vegetation

Lodge Pond Bottom Composition June 2018

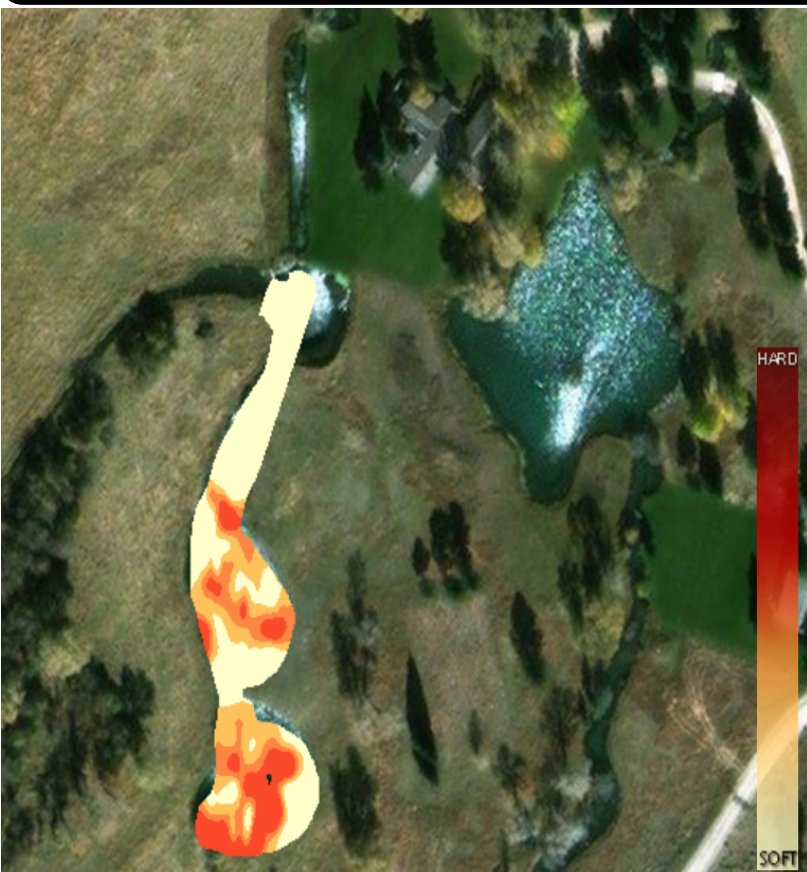
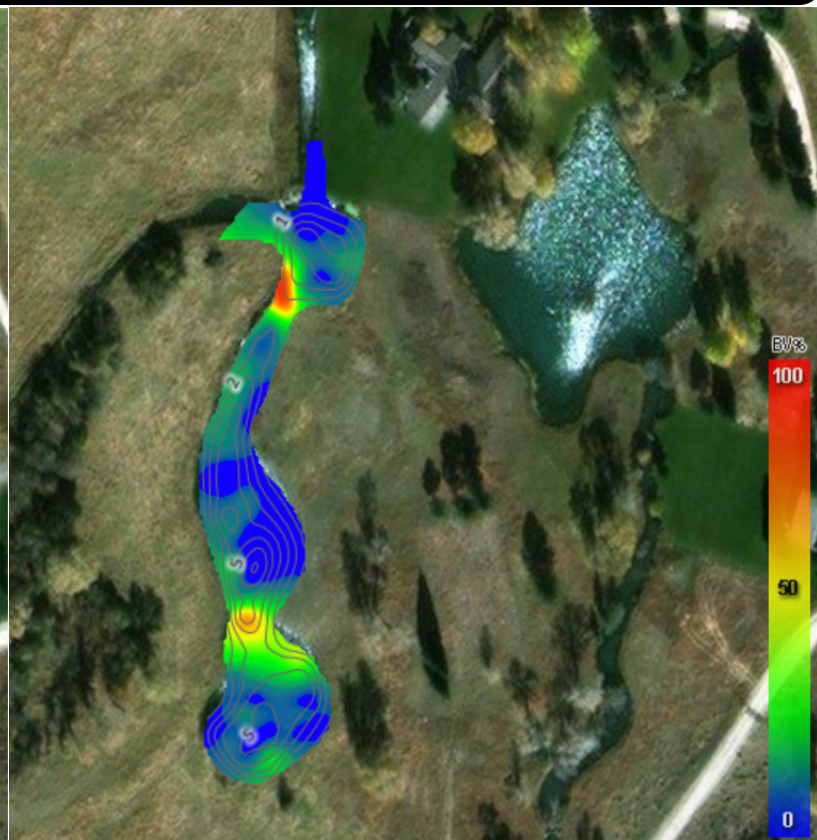
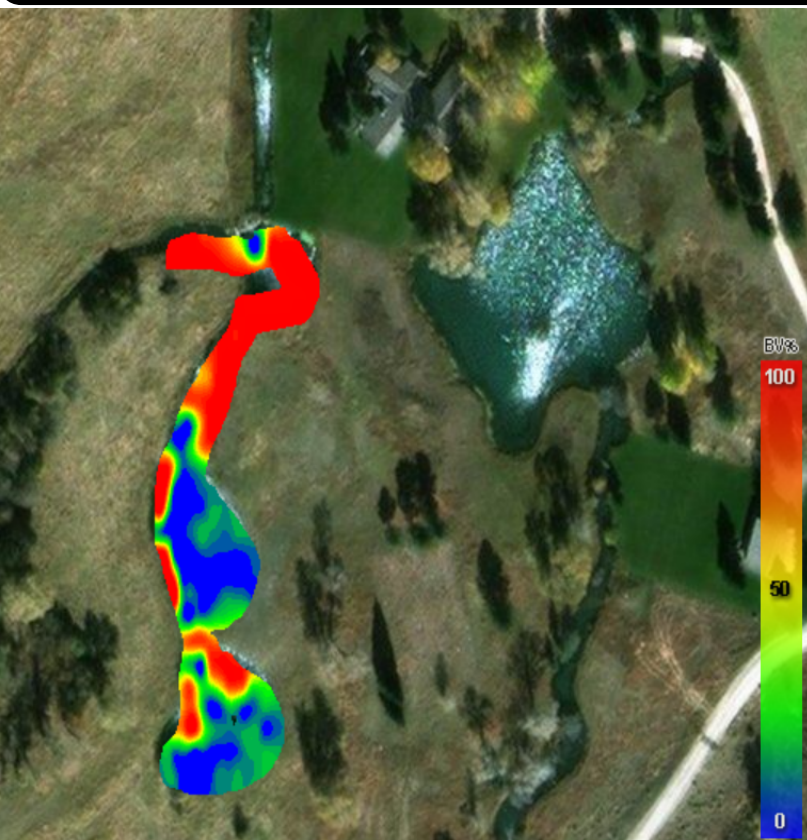


Lodge Pond May 2017 Pre Treatment Photo

Lodge Pond July 2018 Post Treatment (May, June, July 2017 & 2018)



Twins Pond - Size: .66 Acres Volume: 5.28 af



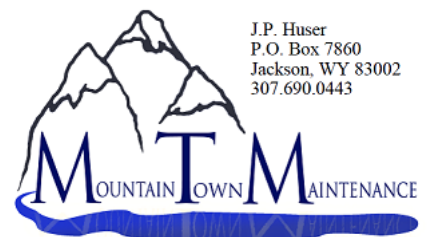
Twins Pond Bottom Composition May 2017

Twins Pond Bottom Composition June 2018

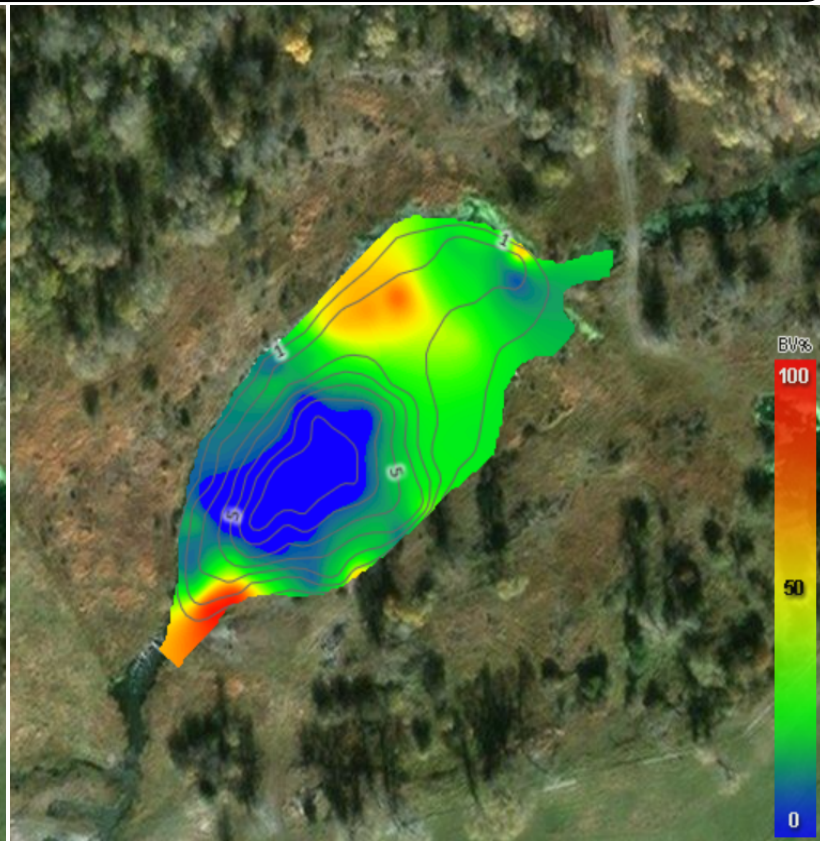
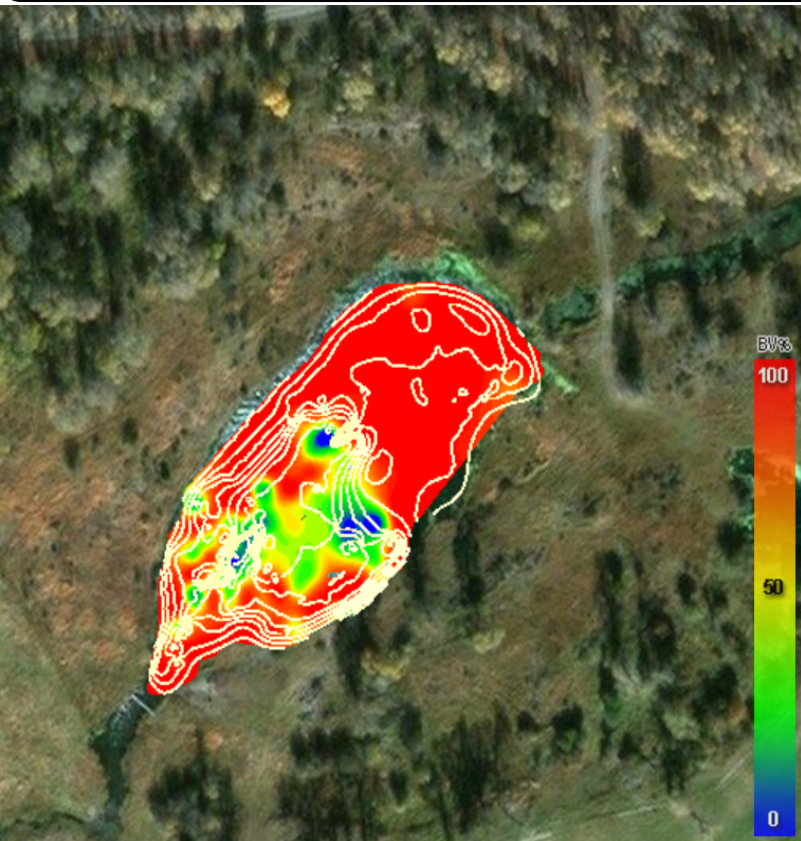


Twins Ponds May 2017 Pre Treatment Photo

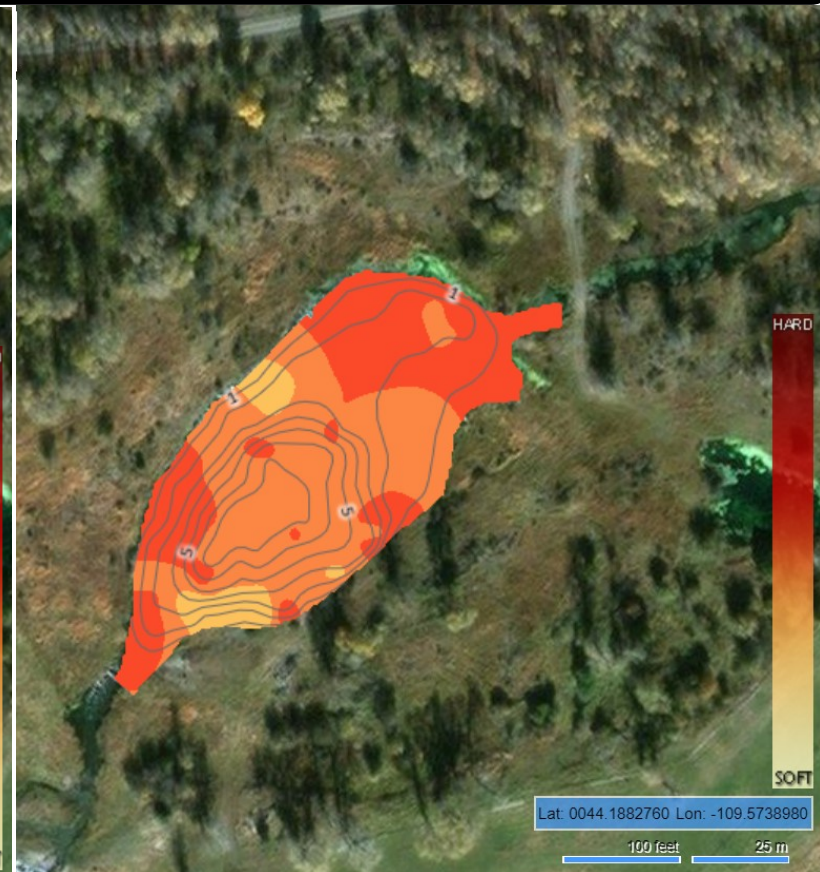
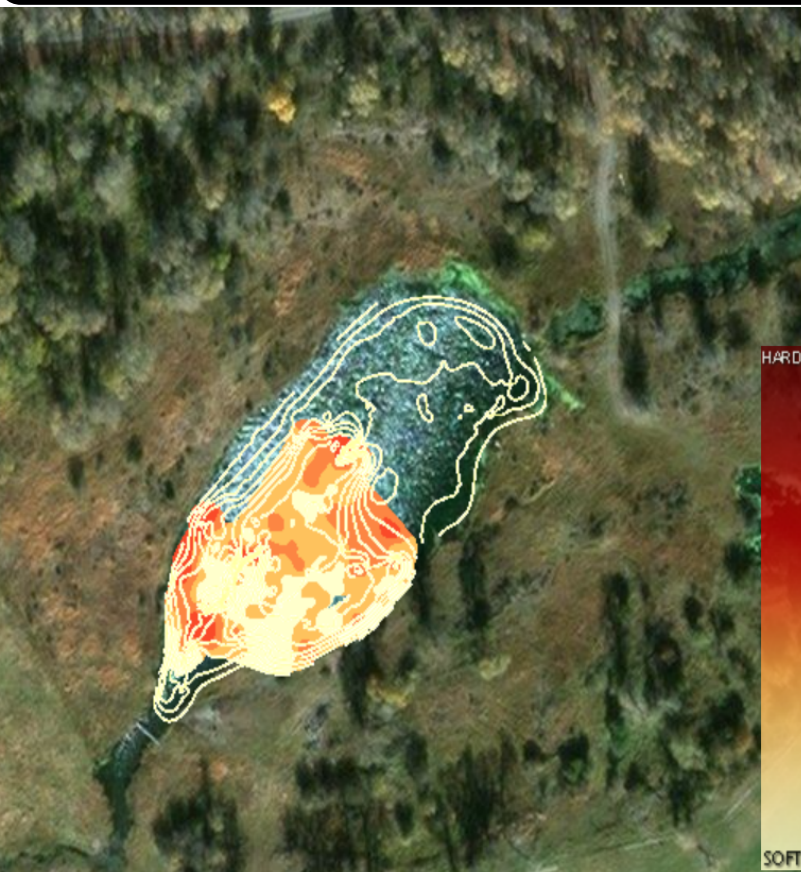
Twins Ponds July 2018 Post Treatment (May, June, July 2017 & 2018)



Waterfowl Pond - Size: 1.64 Acres Volume: 13.12 af



Waterfowl Pond Bio Volume Essay May 2017 Pre application Waterfowl Pond Bio Volume Essay June 2018 Post App



Waterfowl Pond Bottom Composition May 2017

Waterfowl Pond Bottom Composition June 2018

*Analysis incomplete due to aquatic vegetation



Waterfowl Pond May 2017 Pre Treatment Photo

Waterfowl Pond July 2018 Post Treatment (May, June, July 2017 & 2018)

