



TOWN OF FREDERICK
PARKS, OPEN SPACE, AND
TRAILS COMMISSION
Wednesday, June 1, 2022
6:30 P.M. at Town Hall

Built On What Matters

Agenda

Call to Order

Roll Call

Approval of Minutes from April 6, 2022 & May 4, 2022 Meeting

1. Board of Trustees Update – Mayor Tracie Crites
2. POST Department Update – Colby Johnson
3. Discussion of Cyanobacteria Monitoring and Management at Milavec Reservoir – Colby Johnson
4. Discussion of Opportunities for Public Engagement and Volunteering – Colby Johnson
5. Presentation of Sample POST Commission Schedule of Events for Discussion at July Meeting –
Colby Johnson
6. Presentation of Community Survey Results Relating to Parks, Open Space, Trails and Recreation –
Colby Johnson
7. Nature Moment – Colby Johnson
8. General Discussion

Adjourn

Zoom Meeting Information

<https://zoom.us/j/9550375939>

Meeting ID: 955 037 5939

+1 312 626 6799 US



**TOWN OF FREDERICK
PARKS, OPEN SPACE, AND TRAILS COMMISSION
Wednesday, May 4th, 2022 Minutes
6:30 P.M.
Frederick Town Hall and via Zoom**

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CALL TO ORDER: Without a quorum present, the meeting was held as an Informational Session only

ROLL CALL:

- Present: Commissioners Gill, Pilon, Fosdick
- Staff: POST Director Colby Johnson, Assistant Town Manager Ryan Johnson

APPROVAL OF AGENDA: There were no changes to the agenda as presented.

APPROVAL OF APRIL 2022 MINUTES: Approval of the minutes will be voted on during the June meeting

STAFF REPORTS:

POST Director updated the Commission on ongoing and upcoming projects including the Skate Park overflow parking lot, irrigation operations, playground mulch refresh at Rinn Valley and Savannah, fertilization, re-seeding of parks, volunteer projects and an update on Capital Projects. The Commission was asked about ideas for the Skate Park overflow lot and Colby will bring recommendations forward with the rest of the year's Capital Project recommendations later in 2022. The lot is closed for the time being, expect by special need, such as events.

STRATEGIC PLAN AND TOWN DEVELOPMENT UPDATE:

Assistant Town Manager Ryan Johnson updated the Commission on the Board of Trustee's Strategic Plan for 2021 and 2022 as well as upcoming and ongoing development projects around Frederick. Commission members requested that multi-modal transportation continue to remain a priority in residential development.

PRESENTATION OF RFQ FOR COMMUNITY PARKS MASTER PLAN:

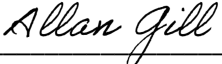
POST Director Johnson presented a draft Request for Qualifications for a Community Parks Master Plan for Frederick Recreation Area, Centennial Park and Crist Park. Commissioner Fosdick provided comments via email directly and there were no other comments from the Commission. Additional comments will be taken at the June Commission Meeting before the proposal is finalized and potentially presented to the Board of Trustees, if the RFQ can be taken to the Board this summer.

DISCUSSION OF CYANOBACTERIA MONITORING, MANAGEMENT AND TREATMENT AT MILEVAC RESERVOIR:

POST Director Johnson presented a background on Cyanobacteria and offered options and a recommendation for monitoring, management and treatment for 2022. This will be presented again, in an abbreviated form, at the June meeting for Commissioner input.

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Approved by the POST Commission:



Chuck Beehler, Chairperson

Attest:



Colby Johnson, Staff Liason

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**TOWN OF FREDERICK
PARKS, OPEN SPACE, AND TRAILS COMMISSION
Wednesday, April 6, 2022 Minutes
6:30 P.M.
Frederick Town Hall and via Zoom**

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CALL TO ORDER: At 6:35 p.m. Chairperson Beehler called the meeting to order.

ROLL CALL:

- Present: Commissioners Beehler, Davis, Pilon, Fosdick
- Staff: POST Director Colby Johnson

APPROVAL OF AGENDA: There were no changes to the agenda as presented.

APPROVAL OF MARCH 3, 2022 MINUTES: Minutes were approved.

STAFF REPORTS:

POST Director updated the Commission on ongoing and upcoming projects including “spring cleaning” of landscape and streetscape beds throughout the Town, improvements to the unpaved roadways at Frederick Recreation Area (FRA) and capital projects at Summit View Estates and FRA. Updates to the new Department’s overall administration, such as hiring, new positions and management planning were also presented, along with an update on progress of the Strategic Plan as it relates to Parks, Open Space and Trails.

DISCUSSION ON FREDERICK RECREATION AREA MASTER PLAN:

POST Director Johnson presented staff recommendations to move forward with a planning effort at FRA. Various types of planning efforts were presented to provide the Commission with information about other Front Range community plans. At the end of the discussion, the Commission recommended to staff that Centennial Park and Crist Park be included in the same planning process as FRA. Combining the planning efforts will provide a more cost efficient option, by saving on background data collection and administrative time in the planning but most importantly, will allow for more engaged public input in the process. In their determination, the three parks will host different types of recreational amenities, and by planning them together, the public can be better informed and provide better input on the Town’s 3 most popular parks. POST Director Johnson will work to carry that recommendation to the Trustees and draft a Request for Proposal in April for review at May’s meeting.

OTHER BUSINESS:

There being no further business of the Parks, Open Space and Trails Commission, Chairperson Beehler adjourned the meeting at 8:15 PM.

Approved by the POST Commission:

Attest:

Allan Gill

Chuck Beehler, Chairperson

Colby Johnson

Colby Johnson, Staff Liason

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POST Department Update

Colby Johnson – Parks and Open Space Director

Parks, Open Space and Trails Commission – June 6, 2022

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Turf Cultivation

Project Scope: Dethatching and re-seeding of park areas



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Irrigation

Initial Audit and Extensive Repairs

Project Scope: Completed an initial audit of all irrigation systems. Working on full audit. Will create a list of capital needs, which will be extensive.



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Summer Operations

- **Continued mowing operations including open spaces and some detentions and alleyways.**
- Will conduct aeration in early June.
- **Assisted the Golf Course with various projects.**
- Completed several repairs on the Raw Water System.
- **Coordinated and purchased supplies for volunteer work days at Johnson Farm.**
- Working on bids to pull power and install a new irrigation control at Johnson Farm Park.
- **Completed another round of landscape bed weeding.**
- Completed second round of vegetative control on trailsides and began first round in turf areas.



Administration

- **Finalized Advancement Procedures for administrative approval.**
 - **Will create a system of training and certification opportunities for existing staff in the POST Division for advancement.**
- Finalized a re-organization for the POST Division for administrative approval.
 - Modifications to supervisory personnel. Creates a Parks and Open Space Superintendent, which will be Sarah Troy and takes two existing vacancies and creates a Parks Maintenance Supervisor, which will be advertised in the near future.
- **Began collection information for 2023 Capital Budget**
 - **Nearing completion of priority Equipment Needs**
 - **Began Capital Projects priority list – will present a draft at the July Commission Meeting.**
- Met with CVPRD to discuss ongoing operations and potential capital projects.

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Frederick Recreation Area “Big Fred” Shelter Replacement

Current Status: Under Contract for \$105,264

Expected Completion: Early June – All parts have arrived – Waiting on a subcontractor

Project Scope: Existing shelter has been removed from site. New steel shelter, very similar in design, will be installed in the same spot. Will be natural color scheme, with dark brown roofing and beige structure. Contract valid until September 20, 2022.



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Summit View Estates Park Playground Project

Current Status: Under Contract for \$135,000

Expected Completion: Early June – Still waiting on subcontractor – Contract is valid until August 24, 2022



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Thank You

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Cyanobacteria

Colby Johnson – Parks and Open Space Director

POST Commission – June 1, 2022

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Strategic Plan Alignment



- Community and Economic Vitality



Purpose

Discussion of Monitoring, Management and Treatment of Cyanobacteria in Milavec Lake

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The Science

- Cyanobacteria
 - Not technically an algae
 - Photosynthetic bacteria
 - Kingdom: Monera
 - Bacteria
 - Single-cell – no nucleus
 - Pre-dates oxygen dependent life on Earth
- Then What's an Algae?
 - Generally, 7 different types of algae
 - Kingdom: Protist
 - Closely related to Plant Kingdom
 - Most common to CO is commonly called Green Algae



So Many Names!

- Cyanobacteria
 - “Blue-Green Algae”
 - “Toxic Algae”
 - “Harmful Algal Bloom (HAB)”
 - “Deadly Algae”
- Cyanotoxins
 - Created by Cyanobacteria
 - Not always present
 - There’s actually 4 specific cyanotoxins of note



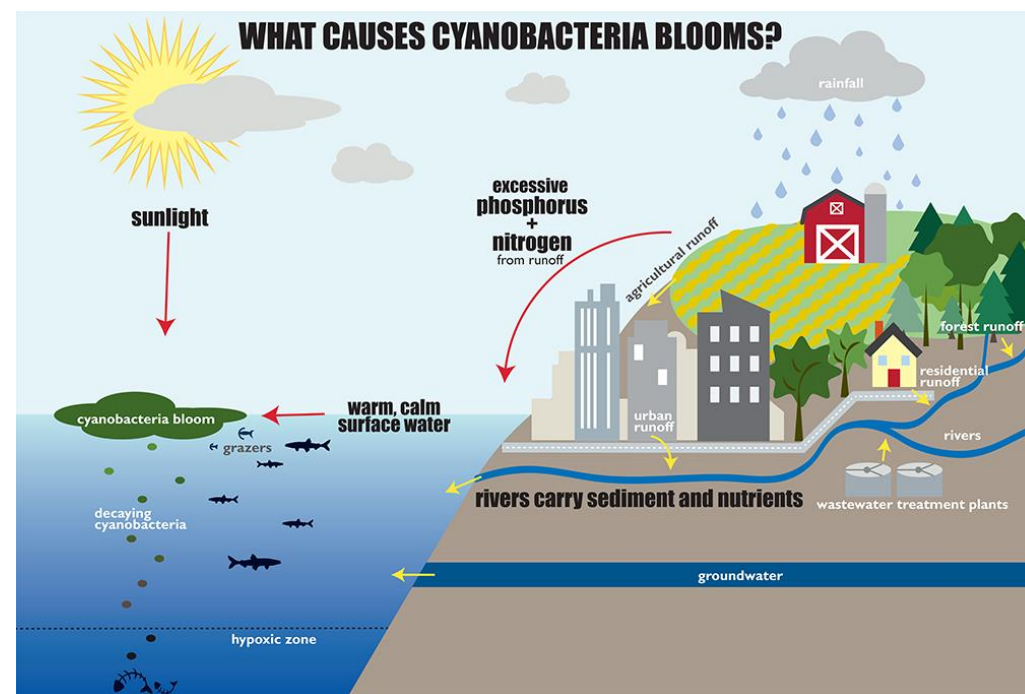
Cyanotoxins

- Cyanotoxins
 - Microcystin
 - Cylindrospermopsin
 - Anatoxin
 - Saxitoxin
- Each “group” can contain many specific species of cyanotoxin



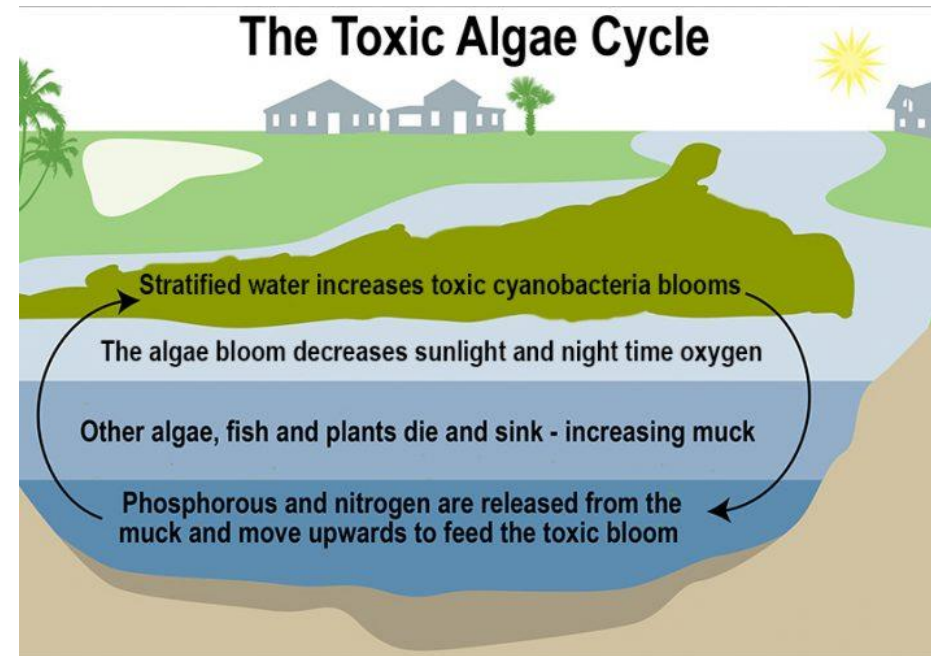
How Does This Happen?

- While naturally occurring, cyanobacteria will exponentially reproduce to form blooms under certain conditions
 - For FRA, conditions have been met in the past
 - High nutrient loading (particularly phosphorus)
 - Anthropomorphic Eutrophication
 - High water temperatures (prevalent in waters with low clarity)
 - Climate change is causing prolonged warm cycles
 - Still water



What is the Risk to the Lake Environment?

- Eutrophication
 - Dense algal and cyanobacterial blooms
 - While alive:
 - Deplete inorganic carbon and raise pH
 - Cause clarity issues at surface which disrupt organisms that utilize sight
 - Can fix atmospheric nitrogen for photosynthesis, adds even more nutrients to water
 - Cyanotoxin release
 - Upon death:
 - Decomposition consumes oxygen, causes severe drop in dissolved oxygen





What is the Risk to People and Pets?

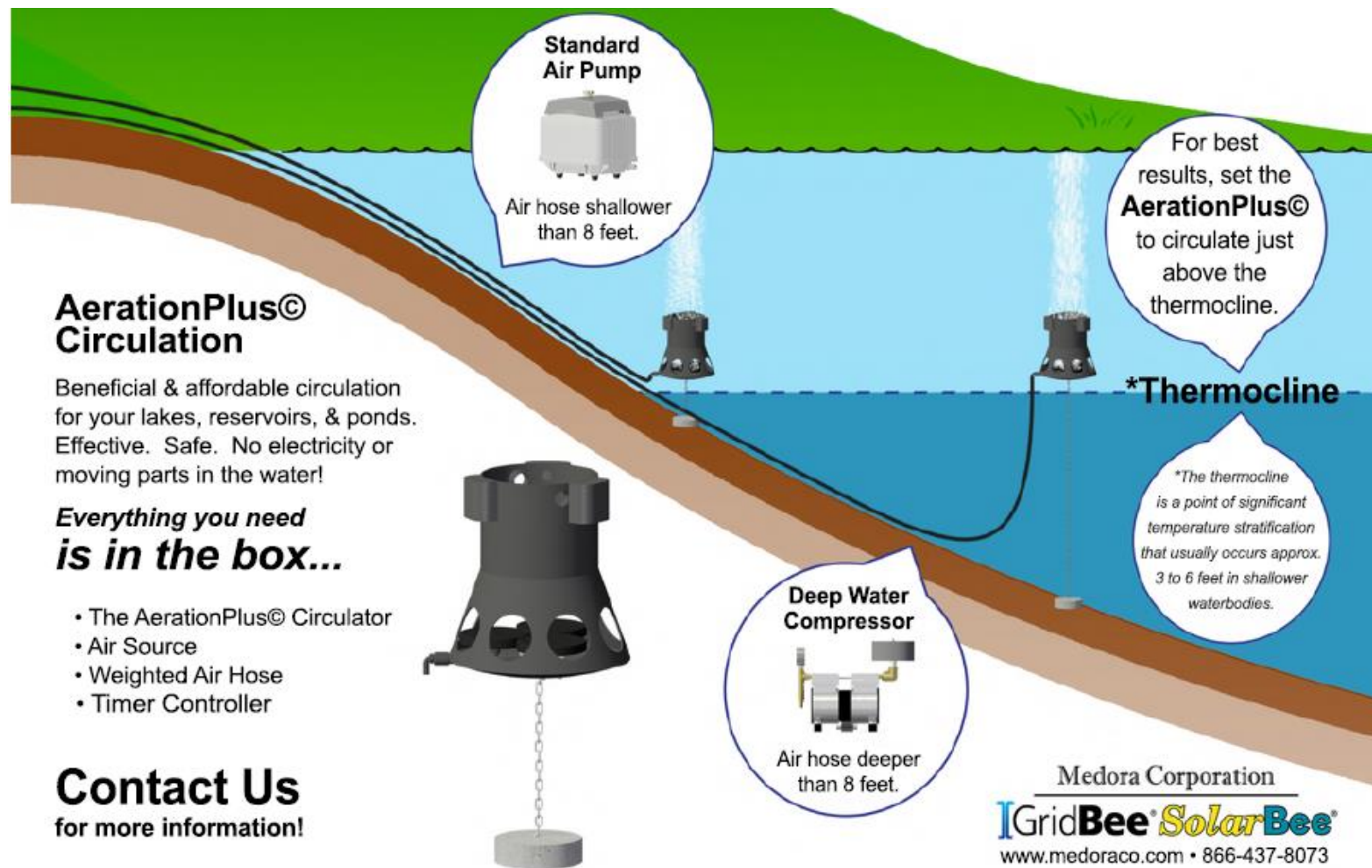
- Dangers
 - Among the most powerful natural poisons
 - Typically lower concentrations in a natural environment
 - Under moderate exposure, risks to people and animals include:
 - Gastro-intestinal issues
 - Hayfever symptoms
 - Skin rashes
 - Under high, long-term exposure, risks can include:
 - ALS
 - Parkinson's disease
 - Alzheimer's disease



So What Are We Doing?

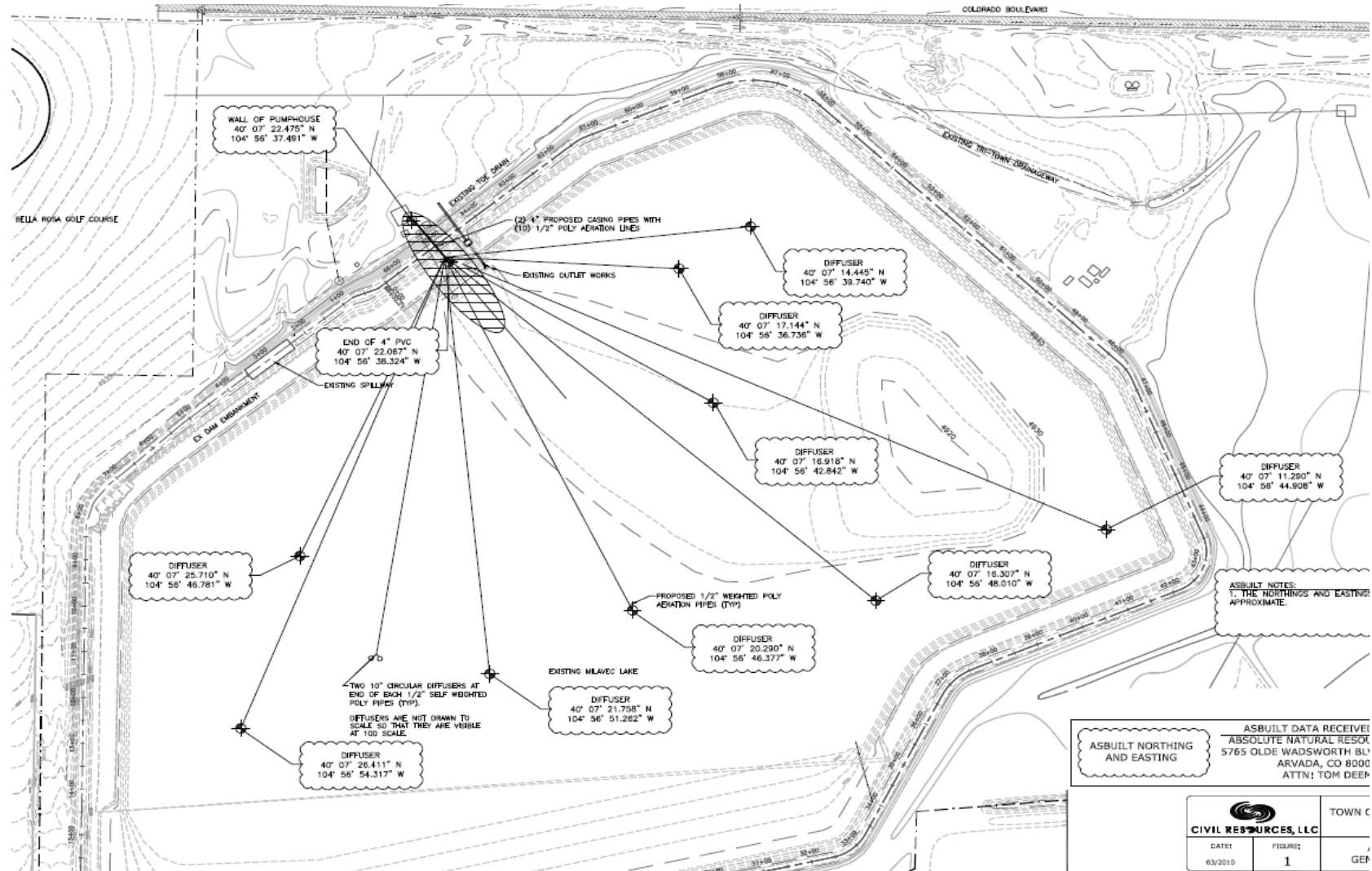
- 2021 Monitoring
 - Public Reports
- 2021 Management
 - Aeration/Bubblers
 - Positives
 - Artificially “turns over” the “layers” of the water
 - Adds air to the surface to increase oxygen
 - Disrupts the surface to help prevent algal growth
 - Negatives
 - Cover very small % of surface water
 - Cause the “smell” by artificially turning over water
 - Pulling water from the bottom can increase nutrient load on the surface
 - Signage
 - Posted Town created signage during visual bloom
- 2021 Treatments
 - Applied an aquatic herbicide
 - Positives
 - Can increase the rate at which algae and cyanobacteria are killed.
 - Public Relations
 - “DO SOMETHING!”
 - Negatives
 - Herbicides are toxic by themselves to aquatic organisms
 - Remember, dead algae consume oxygen – can cause a fish kill from deoxygenation
 - Herbicides break down cells in cyanobacteria, which can lead to a release of cyanotoxins

Aeration - Diffusers



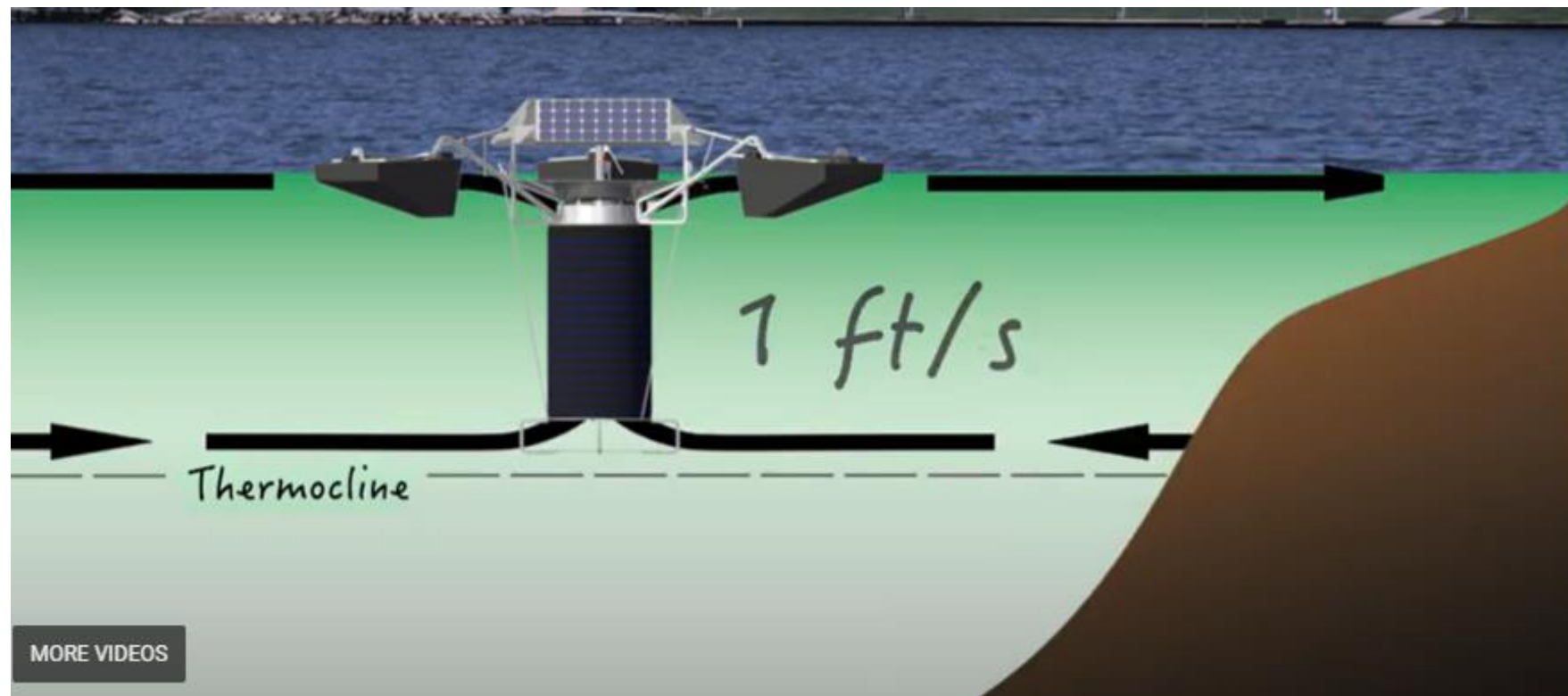
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Aeration - Diffusers



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Aeration - SolarBees



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What Else Can We Do Long-Term?

- Environmental Study
 - Included as a part of the Community Parks Planning effort
 - Determine nutrient load in inflow, pool and lake bottom
 - Impacts on fish populations
- Management and Treatment
 - Increased/modified aeration
 - Nutrient treatment
 - Wetlands, chemical treatment, water treatment
 - Legal water quality status
 - Nutrient load likely already exists in the inflow canal and lake bottom
 - No Easy Fix

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Preferred Staff Recommendation for 2022

- Currently, no Monitoring, Management or Treatment is required for Recreational Waters in Colorado or under Federal Law
- Frederick does not allow “full-body contact” in Milavec Reservoir
- Follow CDPHE Recommendation for Recreational Water without swimming
- Monitoring Recommendation
 - Visual Monitoring
 - Weekly check for blooms
 - Upon Visual Determination, Conduct Field Verification
 - Stick Test
 - Verifies the probable presence of cyanobacteria vs. algae
- Management Recommendation
 - Signage
 - Produce and install CDPHE standard signage
 - Upon Visual Determination
 - CAUTION
 - Post at each walkable “entrance” to Lake Trail
 - Post for duration of visible bloom plus 2 weeks
 - Aeration
 - Continue with current systems and ensure proper operability/maintenance
 - Public Relations
 - Utilize available CDPHE and EPA public guidance documents for public outreach
- Treatment
 - None
 - The positives do not outweigh the potential negatives of organic or inorganic treatments



Discussion

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Public Engagement and Volunteer Opportunities

Colby Johnson – Parks and Open Space Director

Parks, Open Space and Trails Commission – June 6, 2022

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Public Engagement & Volunteer Opportunities

- June 22 @ 6:00pm – Savannah Park – Community Tour and Talk
- **June 25-26 – Frederick in Flight**
- July 20 @ 6:00pm – Coalridge Park – Community Tour and Talk
- **July 20 – 23 – Chainsaws and Chuckwagons**
- August 17 @ 6:00pm – Rinn Valley Park – Community Tour and Talk
- **September 17 – Miner's Day**
- September 21 @ 6:00pm – Fox Run Park – Community Tour and Talk

*Bold items are opportunities for both volunteering and engaging with the public.



TOWN OF FREDERICK
PARKS, OPEN SPACE, AND
TRAILS COMMISSION
Master Calendar

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2023

January	Elect Officers and Points-of-Contact to other Town Commissions and Committees Review Bylaws, Mission and Vision Statements and Propose Changes
February	Staff Presentation of Parks and Open Space 2022 Annual Report Staff Presentation of 2023 Park & Open Space Annual Work Plans
March	Carbon Valley Parks and Recreation District Update Communications and Engagement Update
April	Engineering Department Update
May	Town Manager Update
June	Annual Commission and Staff Parks Tour to Discuss Capital Improvement Planning *Saturday All-Day
July	Staff Presentation of Draft 2024 Capital Improvement Plan, Update to 5 Year Capital Improvement Plan and 2024 Operation and Maintenance Budget
August	Mayor/Board of Trustees Update Staff Presentation of 2023 Capital Improvement Project Status
September	Staff Presentation of Budget Documents for Presentation to Board of Trustees
October	Community and Economic Development Department Update
November	Staff Presentation of Adopted Budget Documents
December	Police Department Update Staff Presentation on Draft 2023 Park and Open Space Annual Work Plans