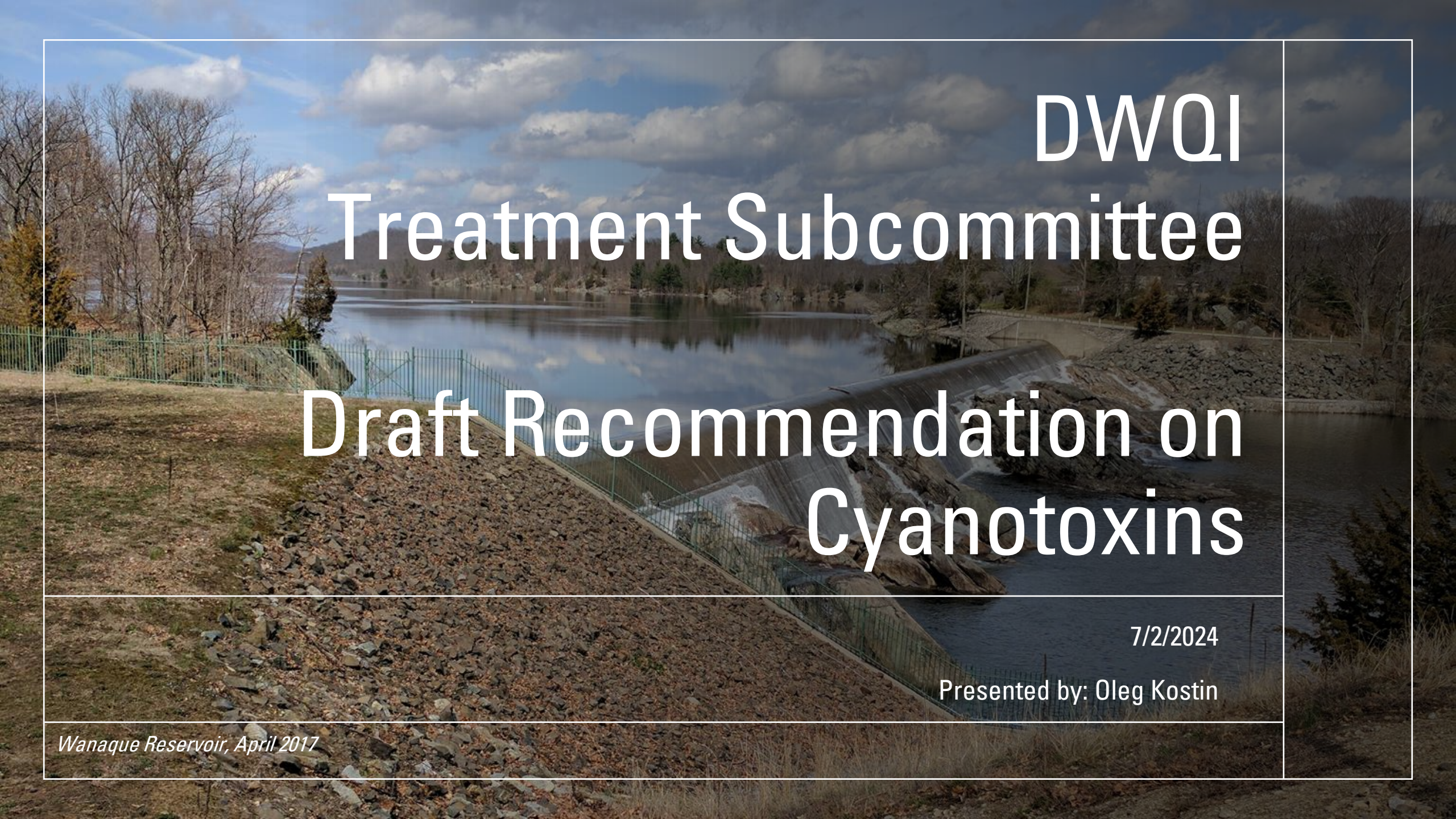


DWQI Treatment Subcommittee

Draft Recommendation on Cyanotoxins

7/2/2024

Presented by: Oleg Kostin

Wanaque Reservoir, April 2017

DWQI
Treatment Subcommittee

Subcommittee Members:

Oleg Kostin (Chair)
Rich Calbi
Patricia Ingelido
Andrea McElroy
Norm Nelson

NJDEP Support:

Chase Ballas
Karola Endara
Sabrina Hill
Benjamin Swartz

Manasquan Reservoir, June 2021

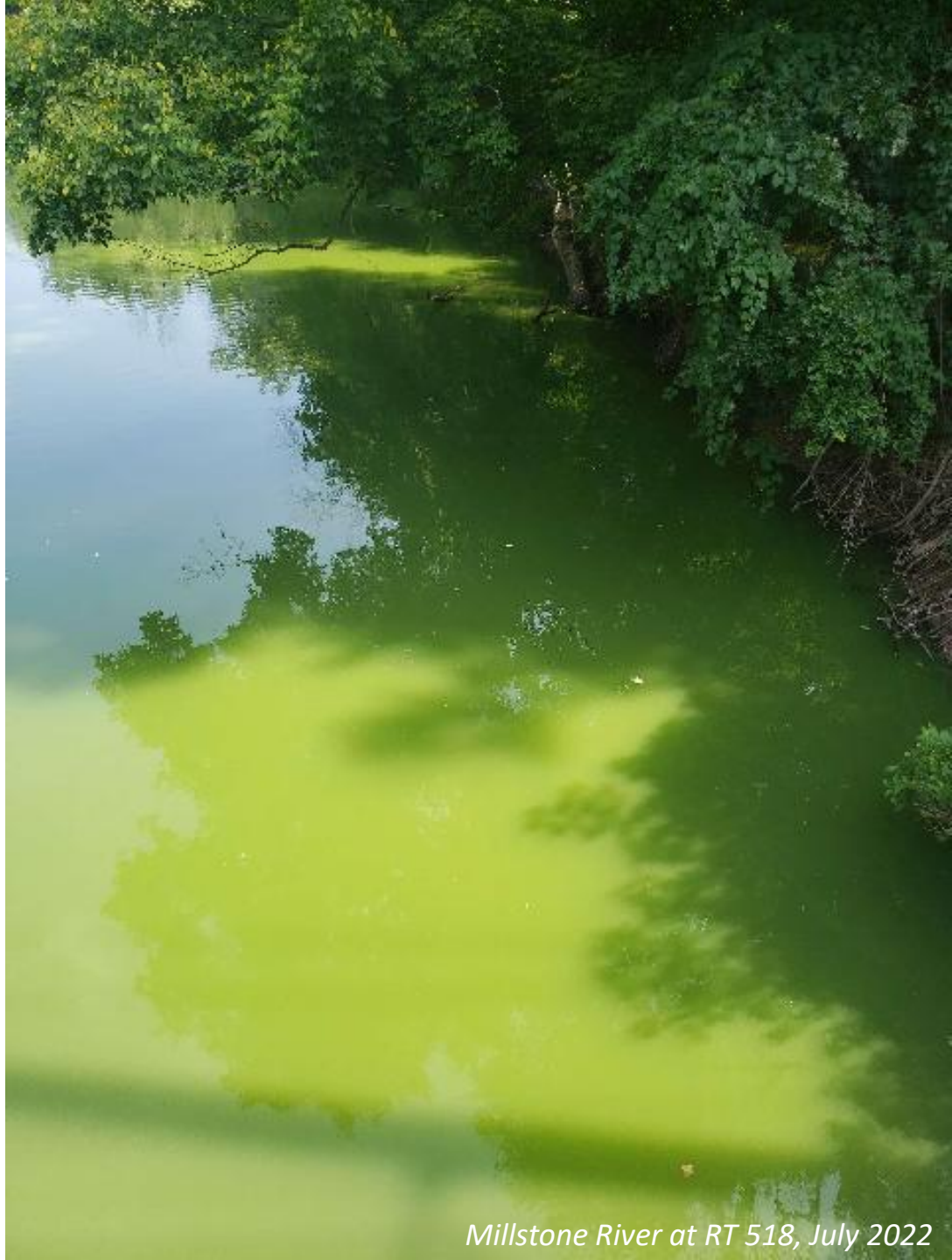
Cyanotoxin Treatment

1. Within Source Waters
    A. Monitoring algal growth
    B. Preventing HABs
    C. Treating conditions that lead to cyanobacterial growth

2. Within Treatment Plant
    A. Intra- vs. Extra- cellular toxins
    B. Multi-barrier treatment to protect against intra- and extra- cellular toxins

Summary of Findings

1. Cyanotoxins require careful evaluation and planning to treat successfully, as a single treatment technology does not work in all cases.
2. Source water and treatment plant dynamics need to be considered to properly monitor and treat.
3. The existence of both intracellular and extracellular cyanotoxins need special considerations.
4. Additional considerations include existing treatment, the ability to address more than one contaminant, and waste disposal.
5. Multi-barrier approach to treatment needed to prevent and remove cyanotoxins in finished potable drinking water.



Millstone River at RT 518, July 2022

Conclusion

- The Treatment Subcommittee concludes that cyanotoxins can be reliably and feasibly managed and/or removed by drinking water systems.
- The Treatment Subcommittee recommends a treatment technique approach as a means to regulate cyanotoxins in New Jersey's drinking water.
- Treatment should be optimized to fit the characteristics of individual systems, with a focus on a multi-barrier approach to treat cyanotoxins at different stages.
- Treatment Subcommittee recommends exploration into the impact of cyanotoxins to private wells.