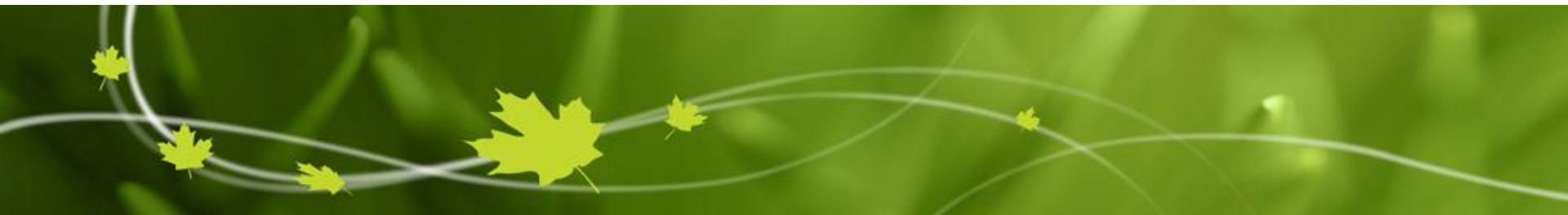




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THUNDER BAY AREA OF CONCERN BEACH CLOSINGS BUI

Proposed Status: Not Impaired

May 11, 2021

Historical Reason for Impairment

Stage 1 Report (1991)

- Concentrations of fecal coliforms in excess of MECP's Provincial Water Quality Objectives
 - Caused frequent beach closures at Chippewa Park and Boulevard Lake beaches
- Majority of fecal bacteria was *E.coli*

Remained Impaired in the Stage 2 RAP report (2004) and subsequent RAP Update report (2012)



Delisting Criteria

1) All public beaches have *identified primary sources of fecal pollution and pollution control plans* have been developed and implemented, including:

- *Management of stormwater inputs*
- *Upgrades of septic systems to provincial standards*
- *Implementation of a management program for birds and animals*
- *A completion of feasible actions to improve water circulation*

2) *Water quality testing carried out at all public beaches on a regular, frequent and ongoing basis demonstrates that 80% of geometric means have E.coli counts of 200 or less colony forming units per 100mL of water (≤ 200 E.coli/100mL) (MOHLTC, 2018b) based on a five year monitoring average.*



Delisting Criterion #1: Remedial Actions Implemented

Identify primary sources of fecal pollution

- 2011 Fratpietro DNA study concluded human fecal matter was not a contributing factor at Chippewa Main and Boulevard Main beaches.

Management of stormwater inputs

- Chippewa Main Beach: Re-grading beach, drainage system upgrades, sediment removal post 2003 dredging.

Stormwater Management Master Plan – Boulevard Lake Beaches



Delisting Criterion #1: Remedial Actions

Improved Water Circulation at Chippewa Park Main Beach

- Portion of breakwall removed in 2002 and 2003

Upgrades of septic systems to provincial standards

- Installation of new septic field for public washrooms at Chippewa Main Beach
- RV park septic system upgraded at Chippewa Main Beach

Implementation of a management program for birds and animals

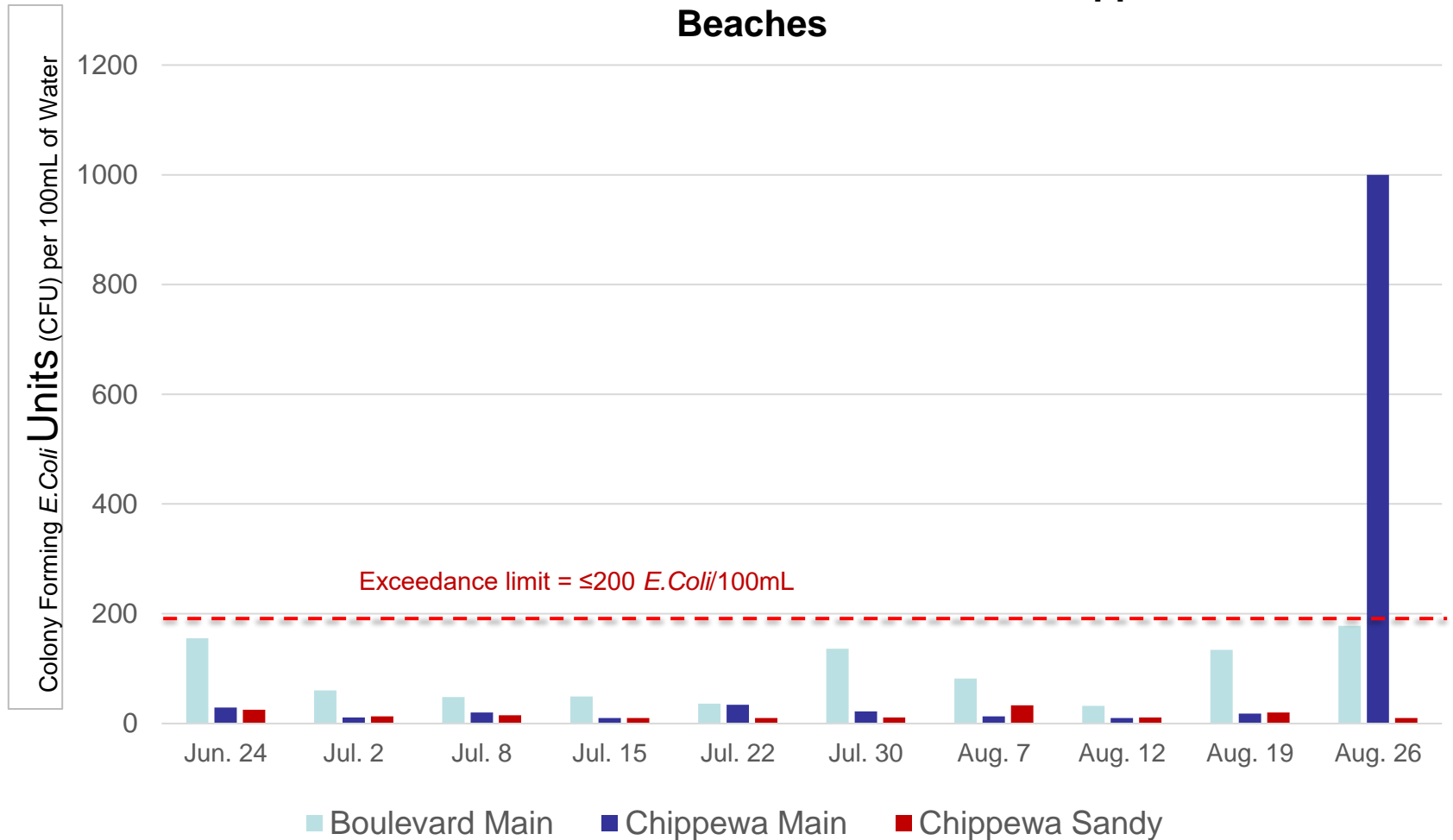
- Bird hazing and egg depredation program, and removal of band shell at Chippewa Main Beach
- Grass grooming/raking programs



Delisting Criterion #2

Improved Water Quality

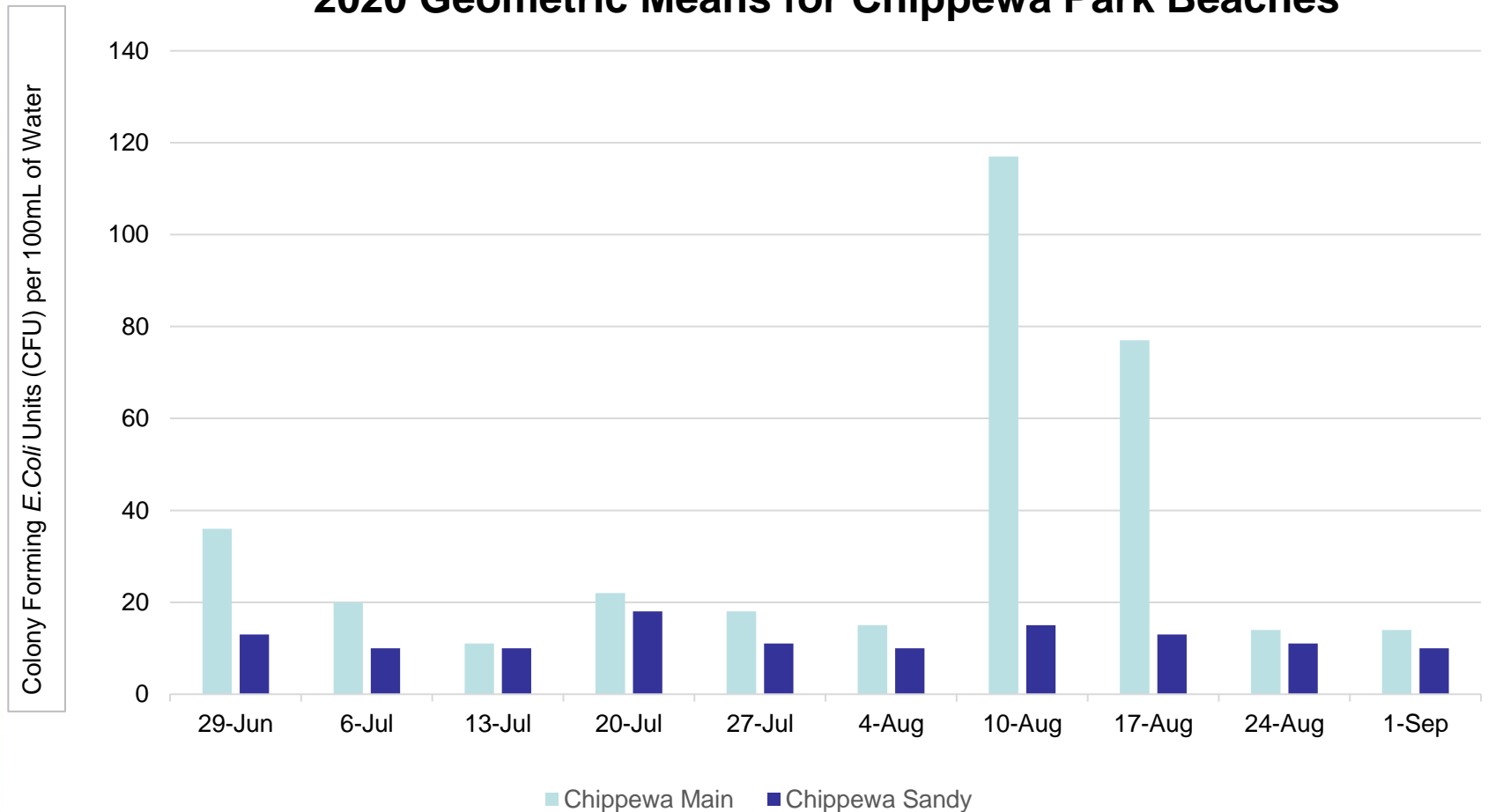
2019 Geometric Means for Boulevard Lake and Chippewa Park Beaches



Delisting Criterion #2

Improved Water Quality

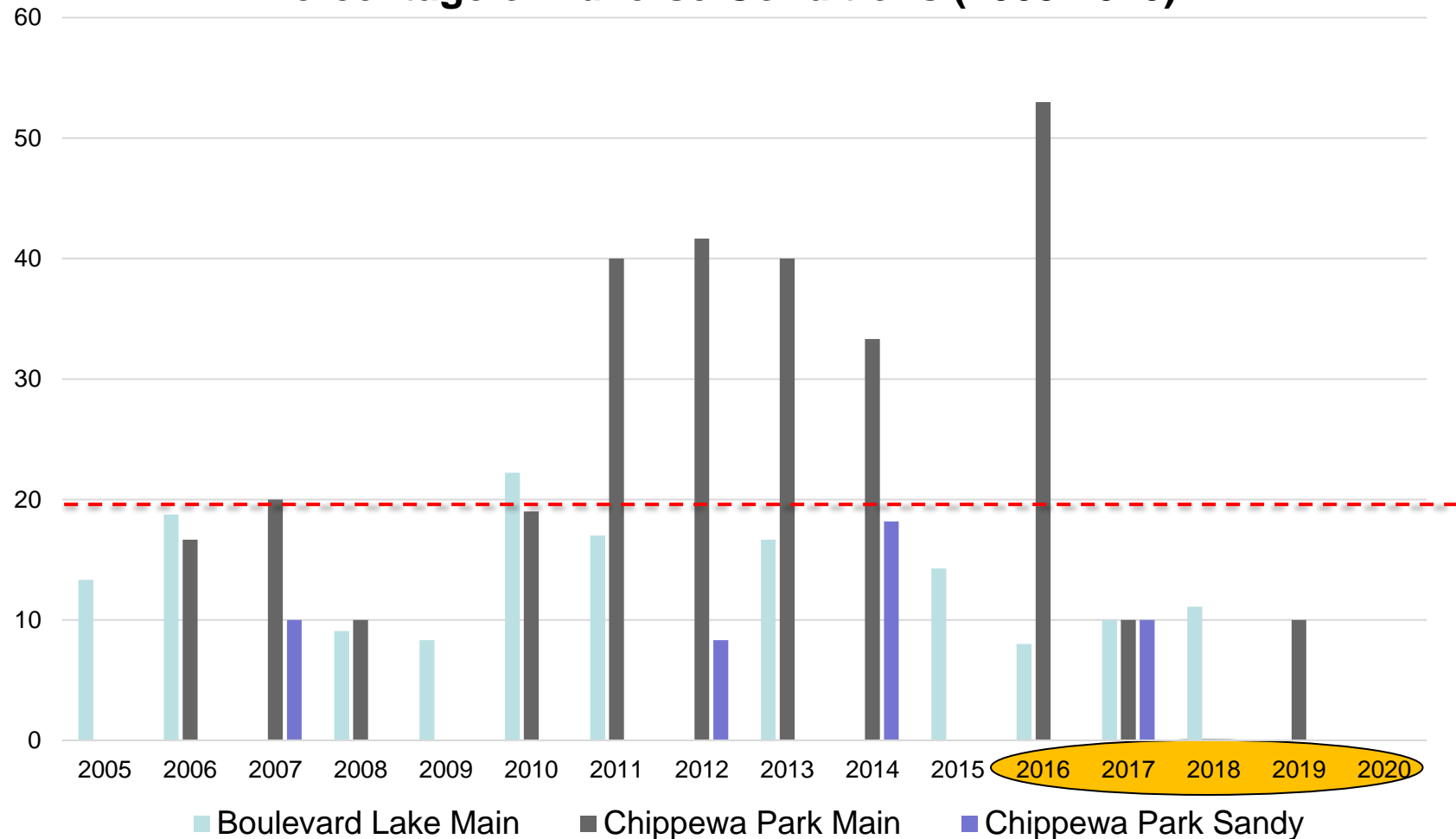
2020 Geometric Means for Chippewa Park Beaches



Delisting Criterion #2

Improved Water Quality

Percentage of Adverse Conditions (2005-2020)

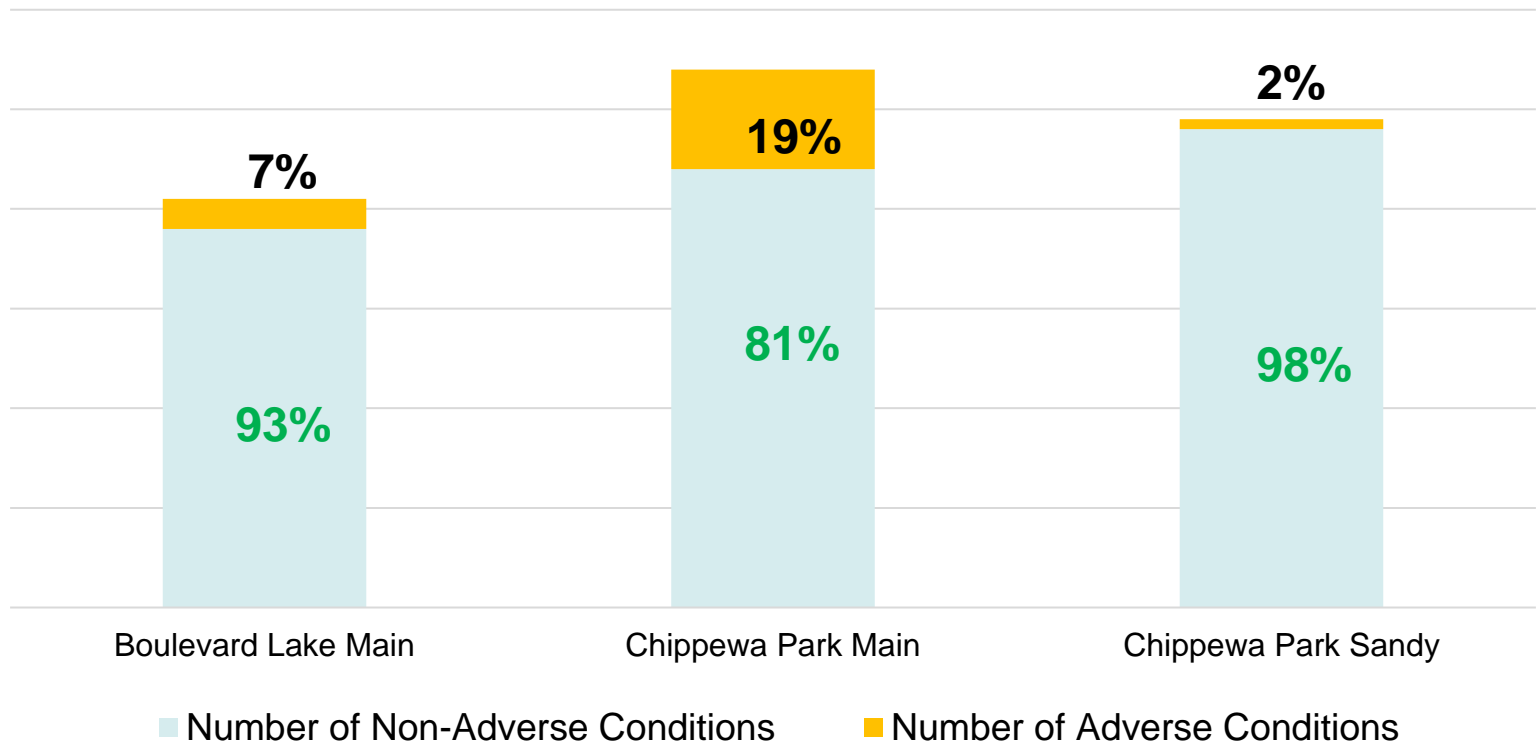


Delisting Criterion #2

Improved Water Quality

Recall: Water quality testing carried out at all public beaches on a regular, frequent and ongoing basis **demonstrates that 80% of geometric means** have E.coli counts of 200 or less colony forming units per 100mL of water based on a five year monitoring average.

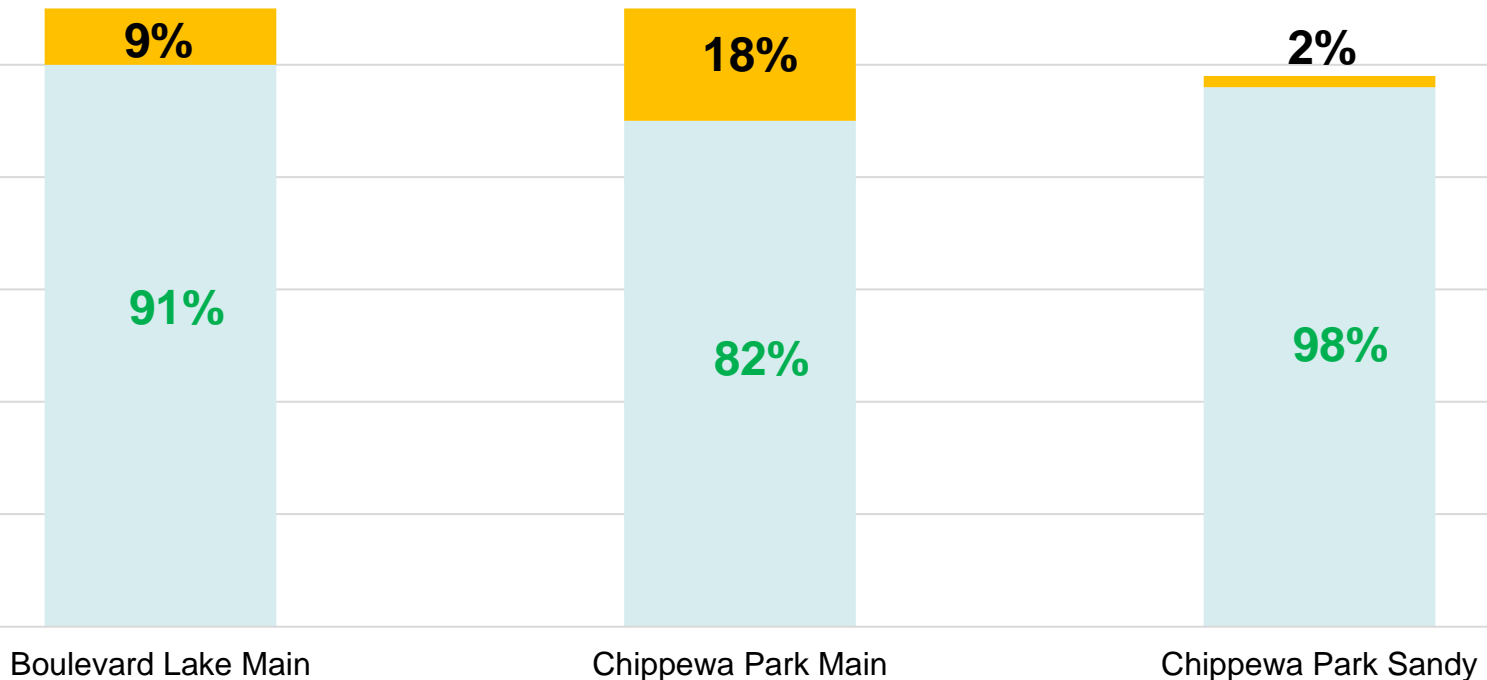
**Five-Year Monitoring Average of Adverse Conditions
(2016-2020)**



Delisting Criterion #2

Improved Water Quality

Five-Year Monitoring Average of Adverse Conditions
(2015-2019)



■ Number of Non-Adverse Conditions

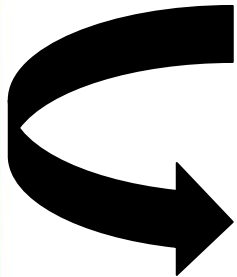
■ Number of Adverse Conditions



In Conclusion

Delisting Criterion 1 is met

Identified primary sources of fecal pollution and pollution control plans



Delisting Criterion 2 is met

*80% of geometric means have *E.coli* counts of ≤ 200 *E.coli*/100mL*



**Delisting
Criteria
is achieved**

**Therefore, it is recommended that
the *Beach Closings* BUI be
re-designated to a **Not Impaired** status**



Thank you!

Questions/Comments?

