## Supplementary Information

Routine monitoring of Western Lake Erie to track water quality changes associated with cyanobacterial harmful algal blooms <u>Authors:</u>

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Figure S1. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE02 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S2. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE08 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S3. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE09 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S4. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE12 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S5. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE13 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S6. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE14 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.

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Figure S7. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE15 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.





Figure S8. Concentrations of chlorophyll *a* (Chl *a*), phycocyanin (PC), particulate microcystins (pMC), and dissolved microcystins (dMC) at Station WE16 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S9. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE02 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S10. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE08 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S11. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE09 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S12. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE12 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S13. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE13 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S14. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE14 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.



Figure S15. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE15 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.





Figure S16. Concentrations of total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate plus nitrite ( $NO_3^- + NO_2^-$ ), and sea surface temperature (SST) at Station WE16 for all years sampled. Boxplots represent the median and 25% and 75% quartiles with whiskers extending to the highest or lowest point within 1.5x the interquartile range. A scatterplot is overlaid on the boxplots.