

Update on water quality of the Opuha catchment

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Outline

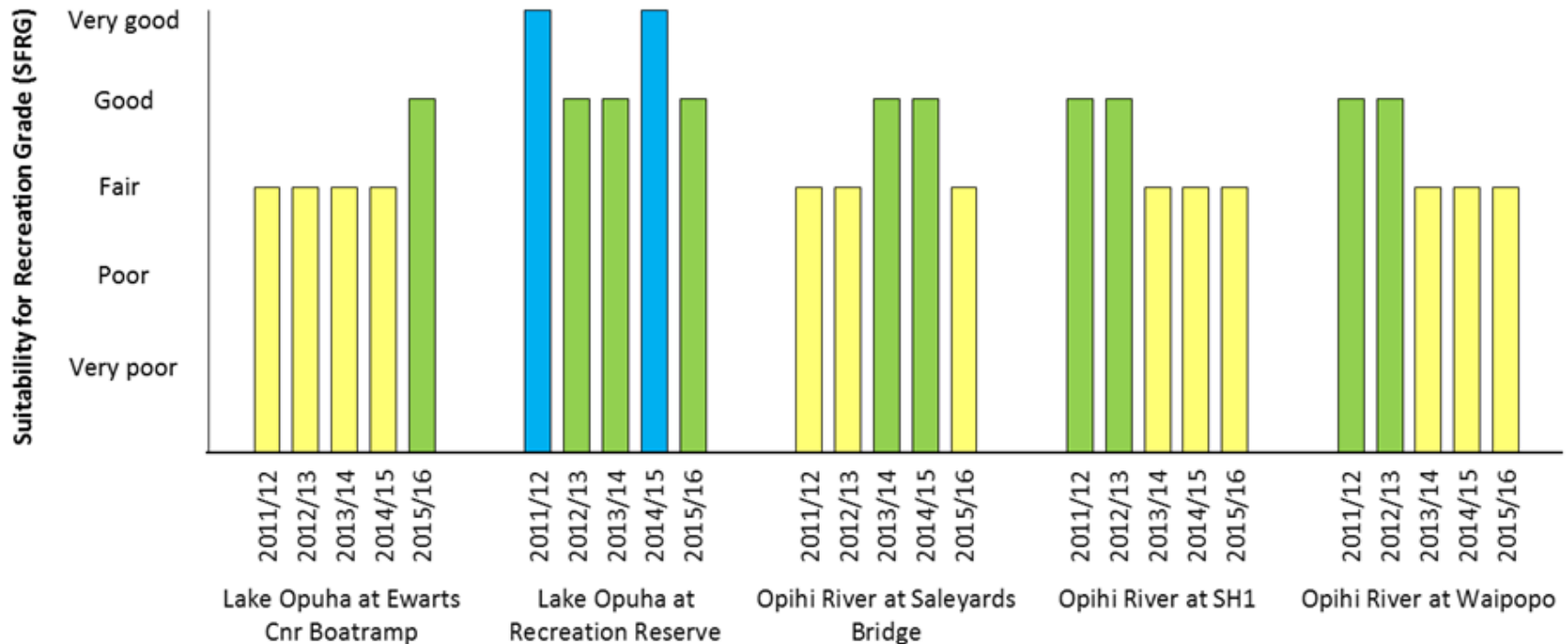
- Latest monitoring data of upper Opuha catchment
- Lake water quality
- Long term trends – nutrients, E. coli, invertebrates

Contact recreation - summertime monitoring

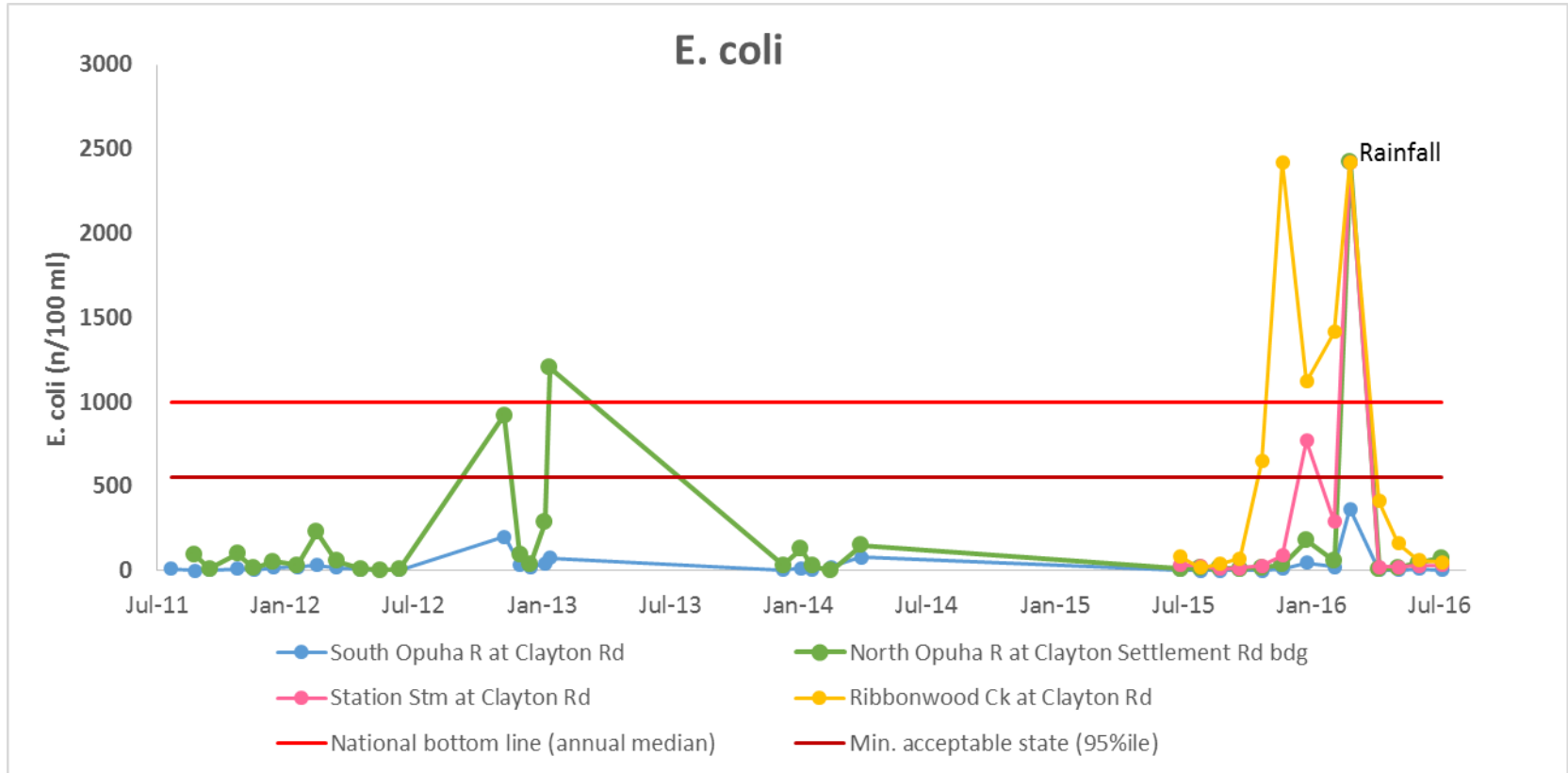
**2 sites on Lake
Opuha**



Suitability for Recreation Grade (based on E. coli – rolling 5 year)



Inflow E. coli concentrations

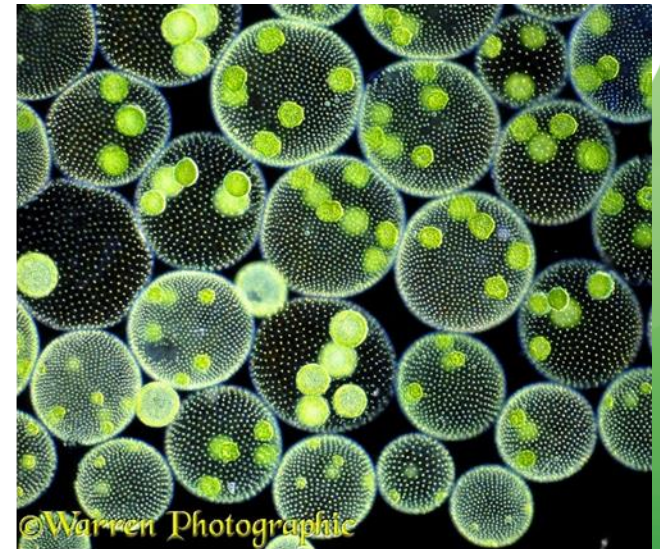
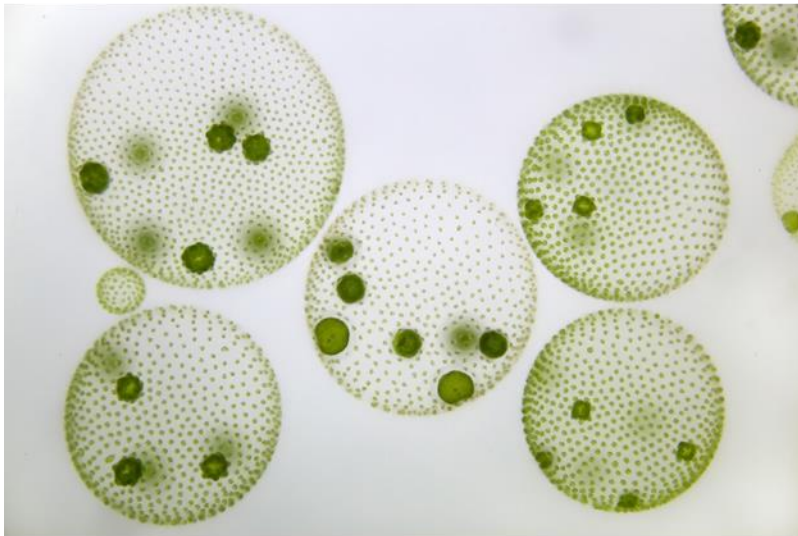


High E. coli in Ribbonwood Ck

Lake Opuha trophic status

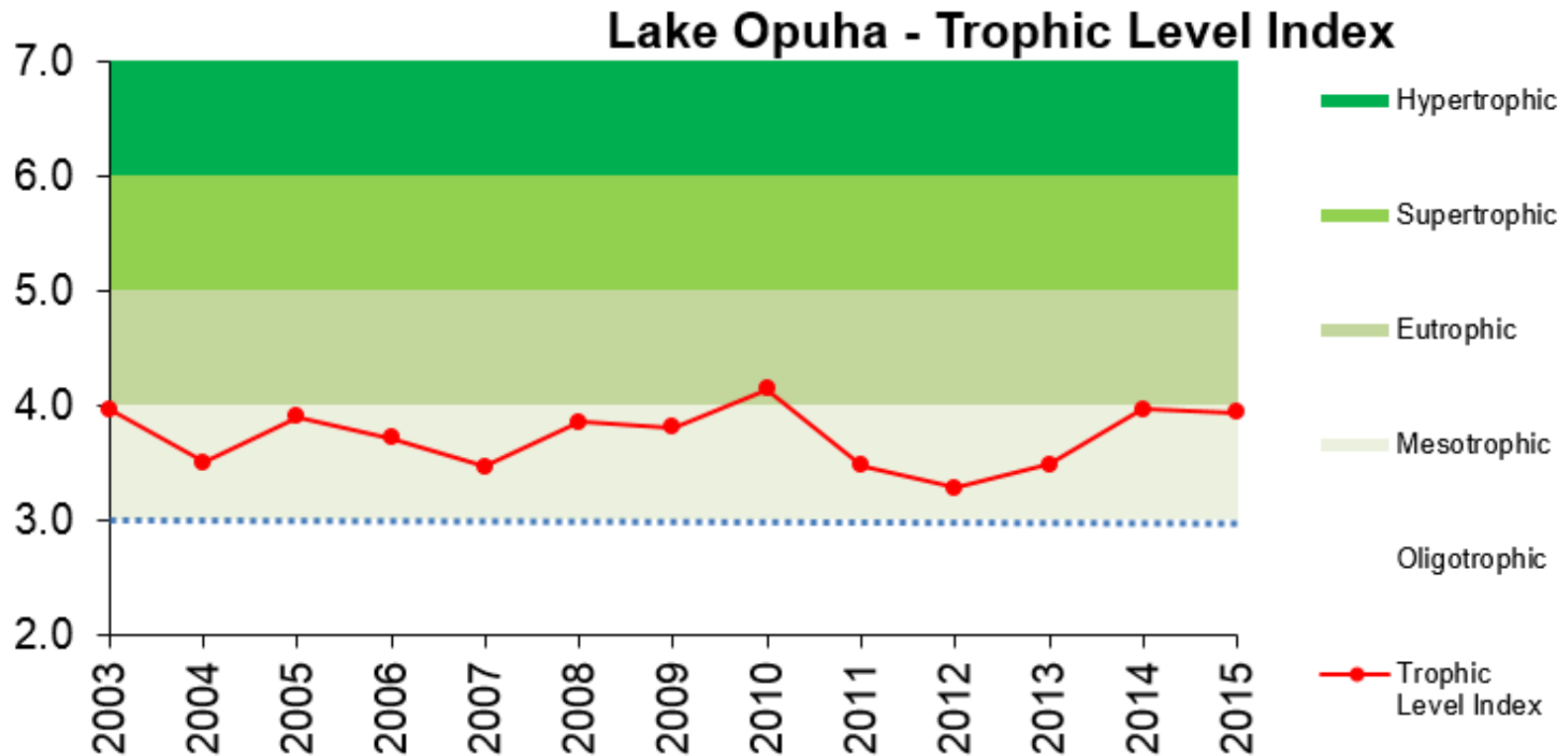
Trophic level index (TLI)

- Nitrogen
- Phosphorus
- Chlorophyll a (phytoplankton)

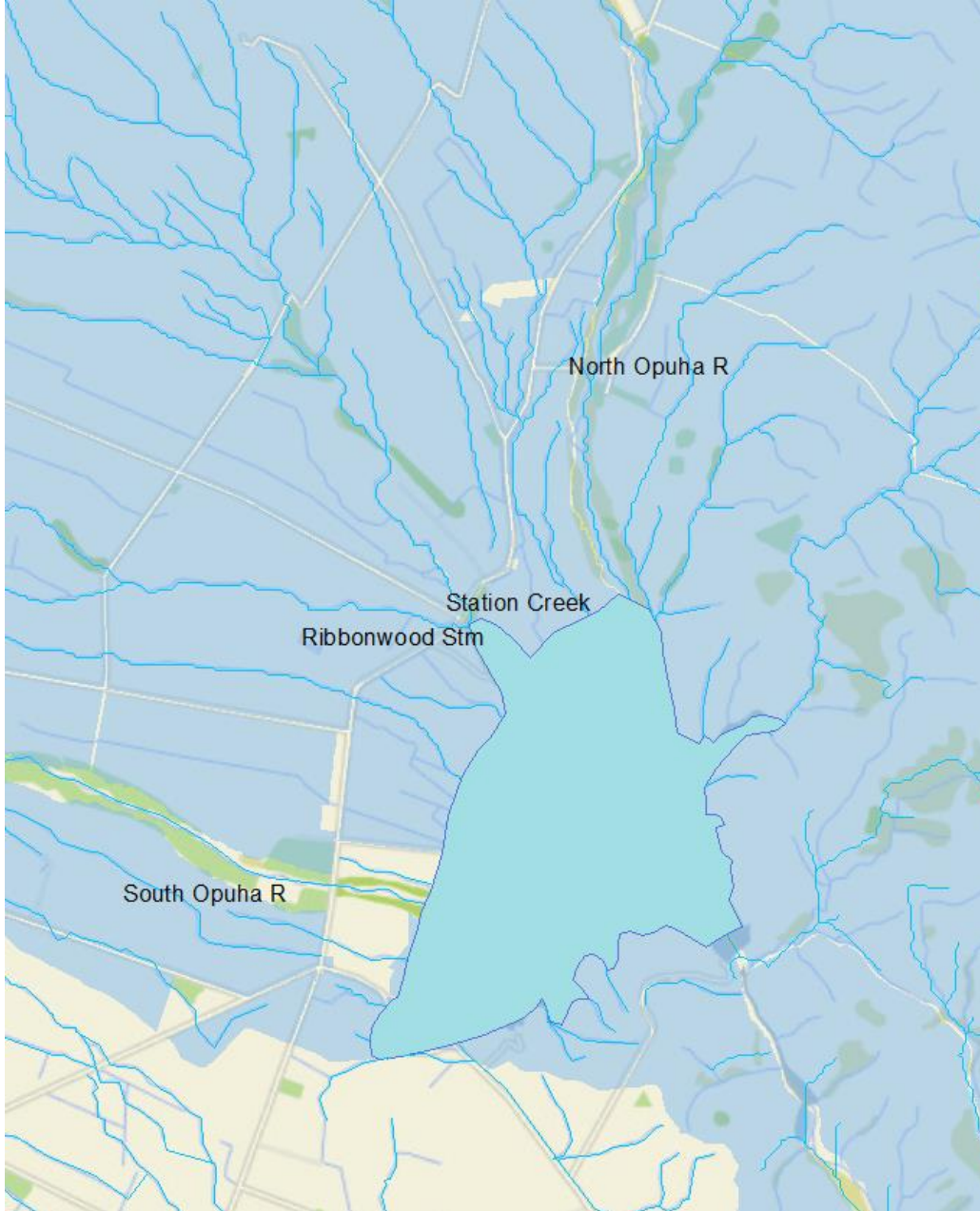


More nutrients = higher cell densities

Annual average TLI



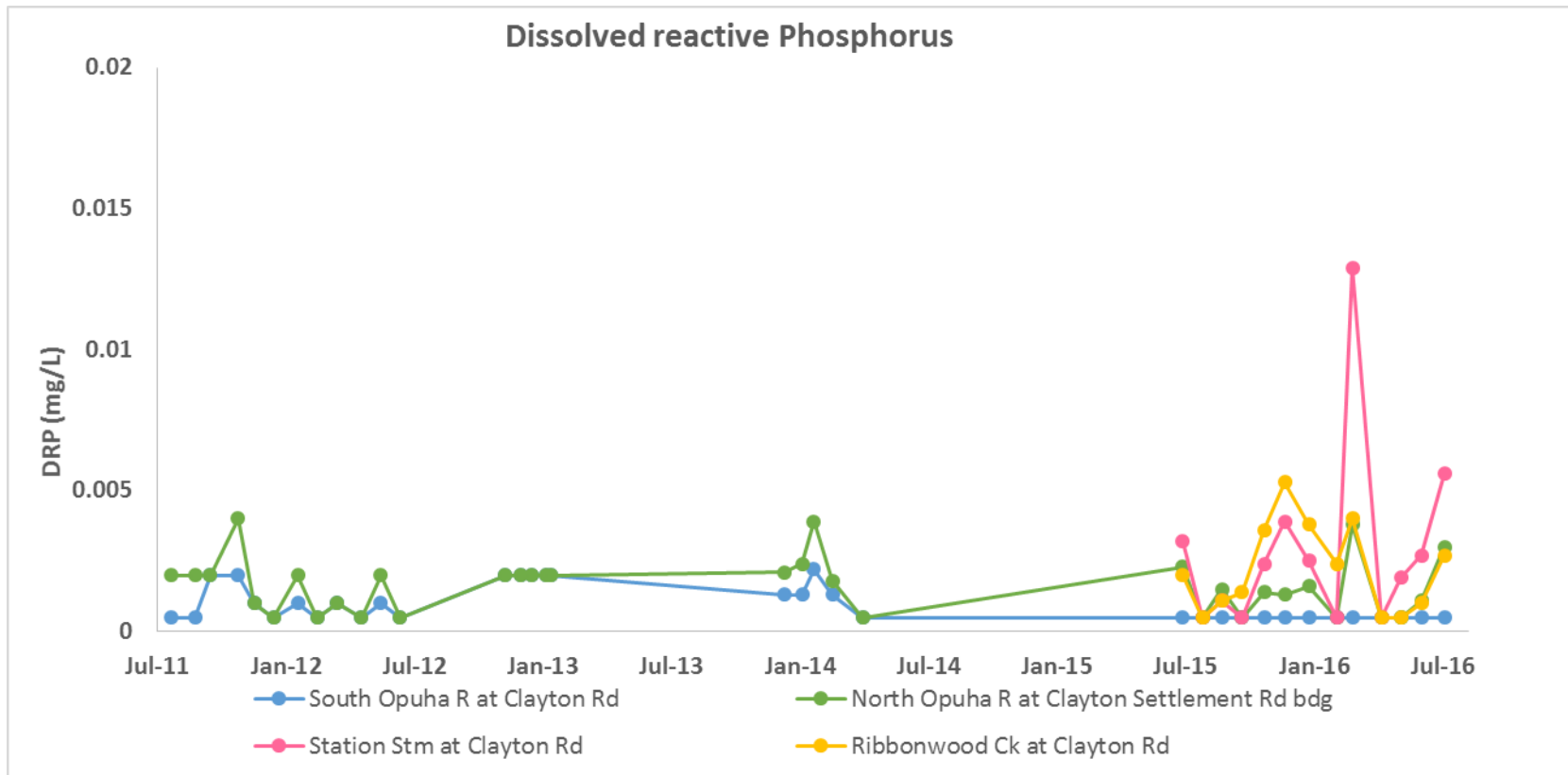
Mesotrophic status – moderately enriched
Overall trophic status not changing But N and P
might be increasing



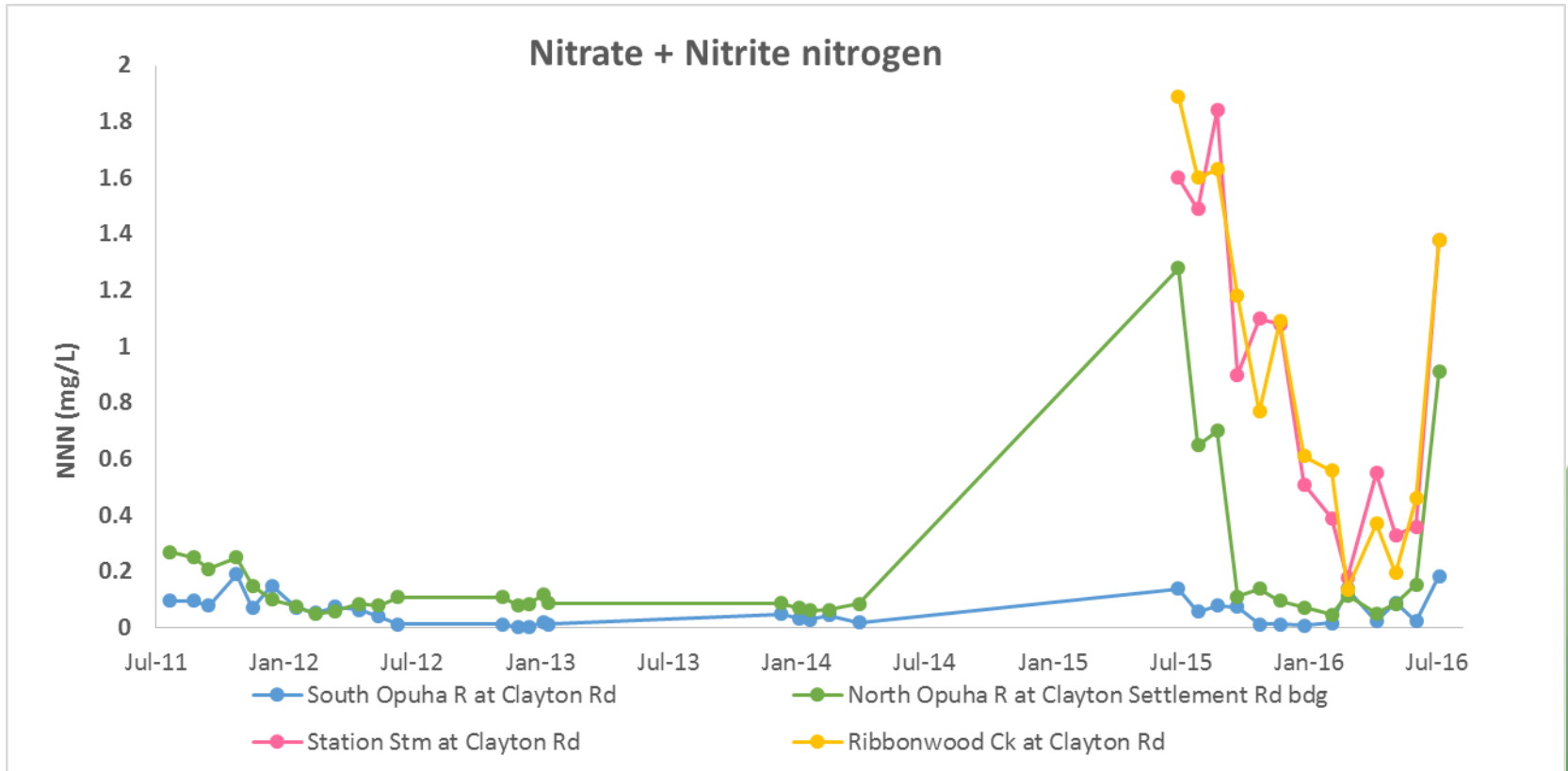
Inflow nutrient concentrations

4 sites sampled monthly since Jul 2015

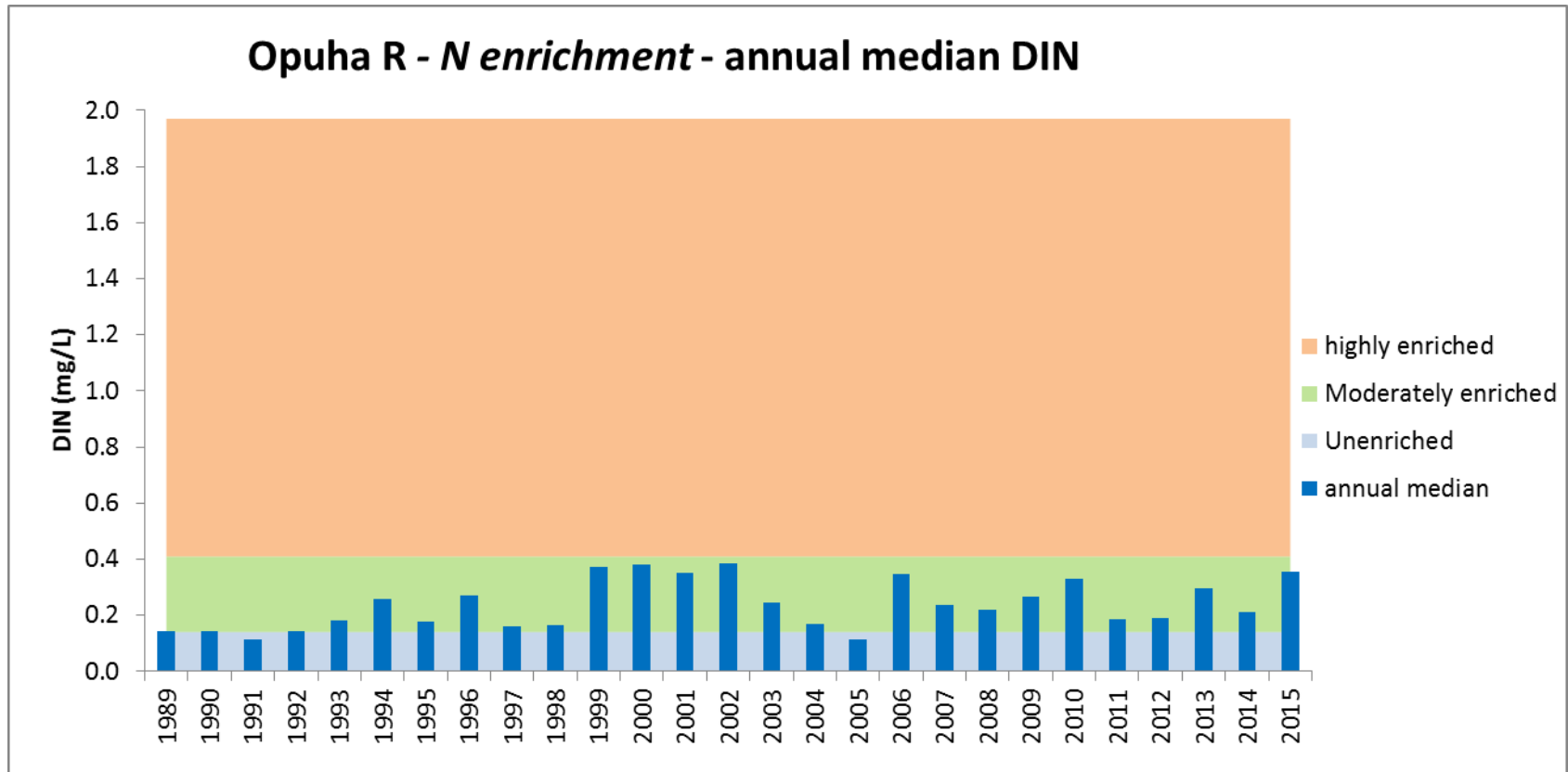
Phosphorus



Nitrate nitrogen

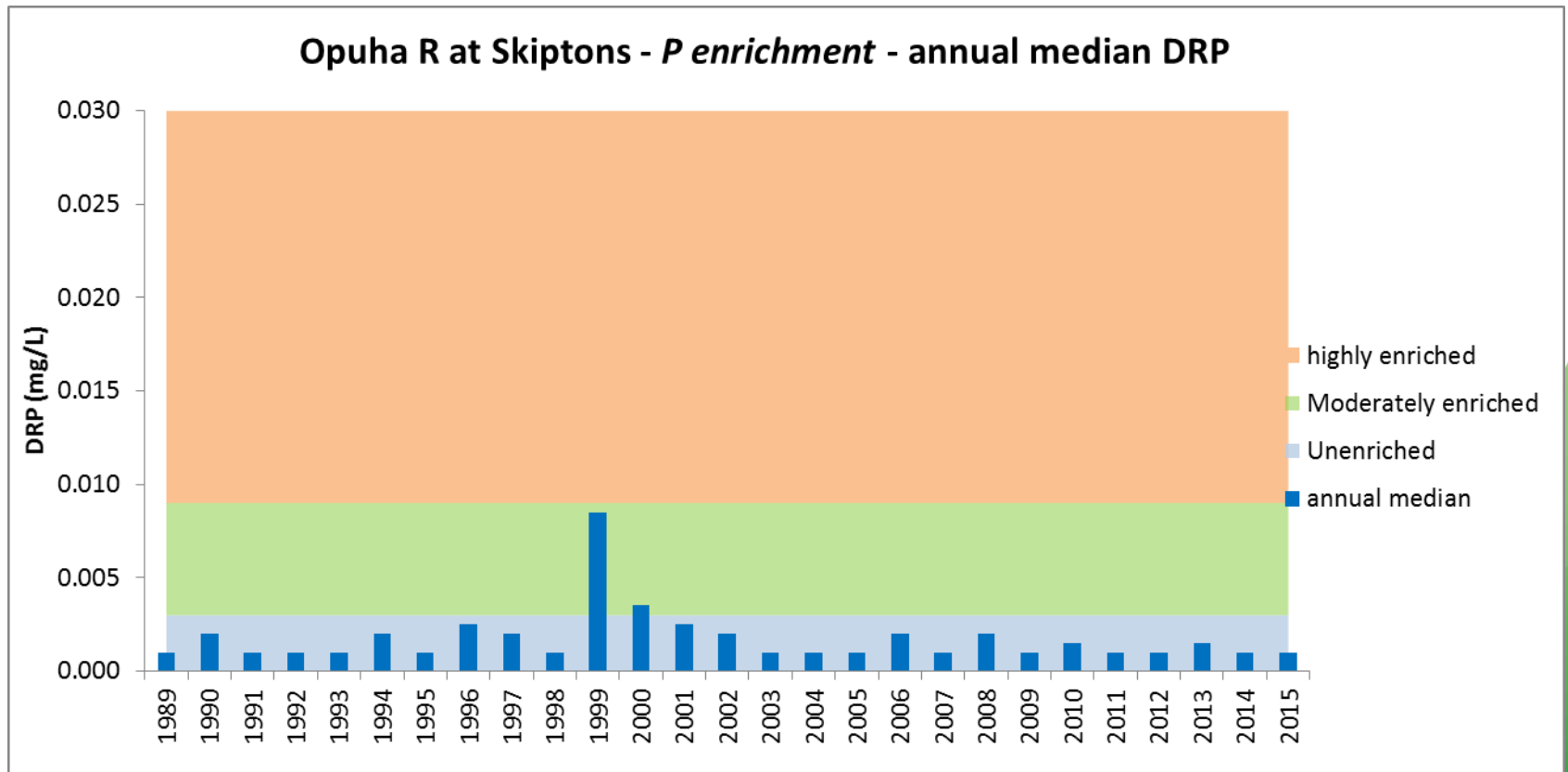


Opuha River



!!Long-term upwards trend

Opuha River – dissolved P



No long-term trend found

- Despite only moderate nutrient enrichment – high periphyton biomass



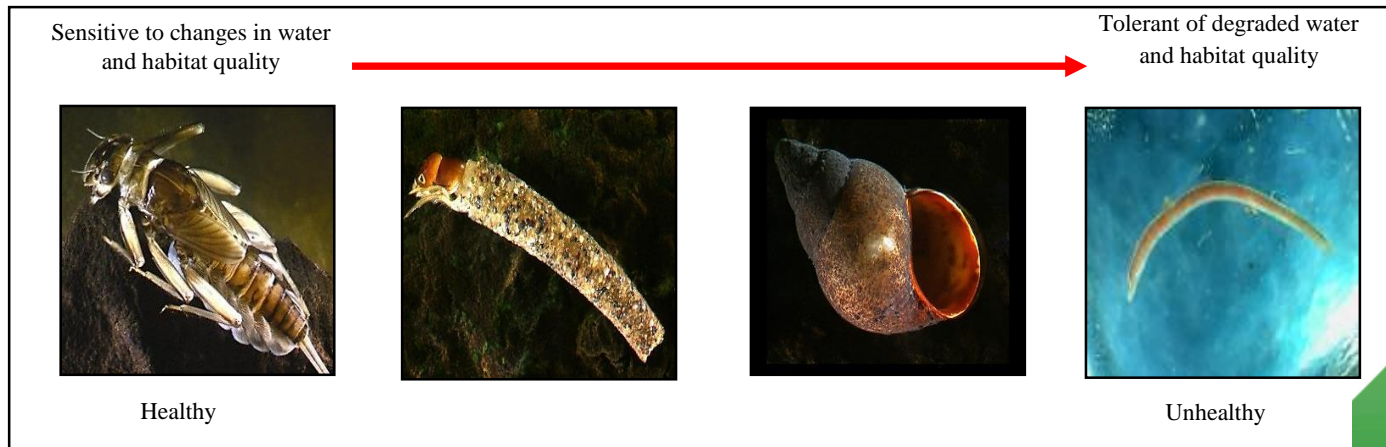
Opuha River

- Cyanobacteria and didymo issues

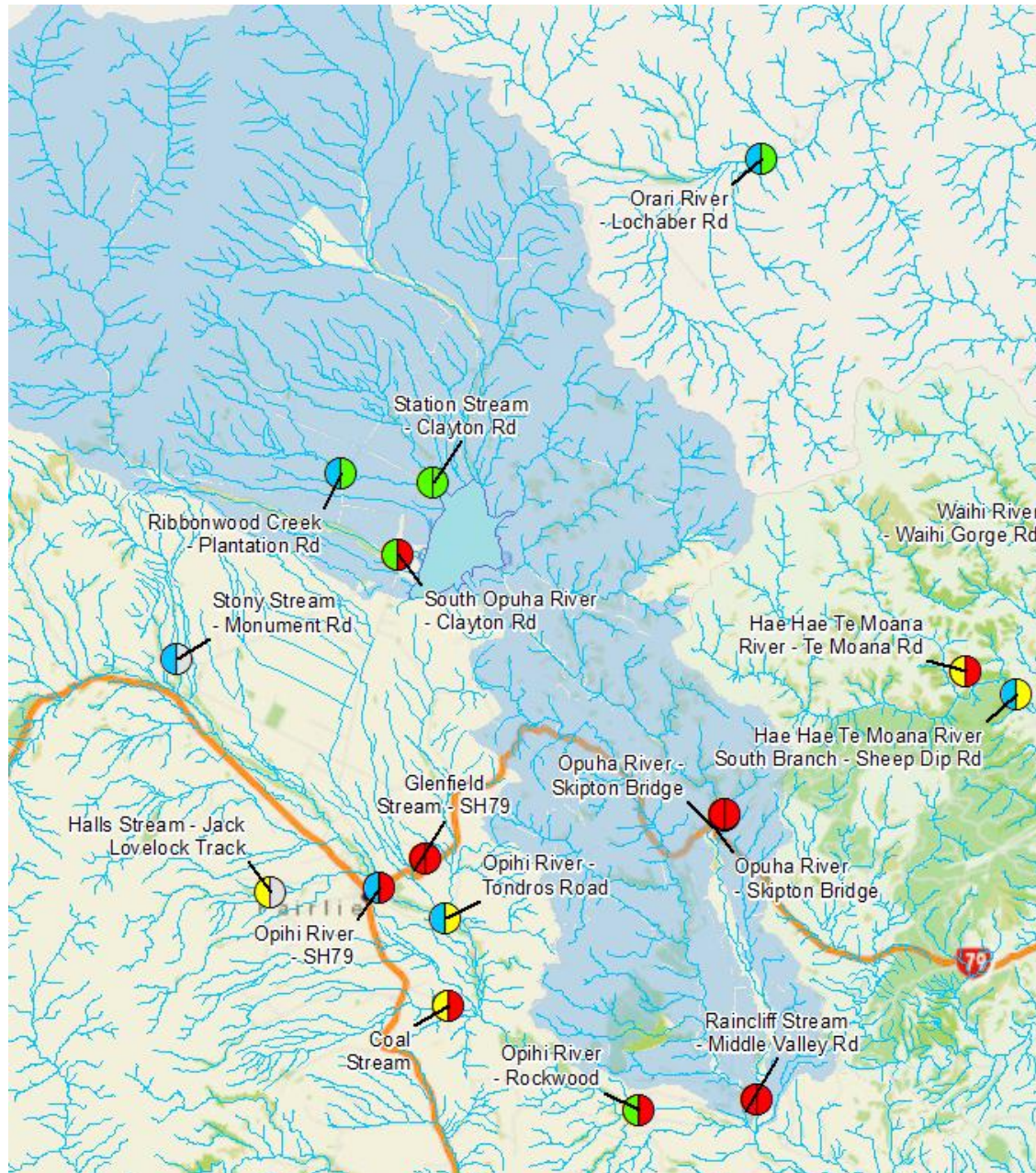
Stream health – Invertebrate communities

QMCI – Quantitative Macro-invertebrate Community Index

High QMCILow QMCI



QMCI scores



Invertebrates

QMCI - '5y average' | '2015/16'

- Very good
- Good
- Fair
- Poor
- Dry

