

RLCA Participation in the MOE Lake Partner Program

- Annual measurements of Total Phosphorus
- Annual Readings of Secchi Disc
- Commencing in 2009 – measurements of pH at request of members at 2008 AGM.

Interpretation of TP, Secchi and pH Results

■ Total Phosphorus

- ✓ TP concentrations are used to interpret the nutrient status since phosphorus is the element that controls the growth of algae in most lakes.
- ✓ Increases in phosphorus will decrease water clarity by stimulating algal growth → algal blooms, affect aesthetics and cause taste and odour problems.

Interpretation of TP, Secchi and pH Results

- ✓ Nutrient status can be categorized into three broad categories:
 - ◊ Oligotrophic – lakes with less than 10 ug/L TP → dilute – rarely exhibit algal blooms
 - ◊ Mesotrophic – lakes with TP between 10 and 20 ug/L → broad range from clear at bottom end of scale to moderate algal blooms near 20 ug/L
 - ◊ Eutrophic – lakes with more than 20 ug/L TP → persistent nuisance algal blooms

Interpretation of TP, Secchi and pH Results

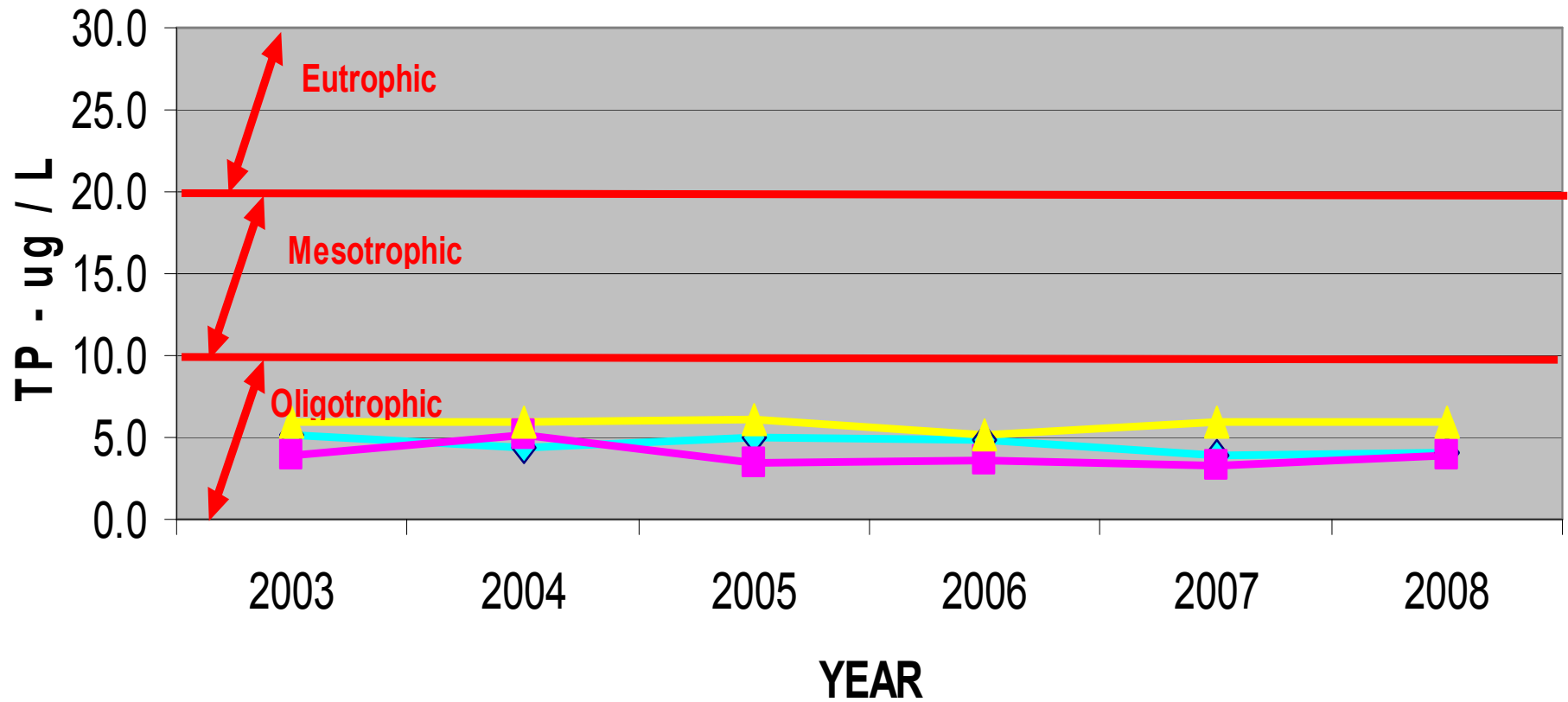
■ Secchi Disc

- ✓ Measures water clarity.
- ✓ Although water clarity will decrease with increases in TP that stimulate algal growth, clarity can also be altered by invading species such as zebra mussels.
- ✓ Water clarity readings are valuable to track changes in the lake that would not be noticed by monitoring TP concentrations alone.
- ✓ Use TP to evaluate the nutrient status of the lake.

■ pH

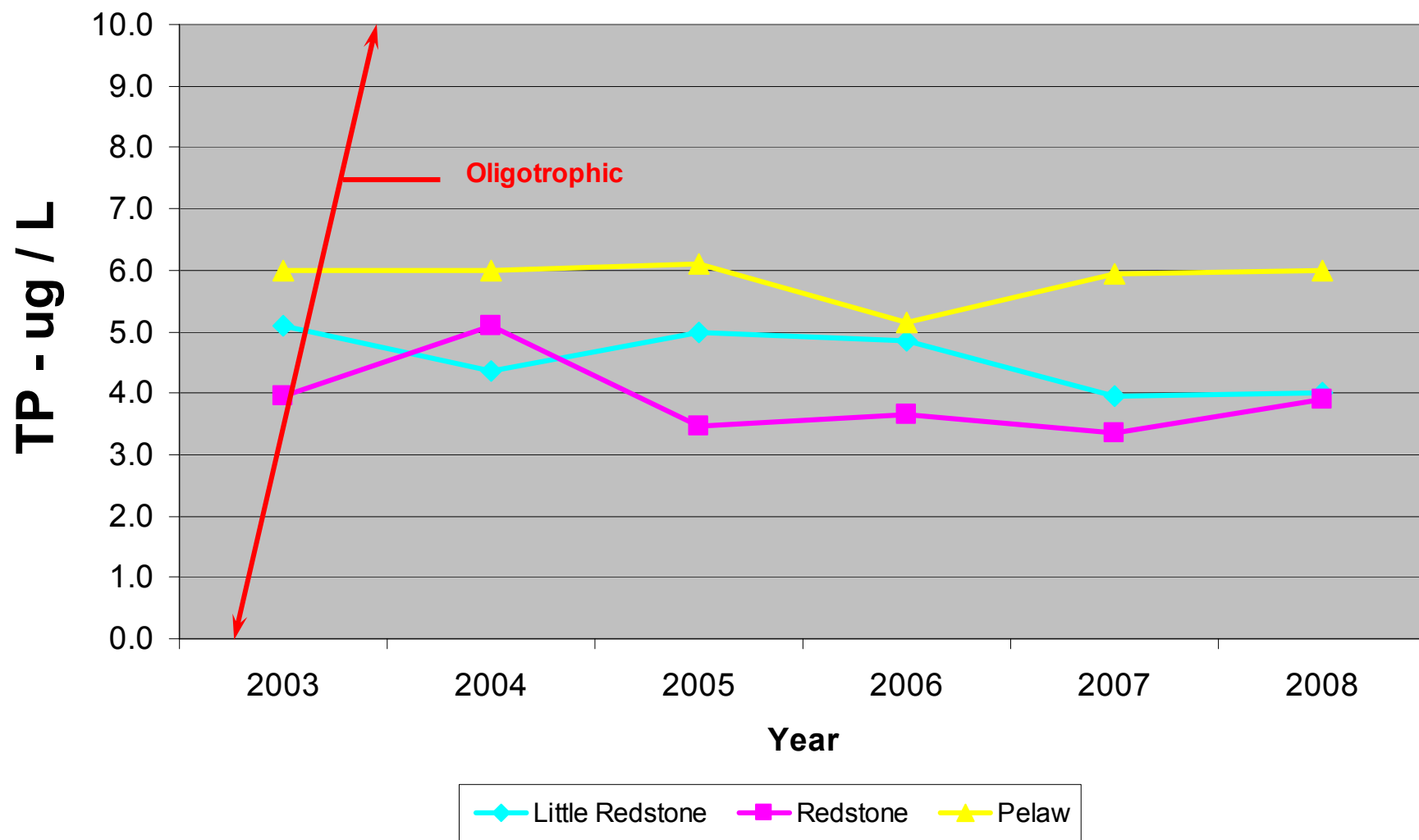
- ✓ pH below 7.0 indicates acidic and greater than 7.0 indicates alkaline.

Pelaw / Redstone TP Levels



◆ Little Redstone ■ Redstone ▲ Pelaw

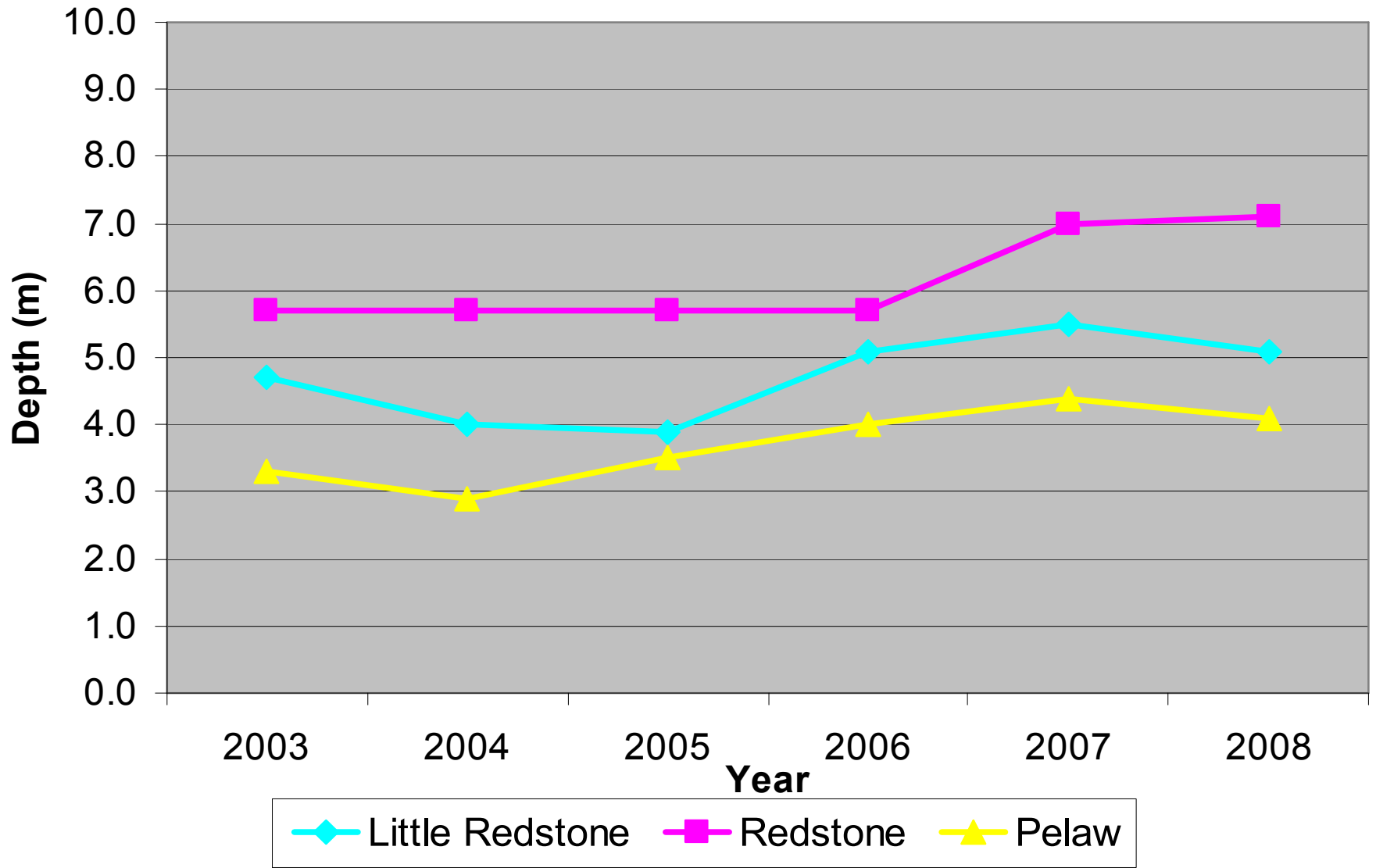
Pelaw / Redstone TP Levels



Secchi Disc



Secci Disc



pH Trending

