

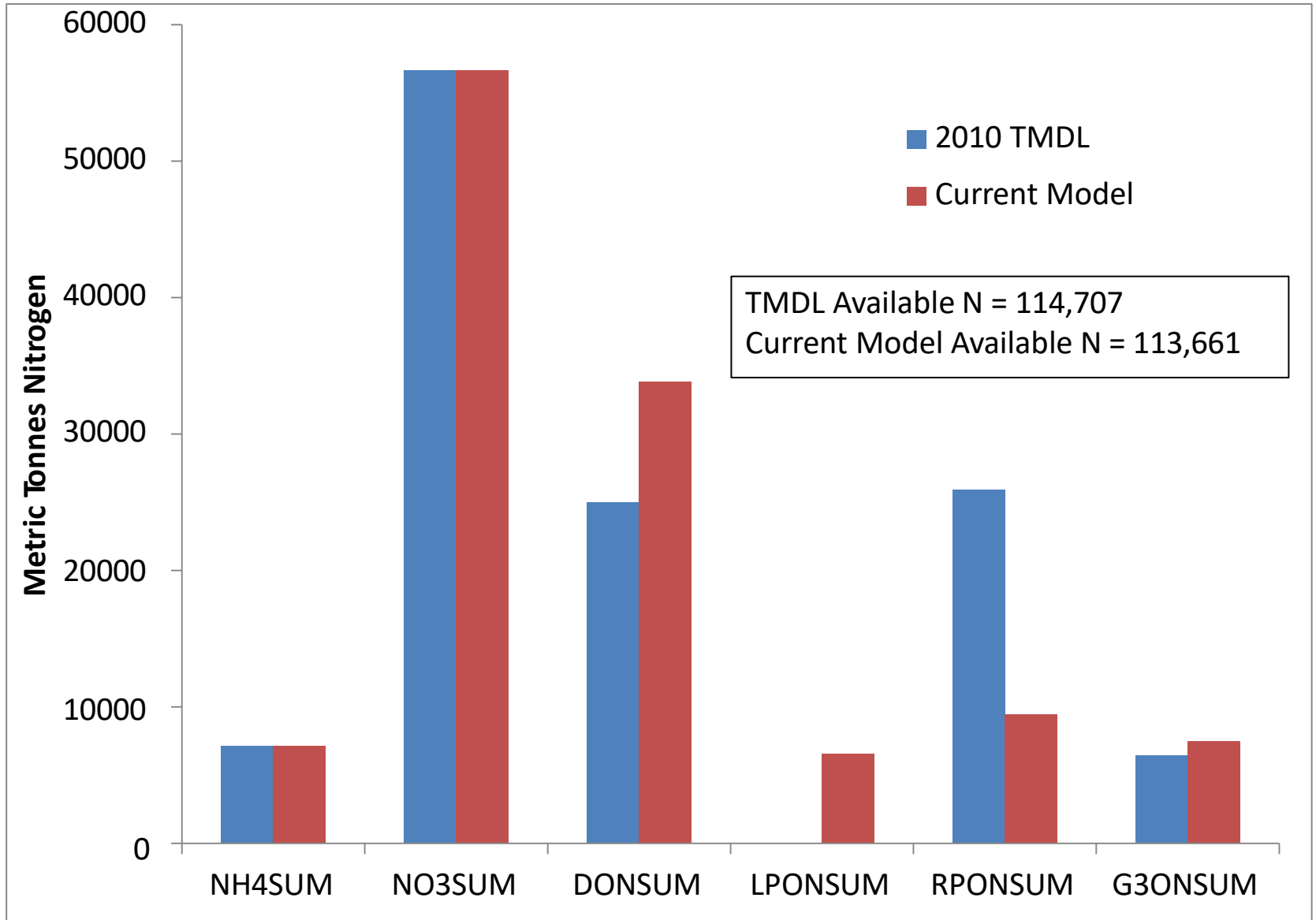
Active Loads

- Our goal is to compare the amounts of available nutrients and carbon loading between the 2010 model version and the current version. The 2010 model did not explicitly include G3 organic matter.
- We're particularly concerned with how the TMDL calculations might vary.
- One motivation for the new representation was improved quantification of the TMDL response to scour in the Conowingo. We want to take a look at this.

For Today

- Let's concentrate on watershed loads.
- Consider 1996 loads under TMDL conditions.
- Examine the loads with and without the added scour load from the Conowingo.

1996 Annual Nitrogen Load



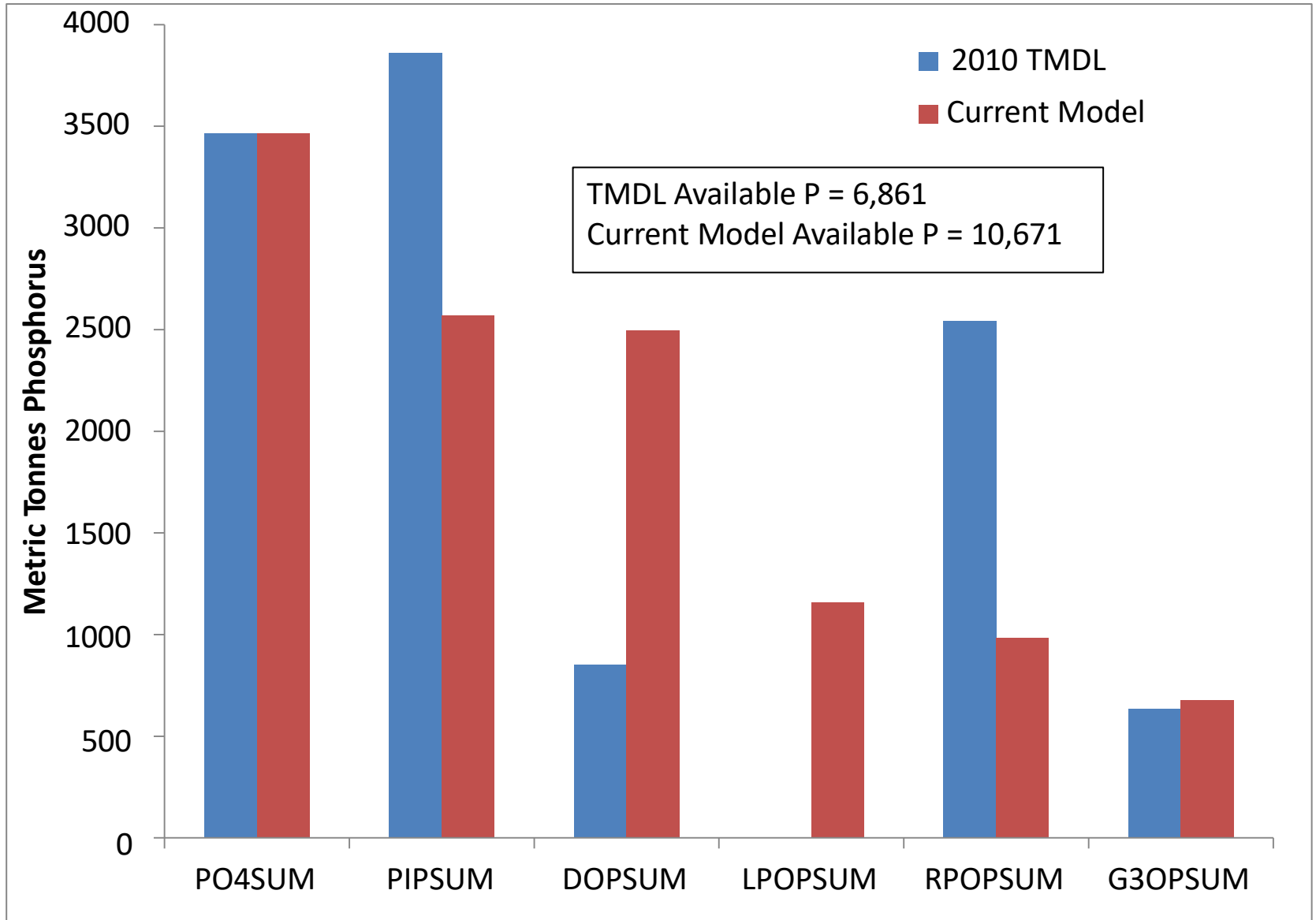
WSM
ORGN

Remove
Phytoplankton N

Remove
Dissolved
Organic N

Split
Remainder into
G1, G2, G3
Particulate N

1996 Annual Phosphorus Load



WSM ORGP + PIP



Remove
Phytoplankton P



Remove Dissolved
Organic P

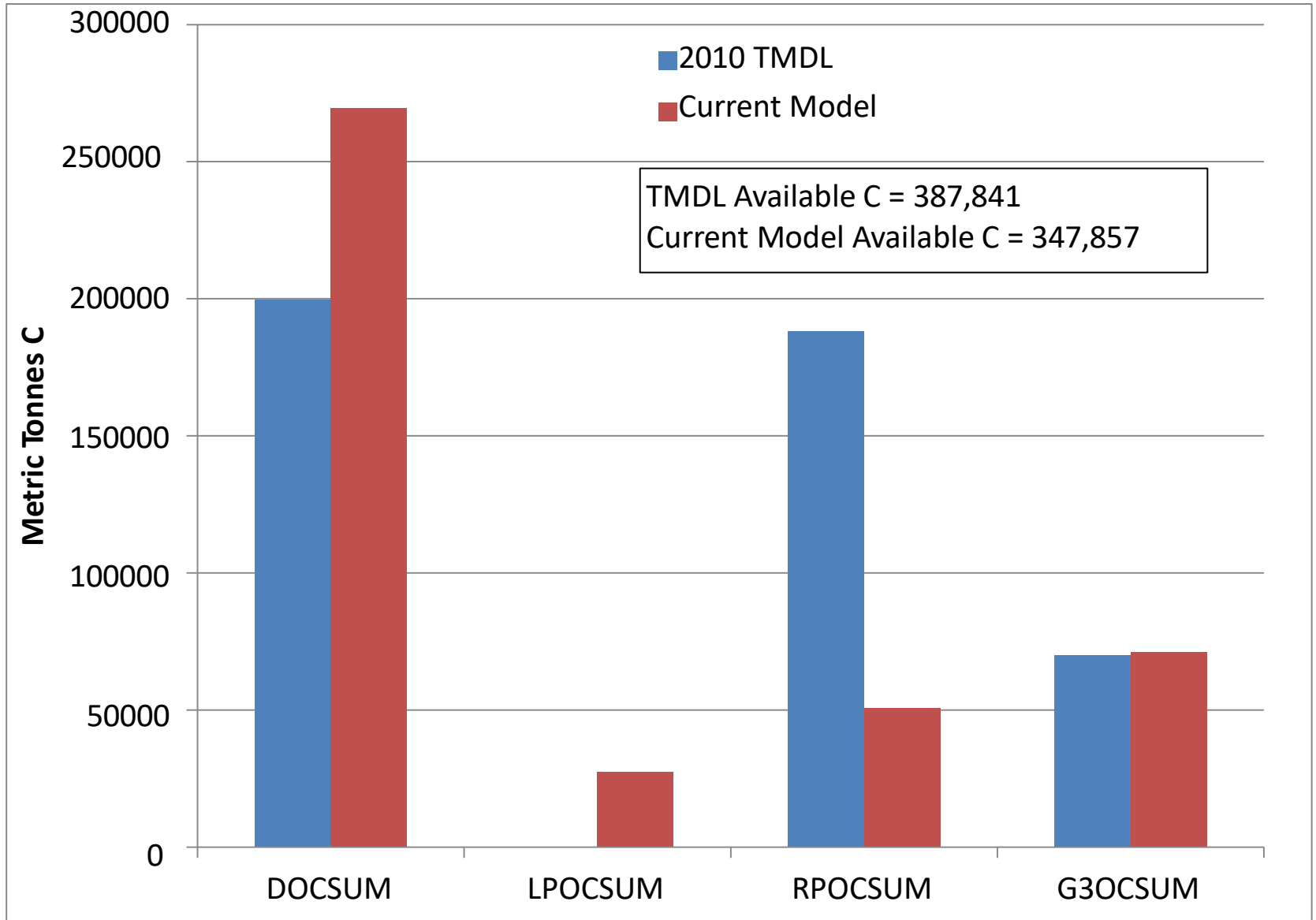


Remove Particulate
Inorganic P

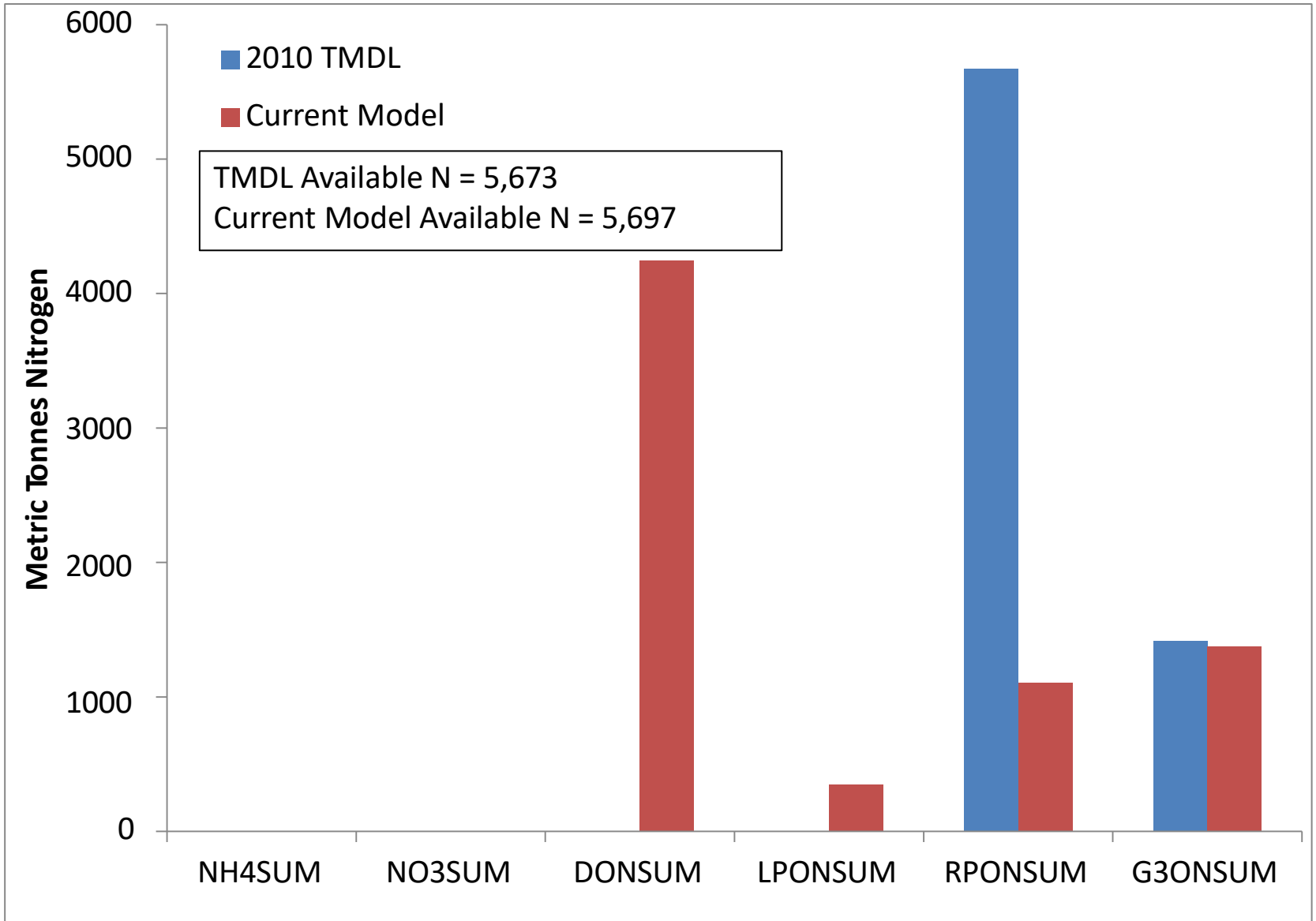


Split
Remainder into
G1, G2, G3
Particulate N

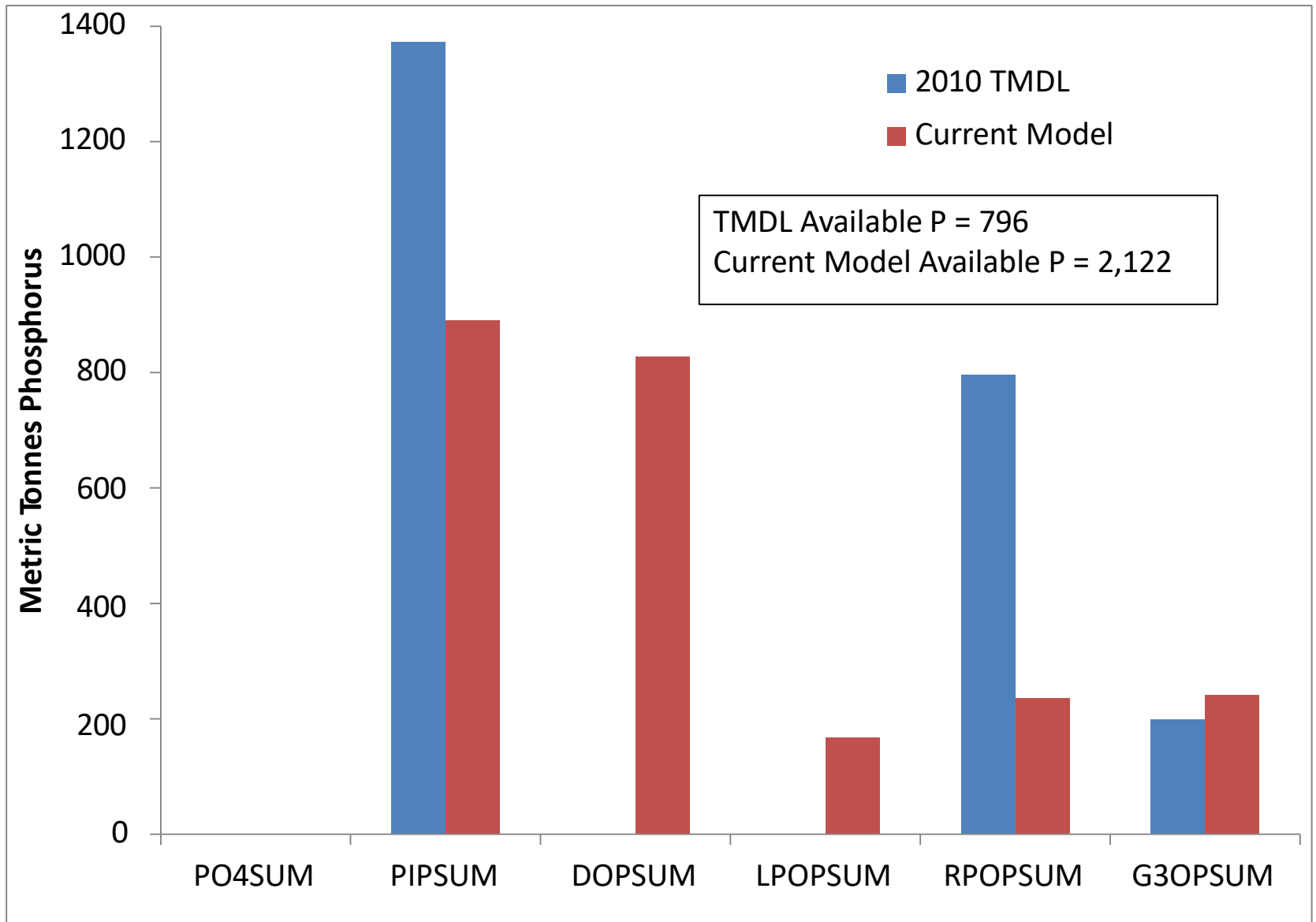
1996 Annual Carbon Load



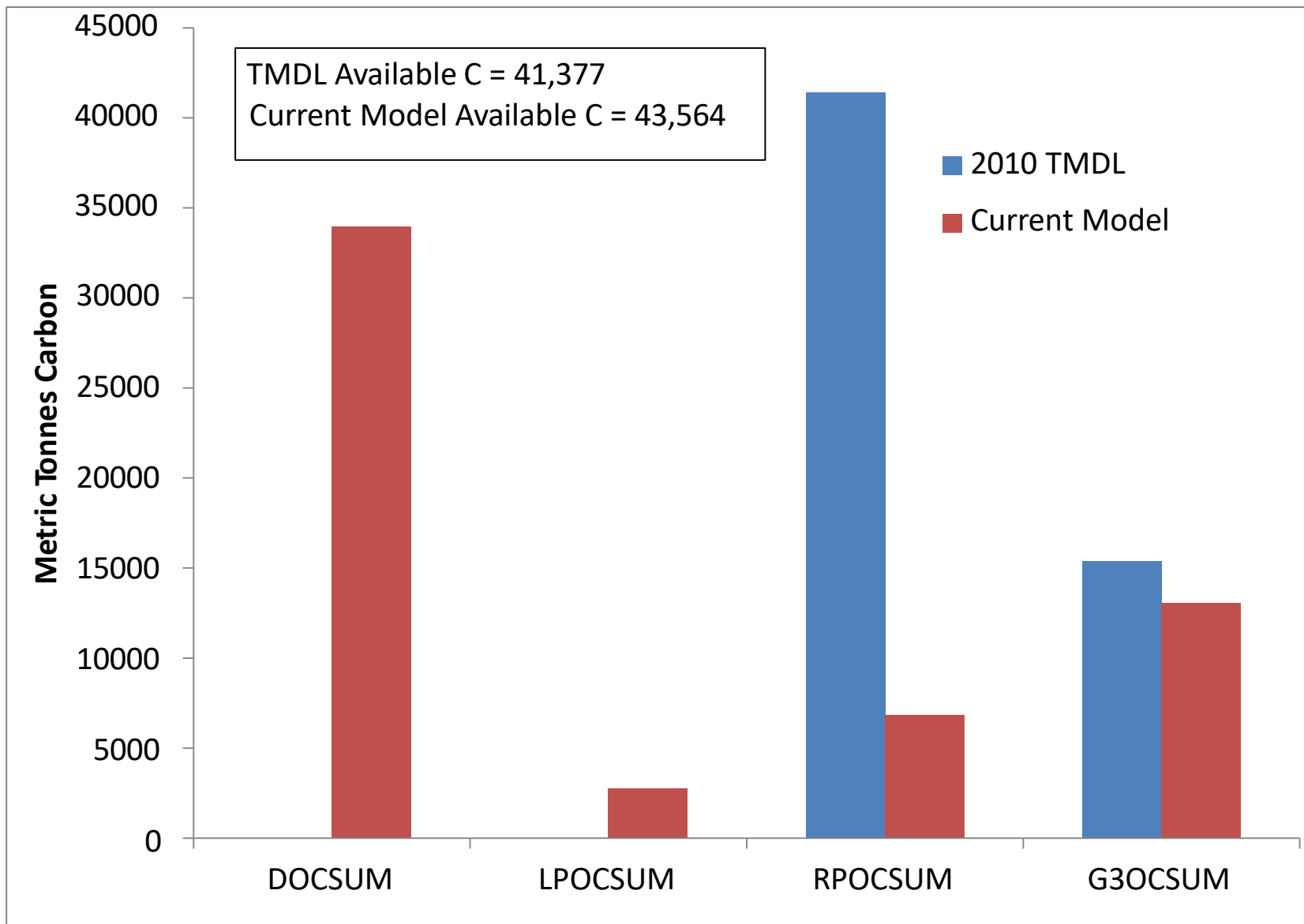
Nitrogen Scour Load

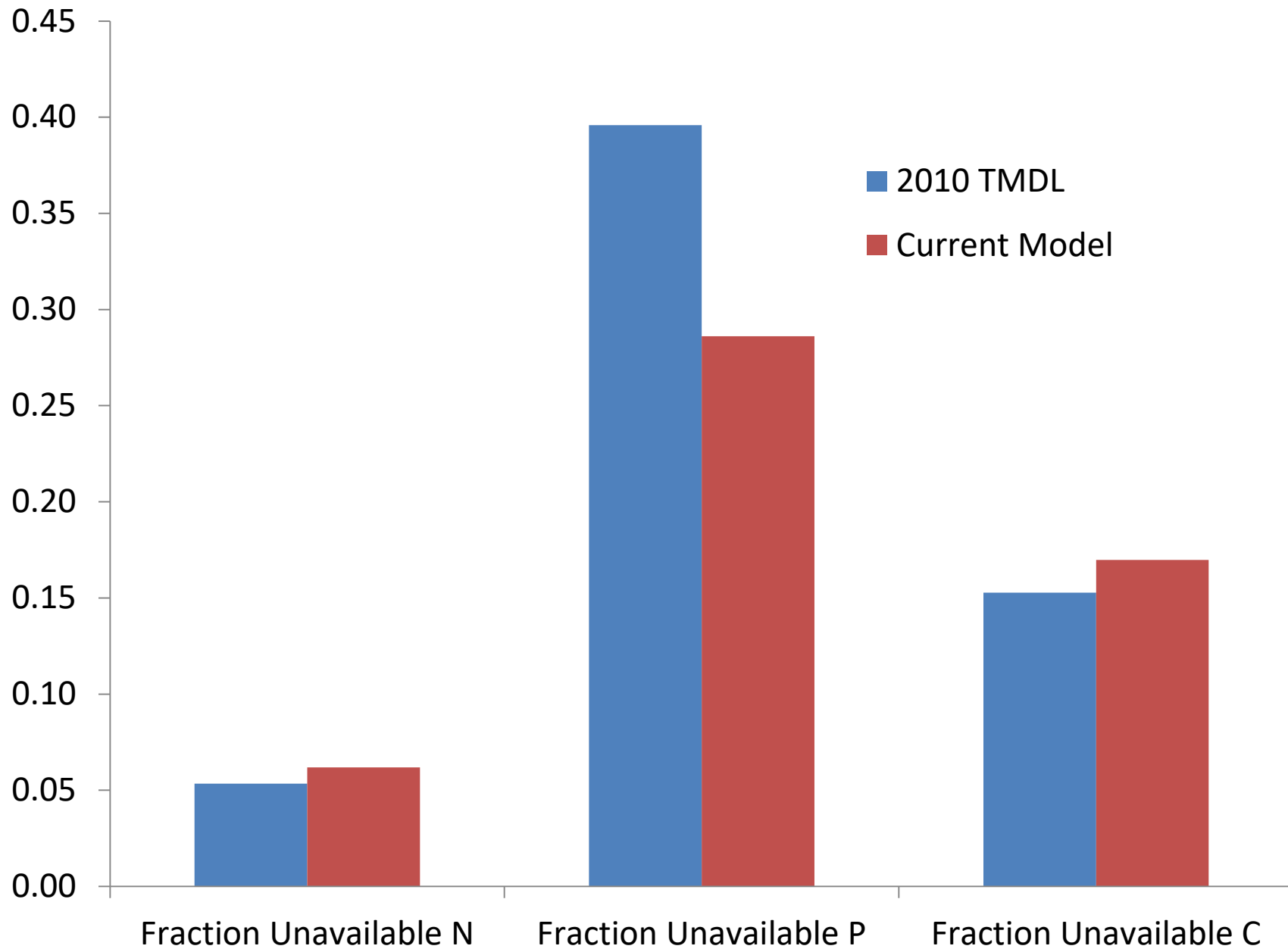


Phosphorus Scour Load



Carbon Scour Load





Conclusions

- There is remarkably little difference in the G3 organic matter loads between the two model versions.
- We have substantially shifted the fractions of available organic matter. This is a result of the analysis of Conowingo organic matter and of decisions in allocation of WSM loads to WQM.
- The decisions made in allocating WSM variables to WQM variables are more significant than the splits into G1, G2, G3. (dissolved fractions, reactivity of PIP)