

↳ Establish technical Team to evaluate data needs and appropriate objectives

↳ Transparency resolving process

Support TDEC on Dev of TMPL

Decision Making

Little Harpeth — how it fits in

End points discussion

Effects on ~~the~~ Water Authorities

Timeline for moving forward

- ✓ Understanding status of Data
- ✓ See progress unfold → TMDL

Results of data collected

TMDL

✓ ✓ Consensus
Clear understand / agreement on
TMDL endpoint

See what progress has been made

"adaptive management framework"

- ✓ Status of model ✓

- ✓ Resources to meet needs — TMDL
and GAPS

Timeline for moving forward

Delisting = Real improvement

listing ~~T.~~ phosphorus



D.O.

TMDL

over 5-10 yrs.



Improved biology
Reduced evidence of
harm

Feasibility - physical
economic

Low-flow &
High Risk



Should nutrients be treated as a critical condition?

Chronic vs. Acute effects

How do we decide?



"Calibration"

Agreement on Simulation period
2012? — on?

Parameters and sensitivity analysis
When and how to assess?

End points — Where? When? What?

Exceedence probability

Diel Range

Annual geometric mean

Criteria at a point / watershed

What is our goal? Delisting?

What would this require? Is this
enough? Timeliness vs. Certainty

D.O. Swing < 5

D.O. Absolute criterion > 5 (Standard)

N:P ("balance" per narrative)

Free PO_4

"Natural conditions run" \Rightarrow for N:P without anthropogenic influence

N
P
D.O.
 PO_4
ChlorA



Time Series

N conc. Chlorophyll
P conc.
N:P ratio
N:P natural conditions
TP: PO_4
D.O. ~~to produce diel~~
D.O. swing

→ '20 WQ
June-ish → models calibrated
and predictions for time series analysis

May or before

Release watershed model including 2019

↓
Identify scenarios for modeling / complete
by September '20

Sept.

Discussion of End Point values