

Decision making framework

HOW IS THE MRS WORKGROUP GOING TO MAKE DECISIONS?

HOW ARE WE GOING TO COMMUNICATE OUR DECISIONS?

January 28, 2019

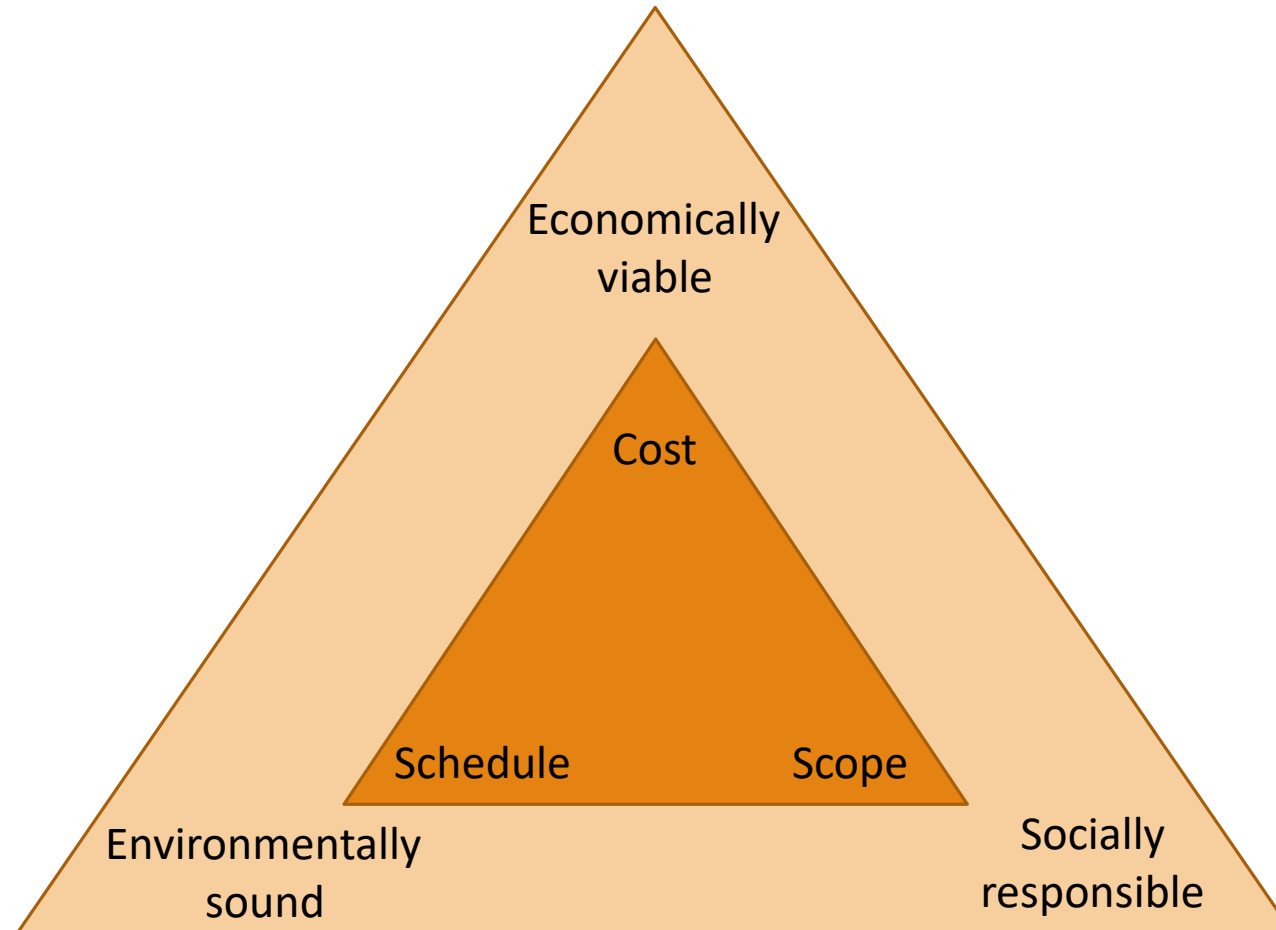
Project Management Principles



Triple Bottom Line



We need to overlay both principles...



What must the UNRBA do to meet requirements of the re-examination?

Using UNRBA tools, re-examine what DWR did in their modeling.

- Redo the analyses that DWR did for the 2011 rules
- Apply our updated model to the goals DWR established (meet the WQ Standard at NEU013B)
- Generate the reduction curve with phosphorus and nitrogen
- Use the watershed model to adjust the reduction curve for uncontrollable sources (e.g., forest)*

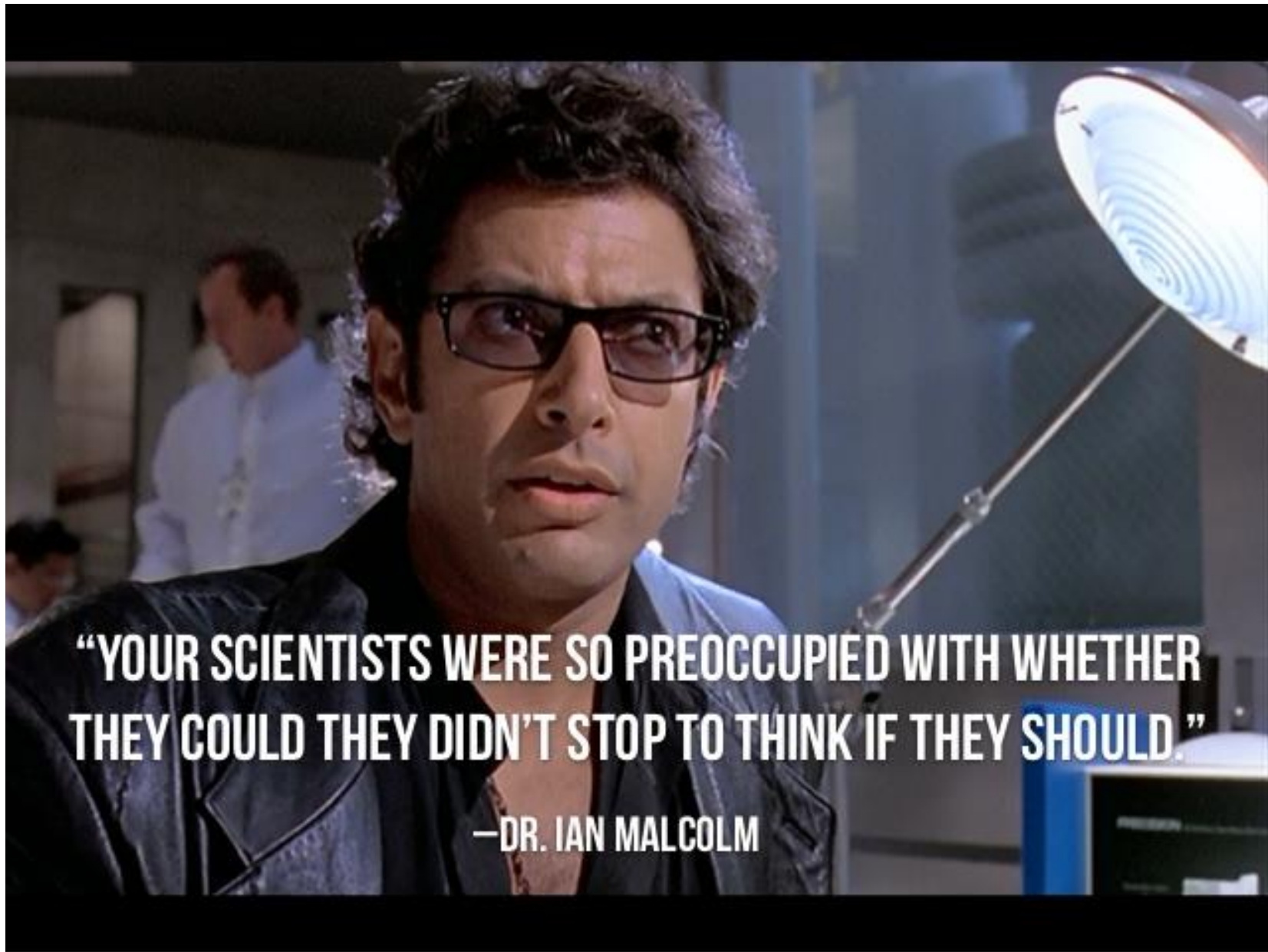
All of this was done with the lake model.

Everything else is a scenario,
with a potentially different goal

Scenarios about
management strategies

Scenarios about different
water quality standards

Scenarios about future
conditions



**“YOUR SCIENTISTS WERE SO PREOCCUPIED WITH WHETHER
THEY COULD THEY DIDN'T STOP TO THINK IF THEY SHOULD.”**

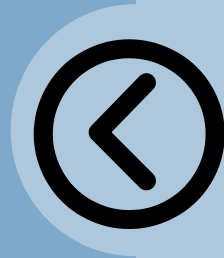
—DR. IAN MALCOLM

Top Request of Lake Model

Understand how watershed management affects levels of nutrients, chlorophyll, and carbon in the lake.

Understand how watershed management affects levels of nutrients, chl a, etc

Cost



Because multiple watershed management strategies could be evaluated using the watershed model, and each one would need to be documented, this could become quite expensive.

Schedule



This would happen after the watershed model is complete, and potentially after determining the magnitude of nutrient reduction needed.
Adds time to schedule, depending upon the number of watershed management strategies

Scope



This is different than understanding how reductions in the watershed affect constituent levels in the lake (which is required to complete the re-examination).
This is evaluating watershed management strategies (required for UNRBA strategy development)

Understand how watershed management affects levels of nutrients, chl a, etc

Social



What is the social benefit? How will this decision help people?

Economic



Economic cost to our communities?
To the watershed as a whole?

Environment



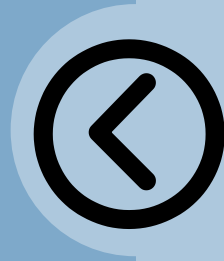
What is the environmental change from this decision? Can we show a benefit?

Top Request of Watershed Model

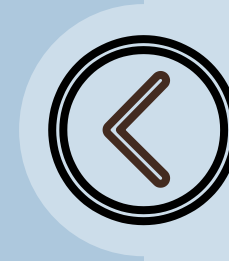
Understand which land uses or activities contribute to the highest nutrient levels

Understand which land uses or activities contribute to the highest nutrient loads

Cost



Schedule



Scope



Summarizing data by land use should not impact the cost significantly.

Summarizing data by land use should not take a significant amount of time, and should not affect the schedule.

Land cover is the basis for all watershed models (required). This should be fine outside of Durham. In Durham the land cover had to be modified b/c the categories did not provide appropriate loading. (Feasible?) One the watershed model is calibrated, it is relatively simple to pull out information by land use. Activities?