



BEYOND THE MODEL: COMMUNICATING RESULTS TO THE DECISION MAKER

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BEYOND THE MODEL: COMMUNICATING RESULTS TO THE DECISION MAKER

Who We Are and Why We Care

Model Strengths

Continuous Challenges

Successes

Final Thoughts

WHO WE ARE



9 Local Municipalities

1 Million+ Residents

Water Supply:
Lake Ontario, Lake Simcoe,
Groundwater

WHO WE ARE



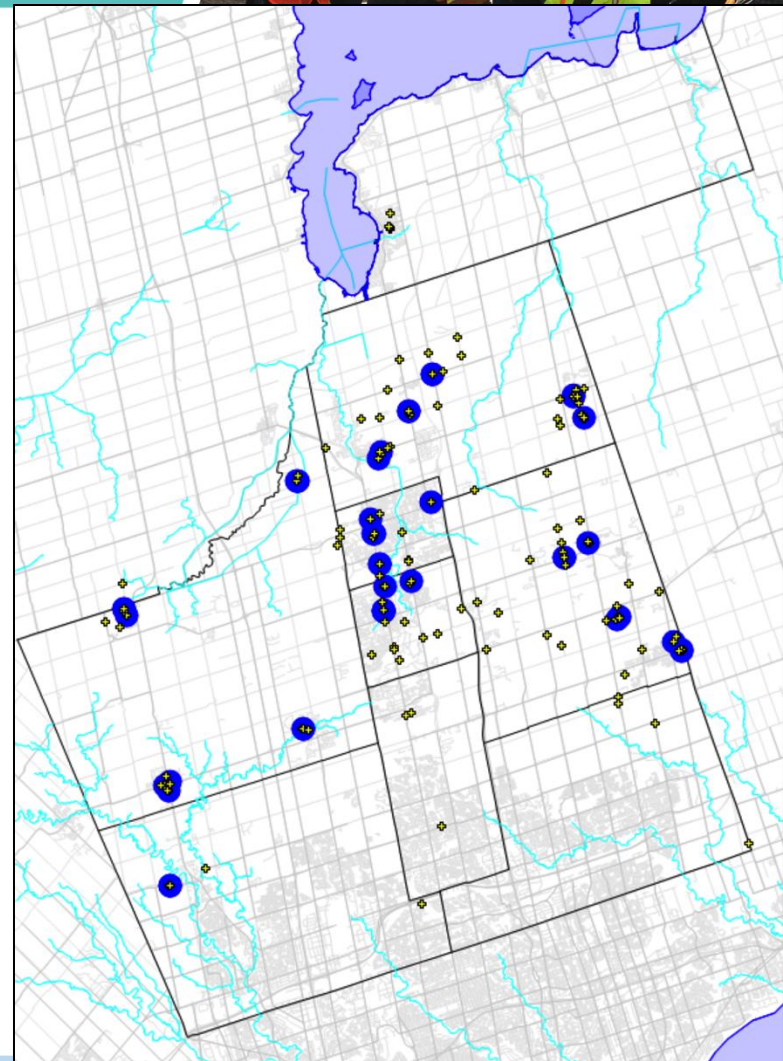
A Team of Water Quantity Analysts:

- Program Manager
- Hydrogeologist
- Program Coordinator*
- Well Specialist
- Field Technician

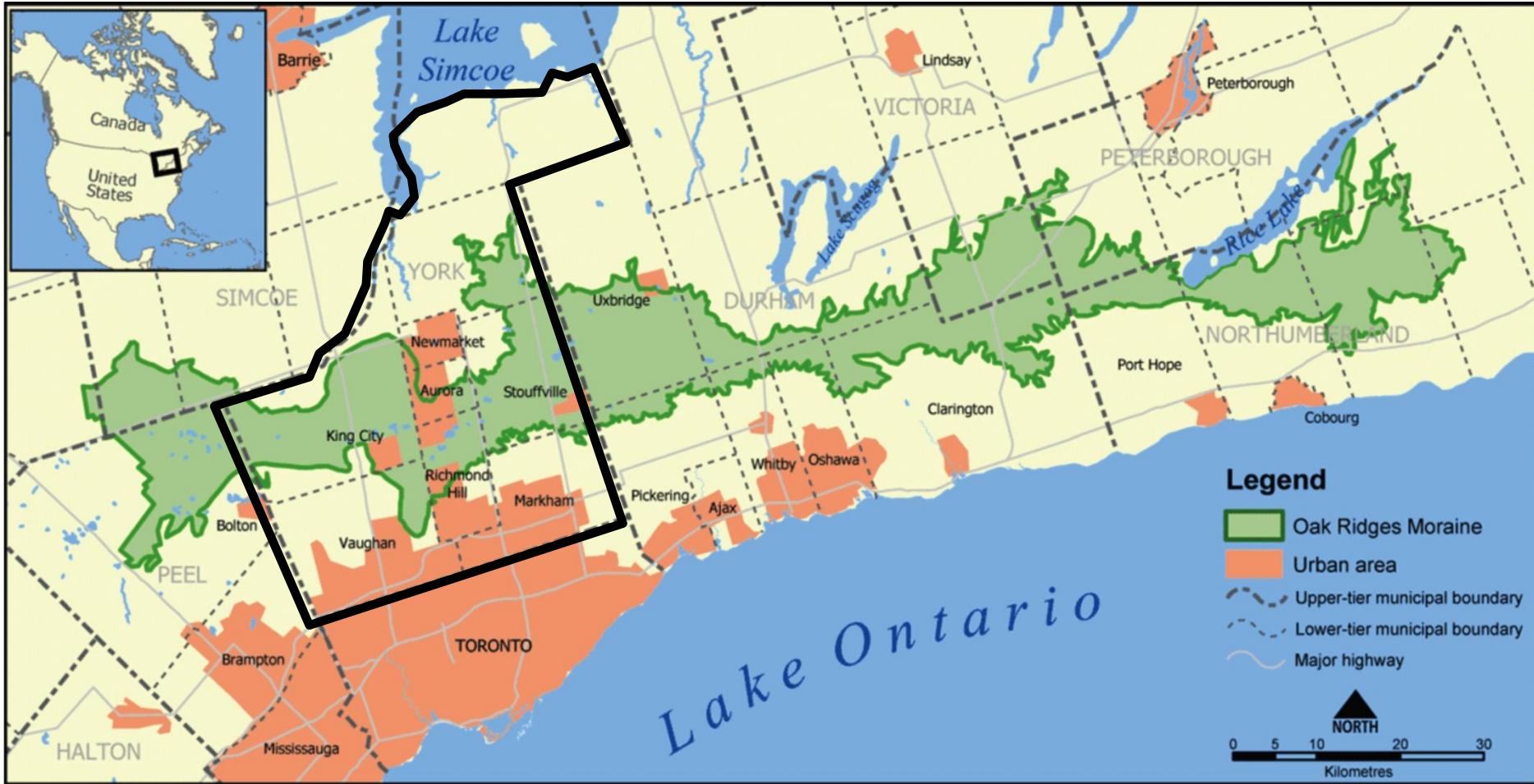
+ External Partners and Consultants

41 Production Wells

200+ Monitoring Wells



WHY WE CARE



OUR MODELS HAVE...



- Helped to better characterize the hydrogeologic function of the Oak Ridges Moraine;
 - Advanced our understanding of the local/regional groundwater system;
 - Provided a quantitative approach for analysing potential impacts of development on groundwater quantity and quality;
 - Helped to assess the impact of municipal pumping on groundwater levels and baseflow to water features;
- + ... many, many other benefits!

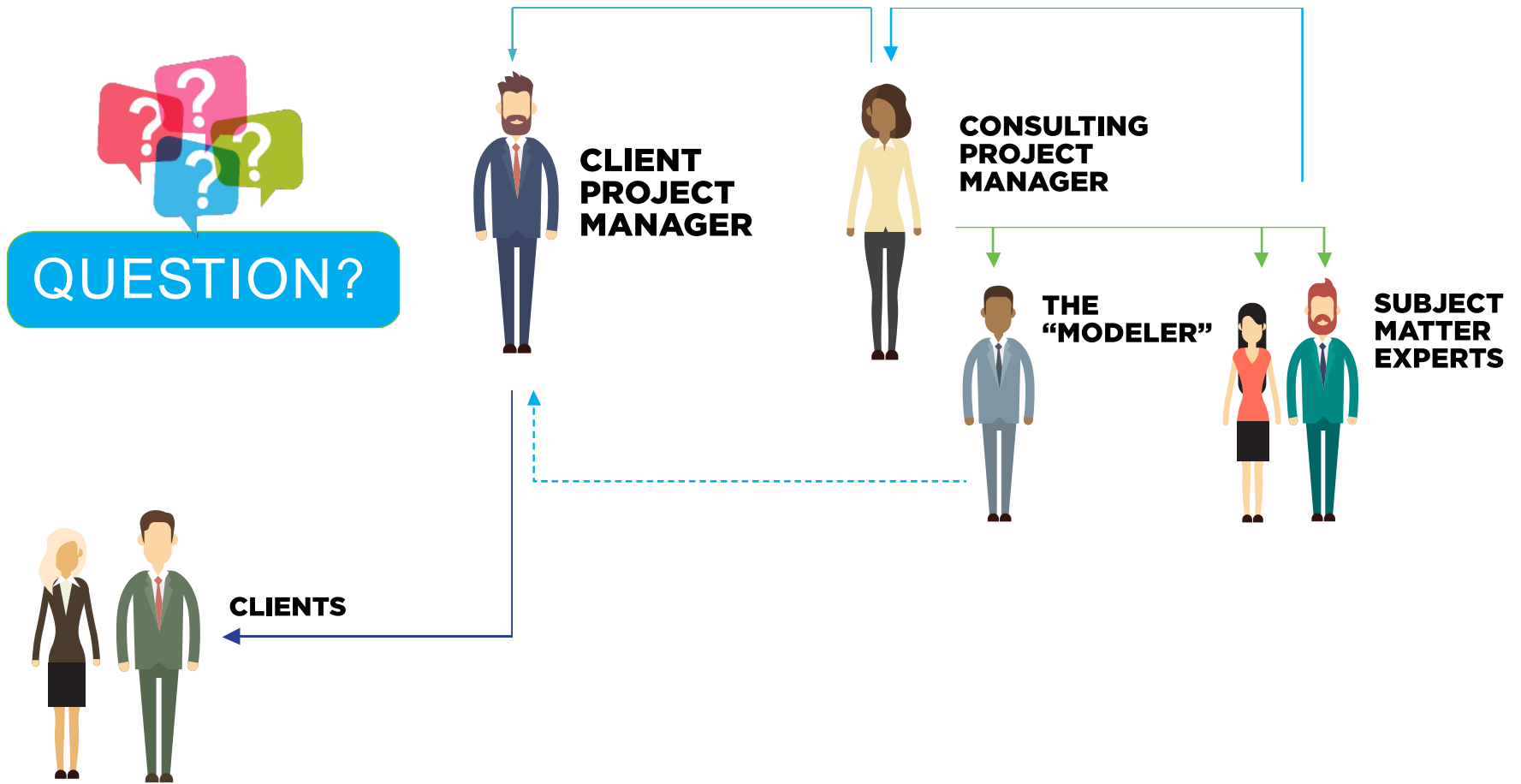
All Great Things!

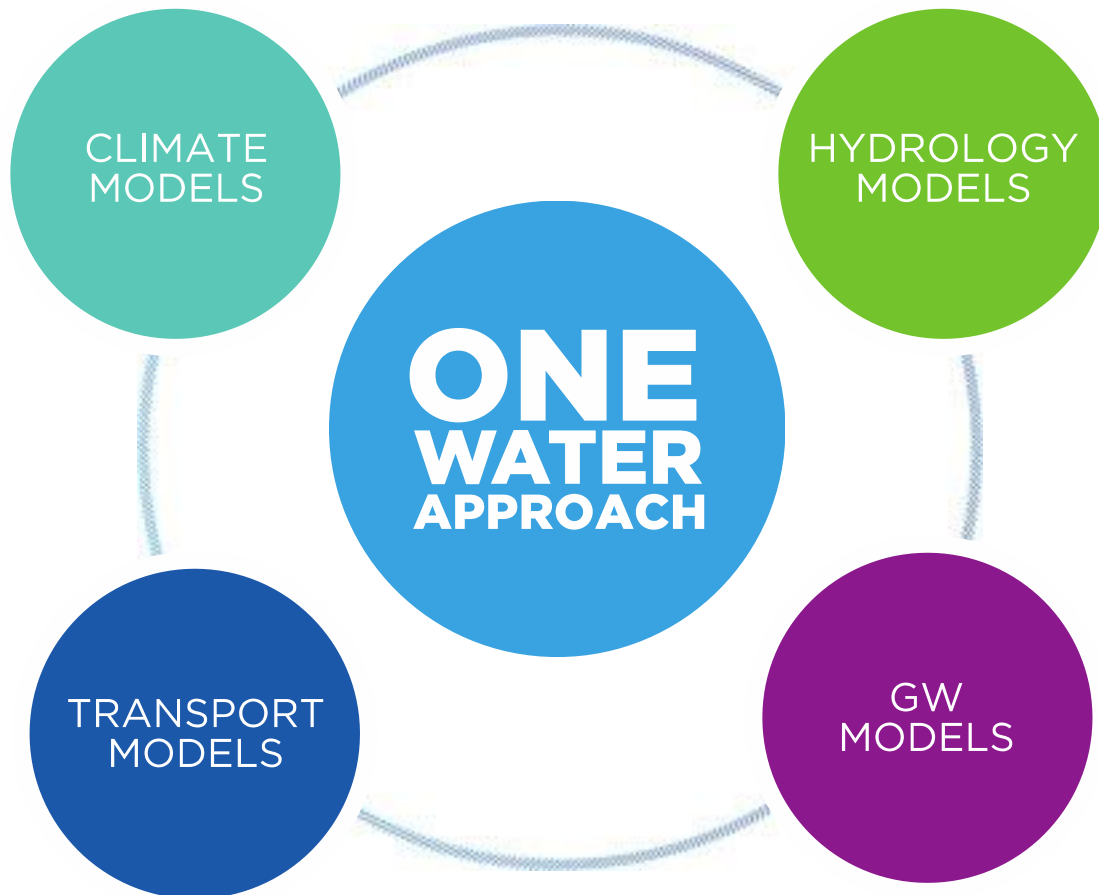
CHALLENGES

But at times...



CHALLENGE #1 BROKEN DIALOGUE





ONE WATER APPROACH

Multidisciplinary

What are the strengths of the receiver?

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What adds the most value to arriving at a multidisciplinary solution (if required)?

Functionality and Usability

Will such models be built that only a select few can apply?

Are we modeling because we can?

Or because we need to?



At the end of the day, the Modelling Process is more than just providing an answer to a question.

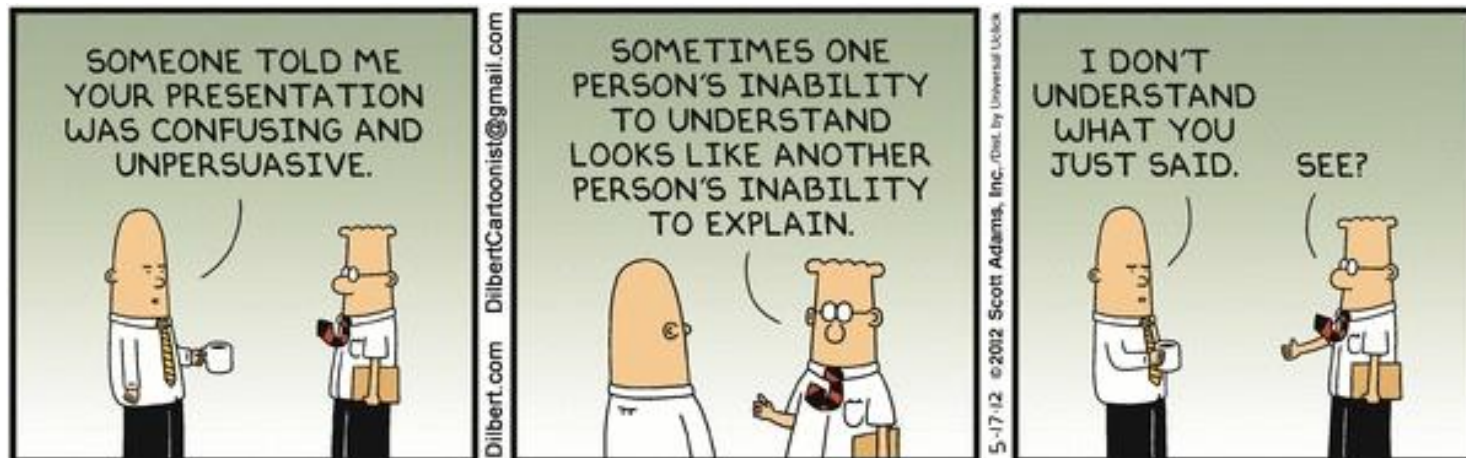
IDENTIFYING DATA GAPS
CONCEPTUAL REFINEMENT
TRANSFERRING KNOWLEDGE
CRITICAL THINKING



Modeler 'speak' – not everyone understands it;

Documentation:

- If incomplete, poses a challenge for a new team member to follow previous study;
- Is the only way a 'non-modeler' can review; must be comprehensive.





FOCUS ON THE QUESTION.

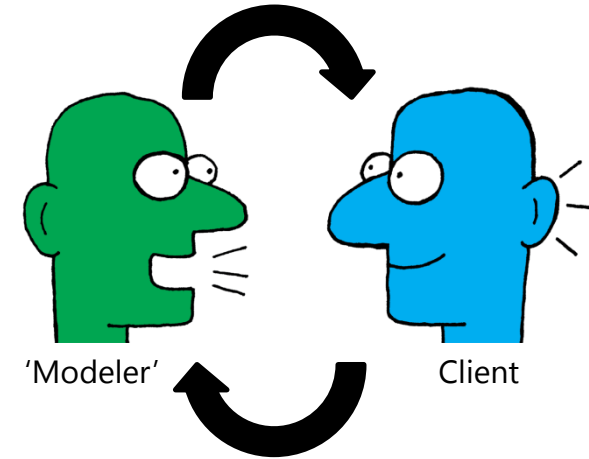
**A MODEL BUILT FIT-FOR-PURPOSE
(SOMETIMES VERY SIMPLE).**

**KNOWLEDGE TRANSFER
(WHAT YOU KNOW/DON'T KNOW)**

MODEL DEVELOPMENT

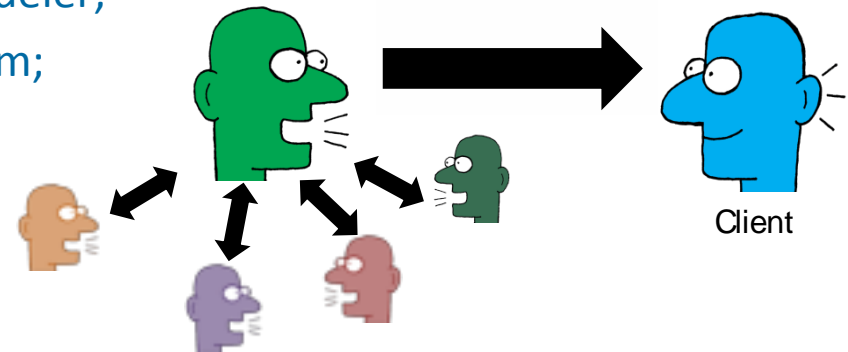
Extensive Communication between Client and Modeler:

- Clear Problem Statement + Expectations;
- Conceptual Understanding;
- Data Exchange; and,
- Simulation Approach (simple vs. integrated).

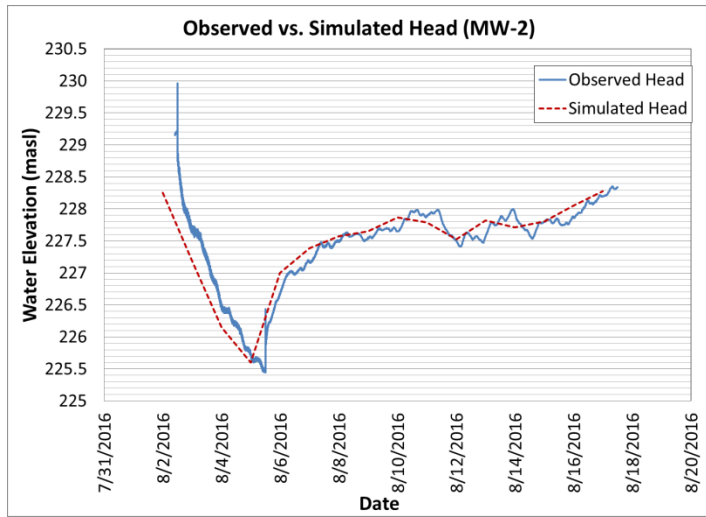


MODEL APPLICATION

- Some Communication between Client and Modeler;
- Interaction between Modeler and Internal Team;
- Model Processes;
- Interpretation of Results; and,
- Communicate Learnings.

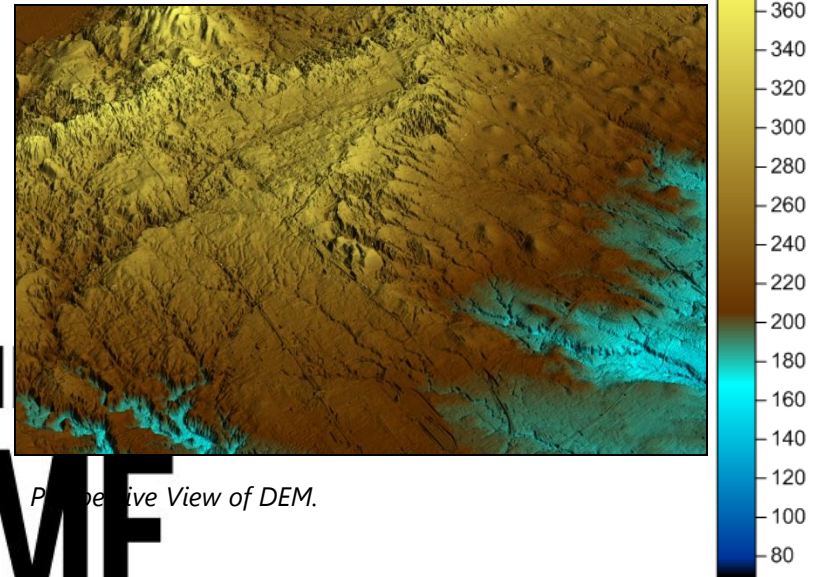


SUCCESS #3 GRAPHICS

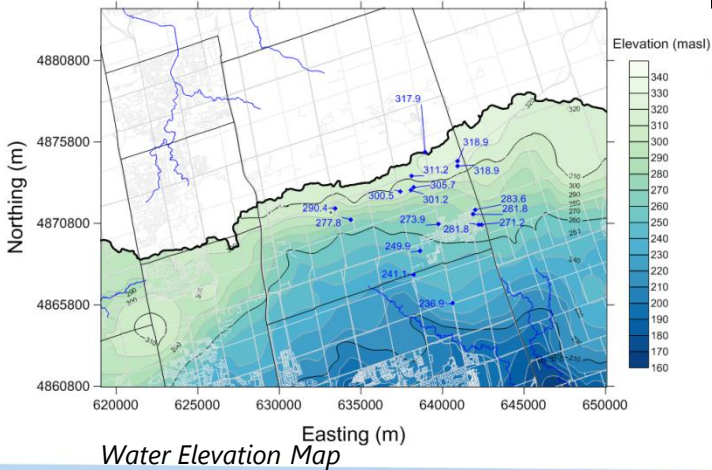


Don't just tel

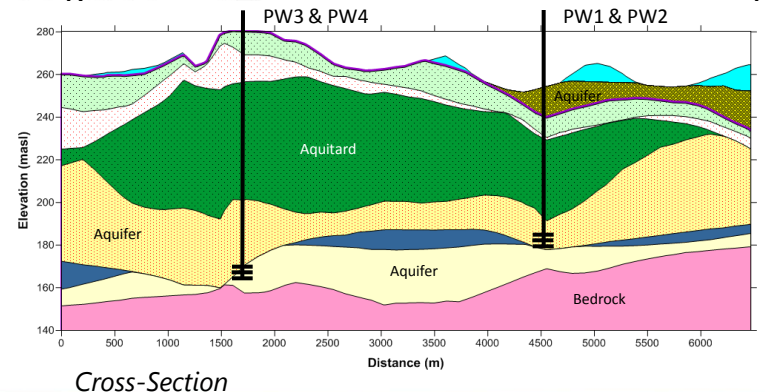
SHOW ME.



Perspective View of DEM.



Water Elevation Map



Cross-Section



**“MODELS HAVE NO VALUE,
MODELING DOES.”**

QUESTIONS?



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THANK YOU,

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