

The Importance and Use of Lake Water Quality Data

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CWC

Invasive Aquatic Plants



Algae Blooms



Harmful Algae Blooms (HABs)



Symptom Vs. Cause Vs. Cure



Successful Lake Management

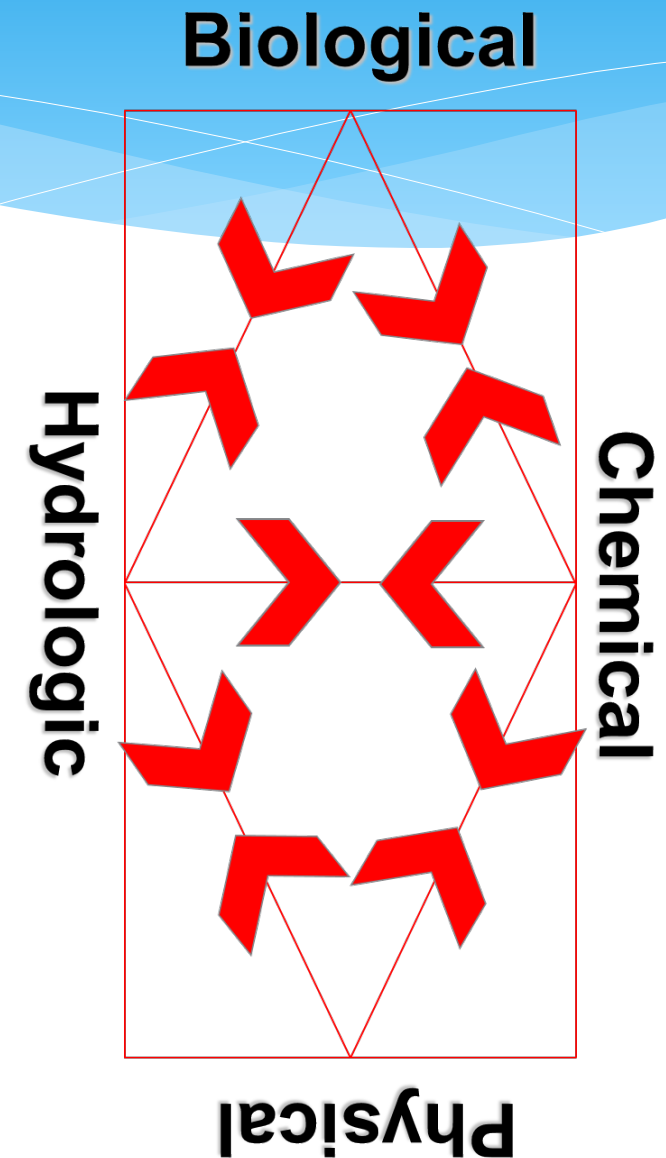
*Don't Just Treat The Symptom....
Correct the Cause*

To ID and Address the Cause of Lake Problems

Requires Data

Using Data To Manage Deal Lake

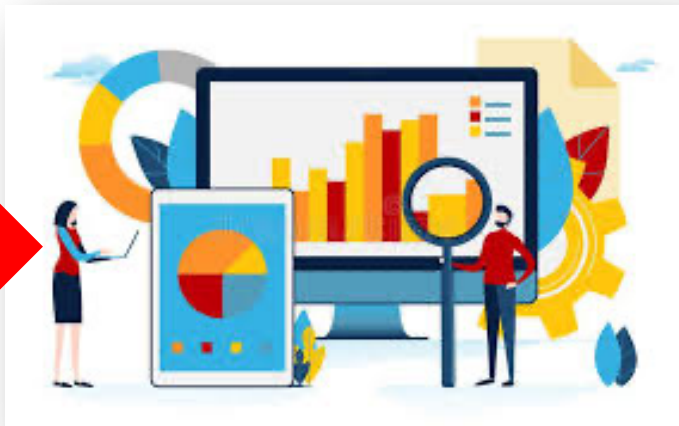
- Deal Lake is defined by unique combination of physical, hydrologic, chemical and biological attributes.
- Success of restoration and management requires understanding these attributes.
- Successful restoration and management is directed by data... not done helter skelter.



Data Collection and Analysis



- Since the 1970s data has been used to guide the restoration of Deal Lake
- Data IDs and quantifies the causes of the lake's ailments
- Data helps us identify the correct measures needed to address the lake's problems
- Data is the supporting foundation for all of the grants received over the past 40+ years by the DLC

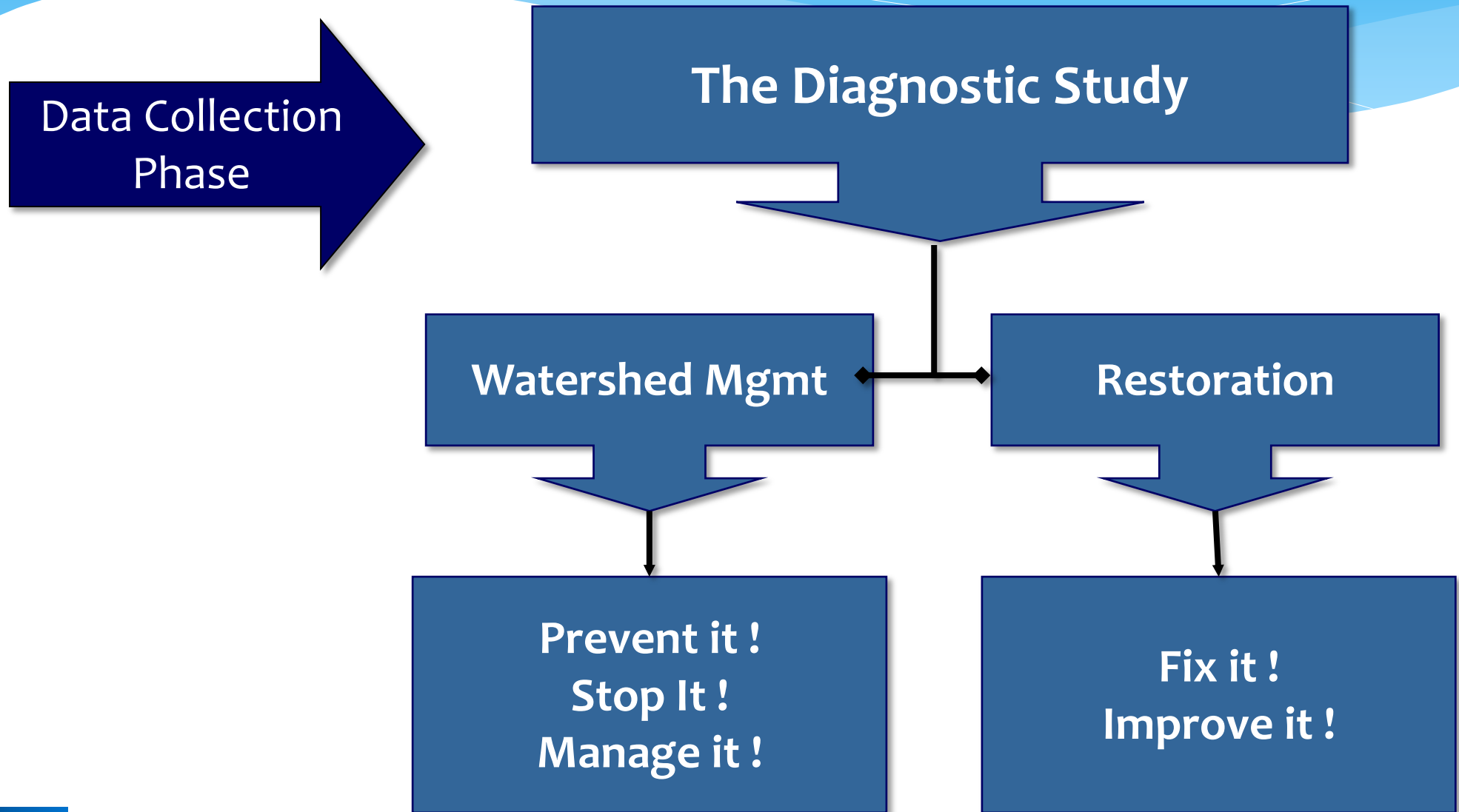


Deal Lake Restoration and Management Plan

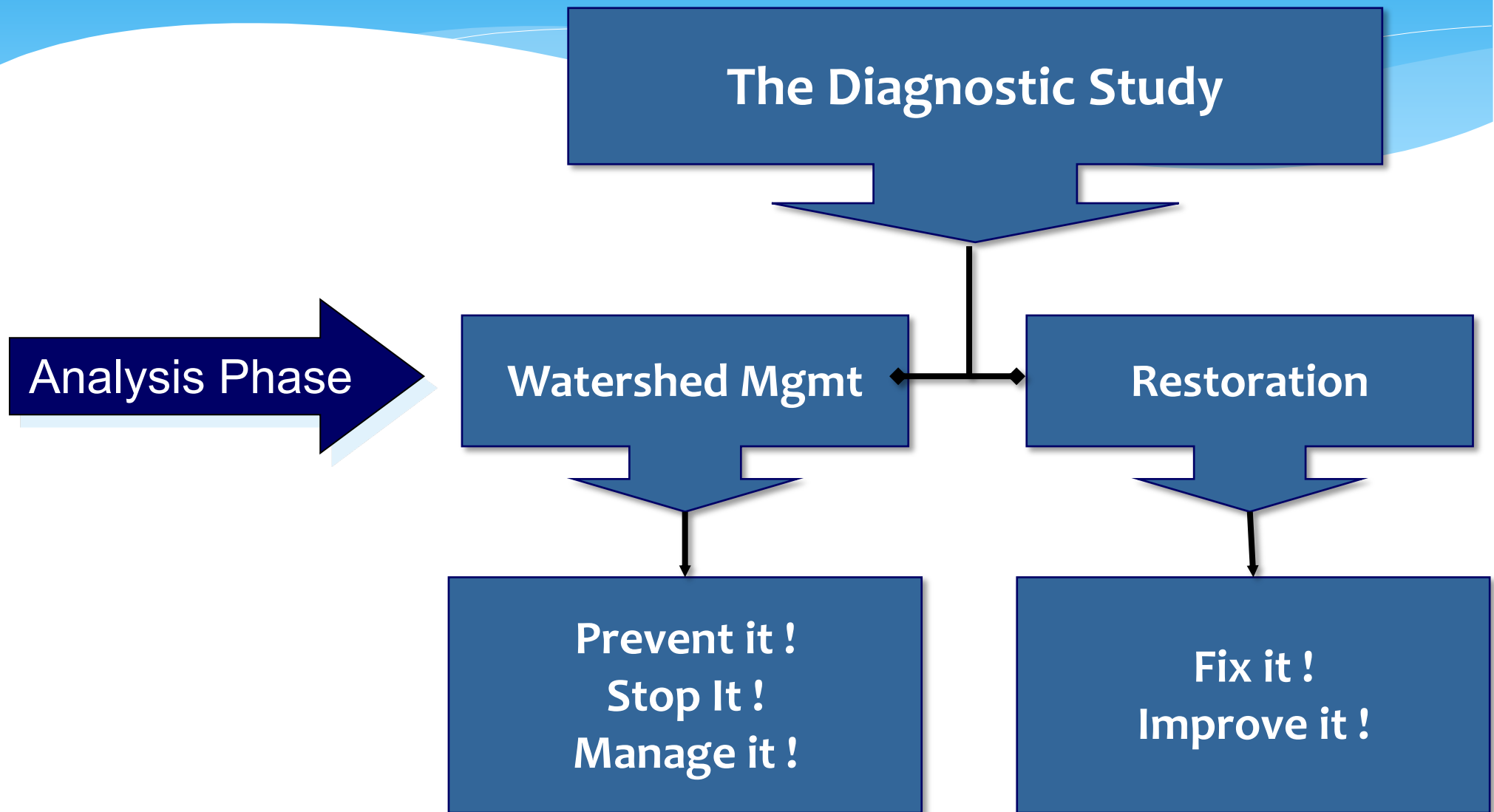


You Wouldn't Build A House Without A Plan

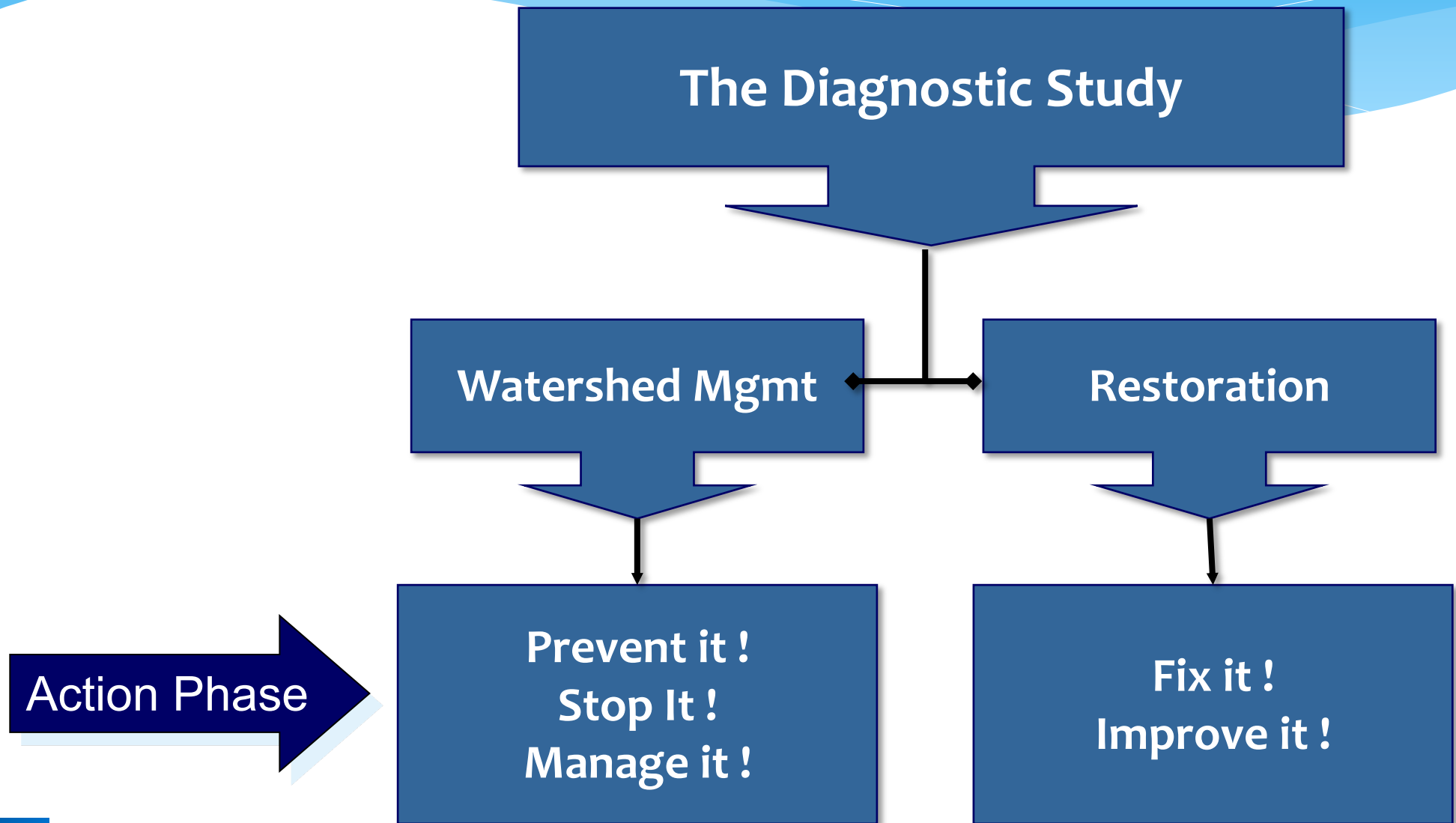
Data Collection and Utilization Flow Chart



Data Collection and Utilization Flow Chart



Data Collection and Utilization Flow Chart



A scenic view of a lake with a forested shoreline. In the foreground, the water is dark blue with gentle ripples. The shoreline is lined with trees showing autumn foliage in shades of green, yellow, and orange. A prominent red building with a white slide and a small white shed are visible on the right. The sky is blue with scattered white clouds. The text "A Lake is a Reflection of Its Watershed" is overlaid in white, sans-serif font.

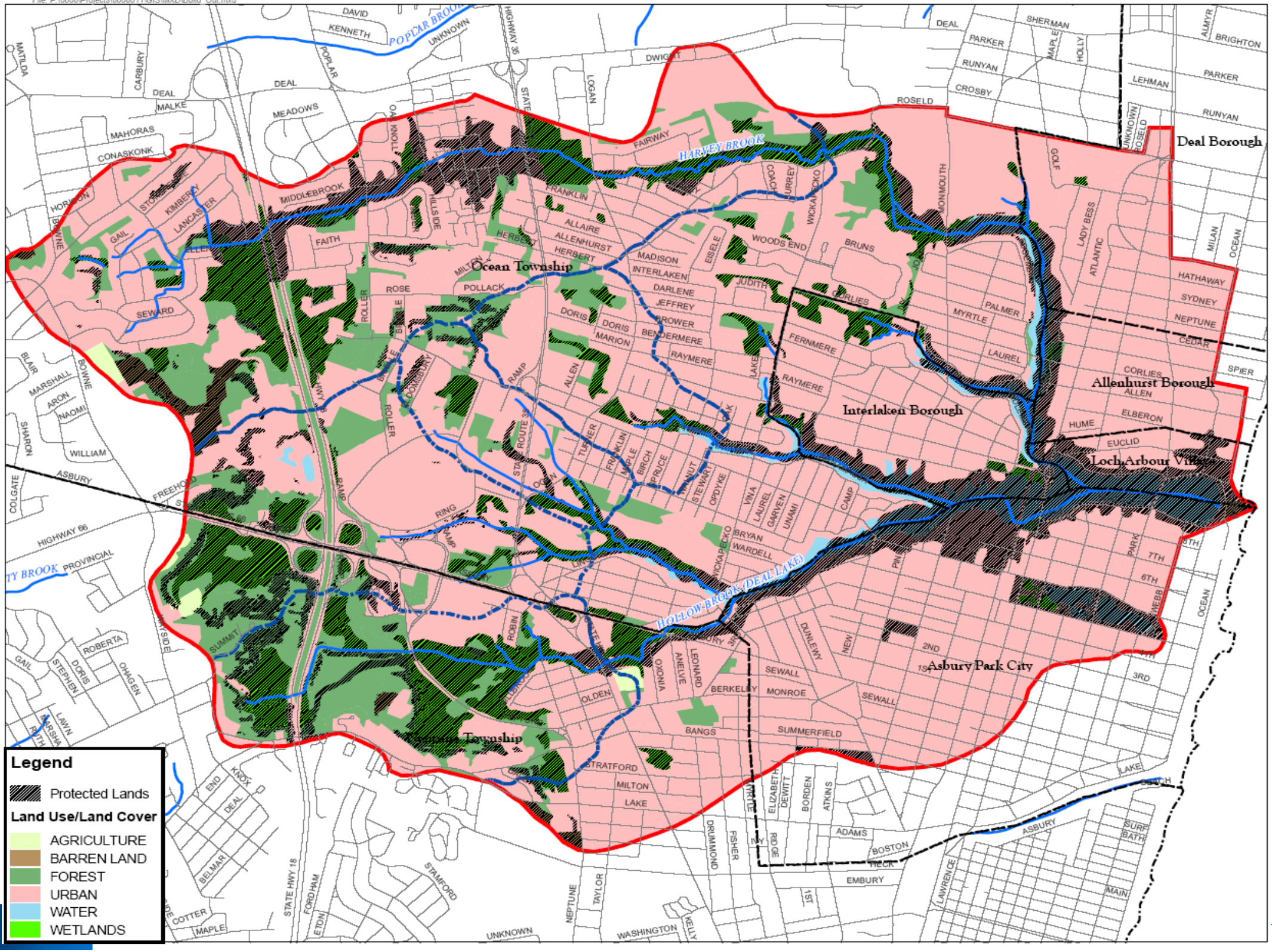
A Lake is a Reflection of Its Watershed

NALMS....2008

Lake/Watershed Connection

Starting with the 1983 EPA Clean Lakes Study data shows Deal Lake's problems linked to watershed development and especially lack of adequate stormwater (SW) management.





Data Collection and Root Cause ID

- Water quality data provides a *snapshot of lake's current status*
- Piecing together these “snap shots” *creates a “movie”* of how stormwater runoff and pollutant transport affects the lake's long-term WQ.
- The data guide where to implement SW projects
- The data used to evaluate over-time the success of SW projects

In Summary

- Data quantifies the status of the lake and helps us to identify how best to improve Deal Lake's water quality
- Data enable us to distinguish between the symptoms and causes of the lake's problems
- Data is the foundation of the lake's long-term restoration and management plan
- That plan and supporting data enables the DLC to rank and prioritize the measures needed to address the causes of the lake's impairments.
- Data and has enable the DLC to obtain the funding needed to develop and implement lake restoration solutions

Thank You... Questions

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