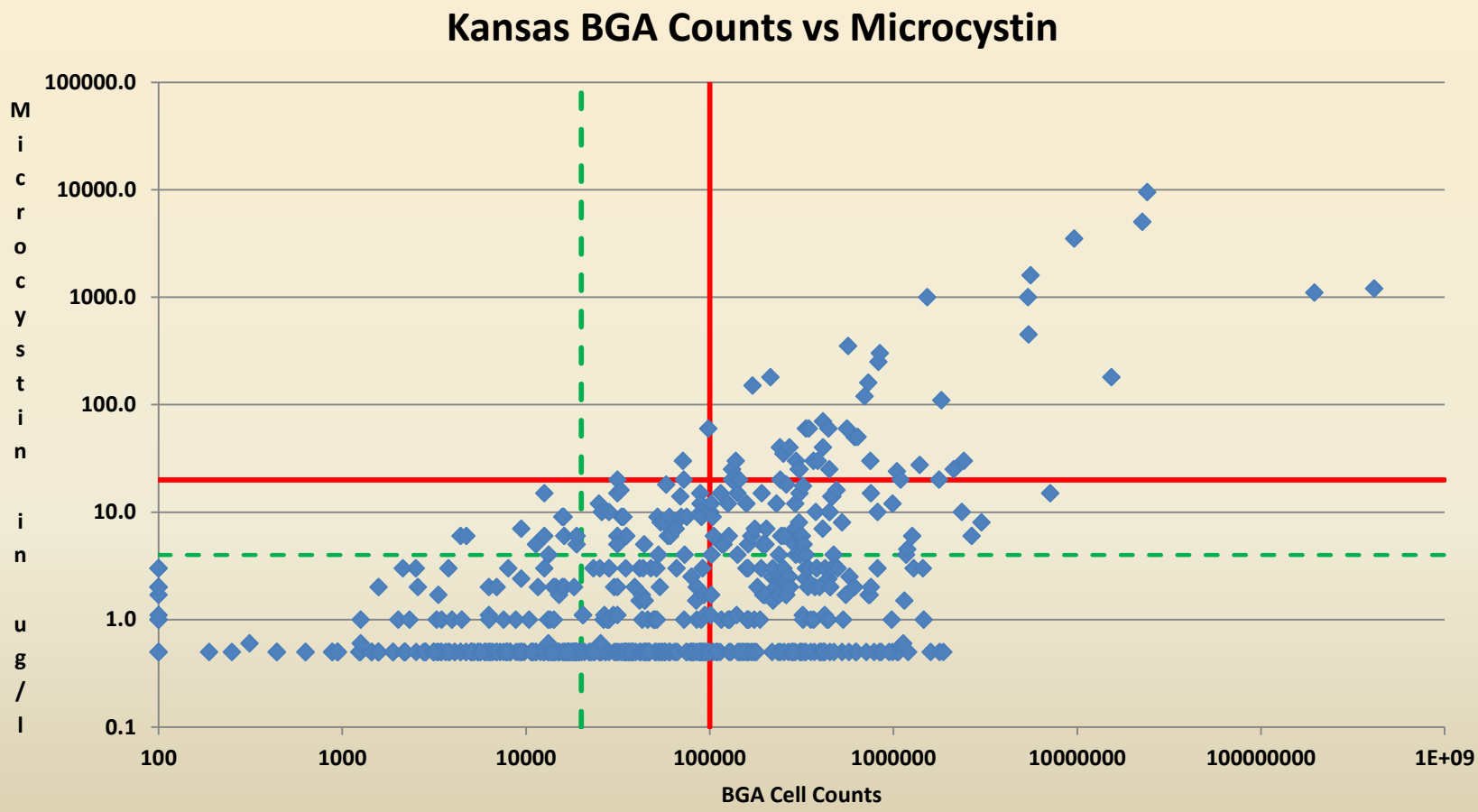
Kansas HAB Response: Next Steps for 2015

Kansas
Department of Health and Environment

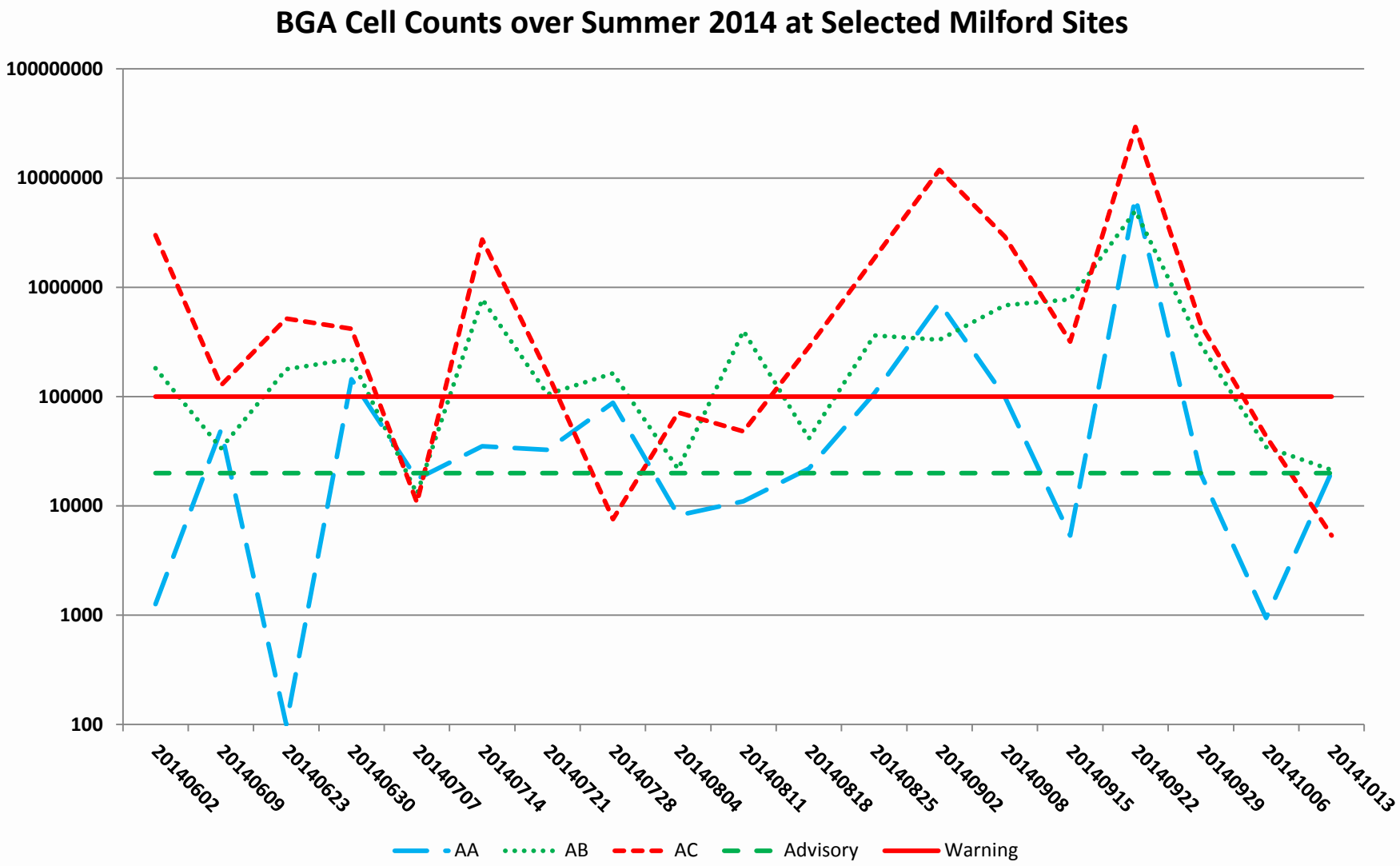
Annual HAB Meeting
November 19, 2014

Our Mission: To protect and improve the health and environment of all Kansans.

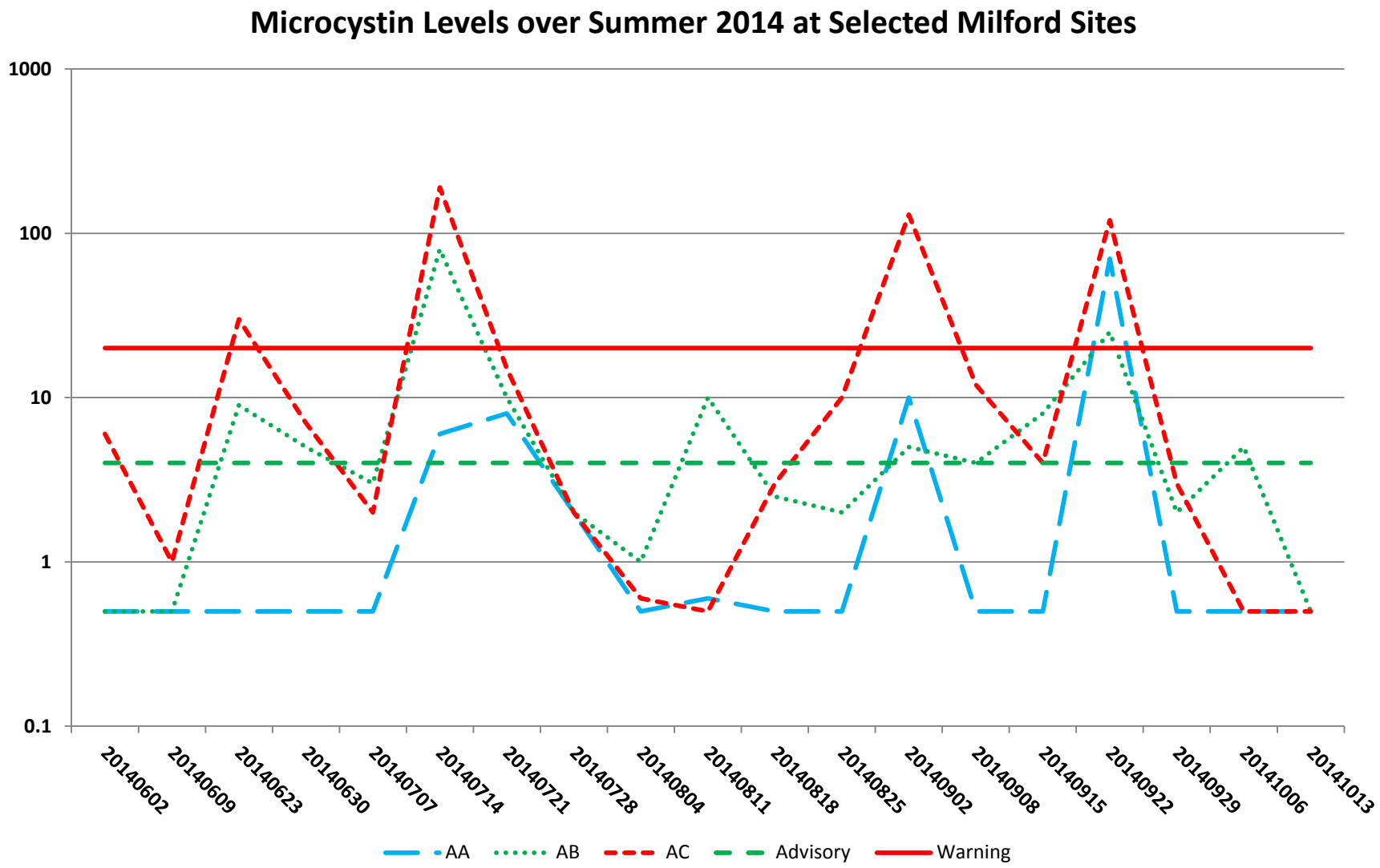
Kansas HABs: Directional but Noisy



Milford Cell Counts: A Constant Issue



Milford Microcystin: Peaks Late and High



Kansas Similar to other States

- **Cell Counts – based on WHO: 20K & 100K**
- **Microcystin – based on WHO: 4 & 20 µg/l**
- **Biggest difference is we use both indicators in an either/or fashion**
- **Likely over 90% of our alerts are triggered by cell counts rather than microcystin, especially early in the season**
- **KDHE NOT going to change microcystin levels**
- **But a typical Kansas lake has 30K – 40K BGA counts**
- **Thus our cell count trigger is conservative**

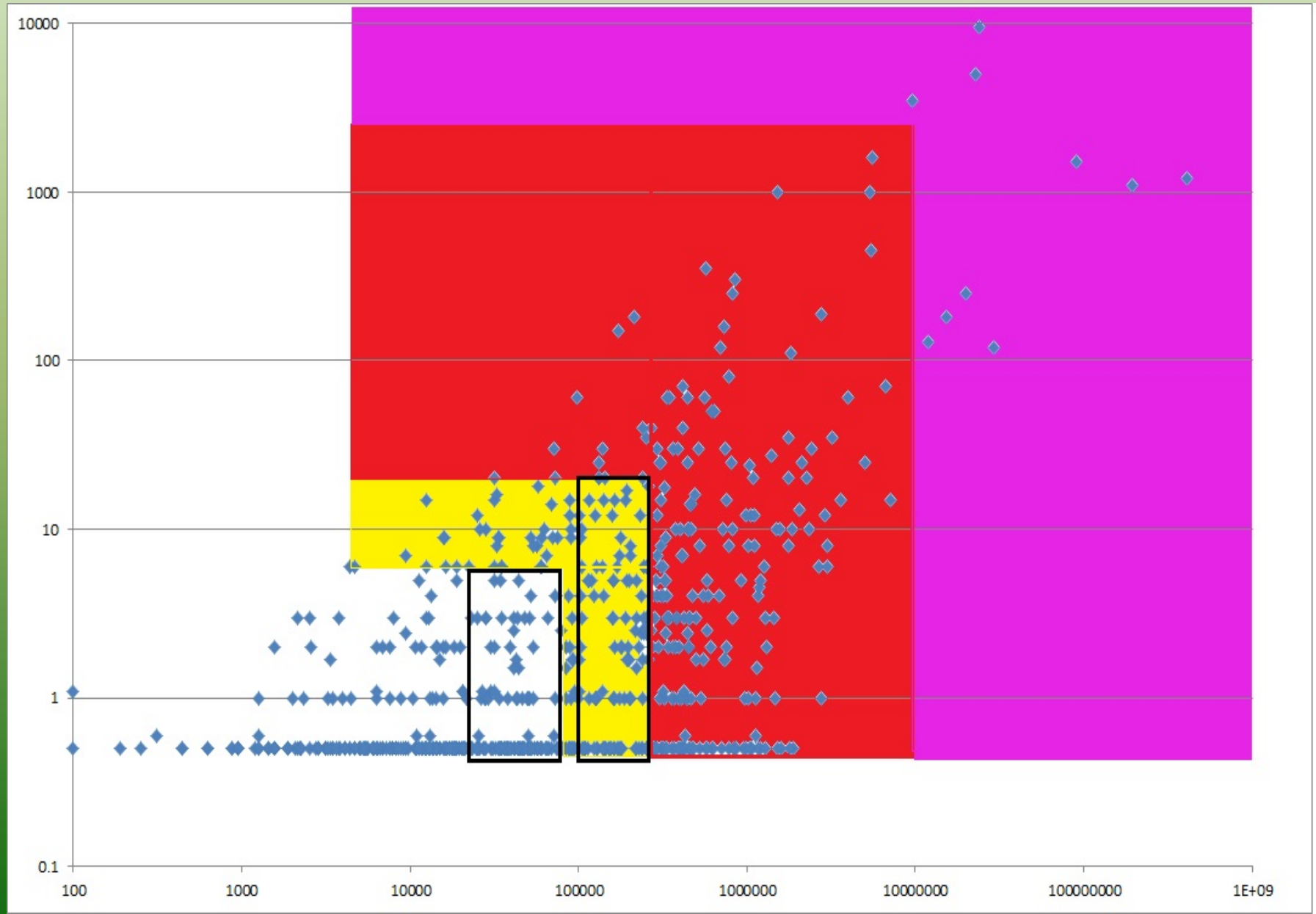
WHO Guidelines Allow for Local Adjustment to Triggers: Kansas now has 5 years of data

Cell Count Trigger	2010 - 2014 Response	New Response under Consideration
> 20,000	Advisory	**Clear**
> 80,000	Advisory	**Watch**
> 100,000	Warning	**Watch**
> 250,000	Warning	**Warning**
>10,000,000 (or 2000 µg/l microcystin)	Warning	**Recommended Closure of Area**

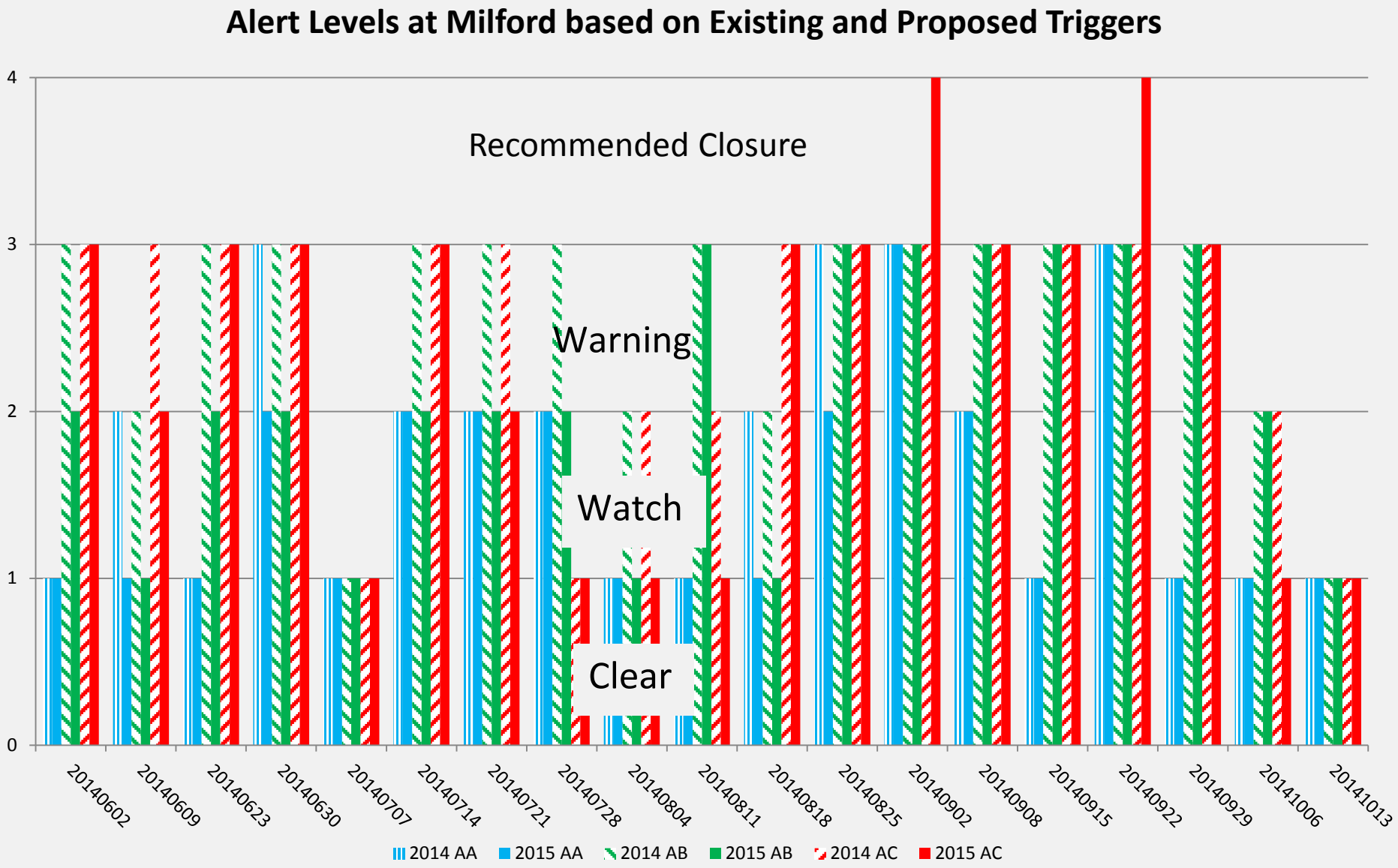
Guarding against false positives & false negatives

- Of 478 samples that had counts less than 80,000, 38 or 8% had microcystin > 4 µg/l; 1 was over 20 µg/l
- Of 640 samples that had counts less than 250,000, 7 or 1% had microcystin > 20 µg/l
- Of 385 samples that had counts greater than 80,000, 62% had microcystin < 4 µg/l; 86% were < 20 µg/l
- Of 223 samples that had counts greater than 250,000, 78% were < 20 µg/l
- Proposed triggers still conservative relative to low risk to public
- Proposed triggers will likely delay alerts by KDHE

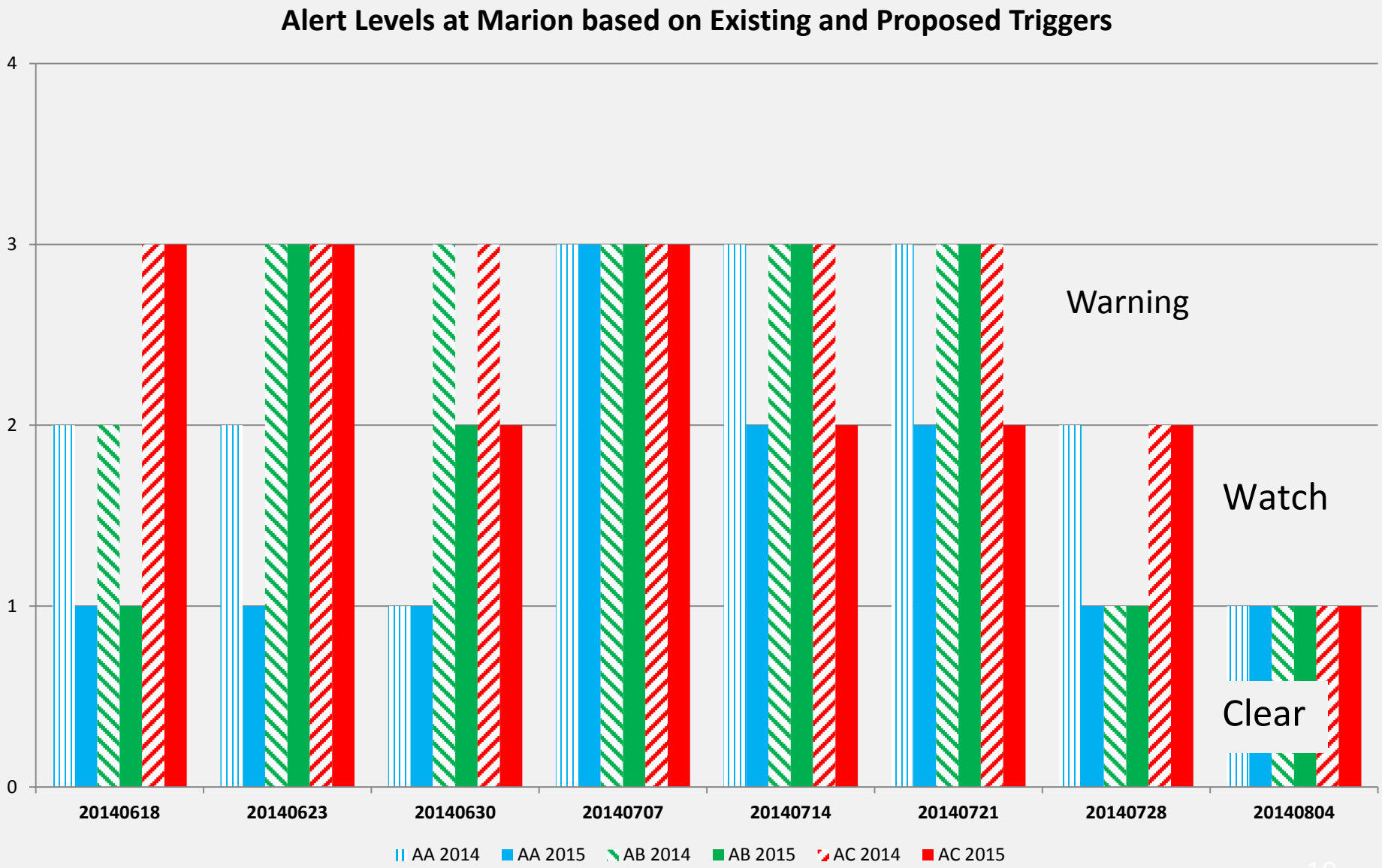
Proposed Cell Count Triggers Shifts to the Left



Proposed Triggers Tend to Lower Alert Levels



Proposed Triggers may not Change Outcome at Other Lakes



Things to work over Winter

- Signage wording
- Messaging of Lake Conditions
- Interaction with Media
- Exercising Best Professional Judgment – look at possible hysteresis
- Finalize 2015 triggers
- Coordination between KDHE, KDWPT, Corps and locals on anticipated response to certain conditions

Questions