Workshop Objectives and Webinar Logistics

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EPA Web Based Expert Workshop on Cyanobacteria and Cyanotoxins: Occurrence and Detection Methods

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Background

- Algal blooms are increasingly found in national waters
- Some algae such as cyanobacteria species can produce toxins that can cause adverse health effects in humans and animals
- In addition to producing toxins, cyanobacteria can decrease dissolved oxygen concentrations in recreational water resulting in fish kills.
- EPA has partnered with states, regions and other federal agencies to address the issue
- Limited information is available on the occurrence of cyanotoxins in drinking water

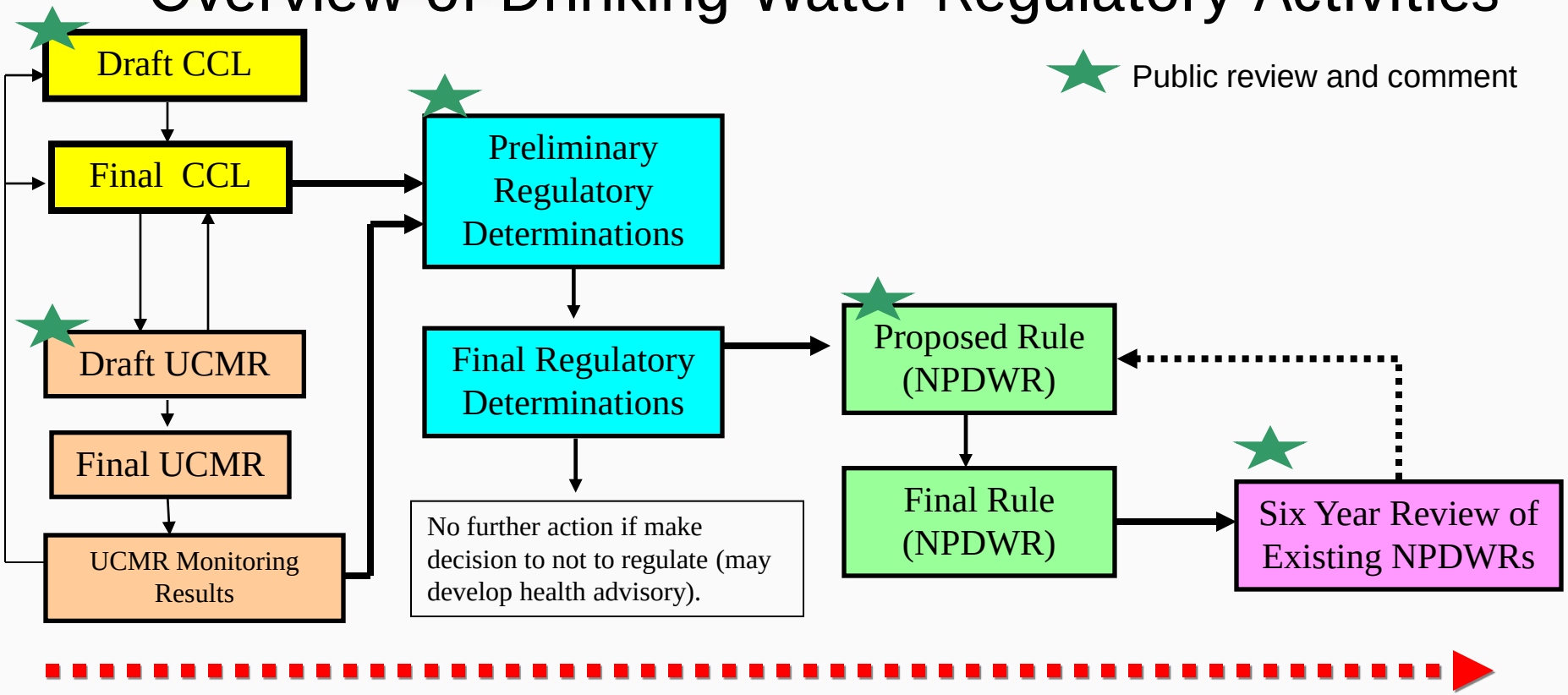
Background - Continued

- Recreational water and drinking water exposure issues are different
  - Toxin concentration
  - Detection methods
  - Human/animal health effects and ecosystem effects
  - Data availability on human and animal health effects due to exposure

Background -continued

- Information gaps
  - Cyanotoxins occurrence in drinking water
  - Methods and standards available to detect them at significantly low levels
  - Health effects associated with acute and chronic exposures
  - Prevention, treatment and mitigation of cyanotoxins in PWS

Overview of Drinking Water Regulatory Activities



EPA's interest

- Cyanotoxins on CCL3
  - List prioritizes contaminants for research and method development
- For future occurrence survey EPA would like information on:
  - Seasonality and frequency of Hazardous Algal Blooms (HAB)
  - Understanding of source waters that have HAB issues
  - Understanding of PWSs most vulnerable to HAB issues
  - Monitoring approach to capture a wide array of cyanotoxins
  - Availability of analytical methods and standards

EPA's interest - Continued

- Future regulatory determination EPA would like information on:
  - Prevention, treatment and mitigation of toxins
  - Acute and chronic exposure health effects
  - Health effects on sub-populations
  - Characterization of toxin levels of concern

Workshop structure

- To have all this information EPA decided to have an expert workshop
  - Soon realized that one workshop cannot address all this information in depth
- Plan on having subsequent workshop(s) to address other issues
- This workshop will focus on occurrence and methods

Workshop Objectives

Through presentations and discussions with experts:

- Understand national trends in occurrence of cyanotoxins in source, surface and drinking water
  - Geography
  - Climate
  - Types of cyanotoxins
  - Levels of cyanotoxins
- Understand detection method capabilities

Webinar Logistics

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