

**Overview of the US EPA's
Contaminant Candidate List
(CCL) Classification Process
for the
Drinking Water Committee of the
Science Advisory Board**

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November 13, 2007**



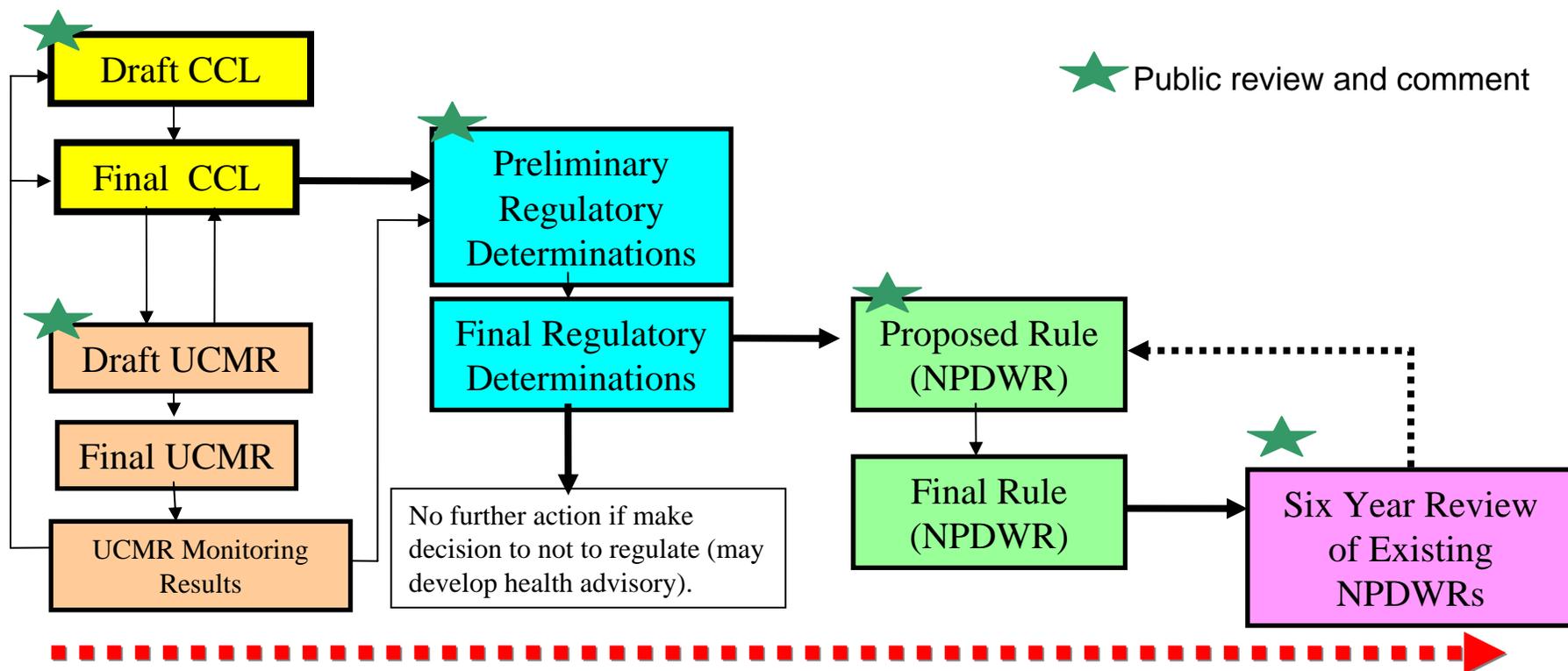
Overview of the Presentation

- CCL Background
 - SDWA, NAS, and NDWAC Reports
- Overarching Steps
- Selecting a Universe and Screening to a PCCL
- Selecting the CCL from a PCCL
- Microbial CCL Process

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Generalized Temporal Flow of Regulatory Processes



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CCL 3: Statutory Requirements

- **1996 Safe Drinking Water Act (SDWA) Amendments require EPA:**
 - Publish a list of unregulated contaminants (the CCL) which may require regulation and are known or anticipated to occur in public water supplies every 5 years.
 - Determine whether or not to regulate at least 5 CCL contaminants.
- **In developing the list, SDWA also specifies that EPA:**
 - Consider substances listed on CERCLA and FIFRA.
 - Consult with the scientific community including the Science Advisory Board (SAB).
 - Provide an opportunity for public comment.
- **The decision to list a contaminant is not judicially reviewable.**
- **CCL 1 (Published final in FR in March 1998)**
- **CCL 2 (Published final in FR in February 2005)**

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Regulatory Test

Three criteria define what may need to be regulated

- (i) the contaminant may have an adverse effect on the health of persons;
- (ii) the contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and
- (iii) in the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems.

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Guiding Principle of CCL3 Development

Occurrence in public water systems at frequency and levels of public health concern

Health Effects

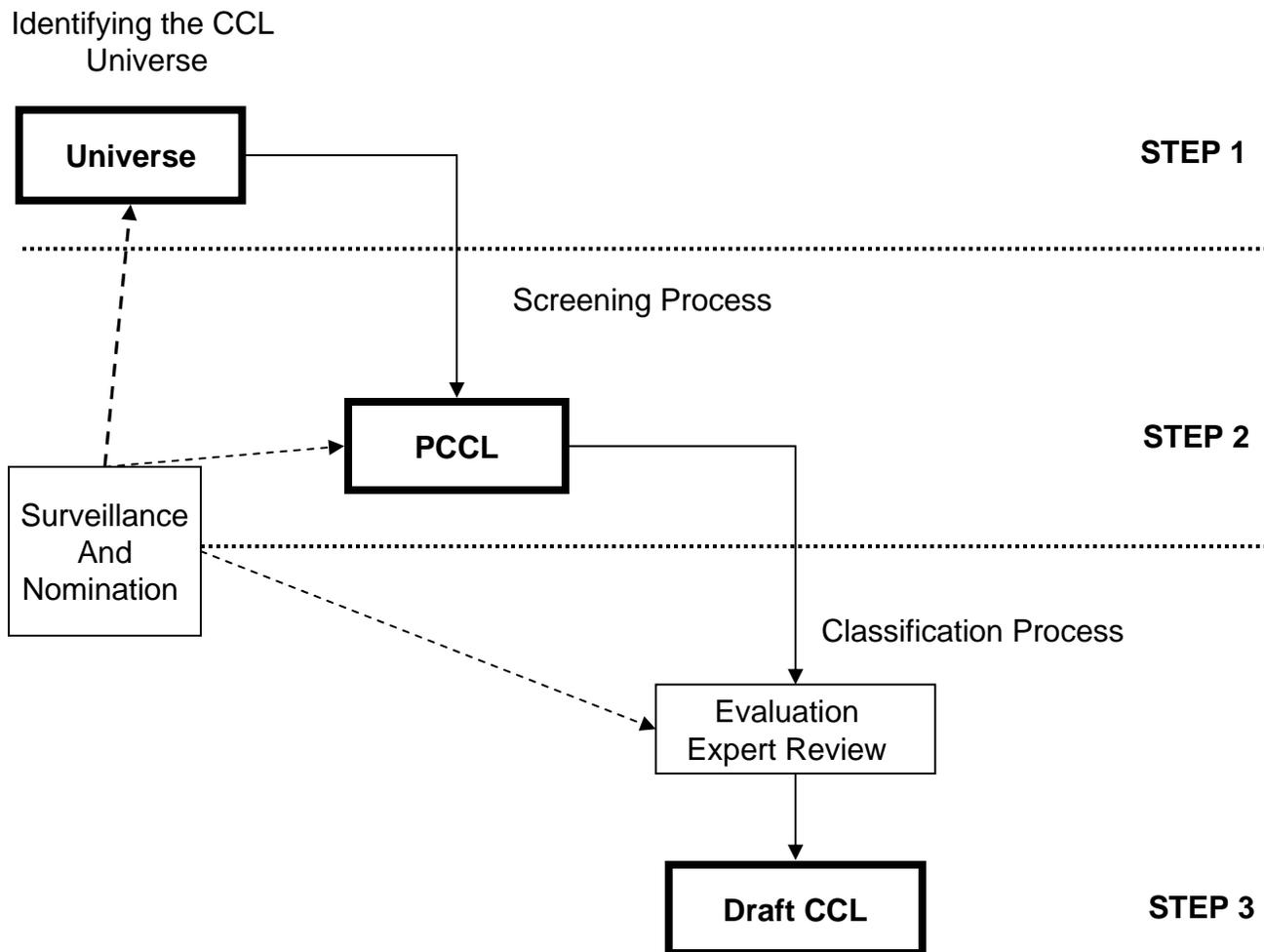


Occurrence

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NAS and NDWAC Recommended CCL Classification Process



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Expert Judgment in the CCL Process

Expert judgment and review at key milestones

- Data sources to identify Universe
- Screening criteria and their application for CCL Universe to the PCCL
- Development of the classification process from the PCCL to the CCL
- Review of Draft List and overall process

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Surveillance

- Actively keeping up with literature
- Working with other agencies
 - Working on related activities underway within EPA
- Examining new technologies
- Participating in Conferences and Workshops

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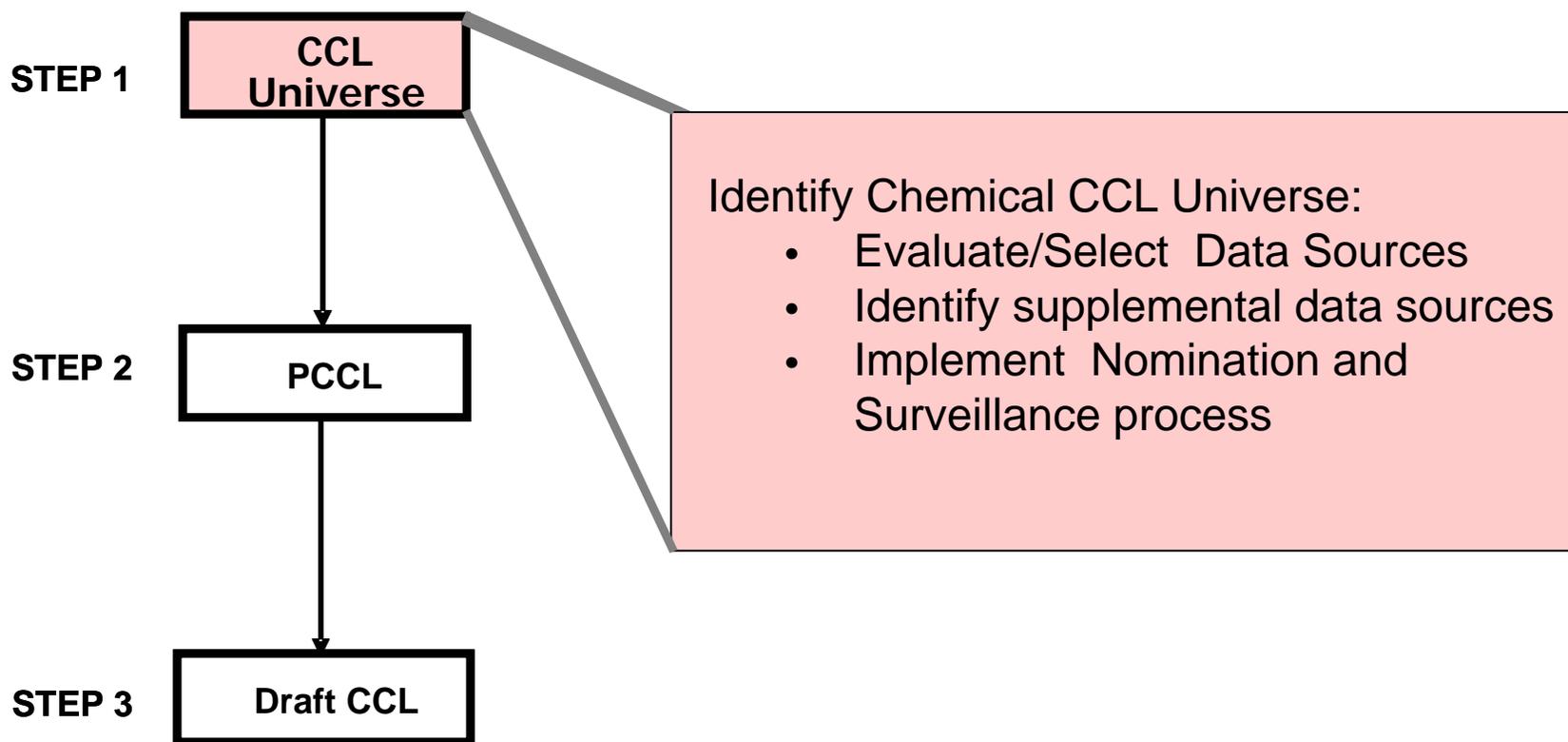
Nomination Process

- Provide a mechanism for public to have input in the CCL Process.
 - What information,
 - How to provide information, and
 - When to provide it.
- Input and comment from stakeholders.

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CCL Chemical Universe



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Data Source Evaluation

- Data Sources
 - Disparate Types of Data
 - Health Effects, Occurrence, Production, Release, Ecological, Chemical Structure, Chemical and Physical Properties
 - Measured, Modeled
 - Variety of Chemical Types
 - Pesticides, Organic Compounds, Inorganic Compounds, Radiological Compounds, Mixtures

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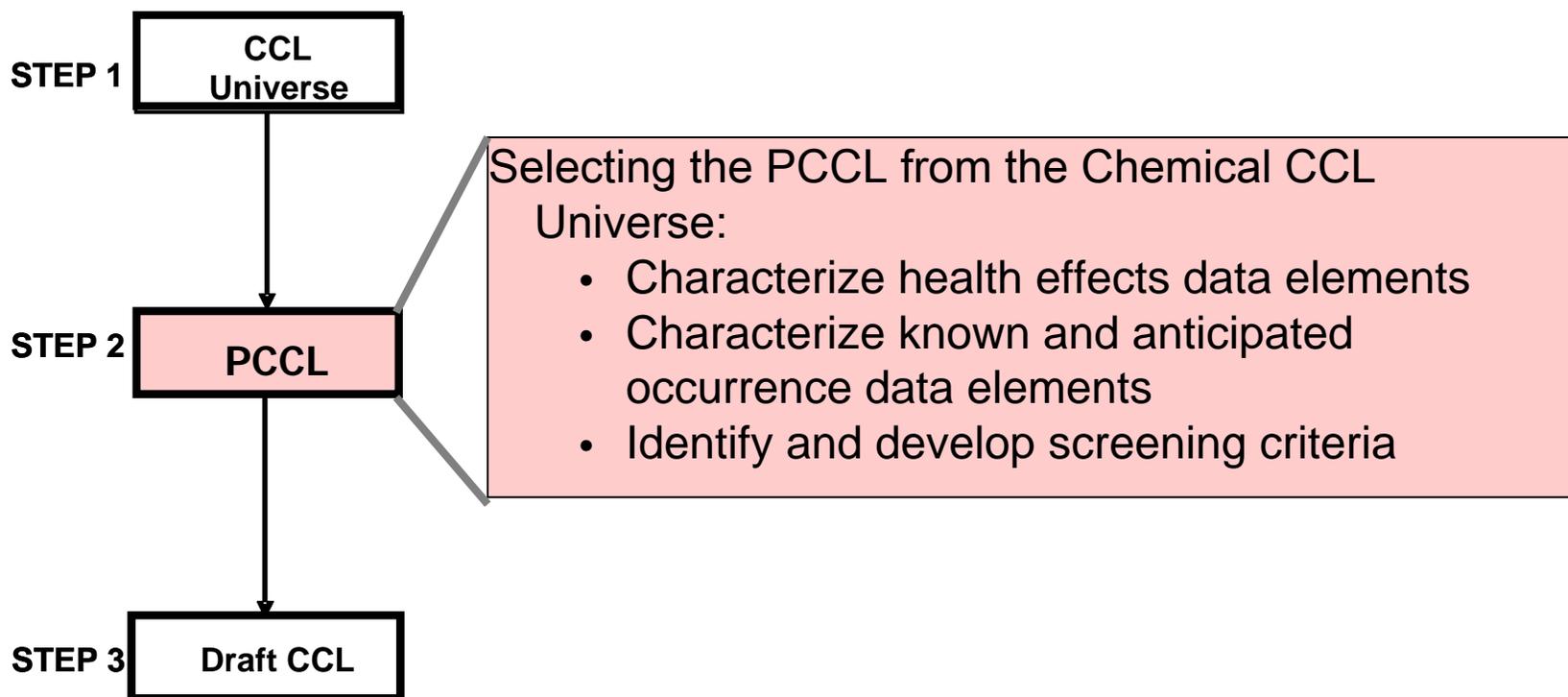
Data Source Selection

- Developed assessment factors to aid in the selection of the data sources
- Reviewed and identified the sources
- Initial review assessed the sources based upon the following factors:
 - Relevance
 - Completeness
 - Redundancy
 - Retrievability

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Screening to a PCCL



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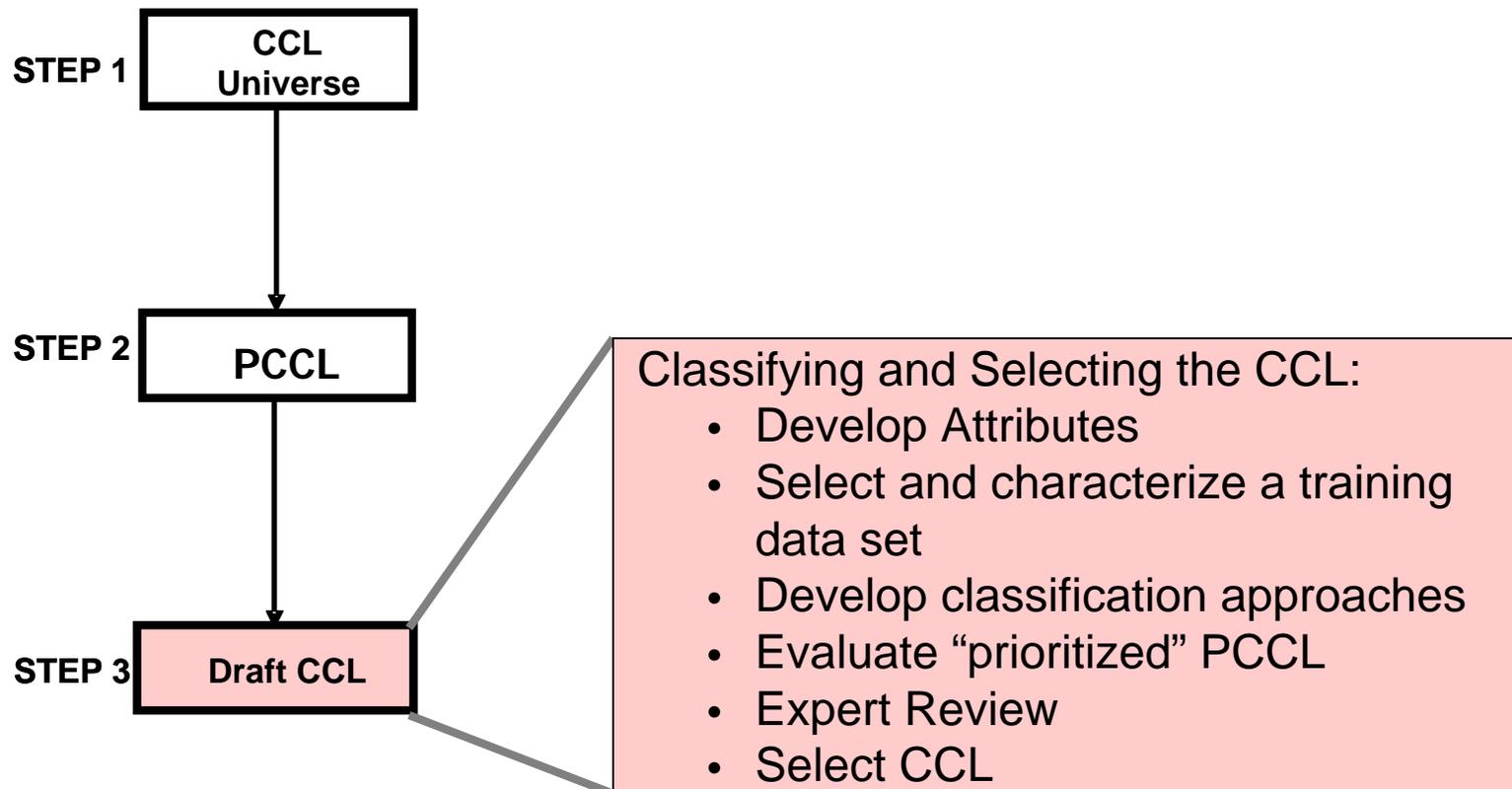
Screening Data Elements

- Health Effects
 - Lowest Observed Adverse Effect Levels (LOAEL)
 - Lethal Dose (LD_{50} , LD_{10})
 - Carcinogenicity values
- Occurrence
 - Measured occurrence in finished water
 - Measured occurrence in ambient/source water
 - Release/Use data
 - Production data
 - Persistence

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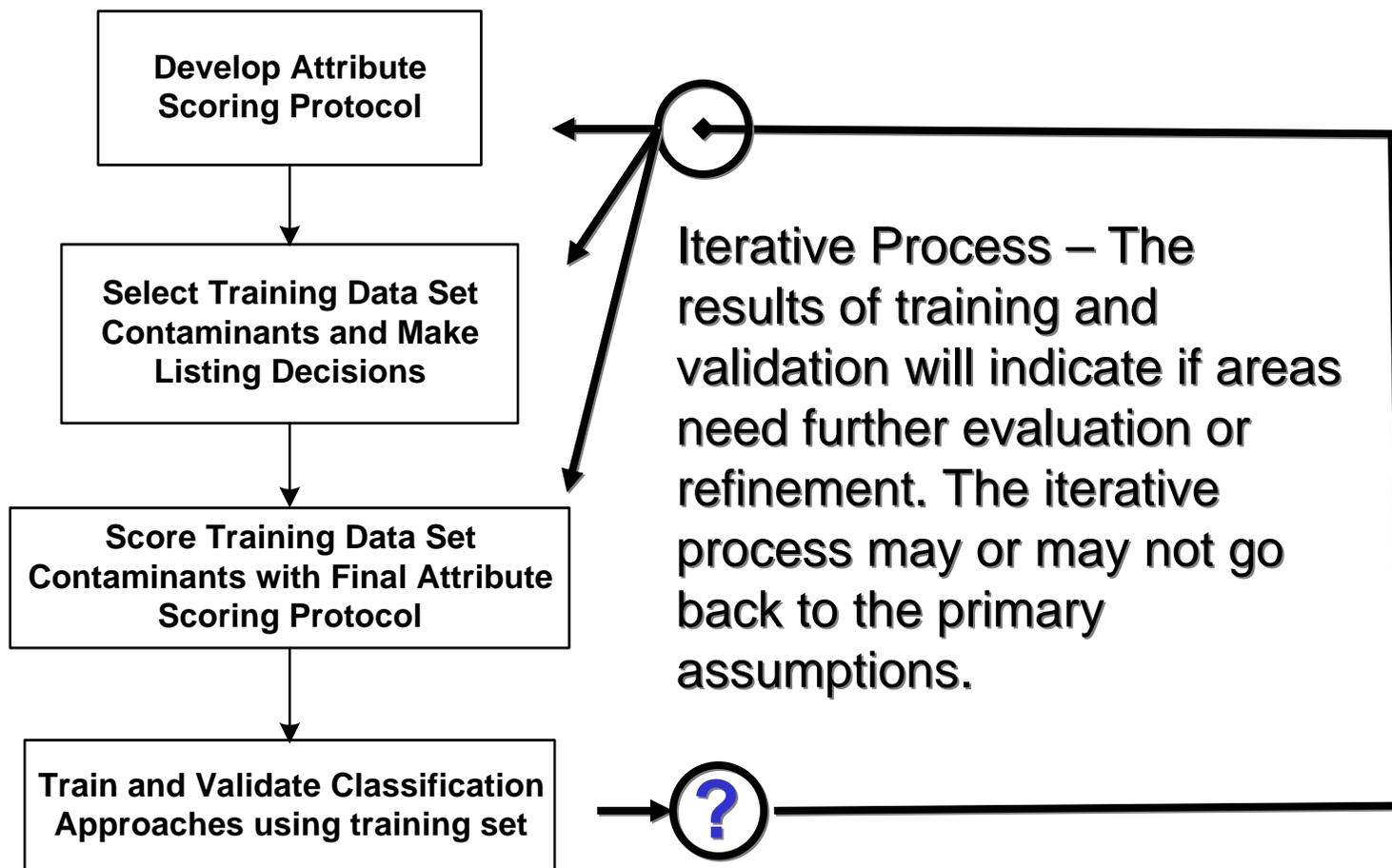
Selecting the CCL



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Classification Approach Development



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NAS & NDWAC Recommended Attributes

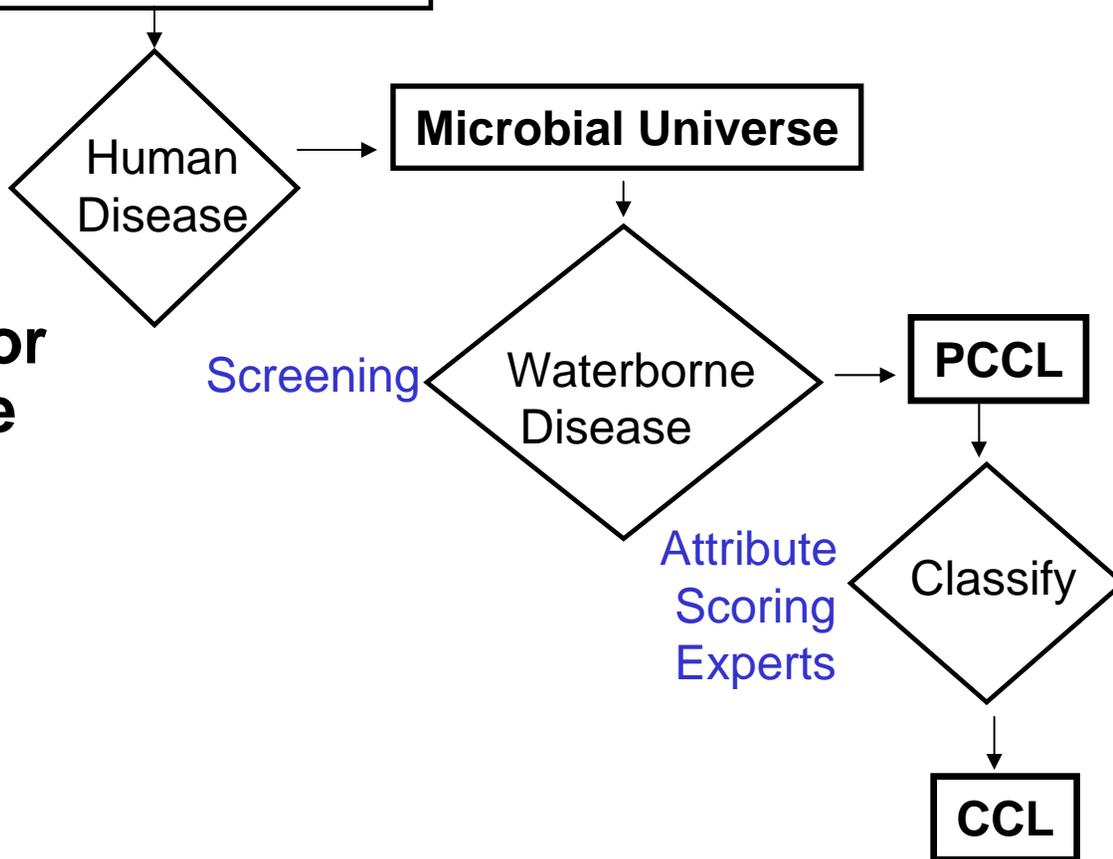
- Health Effects
 - Potency
 - Severity
- Occurrence
 - Prevalence
 - Magnitude
 - Persistence-Mobility

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Microbial CCL Process

Literature Review, Surveillance, or Nomination



- **CCL universe organisms known or suspected to cause human disease.**

- **Lit Reviews**

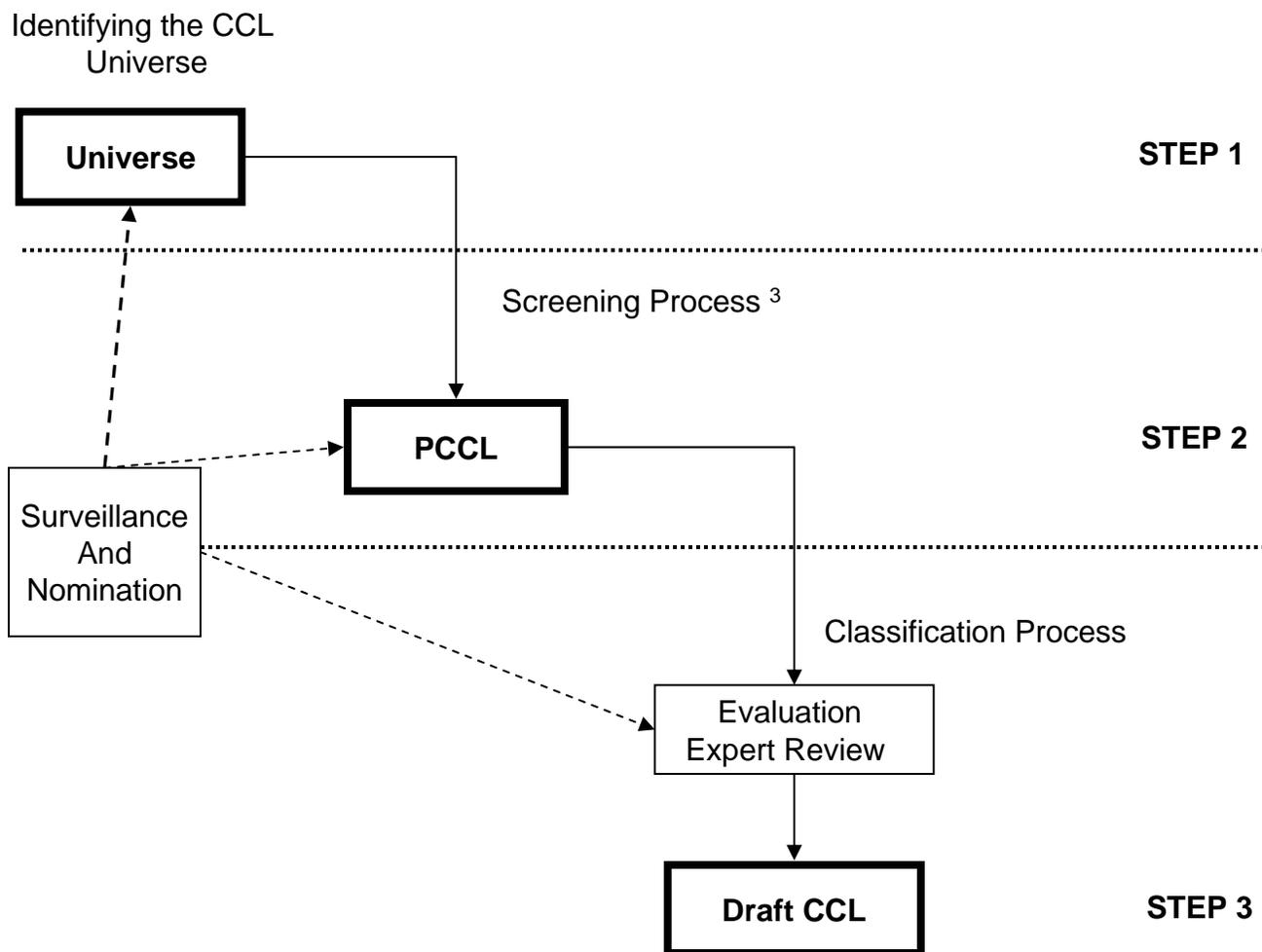
- **Surveys**

(Taylor et al 2001)

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Questions: CCL Classification Process



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