Summary of Activities and Issues for Discussion

Report for the NDWAC CCL Work Group
November 13, 2003

Outline

- We will review technical work completed since the last meeting and questions for discussion for these areas:
  - Universe (ch 5)
  - Universe to PCCL (ch 6)
    - options
  - PCCL to CCL (ch 7)
    - Attribute scoring
    - Classification algorithm and training set or other options
  - Transparency and risk communication (ch 3)
  - Microbe issues
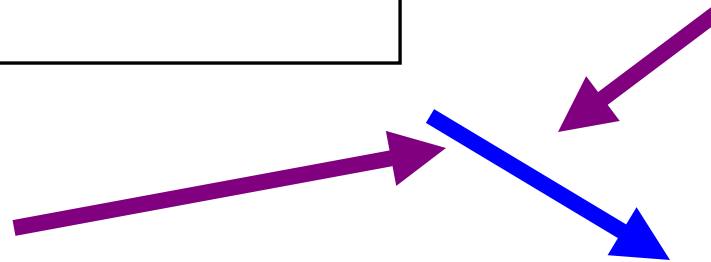
Critical path decisions

Universe

- Screening approach options

- Attribute Scoring
- Classification algorithm, training data set and/or other options
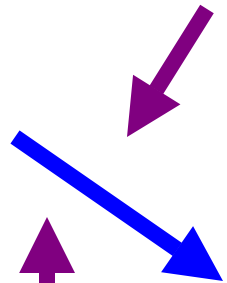
PCCL

CCL

- Nomination/surveillance
- Data quality
- Expert judgment
- Transparency & Risk Communication

Universe

- Current status of Chapter 5 one text
  - Workgroup guidance and principles
  - Types of data sources to include
  - Consistent approach for microbes
- Process for Chapter 5 one text
  - EPA has incorporated edits from some work group members
  - This will be presented to authors on day two
  - Then work group will review and comment (after meeting)

Universe to PCCL: where we are

- **Options for screening to be presented and discussed**
    - Qualitative (no screen)
    - Semi qualitative (as per technical work group discussion)
    - Semi quantitative, using limited data elements
        - Binning or ranking
        - Proposal for use of five data elements
        - Criteria for what gets onto PCCL – pragmatic or substantive
    - Quantitative analysis for gate 1 and decision about lining up at "gates" based on types of data available

Universe to PCCL: Technical work done

- Compiled data set of 277 empirical and surrogate data for analysis

- Implemented Binning/Ranking approaches for screening
  - Used LD_{50} and/or LOAEL for health effects, solubility and/or K_{ow} and/or Henry's Law Constant for occurrence
  - Ranked and binned
  - Started to evaluate the relationships among these elements
  - Compared to Quantitative approach for Gate 1

- These results will be presented

Universe to PCCL: questions for work group

- Do you have recommendations for principles to consider when selecting an option for screening approaches?
- Do you agree that the options described are the correct set of options to consider? Are there others?
- What do you see as the advantages and disadvantages of these options?
- What do you recommend or what criteria should be used for how to choose a cutoff for entry to the PCCL in binning or ranking approaches?
- Do you agree with the five data elements proposed for the option that is based on use of a limited number of data elements? Should there be others or fewer?
- Which option(s) do you lean toward? Are any unacceptable?
- Is any additional technical analysis needed to prepare you to make a final recommendation in January?

Universe to PCCL: Next steps

- **Revise Chapter 6**
  - will be discussed on the second day and revisions made
  - Will be reviewed by work group after the meeting

- **Microbe Subgroup developed an approach to develop a PCCL based on health effects and occurrence**
  - This will be reviewed and incorporated into chapter six

PCCL to CCL – Where we are

- Scoring the Attributes

- Going from the scored attributes to the CCL
  - Training data set
  - Classification algorithm
  - Other options (such as rule-based approaches)

PCCL to CCL: Technical work done for Scoring the Attributes

- Developed first draft of scoring protocols for attributes chemical and microbes

- Put together data for scoring workshop

- Conducted Attribute Scoring Workshop for chemical contaminants

PCCL to CCL: Questions for work group on attributes scoring

- What are your views about the general approaches proposed for the scoring protocols?
- Do you have any comments or suggestions for further development of the scoring approaches?
- What is your reaction to the report from the scoring workshop?
- Do you have comments about principles for scoring?
- When should we take up the question about how many attributes need to be scored (3, 5, or another number)

Note: Questions apply to both microbes and chemical contaminants

PCCL to CCL: Technical work done for training data set, classification algorithm and options

- Have further investigated what it would take to develop a training data set that could be used for a classification algorithm – have a report on this
- Has led some to conclude that we might want to consider alternative approaches

PCCL to CCL: Questions for work group on training data set, classification algorithm and options

- What is your reaction to the presentation on the training data set?

- Decide whether to continue with development of a training set and further testing of models at this time and/or to focus on developing principles?

- Does it seem best to continue to develop a classification algorithm as the sole approach?

- What do you need to know to recommend an approach?

- Do you want to develop principles?

Transparency and risk communication

- Chapter three will address risk communication and transparency
  - Have an outline that will be reviewed
- Will also be discussed as appropriate in other chapters
- Small work group to discuss on second day

Microbes

- Universe and screening approaches are consistent with work group, based on adverse health effects and occurrence

- Microbe Subgroup meeting to develop language for Chapters 5 and 6

- Share language with the Work Group in December

- Microbe subgroup meeting on attributes on day two