COLORADO WATER UTILITY COUNCIL
Rocky Mountain Section of the American Water Works Association

# MINUTES
## COLORADO WATER UTILITY COUNCIL MONTHLY MEETING

## February 4, 2011 10:00 a.m.

### Denver Water

### 1600 W. 12th Avenue
### Three Stones Building

**CDPHE**—Ron

- Dr. Urbina has started in his role as the Executive Director of CDPHE. Martha Rudolph serves as the Environmental Program Director.
- There was a hearing of the Joint Budget Committee in early January. At this time the Division's general funding is still in intact. Many stakeholders weighed in on the general funding. The process is far from over and there are still options under consideration that include eliminating the Division's general funding. Figure setting is March 10th, but the budget is not final until the Governor signs the long bill in April.
- Some drinking water systems have found hexavalent chromium in their finished water. Mike Sherry has provided them EPA's new guidance for sampling.
- This week, Lisa Jackson (EPA Administrator) announced that EPA plans to regulate perchlorate in drinking water. Development of the regulation will probably take about three years. During the UCMR1 sampling in Colorado, 56 finished water samples were analyzed for hex chrome; there were no detects.
- At the national level, a drinking water right-to-know bill requiring information on emerging contaminants is being developed.
- The Division has filled their CoWARN position with David Dani. The group is designed to facilitate mutual aid during emergency situations. Ron encourages greater utility participation. The Division has contract dollars to develop a draft operational plan. The group is in need of a chairperson. David plans to provide organization and coordination. Please consider getting involved in the management of CoWARN. Contact Sharon Williams at x-3635 or Ron at x-3569 if you are interested.

  The next CoWARN Steering Committee meeting is February 17, 2011 at 10:00 a.m. in room C1B at CDPHE. For a detailed agenda and information about how to participate by conference call, contact Melanie Fahrenbruch at mel@mjfconsult.com or (303) 912-3358.

- The federal needs survey is currently being review in the Office of Management and Budget. It will be distributed once they approve it—probably in March. Systems serving a population greater than 100,000 will be able to complete the forms electronically but are required to provide paperwork supporting documentation.

## **Presentation (see Attachment A)—**Chad Siedel with Jacobs

Chad's presentation provided a very informative view of the future regarding drinking water regulations. The presentation is included as Attachment A. Here are some of the highlights:

- The current direction of EPA's regulatory development is to focus on three groups of contaminants: carcinogenic VOCs, nitrosamines, and disinfection byproducts (p. 2).
- EPA touts this a cost-effective way of achieving drinking water protection. It seems like it is cost effective for the EPA, but not for water providers (p. 3).
- It is unclear whether or not hexavalent chromium included on the UCMR3 (p. 8).
- Improvement in aeration systems can work to treat some of the VOCs that are being considered for regulation but not all (p. 13)
- Data analysis shows there was not much co-occurrence with tri and tetra chlorethylene.
- The VOC regulation may include a simple summation MCL for all the VOCs in the group, perhaps 5 ug/L (p. 18).
- Of the 6 nitrosamines that were monitored in the UCMR data, N-nitrosodimethylamine occurred most often (p. 21).
- The graph on p. 23 seems to indicate that chloramines may be a driver for nitrosamines, but that is still not clear. Is the co-occurrence with chloramination causal or are nitrosamines the result of the source water?
- As with VOCs, there may be a group MCL for nitrosamines, perhaps in the 10-20 ng/L range (p. 24).
- Will hexavalent chromium be included on the UCMR3?
- How does the human body react to low levels of hexavalent chromium (p. 29)?
- Do not filter hexavalent chromium samples in the field (p. 31).
- Chromium found in these samples were from natural, not human, sources (p. 35).
- The graph shows that surface waters that were monitored contained trivalent chromium and the groundwater that was monitored contained mostly hexavalent chromium. That is significant because trivalent chromium is more readily removed by traditional water treatment processes (p. 37).
- One water treatment plant was able to treat total chromium to less than the detection level of 5 ug/L by adding alum, but the chromium was mostly trivalent chromium (p. 38).
- Chad recommends for water providers to start the process of developing a plan to manage hexavalent chromium, but don't go too fast because the guidance for doing that will likely be available in a few months.

## **Legislative Committee Report—**Chris Piper

Bills to keep an eye on (see Attachment B):

- HB-1068 State Engineer Approve Ag Water Transfer
  can skip Water Court
- HB-1070 Public Works Prevailing Wages & Benefits
  Davis/Bacon for state funded water projects
- HB-1115 Public Entity Construction Retainage
  This bill has the possibility of causing the State to lose 1.1 million dollars. Tom made a motion for the CWUC to take a position against this bill. Bud seconded the motion. The motion passed. Fort Collins abstained.
- HB-1150 Use Wildlife Fees Habitat Water Storage
  This would move $5,000,000 from the wildlife cash fund to the CO water conservation board construction fund. The money could be used for water storage projects that will enhance, create, or preserve wildlife habitat or contribute to a wildlife restoration project, a fish restoration or management project, or the conservation of wildlife.
- Term Limits Water Facility Operators Board
  Removes the term limits requirement for board members.

## **Water Quality Forum**—Jim McCarthy

- At the June 13th Water Quality Control Commission meeting, the CWUC will have 15-20 minutes to brief the Commission on hot topics. This will coincide with a briefing Ron will give to them.
- The State plans to issue the updated Water Treatment Plant general permit during the 2nd quarter of this year.
- Nutrient Criteria
  Council passed a motion to submit comments on the draft scope of work for the cost/benefit analysis on nutrient criteria, as well as the draft of Regulation 85 and update of Regulation 31.

## **Wastewater Report, January 12th meeting—**Al Baker

●Minutes from this wastewater meeting are posted at http://cwwuc.org/

## **Water Quality Policy Committee—**Jim Miller

- Comments on the Policy 4 Guidance were passed along to Ron F. The document may be shortened somewhat, but the Division sees value in it's current comprehensive nature. Tyson and Nicole will work with Sarah Clark on the technical issues.
- The Rural Water conference is in Colorado Springs on February 16th and 17th. Jim plans to speak about impoundments. Solid Waste staff may also speak on the subject. Council members provided a few suggestions to Jim regarding the messages to give at the conference.

## **Membership committee report**--Greg

- Please send updates to Greg ASAP.

## Open Discussion

- Wouldn't it be nice not to have the expense of mailing the CCR to all customers?

## Next Meeting

- The next meeting will be on March 4th, same time/place.

# Future Regulatory Perspectives:
# USEPA's New Drinking Water Strategy

Chad Seidel, Ph.D., P.E.
Jacobs

Friday, February 4, 2011

Colorado Water Utility Council Meeting

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# Discussion Outline

- Overview
- Background
- Approaches
- Current Direction
  - Carcinogenic VOCs
  - Nitrosamines
  - Disinfection Byproducts
- Other Current Issues
  - Fluoride
  - Hexavalent Chromium


- Acknowledgements!
  - AWWA
    - Alan Roberson
    - Steve Via
  - USEPA
    - Bruce Macler
  - EE&T
    - Dave Cornwell
    - Damon Roth
  - Malcolm Pirnie
    - Nicole Blute
    - Caroline Russell
    - Zaid Chowdhury
    - Xueying Wu
  - Many more!




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# Overview

- USEPA Administrator Lisa Jackson introduced the new drinking water strategy on March 22, 2010
  1. Address **contaminants as a groups** rather than one at a time so that enhancement of drinking water protection can be achieved cost-effectively.
  2. Foster development of **new drinking water technologies** to address health risks posed by a broad array of contaminants.
  3. Use the **authority of multiple statutes** to help protect drinking water.
  4. Partner with states to develop **shared access** to all public water systems (PWS) **monitoring data**.

# Overview

By pursuing these actions, EPA aims to:

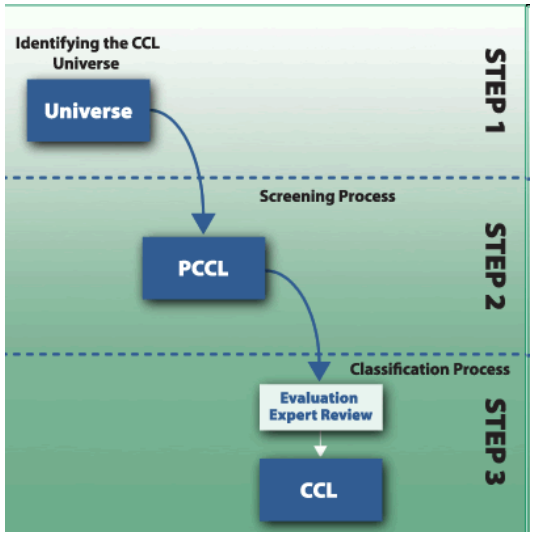
- Provide more robust public health protection in an open and transparent manner.
- Assist small communities to identify cost and energy efficient treatment technologies.
- Build consumer confidence by providing more efficient sustainable treatment technologies to deliver safe water at a reasonable cost.

# Background: SDWA Regulatory Framework

- More than 170,000 public water systems supply drinking water to almost all Americans at some point in their lives
- Safe Drinking Water Act (SDWA) safeguards consumers from drinking water health risks through a contaminant-by-contaminant regulatory approach
- More than 90 individual contaminants have been regulated
  - Current group regulation examples: TTHM/HAA5, gross alpha, TCR

# Background:
# SDWA Regulatory Framework

- Contaminant Candidate List (CCL)
  - Publish a list of contaminants for regulatory consideration every 5 years
  - Decide to regulate or not regulate at least 5 new contaminants every 5 years




- CCL3
  - 104 chemicals or chemical groups
    - 22 carried from CCL 2
      - i.e., MTBE, perchlorate, solvents
    - Pesticides/degradates, herbicides, insecticides, fungicides
    - Nitrosamines
    - Perfluro-octanoic acid and sulfonic acid (PFoA, PFoS)
    - 1,4-Dioxane
    - Hormones, pharmaceuticals
    - Cyanotoxins (but not cyanobacteria)
  - 12 microbiological contaminants



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# Background: SDWA Regulatory Framework

- Six-Year Review
  - Review existing contaminant regulations every 6 years
    - Has new information related to the rule become available?
    - Does this new information indicate a change should be made?
- Six-Year Review 2 Results
  - 14 Recent or Ongoing Action
  - 32 Health effects assessment in progress
    - Fluoride, chromium, arsenic, nitrate/nitrite
  - 8 remain appropriate
  - 24 new information, but low priority
  - 3 new information, but emerging information
  - 4 candidates for revision
    - TCE, PCE, Acrylamide, Epichlorohydrin

# Background: SDWA Regulatory Framework

- Unregulated Contaminants Monitoring Rule
  - Monitoring no more than 30 contaminants per 5-year cycle
  - Monitoring only a representative sample of public water systems serving less than 10,000 people
  - Storing analytical results in a National Contaminant Occurrence Database (NCOD)
- UCMR2
  - Flame retardants, explosives, acetanilides/degradates, nitrosamines
- UCMR3
  - In development…
  - Expect proposal in early 2011



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# Approaches:
# Contaminant Grouping Framework

1. **Treatment** – Contaminants that can be removed by a common treatment approach
2. **Analytical methods** – Contaminants that can be analyzed by a common analytical method
3. **Health effects** – Contaminants that exhibit a common health effect and mode of action or those that result in common endpoint (e.g. bladder cancer)
4. **Occurrence** – Contaminants that co-occur in common water supplies

# Current Direction: Initial groups identified by USEPA

- Volatile Organic Compounds (VOCs)
- Synthetic Organic Compounds (SOCs)
- Inorganic Compounds (IOCs)
- Carcinogenic VOCs
- Non-carcinogenic VOCs
- Pesticides
- Carbamates
- Organophosphates
- Chloroacetanilides
- Triazines
- Conazoles
- Disinfection Byproducts
- Nitrosamines
- Perfluorinated compounds (PFOS/PFOA/PFCs)
- Estrogenic Compounds
- Androgenic Compounds
- Pharmaceuticals
- Antibiotics
- Cholinesterase Inhibitors
- Thyroid Inhibitors

# Current Direction: Carcinogenic VOCs

Source: EPA Materials
USEPA Stakeholder Meeting
September 21, 2010

| | |
|---|---|
| **Regulated (8) -**<br>Benzene<br>Carbon tetrachloride<br>1,2-dichloroethane<br>1,2-dichloropropane<br>Dichloromethane<br>Tetrachloroethylene<br>Trichloroethylene<br>Vinyl chloride | • All carcinogens (MCLG for each is set at zero)<br>• Common analytical methods (524.3/524.2, 502.2)<br>• Common treatment (Aeration and GAC)<br>• Some degree of co-occurrence (based on compliance monitoring data)<br><br>(SDWA allows setting MCLs as close to MCLG as feasible; MCL for each of these regulated carcinogens is set at the quantitation limit; consider setting a total carcinogenic VOC MCL for group based on feasibility) |
| **Unregulated CCL3 (8) -**<br>Aniline<br>Benzyl chloride<br>1,3-butadiene<br>1,1-dichloroethane<br>Nitrobenzene<br>Oxirane methyl<br>1,2,3-trichloropropane (TCP)<br>Urethane | • All carcinogens (such that any MCLG would likely be zero)<br>• Common methods (524.2 and/or 524.3) for a few (i.e., 1,2,3-TCP, 1,1-dichloroethane, nitrobenzene and 1,3-butadiene)<br>• Effective treatment technologies (Aeration and GAC) for most of the 8 except for 2 (oxirane methyl and urethane)<br>• Degree of co-occurrence with regulated VOCs unknown at this time<br><br>(Potentially include in total VOC MCL until individual MCLs established) |

# Current Direction: Carcinogenic VOCs

Source: AWWA Materials
USEPA Stakeholder Meeting
September 21, 2010

- Analysis of VOC removal by air stripping and carbon based on available data
- Analysis conducted by Environmental Engineering & Technology
  - David A. Cornwell, Ph.D., P.E. DEE
  - Damon K. Roth, P.E.
  - Richard Brown, P.E.

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- Analysis involved developing necessary information to characterize removal
- Preparing a preliminary design for air-stripping each VOC



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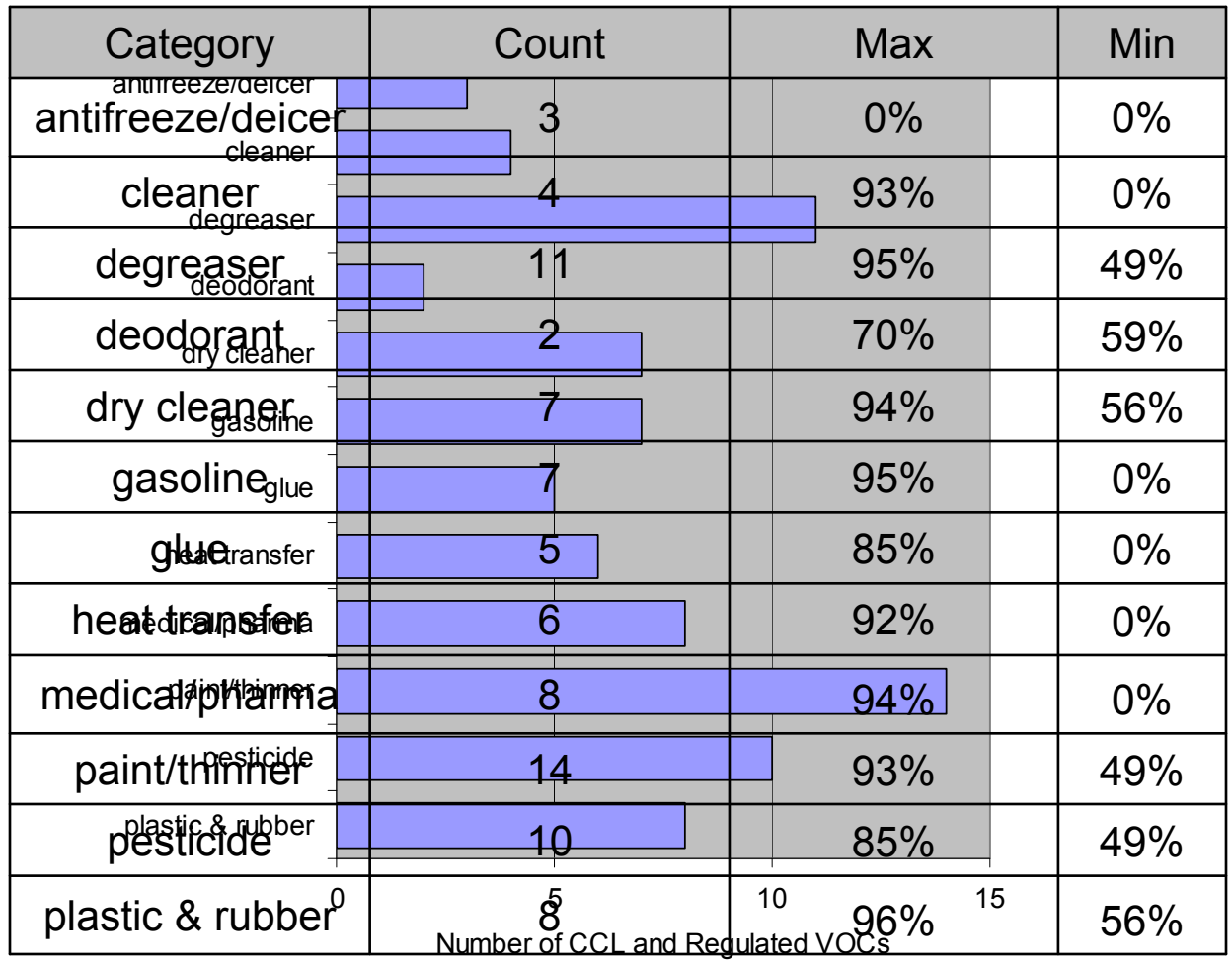
# Will VOCs co-occur and be equally well removed by air stripping?

| Category | Count | Max | Min |
|---|---|---|---|
| antifreeze/deicer | 3 | 0% | 0% |
| cleaner | 4 | 93% | 0% |
| degreaser | 11 | 95% | 49% |
| deodorant | 2 | 70% | 59% |
| dry cleaner | 7 | 94% | 56% |
| gasoline | 7 | 95% | 0% |
| glue | 5 | 85% | 0% |
| heat transfer | 6 | 92% | 0% |
| medical/pharma | 8 | 94% | 0% |
| paint/thinner | 14 | 93% | 49% |
| pesticide | 10 | 85% | 49% |
| plastic & rubber | 8 | 96% | 56% |

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# Ongoing VOC Occurrence Analysis

- Occurrence of the eight currently regulated carcinogenic VOCs
  - 21 regulated VOCs
    - Phase I, II, V Rules from ’80s-’90s
  - What will that tell us?
- Analysis by DSWA Jacobs
  - Chad Seidel, Ph.D., P.E. JACOBS
- Objective: Discern co-occurrence of USEPA classified carcinogenic VOCs using Six-Year Review 2 dataset

# Data Records

- Counted detections for individual VOCs
- Counted detections with co-occuring TCE detections

| Chem. Name | Chem. ID | Record Count | Detect Cou | | | CE ccur |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane (Ethylene Dichloride) | | | | | | |
| 1,2-Dichloropr | | | | | | |
| Ben | | | | | | 6.16% |
| Carb | | | | | 86 | 1.83% |
| Dichl (Meth | | | ,281 | 0.88% | 91 | 2.77% |
| Tetrac | | ,042 | 34,812 | 8.49% | 1404 | 4.03% |
| Trichlor | 2984 | 403,609 | 29,557 | 7.32% | NA | NA |
| Vinyl chl | 2976 | 373,161 | 550 | 0.15% | 120 | 21.82% |

**IMPORTANT CAVEATS!**

- All results shown by sample, NOT source or system
- No analysis by year, so some systems and/or sources may have more sample results than others
- USEPA data cleaning protocol not applied

- Total unique sample records: 335,018
- Unique samples with detections: 52938 (15.8%)

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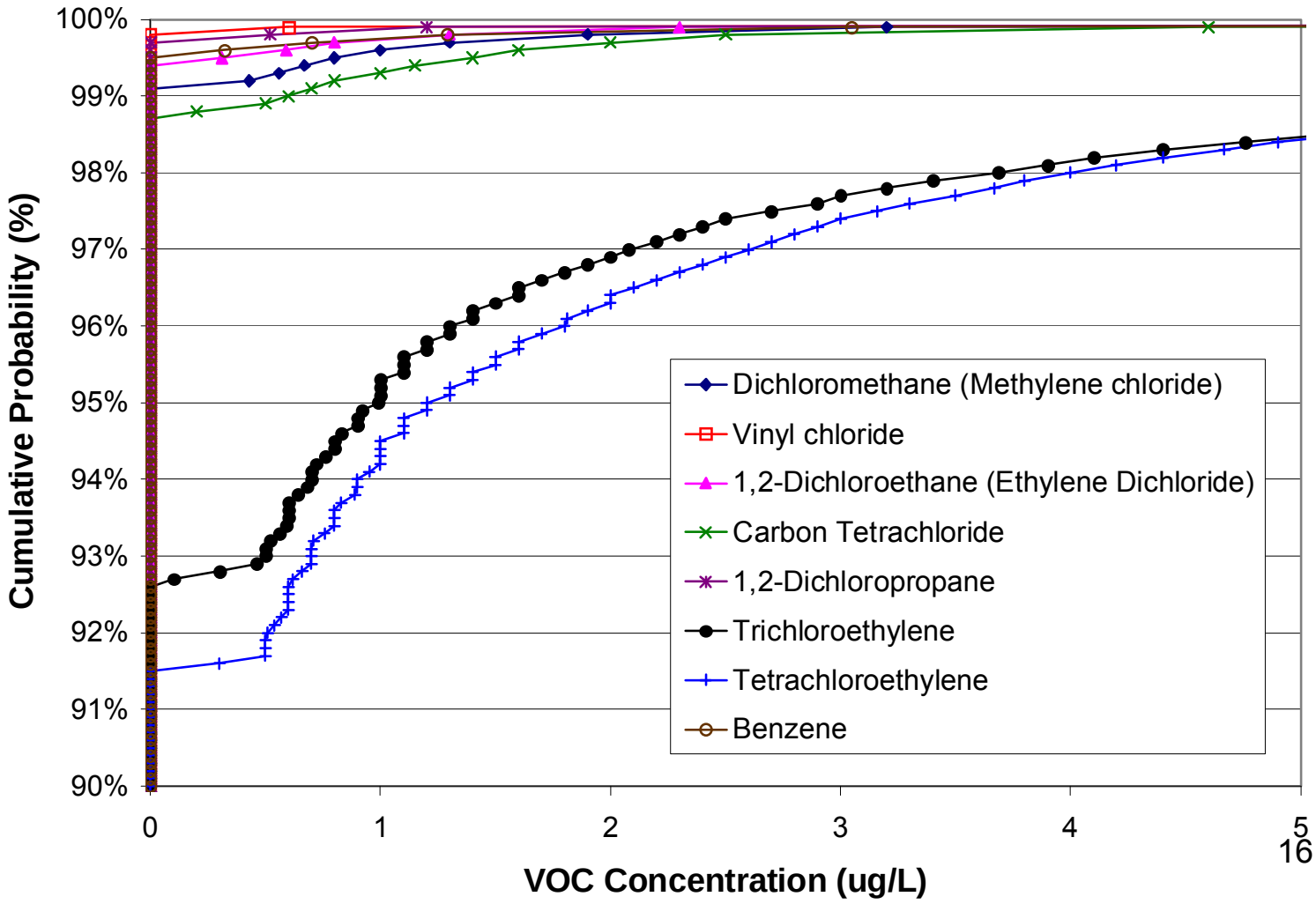
# Cumulative Probability of Occurrence (Results < 5 ug/L)



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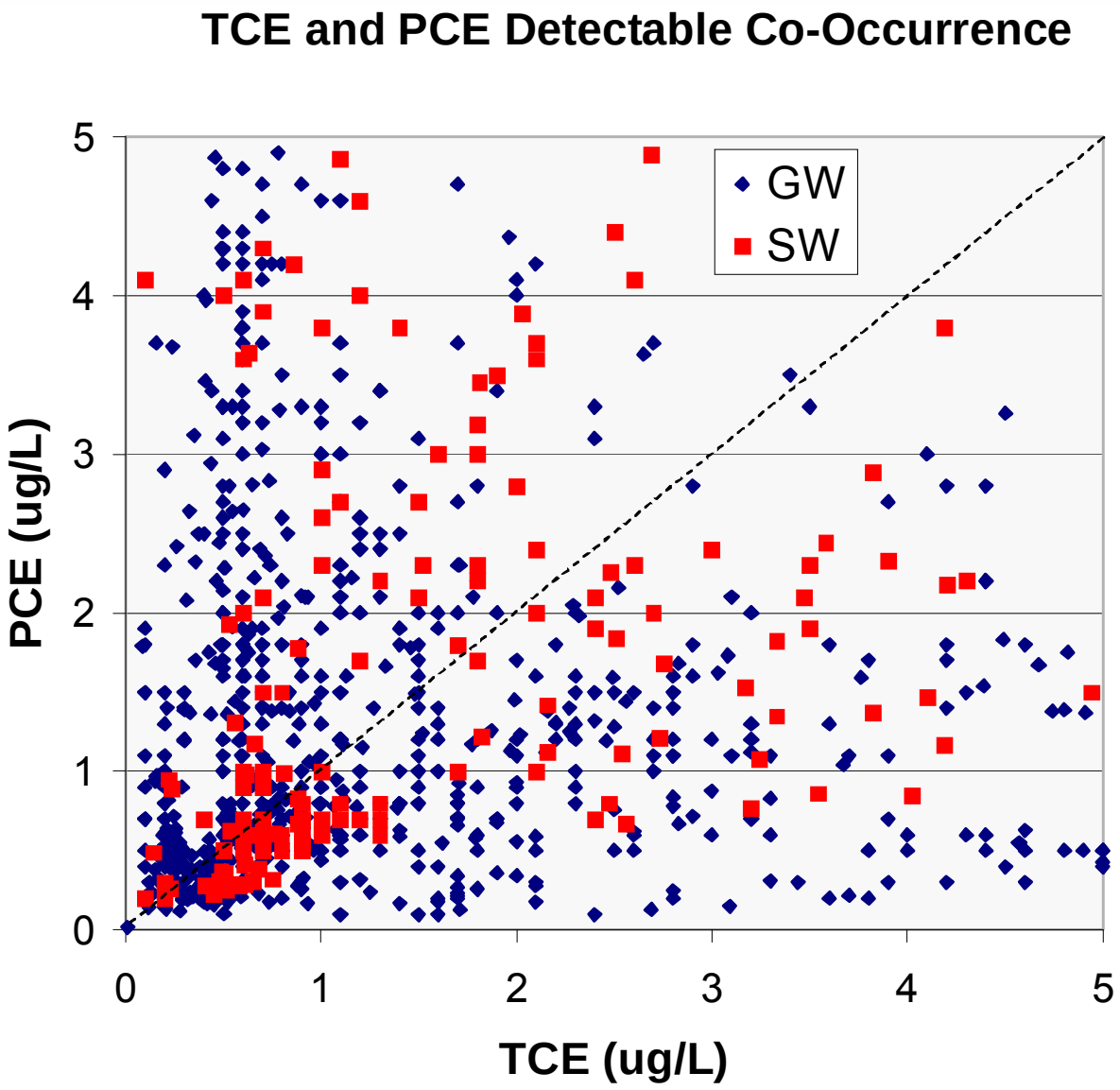
# TCE and PCE Co-Occurrence (Results < 5 ug/L)



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# Current Direction: Carcinogenic VOCs

- What's the latest?
  - "We expect to initiate regulatory efforts to begin addressing carcinogenic VOCs by the end of March 2011. Typically, it takes about 2 to 2.5 years to develop a proposed rule and about 2 years to promulgate a final rule."
    ***USEPA Basic Questions and Answers for the Drinking Water Strategy Contaminant Groups Effort***
  - Lower individual MCLs for both TCE and PCE
    - Analytical method improvements
    - Could be in the range of 0.5 to 1.0 ug/L
    - Risk reduction based on cancer cases avoided
  - Group MCL
    - Simple summation of VOCs in group, perhaps 5 ug/L
    - Must determine what is in or out
    - Demonstrating risk reduction more difficult

# Current Direction: Nitrosamines

EPA Materials
USEPA Stakeholder Meeting
September 21, 2010

**Unregulated CCL 3 (5)** -

N-nitrosodiethylamine (NDEA)

N-nitrosodimethylamine (NDMA)

N-nitroso-di-n-propylamine (NDPA)

N-nitrosodiphenylamine

N-nitrosopyrrolidine (NPYR)

- Common health effect (carcinogens so likely MCLG could be set at zero)
- Common analytical method (521) used to measure
- Common opportunities to reduce formation/exposure
  - Modify the disinfection process by adding oxidants (e.g., free chlorine, ozone, other) prior to ammonia application
  - Manage polymer addition
  - Use TTHM/HAA5 precursor removal treatment in lieu of chloramines
  - Consider source water protection as well
- If regulated as group, could consider total MCL, treatment technique, or combination of two concepts



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# Nitrosamines

- Analysis of UCMR2 data and data collected by Health Canada
- Analysis conducted by Malcolm Pirnie
  - Nicole Blute, Ph.D., P.E.
  - Caroline Russell, Ph.D., P.E.
  - Zaid Chowdhury, Ph.D., P.E.
  - Xueying Wu, D.Env.
- Analysis included both summarizing UCMR2 data and surveying UCMR2 utilities for additional information

MALCOLM PIRNIE



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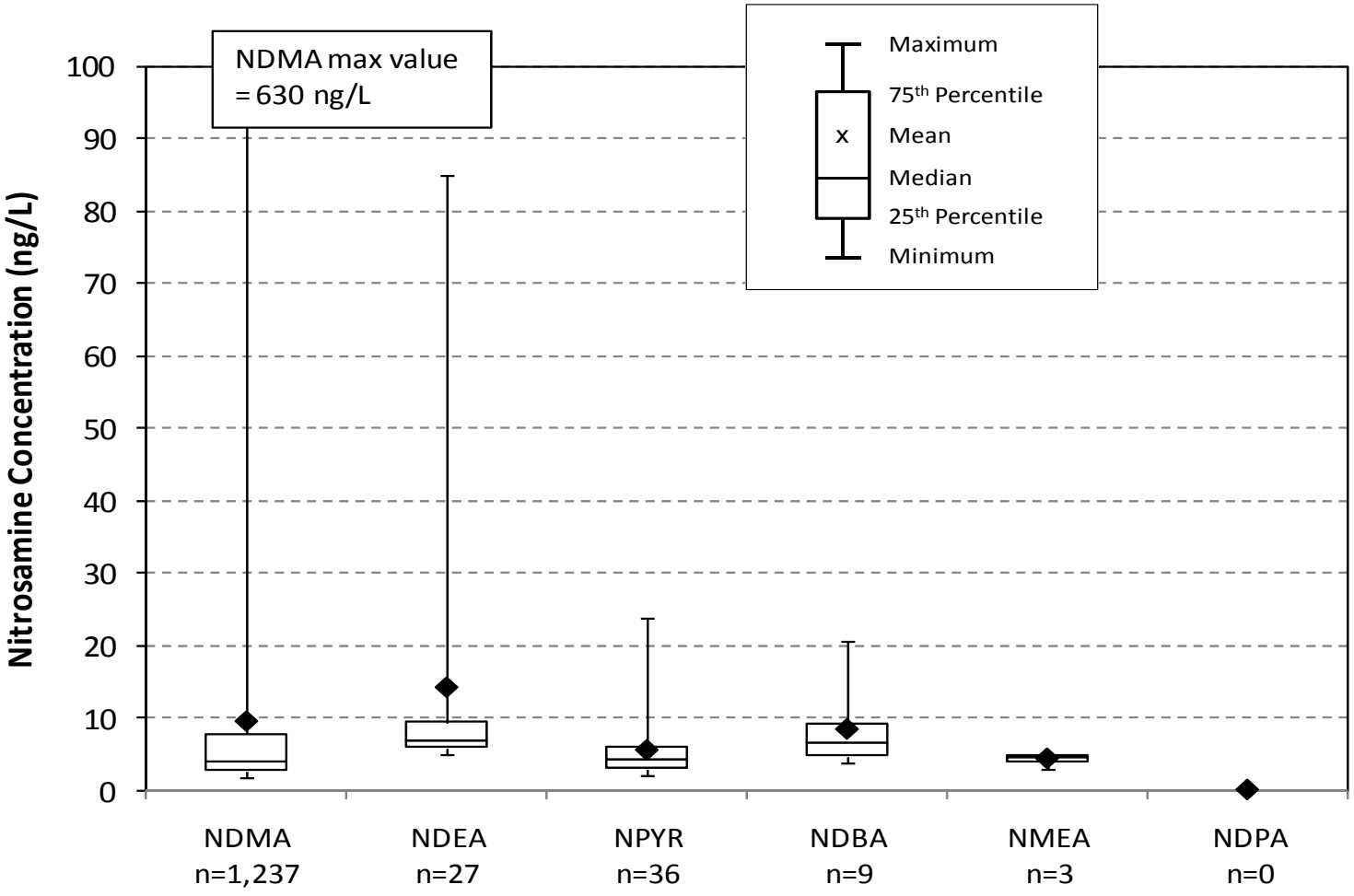
# Nitrosamine Occurrence in UCMR2

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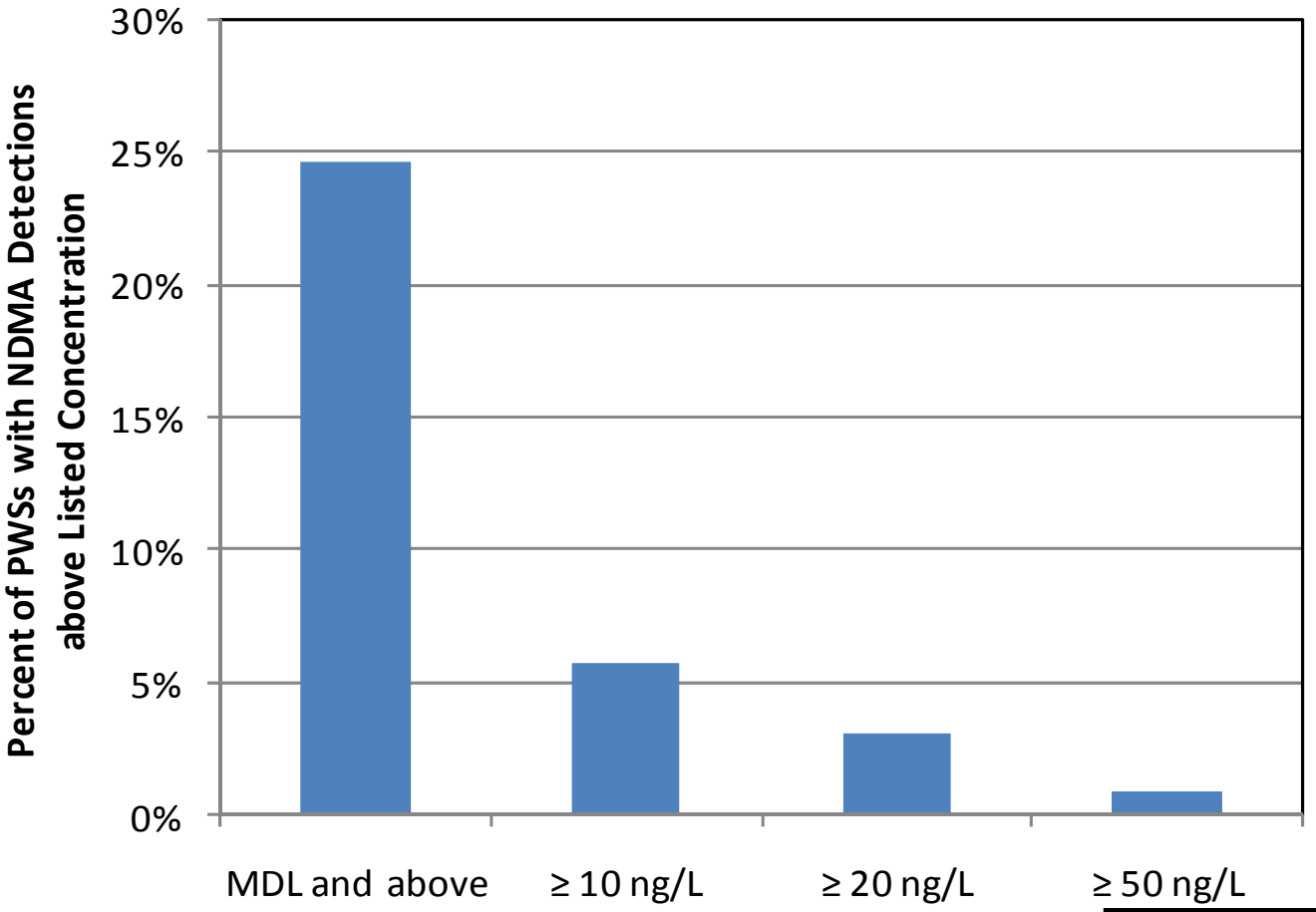
# NDMA – Concentration Thresholds

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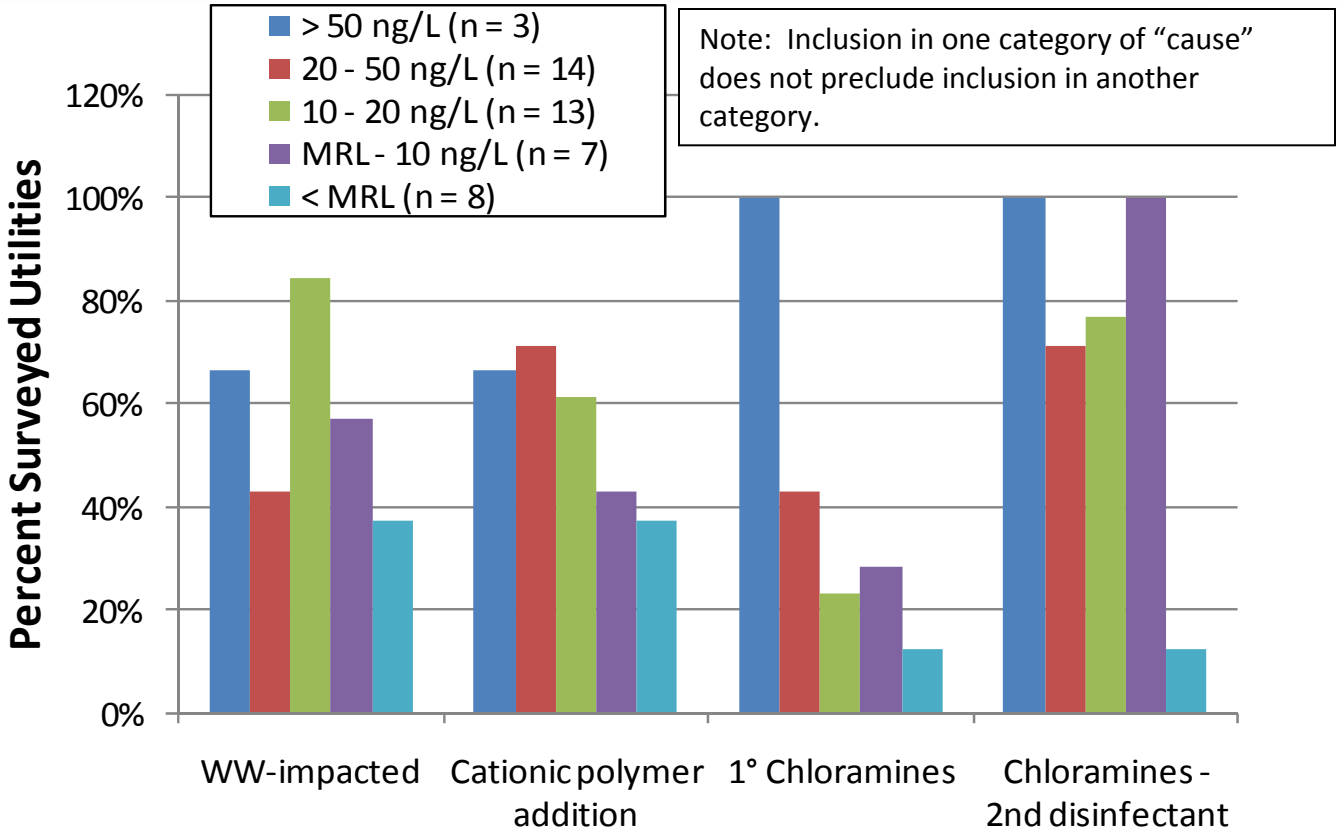
# NDMA - Patterns of Occurrence




**Outstanding research question:** Is co-occurrence with chloramination causal or reflective of a system treating more challenging source water?

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# Current Direction: Nitrosamines

- What's the latest?
  - *"In the near-term, EPA also will evaluate whether to regulate nitrosamine disinfection byproducts as part of the Contaminant Candidate List Regulatory Determination process."*
    ***USEPA Basic Questions and Answers for the Drinking Water Strategy Contaminant Groups Effort***
  - Group MCL likely in the range of 10-20 ng/L, could be lower
  - Potential individual MCLs as well
  - Relative source contribution issues



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# Current Direction: Disinfection Byproducts

EPA Materials
USEPA Stakeholder Meeting
September 21, 2010

| | |
|---|---|
| **Regulated** -<br>Chloroform<br>Bromodichloromethane<br>Dibromochloromethane<br>Bromoform<br>Monochloroacetic acid<br>Dichloroacetic acid<br>Trichloroacetic acid<br>Monobromoacetic acid<br>Dibromoacetic acid<br><br>**Unregulated**<br>100s of unregulated Chlorinated DBPs | • Common health endpoint (bladder cancer); Substantial bladder cancer risk remains post-Stage 1 and Stage 2 DBPR (so could set MCLG of zero for bladder cancer risk for chlorinated DBPs as supported by epi studies)<br>• Some stakeholders advocated a treatment technique approach to capture many contaminants; may be more applicable to this group<br>- Common treatment technique approach - Remove DBP precursors (total organic carbon or TOC) prior to disinfection to reduce DBP exposure and risk<br>-Common analytical measure/indicator - use TOC (e.g., lower concentration bound and/or percent removal) as a performance measure because it is easy to monitor and allows for treatment choice flexibility (e.g., enhance coagulation, oxidation/filtration, GAC, and/or membranes) to achieve TOC performance metric.<br><br>•Technologies/approaches used to remove DBPs precursors and DBPs could also reduce other contaminants<br>• Source water protection could also be used to achieve TOC metric (contributes to removal of organic and nitrogenous material ) |

# Current Direction: Disinfection Byproducts

- What's the latest?
  - Awaiting publication of ongoing health studies
  - Developing research agenda for disinfection byproducts associated with chlorination (e.g., managing residual bladder cancer risk)

# Other Current Issues: Fluoride

- January 7, 2011 actions
- EPA released new health and exposure document
  - New RfD at 0.08 mg/kg/d for severe dental fluorosis
  - Will review fluoride MCLs given new RfD
    - 4.0 mg/L primary MCL
    - 2.0 mg/L secondary MCL
  - Other health outcomes not addressed
- HHS proposed recommendation of 0.7 mg/L
  - Replaces the current recommended range of 0.7 to 1.2 mg/L
  - Updated recommendation based on recent EPA and HHS scientific assessments to balance the benefits of preventing tooth decay while limiting any unwanted health effects.

# Other Current Issues: Hexavalent Chromium

| | |
|---|---|
| Sept. 30, 2010 | USEPA IRIS Toxicological Review of Hexavalent Chromium (External Review Draft) |
| Dec. 2010 | EWG Report<br>*"Chromium-6 – the Erin Brockovich Chemical – Is Widespread in U.S. Tap Water:*<br>*Tests find cancer-causing chemical in 89 percent of cities sampled"* |
| Dec. 31, 2010 | California OEHHA offered a revised PHG at 0.02 ug/L |
| Jan. 11, 2011 | USEPA recommended sampling |

# Other Current Issues: Hexavalent Chromium

- Continued questions regarding how to proceed with monitoring
  - Potential inclusion on UCMR3
  - Administrator request for utilities to volunteer monitoring data
- Relevance of low-level detection samples given treatment limitations and health end points

# Hexavalent Chromium: Analytical Methods

## Methods applicable to drinking water

| Method | Method Detection Level (µg/L) |
|---|---|
| Ion Chromatography (IC,EPA Method 218.6) | 0.3 |
| Colorimetric (diphenylcarbazide) | 50 |
| **Dionex Modified IC Method (Application Update 144)*** | **0.02** |

* Several certified labs in California currently using this method to reliably measure 0.06 µg/L Cr(VI)

# Hexavalent Chromium: Sampling Methods

- EPA and California DPH currently evaluating several issues associated with sampling and preservation of Cr(VI)

- Sampling:
  - Should aeration/ contact with air be minimized during sample collection?
    - Potential for oxidation of Cr(III) to Cr(VI)
  - Should sample be field filtered upon collection, or prior to analysis?
    - Field filtration likely to contaminate sample, preferably filter prior to IC analysis to prevent column clogging

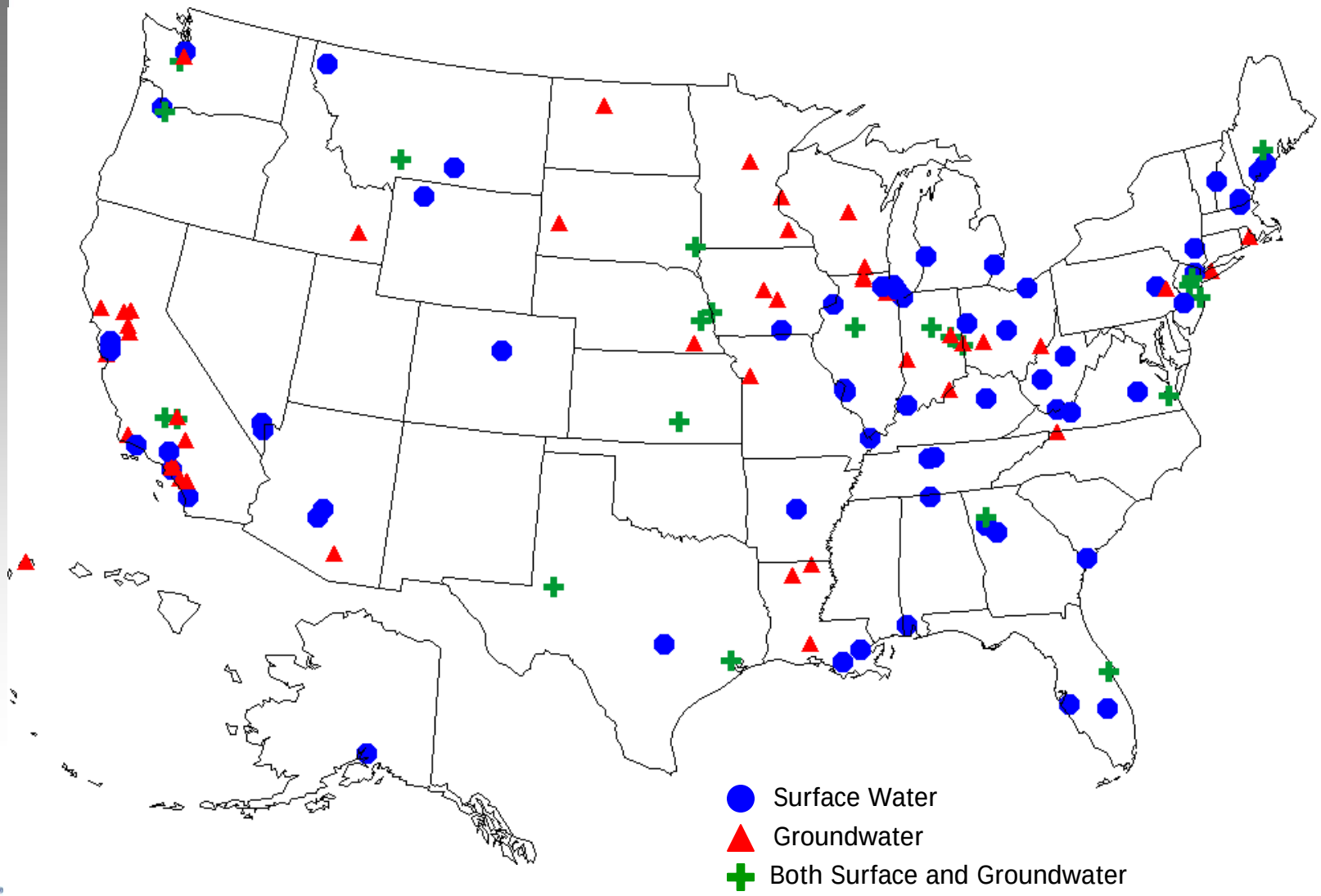
# Hexavalent Chromium: Preservation Methods

- Should sample be field preserved immediately upon collection or lab preserved within a few hours?
  - Eaton et al. (2001) demonstrated that up to 18 hours delay in preservation does NOT alter Cr(VI) concentrations
- Buffers for Cr(VI) sample preservation:
  - Intent to increase sample pH to 9.0 – 9.5
  - EPA 218.6 method uses ammonium sulfate/ ammonium hydroxide
    - Challenge: This buffer is not able to increase pH to 9.0 in several drinking water matrices
  - CA DPH currently evaluating alternate borate buffer
    - Likely to be more stable than ammonia solution

# Hexavalent Chromium: Sample Hold Times

- EPA method 218.6 recommended maximum allowable hold time to be 24 hours
  - Recommendation was based on wastewater and environmental samples, not drinking water
- Preserved (buffered + refrigerated) samples can be held for 28 days (EPA, 1994)
- Dec. 2010 EPA enhanced monitoring recommendation suggested a hold time of 5 days

# Hexavalent Chromium: WaterRF Occurrence Survey

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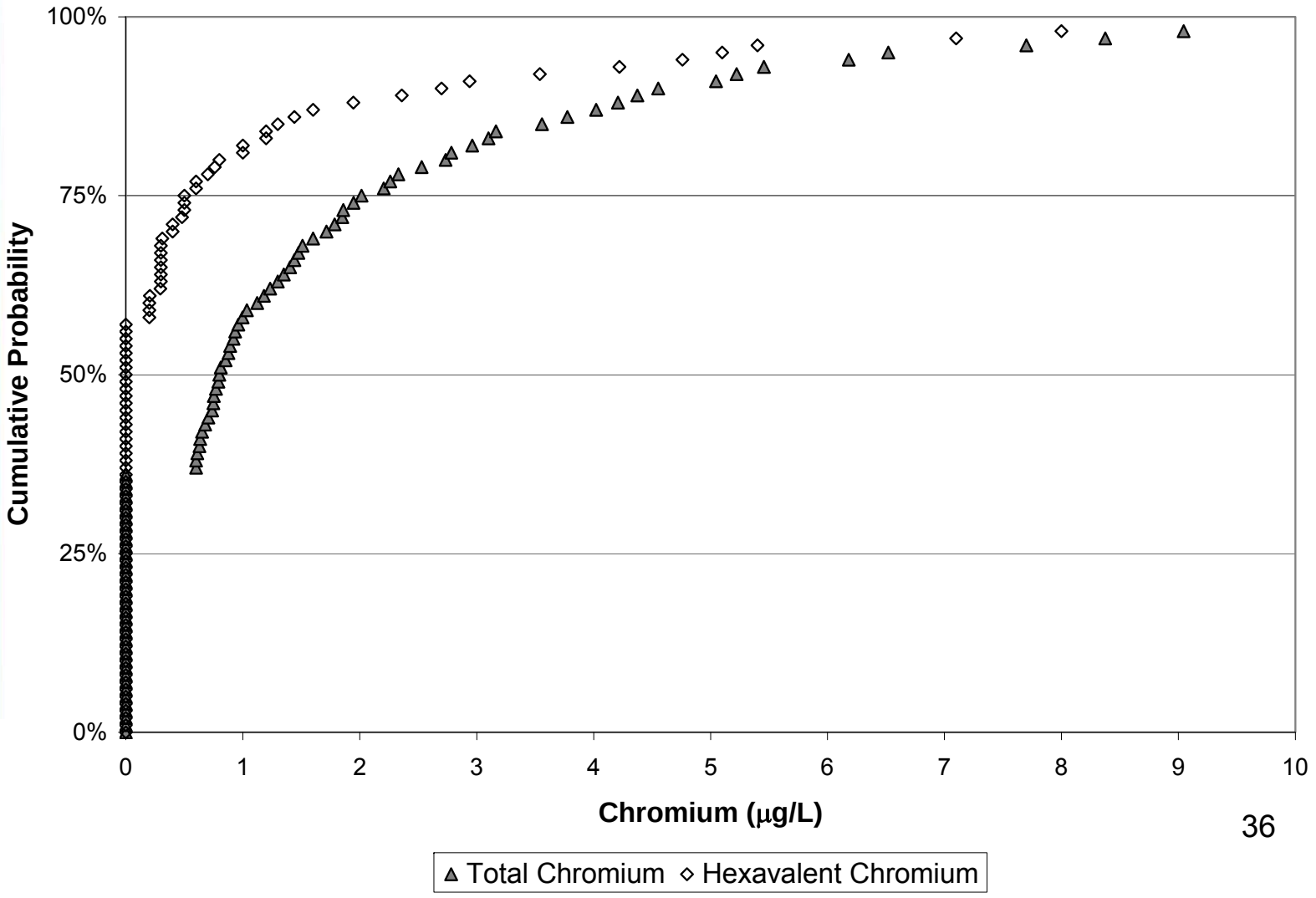
# Hexavalent Chromium: WaterRF Occurrence Survey

| Parameter | Cr(VI) | Total Chromium |
|---|---|---|
| Count | 341 | 342 |
| MDL | 0.2 | 0.6 |
| % non-detect | 57.2% | 38.8% |
| Average (µg/L) | 1.1 | 1.9 |
| Median (µg/L) | Non-detect | 0.8 |
| Maximum (µg/L) | 52.6 | 47.1 |

# Hexavalent Chromium: WaterRF Occurrence Survey



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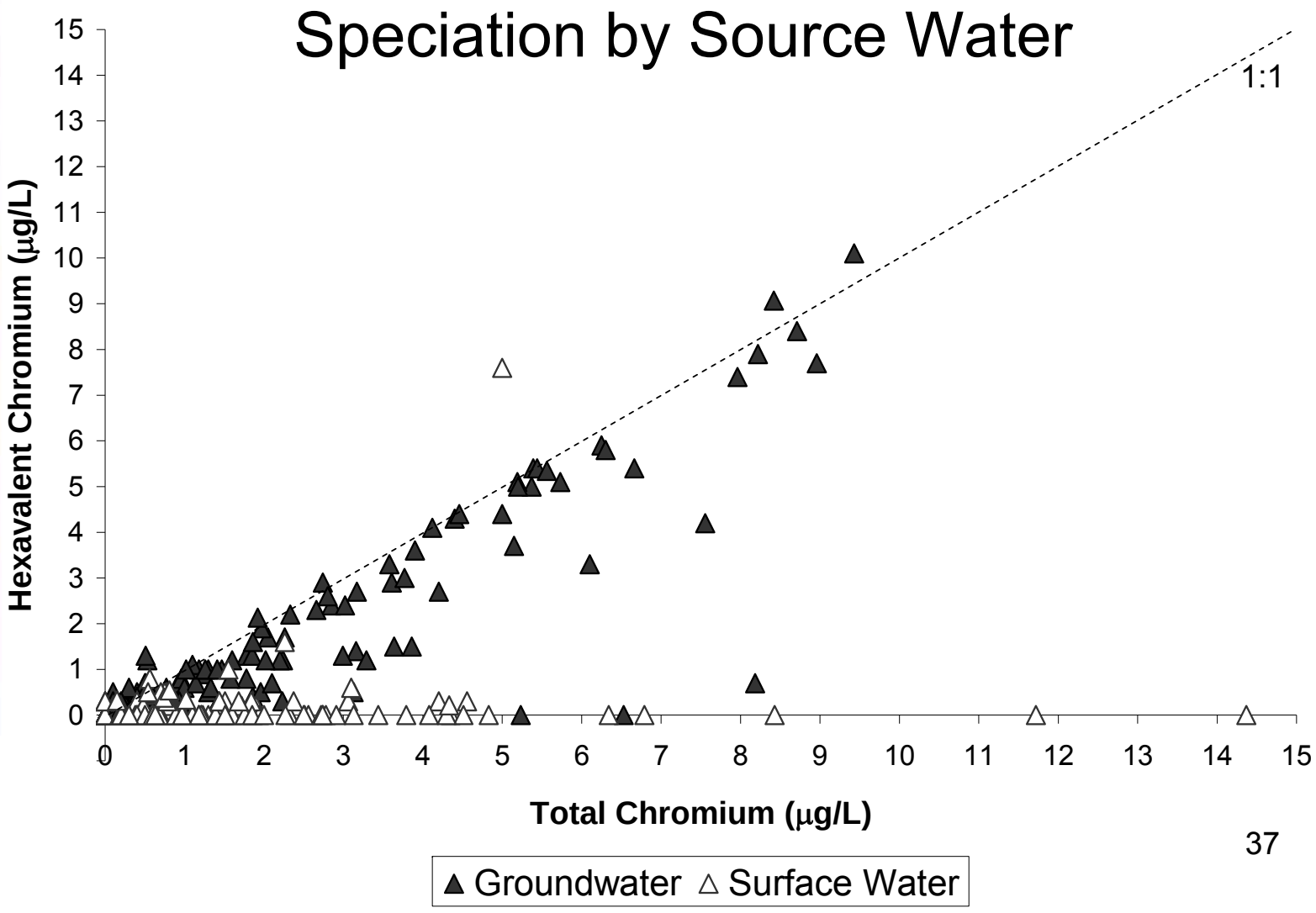
# Hexavalent Chromium: WaterRF Occurrence Survey



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# Hexavalent Chromium: Treatment Options

- Treatment demonstrated to <5 ug/L
  - Reduction Coagulation Filtration (RCF)
  - Ion Exchange
    - Strong Base Anion (SBA)
    - Weak Base Anion (WBA)



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# Current Direction: Hexavalent Chromium

- What's the latest?
  - According to Administrator, EPA "likely" to regulate hexavalent chromium
  - Regulatory process would take up to two years
    - Completion of human health assessment study
    - Ensuing public comment period
  - Senators Boxer and Feinstein introduced Senate bill 79 which would require EPA to promulgate a hexavalent chromium standard within one year of legislation

# Questions?

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JACOBS

**NOTE: This bill has been prepared for the signature of the appropriate legislative officers and the Governor. To determine whether the Governor has signed the bill or taken other action on it, please consult the legislative status sheet, the legislative history, or the Session Laws.**

# An Act

HOUSE BILL 10-1051

BY REPRESENTATIVE(S) Pommer, Fischer, Frangas, Hullinghorst, Labuda, Looper, Pace;
also SENATOR(S) Whitehead, Carroll M., Foster, Tochtrop.

CONCERNING ADDITIONAL INFORMATION REGARDING COVERED ENTITIES' WATER EFFICIENCY PLANS.

*Be it enacted by the General Assembly of the State of Colorado:*

**SECTION 1.** 37-60-126 (4) (a) (I) and (9) (a), Colorado Revised Statutes, are amended, and the said 37-60-126 is further amended BY THE ADDITION OF A NEW SUBSECTION, to read:

**37-60-126. Water conservation and drought mitigation planning - programs - relationship to state assistance for water facilities - guidelines - water efficiency grant program - repeal.** (4) A plan developed by a covered entity pursuant to subsection (2) of this section shall, at a minimum, include a full evaluation of the following plan elements:

(a) The water-saving measures and programs to be used by the covered entity for water conservation. In developing these measures and programs, each covered entity shall, at a minimum, consider the following:

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*Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.*

(I) Water-efficient fixtures and appliances, including toilets, urinals, CLOTHES WASHERS, showerheads, and ~~faucets~~ FAUCET AERATORS;

(4.5) (a) ON AN ANNUAL BASIS STARTING NO LATER THAN JUNE 30, 2014, COVERED ENTITIES SHALL REPORT WATER USE AND CONSERVATION DATA, TO BE USED FOR STATEWIDE WATER SUPPLY PLANNING, FOLLOWING BOARD GUIDELINES PURSUANT TO PARAGRAPH (b) OF THIS SUBSECTION (4.5), TO THE BOARD BY THE END OF THE SECOND QUARTER OF EACH YEAR FOR THE PREVIOUS CALENDAR YEAR.

(b) NO LATER THAN FEBRUARY 1, 2012, THE BOARD SHALL ADOPT GUIDELINES REGARDING THE REPORTING OF WATER USE AND CONSERVATION DATA BY COVERED ENTITIES, AND SHALL PROVIDE A REPORT TO THE SENATE AGRICULTURE AND NATURAL RESOURCES COMMITTEE AND THE HOUSE OF REPRESENTATIVES AGRICULTURE, LIVESTOCK, AND NATURAL RESOURCES COMMITTEE, OR THEIR SUCCESSOR COMMITTEES, REGARDING THE GUIDELINES. THESE GUIDELINES SHALL:

(I) BE ADOPTED PURSUANT TO THE BOARD'S PUBLIC PARTICIPATION PROCESS AND SHALL INCLUDE OUTREACH TO STAKEHOLDERS FROM WATER PROVIDERS WITH GEOGRAPHIC AND DEMOGRAPHIC DIVERSITY, NONGOVERNMENTAL ORGANIZATIONS, AND WATER CONSERVATION PROFESSIONALS; AND

(II) INCLUDE CLEAR DESCRIPTIONS OF: CATEGORIES OF CUSTOMERS, USES, AND MEASUREMENTS; HOW GUIDELINES WILL BE IMPLEMENTED; AND HOW DATA WILL BE REPORTED TO THE BOARD.

(c) (I) NO LATER THAN FEBRUARY 1, 2019, THE BOARD SHALL REPORT TO THE SENATE AGRICULTURE AND NATURAL RESOURCES COMMITTEE AND THE HOUSE OF REPRESENTATIVES AGRICULTURE, LIVESTOCK, AND NATURAL RESOURCES COMMITTEE, OR THEIR SUCCESSOR COMMITTEES, ON THE GUIDELINES AND DATA COLLECTED BY THE BOARD UNDER THE GUIDELINES.

(II) THIS PARAGRAPH (c) IS REPEALED, EFFECTIVE JULY 1, 2020.

(9) (a) Neither the board nor the Colorado water resources and power development authority shall release grant or loan proceeds to a

covered entity unless ~~such~~ THE covered entity provides a copy of the water conservation plan adopted pursuant to this section; except that the board or the authority may release ~~such~~ THE grant or loan proceeds NOTWITHSTANDING A COVERED ENTITY'S FAILURE TO COMPLY WITH THE REPORTING REQUIREMENTS OF SUBSECTION (4.5) OF THIS SECTION OR if the board or the authority, as applicable, determines that an unforseen emergency exists in relation to the covered entity's loan application, in which case the board or the authority, as applicable, may impose a grant or loan surcharge upon the covered entity that may be rebated or reduced if the covered entity submits and adopts a plan in compliance with this section in a timely manner as determined by the board or the authority, as applicable.

**SECTION 2. Applicability.** This act shall apply to conduct occurring on or after the effective date of this act.

**SECTION 3. Safety clause.** The general assembly hereby finds,

determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

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| Terrance D. Carroll<br>SPEAKER OF THE HOUSE<br>OF REPRESENTATIVES | Brandon C. Shaffer<br>PRESIDENT OF<br>THE SENATE |
| Marilyn Eddins<br>CHIEF CLERK OF THE HOUSE<br>OF REPRESENTATIVES | Karen Goldman<br>SECRETARY OF<br>THE SENATE |

APPROVED_____

Bill Ritter, Jr.
GOVERNOR OF THE STATE OF COLORADO