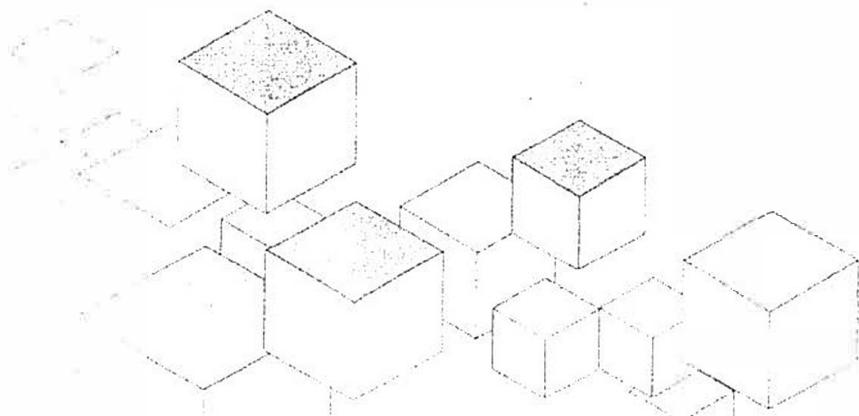


October 4 - 5, 2012

COMMENTS TO THE EPA NATIONAL DRINKING WATER ADVISORY COUNCIL

KIMBERLY WISE, PH.D.

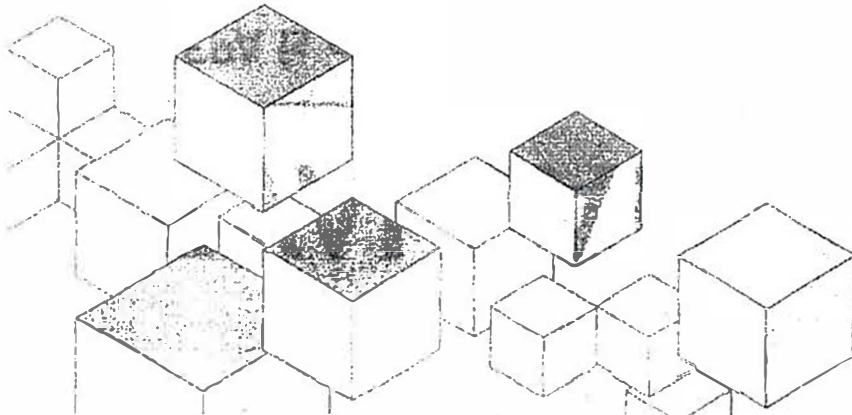


BACKGROUND



On February 11, 2011 EPA published a positive determination to regulate perchlorate under the Safe Drinking Water Act (SDWA). A positive regulatory determination can be made if a substance:

- ☐ may have an adverse effect on the health of persons;
- ☐ is known to occur or there is a substantial likelihood that it will occur in public water systems with a frequency and at levels of public health concern; and
- ☐ presents a meaningful opportunity for health risk reduction for persons served by public water systems.



EVALUATE AND ENGAGE

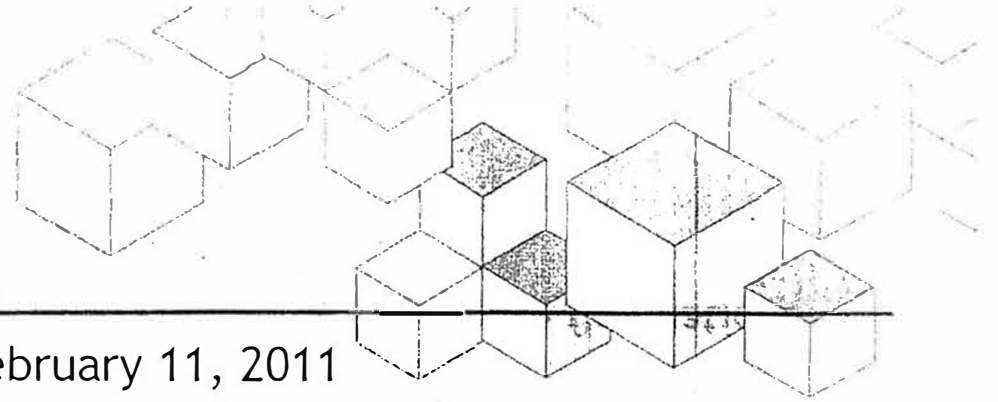
EPA is evaluating the:

- ☐ health effects of perchlorate
- ☐ feasibility of treatment
- ☐ affordability of treatment for small systems, the costs and the benefits
- ☐ implementation of a perchlorate standard

EPA is seeking input from:

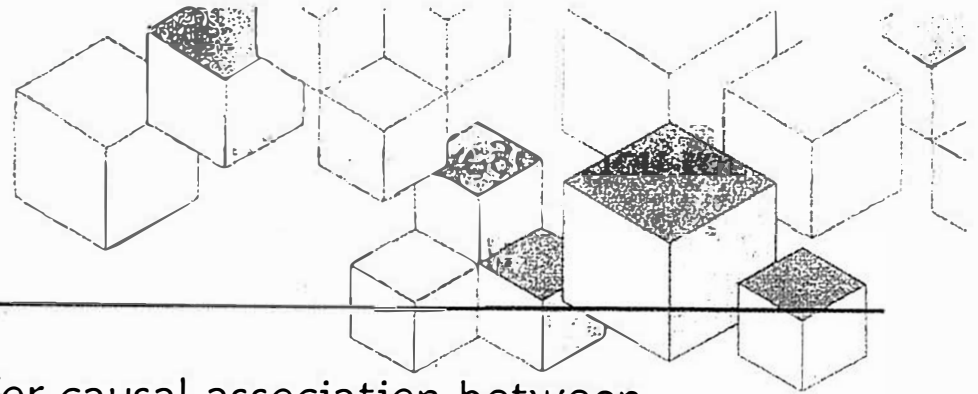
- ☐ Science Advisory Board
- ☐ National Drinking Water Advisory Council
- ☐ Department of Health and Human Services
- ☐ State and Tribal drinking water programs
- ☐ Regulated community (public water systems)
- ☐ Public health organizations, academia, environmental and public interest groups, and other interested stakeholders

PROCESS



- ☐ Final Regulatory Determination - February 11, 2011
- ☐ Public Meeting on Environmental Justice Considerations - March 3, 2011
- ☐ Science Advisory Board Perchlorate Advisory Panel
 - Meeting - July 18 -19, 2012
 - Draft Report - September 5, 2012
 - Conference Call - September 25, 2012
- ☐ Public Stakeholder Meeting - September 20, 2012
- ☐ National Drinking Water Advisory Council Meeting - October 4-5, 2012
- ☐ Meeting of the Small Business Regulatory Enforcement Fairness Act (SBREFA) Panel - TBD
- ☐ Availability of the Health Risk Reduction Cost Analysis - TBD
- ☐ Availability of Proposed National Primary Drinking Water Regulation for public comment by February 11, 2013

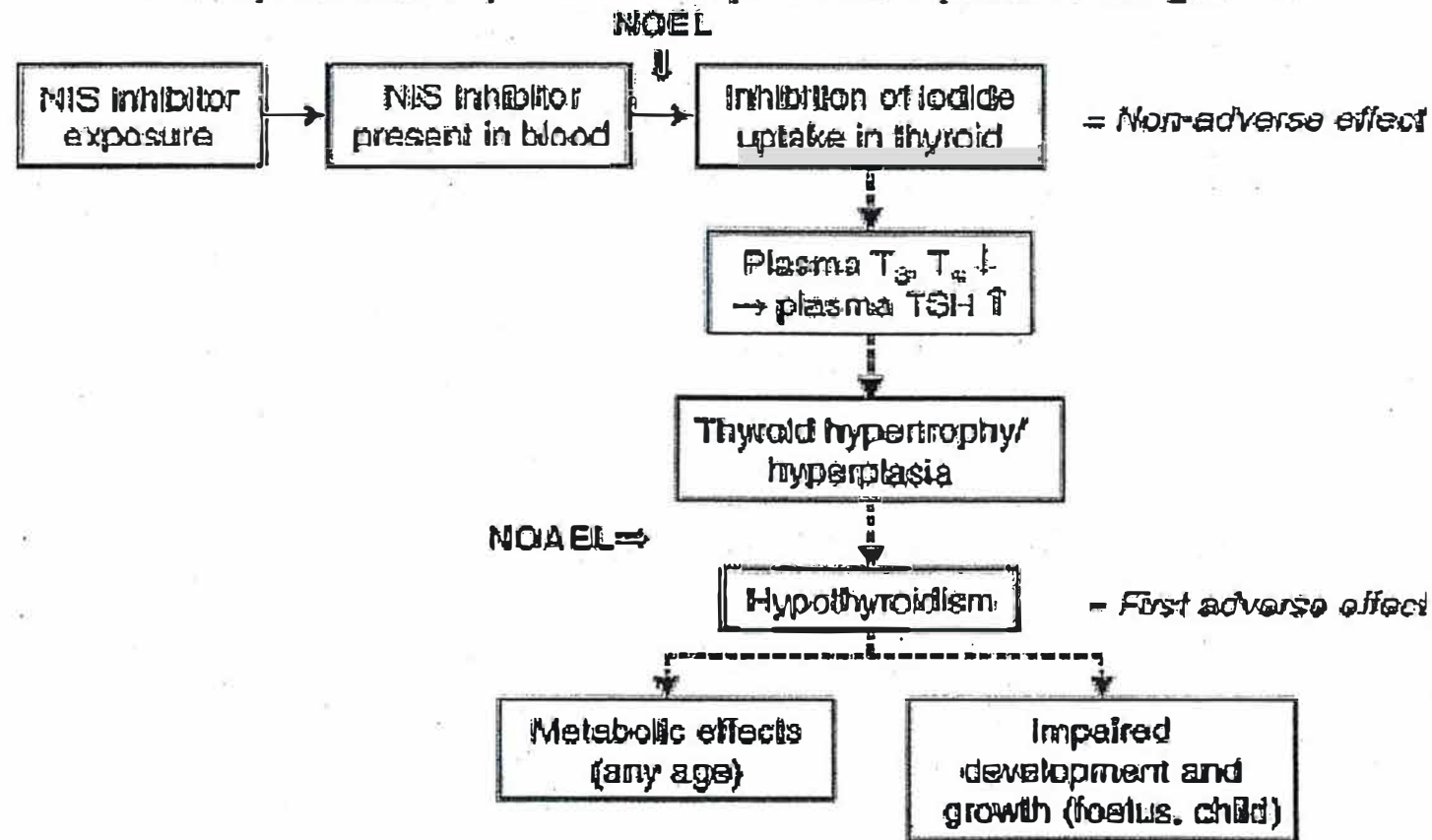
THE SCIENCE



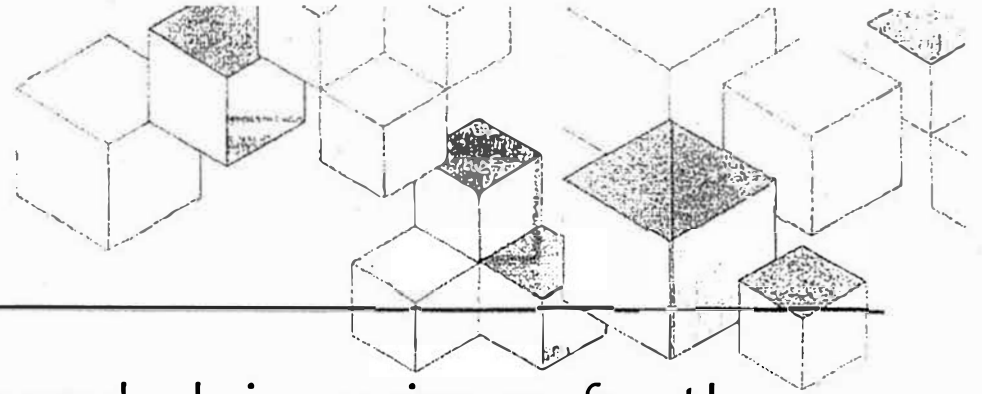
- ☐ Epidemiology data are insufficient for causal association between perchlorate exposure and thyroid dysfunction
- ☐ Adverse neurodevelopmental effects from perchlorate exposure have not been reported
- ☐ Iodide uptake inhibition (IUI) is a potential effect from perchlorate exposure
 - IUI is not an adverse health effect
 - IUI is a key event that precedes all thyroid-mediated effects; changes in thyroid hormone levels are not necessarily adverse
 - Iodide uptake fluctuates every day as a result of diet and other factors
 - The body's natural adaptive processes compensate for these fluctuations

REGULATING BASED ON NO EFFECT LEVEL

Figure 1 Model for the mode-of-action of NIS inhibitor toxicity in humans, based on the model of the Committee to Assess the Health Implications of Perchlorate Ingestion, which prepared the January 2005 NAS report "Health implications of perchlorate ingestion".



SUMMARY



- ☐ Review and evaluate the underlying science for the regulation
- ☐ Confirm a meaningful opportunity to provide public health benefit
- ☐ Implement best practices from regulatory agencies and public water systems that have implemented similar standards for perchlorate
- ☐ Ensure robust and coordinated engagement with stakeholders throughout the process