

TREASURE COAST REGIONAL PLANNING COUNCIL

MEMORANDUM

To: Council Members AGENDA ITEM 9
From: Staff
Date: June 17, 2016 Council Meeting
Subject: Human Health Criteria Surface Water Quality Standards – Presentation by Florida Department of Environmental Protection, David Whiting, Deputy Division Director, Water Quality Standards Program

Introduction

Certain chemicals can harm human health when present in water in high enough concentrations. People are exposed to these chemicals when they drink the water. They are also exposed when eating seafood from contaminated waters since these chemicals can accumulate in the bodies of fish and shellfish. The U.S. Environmental Protection Agency (EPA) develops human health criteria, which specify how much of a chemical may be present in a water body before there is a threat to human health. These criteria are recommendations for states and tribes that are developing water quality standards.

The Florida Department of Environmental Protection (FDEP) is currently in the process of updating its human health-based water quality standards to ensure Floridians can continue to safely eat Florida seafood and drink potable water from state surface waters. Florida's current human health-based water quality criteria were last updated in 1992. To meet U.S. EPA obligations, the FDEP is working to update these criteria to incorporate new scientific information, including national guidance published by the EPA last summer.

The presentation to Council is intended as an opportunity to provide information about FDEPs current program and update process and to address any questions or concerns. Exhibit 1 provides a Frequently Asked Questions document produced by FDEP for more information about the current human health criteria update process for surface water quality standards.

Recommendation

For information only.

Attachment

EXHIBIT 1

FREQUENTLY ASKED QUESTIONS HUMAN HEALTH CRITERIA

Q: What are Human Health Criteria?

A: Human Health Criteria are health-based surface water quality standards DEP sets to ensure Floridians can continue to safely eat Florida's seafood and drink potable water from state surface waters.

Q: Why is DEP updating these standards?

A: Florida's current human health-based water quality criteria were last updated in 1992. To meet U.S. Environmental Protection Agency (EPA) obligations, the Florida Department of Environmental Protection (DEP) is working to update these criteria to incorporate new scientific information, including national guidance published by the EPA last summer.

Q: Are these new proposed standards less protective than previous standards?

A: Absolutely not. In fact, we are increasing protection by proposing to nearly double the number of regulated chemicals to better protect Floridians from exposure to contaminants. In addition to adding criteria for 39 chemicals that are currently unregulated, DEP is also updating 43 existing criteria that were originally established in 1992 to incorporate new science.

Q: How were the proposed criteria determined?

A: DEP used only the latest, and most accurate, scientific information to calculate the criteria. DEP's proposed criteria are based on EPA's new recommendations, and knowledge of Floridians seafood consumption habits and waterbody characteristics. The criteria consider a range of environmental variables and account for the most at-risk populations, including young children, pregnant women and those whose diets comprise primarily of Florida seafood.

Q: Why didn't DEP just adopt EPA's numbers?

A: The state is following EPA's guidance and lead in updating their criteria, which recommends that states develop criteria that "use local or regional data in place of a default value."

In addition, EPA recommends not just a single numeric value, but a range of numbers for each carcinogen. DEP's criteria consistently fall safely within EPA's recommended range to protect human health. To be more specific, EPA states that criteria must be somewhere in the range between extremely low risk and very low risk. DEP's criteria favor extremely low risk. For example, EPA guidance for benzene recommends criteria between 16 and 580 micrograms per liter for class 3 waterways. DEP's proposal is 93 micrograms per liter.

Q: What sort of input has DEP had in the process of developing these criteria?

A: To help develop our criteria, DEP received direct input from a seven-member scientific review panel, of which EPA was a member, that provided comments and recommendations on our technical and scientific approach. This panel included representatives from the EPA, the Florida Department of Health, four different Florida universities and the California Environmental Protection Agency. DEP is following the panel's recommendations.

Since 2012, we've also hosted 11 public meetings statewide and regularly communicated with more than 1,000 individuals and organizations to provide updates and solicit feedback.

Q: Some of the numbers for the proposed criteria are going up, doesn't that mean they are less protective?

A: No. In every single case, these values still ensure that Floridians are protected from adverse health effects. DEP used a peer-reviewed analytical method to apply new scientific data – including the EPA's own guidance – to these proposed criteria. The resulting numeric values are lower for about half of the chemicals, but higher for the other half. Again, DEP's criteria consistently fall safely within EPA's recommended range to protect human health.

Q: Why is DEP's criteria calculation method preferred?

A: DEP's method accounts for how, and how much, all Floridians eat, drink, shower and swim, and set the limits necessary to protect all those Floridians from adverse health effects. Whether you eat Florida fish only occasionally or enjoy seafood from our waters every single day, these criteria ensure your potential health impacts, from an entire lifetime of exposure, falls safely within EPA's (and the World Health Organization's) range of very low to extremely low risk. In fact, DEP's proposed criteria specifically target extremely low risk.

In contrast, EPA's numbers are based on analysis on one set of characteristics – i.e. one average weight, one fish consumption rate, one drinking water rate. DEP's approach allows us to take into consideration the characteristics of all Floridians. This is a much more sophisticated and comprehensive analytical method that allows us to generate criteria to protect all Floridians including small children and people who eat more seafood than average.

Q: Will the proposed criteria lessen regulation of the oil and gas industry?

A: No, DEP's proposed criteria are based solely on scientifically sound and verifiable information and variables.

In addition to updating benzene (based on new state and national science), the state is actually proposing new regulations for five additional benzene-specific compounds that were previously unregulated. We are also proposing to strengthen and add criteria for many other hydrocarbons -- oil and gas byproducts.

Q: Why aren't some chemicals such as arsenic and dioxin being updated?

EPA did not update either of these chemicals in their 2015 guidance. However, Floridians clearly remain protected from arsenic and dioxin, two chemicals that are currently regulated in Florida – at EPA's specified levels – under the Clean Water Act. DEP will continue to collect data and update Florida's surface water criteria, including human health criteria, when valid scientific information is available.

Q. Is the current arsenic criterion really 1,000 times the drinking water standard?

A: No, the current arsenic criterion for Class I waters is identical to the drinking water standard. Some members of the public apparently misinterpreted the different units used by each program (ug/L versus mg/L) and concluded the Class I criterion is 1,000 times the drinking water standard.

Q: Is there still an opportunity for public comment?

A: Public comment will be accepted through June 2, 2016.

Public comment should be submitted to:

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Q: What happens after the public comment ends?

A: Once the public comment period ends, DEP staff will carefully consider all comments and update its proposed rules as necessary. If substantial changes occur, another round of public workshops will be held. Once the proposed standards are finalized, they must be approved by the Florida Environmental Regulation Commission. Finally, the adopted standards must also be approved by the EPA.