

Lower Umatilla Basin Groundwater Management Area (LUBGWMA) Designation and the Technical Impracticability Waiver (TIW)

Todd Jarvis

Institute for Water & Watersheds @ Oregon State University

January 14, 2021

Summary of Previous Presentation

Creative use of both existing and emerging federal and state regulatory tools through Joint Fact Finding to address the LUBGWMA include the following:

- Inventory other states where a TIW process may have been applied to both areas of concern that are managed by state agencies, as well as to nitrates (identified 13 at this point in time).
- Explore "prioritization" of groundwater for different uses based on water quality, perhaps moving from "beneficial" uses to "designated" uses.
- Sole Source Aquifers (SSA) Petition to EPA to protect the water quality of the deeper basalt aquifers (approximately 80 in US at this point in time).
- Special purpose voluntary agreement among aquifer users in Oregon for the complex sand and gravel aquifer system(s) focusing on "designated" uses (see ORS 537.745)

Why Consider the TIW Process?

The GWMA process offers some guidance on repealing the declaration of the GWMA through implementation of action plans to establishing an "area of groundwater concern" if contaminant levels drop, yet there is no guidance on technical impracticability if no improvement (see ORS 468B.188).

What is the TIW Process?

A Petition to EPA or State Agency that includes the following overview:

1. Specific media cleanup standards for which TI determinations are sought.
2. Spatial area over which the TI decision will apply.
3. Conceptual model that describes site geology, hydrology, groundwater contamination sources, transport, and fate.
4. An evaluation of the restoration potential, including data and analyses that support any assertion that attainment of media cleanup standards is technically impracticable from an engineering perspective:
 - a. A demonstration that contamination sources have been identified and have been, or will be, removed and contained to the extent practicable;
 - b. An analysis of the performance of any ongoing or completed remedial actions;
 - c. Predictive analyses of the timeframes to attain required cleanup levels using available technologies; and
 - d. A demonstration that no other remedial technologies (conventional or innovative) could reliably, logically, or feasibly attain the cleanup levels at the site within a reasonable timeframe.
5. Estimates of the cost of the existing or proposed remedy options.