

Toxic Tales

Impact of Revised Toxic Water Quality Standards On Oregon Municipal Treatment Plants

Start with the end in mind – likely impacts of revised water quality standards on Oregon Municipal NPDES permit holders

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Likely Impacts of the Revised Water Quality Standards

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- More complex and lengthy permit renewal process
- More stringent permit limits
- More—and more complex—monitoring (for permit renewal, for DMRs, for ambient water quality)
- More challenging public processes (permit renewal, budget, pollution prevention)
- Greater pressure on source control efforts (and on pretreatment programs and industrial discharges)

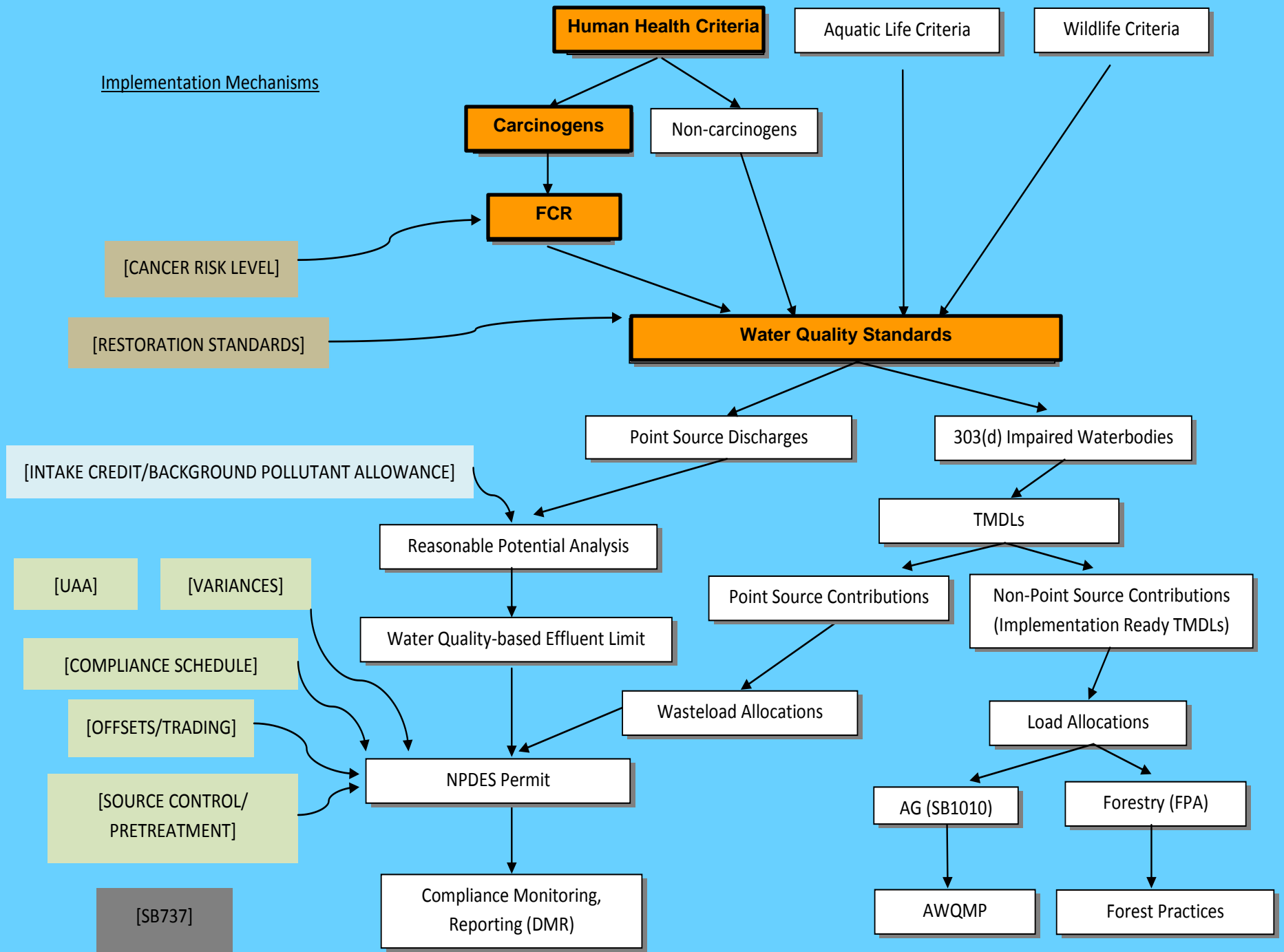
Likely Impacts of the Revised Water Quality Standards

(continued)

- Greater expectations of the analytical process and capabilities
- Tighter reclaimed water use requirements
- More 303(d) listings
- More TMDLs for human health pollutants
- Continuing tension and confrontations over non-point source contributions and controls
- More litigation?

Context

- **Water quality standards are established to protect beneficial uses of the State's waters:**
 - **Domestic water supply**
 - **Fish and aquatic life**
 - **Commercial navigation**
 - **Wildlife and hunting**
 - **Industrial water supply**
 - **Irrigation**
 - **Water contact recreation**
 - **Aesthetic quality**
 - **Fishing**
 - **Hydropower**
 - **Livestock watering**
 - **Boating**



Context

(continued)

- **Water quality standards are used and applied in:**
 - **WQBELs**
 - **303(d) listings**
 - **TMDL development (WLAs and LAs)**
 - **Reclaimed water standards**
 - **Cleanup standards**
 - **Stormwater benchmarks(?)**

Recap of the Process to revise the WQS

- **Background on current rules proposal:**
 - **Water Quality Standards reviewed every three years ☺**
 - **Fish consumption rate (FCR) is an element of human health protection (was 6.5 g/day)**
 - **FCR of 17.5 g/day adopted by the EQC in 2004**
 - **Tribal governments challenged this rate, EPA disapproved, DEQ undertook a second round of review**
 - **EQC adopted a FCR of 175 g/day in 2008 and directed DEQ to develop implementation rules**

Recap of the Process to revise the WQS

(continued)

- **EQC Directive:**

- **Revise Oregon's toxics criteria for human health based on a FCR of 175 grams per person per day**
- **Propose rule language to implement revised standards in an environmentally meaningful and cost-effective manner**



Recap of the Process to revise the WQS

(continued)

- **EQC Directive:**

- **Propose rule language other implementation strategies to reduce the adverse impacts of toxic substances in Oregon's waters that are the result of non-point sources**
- **Develop a rule and implementation methods that carefully consider the costs and benefits of the fish consumption rate and the data and scientific analysis**



Recap of the Process to revise the WQS

(continued)

- **Rulemaking Workgroup**
 - **8 members: municipal and county governments, industry, and environmental organizations**
- **Non-NPDES Workgroup**
 - **13 members: Rulemaking Workgroup plus members representing the forestry and agricultural industry**

Recap of the Process to revise the WQS

(continued)

- **Major issues addressed**
 - **Technical details in calculating the standards**
 - **Comprehensive toxics control**
 - **Implementation strategies and tools**
 - **Pretreatment and pollution prevention**
 - **Non-point sources, implementation-ready TMDLs**

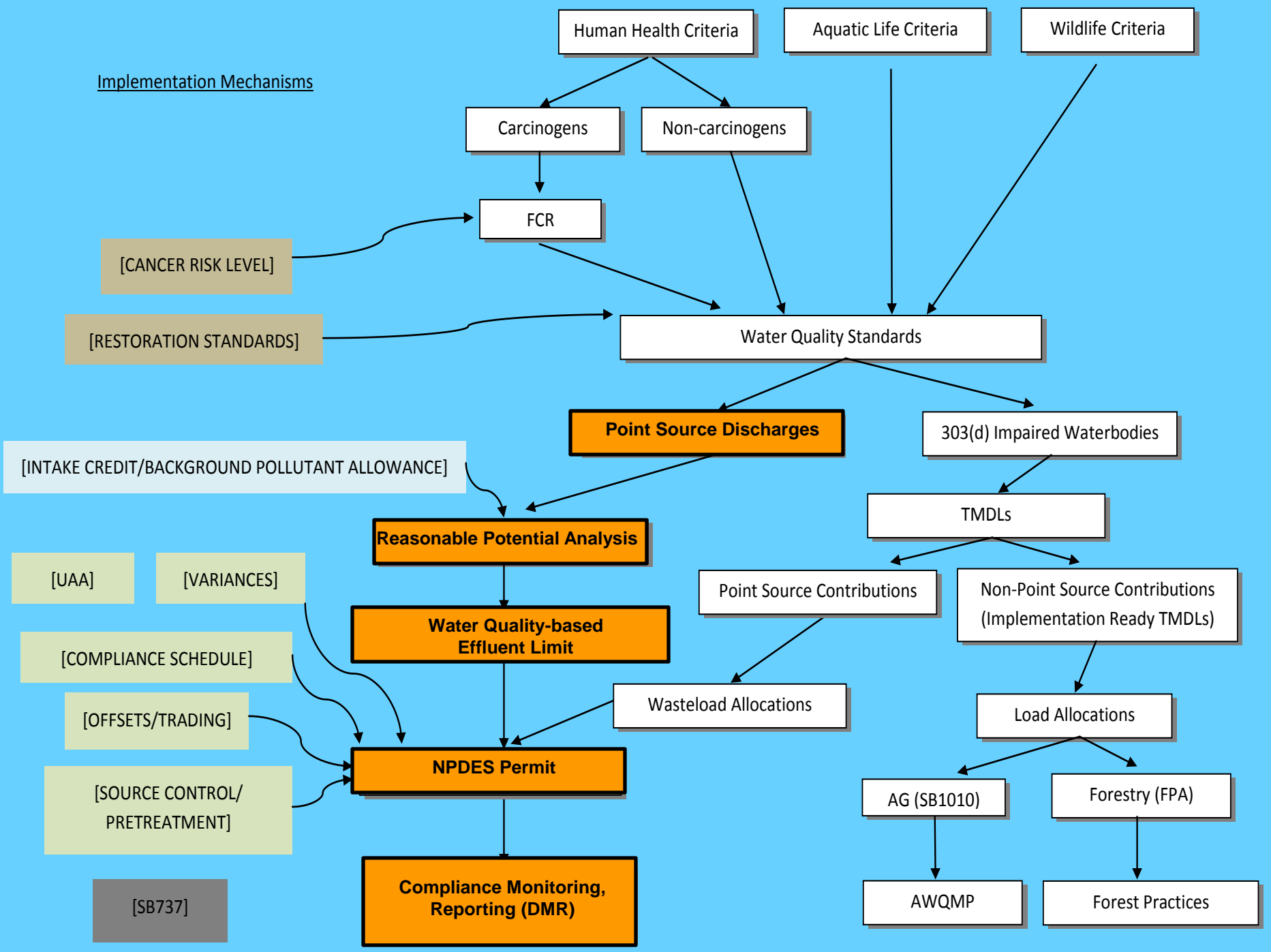
Recap of the Process to revise the WQS

- **Rulemaking package, including 113 revised WQ criteria, approved by EQC June 2011**
- **EPA approved revised criteria October 17, 2011**

Outcome

Table 40

No.	Pollutant	CAS No.	Carcinogen	Aquatic Life Criterion	Human Health Criteria for the Consumption of:	
					Water + Organism (µg/L)	Organism Only (µg/L)
38	DDT 4,4'	50293	y	y	0.000022	0.000022
39	Dibenz(a,h)anthracene	53703	y	n	0.0013	0.0018
40	Dichlorobenzene(m) 1,3	541731	n	n	80	96
41	Dichlorobenzene(o) 1,2	95501	n	n	110	130
42	Dichlorobenzene(p) 1,4	106467	n	n	16	19
43	Dichlorobenzidine 3,3'	91941	y	n	0.0027	0.0028
44	Dichlorobromomethane	75274	y	n	0.42	1.7
45	Dichloroethane 1,2	107062	y	n	0.35	3.7
46	Dichloroethylene 1,1	75354	n	n	230	710
47	Dichloroethylene trans 1,2	156605	n	n	120	1000
48	Dichlorophenol 2,4	120832	n	n	23	29
49	Dichloropropane 1,2	78875	y	n	0.38	1.5
50	Dichloropropene 1,3	542756	y	n	0.30	2.1



Implementation Mechanisms

- **New Background Pollutant Allowance Rule**
- **New Intake Credit Rule**
- **Revised Variance Rule**
- **Existing “tools”**
 - **Use Attainability Analysis**
 - **Site specific WQS**
 - **Reasonable Potential Analysis**
 - **Compliance schedules(?)**

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Summary

- Changes to the water quality standards are a done deal (stop complaining)
- Do **NOT** rely on the old way of permit renewal
- Must understand the relevance of the standards to your operations and your data
- Understand the RPA process
- Develop a proactive strategy for permit renewal and compliance