**A Plan to Update the Cleanup Rule**

(Chapter 173-340 WAC)

**Washington State Department of Ecology**
Toxics Cleanup Program

**Clint Stanovsky**
Rulemaking Lead, Policy & Technical Support Unit

**Stakeholder & Tribal Advisory Group**
September 25, 2019

9/25/2019          Cleanup Rule Update – Stakeholder & Tribal Advisory Group
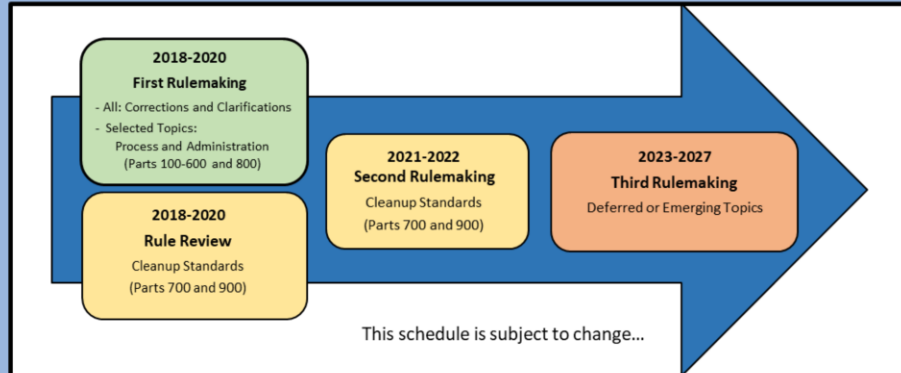
DEPARTMENT OF
ECOLOGY
State of Washington

## STAG Presentation 1 of 4 (09-25-2019)

This presentation introduces Stakeholder & Tribal Advisory Group (STAG) members to efforts by the Toxics Cleanup Program since 2017 to launch a new process for updating the Model Toxics Control Act's (MTCA's) Cleanup Rule.

**STAKEHOLDER & TRIBAL ADVISORY GROUP**

Cleanup Rule Update – Chapter 173-340 WAC
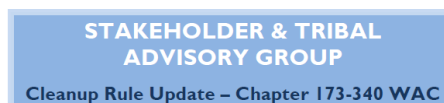
**Updating the Cleanup Rule: A Three-Stage Approach
Chapter 173-340 WAC**

**2018-2020**
**First Rulemaking**
- All: Corrections and Clarifications
- Selected Topics:
  Process and Administration
  (Parts 100-600 and 800)

**2018-2020**
**Rule Review**
Cleanup Standards
(Parts 700 and 900)

**2021-2022**
**Second Rulemaking**
Cleanup Standards
(Parts 700 and 900)

**2023-2027**
**Third Rulemaking**
Deferred or Emerging Topics

This schedule is subject to change...

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## Exploratory Rulemaking

The exploratory rulemaking process defines a new approach for updating the Cleanup Rule. Instead of updating it all at once, we're doing so in three stages (called "rulemakings") over several years.

Each rulemaking will focus on a few selected topics. This approach will help speed adoption of the changes that are most urgent for people who use the rule.

**First rulemaking (2018–2020):** We're updating parts of the rule that contain administrative and procedural requirements for site cleanups. We **won't** change the technical cleanup standards during the first rulemaking.

**Second rulemaking (expected to begin 2021):** We'll update the technical cleanup standards.

**Third rulemaking (expected to begin 2023):** We'll address previously deferred topics and new issues that emerge during the first two rulemakings.

## Model Toxics Control Act – Guiding Principles
### Chapter 70.105D.010 RCW

| "Declaration of policy" | Cleanup Rule |
|---|---|
| (1) Each person has a fundamental and inalienable right to a healthful environment… | ✓ protecting the most susceptible<br>✓ environmental justice |
| (1) … beneficial stewardship of the land, air, and waters of the state is a solemn obligation of the present generation for the benefit of future generations. | ✓ preference for permanent solutions |
| (4) It is in the public's interest to efficiently use our finite land base… and to make clean land available for future social use. | ✓ technical and administrative innovation |
| (5) each responsible person should be liable jointly and severally. | ✓ bias toward action |
| (6) … it is in the public interest that affected communities be notified of where releases of hazardous substances have occurred and what is being done to clean them up. | ✓ informed public participation<br>✓ stakeholder involvement |

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This table summarizes core principles from the Model Toxics Control Act that we'll continue to balance as we update the rule to reflect current technical, economic and administrative conditions.

The left column has excerpts from the Declaration of Policy in the first section of the Act. The right column shows how we try to apply these principles to our rules and policies.

Row 1:  … This principle guides us to rules that protect the most susceptible persons, and to address possible disproportionate adverse impacts on disadvantaged communities.

Row 2:  … This principle leads to a preference for the most permanent practicable cleanup solution at each site.

Row 3: …  This leads us to seek and adopt innovate technical and administrative approaches to cleanups, reflecting new science, new economic conditions and new environmental challenges.

Row 4:  … This principle has significant legal and financial implications, but it is also evidence of a bias toward action carried throughout the Model Toxics Control Act.

Row 5:  … This principle means that the Cleanup Rule must provide for pro-active public involvement at each cleanup site.  It also requires robust stakeholder involvement as we go about updating the rule.

## The Toxics Cleanup Program (TCP) envisions a Cleanup Rule that:

- Protects human health and the environment

- Defines a practical cleanup process

- Drives priority cleanup projects to completion

- Creates incentives to return all sites to economic and environmentally productive use

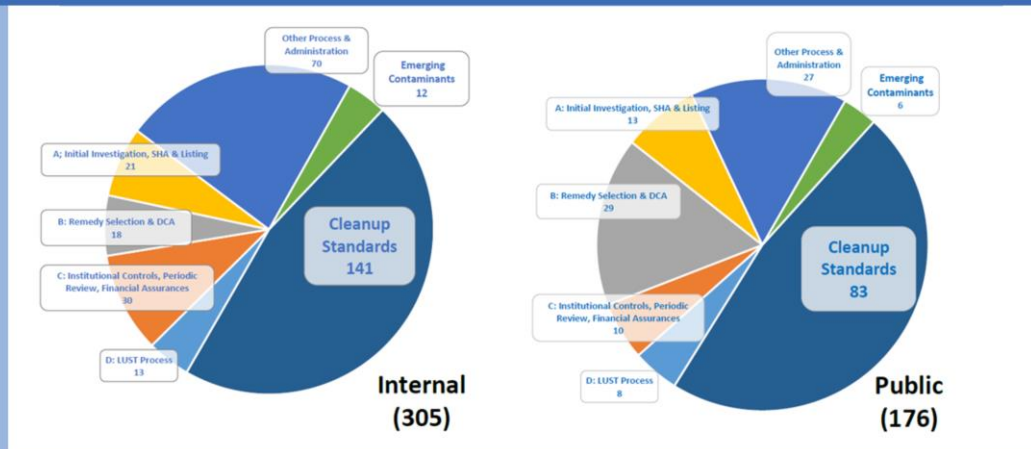- Provides clear expectations to the regulated community and the public

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From a visioning process involving TCP staff and managers in early 2017, in the lead-up to the Exploratory Rulemaking.

## Cleanup Rulemaking: Internal & Public Scoping
### number of suggested rule changes by topic – through April 15, 2018

**Internal (305)**
- Other Process & Administration: 70
- Emerging Contaminants: 12
- A: Initial Investigation, SHA & Listing: 21
- B: Remedy Selection & DCA: 18
- C: Institutional Controls, Periodic Review, Financial Assurances: 30
- D: LUST Process: 13
- Cleanup Standards: 141

**Public (176)**
- Other Process & Administration: 27
- Emerging Contaminants: 6
- A: Initial Investigation, SHA & Listing: 13
- B: Remedy Selection & DCA: 29
- C: Institutional Controls, Periodic Review, Financial Assurances: 10
- D: LUST Process: 8
- Cleanup Standards: 83

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[This slide was added *after* the STAG briefing on September 25, 2019]

As a prelude to public discussion of possible rule changes, the Toxics Cleanup Program (TCP) solicited staff comments and suggestion for rule changes through several events during 2017. We also reviewed about 200 rule changes under consideration during the 2009-10 update, before it was suspended by Executive Order (due to economic conditions and budget constraints).

In early 2018, Ecology conducted an Exploratory Rulemaking for the Cleanup Rule Update, in which we solicited and received 176 new comments from the public. The comment period closed on April 15, 2018.

These charts compare the number of comments received from internal (Ecology) sources and public sources, grouped by topic. The "internal" count includes comments from the suspended rulemaking of 2009–2010.

- About half of the comments received considered the Cleanup Standards and emerging contaminants (such as PFAS and PFOA), while about half considered various process and administration topics

(continued)

**Cleanup Rulemaking: Internal & Public Scoping**
number of suggested rule changes by topic – through April 15, 2018

Internal (305) pie chart:
- Other Process & Administration 70
- Emerging Contaminants 12
- A; Initial Investigation, SHA & Listing 21
- B: Remedy Selection & DCA 18
- C: Institutional Controls, Periodic Review, Financial Assurances 30
- D: LUST Process 13
- Cleanup Standards 141

Public (176) pie chart:
- Other Process & Administration 27
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- A: Initial Investigation, SHA & Listing 13
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- Cleanup Standards 83

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Same slide, continued:

Comparing the number of Ecology and public comments on <u>process and administration</u> topics:

- About 33% of public comments focused on cleanup remedy selection and the Disproportionate Cost Analysis (DCA), compared to 12% of Ecology comments.

- Similar shares of Ecology and public comments focused on the LUST process (9%); and on initial investigations, ranking and listing (14-15%).

- About 14% of Ecology comments focused on institutional controls, periodic reviews and financial assurances, compared to about 11% of public comments.

- About 46% of Ecology comments addressed a wide variety of "Other" process and administration topics, compared to 31% of public comments on administrative topics other than the "big four."

## Choosing a Focus for the 1st Rulemaking

| | Criterion | — | 0 | + |
|---|---|---|---|---|
| 1 | **Rulemaking Difficulty** | Complex | Uncertain | Simple |
| 2 | **Effect on Cleanup Completion Rate** | Negative or Indeterminate | Long-Term Positive | Near-Term Positive |
| 3 | **Stakeholder Concern** | Polarized | Indifferent | Consensus |
| 4 | **Demand on Staff Capacity** | High | Moderate or Unknown | Low |
| 5 | **Alternatives to Rulemaking** | Good | Acceptable | Poor |
| 6 | **Urgency** | Low | Medium | High |
| 7 | **Environmental Justice Benefit** | Little | Moderate | Significant |

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So, how did we go about deciding which of the various process and administration rulemaking topics to focus on?

We identified seven criteria to look at … [shown on the slide].

For example (reading down the right column): If a rulemaking topic were simple, had a near-term positive effect on the site cleanup completion rate, ...

Applying this analysis to the comments on process and administration issues from the scoping, we identified 3 topics to consider in one way or another, in this rulemaking:

1. The Site Hazard Assessment and Ranking Process (SHARP)
2. Remedy selection and the Disproportional Cost Analysis (DCA)
3. The Leaking Underground Storage Tank (LUST) cleanup process

Of these, SHARP is in most urgent need of (and ready for) rulemaking at this time…

## A Focus for the 1st Rulemaking

| TOPIC: | Site Hazard Assessment and Ranking Process (SHARP) | Remedy Selection and Disproportionate Cost Analysis (DCA) | Leaking Underground Storage Tank (LUST) Process |
|---|---|---|---|
| First Rulemaking | Focal topic | clarifications and narrow changes | "low-hanging fruit" identified early in the LUST strategic planning process |
| Later Rulemakings | none anticipated | if/when needed | based on LUST Strategic Plan |
| Policy and Procedure, or Guidance | replace WARM  develop policies, procedures and guidance | address most issues through guidance | update the LUST Strategic Plan  actively enforce the existing rule |

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Here's how we think it will be best to deal with these topics.

This general strategy for the first rulemaking was adopted by the TCP Program Management Team and has been approved by the Ecology Executive Leadership Team.

- Site hazard ranking and listing will be the focal topic for substantive changes during the first rulemaking.

- Remedy selection and the DCA issues can mostly be addressed by guidance, BUT – it will be helpful to make some significant effort to clarify and update the existing provisions of the rule regarding remedy selection. This will provide a basis for developing clearer guidance on cost considerations during remedy selection.

- We think that there are several procedural improvements to the LUST provisions of the rule that we can – and should – make now; but more far reaching changes should reflect a strategic planning process that will need to happen in coming years.

Questions?

Comments?

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**Rules for Rulemaking:**
**The Administrative Procedure Act**
(Chapter 34.05 RCW)
**The Regulatory Fairness Act**
(Chapter 19.85 RCW)

**Washington State Department of Ecology**
Toxics Cleanup Program

**Clint Stanovsky**
Rulemaking Lead, Policy & Technical Support Unit

**Stakeholder & Tribal Advisory Group**
September 25, 2019

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## STAG Presentation 2 of 4 (09-25-2019)

The purpose of this presentation is to establish a common base of understandings within the STAG about the rulemaking process in which we're involved.

## Rule vs Policy

**Rule**
- Generally applicable regulation or order
- Applies uniformly to members of a class AND
- Subjects violators to a penalty or sanction, OR
- Affects benefits or privileges conferred by law…

✓ **Made according to the Administrative Procedure Act**

**Policy**
- Expresses an agency's current approach to implementation of a statute
- May include current practices, procedures or methods based on the approach

✓ **Made by the agency, but available to public and published with notice in the State Register**

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A **Rule** is an agency order, directive or regulation of general applicability that:

> Applies uniformly to members of a class AND

> Subjects violators to a penalty or sanction OR

> Creates, alters or revokes enjoyment of benefits or privileges conferred by law OR

> Affects requirements for agency hearings, licensing, or commercial product or material standards.

A **Policy Statement:**

> Expresses the current approach of an agency to implementation of a statute or other provision of law

> Includes, where appropriate, the agency's current practice, procedure, or method of action based on that approach.

With some exceptions, the Administrative Procedure Act requires that:

> **Rules** be made according to the processes defined in the APA;

> **Policy statements**, though not subject to the APA requirements for rules, must be available to the public and be issued with notice to the code reviser, for publication in the State Register.

**RULE-MAKING PROCESS**
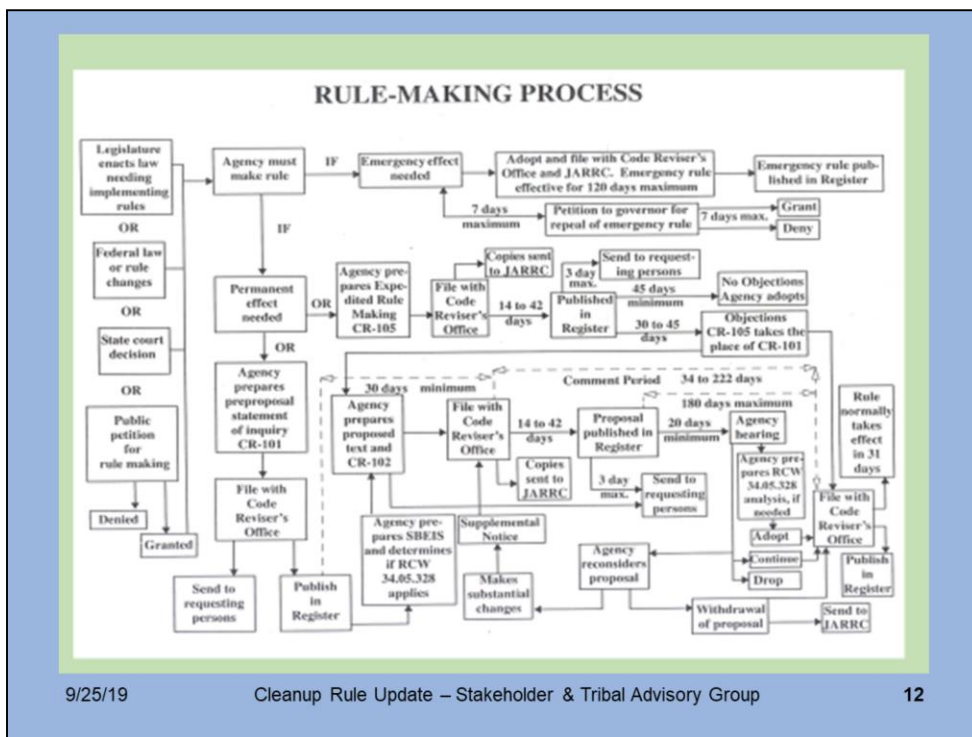
Here's how the state Code Reviser's office explains rulemaking under the Administrative Procedure Act (APA).  ☺

## Rulemaking at Ecology
### under the Administrative Procedure Act

| Phase | What Happens |
|-------|--------------|
| **1A. Approval** | • Internal review<br>• Decision by senior management |
| **1B. Announcement** | • Pre-proposal Statement of Inquiry (CR-101)<br>• Letter to tribal governments (offer to consult)<br>• Rule development and outreach<br>• Internal Economics review |
| **2. Proposal** | • Proposed Rulemaking (CR-102)<br>• Notice to tribes<br>• Accept comments<br>• Public hearing<br>• Internal economics review |
| **3. Adoption** | • Rulemaking Order (CR-103)<br>• Notice to tribes<br>• Must issue within 6 months of proposal<br>• Rule usually effective 31 days after filing |
| **Closing the File** | • Archive rulemaking records |

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And here's how Ecology's Governmental Relations groups translates the APA process at Ecology.

Rulemaking Schedule – WAC 173-340
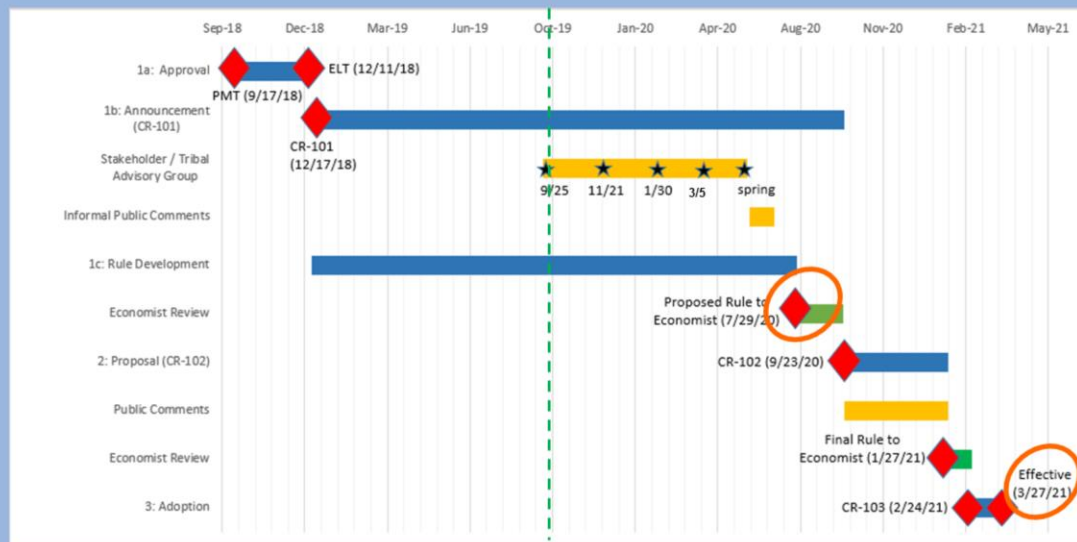
Here's the schedule for the first formal rulemaking of the three planned during the Exploratory Rulemaking.

The left column shows the basic phases of rulemaking described in the previous slide.  Calendar months run along the top row, from:

- September 2018, when we transitioned from Exploratory Rulemaking to focus on this first formal rulemaking process, to
- March 2021, when the new rule changes can go into effect – IF all goes as planned.

Critical milestones:
- Stakeholder & Tribal Advisory Group process
- Proposed rule language to Ecology's economist by July 29, 2020
- Proposal (CR102)  in September 2020
- Adoption (CR-103) within 6 months of CR-102
- Effective: end of March, 2021

**The Administrative Procedure Act and
the Regulatory Fairness Act**

- Likely benefits of the rule change must exceed its likely costs.

- Rule change must be the least burdensome that achieves the goals and objectives of the statute.

- Compare compliance costs to small businesses with costs to the largest 10% of businesses.
    - If small business costs are disproportionate, take all legal and feasible steps to mitigate
    - Small means private businesses up to 50 employees

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APA and the Regulatory Fairness Act require economic analysis of the impacts of proposed rule changes.

Benefits and costs must consider

(1) Impacts across all parties affected by the rule change, and

(2) quantitative *and* qualitative effects

## Economic Questions for Stakeholders
Please be as specific as possible.
(same questions as the handout)

1. **How would the rule changes affect you?**
   — Capital, labor, or administrative expenses?
   — Revenue stream?
   — Any specific benefits?

2. **How have similar policies in other states impacted you or other organizations?**
   — Positive and negative impacts you have experienced complying with the policy over time?

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One of the important contributions of STAG members is to work with your constituents to identify potential impacts of proposed rule changes.

Ecology's economist advises us to "think from the stakeholder's perspective as you ask and respond to these questions."

## Economic Questions for Stakeholders
Please be as specific as possible.
(same as the handout)

**3. How could we still achieve the goals of the rulemaking while using the following methods to reduce the costs of compliance with the rule changes?**

— Reducing substantive regulatory requirements
— Reducing recordkeeping & reporting
— Reducing inspections
— Phasing in
— Reducing penalties
— Other?

**4. Are you a small business or local government?**

— What problems do you encounter in complying with the rule changes because you are a small business or local government?

— Do larger businesses encounter these problems with compliance?

— Can you provide examples?

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Fairness to small businesses:

- How will the impacts of this rulemaking vary between small and large organizations

- Does the rule provide advantages or disadvantages specifically to Washington-based organizations?

Questions?

Comments?

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**Updating the Site Hazard Assessment and Ranking Process (SHARP)**

WAC 173-340-310 through 330

**Washington State Department of Ecology**
Toxics Cleanup Program

**Clint Stanovsky**
Rulemaking Lead, Policy & Technical Support Unit

**Stakeholder & Tribal Advisory Group**
September 25, 2019

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## STAG Presentation 3 of 4 (09-25-2019)

The purpose of this presentation is to brief the STAG on the status and problems of our site hazard assessment and ranking processes (SHARP) under the current rule, and recommendations for addressing those through rule changes and related policy and procedure that would be developed by TCP under the revised rule.

Additional materials on this topic will be provided to STAG members in early November, as a basis for extended discussion with STAG members on November 21, 2019.  The materials will include:

- Draft proposed rule changes to sections 310 through 330

- A prototype of the new site ranking spreadsheet (the SHARP Tool) that would be adopted as policy and procedure to implement the proposed rule changes.

**STAKEHOLDER & TRIBAL ADVISORY GROUP**
Cleanup Rule Update – Chapter 173-340 WAC

## Why ranking and listing?

The Model Toxics Control Act says:

"The department shall adopt, and thereafter enforce, rules to… (b) Establish a **hazard ranking system for hazardous waste sites.**" RCW 70.105D.030(2)

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**RCW 70.105D.030(6).030(6)**
**(https://app.leg.wa.gov/rcw/default.aspx?cite=70.105D.030)**

Here's the only statutory direction for how to use the ranking:

- In every odd-numbered year, Ecology's biennial report of MTCA expenditures must provide a report of the department's activities supported by MTCA funds.

- The report must allow the legislature and the public to determine the progress made in cleaning up sites under this Chapter.

- At a minimum, the report must include the "name, location and hazardous waste ranking and a short description of each site on the hazardous sites list…"

The Washington Ranking Method (WARM) in a very different time, to address program needs that have changed a lot from what we expected then:

- Anticipated 400-500 sites vs 13,000!

- Our rule still requires us to rank 35 sites per year until we don't have more than 35 to rank

- Many of the founding program staff thought that TCP could be out of business in about 10 years.

- Focused on MTCA-funded cleanups, led by agency staff, complete in a few years, and for a few million dollars.

- Since then – growth of VCP means we're tracking many more sites than Ecology will ever clean up.

- We didn't have a lot of experience with cleaning up sites – but now we've cleaned up more than 7,000.

- We need to reflect what we've learned in our ranking system, and

- We need to track lots of sites awaiting cleanup in a way that's transparent and available to the public.


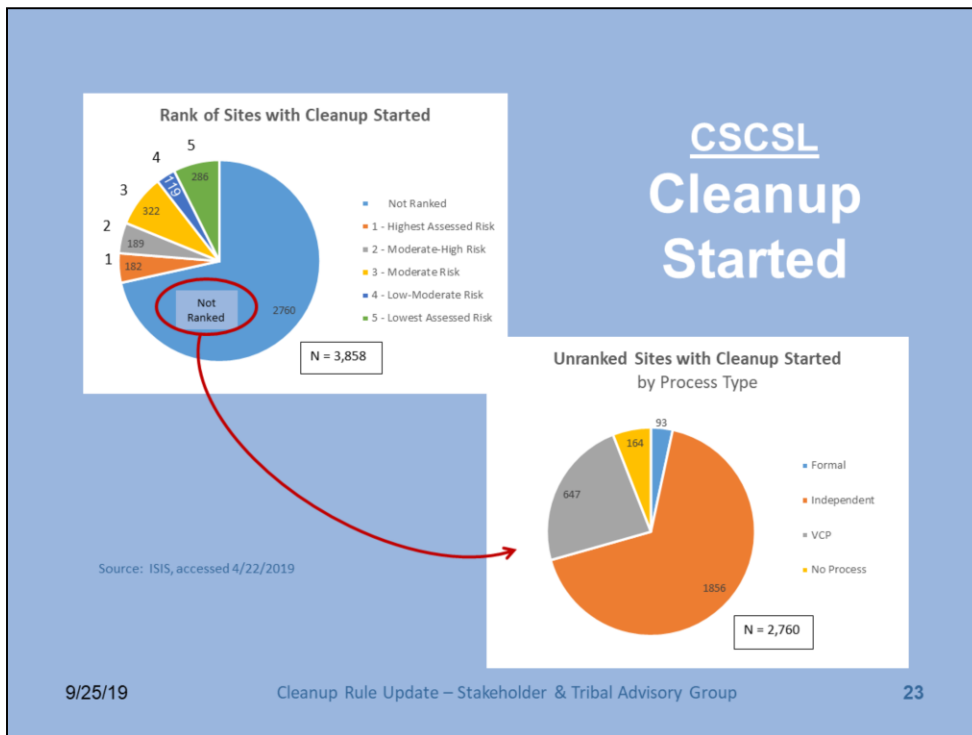- There are other technical problems with the WARM:

Rank of Sites Awaiting Cleanup

- Not Ranked
- 1 - Highest Assessed Risk
- 2 - Moderate-High Risk
- 3 - Moderate Risk
- 4 - Low-Moderate Risk
- 5 - Lowest Assessed Risk

N = 1,830

CSCSL Awaiting Cleanup

Unranked Sites Awaiting Cleanup
by Process Type

- Formal
- Independent
- VCP
- No Process

N = 1,204

Source: ISIS, accessed 4/22/2019

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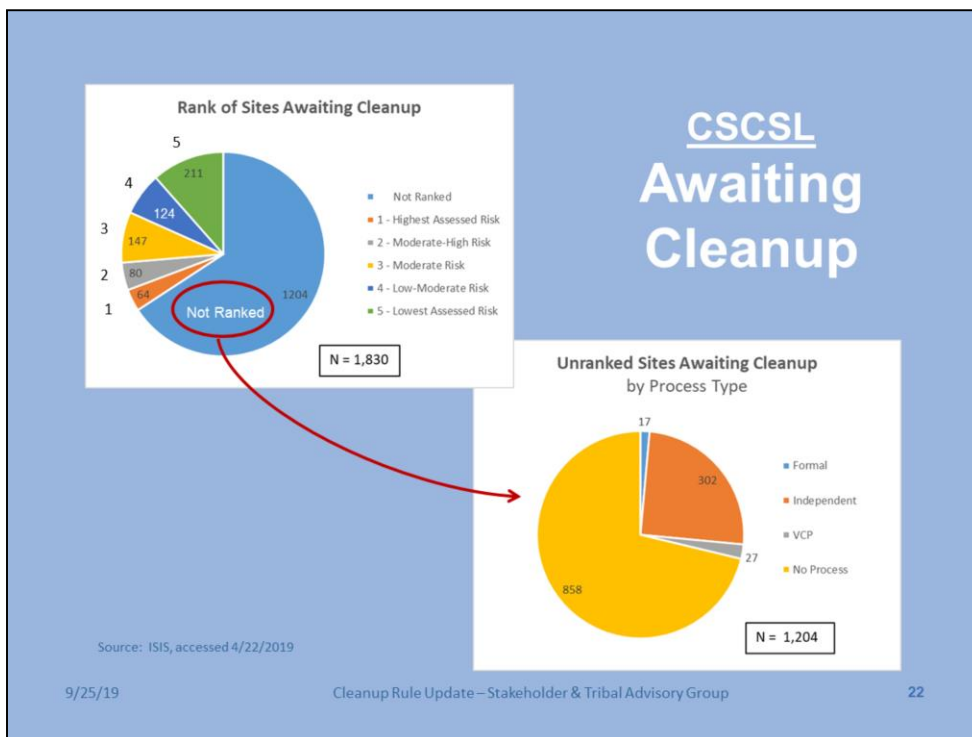
1. Almost two-thirds of sites Awaiting Cleanup have not been ranked and most never will be, given our current target of 35 SHAs per year (see 173-340-140 WAC).

2. For unranked sites Awaiting Cleanup, almost two-thirds (745) are "No-Process" sites: they are not under state or federal supervision, have not joined the Voluntary Cleanup Program (VCP), and have had no independent cleanup action.

**Note: CSCSL in the above slide =**

**Confirmed and Suspected Contaminated Sites List**, available at
https://apps.ecology.wa.gov/tcpwebreporting/reports/cleanup/contaminated

*CSCSL Cleanup Started* presentation slide showing "Rank of Sites with Cleanup Started" pie chart (N = 3,858) and "Unranked Sites with Cleanup Started by Process Type" pie chart (N = 2,760). Source: ISIS, accessed 4/22/2019. 9/25/19 — Cleanup Rule Update – Stakeholder & Tribal Advisory Group — 23

1. For ranked sites with "Cleanup Started" status, rank is not strongly correlated with current "Cleanup Started" status. Further, more than 70% of "Cleanup-Started" sites have not been ranked at all.

2. Only about 28% of unranked "Cleanup-Started" sites are currently in the VCP process (for which ranking is not required). 61% are listed as "Independent", which includes VCP accounts closed without an NFA.

3. 29 percent of Formal "Cleanup-Started" sites are also unranked (92 of the 313 Formal, "Cleanup-Started" sites) .

Note that the term "formal" doesn't have an official definition in the Cleanup Rule.

But, as used within the TCP, sites under "formal" supervision are those where Ecology:

- Conducts the cleanup itself, or
- Supervises cleanup under an
    - Agreed Order,
    - a Consent Decree, or
    - an Enforcement Order

**Toxics Cleanup Program Decisions**
June 2018

➢ Develop, test and improve alternatives to WARM
➢ Develop rule changes to WAC 174-340-300 to 340:
   • Initial investigation
   • Site Hazard assessment
   • Ranking
   • Listing

➢ The new process should have these characteristics:

   • Initial rankings integrated into the Initial Investigation
   • Absolute rankings (no more quintiles)
   • Applicable to **all** unranked sites, but phased in over time
   • Rankings updated at cleanup milestones (e.g., RI)

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The **Rule Team** took a close look at the recently-revised Alaska site ranking system.

After reviewing alternatives, we started on a foundation already developed by staff working at our Central Regional Office (CRO).  We combined this with some insights and ideas from the Alaska model.

A program-wide **Design Team,** which expanded a bit as the project developed:

• a "proof-of-concept" ranking tool implemented in MS Excel
• Reliability testing:  do different users generate similar scores when ranking the same site using the same information?
• We've made numerous changes to the original and are now conducting internal trials on a revised, more polished version.

But before we go into the ranking tool itself, we need to define some terms  that will clarify what we're doing in our new approach to site ranking.

## Concepts for site hazard ranking

EXPOSURE

RISK

HAZARD          SUSCEPTIBILITY

SEVERITY = HAZARD ∩ SUSCEPTIBILITY

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- **RISK** – a conceptual variable defined as the interaction of three independent variables that we can estimate directly:

- **EXPOSURE** – the nature and extent of a human or environmental receptor's interaction with the hazardous substance.

- **HAZARD** – the potential effects of a hazardous substance (*carcinogenicity* or *toxicity*) at a given exposure level.

- **SUSCEPTIBILITY** – the potential for (or probability of) harm to a defined receptor resulting from exposure to the hazardous substance.

- **SEVERITY** – a conceptual variable defined as the interaction of **HAZARD** and **SUSCEPTIBILITY**.

- In practice, these interaction mean multiplying measures of "exposure" with measures of "hazard" and "susceptibility". This is embedded in the risk analysis formulas in the Cleanup Rule.
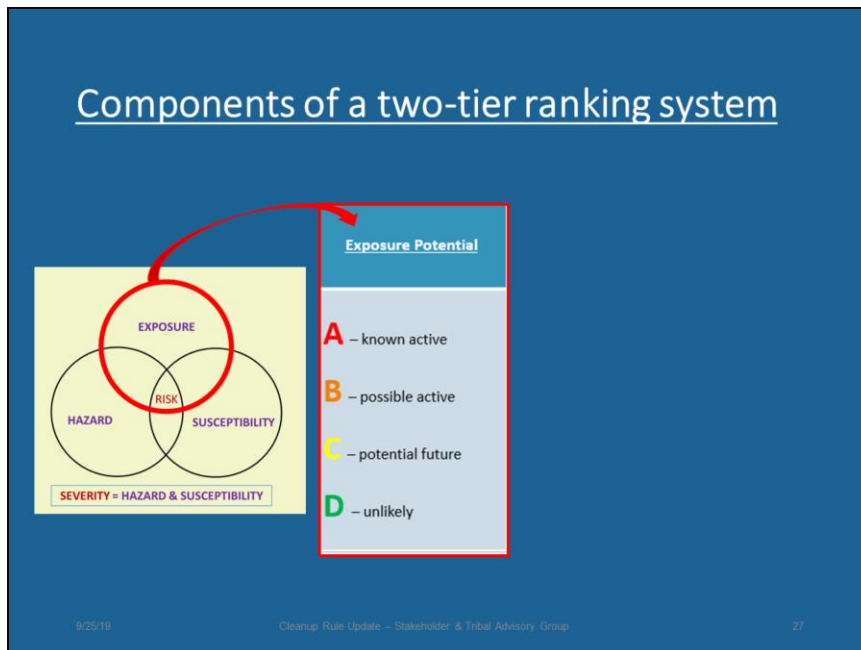
Generally, this two-component approach is consistent with the more recent ranking systems we've reviewed (e.g., Alaska, Canada).

**Route Scores for Exposure Potential**

 **A "Known Active":**
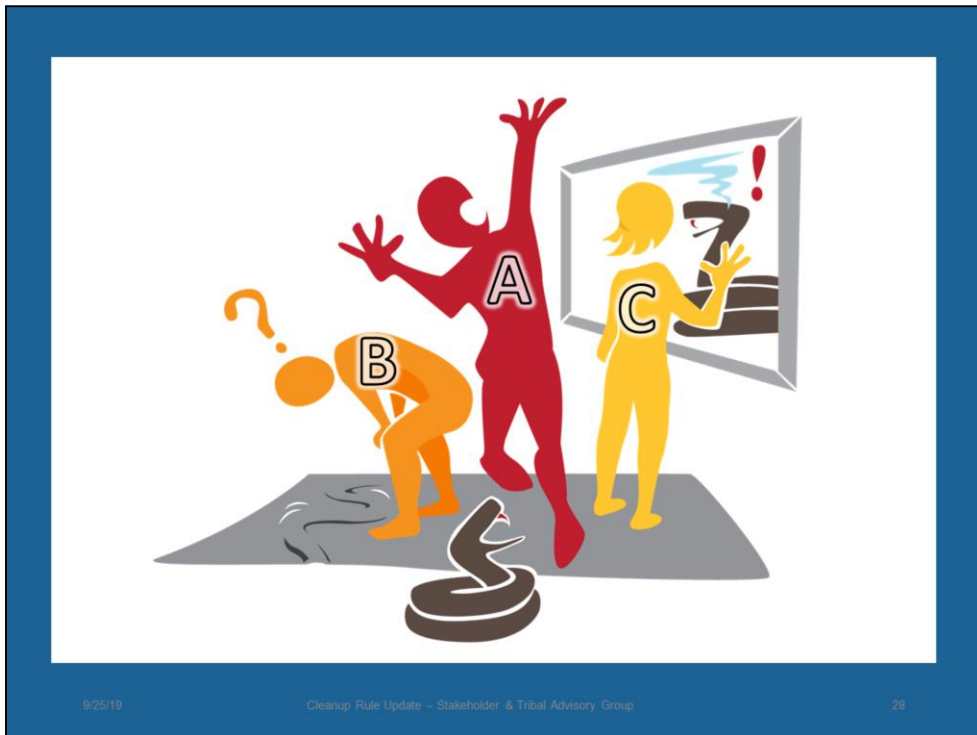Action is needed to break an active current exposure route.

**B "Possible Active":**
Action may be needed to break a possible current exposure route.

**C "Potential Future":**
Action may be needed to break a potential future exposure route.

**D "Unlikely":**
No further action is likely needed to break an exposure route.

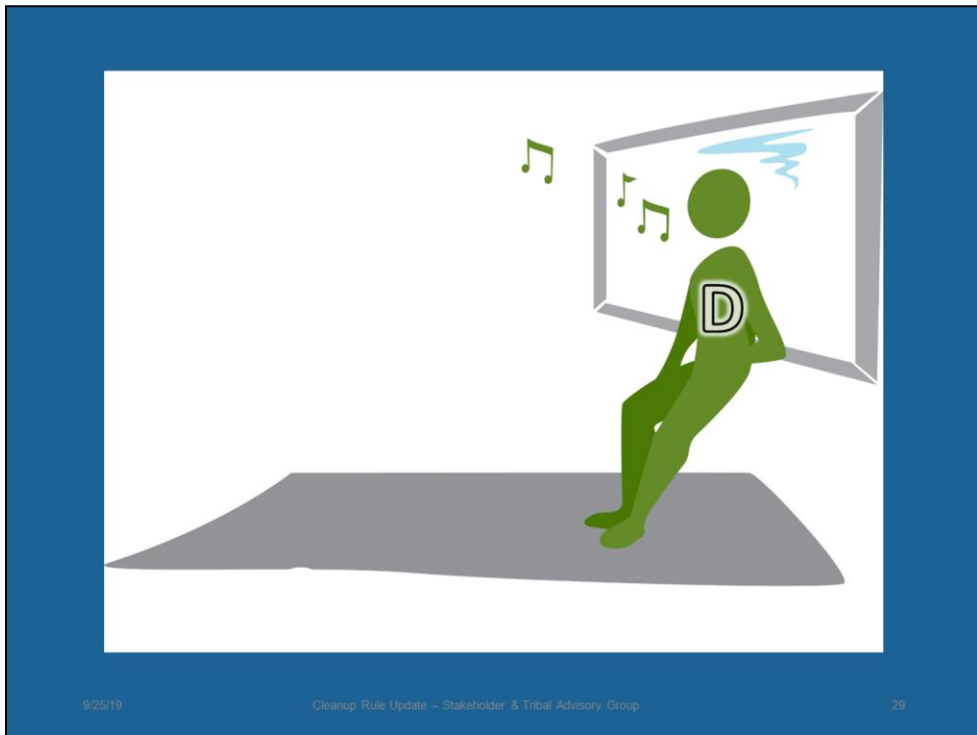**Route Scores for Exposure Potential**

**A "Known Active":**
Action **is** needed to break a known active exposure route

**B "Possible Active":**
Action **may be** needed to break a possible active exposure route.

**C "Potential Future":**
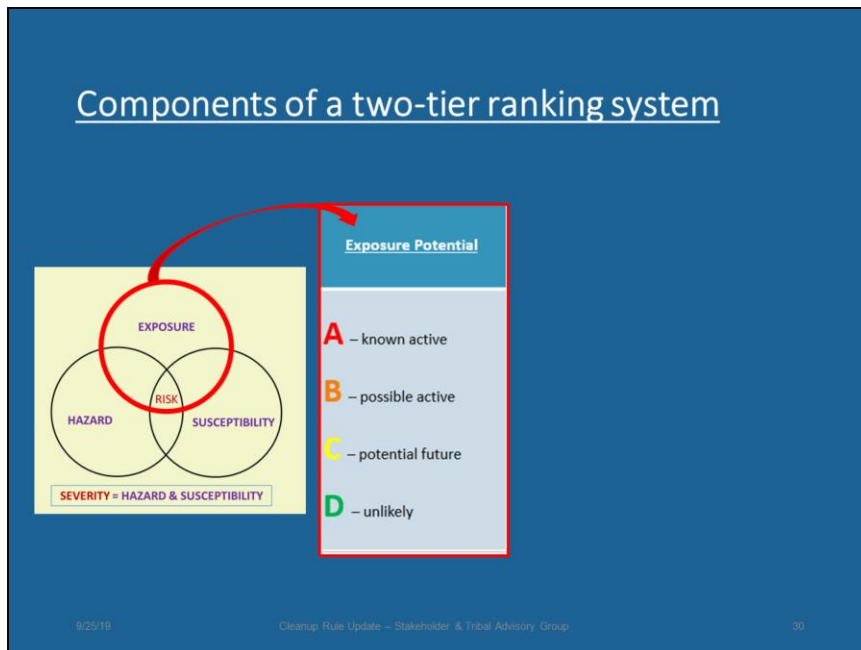Action **may be** needed to break a potential future exposure route.

## **Route Scores for Exposure Potential**

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**Route Scores for Exposure Potential**

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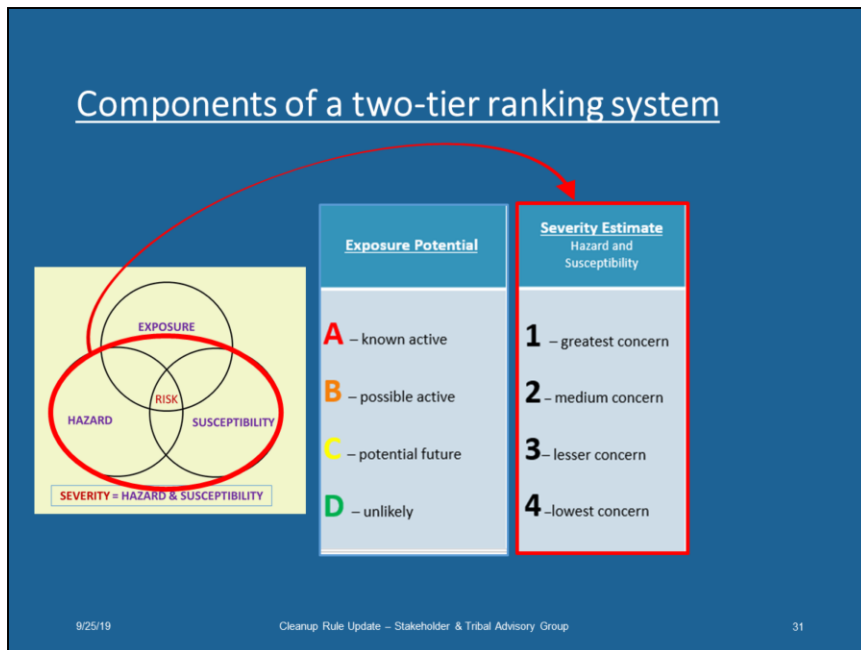Action is needed to break an active current exposure route.

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No further action is likely needed to break an exposure route.

Components of a two-tier ranking system

SEVERITY defined as Hazard + Susceptibility

**Route Scores for Severity**

1 Greatest concern.

2 Moderate concern.

3 Lesser concern.

4 Least concern.

In the SHARP Tool, we arrive at the severity estimate by asking specific questions for each exposure route and awarding point values to each answer.

For each exposure route, we then set a threshold score for 1-1Greatest Concern based on the total points for the questions specific to that route.

Lower scores (i.e., higher numbers) are then based on a linear allocation of points below the 1– Greatest Concern threshold.

Components of a two-tier ranking system

| Exposure Potential | Severity Estimate Hazard and Susceptibility | Confidence |
|---|---|---|
| A – known active | 1 – greatest concern | **High** based on credible, site-specific data |
| B – possible active | 2 – medium concern | **Medium** based on some site-specific data, but with gaps; estimate may need verification. |
| C – potential future | 3 – lesser concern | **Low** based mostly on general information about the site and contaminants |
| D – unlikely | 4 – lowest concern | |

EXPOSURE

RISK

HAZARD    SUSCEPTIBILITY

SEVERITY = HAZARD & SUSCEPTIBILITY

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We're allowing a small set of structured choices for uncertainty:

**Confidence Levels for Exposure Potential and Severity**

**High** Sufficient information is available to support the score.

**Medium** The score is based on site-specific data of limited quality or quantity. Additional confirmation data may be needed.

**Low** The score is based on reported or suspected facility operations and processes, apparent site conditions, and types and quantities of contamination typically generated at analogous facilities. Additional confirmation data are required to support the score.

Note that accepting, accounting for and reporting the degree of uncertainty allows us to move through the ranking process using whatever data are available, to generate the best ranking possible at the time of ranking.
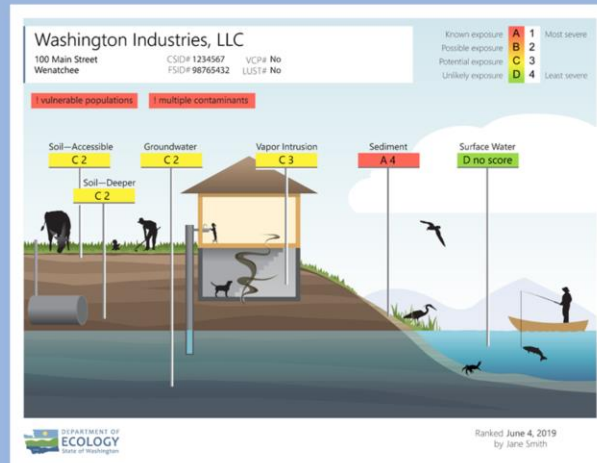
Of course, at most sites we need to consider several possible exposure routes:

- Accessible soil, near the surface
- Deeper soil
- Surface water
- Ground water
- Vapor intrusion
- Sediment

- Note that the current WARM rankings don't include Vapor Intrusion or Sediment as potential exposure media.

**RANKING SUMMARY**

DEPARTMENT OF
**ECOLOGY**
State of Washington

☑ check if initial ranking
☐ check of re-ranking

date | June 4, 2019
by | Jane Smith

| ** Type Site Identifying Information Below ** | |
|---|---|
| **Site Name** | **Washington Industries, LLC** |
| Address | 100 Main Street |
| City | Wenatchee |
| CSID | 1234567 |
| FSID | 98765432 |
| VCP | None |
| LUST | None |

| Exposure Route Priorities | | Exposure | Severity | Flag Factors |
|---|---|---|---|---|
| Primary Exposure ▶ | Sediment | A | 4 | |
| Secondary Exposure ▶ | Soil - Readily Accessible | C | 2 | (x, y) |
| Tertiary Exposure ▶ | Soil - Deeper | C | 2 | |

| Summary Scores by Exposure & Severity | | | | |
|---|---|---|---|---|
| **Exposure Route** | **Exposure Score** | **Exposure Confidence Level** | **Severity Score** | **Severity Confidence Level** |
| Soil - Readily Accessible | C | Medium | 2 | High |
| Soil - Deeper | C | Medium | 2 | High |
| Vapor Intrusion | C | Medium | 3 | High |
| Groundwater | C | High | 2 | High |
| Surface Water | D | High | No Score | High |
| Sediment | A | High | 4 | High |
| Flag Factors | (x) vulnerable populations, (y) multiple contaminants | | | |

**Site Summary** (describe the Site and significant issues).

The site is under Agreed Order No. DE 24680B entered into by Washington Industries, LLC, and Ecology with an effective date 2019-07-07.

The Agreed Order is a continuation of previous and ongoing significant oil spill response activities and removal actions conducted under the Administrative Order on Consent for Removal Activities issued by the EPA on 2019-04-04 (EPA Docket No. WCA-19-3456-7890).

9/25/19

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Here's a glimpse of the overall score-card for a ranked site, showing exposure, severity and confidence scores for all six potential exposure routes.

## SOIL - READILY ACCESSIBLE

### EXPOSURE POTENTIAL

EXPOSURE Score → C   CONFIDENCE Level → Medium   Navigation Key

| Question # | Screening Questions | Answer | Source Type | Source Reference | Confidence Options | Confidence Level | Comments |
|---|---|---|---|---|---|---|---|
| SA-EX1 | Is Site soil contaminated between 0 and 2 feet below ground surface (readily accessible)? | YES - Suspected | Field Observation | 06-02-2019 Field observation. | Medium - Limited information | Medium | Discolored and "stained" ground surface. |
| SA-EX2 | Do Site uses include activities that typically would occur from 0 to 2 feet deep in thea area of contamination? | NO | Field Observation | 06-02-2019 Field observation. | High - Sufficient information | High | Widespread across site, ~100x100 feet. |
| SA-EX3 | Is the MTCA "reasonable maximum exposure" area limited to a footprint less than approximately 10x10 feet? | YES | Field Observation | 06-02-2019 Field observation. | High - Sufficient information | High | Surface staining is minimal in size. |
| SA-EX4 | Is exposure to soil contamination managed by a containment structure, such as a surface barrier, with implemented and maintained institutional or engineered controls such as an environmental covenant? | NO | Field Observation | 06-02-2019 Field observation. | High - Sufficient information | High | No surface covers (pads, asphalt) observed. No security fencing or walls. |

### SEVERITY

SKIP SEVERITY QUESTIONS, if exposure score is "D".

SEVERITY Score → 2   CONFIDENCE Level → High

| Question # | Screening Questions | Answer | Source Type | Source Reference | Confidence Options | Confidence Level | Comments |
|---|---|---|---|---|---|---|---|
| SA-SV1 | Is one or more extremely hazardous constituent present in Site surface soil? | NO - Unlikely | Laboratory Report | 2018 FII Report, App. B | High - Sufficient information | High | Not in Table SA-1, Tab HSS. |
| SA-SV2 | Is one or more very hazardous constituent present in Site surface soil? | YES - Suspected | Laboratory Report | 2018 FII Report, App. B | Medium - Limited information | Medium | Benzene in Table SA-1, Tab HSS. |
| SA-SV3 | Based on land uses, are facilities or buildings used or occupied by sensitive human receptors in close proximity, and is the Site unfenced? | NO - Unlikely | Site Use/Operations | City of Wenatchee zoning map. | High - Sufficient information | High | Industrial use area. |
| SA-SV4 | Is exposure to native/semi-native vegetation a concern? | YES - Confirmed | Other (Explain) | Ponded water in the northwest corner of the site; native vegetation present. | High - Sufficient information | High | Industrial use area. |
| SA-SV5 | Is there a concern for the generation of airborne dust from exposed contaminated soil? | NO - Unlikely | Field Observation | 06-02-2019 Field observation. | High - Sufficient information | High | Site is covered with a lift of crushed rock to highly compacted soil. |
| SA-SV6 | Has surface soil contamination impacted surface water or sediment? | NO - Unlikely | Field Observation | 06-02-2019 Field observation. | High - Sufficient information | High | |

Eileen Webb – description of the SHARP Tool ranking process…
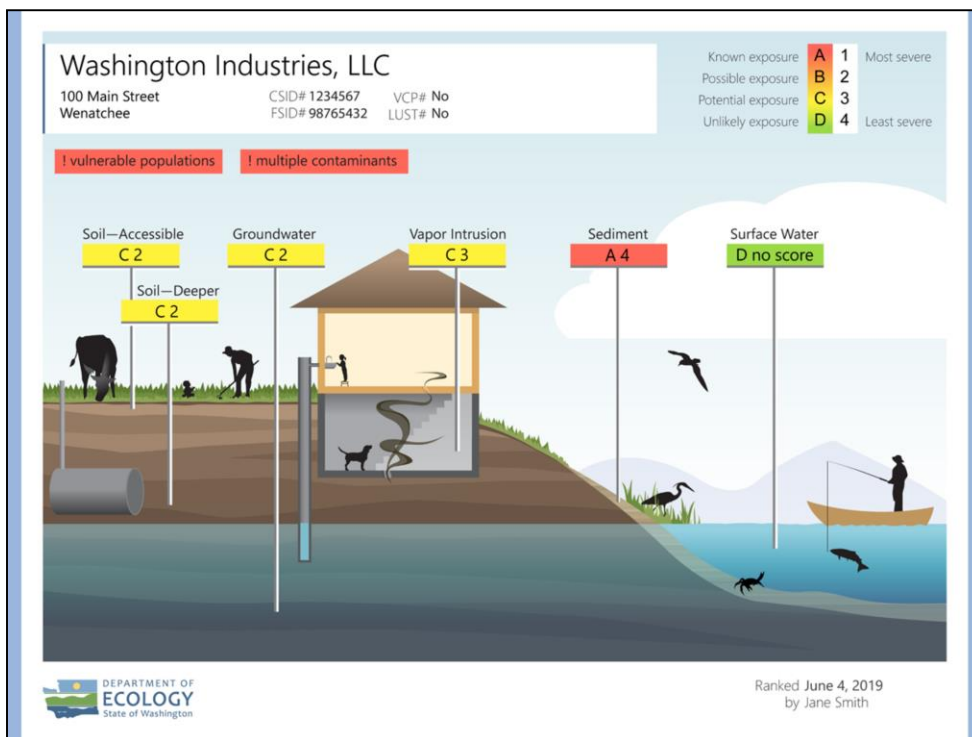
Eileen Webb discussion of SHARP Tool output and interpretation…

**Environmental Justice**
# Vulnerable Populations

"... as part of the hazard ranking that leads to the final Washington Ranking Method (WARM) score, Ecology should incorporate an "equity score" that reflects the potential exposure risk from toxic sites for communities of color and low-income communities."

Exploratory Rulemaking

eComment from the Washington Environmental Coalition and partners, April 2018

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[Back to Clint from Eileen]

Another consideration that will be considered explicitly in the ranking involves measures related to the presence of vulnerable populations near the site, or that use the site in some economically or culturally significant way.

Current environmental health research literature indicates that vulnerable populations are more susceptible to hazards than the populations as a whole.

That is, the same exposure to a given hazard is more severe for disadvantaged populations.

This is due, in part, to evidence that disadvantaged populations are more often exposed to multiple hazards and stresses, and that these have a cumulative effect greater than the sum of each hazard by itself.

## Environmental Justice
# Vulnerable Populations

"Racial Equity and Social Justice components should be considered in the prioritization and ranking of sites (risk and equity-based ranking). Because many voluntary cleanups are initiated by developers, these cleanups tend to occur first, MTCA needs to ensure that vulnerable populations in impacted areas which are not necessarily economically desirable for redevelopment are protected against harmful health effects of contaminants."

### Exploratory Rulemaking
eComment from King County Science, Wastewater and Public Health, April 2018

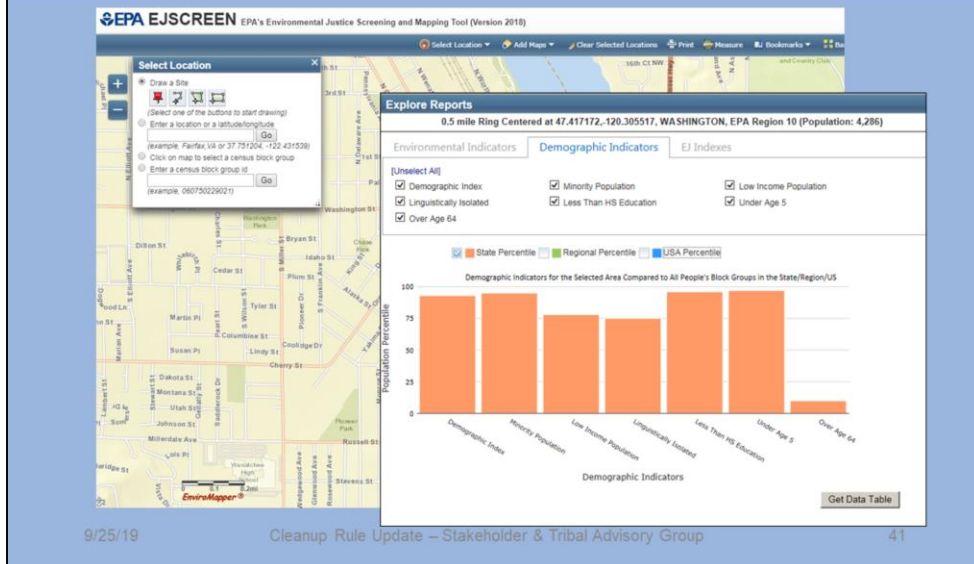9/25/19       Cleanup Rule Update – Stakeholder & Tribal Advisory Group       40

We've been thinking about how to reflect this in the ranking system.  The alternatives seem to be:

1.  Use some indicators of vulnerability to increase the quantitative severity ranking of one or more exposure routes at a site, or

2.  Attach a qualitative "flag" to sites associated with vulnerable populations.

To decide, we're considering when and how the information needs to be used in the cleanup planning and prioritization process.  This is an ongoing discussion related to the policies we establish as we implement a revised Cleanup Rule.

EJScreen for the Wenatchee Colman Oil site

Standard, readily available measures of community vulnerability:

- Low-income population
- Minority population
- Linguistically isolated
- Less than high-school education
- Under age 5
- Over age 64

Questions?

Comments?

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**Updating Public Involvement – Hazardous Sites Listing and De-listing**

WAC 173-340-600

**Washington State Department of Ecology**
Toxics Cleanup Program

**Clint Stanovsky**
Rulemaking Lead, Policy & Technical Support Unit

**Stakeholder & Tribal Advisory Group**
September 25, 2019

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DEPARTMENT OF
ECOLOGY
State of Washington

**STAG Presentation 4 of 4 (09-25-2019)**

The purpose of this presentation is to inform STAG members about an important public involvement issue associated with the proposed SHARP ranking process.

The new process would eventually entail adding and removing essentially <u>all</u> sites from the Hazardous Sites List (HSL) – i.e., VCP as well as formal sites. This creates a challenge if we were to proceed with the notification requirements in the current rule.

**STAKEHOLDER & TRIBAL ADVISORY GROUP**

Cleanup Rule Update – Chapter 173-340 WAC

## The Hazardous Sites List (HSL) in context

### Integrated Site Information System (ISIS)

As of June 30, 2019, there were 13,304 cleanup sites in Ecology's ISIS database. This "universe" comprises three lists:

**Confirmed and Suspected Contaminated Sites List (CSCSL)**

A list of all contaminated or suspected sites that have yet to be cleaned up and yet to receive a "no further action" determination from Ecology. These sites can be ranked or unranked.

As of June 30, 2019, there were 6,139 cleanup sites on the CSCSL.

**Hazardous Sites List (HSL)**

A subset of the CSCSL that contains ranked sites whose cleanup actions have yet to be completed.
As of June 30, 2019, there were 1,974 ranked cleanup sites on the HSL.

**No Further Action List (NFA)**

Sites that are determined to require no further action, including those sites that have received a formal determination and NFA letter from Ecology.

As of June 30, 2019, there were 7,165 cleanup sites on the No Further Action List.

Universe of sites in ISIS database = CSCSL + No Further Action lists = 13,304 sites

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This figure is from the MTCA Biennial Report (Model Toxics Control Accounts Biennial Report of Expenditures: 2015-2017 Biennium, Ecology Publication No. 17-09-065, p. 46.

The Hazardous Sites List is created and maintained under the MTCA Statute (RCW 70.105D.030(5)(d)  and (6)(a).   Its original purpose was to allow the legislature to review and approve Hazardous Substance Tax funding (see RCW 82.21) for priority cleanup sites that require Ecology cleanup, supervision or other budgeted resources (e.g., grants).

Under current law, to receive state funding, a site must be listed on the HSL and, to be listed, the site must be ranked.  Our principal – possibly only – reason for ranking sites now to fulfill this procedural requirement, to qualifies priority sites for state funding.

As discussed earlier, this requirement is a relic from an earlier time, when there were fewer sites and most were cleaned up with state oversight and/or funding.  Consider WAC 173-340-140(4):

> The department shall conduct at least thirty five site hazard assessments each fiscal year until the number of sites needing site hazard assessments are [sic] reduced below this number.

The CSCSL has evolved as a way of tracking contaminated sites that require further action but have not (or not yet) been prioritized for state funding or oversight.
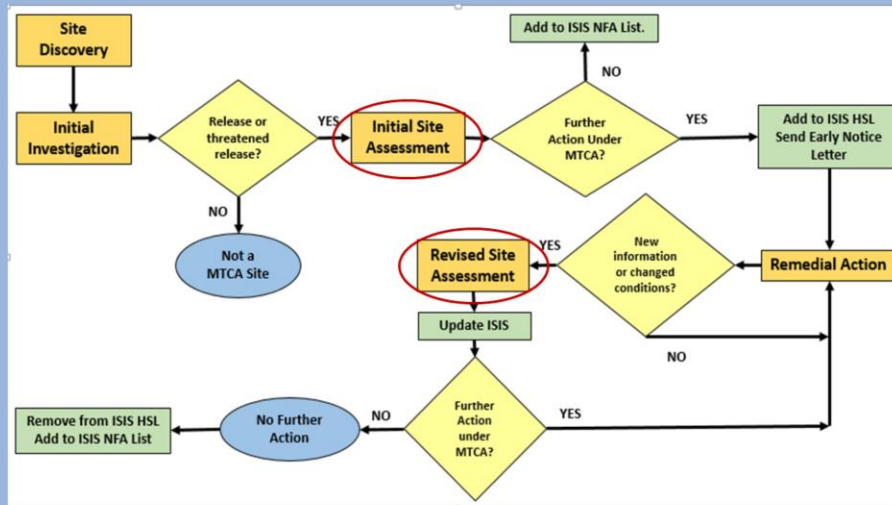
The new approach to site ranking would involve two principal uses with different user types:

- Initial investigations, where II staff use best available information to create an initial assessment of the site.
- Site managers who, after the site has had further investigation, will be using new data to update the initial investigation, and later to update their own earlier re-rankings (or those of previous site managers).

Even without new resources to clean up sites faster or do more site investigations, there are important advantages of this system:

- Capture, retain and report more information about sites awaiting cleanup or experiencing long delays.
- Track and report progress as we learn more and do more at sites under remediation.

To adopt this system, we'll need to changes several pages of the Cleanup Rule, including:

> .310 - Initial Investigations
>
> .320 – Site hazard Assessment
>
> .330 – Hazard ranking and the Hazardous Sites List

**Compared to the current process, the new work flow:**

- Streamlines the Initial Investigation and Site Hazard Assessment
- Eliminates CSCSL, after legacy unranked are added to HSL
- Revives hazard ranking as a tool for prioritization
- Allows re-ranking and progress reporting
- Requires changes to de-listing requirements

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**Streamlining**:  Every initial investigation would culminate in a ranking, assuming that the ranking process is based on best-readily-available information with an appropriate confidence-level.  Confidence levels are subject to improvement through remedial action and re-ranking.

**Backlog of unranked CSCSL sites**:  We now have almost 4,000 sites on CSCSL with Initial Investigation reports but no ranking. (ISIS: 3,964 Awaiting-CU or CU-Started as of 4/22/19; Excludes PLIA).  As resources are available, this backlog of sites would eventually need to be ranked and added to the HSL, eventually eliminating the CSCSL

**HSL as a basis for prioritization**:  Current practice is to rank a small number of sites that, for the "Other" reasons listed on slide 22, are selected to be TCP-led or grant-funded sites.  After such prioritization, these are then "ranked" using the WARM process in order to add them to the HSL as required by RCW 70.105D.030(6)(a)..

**Re-ranking:**  Sites would be re-ranked when site conditions change (e.g., through interim action) or new information is available (e.g., completion of the Remedial Investigation).  Standard triggers for re-ranking could be established by program policy & procedure.

**De-Listing:**   Ranking of all sites as part of the Initial Investigation would lead to a much larger HSL.  The notice-and-comment process currently required under WAC 173-340-330(10) for HSL de-listing would no longer be practical.

**Public notice when removing sites from the Hazardous Sites List**

- **Public notice** is defined in statute and rule – RCW 70.105D.020(30)
    - direct mail & newspaper
    - comment period
    - significant staff workload

- When de-listing sites:
    - **Public notice is** required in statute for *formal* sites – RCW 70.105D.030(2)(a)
    - But required only by rule for other sites – WAC 173-340-330(10)

- Notice options for de-listing non-formal sites
    - Site register, online, Listserv or other e-mail
    - Procedures could vary by program and/or type of site (LUST, PLIA, VCP or other independent cleanups)
    - Notice requirements in procedure rather than rule

- All listing decisions and rankings can be published in the Site Register and online

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Under the current rule – WAC 173-340-330 (10):

> "The department shall provide public notice and an opportunity to comment when the department proposes to remove a site from the list. Additions to the list, changes in site status, and removal from the list shall be published in the *Site Register.*"

Consider the effect on the VCP program. Over the last 5 fiscal years (FY 2014-15 through FY 2018-19)

- **48 ranked** sites have received NFAs (**average 9.6/yr**.) and received 30-day notice and comment processes; and
- **376 unranked** sites have received NFAs (**average 75.2/yr.**)

Unless we change the notice requirement for delisting HSL sites, we would add an average of 75 new notice-&-comment periods to process the same number of VCP sites for business as usual.

This doesn't include processing of almost 3900 unlisted sites already on the CSCSL that are not under (or likely to receive) formal site status.

**Voluntary Cleanup Program "No Further Action" Notices**

| Fiscal Year (July 1 - June 30) | Ranked VCP Sites | Unranked VCP Sites | Total NFAs |
|---|---|---|---|
| 14-15 | 10 | 94 | 104 |
| 15-16 | 9 | 84 | 93 |
| 16-17 | 13 | 71 | 84 |
| 17-18 | 7 | 62 | 69 |
| 18-19 | 9 | 65 | 74 |
| Total | 48 | 376 | 424 |
| Average | 9.6 | 75.2 | 84.8 |

Source: ISIS, accessed 9/23/2019

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[This slide was not used in STAG presentation on 9/25/2019.]

Consider the effect on the VCP program.  Over the last 5 fiscal years:

- **48 ranked** sites have received NFAs (**average 9.6/yr**.) and received 30-day notice and comment processes; and
- **376 unranked** sites have received NFAs (**average 75.2/yr.**)

Unless we change the notice requirement for delisting HSL sites, we would add an average of 75 new -comment periods to process the same number of VCP sites, for business as usual under our current rule.

This doesn't include eventual de-listing of almost 3900 unlisted sites already on the CSCSL that are not under (or likely to receive) formal site status.

We need to consider the costs and benefits of comment periods for non-formal sites, and alternatives for reducing costs or achieving benefits.

Questions?

Comments?

STAG website: https://www.ezview.wa.gov/site/alias___1988/37514/overview.aspx     Page 49

Thanks!

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