



SUPERFUND: *STILL SUPER, STILL FUN**

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CERCLA STATISTICS (TO 9/30/17)

- 46,204 sites assessed (of 52,714)
- 1785 proposed, final and deleted NPL sites
- 1195 sites (67%) with all Construction Complete
- 13,497 removal actions at 10,051 sites
- 185,909 sitewide acres of land determined ready for reuse.

CERCLA STATISTICS TO 9/30/17 (CONTINUED)

- ◎ Enforcement Program:
 - \$37.9 B worth of cleanup work by PRPs
 - \$7.5 B in cost recovery
- ◎ EPA cleanup expenditures: \$24.5 B
- ◎ >70% of expenditures paid by PRPs

- ◎ Many billions more at federal facilities

TRENDS: CONSTRUCTION COMPLETIONS

- Two thirds of all NPL sites have Construction Complete (CC)
- Non-CC sites generally more complex & costly:
 - ~ 40% are federal facilities (generally large/complex) and/or high cost (>\$50 M)...
 - ... but federal facilities & high cost sites = only 12% of all CC sites.
 - Non-CC sites average 4.2 Operable Units each; CC sites average 1.8 OUs.
 - 60% of non-CC sites have construction underway...
 - ... but at < 15% of these is it the *final* construction project.

TRENDS: FUNDING

- Mid-1990s to 2011: Appropriations flat...
 - ...Except 2009: \$600 M extra Stimulus funding
- 2011-2014: Appropriations cut nearly 20%
 - 2011: \$605 M for remedial work...
 - **2014 - 2018: ~\$500 M**
- Relatively few “Fund-lead” construction starts in 2013-2018...backlog of unfunded “shovel ready” sites
 - Typically, between 10% and 30% of shovel ready sites are funded in any given year.

MEGA-SITES

- **Sediment Sites**

- Passaic River, NJ (\$1.4 B)
- Hudson River, NY (~ \$1.7 B)
- Fox River, WI (\$1 B)
- New Bedford Harbor, MA (\$900 M)
- Portland Harbor, OR (~\$800 M)
- Gowanus Canal, NY (\$504+ M)
- Onondaga Lake, NY (~\$500 M)
- Lower Duwamish Waterway, WA (\$342 M)
- Berry's Creek, NJ (\$332 M – Interim Plan)
- Grasse River, NY (\$240 M)
- Newtown Creek, NY (?)

- **Area-Wide Groundwater Sites**

- San Fernando Basin, CA (\$900 M +?)

MEGA-SITES

- **Mining Sites**

- Libby, MT (\$450 M)
- Summitville, CO (\$235 M)
- Midnite Mine, WA (\$193 M)
- ~ \$20 B for all NPL mining sites

- **Radiation Sites**

- Wellsbach, NJ (\$800 M - \$1 B)
- Rocky Flats, CO (\$7.5 B – \$10 B)
- **Hanford, WA (~\$115 B; 586 square miles; completion in about 2060)**

MEGA-SITE CHALLENGES

- High cleanup costs
- High potential NRD exposure
- Large geographic area
 - Coordination of many political entities and affected communities
- Involvement of municipalities as PRPs
- Hard to determine responsibility for 150+ years of unregulated industrial activity – makes allocation very difficult
- Extremely long remediation schedules

GROUNDWATER SITE CHALLENGES

Goals: -Return groundwater to DW standards
-Prevent vapor intrusion

- Large volumes of water requiring treatment
- Pump-and-treat vs. *in situ* treatment vs. MNA
 - DNAPL difficult to extract & treat
 - Difficult to trace contaminants to source
 - Fractured bedrock – hard to trace plume path
 - Contaminants stored in rock interstices
 - Long treatment schedules
 - Does treatment at drinking water wellhead suffice?
- PRPs with differential plume responsibility - overlapping plumes

(Note: nearly 90 percent of current Superfund NPL Sites include a groundwater remedy)

SEDIMENT SITE CHALLENGES

- Technically complex & controversial remediation choices:
 - Mass removal (dredging) vs. containment (capping)
 - Concerns about resuspension during dredging
 - Concerns about perpetual maintenance of caps
 - Off-site vs. on-site disposal of sediments
 - Navigation channels
 - Potential for recontamination of remediated areas after cleanup (e.g., from CSOs, POTWs & non-point sources)
 - Role & efficacy of institutional controls (fish advisories)

GAO REVIEW OF SEDIMENT SITES

- GAO review of large sediment sites, completed in September, 2016
- Summary of findings: "EPA generally followed its steps for providing national consistency in its management of Superfund sediment sites at ... sites GAO reviewed."
- Only recommendation: CSTAG should clarify what documentation regions should submit before site-specific meetings.





REGULATORY, POLICY & GUIDANCE DEVELOPMENTS

EPA STRATEGIC PLAN

- Draft FY 2018-2022 Strategic Plan released Oct. 2017
- “One of EPA’s top priorities is accelerating progress on Superfund sites.”
- Three major goals; first is “Core Mission.” Includes:
 - “Make additional brownfields sites ready for anticipated use (RAU) and additional Superfund sites RAU site-wide.”

ADMINISTRATOR'S TASK FORCE

- July, 2017 Task Force Report
- 42 recommendations, including:
 - Expediting Superfund cleanup and remediation process
 - Reducing financial burden on all parties involved in the entire cleanup process
 - Encouraging private investment
 - Promoting redevelopment and community revitalization
 - Building and strengthening partnerships
- Administrator's Special Emphasis List – 22 sites
- Administrator will sign RODs over \$50 M



FINANCIAL RESPONSIBILITY RULES

- CERCLA §108(b): EPA shall establish financial responsibility rules for classes of facilities
 - Classes selected based on degree and duration of risk associated with production, transportation, treatment, storage, or disposal of hazardous substances
 - Owner/operators must demonstrate financial ability to respond to releases of hazardous substances
- July 2009: EPA identifies hardrock mining as first class
- EPA identified further industries to be regulated: electric power generation, transmission & distribution; chemical manufacturing; and petroleum & coal products manufacturing.

FINANCIAL RESPONSIBILITY RULES

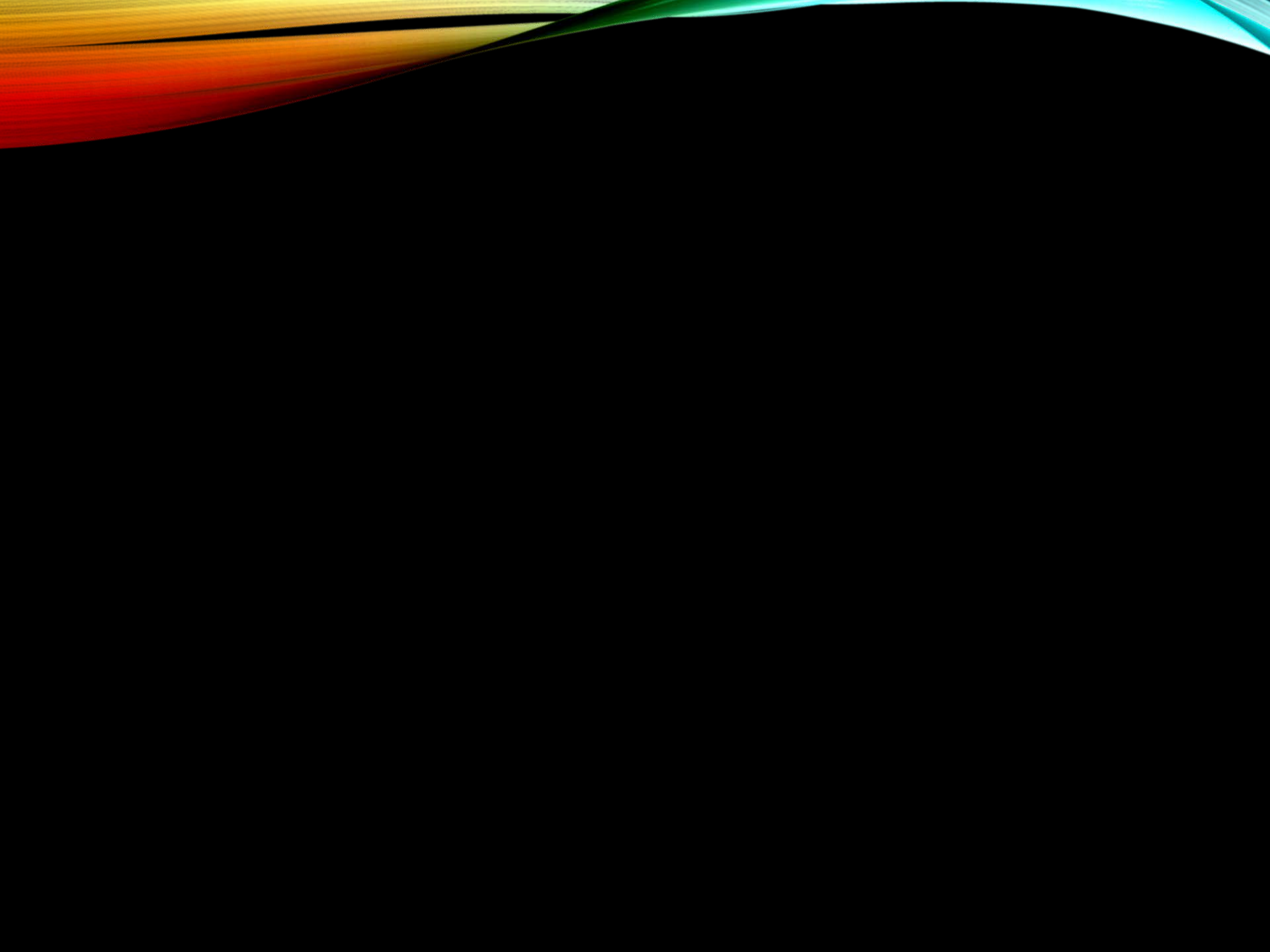
- Dec. 1, 2016: EPA proposes financial responsibility rules for certain hardrock mining facilities.
- Dec. 1, 2017: EPA announces rules will not be finalized: "Modern industry practices, along with existing state and federal requirements address risks from operating hardrock mining facilities."



SUB-SURFACE INTRUSION ADDED TO HRS

- 12/7/16: EPA promulgates final rule* adding new element to HRS to allow consideration of "human exposure to hazardous substances, pollutants, or contaminants that enter regularly occupied structures through **subsurface intrusion** in assessing a site's relative risk ... for placement of sites on the NPL."
- Subsurface intrusion:
 - vapors from volatile underground sources enter building through openings in foundation; or
 - Contaminated groundwater enters building.
 - E.g.: EC Electroplating Site in Garfield, NJ: groundwater contaminated by hexavalent chromium entered numerous residential buildings; water dried, leaving residue of powdery hexavalent chromium, creating pathway of dangerous exposure.

*Published in Federal Register 1/9/17; effective date 3/21/17.



GROUNDWATER REMEDY COMPLETION STRATEGY

- Issued 5/12/14
- “Exit strategy” for long-term GW cleanups
 - Does not alter/supersede existing regs or guidance
 - Intended to promote national consistency
 - Could result in earlier termination of some GW cleanups with diminishing returns?
- Key steps:
 - Understand site conditions
 - Design site-specific evaluations & metrics
 - Collect data, conduct evaluation
 - Make management decisions



EMERGING CONTAMINANTS

- **PFAS** (per- and poly-fluoroalkyl substances)
 - PFOA & PFOS
 - Teflon, GoreTex, etc.
 - Fire-fighting foam
 - Wide-spread; relatively easy to treat
 - GenX
 - Replacement for Teflon
 - Somewhat less easy to treat
- **1,4-dioxane**
 - Wide-spread; relatively difficult to treat

EMERGING CONTAMINANTS

- No federal regulatory standards yet
 - 70 ppt Health Advisory level for PFOA/PFOS
- State regulatory standards include:
 - NJ: proposed MCLs of 14 ppt for PFOA and 13 ppt for PFNA (two types of PFAS)
 - NC: “Health goal” of 140 ppt for GenX
 - CO: 0.35 ppb for 1,4-dioxane in drinking water supplies
- Local regulatory standards
 - Rensselaer County, NY: 0.35 ppb for 1,4-dioxane discharge from Superfund site treatment plant located on County land.

EMERGING CONTAMINANTS

PFAS Leadership Summit, May 22-23, 2018:

EPA Administrator Pruitt announces EPA will --

- Evaluate need for MCL for PFOA and PFOS.
- Begin steps to propose designating PFOA and PFOS as “hazardous substances” through available statutory mechanisms, including potentially under CERCLA §102.
- Develop groundwater cleanup recommendations for PFOA and PFOS at contaminated sites (by Fall 2018)
- Develop toxicity values for GenX and PFBS by Summer 2018 (in collaboration with federal & state partners)





CASE LAW DEVELOPMENTS

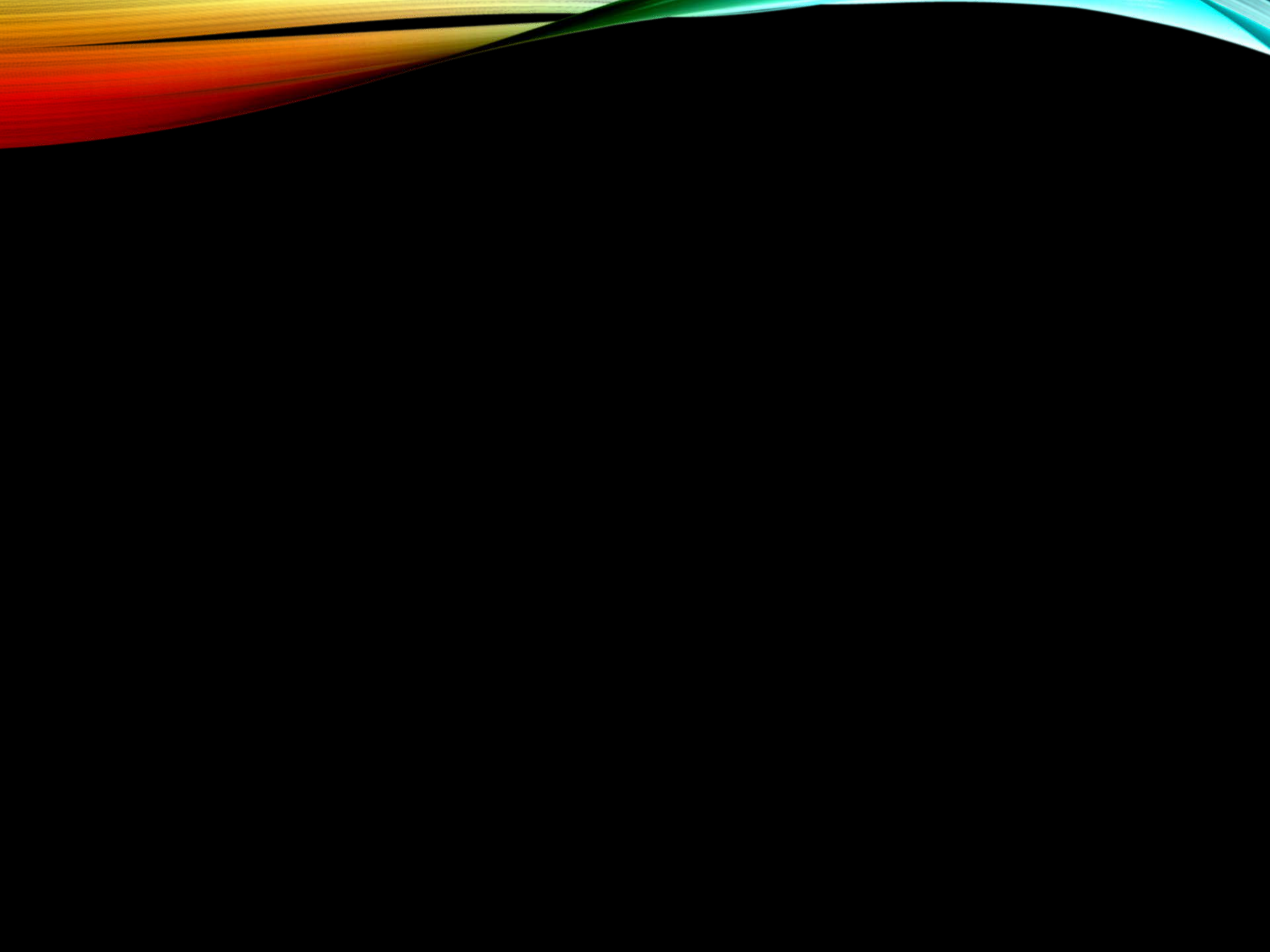
NPL LISTING

- ***Genuine Parts v. EPA***, DC Circuit, 5/18/18
 - EPA failed to adequately support a finding that two aquifers beneath the site were interconnected when it added the site to the Superfund National Priorities List.
 - Current site owners argued in comments that record showed there was a "confining layer" that prevented contamination from reaching water supplies.
 - Court: EPA didn't adequately address three diagrams that "appear to contradict the agency's position" that two aquifers beneath the site are interconnected.
 - *"Because EPA 'entirely failed to consider an important aspect of the problem' by failing to address evidence that runs counter to the agency's decision, we must hold that the listing of the site is arbitrary and capricious."*



FEDERAL TORT CLAIMS

- *Pieper v. US*, No. 17-1324, US S. Ct., 5/21/18
- High court denies cert from 4th Circuit decision upholding District Court ruling.
- Plaintiffs sued US Army under FTCA, alleging harm from past disposal of TCE & other hazardous substances at Fort Dietrich.
- Court holds:
 - FTCA does not waive sovereign immunity for discretionary acts by federal officials
 - Sovereign immunity waiver must be read narrowly
 - Acts relating to disposal were discretionary
 - Suit therefore dismissed for lack of subject matter jurisdiction



STATUTE OF LIMITATIONS

- *Hobart Corp. v. Waste Management*, Jan. 2015.
 - Supreme Court declines to hear appeal from 2014 6th Circuit opinion.
 - CERCLA 113 contribution claim is subject to 3-year SOL
 - “[M]ost logical” triggering event is date of administrative consent order between plaintiff and EPA for performance of an RI/FS.
- *Asarco LLC v. Atlantic Richfield Co.*, August 2017
 - 9th Circuit overturns 2014 Montana District Court decision
 - Agrees that non-CERCLA consent decree can be basis for a CERCLA contribution action; but...
 - ...disagrees that the 1998 RCRA decree in this case resolved ASARCO’s liability, so SOL did not start to run.
- **Note:** CERCLA sets different SOLs for “remedial” and “removal” response actions.



OWNER LIABILITY

- Split among Circuits – can a “Tenant” be an “Owner” under CERCLA?
- 9th Circuit: YES ... apply common law definition of “owner”
 - *Los Angeles v. San Pedro Boat Works*, 2011
- 2nd Circuit: MAYBE ... but “common law” test is not the correct one; a more complicated test is applied.
 - *Next Millennium Realty v. Adchem*, Sept. 2017 appeal to Supreme Court



BURLINGTON NORTHERN

- Supreme Court Decision (2009):
 - **“Arranger”** implies “intentional steps to dispose of hazardous substances”
 - Divisibility of Harm: District court had reasonable basis for **apportionment** of liability

BURLINGTON NORTHERN PROGENY

- ~ 79 Arranger decisions
 - Defendants often successful
- ~ 35 Apportionment decisions
 - Defendants successful less frequently
- Increasing number of Circuit Court opinions; but...
- ...little new ground broken
- Joint & Several liability is alive and well

"ARRANGER" LIABILITY

- S.Ct. calls for "fact-intensive inquiry" into arrangement
- Intent to dispose is key to "arranger" liability
 - Intent can be difficult to determine when defendant's action can be characterized as either waste disposal or a legitimate business transaction such as recycling or refurbishing a useful product.

DIVISIBILITY OF HARM

- Must be a “reasonable basis” for apportioning harm
- Relevant factors may include:
 - chronology (years of activity)
 - geography (relative acreage used or controlled)
 - volume of hazardous substances
 - type of contaminants (toxicity, etc.)

NOTE: Shares (including orphan shares) must total 100%

- *Burlington* court's flawed arithmetic
- Not mandated by Supreme Court
- Defendant has burden, not plaintiff
- Is default rule still joint and several liability? [YES]
- Is *Aceto* still good law? [YES]

APPORTIONMENT OR ALLOCATION?

- Early confusion **between apportionment and allocation**
- *Reichhold v. United States Metals Refining Co.*
2009 WL 1806668 (D.N.J. June 22, 2009)
 - Court characterized what it did as “apportioning” liability, but based its decision on equitable considerations
 - *Reichhold* court purported to apportion liability when it should instead have been carrying out an equitable allocation.

APPORTIONMENT OR ALLOCATION?

Apportionment:

“To apportion is to request separate checks, with each party paying only for his own meal.”

Allocation:

“To allocate is to take an unitemized bill and ask everyone to pay what is fair.”

Yankee Gas Services v. UGI Utilities, Inc. (D. Conn., 2012)

IMPACT ON PROGRAM

- *BNRR* issues often raised in negotiations
 - Potentially applicable at many sites
 - Stakes high for both government and PRPs
 - Uncertainty affects negotiations between government and PRPs; also among PRPs
 - More trials -- fewer cases resolved in motion practice
 - More sites w/ orphan share? More Mixed Funding?



QUESTIONS?