





**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES

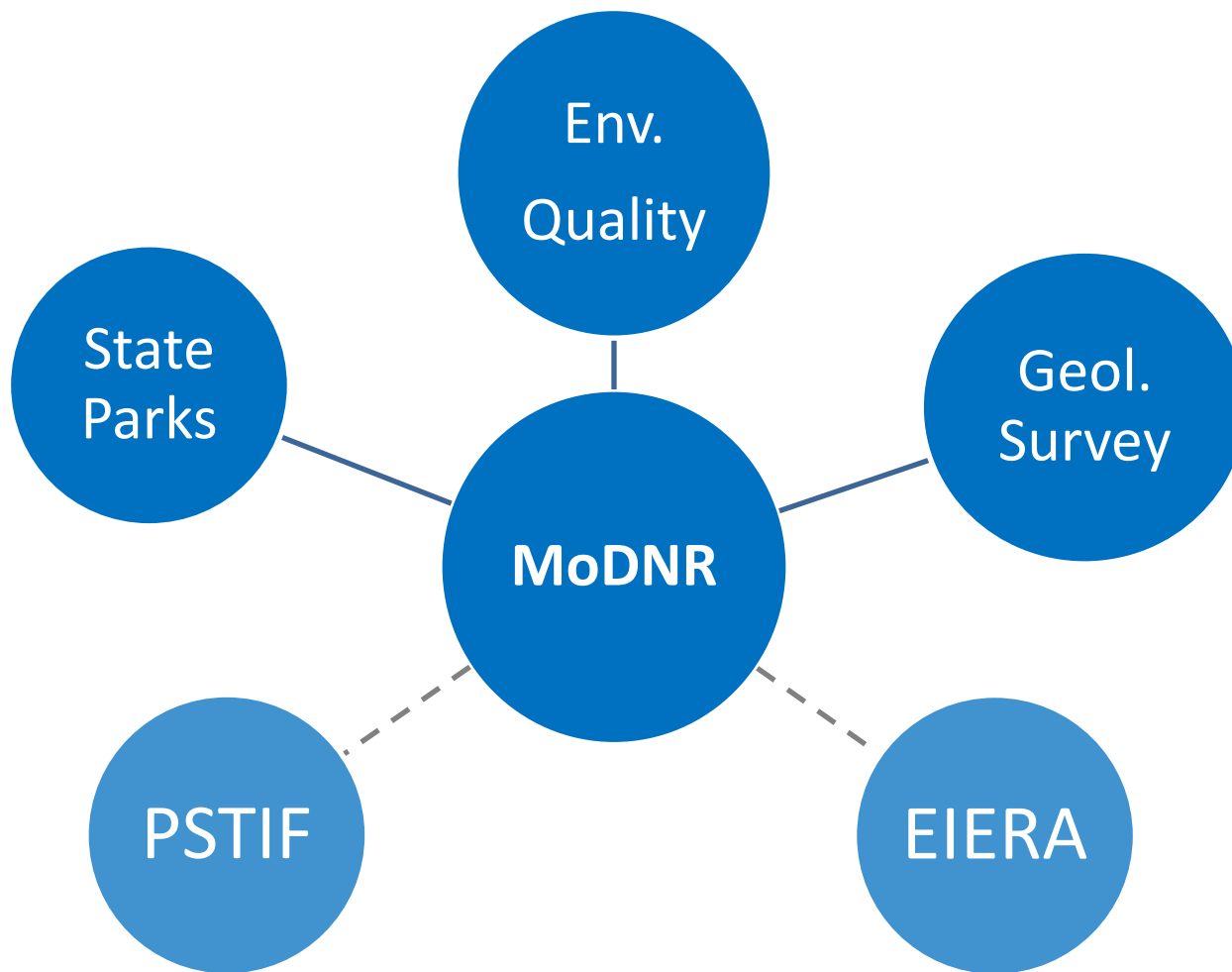
# What's Happening in the Division of Environmental Quality

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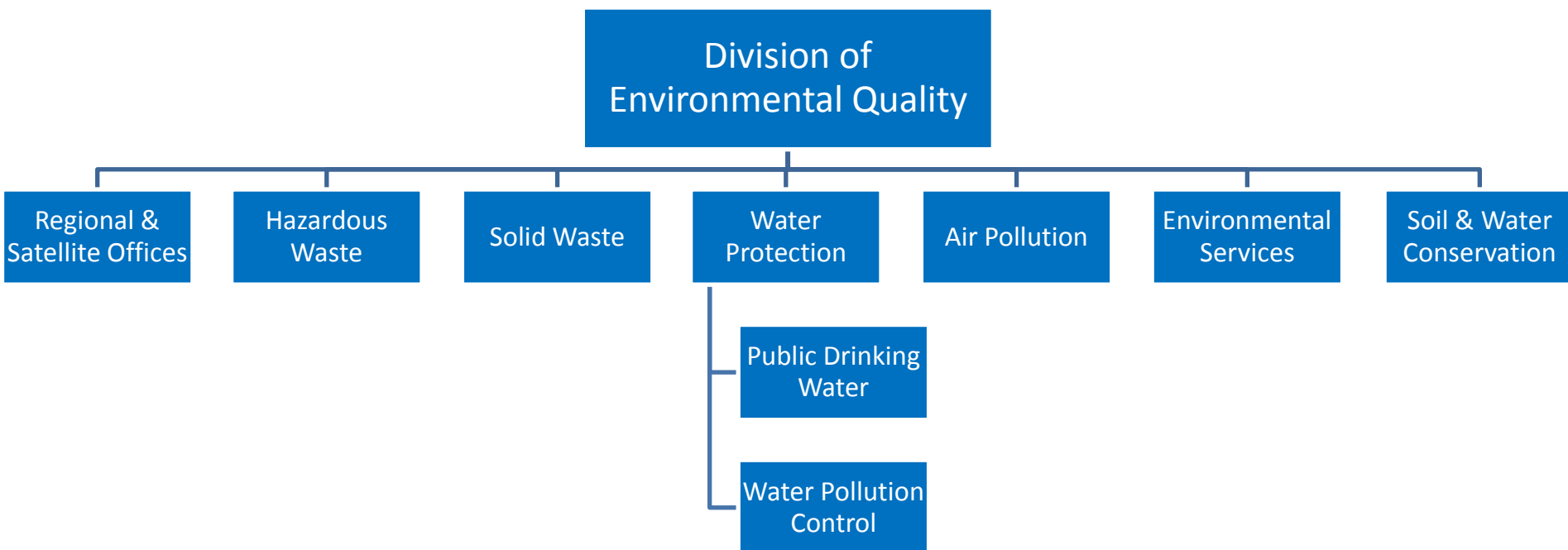
Steve Feeler  
Acting Director  
MoDNR - DEQ

Midwest Environmental Compliance Conference  
May 2017

# Divisions



# DEQ Programs





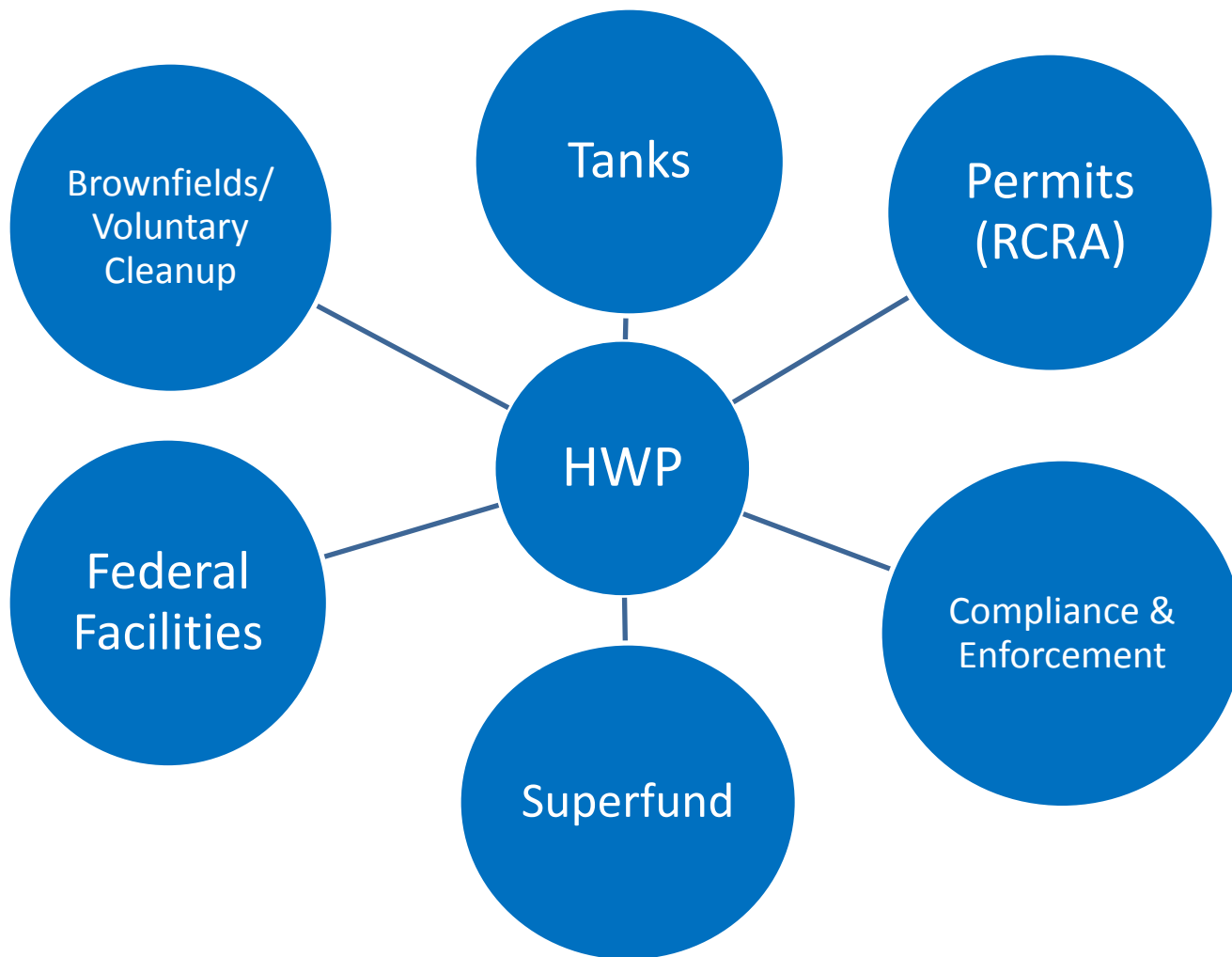
# **Missouri's BVCP: Not Just A Brownfield Redevelopment Program**

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Chris Cady, Ph.D  
Environmental Scientist  
MoDNR Brownfields/Voluntary Cleanup  
Program

Midwest Environmental Compliance Conference  
May 2017

# Hazardous Waste Program





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# Is Voluntary Cleanup Relevant in the Environmental Compliance Realm?







Brownfields/Voluntary Cleanup Program



# “Classic” Brownfields





# But Would You Expect...





**SAFETY +  
FIRST**

THIS PLANT  
HAS WORKED  
**0** DAYS

WITHOUT A  
LOST TIME ACCIDENT

ACCIDENTS  
ARE AVOIDABLE

2 10 '01

# Property Use During Cleanup

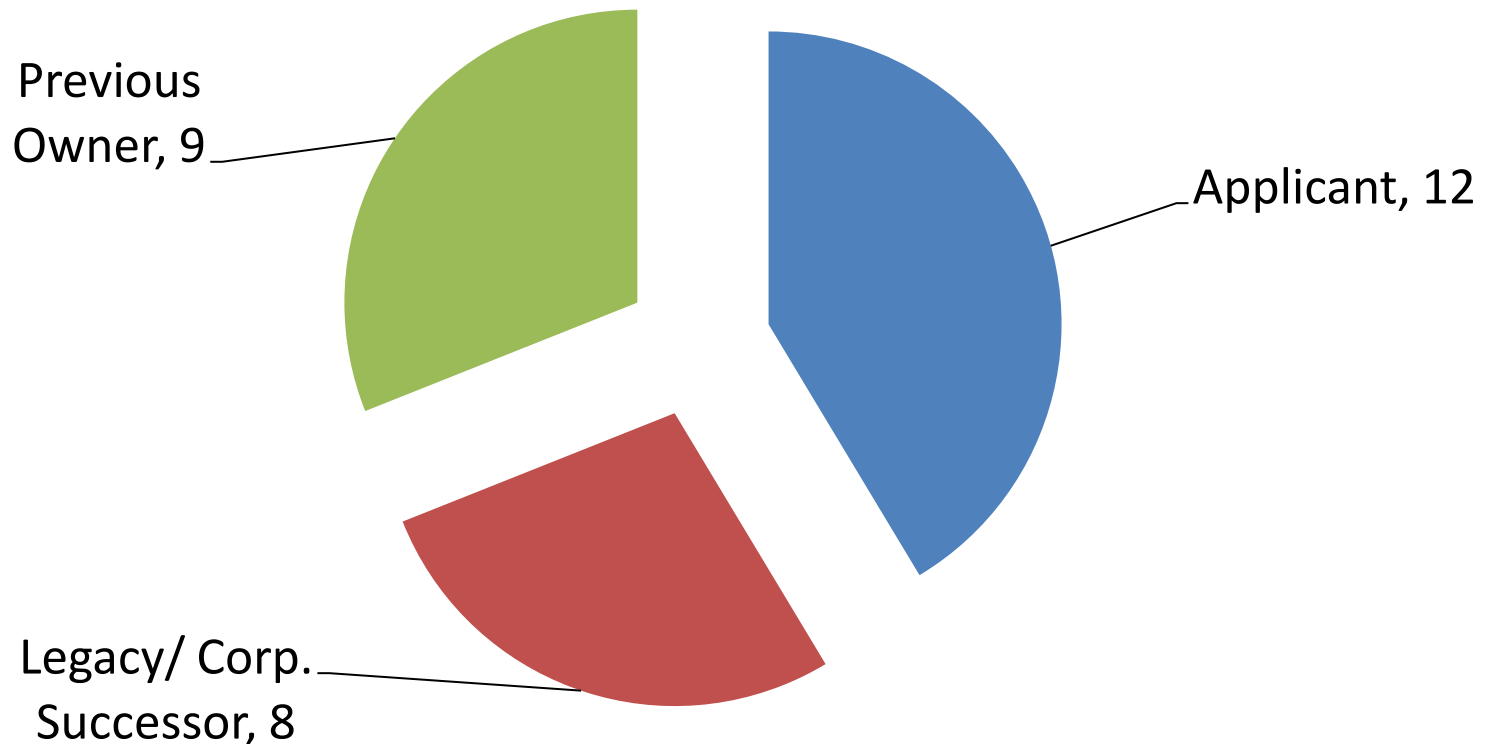


- Half of sites have some type of operating industry or other business at the time of enrollment or at some point during the project.
- Ongoing operations often continue and new businesses start up.





# Whose Releases?



- Large portion of cleanups performed by the responsible party or a corporate successor – 2/3 of sites
- Classic abandoned/contaminated 'brownfields' - 1/3 of sites







# Benefits of State Voluntary Cleanup Programs

- Get liabilities (\$) off the balance sheet
- Reduce potential legal liability
- Protect workers
- Generate positive PR
- Sustainability
- Avoid enforcement
- Boost property value
- Facilitate sale/redevel/reuse
- Schedule Control
- Really voluntary
- Clean Letter
- Designed from the outset to facilitate reuse/redevelopment



# Things to Consider

- Eligibility
- Cost
- Time
- Partners
- What is the ultimate goal?
- All contaminants/media within enrolled parcel
- Land Use Controls (AULs) vs. unrestricted
- Effects on your operations, safety



# The Missouri Risk-Based Corrective Action Guidance

- Guides process of site investigation, risk assessment, selection of cleanup goals
- Risk Based = cleanup targets based on land use
- Typical 3-Tiered RBCA Process
- Risk-Based Target Levels (RBTLs) for 200+ chemicals in soil, groundwater, indoor air at Tier 1
- Tiers 2 and 3 allow more site specific inputs
- Current version: 2006
- RBTLs and entire document need periodic updating

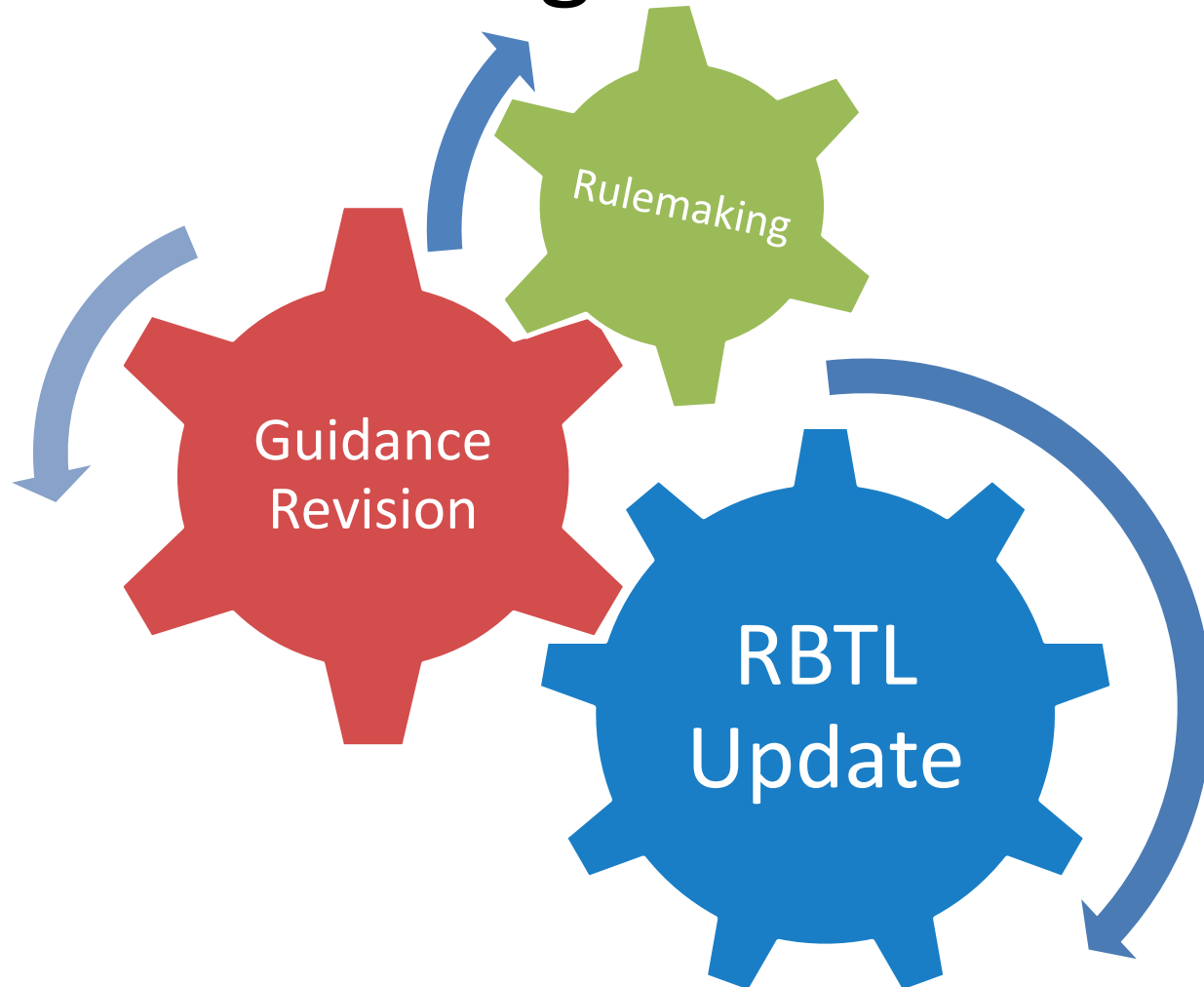
## Currently Under Revision and Updating

- Two versions: Regulated Tanks and ‘everything else’ aka ‘Departmental Guidance’
- Current revision addresses only the departmental guidance (not Tanks)
- Brownfield/Voluntary Cleanup Program sites are essentially the only sites using it
- Toxicological Data and Modeling Methods in need of updating



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# Moving Parts



## Best Results Are Always Obtained with Stakeholder Involvement

- 30-40 participants
- Consultants, industry, DNR, DHSS
- Present topics, ideas and proposed approaches
- Listen to comments, experiences, suggestions
- Several meetings already
- DNR will use results to create Revised Draft Guidance for review and comment by public

# What are the biggest changes?

- New Tier 1 RBTL tables
  - Updated Toxicity values
  - Updated exposure models
  - New contaminants (200 -> 800)
  - Some RBTLs will go up, some will go down
  - Subsurface soil target levels for volatiles
- Petroleum - RBTLs would go down (more stringent); BUT, PVI !
- Chlorinated solvents – toxicity changes
- Vapor Intrusion Assessment – major overhaul
- Cumulative Risk calculations
- Guidance will be much more clear/concise/usable



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Home Search Full Extent

Missouri E-START

**MAP LAYERS** Close Legend 2014 IMAGERY

☐ HAZARDOUS SUBSTANCE INVESTIGATION AND CLEANUP

- ☐   Activity and Use Limitation Area
- ☐   Site Area
- ☒ ◆ Active
- ☐ ◆ Long-Term Stewardship
- ☒ ◆ Environmental Notice
- ☒ ◆ Completed
- ☒ ◆ Brownfield Assessment
- ☒ ◆ Inactive VCP (Terminated/Withdrew)

☐ REGULATED PETROLEUM AND HAZARDOUS SUBSTANCE STORAGE TANK FACILITIES

☐   Activity and Use Limitation Area

☐ All Operating Underground Storage Tank Facilities

- ☐ ◆ Investigation/Corrective Action is Ongoing or Incomplete
- ☐ ◆ No Further Action Letter Issued With Restriction
- ☐ ◆ No Further Action Letter Issued Prior to 2004 Tanks RBCA
- ☐ ◆ No Further Action Letter Issued Without Restriction
- ☐ ◆ Operating UST Facilities with No Known Release
- ☐ ◆ Administrative Closure

☐ Former Underground Storage Tank Facilities

- ☐ ◆ Investigation/Corrective Action is Ongoing or Incomplete
- ☐ ◆ No Further Action Letter Issued With Restriction
- ☐ ◆ No Further Action Letter Issued Prior to 2004 Tanks RBCA
- ☐ ◆ No Further Action Letter Issued Without Restriction
- ☐ ◆ Administrative Closure

Close Scale Bar and Zoom Slider

60km

1:1200  
1:2400  
1:6000  
1:12000  
1:24000  
1:50000  
1:100000  
1:250000  
1:500000  
1:1000000  
1:2000000  
1:4000000



# For Additional Information

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