Region 8 Lead Action Plan
March 6, 2018

In response to Administrator Pruitt's vision for a collaborative multi-federal agency approach to reduce childhood lead exposure across the country, EPA Region 8 identified specific areas for engagement with federal, state and local partners. Programmatic areas of focus include Drinking Water, Lead-Based Paint, Superfund, Brownfields and Response.

Drinking Water

Priority Area 1: Promote Protection of Vulnerable Populations

Objective: Protect children from exposure to lead in drinking water at schools and child care facilities.

Previous Actions Taken:

- In 2017, Region 8 mailed letters titled 'Reducing Lead in Drinking Water – Resources for Schools' to the Bureau of Indian Education, the Wyoming Department of Education, the South Dakota Department of Public Education, the North Dakota Department of Public Education, the Utah State Office of Education, the Montana Office of Public Instruction, the Colorado Department of Education to raise awareness of EPA's resources available to assist schools in reducing lead in drinking water.
- Region 8 delivered a presentation titled '3Ts for Reducing Lead in Drinking Water in Schools' at the 2017 Colorado Environmental Health Association (CEHA) conference.
- Region 8 provided technical assistance to Denver Public Schools as they designed their lead testing program, and Denver Water led a national webinar to share their efforts as a best practice for other systems to follow.
- Colorado took a proactive approach to protecting children in schools when it passed HB 1306 which directs CDPHE to establish a grant program to test for lead in public schools. More information can be found at this site: https://leg.colorado.gov/bills/hb17-1306

Planned Future Actions:

- Coordinate with State Departments of Education and the Department of Indian Education to determine what actions they have taken since last year, and get feedback on what other actions EPA could take to support this work.
- Obtain information on which schools in Region 8 have tested, communicated, and mitigated for lead and which ones have not. Discuss with partners the idea of creating an EPA website where this information is available for schools in Region 8.
- Perform 2-hour trainings open to all stakeholders throughout Region 8 to promote 3Ts and remediation.
- Initiate partnerships with laboratories to support sampling programs for lead in schools in Indian country, and provide technical support on remediation options.

Potential Partnerships:

Region 8 Children's Health Unit, Region 8 State Drinking Water Departments and Departments of Education, Department of Indian Education, Head Start Programs, Drinking water certified labs.

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Priority Area 2: Address Systems with High Lead Levels

Objective: Assess the progress made in R8 states since EPA's renewed focus on lead in drinking water, and identify areas of improvement.

Previous Actions Taken:

- In 2016, Region 8 conducted a comprehensive study of Region 8 states' implementation of the Lead and Copper Rule (LCR) including interviews with state regulatory agencies, review of state policies related to the rule and review and follow up on systems that exceed action levels for lead. This review included Region 8's direct implementation in Wyoming and Indian country.
- Region 8 then shared best practices identified through this process with all Region 8 states.
- Region 8 continues to have a strong focus and follow up on LCR violations within its DI program.
- EPA issued the Drinking Water Enforcement Response Policy (ERP) in December 2009. The ERP helps EPA and the states focus on public drinking water systems with the most serious or repeated violations, including noncompliance with the Lead and Copper Rule.

Planned Future Actions:

- Determine status of Region 8 State efforts to reduce levels of lead in drinking water, following up on work completed in 2016.
- Determine priority systems for lead and what is required to reduce lead levels. Work with State staff to accelerate those actions, and ensure all follow-up actions are taken and the affected communities are informed.
- Ensure states and EPA R8 are uploading accurate lead data from their state database (SDWIS/State or others) to the federal database (SDWIS/Fed).
- Encourage states to upload all 90th percentile lead data to SDWIS/Fed, even from small systems. Utilize this database to more accurately track trends in 90th percentiles and corrosion control treatment.
- Where information on pipe material is missing, coordinate with states to use existing state databases (e.g., cadastral, COSA, Orion) and resources to identify the ages of homes as a proxy for pipe material to create a priority group for sampling or outreach.
- Work with states to enforce the Lead and Copper Rule.

Potential Partnerships:

Region 8 State Drinking Water Departments and State Health Departments (where separate).

Priority Area 3: Water System Capacity Development

Objectives: Assist water systems in locating and verifying lead service lines. Develop investigative tools to address any home with high lead levels.

Previous Actions Taken:

- Region 8 provided 10 operator training sessions on LCR compliance in 2017 to improve operator's knowledge and implementation of the LCR.
- Region 8 provided technical support to small and large operators on how best to address action level exceedances.
- Region 8 developed and made available materials to help operators verify locations of lead service lines.
- Region 8 has worked extensively with Office of Research and Development and Office of Water to identify the best corrosion control treatment and helped several water system operators optimize their current treatment.

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Planned Future Actions:

- Conduct additional operator training across Region 8 states on:
  - How to find unknown lead service lines (using materials already developed by EPA Region 8).
  - How to verify lead service lines (using materials already developed by EPA Region 8).
  - How to optimize corrosion control treatment. Consider targeting some trainings toward systems with high lead levels coming from non-lead service line sites.
- Create an SOP for how systems should respond to high individual lead samples, and include that information in operator trainings.
- Create a fact sheet that characterizes local efforts used to find lead service lines and include associated costs.
- Investigate the viability of a technology challenge for determining the location of buried lead service lines.

Potential Partnerships:
Region 8 State Drinking Water Departments, Rural Water Associations, American Water Works Association.

For planned future actions in each of the priority areas above, consideration will be given to underserved and overburdened communities when prioritizing and implementing activities

Lead-based Paint

Priority Area 1: Promote Protection of Vulnerable Populations in Targeted Geographic Areas:

Objectives:

Implement Lead Place-based Activities in Northeast and West Denver neighborhoods in order to:

- Protect vulnerable populations from exposure to lead from lead-based paint hazards.
- Promote public awareness of lead poisoning prevention priorities with the following messages – *Get Your Child Tested for Lead*, *Get Your Home and Child Care Tested for Lead* and *Work Lead-Safe When Renovating.*
- Promote EPA's Lead Renovation, Repair, and Painting (RRP) Rule to the protected and regulated communities in order to prevent lead-based paint exposure in vulnerable populations. Increase the number of contractors, who conduct renovation, repair or painting projects that disturb painted surfaces in homes and child-occupied facilities built before 1978, that are certified, trained and follow lead-safe work practices as outlined under the RRP Rule.
- Increase public awareness of the RRP Rule in order to drive consumer demand for lead-safe and compliant renovations and lead inspections in homes and child care facilities.
- Increase compliance with the RRP Rule within the regulated community (e.g., increase number of certified firms and trained and certified renovators following lead-safe work practices).
- Create a stronger deterrent to noncompliance by increasing the number of RRP Rule inspections and enforcement responses in a localized area.

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- Strengthen partnerships with federal, state and local governments and community groups to help build capacity to implement lead poisoning prevention practices.
- Design and implement an approach that can be replicated elsewhere.

Previous Actions Taken:

Developed a Quality Assurance Project Plan (QAPP) to determine which vulnerable, high lead risk neighborhoods would be the focus of the Lead Place-Based Initiative (PBI). The QAPP created a methodology for utilizing existing data sources to conduct a comparative demographic analysis. Of the six Region 8 states, Colorado had the highest number and percentage of homes that were built before 1978. The City and County of Denver has one of the highest number and percentage of pre-1978 homes in the State of Colorado, significant environmental justice concerns and a proactive local health department presence in the community. The specific neighborhoods of focus were determined utilizing the EPA EJSCREEN and Geo-Platform tools to compare the 70 different neighborhoods within Denver for common lead hazard indicators including age of homes and high percentages of young children, minorities and families living in poverty. This information was then paired with DDDS's residential renovation permit activity to identify and prioritize neighborhood areas with a high potential for lead-based paint disturbances due to renovations. From this analysis, the Northeast Denver and West Denver neighborhoods became the focus of two (2) Lead PBIs.

Potential Future Actions:

<u>West Denver Lead Lead-Based Initiative</u>

- Collect trend information and baseline data that will be used to evaluate project performance and impact measures (outputs and outcomes) collected during and after project implementation. (OPRA & ECEJ)
- Develop a press release that will showcase these activities and upcoming presentations. Publish a press release in the neighborhood newspapers and RNOs newsletters and webpages. Coordinate with newspapers, RNOs and NGOs to encourage an interview and subsequent articles, as well as encourage speaking opportunities to their membership at neighborhood meetings or other gatherings. (OPRA, ECEJ & OCPI)
- Coordinate with Scripps Media and OCPI, to develop website landing page and ads, as well as, a targeted marketing campaign on other online platforms with messaging that complements the PSA campaign, but also provides more in-depth promotion of Denver's Building Permitting RRP Rule integration and compliance assistance to the regulated community, as well as HUD's Lead abatement grant for DDPHE. This campaign is expected to run during the months of April and May 2018. (OPRA & OCPI)
- Continue coordination with the DDDS and DDCPD to promote incorporation of RRP Rule requirements in building permitting activities. Provide onsite RRP Rule awareness training to Denver building permitting inspectors as requested. In addition, utilize their network of contractors (the regulated community) to disseminate RRP Rule compliance assistance messaging. (OPRA)

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- Partnering with both the CDPHE's LBP and Child Care Licensing Programs, find child care facilities in the Lead PBI area that child care licensing inspectors have identified as having possible lead hazards. This list of child care facilities will be made available to the EPA Lead Enforcement Program to conduct compliance assistance to increase awareness of the hazards of exposure to lead based paint. Also, child care facilities with potential lead hazards will be identified as possible locations where a Supplemental Environmental Project (SEP) action could be applied. This would be for cases where a defendant would provide funding to have lead testing and/or abatement work provided to the child care facility as part of a SEP that is negotiated during settlement agreements. (ECEJ)
- Coordinate with ECEJ's Environmental Justice Program to ensure we have a listing of health and environmental groups associated with the PBI area. Reach out to these groups to explain the PBI and lead regulations to develop partnerships that promote our shared missions. (OPRA & ECEJ)
- Publicize the new Denver DDDS building permitting requirements related to the RRP Rule and DDPHE Lead Program's new U.S. Department of Housing and Urban Development (HUD) lead inspection and abatement grant by placing ads in local newspapers and neighborhood newsletters, providing landing page advertisements on the Scripps Media websites and forwarding press releases to trade associations that serve home renovators and maintenance and repair firms. (OPRA)
- Continue conducting RRP Rule and 1018 Lead Disclosure Rule inspections in the West Denver neighborhoods of focus in coordination with CDPHE and DDPHE Lead Programs. (ECEJ)
- The CDPHE Lead Program will be notified of any lead abatement or inspection issues (Regulation 19 Part A) or non-compliance with their Lead Pre-Renovation Notification Rule (Regulation 19 Part B), since Colorado is authorized to run both these programs. (ECEJ)
- The DDPHE Lead Program will be notified if it appears there was a (1) lead poisoning hazard created during an out-of-compliance renovation project and (2) child living in or adjacent to or frequenting the home or child-occupied facility where the hazard was created. The DDPHE can deem the property uninhabitable, provide information on where to get blood lead testing for the inhabitants, and/or provide a lead hazard inspection if necessary. (ECEJ)
- Continue subsequent compliance assistance, case development and other follow-up related to lead based paint compliance inspections that were conducted in the Northeast and West Denver Place Based Initiative (PBI) neighborhoods between FY16 through FY18. (ECEJ and OECA)
- Analyze results and summarize outputs and outcomes that measure project performance and impact and compare this information to the prior trend information and baseline data collected prior to this initiative. (OPRA & ECEJ)
- Publicize results of compliance monitoring and enforcement efforts as well as training and information sessions. (OPRA, ECEJ & OCPI)

Potential Partnerships:

Work with the following potential entities to explore how they can play a relevant role in promoting awareness and implementation of the RRP Rule and participate in the place-based activities in the Northeast and West Denver neighborhoods of focus:

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- HUD Region 8's Office of Lead Hazard Control and Healthy Homes.
- U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC) and Agency for Toxic Substances and Disease Registry (ATSDR).
- Colorado Lead Coalition - works to reduce childhood lead poisoning in Colorado and is made up of federal, state and local organizations, both public and private.
- Colorado Department of Public Health and Environment (CDPHE) Lead-based Paint (LBP) Program (Authorized for LBP Activities Rule and Lead Pre-Renovation Notification Rule).
- CDPHE Disease Control and Environmental Epidemiology Division (DCEED) (grantee of U.S. Centers for Disease Control's [CDC's] 3-year grant to support lead poisoning surveillance, hazard investigation, outreach and education).
- CDPHE Division of Environmental Health and Sustainability (DEHS) Child Care and Schools Program (Implements the Rules and Regulations Governing the Health and Sanitation of Child Care Facilities).
- Denver Department of Public Health and Environment (DDPHE) Childhood Lead Poisoning Prevention Program (DDPHE Lead Program) (grantee of HUD's 2-year grant to support lead inspections, risk assessments and abatement of homes with young children from vulnerable populations in high lead risk neighborhoods, including the West Denver neighborhoods of the Lead PBI).
- Denver Department of Development Services (DDDS) – reviews, approves and inspects building projects and issues building permits.
- Denver Department of Community Planning and Development (DDCPD) - issues licenses and certificates to both individuals and companies who perform work within Denver that requires a building permit.
- Rocky Mountain Pediatric Environmental Health Specialty Unit (PEHSU) in Denver, Colorado is a grantee of the EPA and ATSDR.
- Registered Neighborhood Organizations (RNOs) within the neighborhoods of focus.
- Schools, early childhood education centers, pediatricians, health centers, community centers, and Women, Infants and Children (WIC) offices within the neighborhoods of focus.
- Non-governmental organizations (NGOs) within Denver neighborhoods of focus.

Priority Area 2: Integrate Lead Poisoning Prevention into Local Building Permitting Operations:

Objectives:

- Protect vulnerable populations from exposure to lead from lead-based paint hazards.
- Partner with building code and permitting regulators in order to promote and integrate lead poisoning practices into building permitting operations in Region 8. When local building permitting programs require renovators to show proof of lead-safe certification and training and/or results of building lead inspections before they receive their building permit, then new lead hazards are prevented.
- Partner with building code and permitting associations, such as the International Code Council, in order to promote and integrate lead poisoning practices into building permitting operations in Region 8.
- Create a model for implementation of the Region 8 Lead and Building Permitting Initiative and develop a 'toolbox' of project resources so that similar initiatives can be reproduced throughout Region 8 and shared with our counterparts in other EPA regions.

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Previous Actions Taken:

Region 8 promoted integration of RRP Rule compliance in building permitting operations in Colorado by partnering with Unincorporated Arapahoe County, City and County of Boulder, City and County of Denver and City of Aurora. Various projects were accomplished.

Potential Future Actions:

- Partner with city and county building permitting departments that serve housing and child-occupied facilities in high lead hazard risk areas throughout Region 8. Expand to other states (except UT which has lead RRP program) based on lead "hot spot mapping."
- Partner with the Regional and State Chapters of the International Code Council in order to find alignment of our shared missions to protect people within the built environment and to promote and integrate lead poisoning prevention best practices into building code and permitting operations throughout Region 8.

Potential Partnerships:

- Colorado Department of Public Health and Environment (CDPHE) Lead-based Paint (LBP) Program (Authorized for LBP Activities Rule and Lead Pre-Renovation Notification Rule. Program also implements Asbestos Program).
- Denver Department of Development Services (DDDS) – reviews, approves and inspects building projects and issues building permits.
- Denver Department of Community Planning and Development (DDCPD) - issues licenses and certificates to both individuals and companies who perform work within Denver that requires a building permit.
- Denver Department of Public Health and Environment (DDPHE) Childhood Lead Poisoning Prevention Program (DDPHE Lead Program).
- Arapahoe County Building Division.
- Boulder County Land Use Department.
- City of Boulder Planning and Development Services.
- City of Aurora Building Permitting Department and Planning & Development Services.
- Regional and State Chapters of the International Code Council.
- Colorado Lead Coalition.

Priority Area 3: Integrate Lead Poisoning Prevention into Child Care Settings:

Objectives:

- Protect vulnerable populations from exposure to lead from lead-based paint hazards.
- Promote public awareness of lead poisoning prevention priorities with the following messages – *Get Your Child Tested for Lead, Get Your Home and Child Care Facility Tested for Lead* and *Work Lead-Safe When Renovating.*
- Partner with child care regulators to utilize their existing relationships they have with child care operators to efficiently and inexpensively promote and integrate lead poisoning practices into child care operations in Region 8 in order to provide protections to the vulnerable population of children where they live, work and play.

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- Partner with child care operators to utilize their existing relationships with families with young children in order to efficiently and inexpensively promote and integrate lead poisoning practices into home settings in order to provide protections to the vulnerable population of children where they live, work and play.
- Create a model for implementation of our Lead and Child Care Initiative and develop a 'toolbox' of project resources so that similar initiatives can be reproduced throughout Region 8 and shared with our counterparts in other EPA regions.

Previous Actions Taken:

- Region 8 developed a RRP Rule compliance tri-fold specific to child care operations that was adopted on the national level for distribution.
- Region 8 provided lead-poisoning prevention training to child care inspectors from the State of Colorado and all of its counties so they can identify lead hazard risks and violations in Colorado's child care settings and educate child care operators about best practices to remove or prevent lead hazards.

Potential Future Actions:

- Identify ways to partner with child care operators to utilize their existing relationships with families with young children in order to efficiently and inexpensively provide lead poisoning prevention education to these families so they can implement lead poisoning practices in home settings.
- Provide a *Lead Poisoning Prevention in Child Care Operations* presentation at the Child Care Health Consultants of Colorado's bi-monthly meeting to train nurse consultants that regularly visit licensed child care operations and provide health (including environmental health) consultations and resources.
- Develop an on-line lead poisoning prevention training course for child care staff.
- Create a model for implementation of our Lead and Child Care Initiative and develop a 'toolbox' of project resources so that similar initiatives can be reproduced throughout Region 8 and shared with our counterparts in other EPA regions.
- Utilizing the Lead and Child Care Initiative Toolbox, implement similar initiatives in the states of Montana, North Dakota, South Dakota and Wyoming.

Potential Partnerships:

- Colorado Department of Human Services Division of Early Care and Learning (DECL) oversees licensing of non-home-base child care operations throughout Colorado.
- Colorado Department of Public Health and Environment (CDPHE) Lead-based Paint (LBP) Program (Authorized for LBP Activities Rule and Lead Pre-Renovation Notification Rule).
- CDPHE Division of Environmental Health and Sustainability (DEHS) Child Care and Schools Program implements the Rules and Regulations Governing the Health and Sanitation of Child Care Facilities.
- North Dakota Department of Human Services (DHS) Early Childhood Services oversees licensing of non-home-base child care operations throughout North Dakota.
- Denver Department of Public Health and Environment (DDPHE) Childhood Lead Poisoning Prevention Program (DDPHE Lead Program) and Healthy Families Healthy Homes (HFHH) Denver Child Care Program.
- Tri-County Health Department Health Inspection Program for Child Care Licensing.

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- Denver's Early Childhood Council.
- Child Care Health Consultants of Colorado.

Priority Area 4: Accredit Lead Training Programs:

Objectives:

- Protect vulnerable populations from exposure to lead from lead-based paint hazards.
- Maintain or increase the number of EPA-accredited Lead Training Programs in order to assure a sufficient number of Lead Service Providers, such as Lead Inspectors, Risk Assessors, Abatement Workers and Renovators, are receiving high quality training and become certified to provide lead-safe services in homes and child-occupied facilities in order to meet the demand from consumers and the protected community.

Previous Actions Taken:

- Approved applications for new or renewed training course accreditations requested by training programs located in Region 8.

Potential Future Actions:

Implement initiatives that will promote demand for lead-safe services and increase the number of lead-safe service providers in Region 8 who require accredited training by:

- Increasing public awareness of the RRP Rule in order to drive consumer demand for lead-safe and compliant renovations and lead inspections and abatements in homes and child care facilities.
- Increasing compliance with the RRP Rule within the regulated community (e.g., increase number of certified firms and trained and certified renovators following lead-safe work practices).
- Creating a strong deterrent to noncompliance by increasing the number of RRP Rule inspections and enforcement responses and publicizing the results.
- Propose a new ACS indicator (Number of Lead Service Providers per Unit of Pre-1978 Housing Stock). This indicator would provide insight into the effectiveness of various initiatives (an outcome measure, although other factors may also impact this measure like economics).

Potential Partnerships:

Potential partners, highlighted previously in the three above mentioned priority area initiatives, can all play a role in increasing demand for lead-safe services (lead evaluation and lead-safe abatement and renovations), which in turn creates demand for lead-safe trained and certified service providers (Lead Inspectors, Risk Assessors, Abatement Workers and Renovators), which in turn creates demand for accredited training programs that provide high quality training and certification to these regulated communities.

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Superfund, Brownfields and Response

Summary Statistics:

- Given the history of mining and smelter activities throughout Region 8, lead contamination is prevalent throughout the states in our Region.
- EPA Region 8's Superfund Remedial and Federal Facilities program has 76 NPL sites that are proposed, final or Superfund Alternative Approaches
    - 31 of those sites have lead as a primary contaminant of concern
        - There are 10 of these NPL sites in each of the following states: Montana, Utah and Colorado; and 1 site in South Dakota
        - Nine of these sites had a 5-year review conducted in FY17, and three of these sites will have a 5-year review completed in FY18.
- EPA is actively working to reduce lead contamination at Superfund sites throughout the Region 8 states and tribal lands, and also provides assistance to communities for identifying lead contaminated properties and opportunities for redevelopment via our Brownfields program.

Recommended Lead Focus for Superfund Remedial and Federal Facilities Sites

- Focus on 13 sites with Human Exposure not under Control (HENC) or that have insufficient data to determine human exposure status (HEID)
    - This is already a priority under the Superfund Taskforce

        - Region 8 has 8 of lead sites that are human exposure not under control
            - Central City/Clear Creek (CO)
            - Colorado Smelter (CO)
            - ACM Smelter and Refinery (MT)
            - ***Anaconda Smelter (MT)***
            - Barker Hughesville (MT)
            - Carpenter Snow Creek (MT)
            - Upper Ten Mile (MT)
            - Jacobs Smelter (UT)

        - Region 8 has 5 lead sites that have insufficient data to determine the human exposure status
            - ***Bonita Peak Mining District (CO)***
            - VB/I-70 (CO)
            - Flat Creek (MT)
            - ***Silver Bow Creek/Butte (MT)***
            - Richardson Flat Tailings (UT)

    - The 3 sites that are on the Administrator's Special Emphasis List for Superfund also appear on one of the lists above (in bold italics).

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Other EPA Assistance for Potential Lead Contaminated Property

CERCLA Pre-Remedial Assessments

- The CERCLA Site Assessment team evaluates pre-remedial sites for potential lead exposures originating from drinking water supplies and residential soils. Assessments also include a focus on mining sites, where lead is often a contaminant of concern for either human health or ecological risks.

Targeted Brownfields Assessments

- EPA provides environmental assessment services free of charge to communities through the Targeted Brownfields Assessment (TBA) program. In FY2017, approximately three-quarters of the 95 TBAs completed involved sick or abandoned buildings, most of which had asbestos and/or lead based paint issues. Approximately half of these buildings were located on Tribal lands.
- Targeted Brownfields Assessments can help communities across Region 8 reduce the uncertainties of environmental contamination and identify cleanup options.
- TBAs are not grants, but rather assessments conducted by environmental consultants under contract funded by EPA Region 8 at no cost to the community. Funds for actual cleanup or demolition work are not available under this program.

Brownfields Assessment and Cleanup Grants

- EPA provides support to states and tribes through cooperative agreements for the assessment and cleanup of contaminants at Brownfields sites. This may include lead from various sources, such as lead based paint, lead based paint contaminated soils, mining impacted soils and other past industrial practices.

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Emergency Response Removal Actions

- The Region 8 removal program can deploy On-Scene Coordinators to assist with removing contaminated soil and replacing it with clean fill and topsoil where extremely high lead contamination is found to be endangering human health. Region 8 will make residential properties containing high levels of lead in soil a high priority for removal actions.

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