FREQUENTLY ASKED QUESTIONS

ABOUT THE SITE

WHAT IS THE NORTH RIDGE ESTATES SUPERFUND SITE?

North Ridge Estates is a residential subdivision located three miles north of the City of Klamath Falls. Much of the soil on the 171 acres is contaminated with asbestos and asbestos containing material, which resulted in the site being designated a Superfund site in 2011.

WHAT IS SUPERFUND?

Superfund is the name given to sites that have been added to the EPA's National Priorities List of uncontrolled hazardous waste sites. It is the federal program tasked with cleaning up these contaminated sites. More information on the Superfund program is available at www.epa.gov/superfund.

HOW DID ASBESTOS END UP AT NORTH RIDGE ESTATES?

The asbestos contamination in the soil is from the improper demolition of about 80 buildings and other structures from a 1940's military barracks that previously used the site. For more information, please read the Site History handout on the North Ridge Estates website.

IS ASBESTOS DANGEROUS?

Yes. Under certain conditions, evidence clearly shows that asbestos is a threat to humans. Asbestos that goes airborne can be inhaled, causing mesothelioma, long-term respiratory problems and death. For more information, please read the Asbestos and Frost Heave handout on the North Ridge Estates website.

WILL THE AREA BE SAFE AFTER THE CLEANUP IS COMPLETE?

Yes. No asbestos will reach soil surface after the contaminated soil is removed and capped, and after clean fill dirt is brought in to cover the area.

ABOUT THE CLEANUP

HOW WILL NORTH RIDGE ESTATES BE CLEANED UP?

The EPA has hired a contractor who will remove between two and four feet of contaminated soil. The excavation area will be capped, then clean fill dirt brought in from off site will be placed throughout the area. In 2014, the EPA finalized the remedial design, which is basically a blueprint for cleanup of North Ridge Estates.

WHY IS IT TAKING A LONG TIME TO MAKE NRE SAFE FOR RESIDENTS?

The EPA has removed about 60 tons of asbestos containing materials from the ground surface every year since 2003. During those projects, it became clear that asbestos contamination was widespread and would require a more comprehensive effort. That's when the EPA began formulating a larger plan to protect human health and the environment. About 96% of the contamination still remains in the soil at a depth of two to four feet. Seasonal freezing and thawing of the ground at North Ridge Estates results in frost heave exposing more asbestos on the surface. For more information, please read the Asbestos and Frost Heave handout on the North Ridge Estates website.

HOW LONG WILL THE REMAINING CLEANUP TAKE?

The project will take approximately 3 years. The construction season is between May and October, as crews are not able to work in the winter months when the ground is frozen.

HOW MUCH WILL IT COST?

The project is expected to cost approximately $30 million. The federal government approved this funding in March, 2014.

WHEN WILL THE PROJECT START?

The EPA plans to start cleanup work in late summer 2015. However, the precise project start date will be available when cleanup contracts are finalized.

WHAT IF THE CONTAMINATION IS DEEPER THAN TWO TO FOUR FEET?

Due to the nature of asbestos, it would be nearly impossible to eliminate all of the asbestos from North Ridge Estates. Instead, the project aims to make the area safe and the homes livable. This can be accomplished by removing existing soil, capping it and replacing it with clean fill. Removing more than two to four feet of soil would not lead to more protection, as no asbestos will rise to the surface after the project is complete.

WHAT OTHER WORK IS INCLUDED IN THE PROJECT?

Contractors must remove sidewalks, several smaller structures, trees, at least one residential home and septic systems. New trees, septic systems and sidewalks will be installed. More detailed information is available on the website.

WILL ALL OF THE MATURE TREES BE REMOVED?

EPA is evaluating whether it is possible to retain groups of large trees on the site. Many trees may be threatened or killed due to root damage during the process of soil removal. In some locations, it may not be possible to remove asbestos contamination from the soil without removing the tree. EPA is also evaluating if tree bark also contains asbestos.

WHY ARE YOU REMOVING SIDEWALKS AND SEPTIC SYSTEMS?

It is not possible to excavate the required amount of contamination without damaging the sidewalks and septic tanks, or the stabilizing soil in which they are each entrenched. Sidewalks and septic systems will be replaced as clean fill material is brought onto the site.

ONCE CONTAMINATED SOIL IS EXCAVATED, WHERE WILL IT GO?

Contaminated soil will be transported to one of two on-site repositories. Those repositories will be capped and covered in a way that fully protects human health.

HOW MUCH MATERIAL WILL BE REMOVED?

The EPA estimates that the total volume of soil that will be excavated and placed in an onsite repository is approximately 321,000 compacted cubic yards. This amount of soil will fill approximately 100 Olympic sized swimming pools. The amount of asbestos-containing material (not including the soil, would cover a football field over 36-feet deep. That is almost to the top of the goalposts!.

WHERE WILL THE CLEAN DIRT COME FROM?

Clean fill material will be brought in by trucks from two off off-site locations. During the first year of construction, the borrow pit is located at the end of the Collman Dairy Road.

WILL NEIGHBORS BE BOTHERED BY THE WORK?

The most obvious impact will likely be the high volume of truck traffic to and from the site between the months of May and October. The EPA and the contractor will work to minimize impacts such as dust, noise and traffic.

WILL IT BE SAFE TO LIVE IN THE NEIGHBORHOOD WHILE CLEANUP IS TAKING PLACE?

Yes. It will be necessary for a few residents to relocate to a temporary residence for a short time while their property is being cleaned up. In addition to construction noise and disruption, septic systems, sidewalks and driveways may need to be removed to access and clean up the asbestos contaminated soil. More information about relocation for residents will be available on the North Ridge Estates website in the near future.

IS THERE AN ORDER OR PRIORITY FOR WHICH PROPERTIES ARE CLEANED UP FIRST?

The EPA will work with the cleanup contractor to use their best professional judgment to define which parcels make the most sense to complete first. To the extent possible, the EPA will take the needs of the residents into consideration.

ONCE CONTAMINATED SOIL IS EXCAVATED, WHERE WILL IT GO?

Contaminated soil will be transported to one of several on-site repositories. These repositories will be capped and covered in a way that is fully protective of human health.

HOW WILL THE EPA KEEP CONTAMINATION FROM ESCAPING FROM THE REPOSITORY?

While the repository is being filled, methods such as watering will be used to minimize dust. After the work is finished at the site this fall, the repository will be covered by an engineered cap.

HOW WILL THE CAP BE CONSTRUCTED?

After asbestos-contaminated soil is placed and compacted, the repository will be graded into a natural appearing shape. Next, the repository with be covered with a layer of geo-textile fabric that will keep the contamination in place. Following that, the fabric will be covered with at least two feet of clean soil. Finally, the cap will be seeded with native vegetation for a natural appearance.

IS AIR QUALITY AFFECTED DURING THE REMOVAL?

The EPA will minimize dust and protect air quality for both residents and site workers. Soils are moistened with a sprinkler before work starts. Equipment is moved slowly and backhoe operators will lower their buckets all the way into the bed of the dump truck. Contaminated soil is covered securely with a tarp before being transported to the repository.

Residents will be asked to leave their homes for a short time when work is being performed adjacent to their homes. Site workers will wear protective gear while they are removing the asbestos containing soil and debris.

IS THE AIR BEING MONITORED?

Air quality is monitored at all work locations to make sure that the cleanup is safe for residents, neighbors and site workers. The air sampling locations will depend on where excavation is in progress, along with wind direction and other local factors.

LOOKING AHEAD

WHAT WILL THE SUBDIVISION LOOK LIKE AFTER THE PROJECT IS DONE?

The area will have new sidewalks and trees, though the trees will be smaller than the mature trees currently on the site. The project may include a bicycle and pedestrian trail, depending on feedback and responses from homeowners. Otherwise, the subdivision will look much like it does today. For more information, please read the Looking Ahead - Restoration handout on the North Ridge Estates website.

WILL THERE BE DEED RESTRICTIONS ON HOMES AFTER THE PROJECT IS DONE?

Yes. Properties will have some longer term conditions put in place to ensure the soil below the protective cap is not disturbed.

STAY INFORMED

Website: **www.epa.gov/superfund/north-ridge-estates**

E-mail: **NRESuperfund@gmail.com**

Information Hotline: **(541) 238-5640**

On-call Site Phone: **(541) 274-1613**

EPA will also distribute regular electronic updates so be sure to sign up on the website.

EPA understand the impacts this project may cause. We thank you for your patience and appreciate your support during this important clean-up of the North Ridge Estates Superfund Site.