Morongo Band of Mission Indians

October 2025 - Volume 20, Issue 4

Environmental Protection Department

Our Mission is to protect, monitor, restore, and regulate Morongo's natural resources, honoring and protecting all life, land, and traditions and enhancing tribal sovereignty. We will promote environmental awareness and environmentally considerate actions by exemplifying environmental stewards, fostering collaborative relationships, expanding education and outreach activities, and continuing to enrich and develop our programs.

INSIDE THIS ISSUE

Welcome To Our New Staff

We are excited to welcome two new staff members to our team!

Zane Tatro is our new Resource Conservation Specialist. He has been working with us since March as a college intern, and we are happy to have him on full time to fulfill this important role. Zane is originally from Connecticut, and he graduated from California State University San Bernardino with a BA degree in Environmental Studies with a concentration in Environmental Sustainability.

"Outside of work, I enjoy staying active by playing tournament slowpitch softball and league sports. I am also very passionate about music and spend most of my free time on music production and audio engineering."

Learn more about Zane's time as a college intern on page 6!

Jason Brooks is our new department Director. His background is working internationally supporting communities manage their natural resources. His most recent work before joining Morongo was working with the Indigenous Mayan communities of the Guatemalan highlands on water access and water rights.

"Our department's mission is clear, "To protect and preserve Morongo's natural resources, traditions and tribal sovereignty. There is a lot that comes into play when protecting the air, land and water and managing our recycling. We also work on compliance permitting while bringing a much as we can in-house to enhance sovereignty. And we do all of this in collaboration with the tribal administration and members. So far my favorite aspect of our department is our internship programs. Youth from the tribe learning about how to protect their natural resources for future generations is one of our departments most important roles."

Jason lives in Yucaipa and has three adult children. In his free time he likes to do leather crafting and garden.

Protecting Morongo from Asbestos: A Safety and Awareness Guide

Written by: Isabel Hughes, Administrative Assistant

The Morongo Environmental Protection Department is working to make our community safer through a new Asbestos Program Needs Assessment. This important effort looks at the risks of asbestos exposure on the Reservation and how to better protect staff and the public.

What Is Asbestos?

Asbestos is a natural mineral that was widely used in buildings and products because it is strong and resistant to heat. Many older homes and buildings, especially those built before 1981, may still contain materials with asbestos.

You can find asbestos in:

- Floor tiles
- Roofing materials
- Insulation
- Ceiling textures
- Brake pads and other auto parts

When asbestos-containing materials are disturbed, they can release tiny fibers into the air. Breathing in these fibers over time can cause serious health problems like lung cancer and asbestos-related diseases.

Where Is Asbestos a Concern on the Reservation?

Morongo staff may come across asbestos during:

- Building inspections
- Illegal dump cleanups
- Hazardous waste collection
- Construction, repair, or demolition projects

That's why the Environmental Protection Department is reviewing current safety practices and regulations that ensure people who may come into contact with asbestos have the proper training and tools to stay safe.

Why Should the Community Be Informed?

The more we all understand about asbestos, the safer our community will be. For example, leaving asbestos materials undisturbed is often the best way to avoid exposure. If materials are in good condition and not releasing dust or fibers, they may not be a risk.

On the other hand, friable asbestos, which easily crumbles or turns to dust, can be very dangerous when disturbed.

If you're planning to do home renovations or clean up debris:

- Do not touch materials you think may contain asbestos.
- Do not try to test it yourself, this can release harmful fibers into the air.
- Contact a professional for help.

Who Can Test for Asbestos?

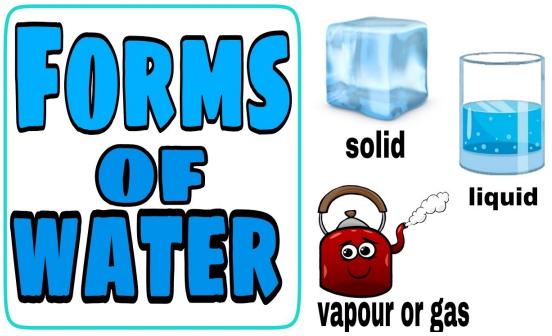
Only trained and certified professionals should collect asbestos samples and send them to qualified laboratories. There are national standards in place to ensure testing is done safely and accurately. The Environmental Protection Department follows a mix of tribal, federal, and sometimes state laws when it comes to asbestos. These laws help protect both workers and the environment.

Keeping Our Community Safe

The Environmental Protection Department is committed to a safer, healthier environment for all. This Asbestos Program Needs Assessment is just one step in protecting our land, our people, and our future. To read the full Asbestos Needs Assessment, follow this link, https://morongo.sfo2.digitaloceanspaces.com/morongo.com/MEPD-Asbestos-NeedsAssesmsent-September-2024.pdf

Getting to Know the Hydrologic Cycle

Written by: Oscar Perez, Environmental Specialist I



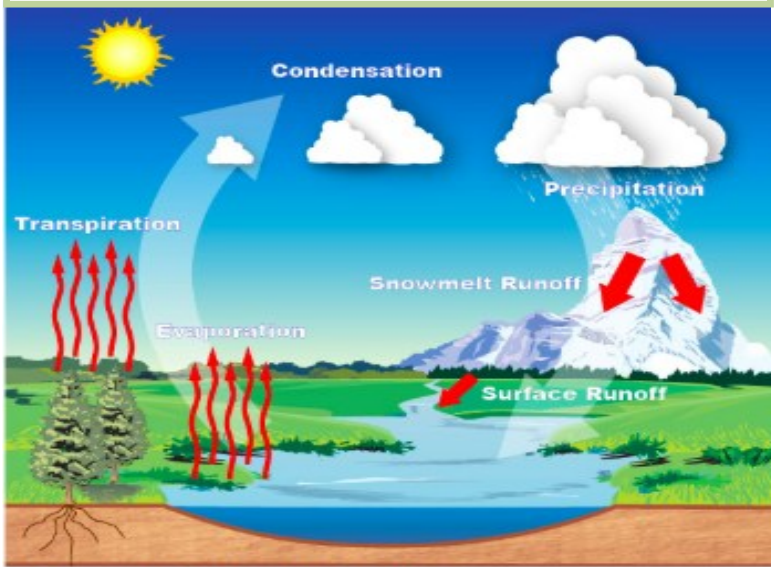
The hydrologic cycle, also known as the water cycle, is the movement of water here on Earth. This movement encompasses changes in the form of water, as well as the transfer of water from the ground to the atmosphere and vice versa. Water is present in liquid form in oceans, lakes, rivers, aquifers, and other water bodies. Water is present in the gas form as water vapor or gas, and in its solid form as glaciers or ice caps.

Let's start with the hydrologic cycle, specifically with glaciers. As the sun beats down on the glacier, the water melts from a solid into liquid. As it melts the water runs off from the mountain. The water either flows into the nearest body of water or seeps into the soil. In the soil, water can later be taken up by roots. Another route the ground water can take is to seep deeper into the ground. It continues to move towards the ocean or becomes trapped in dense rock, forming an aquifer.

The next stop in the hydrologic cycle is the transformation of liquid water into water vapor. This is achieved through transpiration, where the stomata or a specialized cell of a plant, allows water vapor to escape from the plant. Desert plants have evolved to limit their transpiration, allowing them to retain more water within the plant. For surface waterbodies, the liquid water evaporates into the atmosphere. As the water vapor evaporates, it leaves behind impurities such as salts and other chemicals. Places like the Salton Sea are unable to handle the increase in salinity causing the plants and wildlife in the area to spiral down into a state of decline. Currently, the Salton Sea's percentage of salt is higher than that of the Pacific Ocean.

As the newly formed water vapor rises, it starts to condense into clouds. With the cooler temperatures and lower air pressure in the atmosphere, the water vapors form water droplets. This process is accelerated if the droplets have something to bind to, like dust or pollen. This phenomenon is called condensation nucleation.

Hydrologic Cycle



The final step in the hydrologic cycle is the waters' return journey to the ground known as precipitation. The water droplets begin to collide, merging and growing larger until conditions are just right causing rain to fall from the sky. The water droplets could also be so cold that instead of rain, they turn to ice crystals, creating snow or hail.

As you can see, the hydrological cycle is not a simple circle. It can be deviate in alternate directions and some steps can take longer than others. Water can even change directly from vapor to solid, skipping the entire liquid phase. No matter the form it takes, water is essential for human life. Let's all work hard to help keep this resource clean for future generations.

References: National Oceanic and Atmospheric Administration https://www.noaa.gov/jetstream/atmosphere/hydro, UC Cooperative Extension Imperial County https://ucanr.edu/county/cooperative-extension-imperial-county/salton-sea-and-salinity, University Corporation for Atmospheric Research hhttps://scied.ucar.edu/learning-zone/clouds/how-clouds-form

How You Can Help Prevent Nonpoint Source Pollution at Morongo

Written by: Zane Tatro, Environmental Specialist I

Clean water is one of our most important resources, and every member of the Morongo community plays a role in protecting it. One of the biggest challenges to keeping water healthy is something called nonpoint source pollution or NPS for short. Unlike pollution that comes from a single place, like a factory pipe, nonpoint source pollution comes from many everyday activities. When it rains or when we water our yards, the water can pick up things like oil, trash, pet waste, or chemicals and carry them into streams, washes, and groundwater. The good news is that the most effective solutions are simple, and they start at home. Here are some easy and impactful ways to help.

1. Pick Up After Pets:

When left on the ground, pet waste can wash into waterways and introduce harmful bacteria. Carrying a bag and throwing it away properly is one of the simplest ways to protect water quality.

2. Use Fewer Chemicals Outdoors:

Fertilizers and pesticides often wash away before plants can use them. Choosing native plants that need less care or using compost instead of chemicals keeps yards green while keeping pollution out of the soil and water.

3. Dispose of Oil and Hazardous Waste Properly:

Vehicle leaks, old paint, or leftover cleaners should never be dumped outside or into drains. There is a designated location on the reservation for proper disposal of oil and hazardous waste.

4. Keep Litter off the Ground:

Every wrapper, bottle cap, or cigarette butt left outside has the potential to travel with stormwater. Making sure trash goes into bins and recycling what you can helps ensure the reservation stays clean and prevents waste from ending up in waterways.

5. Be smart with water use:

Overwatering lawns and gardens creates runoff that carries pollutants with it. Watering early in the morning or evening, fixing leaky hoses, and planting native species that need less irrigation all conserve water and reduce runoff.

Each of these steps may seem small, but together they create a healthier environment. Clean water supports wildlife, protects cultural traditions, and keeps Morongo thriving for generations. By working together, residents can help safeguard this and many of the reservation's other valuable resources.

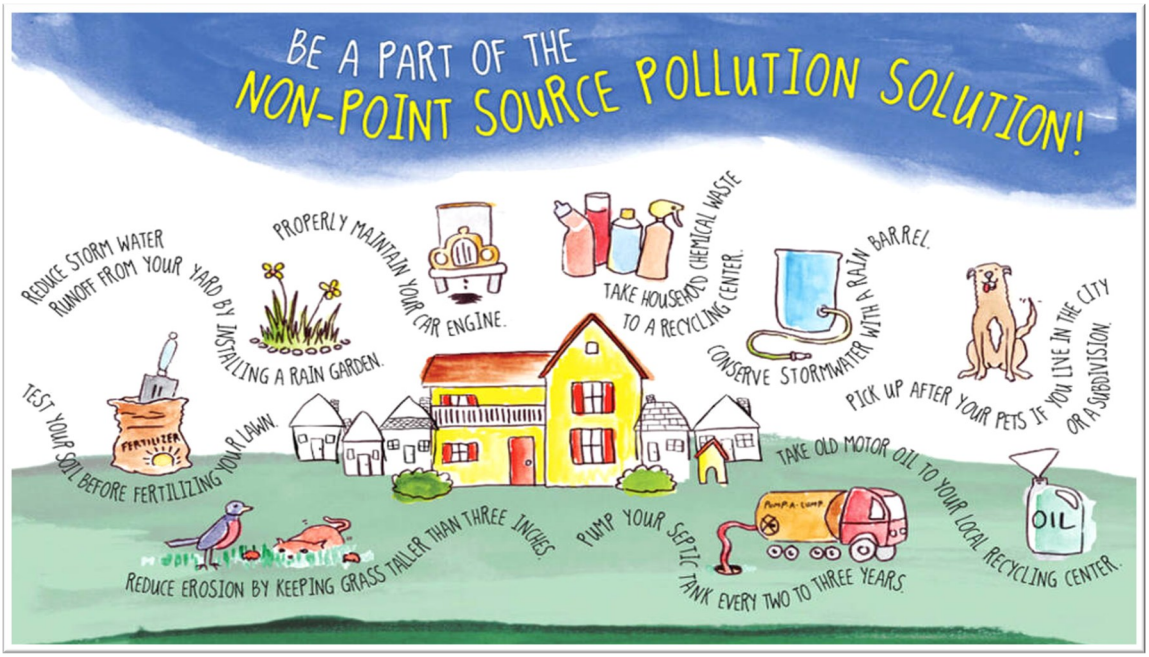
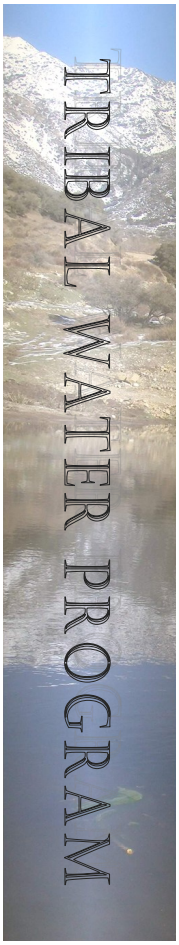


Photo from: https://www.streamteamsunited.org/be-part-of-nonpoint-source-solution.html



Morongo Community Air Quality Project Update—CARB AB617

Written by: Pamela Atcitty, Environmental Specialist II

Morongo's Community Air Quality Project is part of California Climate Investments, a statewide program that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment—particularly in disadvantaged communities.

For current air quality conditions visit MorongoAir.com

California Air Resource Board's AB 617

Morongo's Tribal Air Program continues to make progress on its Community Air Quality Project, supported through the California Air Resources Board (CARB) Community Air Grants under Assembly Bill 617. This project is helping the Tribe strengthen its monitoring network, modernize equipment, and improve community access to air quality data. Here are the most recent updates to the project from April through June 2025:

Network Improvements

On June 17th, the air monitoring network was fully rebuilt and re-installed. As part of this effort, telemetry devices in the monitors were upgraded, significantly improving data transmission reliability. This ensures that a more complete and accurate dataset is available to both Tribal staff and the community.

Maintenance & Solar Upgrades

Routine maintenance is a vital part of the project. Damaged sensors have been replaced, and bi-weekly troubleshooting ensures continuous data collection. To improve power reliability, new solar panels were installed at the Tribal Water Reclamation Facility site.

Website Upgrade

The community website, morongoair.com, has been upgraded to a more user-friendly platform. The site now makes it easier for Tribal members to access, view, and understand local air quality data.

New Installations

A Tisch TE-6070 High Volume Air Sampler was installed to conduct a multi-month study on particulate matter pollution. This advanced instrument allows for speciation of particulate matter, meaning the project can identify the different compounds and aerosols present in the air.

Data Findings

Monitoring results highlight ongoing concerns with regional air quality:

- Ozone: Elevated ozone levels were recorded during the summer of 2025. Concentrations frequently reached the "Unhealthy for Sensitive Groups" threshold and at times exceeded into the "Unhealthy" range.
- Particulate Matter (PM): PM monitoring showed frequent short-term spikes, with concentrations occasionally reaching the "Unhealthy for Sensitive Groups" range.

Looking Ahead

The Morongo EPD will continue maintaining and calibrating monitoring equipment, launching air toxics sampling in summer 2025, and expanding community engagement. For updates and live data, visit www.morongoair.com.

Community Health Alert: What the Data Means for You

Ozone (Smog):
- Rises in the afternoon and summer months.
- Can cause coughing and breathing difficulties.
- Limit outdoor activity on high ozone days.

Particulate Matter (PM):
- Comes from dust, smoke, traffic, and industry.
- Can affect heart and lung health.
- Stay indoors and use filters during spikes.

■ Stay informed: Check real-time air quality at morongoair.com

EPD's 2025 Interns

Written by: Jessica Southard, Environmental Specialist II

This year we had the pleasure of hosting a college intern and a high school intern. These positions are made possible by grant funds from the Environmental Protection Agency.

Our college intern Zane started with us in March, and put his everything into learning about our programs. He was an especially big help with the Pollution Prevention Program. Zane got HAZWOPER trained, so that he could assist in the sorting and storing of electronic and household hazardous wastes. He assisted with hazardous waste compliance inspections, curbside waste assessments, waste audit studies, and education at various events.

Zane put so much effort into his work, we were excited to offer him a position to fill a vacancy in our department at the end of his internship. Read more about Zane on page 1!

Our high school intern Isabella was with us for the summer, and was a joy to teach. She had so much enthusiasm for learning, and really understanding each program. She worked with our Tribal Air Program to learn about Ambient Air Monitoring through discussing, tours, looking at data, and by helping check and clean equipment and weather stations. She learned from the Pollution Prevention Program about Recycling, the effects of pollution, and even assisted with sorting batteries for proper disposal. She assisted the Tribal Water Program with surface water monitoring and quality assurance, to learn about our water quality monitoring. Finally, she worked with our Resource Conservation to learn about the natural resources on the reservation, and assisted with watering some newly planted trees throughout the canyons.

At the end of her internship, she completed a paper and gave a presentation on "The Benefits of Conserving Water". You can read a copy of her paper on our website at https://morongonation.org/native-american-intern/. Check out her article on page 7!

Invasive Mistletoe

Written by: Isabella Lyons, Highschool Intern 2025

Over a century ago, a man by the name of Luther Burbank intentionally brought an invasive mistletoe from Europe to North America. His intent was to use it for medicinal purposes and as Christmas decorations. Mistletoe, regardless of the American or European variety, has spread around new habitats and has become an invasive species and is now prominent throughout North America. Invasive species are non native species that take over the normal balance of the habitat and cause damages to animals, plants and/or humans.

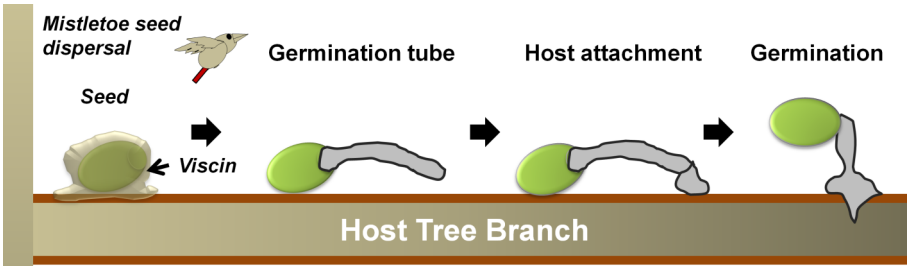
Luther Burbank used European mistletoe as a medicine to help treat diabetes, seizure disorders, and heart ailments. American mistletoe is a native plant to certain parts of Northern America, but it is also considered a parasite to all locations and an invasive species to new habitats.

One thing about mistletoe is that it has unique roots that are perfect for extracting water and nutrients from host plants. Its seeds can spread easily through bird droppings, or they may be propelled by its explosive fruits. In order to keep this parasitic plant from harming your trees and shrubs, it is important to know what it looks like, what it can do to your plantings, and how to manage its presence in the garden. The ideal time to treat invasive mistletoe is in the spring, when temperatures start to rise but before the tree starts to grow leaves.

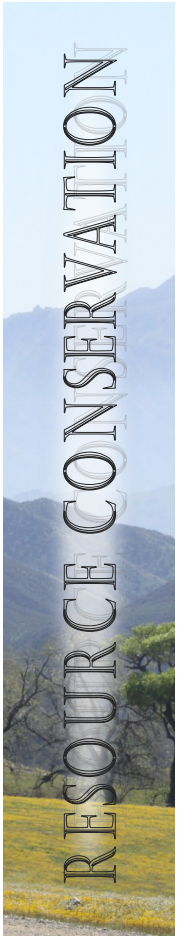
American mistletoe is a parasitic plant that grows on trees or large shrubs, which can range from a few feet to 36 feet tall. The tree branches can reach a maximum size of about 12 to 18 inches in diameter. When mistletoe attaches to a tree branch, there is often a swollen area on the branch. This causes damage to the tree and simply looks unpleasant. Due to its parasitic nature, mistletoe can weaken or destroy the trees it infests by extracting water and nutrients, especially if the tree has already been compromised by pests, storms, or old age.

Mistletoe is known to go after hardwood trees like oaks and sycamore trees. These trees have a significant importance to the local residents of Southern California. This hardwood trees can handle a few mistletoes present. They however can't handle too many mistletoes attach to one tree. As seen on the lower left photo, mistletoe can overwhelm a tree. The tree will start to decline and if that tree is dealing with other trauma like drought, heat stress and pest invasion, then the tree will die.

Overall, mistletoe is a parasitic plant that can weaken host trees by taking their nutrients and water. Controlling its spread, especially in natural areas, is crucial for maintaining healthy ecosystems. During winter time, it is easy to find mistletoe in some trees. Trees that lose they leave should be bald during winter but if you see green on those trees , then that is a good sign that you have mistletoe on those trees.



Photos from: National Geographic https://share.google/images/4XkMAh4cA6SAMVcqh, Smithsonian Magazine https://share.google/images/Ept45F3X5SVLBWE5V, USGS.gov https://share.google/images/bJP3R9UzwLtxRg7Fe, Encyclopedia https://share.google/images/HK75wr5tQNyrt0fqI



Let's Stay In Touch

We've got many ways you can stay informed about our department programs, events, and alerts. We encourage you to sign up, like, & follow us in the following ways:

Quarterly Newsletter—Sign up for digital or paper copies at www.morongo nation.org/contact-environmental/

Facebook — @MorongoEPD

Instagram — @morongoepd

YouTube — Morongo EPD

Website — morongonation.org/environmental-protection-department

Email — epd@morongo-nsn.gov

Phone — 951-755-5127

This and previous newsletters are available at https://morongonation.org/environmental/. If you would like to join our email list or would like a hard copy mailed to you, let us know at epd@morongo-nsn.gov or 951-755-5127.

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