



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.

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Environmental Spring Photo Contest

Check out these amazing images from the Morongo Reservation & surrounding area.



The Morongo Environmental Protection Department would like to congratulate

Amber Alps,

Morongo I.T.

for winning 1st place in the

Spring Seasonal Photo Contest with the photo titled

“Spiders, Bees, Flowers & Trees—Spring!”

Congratulations to

Marisol Lopez,

Morongo Social Services

who submitted the

Runner-Up photo

“Beautiful bird nest found in a



Summer Entries are due September 1st

Submit your photos for a chance to win a gift card to a local retailer!

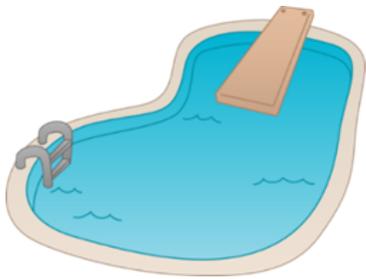
Entries need to be original photographs taken between taken between June 1 to August 31, 2016, within the Reservation or the surrounding San Gorgonio Pass (from Whitewater to Beaumont), and can be anything related to the environment. Tribal members, descendants, community members, and employees are all welcome to participate! A brief description or title of the photo must accompany the entry. Images with a resolution less than 300dpi may not be suitable for printing or displaying. Only one photo, per person, may be submitted each season and each person may only win twice within a 12 month period. All entries may be printed or displayed by the Morongo Environmental Protection Dept. for non-monetary purposes. Entries will be posted anonymously and the winning photo will be chosen by employees with computer access. The winner will receive a \$50.00 gift card to a local business.

To submit your photo for the photo contest, upload your pictures at: www.morongonation.org/content/environmental-seasonal-photo-contest or email photos and a description to: environmental_department@morongonnsn.gov. If you need assistance uploading your photo or you have any questions about the photo contest, please contact the Environmental Department at 951-755-5128.



Water Saving Tips for Your Pool or Spa

Written by: Kimberly Miller, Environmental Specialist



Now that hot weather is here, nothing is better than relaxing in the cool water of a pool. About 15% of Californians have a pool in their backyard. Although almost everyone will admit to enjoying time in the pool, the drought in California caused some debate about if they are too wasteful of water and what the most water efficient use of backyard space would be. While pools use a lot of water when being filled, a properly maintained pool with a little extra attention will use less water over a year than an equal sized lawn. If you, your friends, or family have a backyard pool, follow these tips to save water and still enjoy an iconic California summer pastime.

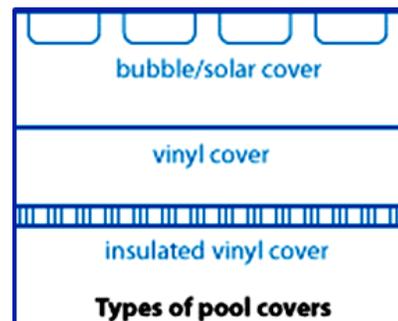
Check for leaks

A one-inch leak in a 15 by 30 foot pool can waste over 100,000 gallons in a year. Look for obvious leaks and wet spots around the pool and the plumbing for the pump or heater. To test if you have a leak or are losing water to evaporation, conduct a bucket test:

1. Place a bucket on the steps and fill it with water equal to the pool level. Mark the inside and outside water levels with a grease pencil or marker. If you have an autofill system, turn it off.
2. After a day or two (with no rain or water splashed out), check the levels. If they are the same, the water loss is just evaporation. If the water in the bucket is higher, you have a leak.
3. If it's a leak, you can check if it is in the pool or the plumbing by doing the test with the pump running for a day and then repeating it for a day with the pump off. If more water is lost when the pump is running, a pipe or seal in the system is likely the cause.

Use a pool cover

In our area, about 80 inches a year will evaporate out of your pool. This means that an uncovered 15 by 30 foot pool can lose over 22,000 gallons to evaporation alone each year. The great thing about pool covers is the multiple benefits they provide. Not only do they reduce up to 90% of evaporation, they also reduce costs for heating and chemical use along with keeping your pool cleaner.



Keep the pool in good condition

Making sure the pool is clean and the chemicals are properly balanced leads to a better experience while preventing additional use of water. Well maintained pools rarely need to be drained which saves thousands of gallons of water. Switch to filters that can be manually cleaned or reduce the frequency you backwash your filters. Backwashing can use 250 to 1,000 gallons of water. If you must backwash, direct the water onto landscaping and skip watering that area.

Reduce unnecessary water loss

Shut down any waterfalls or fountains you don't need or use them less often. Water features increase aeration and lead to faster evaporation. Reduce water lost to splash out by not overfilling the pool. A little above the bottom of the tiles or $\frac{1}{3}$ to $\frac{1}{2}$ way up the skimmer are general guides. Finally, turn down the temperature of the heater a few degrees to slow down evaporation.

For more information, check out the Alliance for Water Efficiency's website at <http://www.allianceforwaterefficiency.org/SwimmingPoolandSpaIntroduction.aspx> or the Water Use It Wisely website <http://wateruseitwisely.com/tips/category/pool/>.



TRIBAL WATER PROGRAM

Dust Control on Unpaved Roads

Written by: Pamela Atcitty, Environmental Specialist



Particulate Matter Pollution and Unpaved Roads

Unpaved roads are the largest source of particulate matter (PM) air pollution in the country. According to the Environmental Protection Agency, unpaved roads produce almost five times as much particulate matter as construction activities and wind erosion (the next two largest sources) combined. Dust settles on plants up to 500 feet from the road edge, slowing their growth and can reduce crop yields. A single vehicle traveling an unpaved road once a day for a year will produce one ton of dust per mile, according to a recent study. This translates to losing 100 tons of fine particles a year for each

mile of road with an average of 100 vehicles a day. In addition to polluting the air, dust can be a health problem for nearby residents, causing lung irritation and inflammation, which can eventually impact heart function.

Controlling Dust on Unpaved Roads

Dust control measures can vary, depending on the desired outcome and the price one is willing to spend. Below are a few solutions to controlling harmful dust from your unpaved road.

Reducing Traffic-Vehicles traveling on unpaved roads stir up dust and simply reducing the number of vehicles, can easily reduce Particulate Matter. Traffic can be reduced voluntarily; encouraging walking is one way. Traffic can be reduced by restricting vehicle weight or type or by limiting motor vehicle access to dirt roads. Reducing road traffic is the most economical method available, as it does not require any material or application.

Reducing Speed-The amount of dust produced is related to vehicle speed. Cutting average vehicle speeds from 40 mph to 20 mph will reduce dust emissions by 65%. Speed limit signs and enforcement can reduce speeds. The effectiveness of speed limits depends on law enforcement and the community's willingness to abide by the rules. However, applying dust control measures will usually be less costly and more effective than speed enforcement. Therefore, you may choose to use dust-reduction products on roads where vehicle speeds are higher.

Dust-Reduction Products-This group of dust-reduction products includes chemicals which bind fine particles together or onto larger particles. These chemicals fall into several groups, such as petroleum-based, organic nonpetroleum, electrochemical stabilizers, and synthetic polymers. The most common dust control agents are chlorides, asphalt products, and lignin. This helps form a crust and hold the road dust into the collective surface. In addition, calcium chloride slows down the evaporation of moisture and tightens the compacted soil, strengthening the road. These inorganic chemicals are environmentally safe and fairly economical. However, such treatments are temporary and repeat applications may be necessary. While their performance depends on temperature, relative humidity, and traffic, the effectiveness generally only lasts 6 to 12 months.

Covering Unpaved Roads with Gravel-Properly applying gravel to a dirt road surface can reduce dust significantly. Gravel provides a hard surface, protecting soils from vehicle wheels. Gravel does not reduce the strength of air currents caused by vehicles themselves, so heavy traffic can still blow loose particulate matter into the air. However when a dust-reduction product is added to gravel, this forms a very strong, pavement-like surface; more durable than dust-reduction products alone. Another advantage of applying gravel to roads is that it is less expensive to create and maintain than if it was paved with asphalt.

Paving with Asphalt or Concrete-Paving is the most effective, and most expensive, method to control dust from unpaved roads. Asphalt and Portland concrete provide durable and effective surfaces that prevent the breakdown of soil surfaces. However, paving is very expensive.

Whichever method of dust control is selected, the reduction of dust and PM will be achieved. For more information about unpaved roads and available control measures, visit: <https://www3.epa.gov/region9/air/phoenixpm/fip/racm.html>



Earth Day

Written by: Jessica Southard, Administrative Assistant

Our annual Earth Day event topped all others! The theme of 2016 was “Honor, Respect, Protect Mother Earth,” and the event featured booths that showed ways to do just that. The event showcased environmental groups and organizations as well as Morongo departments with great activities, games and information. We were excited to have the different clubs from the Morongo schools participate in so many unique ways. The Drama Club and Glee Club did skits and songs about environmental issues, Drumming did an outstanding performance and the 3rd grade class put on an amazing “Trashion” show featuring outfits made from recycled materials.



Recycled material
“Trashion” show

Attendees had many activities to choose from, including reusable tote bag decorating, making their own recycled K-cup toy, making a pinch pot, or planting their own plant to take home.

A big thank you to all of the organizations and departments who helped make this event a huge success!



School Drama Club

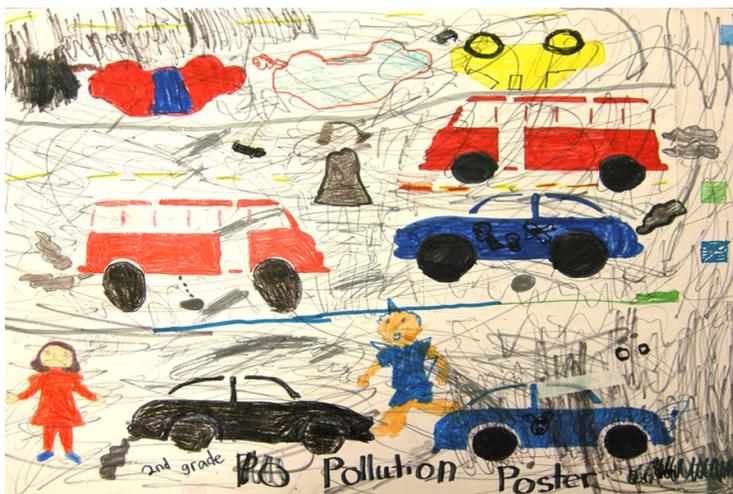


GMF Animals

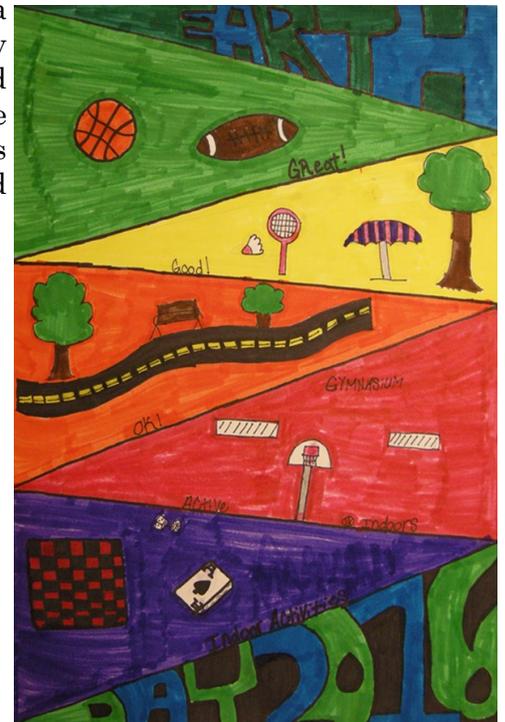
Morongo School Air Quality Poster Contest

Written by: Jessica Southard, Administrative Assistant

The students of the Morongo schools were issued a challenge to create a poster that showcased why air quality is important. The winners for middle campus were the 2nd grade class, who worked together to show the negative effects of pollution. The winner for upper campus was Agnes Guassac who helped show the AQI flag program and appropriate activities for each flag color. Congratulations!



Middle Campus Winners—2nd grade class



Upper Campus Winner—Agnes Guassac



Upper Campus Photo Contest

Written by: Jessica Southard, Administrative Assistant

During the annual Environmental Education lessons at the Morongo Schools, the Upper Campus students were given the opportunity to learn a bit about photography and the art within our unique environment. Each class was given access to cameras and time outdoors to capture something they thought showcased the Morongo Reservation and its beauty. Some even took great shots on their own! Congratulations to the winners of the Upper Campus photo contest!



1st Place—Joseph Waters



2nd Place—Eva Leivas



3rd Place—Darin Horsman





Peanut butter and jelly. Fresh air and deep breaths. Hiking and maps. All things that were made for each other! Well now you can get the brand new *California Hiking Map* created by Jason Mandly, former EPD Environmental Specialist. This map shows publicly accessible trails, bike paths, and fire roads which are closed to vehicles, all perfect for hiking in California. Check out the story, interviews, and

Recycling Tips

Did you know that recycling contamination is a big concern? Many items can be considered contaminants. Contamination happens when non-recyclable items are mixed in with recyclable items or when recyclable items are placed in the wrong recycling bins. Innocent looking paper smeared with food or grease cannot be processed with clean paper and can ruin a newly made product if it is not caught before it goes to the factory. Too much contamination is the reason manufacturers reject tons of

What are some common contaminants?

Food and Liquid Waste!

This is a big one! Food and liquids can not only contaminate recyclables, but it can also attract unwanted pests. Keep in mind the recycle bins sit for a couple of weeks and any food left will rot and attract rats, coyotes, birds, bears, and more.



Pizza Boxes & Fast Food Bags

Pizza boxes are made from corrugated cardboard, however the cardboard becomes soiled with grease, cheese, and other foods once the pizza has been placed in the box. Once soiled, the paper cannot be recycled because the paper fibers will not be able to be separated from the oils during the pulping process.



Paper Towels/ Napkins, Paper Plates & Paper Cups

Although these items are paper, they should be placed in the garbage. Often times these items are soiled with food or other contaminants. Many paper products have a thin plastic lining to give strength to the product and prevent leaking. This plastic lining is consider a contaminant in the pulping process. Please throw paper plates, napkins, and cups in the garbage.



Small Items

A good rule of thumb is if the item is smaller than your hand, it's too small for recycling. These items act as litter and can ruin equipment, get stuck or jammed, and end up on the sorting floor.



Special Items

Electronic Waste, Hazardous Waste, & Fluorescent Light Bulbs **CANNOT** go in the trash or regular recycling bins. These items can be placed in the specified bins behind Public Works or dropped off at the next Household Hazardous Waste collection day.



Information obtained from: http://bgm.stanford.edu/pssi_faqs_contamination

POLLUTION PREVENTION PROGRAM

Safely Disposing of Sharps

Written by: Dana Morey, Environmental Supervisor

Needles, syringes, and lancets—also called sharps—are used by millions of people across the country to treat all sorts of medical conditions at home including allergies, arthritis, diabetes, hepatitis, cancer, and infertility. Once used, these sharps need to be properly and safely disposed of. Some sharps users throw their needles in the trash or flush them down the toilet which puts everyone at risk of needle-sticks but particularly sanitation workers, children, and pets. People exposed to sharps not only face the risk of a painful stick but also are at risk of contracting a life-altering disease such as HIV, Hepatitis B, or Hepatitis C. Because the injured person does not know where the sharp came from, all sharp injuries are treated as if the needle were infected with a disease. The injured person will often undergo monitoring and treatment for months to determine whether or not they have been exposed to a disease or infection.



Sharps are any medical device with sharp points or edges that can puncture or cut skin.

Needle stick injuries are a completely preventable health risk which starts with safe collection and disposal of used sharps! Follow these tips to ensure safe disposal of sharps.

- **DON'T** throw used needles or sharps in any garbage or recycling bin.
- **DON'T** flush needles down the toilet.
- **DON'T** put needles in soft sided containers such as plastic bags, paper bags, or cardboard boxes.
- **DON'T** overfill sharps collection containers.
- **DON'T** place non- sharps items in your sharps container such as pills, wound dressings, glass, thermometers, etc.
- **DO** use an approved disposal container.
- **DO** collect sharps in a **hard-sided** container.
- **DO** place a secure lid on the sharps container.
- **DO** find a collection center for proper disposal.
- **DO** be prepared for safe needle disposal when traveling.

Safe Packaging Options:



1. Collect sharps in an approved red sharps container, labeled “BIOHAZARD—SHARPS”. Once the container is 3/4 full, secure the lid shut using the tab locking mechanism. This container is puncture resistant and once sealed, cannot spill. For additional protection, place a layer of tape on the lid.

2. Collect sharps in a hard-sided, sealable plastic container such as a laundry detergent bottle or a bleach bottle, 1 gallon or smaller. Place a label or write “BIOHAZARD—SHARPS” on the container. Once the container is 3/4 full, close and secure the lid with duct tape.



Safe Disposal Options:

Household Hazardous Wastes (HHW) Collection Centers

Morongo Environmental Protection Department HHW Collection program is open to Morongo Tribal Members and residents. Sharps in approved, sealed containers can be dropped off at a quarterly HHW collection day (*see upcoming events*) or by scheduling a drop-off by calling 951-755-5198.

Riverside County Household Hazardous Wastes Collection Program

Riverside County has several permanent and temporary HHW collection sites throughout the county. Events are open to all Riverside County residents. Visit their website for an updated collection event schedule and to print FREE biohazard labels for collection containers. www.rcwaste.org/opencms/WasteGuide/sharps.html



Tread Lightly

Written by: James Payne, Environmental Director



During this past year's Earth Day event, a Tribal Member asked what could be done to educate and promote stewardship with regards to the Morongo canyons and their use by off roaders. He suggested utilizing a campaign such as Tread Lightly. Back in the office, phone calls were made, introductions and meetings took place, and soon we had staff from the Bureau of Land Management (BLM) at Potrero Park interacting with the community about off road use in the canyons.

The event addressed both on and off-highway vehicles (OHVs), quads, dirtbikes, hikers, equestrian use, shooters, hunters, and any person or activity that could impact the land. The five BLM staff had 3 education stations with activities, games, demonstrations, brochures, and skits. The event culminated with presentations from 3 different groups of Morongo School students presenting their skits to the other attendees and students.

The information was centered around the national Tread Lightly! organization and its education goals. The following is from the Tread Lightly! website (www.treadlightly.org) and presents their purpose and objectives:



Tread Lightly! and its partners lead a national initiative to protect and enhance recreation access and opportunities by promoting outdoor ethics to heighten individuals' sense of good stewardship. Tread Lightly!'s goal is to balance the needs of the people who enjoy outdoor recreation with our need to maintain healthy ecosystems and thriving populations of fish and wildlife. The scope of our work includes both land and water, and is representative of nearly every form of outdoor recreation including, but not limited to hunting, recreational shooting, fishing and boating. We also have a niche in promoting safe and responsible use of motorized and mechanized vehicles in the outdoors.

The lessons and values that were presented are definitely worth repeating as they centered on safety and respect for the land and life. For example, spinning tires on an ATV causes the road or hill to be gouged out, removing the top soil and any vegetation. During a rain event, rain will cause further erosion because it doesn't have the flowers or grasses to slow it down. This causes a bigger rut to occur and a snowballing negative effect that hurts the land and the animals that depend on it for food and habitat.

Here are some tips from Tread Lightly! to help keep everyone safe in the Morongo canyons:

- Buddy up with two or three riders, reducing vulnerability if you have an accident or breakdown.
- Designate meeting areas in case of separation.
- Listening to headphones or ear buds can make it difficult to hear & communicate with other recreationists.
- Don't mix riding with alcohol or drugs.
- Yield the right of way to those passing you or traveling uphill. Yield to mountain bikers, hikers, & horses.
- Proceed with caution around horses & pack animals. Sudden, unfamiliar activity may spook animals possibly causing injury to animals, handlers, & others on the trail.
- When encountering horse riders on the trail, move to the side of the trail, stop, turn off your engine, remove your helmet, & speak. You want the horse to know you are human. Ask the rider how to proceed.

Everyone had learned a lot at the event and had a great time doing so. We would like to thank Morongo School, Morongo Information Technology, Adrian Moncada, and of course another special thanks to our friends at BLM-Traci, Mark, Charlie, Dan, and Brian!

This event happened because someone saw an issue, had a great idea, and spoke to us about it. If you have any concerns or ideas, we would love to hear them too! To learn more about Tread Lightly! visit their webpage at www.treadlightly.org. To learn more about the BLM visit www.blm.gov, or visit them at their visitor center at 51-500 Highway 74 in Palm Desert or their Palm Springs South Coast office at 1201 Bird Center Drive.



Summer Heat Tips

Written by: Jon Castillo, Environmental Technician

Summer is now upon us and temperatures will be high. Here are tips to prepare for our hot summer days.



Air

- Air quality is worse in the summer, be cautious when going out. Check the Access Channel or Website for the Daily AQI.
- Clean or replace your A/C filter. A dirty filter forces your air conditioner to work harder, wasting money and energy.

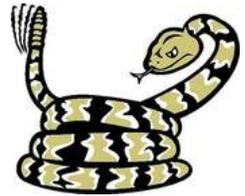


Water

- Drink extra fluids during the summer time. Take water with you wherever you go.
- Reusable water bottles are best for the environment, but if you must use plastic water bottles, please recycle them.

Wildlife

- Animals also seek out shade. Look for snakes around your car and home.
- Check for bears, bobcats, mountain lions, and snakes in streams before entering.



Hiking & Exercising

- Do not hike alone. Heat stroke or worse can occur while hiking, a hiking buddy can get help and may save your life.
- Stay hydrated!
- Protect yourself from the sun. Wear sunblock, a hat, long sleeve shirts, and watch for snakes.
- A bandana works great to protect your head and collect sweat.
- It is best to exercise in the morning or evening when temperatures are lower.



Shooting

- Outdoor target shooting during the summer is not recommended. Indoor and outdoor shooting ranges outside of Morongo are recommended.
- If you do practice outdoor during the summer, use caution when shooting in the canyons.
- Sparks from ammo can ignite a fire in dry areas.

Off road

- When driving off road vehicles, stay on designated roads and trails.
- Do not drive on dry brush, as it can catch fire from the exhaust pipe and under carriage.

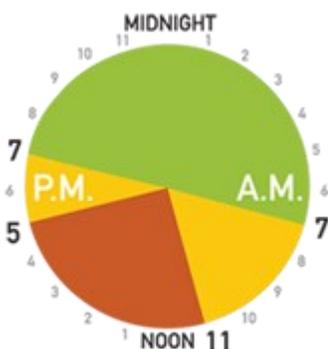
Outside fire

- Use extreme caution when using outdoor fire pits.
- Clear dry brush away from your fire pit, so that it doesn't accidentally catch fire.
- Do not start an outdoor fire when it's windy, as this can carry embers away from the fire pit.
- Have a source of water or a fire extinguisher near you if needed to put the fire out.
- Always extinguish the fire when done, using plenty of water, dirt or sand if needed.



Electricity

- The average household electricity usage on a 103° high summer day, is up to 40% higher than during a typical summer day, which raises your energy bill.
- To avoid a high energy bill, do your laundry and use your dishwasher after 7:00 p.m.
- Use blinds or curtains to block out high sun areas of your house, reducing the need for air conditioning.



Remember to call 911 if have an emergency, such as heat exhaustion and heat stroke. If you see wildlife animals on the residential side of Morongo please call patrol at (951) 755-5302 or gate two at (951) 634-4810.

Upcoming Events

Household Hazardous Waste & Electronic Waste Drop-Off

Saturday,

August 20

9am to 12pm

Behind Public Works

For more information,
call 755-5198



Tires, Oils, Household Chemicals, Paints, Pesticides, Batteries, Sharps and Electronics

You are invited to attend
the Morongo
Environmental Protection Department

2016 Internship Program Presentations

The internship program strives to provide an opportunity for Native American students to explore professional work experience in the environmental field.

For your convenience we will have two presentation times on

Thursday, July 21, 2016

at 10:30—11:30 am or 1:30—2:30 pm
in Council Chambers
at 12700 Pumarra Rd, Banning

If you would like to receive electronic versions of the Morongo Environmental Protection Department's Quarterly Newsletter and information on other Environmental Events, sign up at www.morongonation.org/content/environmental-newsletter-email-signup or email epd@morongo-nsn.gov and request to be added to the list! Prefer a copy mailed to you, no problem! You can sign up at www.morongonation.org/content/newsletter or email us at epd@morongo-nsn.gov

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