Community action guide to removing recycled tire material from playgrounds

TOOLKIT

Created by:

AGU THRIVING EARTH EXCHANGE

SPACE SAFER PLAYSPACES AND COMMUNITY ENVIRONMENTS

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Please help us make this guide more useful if you have suggestions to make things more clear and easier to use, or if you have additions. Contact us via email at this email address: admin(at sign)spacesllc.org.

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WELCOME

Local parents observed the debris and stains on their children's skin and clothes resulting from recycled rubber chips on nearby playgrounds. This led them to unite with environmental advocates, collectively concerned about the safety of these products for the environment. Together, we initiated an investigation. However, the scarcity of definitive information regarding the health and environmental impacts of these materials posed a significant challenge. Despite this hurdle, we found solidarity as other communities expressed similar questions and worries. Throughout this journey, we document our findings, methodologies, and outcomes, aiming to empower others to enact change within their own communities and give resources that can be used going forward.

GOAL

The goal of our toolkit is to provide information. The goal of our project is to have information to support a sound decision about what surfaces are best and safest. We aim to provide valuable resources to schools, preschools, cities, and other entities that manage or own these surfaces.

THRIVING EARTH

What is the Thriving Earth Exchange (TEX)?

Thriving Earth Exchange is an innovative program initiated by the American Geophysical Union (AGU) designed to bridge the gap between the scientific community and local communities seeking solutions to environmental and sustainability challenges. At its core, the program fosters collaboration between scientists and community leaders, aiming to leverage scientific expertise to address real-world issues affecting localities across the globe. This initiative recognizes the critical role that science plays in addressing pressing environmental concerns and seeks to empower communities to make data-driven decisions and create positive change.

Through Thriving Earth Exchange, community leaders, often from underserved or marginalized populations, partner with scientists to co-create projects that tackle a wide range of environmental challenges, from climate change mitigation and adaptation to water resource management and resilience planning. These collaborations are guided by the principles of equity, inclusivity, and community-driven solutions.

How to partner with TEX

We filled out a form online. TEX admits a few new cohorts each year. We got accepted at the same time as two other groups from our same town.

Applications are free and only take a few minutes to fill out.

See the TEX website for more details.

Why partner with them? We partnered with them for a few reasons.

1. Help with group direction and organization. TEX connected us with a fellow who served as a project manager to organize meetings, goal planning and kept us on track. These fellows train with TEX to bring back best practices to each group.
2. Access to Scientific Expertise: TEX provides access to a vast network of scientists and researchers who can offer valuable insights and expertise on a wide range of environmental and sustainability issues.
3. Funding and Resources: TEX offers financial support and resources to help communities initiate and sustain their projects.
4. Community Empowerment: By partnering with TEX, communities are empowered to take ownership of their environmental challenges, engage in the scientific process, and work towards solutions that reflect their unique needs and aspirations.
5. Networking Opportunities: Partnering with TEX opens up opportunities for communities to connect with other like-minded groups and organizations facing similar challenges.

RUBBER CHIPS

In this toolkit, rubber tire mulch, crumb rubber, and rubber chips all refer to the infill that comes from milling up rubber tires into smaller pieces. Tires are often restricted from landfills to reduce mosquito breeding habitats and the potential for tire fires and therefore were recommended as playground fill. Thus, there was a push to "recycle" and use rubber chips in playgrounds to divert tires from the landfill. Many companies deem these infills safe due to fall ratings, yet human and environmental concerns due to the chemical makeup of the infills are being questioned.

LEARN THE STORY

Tires are not wanted in landfills.

Tire manufacturers ground up tires for use on playgrounds.

From 2005 to 2015, ground up tires used on playground rose from 19,000 to approximately 225,000 tons.

HISTORY

The history of this project stemmed from these key questions.

Are rubber chips safe?

People in our local community started to question the safety of rubber chips on playgrounds due to the debris that they leave on skin after contact. Environmental advocates wondered what effect these man-made materials would have on the soil, water, and ecosystems where they were installed.

Why did other communities remove and ban rubber chips from playgrounds?

When a few people in our community heard that nearby Minneapolis Public Schools and the Duluth School District had opted to ban rubber chips and replace their rubber tire chip playground fill with wood chips, they continued to seek out if a similar change should be made in La Crosse. They learned this change was made after input from parents and the community.

How did other communities ban rubber chips?

It was hard to figure out exactly why and how other communities got their rubber chips removed or banned. Therefore, we wanted to ensure that we documented our journey to help other communities interested in removing rubber chips from playgrounds.

STEP 1: COLLECT RESEARCH

Our project gained traction when a university student found existing literature showing concerns with rubber surface material on playgrounds. We suggest either collecting or reviewing literature that found concern with rubber surfacing to back up your case.

Collecting reputable research tips:

- Ensure the article is peer-reviewed. This process involves researchers submitting their papers to journals for review. The journal's editor then sends the article to fellow researchers and scholars in the same field for assessment. These reviewers evaluate the paper's quality, including the validity of the data, the conclusions drawn by the authors, and the research's originality. This process is crucial as it validates the research and provides a kind of "seal of approval" from peers in the research community. To determine if a journal undergoes peer review, visit a reliable source such as the journal's own website.
- Most publishers maintain a dedicated journal website, where you can access details about the journal itself, submission guidelines for authors, and insights into the publication process.
- Once you locate the journal's website, seek out a link labeled as "information for authors," "instructions for authors," "submitting an article," or something akin to these terms.

Tip: Having a professor on your team can be helpful for sifting through material.

Also, check:

- **Author(s):** Reputable articles are typically written by professors, researchers, or other scholars who specialize in the field and are often identified by the academic institution where they work. Make sure the article is not written by someone who is getting paid by a company that benefits from using or selling the product.
- **Purpose:** They are published by professional associations, university publishers, or other academic publishers and report research results or discuss ongoing research.
- **Language:** The language is highly specialized and may use technical language.
- **Layout:** Sources are cited and include footnotes, endnotes, or parenthetical citations.
- **Content:** They may include graphs and tables that undergo a peer review process before publication.

EXAMPLES OF OUR RESEARCH

In the literature review, many research articles explained chemicals of concern that are present in rubber tire mulch as well as environmental concerns. There were both chemicals of concern and environmental concerns. These are shown on the next two pages.

With this information, we wrote letters that cited this research.

KEY TAKE AWAYS

Over 94 chemicals present

Heat island effects

Run-off issues

Expensive Disposal

CHEMICALS OF CONCERN

Nickname	Description	Testing	Effects
PAHs	polycyclic aromatic hydrocarbons	Levels of PAHs in rubber chips levels test above health-based soil standards.	Several PAHs have been identified as known or suspected human carcinogens. Respiratory irritation and skin irritation are other hazards associated with exposure. PAH concentrations generally increase in air with increasing temperature.
Metals	Lead, Zinc	66% of studies exceeded relevant standards for trace metals.	According to the Centers for Disease Control and Prevention (CDC), even low levels of lead in children have been shown to affect IQ, ability to pay attention, and academic achievement.
Phthalates	Phthalates are a family of chemicals that are typically used to soften materials, making them more malleable.	In a study looking at 21 samples of rubber tire mulch, phthalates were found in all samples.	Banned from children's toys. Researchers have found that even low levels of exposure to certain phthalates can lead to hormonal disruption and reproductive harm, as well as lasting damage in children's brain development.
VOCs	Volatile Organic Compounds (VOCs)	Several VOCs known or suspected of carcinogens, such as benzene and hexane, have been measured in recycled tire materials.	VOCs are of particular concern due to their high volatility and "off-gassing". VOC concentrations generally increase in air with increasing temperature. Acute VOC exposure can cause eye, nose, and throat irritation, headaches, and nausea; longer-term exposure can cause damage to internal organs.

ENVIRONMENTAL CONCERNS

The heat that rubber chips can generate is a concern. When areas have surfaces that attract heat, they can create heat islands. This raises the overall temperature of the area and contributes to climate change. See reference links on the following pages.

On a 95 degree day, temperatures read:

Runoff is another common concern.

LITERATURE LINKS

Here are literature articles that back up the claims made on previous pages regarding human and environmental health concerns.

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- CDC Phthalates Factsheet. https://www.cdc.gov/biomonitoring/Phthalates_FactSheet.html
- Consumer Product Safety Commission. Federal Research Action Plan: Crumb Rubber. https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Crumb-Rubber-Safety-Information-Center. Accessed January 2022.
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- Tarafdar, A., Oh, MJ., Nguyen-Phuong, Q. et al. Profiling and potential cancer risk assessment on children exposed to PAHs in playground dust/soil: a comparative study on poured rubber surfaced and classical soil playgrounds in Seoul. Environ Geochem Health. 2020; 42, 1691–1704. https://doi.org/10.1007/s10653-019-00334-2
- Toxic Use Reduction Institute - UMass Lowell, Playground Surfacing: Choosing Safer Materials for Children's Health and the Environment. December 2018. https://www.turi.org/content/download/11986/188696/file/TURI%20Report%202018-003.%20Playground%20Surfacing.pdf
- Toxics Use Reduction Institute. Sports turf alternatives assessment: preliminary results, infill made from recycled tires. 2017. Retrieved from https://www.turi.org/Our_Work/Community/Artificial_Turf/Infills_Recycled_Tires
- U.S. Consumer Product Safety Commission. Public Playground Safety Handbook. https://www.cpsc.gov/s3fs-public/325.pdf. Accessed January 2022.
- U.S. Environmental Protection Agency (EPA). Synthetic Turf Field Recycled Tire Crumb Rubber Research Under the Federal Research Action Plan. July 2019. https://www.epa.gov/sites/default/files/2019-08/documents/synthetic_turf_field_recycled_tire_crumb_rubber_research_under_the_federal_research_action_plan_final_report_part_1_volume_1.pdf
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- Zhang, J., Han, I.-K., Zhang, L., Crain, W. Hazardous chemicals in synthetic turf materials and their bio accessibility in digestive fluids. J Expo Sci Environ Epidemiol. 2008; 18, 600–607. https://www.nature.com/articles/jes200855

NATURAL PLAYGROUNDS

After reading about the concerns around rubber surfaces, we found a lot of positive research regarding natural play areas.

Unlike play structures made from plastic, which may limit creativity and pose higher risks of injury due to their predictable nature, natural playgrounds allow children to explore their play to the environment, fostering a sense of curiosity and problem-solving skills.

Looking for articles to support natural play structures? Here are some good ones:

An Oraeyc (Oregon Association for the Education of Young Children) article emphasizes the value of risky play in well-designed outdoor spaces. Natural playgrounds often incorporate elements of controlled risk, like climbing structures and uneven terrain, that enable children to challenge themselves appropriately. This exposure to manageable risk:

- fosters a better understanding of their capabilities
- boosts confidence
- helps them learn to assess and manage potential hazards independently

Such experiences contribute to developing a resilient mindset and improved decision-making skills.

NATURAL PLAY CONTINUED

Research cited in ScienceDaily highlights that diverse and open-ended play opportunities stimulate:

- children's brain development
- spatial awareness
- cognitive flexibility
- social interactions

By interacting with natural elements, children develop a better understanding of the physical world, promoting a safer and more stimulating play environment that nurtures both their physical safety and cognitive growth.

The PTO Today article focuses on how creating fun and inclusive playgrounds becomes more attainable by incorporating natural elements that cater to diverse play preferences. Ultimately, the convergence of these perspectives underscores that natural playgrounds not only provide a safer physical environment but also enhance cognitive, emotional, and social growth, nurturing well-rounded and confident children.

Here are the full references:

1. Oregon Association for the Education of Young Children (Oraeyc). (2019). Environments and Risky Play. Retrieved from https://www.oraeyc.org/single-post/2019/07/12/Environments-and-Risky-Play
2. PTO Today. (n.d.). Making Your Playground Fun for All. Retrieved from https://www.ptotoday.com/pto-today-articles/article/1442-making-your-playground-fun-for-all
3. ScienceDaily. (2012). Natural Outdoor Environments Associated with Improved Attention in Children. Retrieved from https://www.sciencedaily.com/releases/2012/10/121011135036.htm

STEP 2: FORM A COMMITTEEE

To form a committee, invite others you think would be interested in a discussion. In our case, we emailed and talked with university students, parents, teachers, and others who we thought were interested in sustainability or were associated with a site that had rubber chips.

PEOPLE INVOLVED

CONNECTION WITH OTHER NETWORKS

Look for and cultivate allies involved in related projects. What other groups or professions are interested in the issues driving your effort? If you are working to remove recycled tires from children's playspaces, health professionals might be interested, including hospital pediatrics departments. Is there a university or school training early childhood or elementary school teachers? Is there an environmental group, water quality group, or climate action group?

Invite community groups to your events and attend theirs. Find the intersection and emphasize it in communicating with members of other groups.

Other places to find interested individuals:

1. Parent Teacher Organizations/Associations
2. Playgroups
3. Environmental groups likes Sierra Club
4. City Counsel
5. Non-profits
6. Health and Wellness Coaches

Fun tip: Take little business card-size flyers with the group's name, mission statement, email address, and web address to gatherings. You do not have to order formal business cards; little flyers printed at home on colored paper work fine.

STEP 3: COMMUNICATE

Communication is key for building a group, engaging decision-makers, educating the media, and connecting with the wider community. These suggestions are based on our experience and research.

OUTREACH WITHIN YOUR COMMUNITY

Our effort started with a group of concerned parents and community members, but we wanted to add more members. Here are ways to build your group:

- Create a group email address accessible by at least two founding members. Having a group-identified email address will be useful, especially if a major leader has to leave the group. Designate one person to monitoring and responding to emails.
- Start an email group or listserv coordinated by one or two founding members. Ask group members to forward to others who may be interested. Send regular updates, including any new information, meetings, additions to the group, projects, funding applications, etc. to keep people engaged.
- Develop a blog site or web page to archive your work, research, and efforts.
- As you are able, add social media accounts that cross-post updates. Assign one person or a small team to monitor the sites to ensure they are updated correctly and to respond quickly to potential new members.

Encourage every member to make more connections. Don't limit your outreach.

Parents may have immediate interest, but so might other caregivers and family members, those concerned about plastic pollution or global heating, educators, medical professionals, and more. You might attract someone with connections to funding, research facilities or other expertise and experience.

STEP 4: PLAYGROUND ASSESSMENT

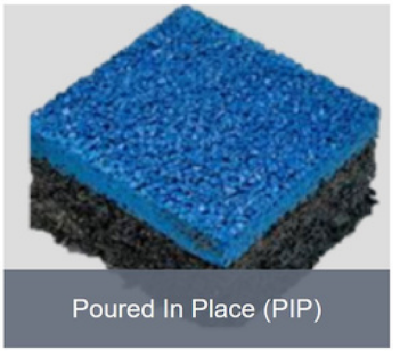
To start, it's important to get a sense of the rubber surfaces that exist in your area. Instead of doing just one playground, look at all playgrounds in the area to expand the amount of people who would have an interest in being part of it.

1. Where are the playgrounds?
2. What surfaces are used?
3. How much surface area is there?
4. When was it installed?
5. Has it been maintained?
6. When will important decisons be made (e.g., are there plans to update or build new playgrounds?)
7. Power mapping – who are the decision makers and who can help? (Explanation provided in two pages)
8. Costs to remove or replace the surface?

ASSESSMENT EXAMPLE

These were the three rubber-related surfaces we tracked. We also noted more natural-based surfaces like grass, pea gravel, sand, and wood chips.

Rubber Chips



Poured In Place (PIP)

Artificial Turf

As you collect information, our recommendation is to make a chart. This chart can help to make decisions about which sites to address and when. It helped when we were getting quotes on how much the sites would cost to replace the surface. Overall, it gives the group a sense of where the sites are that have rubber surfaces in your area.

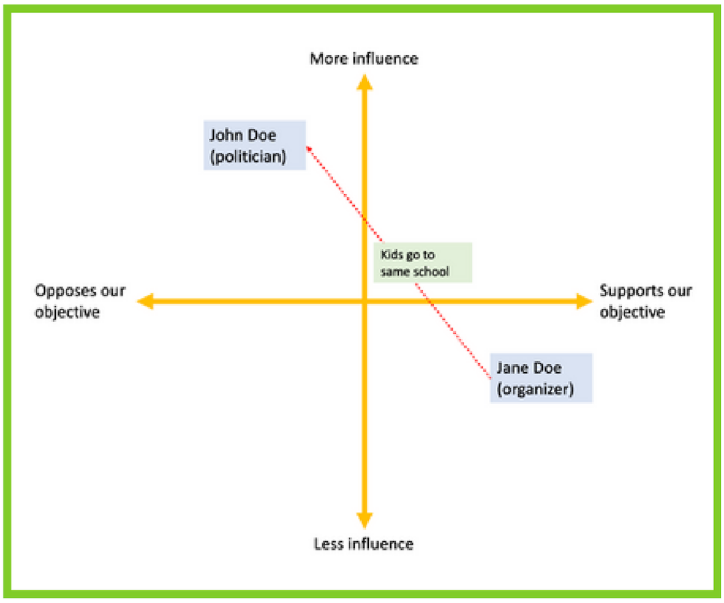
Site	Type	Address	Surface	Area (sq. ft)
Northside Elementary School/Coulee Montessori	PS	1611 Kane St	RC	3,479.00
			PiP or T	15,345.00
State Road Elementary	PS	3900 Pammel Creek Rd	RC	1,638.00
Hintgen Elementary	PS	3505 28th St S	RC	4,278.00
Spence Elementary	PS	2150 Bennett St	RC	1,536.00
Summit Environmental	PS	1800 Lakeshore Dr	G	
Northwoods International	PS	2541 Sablewood R	G	

Key	PS- Public School PK- Public Park	RC- Rubber Chips PiP- Poured in Place T- Turf, G- Grass, WC- Wood chips

STEP 5: POWER MAPPING

WHAT

Power mapping is a tool used in community organizing for planning action campaigns. This tool will help you assess the political landscape to identify who has power and influence over your priorities. Power mapping can be at the community, local, regional, national, or even global scale depending on your objective.



WHY

Power mapping is important at the initial stages of community organizing and serves to focus energy on key players within the issue identified by your organization. In effect, spending time on power mapping may reduce the effort in campaigning people with little influence on your priorities.

HOW

Once your organization has defined specific goals, identify people outside the organization who hold the power to make changes or can influence others in power. Next, identify people within your organization that have connections to power holders. A helpful way to go about this is to write down all the names within and outside your organization that may have influence on your issue and draw lines between them to develop your action strategy (see example).

Additional Resources:

Common Library - https://commonslibrary.org/guide-power-mapping-and-analysis/

The Exchange Agency - https://thechangeagency.org/power-mapping-template/

HBS - https://online.hbs.edu/blog/post/power-mapping-what-it-is-and-how-to-use-it

Sierra Club - https://www.sierraclub.org/ready-for-100-toolkit/about-toolkit

POWER MAPPING EXAMPLES

Crowley Park:

Crowley Park is the playground for an elementary school, but it is run by the City of La Crosse. We learned that the park is run and maintained by the Parks and Recreation Department. We set up a meeting with them and asked how we could get the rubber chips removed. They said that for that to happen, it would have to be added to next year's budget and voted on by the city council. Therefore, we had to get a city council member to add it to the budget. We were able to find two board members who were interested. The neighborhood association sent a survey, and the majority voted for the change. Then, they proposed adding it to the budget, and it passed.

Northside Elementary: This playground is run by the School District of La Crosse. We learned that the Buildings and Grounds Department controls the budget, changes, and maintenance for this playground. We met with them and asked if they would consider changing it out. At the first meeting, they were not sure and did not give us direction. We talked to the superintendent, and he agreed to start switching over the rubber chips as they had funding. We helped write a grant that did not get funded. Then, a teacher raised money to put in swings at this school. To install the swings, they had to expand the fall zone. So, the Buildings and Grounds Department switched out the rubber chips for wood chips when they put in the swings and had to expand the fall zone.

STEP 6: INVOLVING SCIENCE

This section will provide some general guidance and things to consider if you want to enlist the help of a volunteer scientist. Identifying actionable goals that would benefit from scientific support is a prerequisite before engaging with a volunteer scientist.

1

First, broadly define the science goals, and don't worry about getting too specific because your objectives may change depending on who agrees to volunteer. Moreover, a scientist's expertise can help narrow the scope of the science goals. The danger of narrowing the scope of the science too early is that you may exclude possible collaborations before you start searching for a scientist.

2

Second, consider the following questions to help you refine your search. Would you like to have a local partner, or if not possible, then regional? That way if processing samples is needed, you don't need to ship them. Or is your project amenable to remote participation? Also, do you want to have the possibility of students involved with science? If this is a priority, then you can narrow your search to universities or other schools.

3

Third, draft a volunteer position advertisement that explicitly identifies characteristics your organization wants in a volunteer scientist. Briefly describe your project, your goals, and how you see the science complementing these parts.

4

Fourth, when you have a finalized advertisement, make cold call emails to your networks and institutions (universities, cooperatives, extension labs) to distribute your advertisement. When you have a list of potential volunteers, conduct an interview and ask for references, then follow up with references to check out the candidates. Then debrief and decide if the candidate is a good fit.

FINDING A SCIENTIST

Photo courtesy of UWL

OUR SCIENTIST PITCH:

Scientist Role - We are looking for a scientist to provide technical expertise on exposure of children to potentially toxic materials. The scientist should be able to develop a standardized protocol to collect samples from children that can easily be carried out by parents. We are also looking for someone who has access to and expertise in chemical analyses of the samples collected. Ideally, the technical expert would be located in La Crosse or in the region to minimize travel expenses for on-site visits and shipping costs for samples. A graduate student would be considered if this project aligns with their research and their major advisor agrees to the collaboration and provides input to the project relevant to the student's role.

DESIRED SKILLS AND QUALIFICATIONS:

Experience with materials science, environmental chemistry, and/or toxicology; Knowledge of sampling protocols, chemical analyses, and statistical analyses; Willingness to engage with citizen science; Strong listening and collaboration skills; Ability to travel to La Crosse, Wisconsin semi-regularly

Fortunately, one of our group members who worked at UWL connected us to Kris Rolfhus. He is a chemistry professor at the University of Wisconsin La Crosse who has done citizen science in the past. Kris is a great collaborator and helped us narrow down our scope. Then, he led students in collecting and measuring trace metals. Trace metals felt like a good fit as most people are already aware of the dangers of trace metals such as lead.

COMMUNITY SCIENCE

CITIZEN SCIENCE SAMPLING PROTOCOL

This is the information we used when working with citizen scientists. Trial samples were collected by the University of Wisconsin - La Crosse team. Then over 32 samples were collected at an Earth Fair outreach event from many locations and many surface types were collected.

Instructional videos QR code

Materials in provided site bags:

3 pairs of gloves, sharpie pen, uniform (2-5) Ziploc bags, this form

Directions:

1. Sampling Protocol – scan QR code to review videos of sampling methods
2. Choose an area of interest (consider the following: spatial variability, depth, level of activity)
3. Label the outside bag and sample sheet prior to sampling
    a. Name
    b. Location (park, schoolyard, field, etc)
    c. Date
    d. General weather (wet, dry, sunny, etc)
    e. Type of material, if known (wood, rubber chip, poured, gravel, etc)

Photo courtesy of UWL

4. Cleanly put on a pair of blue nitrile gloves
5. Goal is to keep fingers clean, dirty gloves can easily contaminate samples
6. Treat the outside of the gloves like they have bad bacteria on them!
7. Pinch the cuff to carefully put on the first glove
8. Pull on the second glove without touching skin, clothing, or “dirty” surfaces
9. Select a handful of pieces for analysis and place them into a clean, un-labeled bag (touch this bag only with clean, freshly-gloved hands…keep away from contaminating sources)
10. Place the sample bag into the pre-labeled outer bag, seal
11. At this point, your gloves are now used and “dirty”, and should not be used for further collection.
12. If samples must be stored, keep them in a freezer until transport to the lab.

PROTOCOL

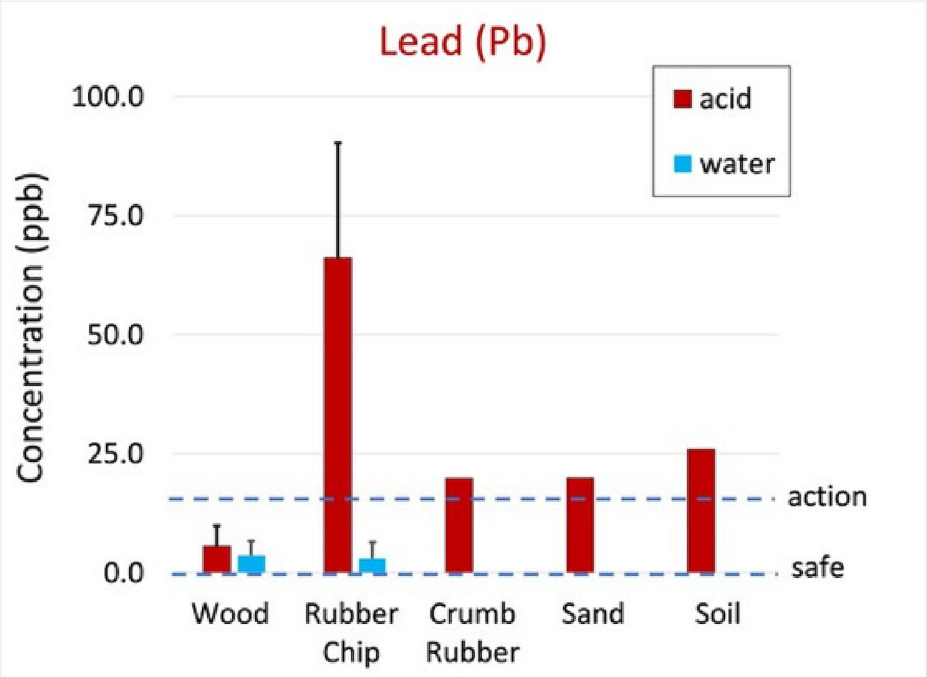
TESTING PROTOCOL

After some trial samples, the scientists decided to follow the following protocol:

1. Soak some chips in purified water and pH 1.5 water
2. Soak time = 2 hours @ body temp
3. Filter to remove particles
4. Analyze for metal content
5. Results will be expressed as extract concentration and mass metal per mass chip

RESULTS

Once all results are in, the research team plans to publish a paper with the official results. Original number of samples: wood chips=17, rubber chips=10, crumb rubber=2, sand=2, soil=1



Conclusions

- Acid (gastric) extraction of lead from local rubber chips was nearly 12-fold greater* than wood chips
- Pure water extraction of lead was lower, similar between rubber and wood chips
- Other tested metals were not detectable or of less immediate concern
- There is added value in local science and connections between community and academics

** Statistically significant*

STEP 7: WRITE YOUR STORY

Collect personal stories and data to support your efforts. If parents are complaining about rubber chip debris in children's hair and clothing or blackened hands, ask them to write a short statement about it or submit a picture. If a local playground becomes dangerously heated during hot weather, collect some heat gun temperature readings.

Gather your research, reasons, and requests so that you can prepare a letter or email to or personal meeting with decision-makers to ask for change. Feel free to use our included initial letter as a guide; be sure to include your local examples, stories, and research.

Find a good writer to draft your letter. Researchers, college teachers, or others who write up research for a living will know how to combine things effectively and professionally. Ask a few group members to comment on the draft, especially those with good connections with the decision-makers. Be sure to include research and data, some personal details about local conditions, a clear request, like, *“Please plan to remove all recycled rubber materials from city parks.”*, a preferred schedule or timeline, and a plan to follow up on the letter.

Send the letter by email and/or mail and announce this to your group along with information about the group’s planned next steps.

Follow up on the letter by scheduling a meeting with the decision-makers or making phone calls to ask how your group can move forward with the request.

In all communication with decision-makers and the community, be respectful, polite, and positive. On all official group sites, maintain a positive and respectful tone. Monitor online discussions to shut down communication that works against your goals.

Prepare talking points so members of your group can discuss the letter and request with others and decision-makers clearly. Your campaign may include a request for members to contact board members or write letters to the editor. Having one set of factual, pertinent data will help make these contacts effective and impactful.

STEP 8: SPREAD THE STORY

EDUCATING THE MEDIA

Our group included members who have worked with our local media before, but anyone may use available guides to help get the word out about your project. This is a great and comprehensive guide from the University of Kansas: ***https://ctb.ku.edu/en/table-of-contents/advocacy/media-advocacy/working-with-media/main***

Make a contact list of all radio, television, and print media in your area. If you can, get to know local reporters by talking with them at events or emailing updates. Include general newsroom contacts (like info@news10.com) and individuals in your contact list. Include media that may not be directly in your community but may broadcast or reach your community. Remember to include public and commercial talk radio.

Learn how to communicate with the media. This site, ***https://indivisible.org/resource/press-releases-media-advisories-and-more***, is a great guide and includes timelines and templates. Also, seek and involve volunteers with media experience.

Be sure to take pictures. Assign someone to take pictures at every event you have. These will be useful in your social media outreach and when contacting local media. Photographs are great; you don't need professional equipment, phone photos work just as well. Use landscape as much as possible. If you can live-stream events or take videos, that's great, too. The more you can visually document your work, the better.

Sharing a Victory:

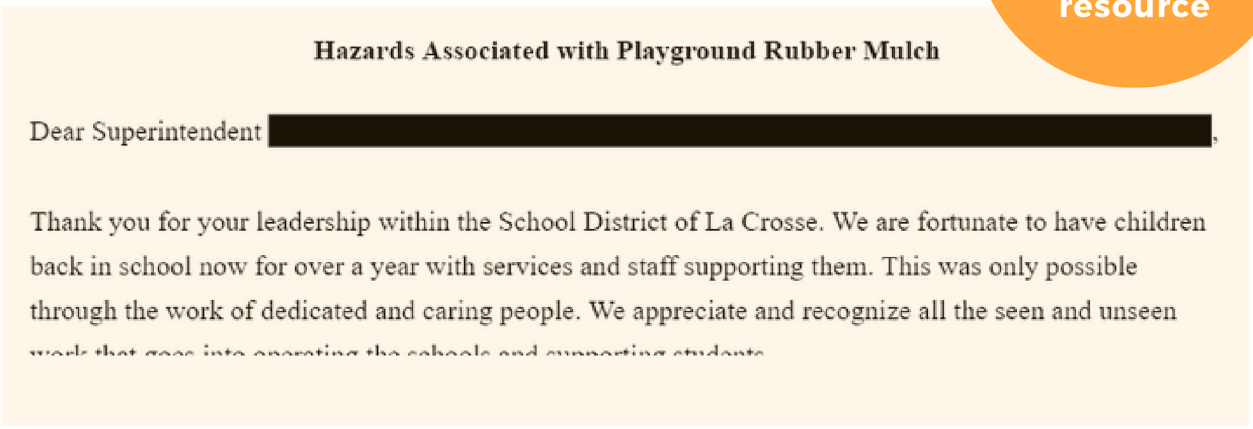
Make sure to share your victories
as you go and take time to celebrate.

COMMUNICATION EXAMPLES

These images are linked to the full resource.

Click on these articles to see full resource

Letter to school district (with large list of references)



Hazards Associated with Playground Rubber Mulch

Dear Superintendent [redacted],

Thank you for your leadership within the School District of La Crosse. We are fortunate to have children back in school now for over a year with services and staff supporting them. This was only possible through the work of dedicated and caring people. We appreciate and recognize all the seen and unseen work that goes into operating the schools and supporting students

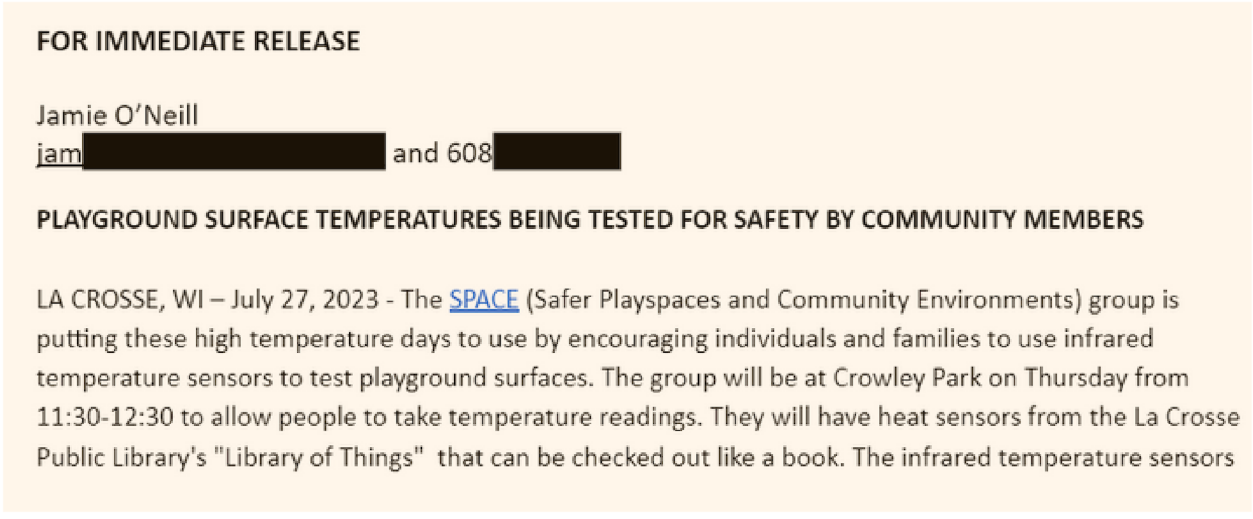
Email to committee (doubles as a blog post)

Hello,

Exciting news! Northside and Coulee Montessouri have been switched from rubber chips to wood chips this week! We'll try to do a celebration in late fall or winter! Photo below. Thank you for the many hands to make this happen. We met with the Coulee Montessori group last winter and since then, they have been advocating for this change. Since the parents had raised money for swings, the district was able to swap out the rubber chips while installing the swings.

Also, our UWL research team has been highlighted in this article. Thank you for your great work Kris, William, Katie

Press Release



FOR IMMEDIATE RELEASE

Jamie O'Neill
jam[redacted] and 608[redacted]

PLAYGROUND SURFACE TEMPERATURES BEING TESTED FOR SAFETY BY COMMUNITY MEMBERS

LA CROSSE, WI – July 27, 2023 - The SPACE (Safer Playspaces and Community Environments) group is putting these high temperature days to use by encouraging individuals and families to use infrared temperature sensors to test playground surfaces. The group will be at Crowley Park on Thursday from 11:30-12:30 to allow people to take temperature readings. They will have heat sensors from the La Crosse Public Library's "Library of Things" that can be checked out like a book. The infrared temperature sensors

COMMUNICATION EXAMPLES

Pro/Con List of Surfaces

Click on the clips to see full resource

Playground Surfaces Pros/Cons

Please note: Engineered Wood Fiber (EWF) are wood chips that have gone through one more cycle of processing past the wood chipper to remove sharp edges and make them lay flatter.

Playground Material	Pros	Cons
Wood Chips 	• Stays around the same temperature as the air • No chemicals • Biodegradable	• Top off every 3-5 years • Possibility of plant or mold growth • Requires maintenance

Powerpoint

Safer Playspaces and Community Environments

Collecting Citizen Science Data to Create Decision-Making Tools for Use of Rubber Products in Community Areas

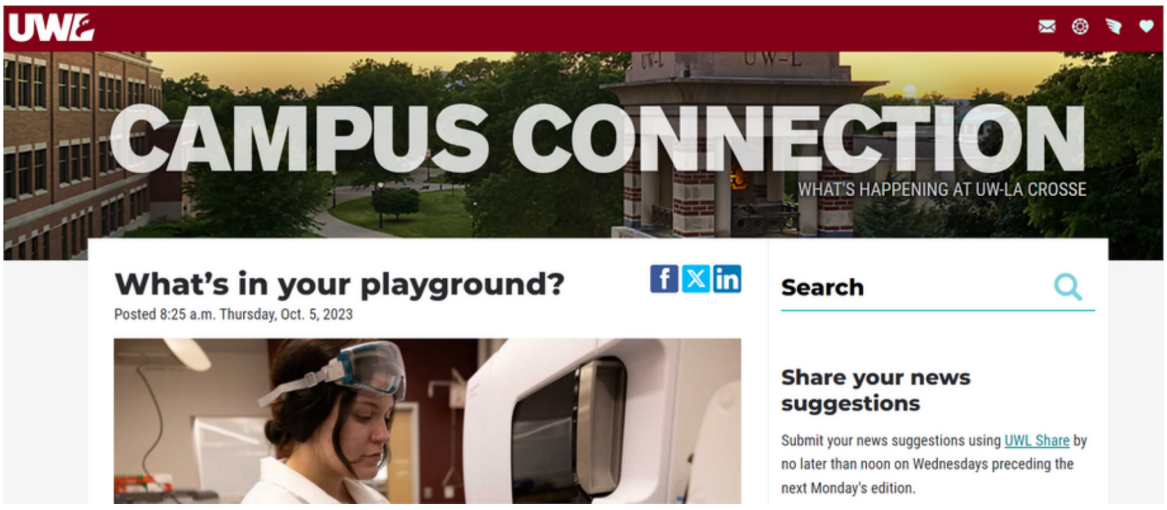
Thriving Earth Exchange Team:

Jamie O'Neill, Viterbo University

Brendan Turley, Cooperative Institute for Marine and Atmospheric Studies University of Miami, FL

Cathy Van Maren, Retired, Active Community Advocate

Campus Newstory



TIMELINE

1 CONNECTION
Individuals connected with a UWL Environmental Studies student who compiled a lit. review on rubber chips

JANUARY 2021

2 MEETING
UWL student and SPACE members first met with school districts

MARCH/APRIL 2021

3 GROUP FORMED
Group was formed and started to formalize name and direction

MAY 2021

4 FIRST SITE IDENTIFIED
A group member emailed UWL childcare regarding woodchip removal

JUNE 2021

5 CHIPS REMOVED
Rubber chips were removed from the UWL childcare

SEPTEMBER 2021

6 THRIVING EARTH
Group was approved to be a Thriving Earth Exchange (TEX) group

MAY 2022

7 CITY COUNCIL
Group met with city council members and asked for removal of rubber chips at the park

SUMMER 2022

8 SCIENCE
UWL science professor agreed to conduct research on rubber chips and two students agreed to help

SEPTEMBER 2022

9 TRACE METALS
TEX decided to focus on measuring trace metals in playground surfaces

OCTOBER 2022

10 APPROVAL
City council approved the rubber chip removal at Crowley Park for 2023 budget

NOVEMBER 2022

TIMELINE

11 — SURVEY SENT (DECEMBER 2022)
GENA (a neighborhood group) sent out survey to members with resources asking for preferred surface of Crowley Park

12 — SURVEY RESULTS (JANUARY 2023)
Results were collected and announced. EWF (engineered wood fiber) was the top choice

13 — RUBBER CHIPS REMOVED (AUGUST 2023)
Rubber chips are removed from Crowley Park and replaced with EWF. Celebration held and press release held

14 — ANOTHER SITE (SEPTEMBER 2023)
Rubber chips are removed from playground that serves Northside and Coulee Montessouri schools

15 — RESEARCH ARTICLE (OCTOBER 2023)
UWL publishes an article on the UWL research group and their results

16 — TOOLKIT (DECEMBER 2023)
Group starts to finalize toolkit

FUTURE ASPIRATIONS

We aim to release this toolkit in early 2024. Following that, our focus will continue on removing rubber chips from all remaining playgrounds in La Crosse by 2026. Once this task is accomplished, we plan to assess the safety of other rubber surfaces, including artificial turf and pour-in-place systems.

Our broader objective is to promote play surfaces with fewer health and environmental impacts and fostering inclusivity. One promising option is wood pulp-bonded surfaces, which may offer a sustainable and safe alternative. We encourage communities to explore diverse surface options for their play spaces, advocating for those that align with both safety and environmental considerations.

By taking these steps, we aspire to contribute to the creation of play environments that prioritize the well-being of users and the planet.

WRAP UP

Looking back three years, we did not know that our collaboration with a UWL student would lead to this. UWL student Grace Kosh's research initiated the further exploration of rubber chips, igniting a passion for disseminating vital information for informed decisions on playground surfaces. At the outset, resources were scarce, prompting our dedication to creating a toolkit that other communities can now utilize for their informed choices.

While compiling this toolkit, it became evident that the steps we took could serve as a blueprint for similar community projects when the need arises.

We express our gratitude for your interest in the toolkit and find inspiration in every endeavor undertaken to enhance community well-being.

Peering into the future, our vision encompasses a time when recycled rubber is no longer utilized as infill for playgrounds and fields. We aspire for increased awareness regarding the composition of rubber chips and the consequential health and environmental impacts. This transformative shift may manifest through regulatory adjustments, a grassroots community movement, or the compound of individual actions.

The SPACE image below creatively incorporates diverse playground surface mediums that were looked at throughout this journey: rubber chip mulch, wood chips, grass, sand, and pea gravel.

Safer Playspaces and Community Environments