

Edgewood

EXPLORER

FRIENDS OF EDGEWOOD • FALL 2026

Pentachaeta Thriving in Edgewood Natural Preserve

by Christal Niederer, Creekside Science

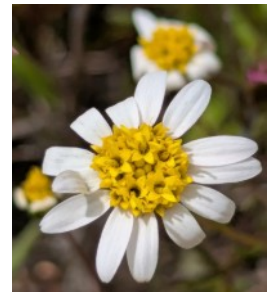
Edgewood Preserve is a hot spot for rare plants. One of Creekside Science's newer projects in Edgewood is white-rayed pentachaeta (*Pentachaeta bellidiflora*) recovery. This plant had been extirpated from the preserve, but has consistently outperformed expectations since seeding began in November 2023. Before this, only two populations of plants were known, both on San Francisco water department land, including one large population on the "Triangle" (across the highway from Edgewood).

Friends of Edgewood asked us to look into the feasibility of reintroducing plants. We began by comparing soil composition, vegetative associates, and soil moisture in Pentachaeta-occupied areas to previously occupied and potential introduction sites in Edgewood Preserve. With input from Paul Heiple, we chose four introduction sites and began preparing the areas.

Working with the water department and the California Department of Fish and Wildlife, Creekside Science was able to procure seeds from the Triangle for propagation and seed amplification at Brushfoot Nursery (formerly Creekside Science Conservation Nursery) in Morgan Hill.

Propagation went smoothly, with staff developing a harvest system of vacuuming these diminutive daisies daily. Our first year, we seeded four sites in Edgewood with a total of ~82,000 seeds. We held our breath. We attempted to monitor germination and survivorship early in 2024, but the seedlings at that stage looked so similar to tidy-tips and hayfield tarweed that we could not definitively count our target until they were more mature.

In March 2024, we were able to census the mature, mostly flowering plants. We were thrilled to find the sites ranged from 2,900 to almost 7,500 plants, or 18,500 in all of Edgewood! (Our goal had been to have 2,000–5,000 plants at each site after *three* years of seeding.)



We were excited about the first year's success, but we knew from experience that sometimes newly seeded sites do well the first year and then decline, and that the wet year might be giving results that would not be replicable in a more common dry year.

In November 2024, we seeded the same four sites plus a new one near the bench on the Serpentine trail (so visitors could see the plant easily from the trail). We made new plots for each site. We did not add seeds to our first year plots so that we could see how well the plants seeded themselves without additional seed input from us. This measurement was essential for estimating whether the sites could become self-sustaining. We were able to install a total of 108,000 seeds in the new plots.

The second year surpassed expectations again! In April 2025, we counted 57,800 flower heads. Perhaps even more exciting: one of our original plots went from 5,100 to almost 15,000 flower heads with no additional seeds added. (We switched to counting flower heads instead of plants because we did not want to damage plants before they made mature seeds, plus the plants were so dense it

continued on next page



Friends of Edgewood General Meeting - Sunday, October 4th

Join us for our 34th annual General Meeting on October 4th from 3-5pm in the FoE group picnic area at Edgewood Natural Preserve. Guest speakers Howie Smith and Patti Berryhill will be sharing insights on gardening with some of Edgewood's native plants. Enjoy good food, good friends, and learn more about what is new at Edgewood. We hope to see you there!

Up Hills and Down Dales: 2026 Wildflower Season Report

by Sally Albert, photos by Caroline Bowker

This year's wildflower season extended from March 6 through May 30, during which Friends of Edgewood docents shepherded about 500 guests up hills and down dales on over 75 scheduled hikes.

After a warm winter, we saw many flowers blooming a bit earlier than expected, providing a brilliant palette of color and texture to share with our guests. Purple mouse ears opened the season, along with silver bush lupine, sun cups, warrior's plume, white-rayed pentachaeta, fragrant fritillary, Henderson's shooting star – so many beauties brightening the grasslands, woodlands, and chaparral! We quickly tallied 100 blooming species in the preserve.



April found us in full swing. Docents were busy preparing for and leading hikes, then writing and publishing their hike notes. The preserve was abuzz with activity. On the second weekend of the month, April showers arrived, bringing high winds, heavy rain, hail, and thunder. Most of our hikes were cancelled that weekend while we waited out the storm. April also brought us the Franciscan onion, tidy-tips, goldfields, globe lily, checker bloom, larkspur, Marin dwarf flax (pictured above), and so many more. Our dedicated docents introduced them all to our hiking guests.

Pentachaeta from page 1

was difficult to identify individuals, and more than 95% of the plants had one flowering head, so counting them gave us a number similar to total plants.)

We seeded all five sites again in November 2025 with a total of 60,000 seeds in the newer plots. In March 2026, we counted nearly 88,000 flower heads and recorded higher numbers in almost all of the unseeded plots.

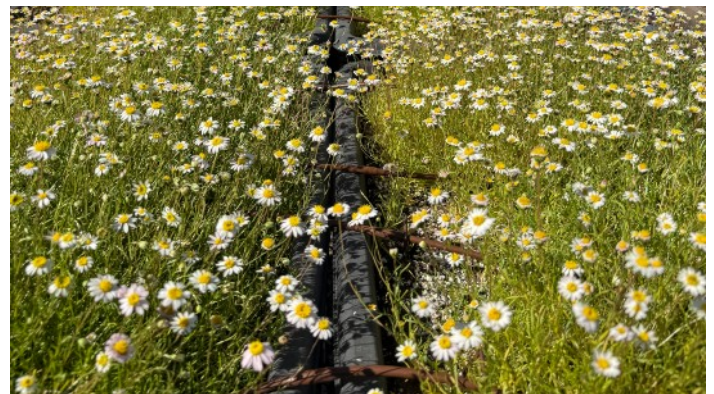
We noticed plants don't expand much outside the plots where they are seeded, which could indicate they are dispersal-limited. Perhaps there was an animal that historically moved the seeds but is no longer present. Luckily, it is relatively straightforward to move seed. We have 100,000 seeds to install this fall, and we plan to seed at least one new site. We hope we will continue to see these plants succeed throughout different annual weather patterns and in different locations across the preserve.

In May, we welcomed the newly graduated docents – class of 2026 – as they signed up and led their first hikes. Clay mariposa lily (pictured at right), wiry snapdragon, woodland monolopia, and brodiaeas (pictured below) were flower highlights in May. By then the weather was warming, the number of blooming species was waning, and the crowds of hikers were thinning. The wildflower season ended with Anne Scanlan-Rohrer's Grand Tour of Edgewood hike.



Thank you to all of the FoE docents who led hikes this season. Thank you for taking time from your schedules to remain knowledgeable about the flowers, plants, wildlife, history, geology, and the incredible biodiversity of Edgewood Park and Natural Preserve. Thank you for sharing your knowledge and love of nature with others.

Even though the wildflower season is over, Friends of Edgewood continues to offer guided hikes every month. See the offerings and sign up at [Eventbrite](https://www.eventbrite.com) or contact us to schedule a private hike for your group: docent-coordinator@friendsofedgeswood.org. Come hike with us! ☘



Propagated pentachaeta. Photo by lead propagator Jimmy Quenelle
Close up of pentachaeta on page 1. Photo by Christal Niederer

We are grateful to Friends of Edgewood, San Mateo County Parks, San Mateo County Parks Foundation, Adobe, San Francisco Water, Power and Sewer, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service for partnering with us on this project. ☘

We Our Volunteers

by Kathy Korbholz

The weather cooperated, the yellow jackets were absent, and the conversations were animated on July 26 for our annual Volunteer Recognition event. Fifty-nine of our volunteers joined together on this perfect summer day for drinks and snacks in the Friends of Edgewood picnic area.



After opening remarks and reminders of upcoming events, we all tested our Edgewood knowledge by answering this year's trivia quiz. (Excerpts shown at right.) The fun facts, supplied by the coordinators, serve to recognize as well as pique interest in some of our many programs.

An event tradition is to arrange all attendees in a big circle in ascending order from the newest to the most long-serving volunteer. Each volunteer introduces the person on their left and says the number of years that person has been volunteering. We tally the years, and this time it added up to over five centuries! The magic number of volunteer years for 2026 was 515! That is a lot of time and talent devoted to supporting Edgewood's 467 acres.

After our longevity circle, we passed out a thank you gift to our volunteers. This year, it was a small pouch made of recycled water bottles. It is the perfect size for keeping small valuables safe in a pocket or backpack. A thank you note, along with a lucky penny was included. The pouch is also available for purchase in the Education Center.



Sally Albert (l) and Anne Scanlan-Rohrer welcomed volunteers to the annual recognition event.

Photo by Barrie Moore

Please share a mental round of applause to all those who have kept our beloved organization running for the past 33 years and for those who will raise their hands and volunteer to help in the future. ☘

Friends of Edgewood Trivia Quiz

1. When Botta's pocket gophers (*Thomomys bottae*) living in the native garden decide to have a salad for lunch, what do they eat?
 - a) Miner's lettuce
 - b) Climbing bedstraw
 - c) Chick lupine
 - d) Bur clover
2. Which of these flowering plant groups is not recorded on the weekly wildflower survey?
 - a) Trees
 - b) Non-native plants
 - c) Native Garden plants
 - d) Grasses
3. Edgewood Preserve is home to 577 plant species. What percentage of them are California native species?
 - a) 32%
 - b) 51%
 - c) 64%
 - d) 78%
4. FoE volunteers logged more than 15,000 hours in 2025. Which group logged more than 2,000 hours?
 - a) Ed Center hosts
 - b) Weed Warriors
 - c) Wildflower docents
 - d) Wildflower surveyors

See answers, page 7.

In Memoriam: Jane Kos, a lifetime member of Friends of Edgewood, passed away on Earth Day, April 22, 2026. Jane was one of the original weed warriors, known back then as "invasive weed eradicators." She also volunteered with trail maintenance crews, Adopt-a-Highway (aka Road Warriors), and was an Ed Center host. In 2019, at age 85, FoE honored Jane with a Habitat Hero award.

Buttercup Family Exhibits Surprising Diversity in Edgewood

by Bruce Homer-Smith

Edgewood has ten native flowers in the buttercup family (Ranunculaceae). Together, they display an astonishing variety of flower designs: two wide-open buttercups, four long-spurred larkspurs, two elegant columbines, a showy clematis, and a tiny-flowered meadow-rue. Each is built from an ancient floral blueprint – numerous male stamens and multiple separate female pistils. However, buttercup-family flowers' outer parts, their petals and sepals, are put to surprising uses.

Buttercups in Edgewood (*Ranunculus* spp.)

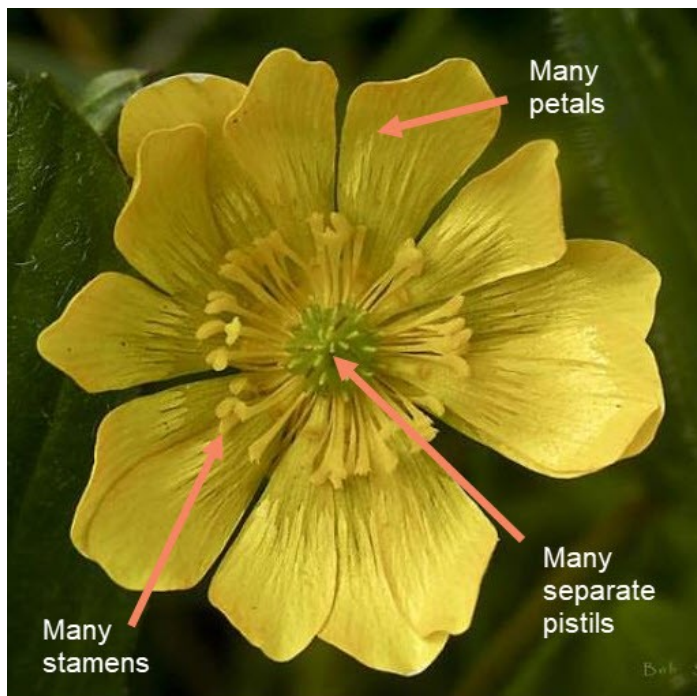
Our California buttercup (shown below) has 9–17 showy petals, varying by individual flower. Our other buttercup, the pubescent-fruited buttercup, takes the opposite approach: its flowers have 0–5 tiny petals.



Pubescent-fruited buttercup (*Ranunculus hebecarpus*)
Photo by Sue Lindner

California has a lot of (50!) native taxa in the buttercup (*Ranunculus*) genus. They have a wide variety of petal counts, both between species and among individuals within a species. Quite a few species have petal count ranges that start with five, such as 5–6, 5–8, or 5–14. Actual petal count for these individuals is established early in development, when tiny petal primordia form.

Why the number of petals is so flexible in *Ranunculus* isn't clear. Genetics, development, and environmental conditions may influence how many petals an individual flower produces.



California buttercup (*Ranunculus californicus*)
Photo © Robert Sikora

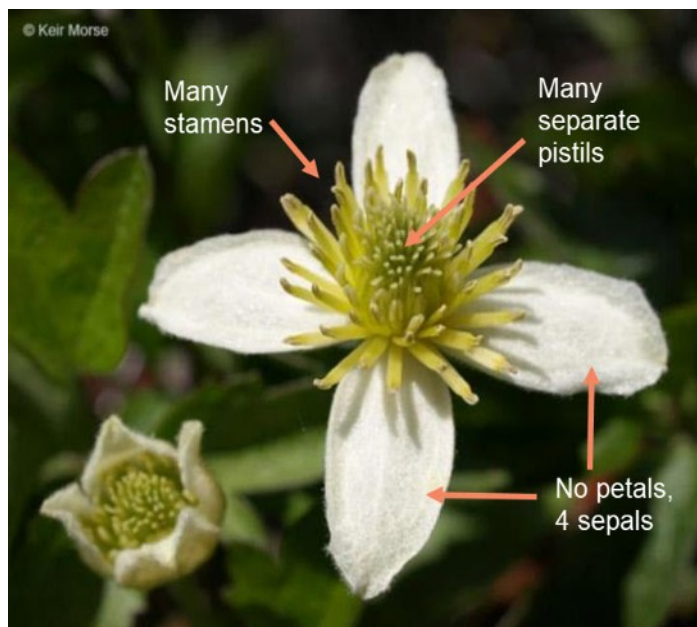
Chaparral Clematis (*Clematis lasiantha*)

Chaparral clematis is another flower in the buttercup family. It's easy to see the many stamens and individual pistils (illustrated below). After pollination, each pistil's style stays attached to the developing fruit and grows a feathery plume for wind dispersal. This may remind you of sunflower-family fruits with their pappus, but each sunflower-family fruit comes from its own floret, with many florets gathered into a flower head. In clematis, many fruits develop from the pistils of a single flower, with just one set of outer floral parts.



Based on genetic studies and given the variability of petals in the buttercup family, botanists have decided that there are no petals on the chaparral clematis – just four sepals. Quite a change from the California buttercup's 9–17 petals.

continued on next page



Chaparral clematis (*Clematis lasiantha*)
Photos (top) © Neil Kramer, (bottom) © Keir Morse

Buttercup Family from page 4



Larkspurs in Edgewood
(*Delphinium* spp.)

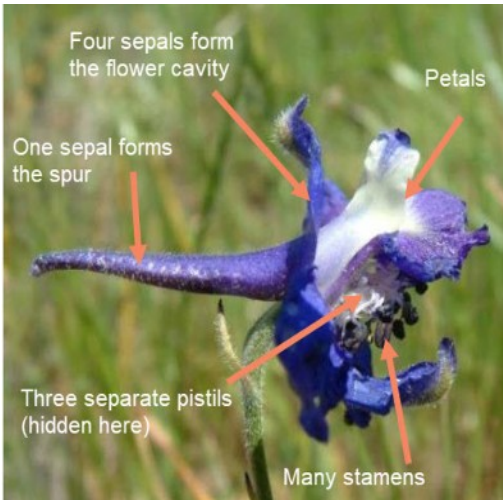
Larkspurs retain the buttercup-family pattern of many stamens and separate pistils, although their pistil count is generally reduced to three. The outer sepals and petals have evolved into a singular design to attract

pollinators to an exact spot. Five showy sepals form the spur and the main flower cavity. Specialized petals provide a landing spot and access to nectar inside the spur. Pollinators such as long-tongued bees position themselves at the flower opening and reach deep into the spur for nectar, brushing past the stamens and stigmas. Pollinators are likely to visit several larkspurs in a row, improving the chance that pollen gathered from one flower is useful to the next.

This sepal-and-petal design is a radical departure from the open, radial layout of buttercups and clematis. Edgewood has four larkspur species: California

larkspur, royal larkspur, spreading larkspur, and Western larkspur. Across California, 55 native *Delphinium* taxa make variations on this effective design.

Royal larkspur (*Delphinium variegatum*)
Photos by Kathy Korbholz



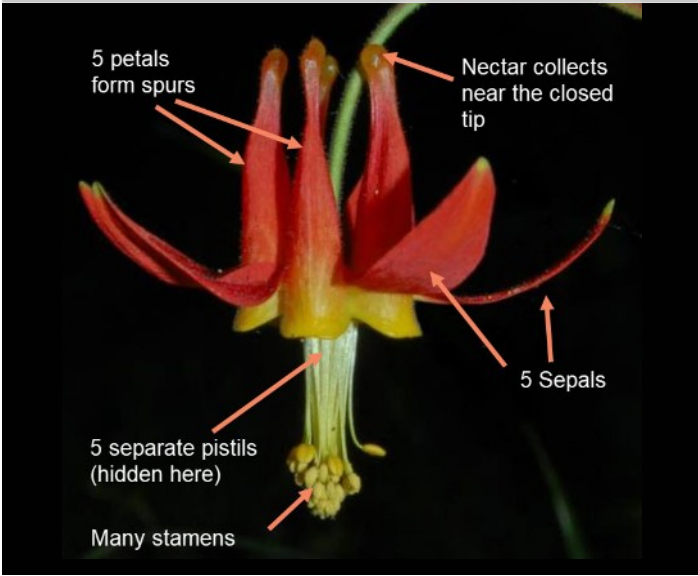
Columbines in Edgewood

(*Aquilegia* spp.)

Like larkspurs, columbines evolved to position their pollinators precisely. Edgewood’s red, hanging columbines are especially adapted for hummingbirds. Five petals are arranged in radial symmetry, forming five colorful nectar spurs with five showy sepals extending between them. Hummingbirds approach the hanging flower from below, reach deep into the spurs for nectar, and brush against the stamens and pistils.



Above: Van Houtte’s columbine (*Aquilegia eximia*)
Photo © Neil Kramer. Below: Crimson columbine (*Aquilegia formosa*) Photo © Keir Morse



Variation within an ancient family

The buttercup family branched off early in the evolution of flowering plants, more than 100 million years ago, before many of the familiar floral patterns of modern dicot flowers became established: patterns such as four or five

petals, a matching number of floral parts, and a single central pistil. The buttercup family retained much of its ancient floral blueprint – numerous stamens and multiple separate pistils – while its outer floral parts evolved in remarkably different directions. Petals proliferated, became nectar spurs, shrank, or disappeared; sepals became showy or even formed spurs of their own. The result is the remarkable variety of flower designs we see in Edgewood today. ☘

Research and editorial support from ChatGPT.
Fact-checking from Gemini and Claude.

Part Counts in Edgewood’s Buttercup Family				
	Stamens	Separate Pistils	Petals	Sepals
Buttercup <i>Ranunculus</i>	Many	Many	Variable	Usually 5
Clematis <i>Clematis</i>	Many	Many	None	4, showy
Larkspur <i>Delphinium</i>	Many	Generally 3	4, specialized to hold nectar	5, showy, one spurred
Columbine <i>Aquilegia</i>	Many	5	5, each forming a spur	5, showy
Meadow-rue <i>Thalictrum</i>	Many	7-20	None	4, small

Summer Paradox

Story and photos by Leslie Cavaliere

Remember the excitement you felt as a child about summer? The anticipation of freedom to fill each day with adventures – exploring, playing, sleeping late, and breaking the routine of the school year.

Some summer days, I just don't feel as enthusiastic as I prepare for my morning hike in the preserve. Call it the doldrums – expecting heat, humidity, dust, and the inevitable muted brown palette that envelops the trails. But in truth, there are countless nuances of life – interactions and small behavioral quirks that are the heartbeat of the preserve and keep me coming back.

Reflecting on this summer, my list of observations is robust. I was startled by the cacophony of snapping twigs and rustling leaves as a group of five does in flank formation chased a coyote, presumably protecting their young from becoming a tasty meal.

Other precious moments of maternal instinct were on display – a mom and baby brush rabbit scampered down the Sunset trail, pausing briefly to rub noses before dashing into the scurry zone. A wild turkey led her poults up Edgewood trail and paused briefly to dust bathe.



A doe stood watch while her spotted fawn paused to nibble some thistle.

Signs of new life were evident when I spotted a young jack rabbit scampering toward me, curious and not yet afraid.

I thought I spotted a bald eagle preening on a distant branch. But it turned out to be a juvenile turkey vulture – its grayish head fooling me. Its

head will change to reddish at about 4–6 months old.

Pollinators were hard at work. I observed three hives in the preserve where honeybees buzzed in and out of the hollowed-out branches of live oaks.

Most recently, the nearly-full moon provided a lovely backdrop for a California scrub-jay perched in a shrub. I learned that the traditional name for the July full moon is a “Full Buck Moon” as it happens during the time of year when male deer (bucks) grow new antlers, which are at their peak growth stage and covered in soft velvet.

I'm grateful for these moments and countless other moments that would have gone unnoticed if I succumbed to the doldrums. ☘



Community Outreach

Friends of Edgewood was on the scene Aug. 15, at Summerfest, the annual event organized by San Mateo County Parks Foundation at Coyote Point Recreation Area. Highlights of the day included telling people about the preserve and sharing the joys of Edgewood, encouraging children to color paper butterflies, and marveling at the event's signature giant balloons. ❀

Top photo: Volunteers (l to r) Leslie and Louis Cavaliere, and Sally Albert with the Edgewood booth all set up. At right: Volunteer Nina Bell staffs the booth with Sally Albert. Photos by Nina Bell and Leslie Cavaliere



Become a Friend of Edgewood

Help support FoE's habitat restoration programs and activities that connect people to the beauty of nature in Edgewood Park & Natural Preserve.

A donation of any amount is greatly appreciated! Consider becoming a sustaining member by signing up to make a monthly donation of \$5 or more.

Pay by credit card at foew.org/donate, or complete the form below and mail with your check.

Thank you for supporting **Friends of Edgewood**.

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*Check if you wish to receive eligible thank you gifts:

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Mail with your check to **Friends of Edgewood**, 3 Old Stage Coach Rd, Redwood City, CA 94062-3801.

Donations are tax-deductible as allowed by law.

Answers to FoE Trivia Quiz from page 3

- From Native Garden coordinator Howie Smith:
c) Chick lupine (*Lupinus microcarpus* var. *densiflorus*)
- From Wildflower Survey coordinator Sandy Bernhard:
d) Grasses
"Grasses are a whole other level of difficulty to ID!"
- From Nomenclature coordinator Sue Lindner:
c) 64% (371 California natives out of 577 species)
- From Time Management co-coordinator Sue Lindner:
a) Ed Center hosts (2,183 hours)
For comparison: Weed Warriors 1,671, Wildflower docents 1,815, Wildflower surveyors 1,960

To learn more about Friends of Edgewood programs and opportunities, see friendsofedgeswood.org.



Est. 1993

Friends of Edgewood

PRESERVE • EDUCATE • RESTORE

Friends of Edgewood Natural Preserve
3 Old Stage Coach Road
Redwood City, CA 94062-3801

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Bill and Jean Lane Education Center at Edgewood Park and Natural Preserve

Permanent and changing exhibits. Staffed by volunteer hosts. Open most Saturdays, Sundays, and Wednesdays.

To learn more about Friends of Edgewood, visit our website at foew.org, call us at 650-367-7576, or email us at info@friendsofedgeswood.org.



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- When visiting Edgewood Park and Natural Preserve, please review trail maps, obey signs, and stay on approved trails.
- See friendsofedgeswood.org to learn about our mission, find membership information, and discover volunteer opportunities.

UPCOMING EVENTS

Oct. 4, 3–5 p.m. FoE Annual General Meeting

Join us in the FoE group picnic area to enjoy good food, meet good friends, learn about gardening with some of Edgewood's native plants, and find out what's new with Friends of Edgewood.

Nature Hikes

Free guided hikes are offered most months, and posted on Eventbrite two weeks in advance. Space for hikes is limited. Sign up at [Eventbrite](https://www.eventbrite.com).

The Edgewood EXPLORER is published quarterly by Friends of Edgewood Natural Preserve, a nonprofit organization dedicated to preserving and restoring Edgewood and educating the public about its treasures. Friends of Edgewood Board of Directors: Sandy Bernhard, Elisa Chavez, Nancy Enzminger, Peter Ingram, Bill Korbholz, Kathy Korbholz, Sue Lindner, Angela Mallett, Perry McCarty, Barrie Moore (president), Kaushal Parekh, Matthew Tobin. The newsletter is edited by Michele W. Conway and supported by many friends.