

# PLANNING FOR FOREVER

Updating land conservation priorities and strategies for the Blue Mountain region.

Tim Copeland, Executive Director

Last February, the Land Trust completed a five-year conservation plan that describes our land protection goals from 2020 through 2024. This plan replaces an earlier plan that was in place during 2014 though 2018. Both of these plans can be downloaded at bmlt.org/how-we-work. We encourage you to review them.

The contrast between the two plans is substantial. They vary greatly in terms of their service areas, the types of conservation values protected, the average size of the conservation projects, and the sources used to fund them. The following is a summary of those differences.

#### SERVICE AREA

When the Land Trust was formed in 1999, its original service area was four Washington counties (Walla Walla, Columbia, Garfield and Asotin) and Umatilla County in Oregon. Those counties contained 5,170 square miles of privately-owned land.

In 2017, five Oregon counties were added to the service area: Morrow, Gilliam, Mitchell, Grant, and a part of Sherman.

Baker and Union counties were added in 2019. This raised the counties in our service area from 5 to 12 and the privately-owned land to 13,456 square miles, a 160% increase.

#### PRIME CONSERVATION VALUES

The 2014 conservation plan focused largely on protecting fish and wildlife habitat. It continued the Land Trust's primary concentration of projects on the Touchet and Walla Walla and Tucannon Rivers. In 2014, we

held 11 conservation easements that covered 857 total acres.

By 2020, the Land Trust held 14 conservation easements totaling 6,476 acres. The new projects protected both fish and wildlife habitat, and farmland.



The Land Trust has a remarkable volume of conservation projects underway now. The pipeline contains 11 projects totaling 24,912 acres with a combined conservation value of \$10,680,000. Many of these projects include

large ranches and farms used for livestock grazing and grain production. A majority of them have streams, creeks and rivers that provide important fish and wildlife habitat.

#### **AVERAGE PROJECT SIZES**

After 20 years of acquiring conservation easements, we've discovered that the costs of completing a large, high-value project is very similar to that required by a small, lower-value project. In most cases, it's more efficient for us to protect larger landholdings. Our 2020-2024 plan recognizes this reality. For this reason, future easement projects will generally be much larger than those in the past. In 2014, our average conservation easement was 78 acres. By 2019, the average project size had increased to 463 acres. The projects now in the pipeline average 2,265 acres.

# CONSERVATION VALUES: FOOD PRODUCTION AND HABITAT PROTECTION

Between 2000 and 2015, funding sources available to complete conservation easements were most abundant for fish protection. The Salmon Recovery Board and the Bonneville Power Administration were strong and reliable partners who assisted us with most of our early easements.

During the last five years, these fish protection funding sources have declined. But funding from the Oregon Watershed Enhancement Board, the Washington Recreation Conservation Office and the Natural Resources Conservation Service has expanded substantially. These funders support habitat protection, but farmland protection are also important goals.

This changed funding environment caused us to focus on lands that include both food production (including grazing) and habitat protection opportunities. The best easement projects are now relatively large in acreage and have multiple conservation values.

#### WHY LAND PROTECTION?

The 2014-2019 conservation plan didn't deeply examine the reasons for the land protection it proposed. It assumed that a broad understanding of why conservation easements were important existed.

# Growing our Conservation Team



Last December, Jason Bulay, our Conservation Director of North Region, moved to Maine with his wife Catie and daughter Emily to be closer to their families. Jason is now serving as a Senior Planner for the Land for Maine's Future Program.

To fill this gap, Amanda Martino, Conservation Director of the South Region, was promoted to Conservation Director for BMLT's 12-county service area. She is supported by Genevieve Perdue, Conservation Specialist of the south region and Alex James, Conservation Specialist of the north region. Alex previously served as our Education & Recreation Specialist.

Katy Rizzuti was recently selected as the Education Specialist. She will continue Alex's work in developing and implementing educational programming for the Walla Walla Valley and beyond.

Jessica Portas will join the Land Trust in May as the Development and Marketing Specialist. She will replace Lauren Platman, who is leaving us in June to pursue a master's degree in urban and regional planning.

We will deeply miss Lauren and Jason, but are excited with the opportunities their new positions will provide to them. We are delighted with the promotions received by Marti, Genevieve and Alex. And "welcome aboard" to Katy and Jess.

Change is hard. Change is good.





In developing the 2020-2024, plan, we dived deeply into an examination of why land protection was a worthy goal. We concluded that five components of our natural resources must be protected or global calamities will result. The elements that must be preserved are climate, soil, food, water and species. Land protection through conservation easements is one tool toward that end. The new conservation plan continues to focus on easements as our primary conservation activity, but we will evaluate all new projects based on how their protection could positively impact the preservation of these critical elements.

#### THE FUTURE

This plan is a living document that we expect to amend annually to add tools to our conservation tool box. Regenerative agricultural practices are one toolset we believe has great land protection potential. Expanding our work with non-land trust organizations may also be an effective way to preserve these five essential natural resources. In this area, we have many more questions than answers and much to learn.

The 2014-2018 conservation plan was a roadmap that served us well for a period of time. The new 2020-2024 plan will take us in some important new directions without abandoning the values we've worked hard to preserve for over 20 years. But the rate of change has grown rapidly since 2014, and it's not likely to decrease. The next five years will be a period of great challenges and opportunities. The updates in this new plan will help guide us in this uncertain but exciting future.

Top photo by Dee Cusick Bottom photo by Kim Fetrow

# TAKING FLIGHT

How drones can be used as a conservation tool.

Genevieve Perdue, Conservation Specialist & Lauren Platman, Development & Marketing Director

In the last issue of *Blue*, we shared Blue Mountain Land Trust's involvement in the John Day Basin Partnership, and its efforts to improve conservation project collaboration and build organizational capacity across its 28 member entities.

In January 2019, the Partnership was awarded \$4,000,000 to support restoration projects in three priority sub watersheds: the Headwaters North Fork John Day, the Upper Middle Fork John Day, and Butte/Thirtymile. This funding for restoration and conservation easements in the basin raised questions about how organizations planned to monitor projects.

In December 2019, in an effort to answer that question, four member entities: Blue Mountain Land Trust, Sherman Soil and Water Conservation District, North Fork John Day Watershed Council, and South Fork John Day Watershed Council, worked together to submit a grant application to the Oregon Department of Environmental Quality. The objective of this grant is to purchase drones for each participating organization. This will enhance project monitoring and provide funding for Federal Aviation Administration training for staff. In January, the entities were awarded \$46,000.

Why do conservation organizations need drones, you ask?

Drones are becoming an invaluable tool for conservation organizations to protect and enhance hard to reach landscapes. To fully understand our landscapes and species, accurate and frequent data of species distribution and habitat is needed. To get this data, conservationists have typically relied on ground surveys or satellite images. Both methods have their limitations.

Ground surveys are often time-consuming and expensive. Many of the Blue Mountain Land Trust's projects are on ranches and farms that are many thousands of acres of mountainous terrain. Last fall, four staff members and one volunteer spent two full days gathering baseline data on a 9,000-acre ranch. A drone has the ability to greatly reduce required manpower and time.

High-resolution satellite images can help solve some of these problems, but some challenges remain. Cost can be a major barrier, the resolution of the images can be less than ideal for monitoring conservation and restoration efforts, and there can be issues like cloud cover which obscures the ground from satellite cameras and sensors.

Drones will be used in the John Day Basin to capture baseline aerial data with high resolution. The drones will be flown over each property annually to montior changes to the landscape. This imagery will allow our conservation staff to monitor land use practices and identify successes, failures, and potential adaptive management strategies.

Drones will greatly enhance how we manage our conservation projects into the future.





# LOOKING UP RIVER: WHAT'S NEXT FOR THE WALLA WALLA WATERSHED

Stakeholders invited to help plan how water is managed into the year 2050

Ryan Lancaster, Department of Ecology State of Washington

A Walla Walla River Basin user's group is evolving from a pilot program into a partnership prepared to plan the next 30 years of watershed management.

Meeting the region's water needs has been a decades-long challenge for this complex watershed that includes two states and involves farmers, communities, and the Umatilla Tribe. The basin has struggled to keep sufficient flows in the river for fish while supporting an agricultural economy.

In October, stakeholders from Washington and Oregon, including the Blue Mountain Land Trust, met to refocus and build on the Walla Walla Watershed Management Partnership to create a long-term water strategy. Ecology's Office of Columbia River is leading the effort, in conjunction with the partnership and the Confederated Tribes of the Umatilla Indian Reservation.

This new phase, dubbed **Walla Walla Water 2050**, enlists irrigators, conservationists, and private citizens along with representatives from tribal, federal, state, and local governments and agencies to map out the watershed's future.

"We're looking for people with an interest in the basin to attend workshops and share insights on how Walla Walla Basin water should be managed to meet growing demands over the coming decades," said Tom Tebb, director of Ecology's Office of Columbia River.

The workshop involved opening remarks by partnership leaders, small group visioning exercises and shared discussions and sessions to address strategic outcomes. The groups were divided into areas of interest, including recreation and tourism, fish and instream resources, agriculture, rural vitality, and several others.

#### A HISTORY OF COLLABORATION

Over the last decade, the Walla Walla Management Partnership developed local water plans and water banking agreements that protect more than 20,500 acre-feet of water rights from "use it or lose it" relinquishment. The group also worked with stakeholders across the border, including Oregon's Walla Walla Basin Watershed Council, to examine big-picture water resource issues and preserve stream flows at crucial times of the year.

Still, the projects have not adequately achieved streamflow goals, and aquifers continue to decline, according to a 2018 report to the Legislature.

"The pilot period has proven that although the partnership has done as much as possible with its current authority, that authority and structure have proven insufficient to address the complexity and magnitude of current and future water resource challenges," the report stated. Last spring, the Legislature took the report's recommendation and gave the partnership a two-year extension to collaborate with Ecology and develop the Walla Walla Water 2050 watershed plan.

"We've been very successful implementing similar programs in other river basins. The Yakima Basin Integrated Water Management Plan is cited nationally as a model for how water management issues should be addressed," Tebb said. "We're hopeful to do the same in this important bi-state watershed."

The planning process will result in a report that is due to the Legislature by November 2020, and a strategic plan that is due by June 2021.

For questions and how to get involved in the ongoing effort, contact Leigh Bedell or call 360-407-6017 at Washington Department of Ecology.





# FOOD WASTE & LAND CONSERVATION

What do food waste and climate change have in common? A lot.

Tim Copeland, Executive Director

The following article from *Drawdown: The Most Comprehensive Plan Ever Proposed to Reduce Global Warming* describes the third most impactful way to decrease carbon in the atmosphere: reduce food waste.

**Drawdown** reports that one-third of the world's food supply is wasted before it reaches the table. In low-income areas of the world, food waste is often caused by infrastructure problems that disrupt optimal food storage and distribution. In higher-income areas, including the United States, food waste is more intentional but unnecessary. Global food waste squanders enormous quantities of resources that generate substantial carbon emissions.

A key goal of our Land Trust's conservation work is to protect food production lands. Perhaps a companion objective should be the reduction of food waste in our service area. If food waste were reduced by 50%, it would both substantially decrease carbon emissions and increase the net useable food supply created on our regional farmlands. This is a worthy consideration.

# FOOD REDUCED FOOD WASTE

Reprint from Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming. Edited by Paul Hawken.

One of the great miracles of life on this planet is the creation of food. The alchemy human beings do with seed, sun, soil, and water produces figs and fava beans, pearl onions and okra. It can include raising animals for their flesh or yield and transforming raw ingredients into chutney or cake or capellini. For more than a third of the world's labor force, the production of food is the source of their livelihoods, and all people are sustained by consuming it.

Yet a third of the food raised or prepared does not make it from farm or factory to fork. That number is startling, especially when paired with this one: Hunger is a condition of life for nearly 800 million people worldwide. And this one: The food we waste contributes 4.4 gigatons of carbon dioxide equivalent into the atmosphere each year — roughly 8 percent of

total anthropogenic greenhouse gas emissions. Ranked with countries, food waste would be the third-largest emitter of greenhouse gases globally, just behind the United States and China. A fundamental equation is off-kilter: People who need food are not getting it, and food that is not getting consumed is heating up the planet.

Losing food to one waste heap or another is an issue in both high- and low-income countries, though the drivers differ. In places where income is low and infrastructure is weak, food loss is typically unintended and structural in nature — bad roads, lack of refrigeration or storage facilities, poor equipment or packaging, a challenging combination of heat and humidity. Wastage occurs earlier in the supply chain, rotting on farms or spoiling during storage or distribution.



In regions of higher income, unintentional losses tend to be minimal; willful food waste dominates farther along the supply chain. Retailers reject food based on bumps, bruises, coloring — aesthetic objections of all sorts. Other times, they simply order or serve too much, lest they risk shortages or unhappy customers. Similarly, consumers spurn imperfect spuds in the produce section,

overestimate how many meals they will cook in a week, toss out milk that has not gone bad, or forget about leftover lasagna in the back of the fridge. In too many places, kitchen efficiency has become a lost art.

Basic laws of supply and demand also play a role. If a crop is unprofitable to harvest, it will be left in the field. And if a product is too expensive for consumers to purchase, it will idle in the storeroom. As ever, economics matter. Regardless of the reason, the outcome is much the same. Producing uneaten food squanders a whole host of resources — seeds, water, energy, land, fertilizer, hours of labor, financial capital - and generates greenhouse gases at every stage — including methane when organic matter lands in the global rubbish bin.

There are numerous and varied, but often invisible, dumps of food all around us. The interventions that can address key waste points in the food chain are also numerous and varied. The United Nations' Sustainable Development Goals speak to this chain of "orphaned" food, calling for halving per capita global food waste at the retail and consumer levels by 2030, as well as reducing food losses along production and supply chains, including

those that occur postharvest. The root of the problem has many offshoots.

In lower-income countries, improving infrastructure for storage, processing, and transportation is essential. That can be as simple as better storage bags, silos, or crates. Strengthening communication and coordination between producers and buyers is



also paramount for keeping food from falling though the cracks. Given the world's many smallholder farmers, producers organizations can help with planning, logistics, and closing capacity gaps.

In higher-income regions, major interventions are needed at the retail and consumer levels. Most important is to preempt food waste before it happens, for greatest reduction of upstream emissions, followed by reallocation



of unwanted food for human consumption of another reuse. Standardizing date labeling on food packages is an essential step. Currently, "sell by," "best before," and the like are largely unregulated designations, indicating when food should taste best. Though not focused on safety, these markers confuse consumers about expiration. Consumer education is another powerful tool, including campaigns celebrating "ugly" produce and efforts such as Feeding the 5000 — large public fests made entirely from nearly wasted food.

National goals and policies can encourage widespread change. In 2015, the United States set a food-waste target, aligned with the Sustainable Development Goals. The same year, France passed a law forbidding supermarkets from trashing unsold food and requiring that they pass it on to charities or animal feed or composting companies instead. Italy followed suit. Entrepreneurs are capitalizing on wasted food — from turning homely fruits and veggies into juice to growing mushrooms from used coffee grounds to morphing brewery waste into animal feed. Of course, from an emissions perspective, the most effective efforts are those that avert waste, rather than finding better uses for it after the fact.

Given the complexity of the supply chain that food travels, waste reduction depends on the engagement of diverse actions: food businesses, environmental groups, antihunger organizations, and policy makers. Also critical are the world's 7.4 billion eaters — especially those who live where food waste is greatest: the United States and Canada, Australia and New Zealand, industrialized Asia, and Europe. Whether on the farm, near the fork, or somewhere in between, efforts to reduce food waste can address emissions and ease pressure on resources of all kinds, while enabling society more effectively to supply future demand.

#### **IMPACT**

After taking into account the adoption of plant-rich diets, if 50 percent of food waste is reduced by 2050, avoided emissions could be equal to 26.2 gigatons of carbon dioxide. Reducing waste also avoids the deforestation for additional farmland, preventing 44.4 gigatons of additional emissions. We used forecasts of regional waste estimates from farm to household. This data shows that up to 35 percent food in high-income economies is thrown out by consumers; in low-income economies, however, relatively little is wasted at the household level.

# WILD & SCENIC® FILM FESTIVAL where activism gets inspired

Since 2015, the Blue Mountain Land Trust has partnered with the South Yuba River Citizens League (SYRCL) to bring you the Wild & Scenic Film Festival. This year, the coronavirus outbreak forced us to reimagine how a film festival could work with physical distancing measures in place. Because you couldn't come in person to our festival this year, we decided to bring the festival to you – where you could enjoy it from the comfort of your couch, patio chair, or picnic blanket.

Over eight-weeks beginning April 20, 2020, BMLT will be streaming a selection of short films that illustrate the challenges facing our planet and explore how communities are protecting the places they love. Each week, we will release a new lineup of films that conveys a broader theme of environmental activism.

We're also offering three weeks of programs designed for children and young adults. The film programs will be accompanied by a set of activities that encourage young learners to think critically about the themes each film explores.

The best part? We're presenting this online festival free-of-charge. To enjoy the films, simply visit bmlt.org/wild and register.

This program is generously supported by Outside Walla Walla, a website that will inspire your next adventure into the Blues. It's a collection of stories to help you explore wild places of the great nearby.

In these uncertain times, we are excited to provide you with a boost of inspiration through these nature films. Enjoy





Where the Wild Things Keep Playing

This Land

Iniskim

Place of the Pike Ginoozhekaaning



Love, Trails & Dinosaurs

Broken

A Walk Through the Land of a Thousand Hills May 4 - 10
WILD CHILD
PART 1

Rocky Intertidal Zones

Land without Evil

See Animals

A Bird in the Hand

There's Something in the Water

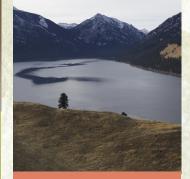
Bring Your Own

Love, Trails, & Dinosaurs

Wave Hands Like Clouds

Nature Now

May 11 - 17
REGENERATION



Wild Possibilities

Sanctuary

Herd Impact

May 18 - 24



Raccoon and the Light

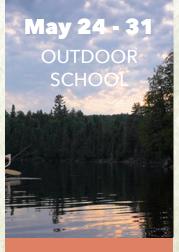
Green Gone

Kids Speak on Plastic Pollution

Words Have Power

**Blooming Culture** 

Wild Toddler Chronicles: Legacy



Film programs for:

Grades K - 4

Grades 5 - 8

Grades 9 - 12



Hammer Dam

In Celebration of Open Space

The Guardian Elephant Warriors of Reteti

Clay Bolt



A Letter to Congress

Paradise

**Every Nine Minutes** 

Pebble Redux

# **ADVOCATING FOR NATURE**

How advocacy strengthens environmental conservation.

Don Schwerin, Board Director

The Blue Mountain Land Trust is about the future. Think about it. Our emblematic conservation easements are in perpetuity...they envision a future that goes beyond even the seven generations our Native American friends use for routine planning. Our core values are not simply to prevent change; our mission anticipates as well a different future. We make conscious choices today that shape this future.

This is where advocacy comes in. Our easement contracts are documents tailored to specific tracts of land. They are beautiful in the sense that they reflect and preserve today's best vision of BMLT and our partners. Beautiful but frozen in time, and very selective. They take our best values of today and project them statically into the future for contracted parcels of real estate.

Advocacy gives us the edge on both accounts. Advocacy can be dynamic, adapting to changing circumstances, science, and understandings, and advocacy joins our efforts with those of others and can shape the future beyond our own real estate. It affords BMLT the opportunity to influence the future beyond our contract language. Advocacy means sometimes speaking out to influence public debate, sometimes to quietly urge our elected

officials to take votes we favor. Sometimes advocacy fails in its immediate goal only to move the debate stake a little further. And sometimes advocacy earns more foes than friends. Advocacy pushes us to be clear-minded about our values and our facts.

Sustainable Farms and Fields (SFF; SB 5947) is an example. It was a BMLT advocacy action item in the Washington State Legislature. The bill encourages agricultural practices that sequester carbon in the soil. The proposal builds on the role of agriculture as a sink for atmospheric carbon and works with growers to adapt practices to enhance agriculture's role in addressing climate change. Sustainable Farms and Fields is an example of advocacy where BMLT partners with other organizations that more often provide the lead. In this case, CarbonWA leads the lobbying effort.

A danger of advocacy is that it may be too cheap, too seductive. CarbonWA is leading, and BMLT is only a cheerleader. Still, BMLT did due diligence before announcing support. BMLT has been and must be careful. The asset BMLT brings to advocacy is its integrity, and we are an attractive political ally for that reason. It is precisely because careless advocacy can go awry that BMLT willproceed with

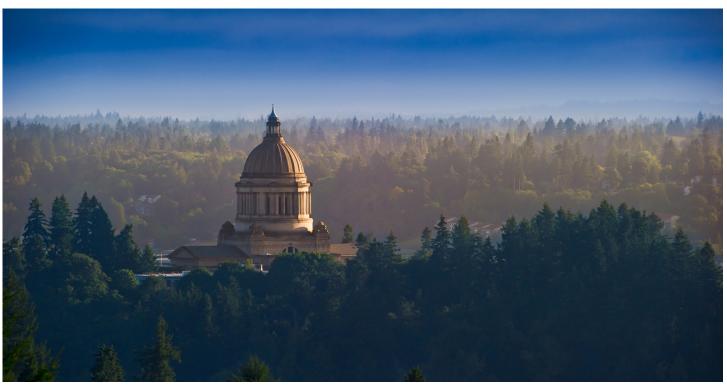
caution and attention to both the political and scientific context.

To be sure, not all of BMLT's advocacy is about big public issues. Some are inside game. There are issues having to do with tax law and appraisal standards, for example, which are essential to BMLT as a land trust but which scarcely rise to widespread public attention. We take our lead from our national and state organizations and our support is limited to signing on and alerting our legislators.

Advocacy is new for BMLT. Our path will be careful. Confidence will come with practice and occasional success.

Learn more about Blue Mountain Land Trust's advocacy positions at bmlt.org/take-action.







# TRAIL SPOTLIGHT:

## Strawberry Lake via Strawberry Basin Trail



#### **ABOUT**

The trail to Strawberry Lake is a great introductory trip into the Strawberry Mountain Wilderness just south of Prairie City, Oregon.

This trail takes you on an easy to moderate ascension into the Strawberry Mountains, offering scenic views of the John Day Valley, rock formations, birds, wildlife (including mountain goats!), and forests of pine, fir, and larch along the way. Once you've arrived at the snow fed Strawberry Lake, you can follow a trail around the perimeter, go fishing for brook and rainbow trout, or continue on to Strawberry Falls and Little Strawberry Lake.



#### LOCATION

From Prairie City, Oregon, head south on South Main Street for 0.4 miles. Take a left at SW Bridge Street, and then the second right onto S Bridge Street. Continue on Strawberry Road/Country Road 60 for 8 miles. This road becomes National Forest Road #6001, and after 2.5 miles arrives at Strawberry Campground. From the parking lot, take Strawberry Basin Trail #375.

The road becomes steep, narrow, and rutted for last 1-2 miles of the drive. High clearance or all wheel drive vehicles are recommended.



The distance from the trailhead to Strawberry Lake is approximately 1.2 miles. The distance from the trailhead to Little Strawberry Lake is approximately 3.1 miles.



#### **ELEVATION**

Gain: 476' Highest point: 6,336' Lowest point: 5,860'



# VOLUNTEER APPRECIATION:

Susan Plunkett & Ame Doyle

The backbone of the Land Trust.

Alexandra James, Conservation Specialist

Volunteers are the cornerstone of Blue Mountain Land Trust. The Land Trust was established by a group of passionate volunteers eager to steward and protect the natural resources of the Blue Mountains. Twenty-one years later, that passion continues to flow through the heart of our Valley and beyond with over hundreds of volunteers who have continued to uplift our mission and vision across this mighty region.

Susan Plunkett first joined the Land Trust as a participant on Bob Berger's "A Walk Among the Giants" Learning on the Land tour in 2016. After that, she was hooked. Susan soon started to volunteer for our Education Committee, helping to connect community members, like herself, to experiential, life-long learning opportunities. Shortly after joining the Education Committee, she was invited to join the Board of Directors. Her volunteer leadership, extraordinary enthusiasm, and professional background have made Susan an excellent addition to our leadership team.

It did not take long for Susan's enthusiasm for the Land Trust to rub off on her partner, Ame Doyle. After attending his first Celebrate event, Ame was impressed by BMLT's community involvement and thought to himself, "those are my kind of people!" – which was no surprise considering Susan's involvement.

As a plant enthusiast, Ame was eager to share his knowledge of natural areas and their plant communities. He reached out to the Land Trust and offered to lead a field botany excursion for the Learning on the Land education program. Three years later, Ame continues to lead multiple "Botany in the Blues" field excursions each year, connecting community members to the wonders of our local flora and the special role they play in the ecosystems of the Blue Mountain region.

Susan's volunteer contributions are largely inspired by her sense of community camaraderie and ability to contribute to the maintenance of our natural resources. Similarly, Ame believes that there is no time like the present to be more involved with the things you care about. Together, their support, generosity, and love for nature continue to inspire our community – whether plant, animal, or human.

Blue Mountain Land Trust is grateful for our volunteers. To learn more about how you can become actively involved, visit our website at bmlt.org/volunteer.



# FOR THE BIRDS & THE BEES

Pollinator-friendly gardens are gardens of life.

Kate Frey, author of The Bee-Friendly Garden and Ground Rules.

Imagine our gardens seen through the eyes of a bee. Imagine the horror that clover-free, emerald-green lawn grasses, banks of ferns, parades of conifers, and the extravagant heads of mop-headed hydrangeas provoke in a hungry bee- all plants lacking food resources of pollen and nectar bees can utilize.

For a bee, whether native bee or a honeybee, plants with flowers that offer accessible, appropriate, sufficient, and sustained food resources are essential for existence. Honeybees are active all of the growing season and each species of wild native bee is active during a portion of the growing season, generally coinciding with when the flowers they have coevolved with are blooming. All bees have floral preferences and visit specific flowers. Many native bees are solitary, and as such, are not defensive of ground or crevice nests. Bumblebees form annual colonies during the growing season. The old queen dies in the fall, and new queens overwinter to start a colony in the spring. Depending on the time of year and what is blooming, you will see different bee species in your garden.

All bees need pollen and nectar to eat and to provision nests for the young. Nectar is an everyday "fuel" or food and is made up of various sugars. Pollen is composed of various proteins and fats and is eaten by adult bees, but its primary use is as larval food.

Pollinator gardens should be filled with diversity and profusion of plants whose flowers offer floral resources to bees throughout the growing season. Bees need sustained and adequate amounts of food. Consider it takes 1 acre of flowers to support each honeybee colony. A lack of or gap of flowering plants can mean unsuccessful reproduction and dwindling numbers of these essential creatures. Bee-friendly flowers include many favorite and common garden plants and native plants. Spending time in or beholding a flower-filled garden is an inspirational and uplifting experience for us and feeds bees and many other pollinators like butterflies, hummingbirds, and also many beneficial insects. Pollinator-friendly gardens are gardens of life.

Plants that bloom for an extended period are welcome subjects in our gardens both for bees and ourselves. Pollinator-friendly plants include favorite perennials such as blanket flower, anise hyssop (Agastache), catmint (nepeta), echinacea, lavender, penstemon, Russian sage, and many salvias. Late season bloom is very important for bees and asters, goldenrod, persicaria, bluebeard (Carpyopteris), seven-sonflower (Heptacodium) and sedum are all good choices for this. Many native shrubs are highly attractive to bees and offer a large area of floral resources for them to forage on. Willow and Oregon grape (Mahonia) bloom early, and are followed by serviceberry (Amelanchier), native currants (Ribes), creambush

(Holodiscus), snowberry (Symphoricarpus), and rabbitbrush (Ericameria). Common garden shrubs visited by bees include Aronia, Siberian peashrub (Caragana), single lacecap hydrangeas, beautyberry (Callicarpa), buttonbush (Cephalanthus), and Vitex. Many annuals are pollinator-friendly such as cosmos, coreopsis, sunflowers and Shirley and California poppies as well as wildflowers such as phacelia and gilia.

Pollinator gardens bring the vitality of nature into our yards. Pollinators are a tangible aspect of their beauty.

# Lacecap Hydrangea Scientific Name: Hydrangea

Scientific Name: Hydrangea macrophylla Flowering Time: Summer (early, mid, late)

## California Poppy Scientific Name: Eschscholzia californica

Flowering Time: All spring

and summer

## Blanket Flower

Scientific Name: Gaillardia aristata Flowering Time: All spring and

summer

# Oregon Grape

Scientific Name: Mahonia Flowering Time: All Spring



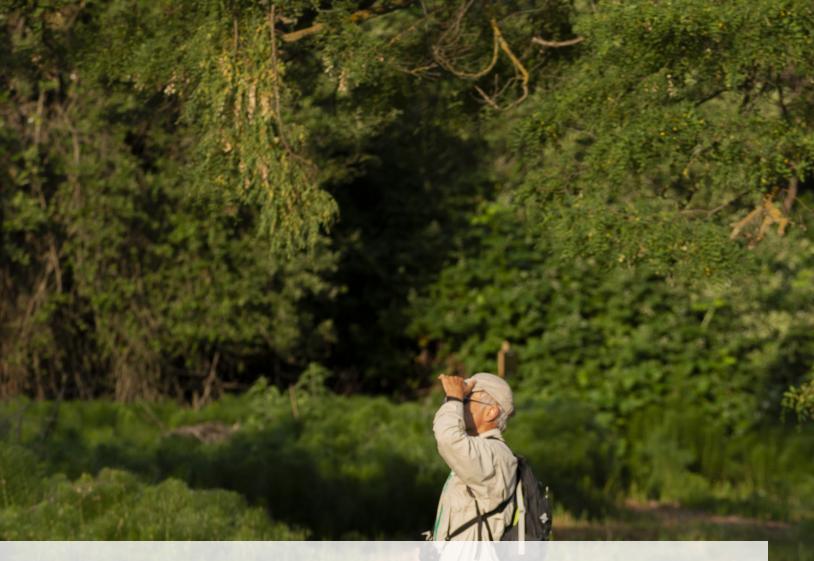
## Aster

Scientific Name: Aster

Flowering Time: Mid

Late summer





## **LEADERSHIP**

#### **Directors**

Linda Herbert, President Gwen Dildine, Vice President Barbara Manierre, Secretary Theresa Hampson, Treasurer Greg Brown Tim Copeland Nannette Goyer Ormand Hilderbrand Chris Howard Amy Molitor Alyssa Martinez Neumann Susan Plunkett Bill Rodgers Don Schwerin Debi Toews

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**Executive Director** Tim Copeland

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**Development & Marketing** Director

Lauren Platman

**Conservation Specialist** Genevieve Perdue

**Conservation Specialist** Alexandra James

**Education Specialist** 

Katy Rizzuti

**Development & Marketing Specialist** 

Jessica Portas



Blue Mountain Land Trust is a nonprofit organization that collaborates with communities and landowners to conserve the scenic, natural, and working lands that characterize the Blue Mountain region.

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The accreditation seal is awarded to land trusts meeting the highest national standards for excellence and conservation permanence.