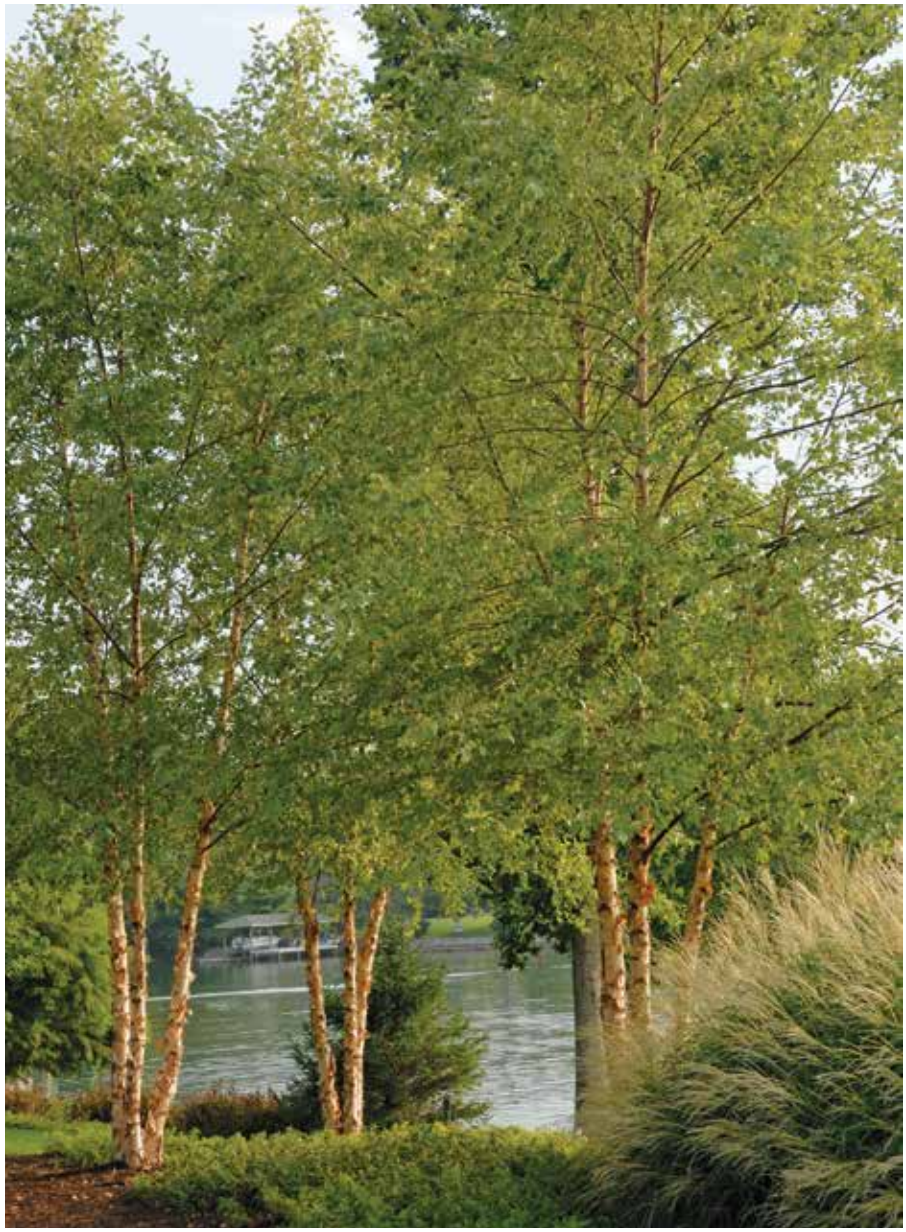
Solutions for Soggy Sites

Rather than struggling to "fix" seasonally wet garden sites, try these plant and design tips instead.

BY KRIS WETHERBEE



Aptly named river birches *(Betula nigra)* are well adapted to seasonally moist areas of the garden.

CATRIONA T. ERLER

WHEN I WAS a child growing up in Southern California, my dad taught me a lot about the lush, drought-tolerant plants he had planted in our yard. Yet there was one shady spot where a slightly leaky hose connection always kept the area damp. My dad's solution? He planted a patch of moss lawn.

Since then, my experience with plants for wet places has expanded tremendously. I moved to Oregon over 25 years ago, and I have become quite familiar with plants that can handle wet sites; our native clay soil is often soggy in spring due to an abundance of winter rainfall.

There are many solutions for dealing with wet sites. These often take a mechanical approach: installing drainage systems or dry creek beds, heavily amending the soil, constructing raised beds, or building a patio overtop the problem area. I prefer the simpler and less expensive approach of selecting trees, shrubs, and perennials that are already adapted to those sites.

CAUSE AND EFFECT

Soggy soil can result from numerous causes, and there is often more than one factor involved. In addition to the amount and timing of precipitation, specific site issues such as slope; surrounding plants, structures, and hardscaping; soil texture (relative ratio of sand, silt, and clay); soil compaction; high water table; and amount of sun or shade all influence moisture retention.

Water from higher elevations and surrounding hardscapes—streets, driveways, rooftops—may collect in a low spot in the yard. Water from rooftops can be collected in rain barrels for use elsewhere in the yard. Excess water can be diverted to a lower area of the landscape by installing a French drain, or by directing the flow into an open swale—a depression that helps capture and redirect runoff. Planting the swale with shrubs and perennials that tolerate wet soil increases infiltration of the runoff into the surrounding soil. Of course, a low, soggy area is the perfect spot for a wetland or rain garden.

Biodegradable textiles can help prevent erosion, especially on slopes or hillsides, and mulch is key to weed suppression and helping new plantings become established. William Cullina, president and CEO of Coastal Maine Botanical Garden in Boothbay, warns that washouts are a challenge when establishing plants in wetlands, as is the potential for frost heaves, where the freezing of the soil pushes plants out of the ground. Planting in early spring allows plants the entire season to become established before the threat of winter frost heaves arrives, and a layer of organic mulch helps moderate soil temperatures and reduce heaving.

Soils that have a high percentage of clay are typically slow to drain. These soils are also commonly deficient in oxygen, which most plants need for healthy root growth. "Low-oxygen soils favor certain root pathogens," says Cullina, "but you can select plants that are able to tolerate that type of environment."

Exposure has a significant impact on wet soils. If the soggy area is exposed to full sun and winds, evaporation will help the soil dry out. On the other hand, a shady spot—particularly one that is protected from winds—tends to stay wet longer.

Among perennials suited to wet sites is swamp milkweed *(Asclepias incarnata),* including its white-flowered selection 'Ice Ballet'.

Depending on the cause, wet areas may be quite soggy, moderately and consistently wet, or intermittently or seasonally wet. Fortunately, there are plants that thrive in each of these conditions. The following provides suggestions of native North American plants suited to each type of wet site. (For more recommended plants for wet soils, see the chart on page 35.)

PLANTS FOR SOGGY SITES

This type of site is consistently wet and spongy with high water saturation. The soil is damp underfoot, but never swampy. In nature, this type of soil is often found beside a brook, pond, or stream.

Black gum *(Nyssa sylvatica*, USDA Hardiness Zones 5–9, AHS Heat Zones 9–7), thrives in wet, soggy soil, growing to a height of 30 to 50 feet. This tree is particularly attractive in fall with its fissured dark gray bark, brilliant orange and red autumnal leaves, and blue-black fruit that provides food for many birds and mammals. It grows best in full sun to part shade, in acidic to slightly alkaline soil.

Buttonbush *(Cephalanthus occidentalis*, Zones 5–10, 12–3) grows in average moist soil but in full sun will tolerate standing water. This large shrub matures to eight feet tall and wide, but compact selections like Sugar Shack® are available. "Its dark green leaves are handsome, and it produces amazing white flower clusters that look like spherical pin cushions and attract butterflies in midsummer," says Larry Mellichamp, retired botany professor and former director of the Botanical Gardens at the University of North Carolina, Charlotte.

Cardinal flower *(Lobelia cardinalis*, Zones 2–8, 8–1) is a classic wetland plant for moist-to-wet spots, in full sun or part shade. "Planted in masses, it makes an amazing show," says Mellichamp. "This midsummer bloomer grows three feet tall, with spikes of brilliant red flowers." He adds that the short-lived perennial easily self-sows in moist soil.

Scarlet rosemallow *(Hibiscus coccineus*, Zones 6–11, 12–1) grows six to eight feet tall or more, with large, deeply cut leaves. Its bright red blooms attract butterflies and are six inches or more across. "A new flower or two opens each day on this long-lived, multi-stemmed perennial," Mellichamp says. "It can take constant wet feet or average garden soil in full sun."

Another wildlife favorite is swamp milkweed *(Asclepias incarnata*, Zones 3–9,

Scarlet rosemallow tolerates wet soils and provides a splash of color to the late-summer garden.

TOP: LAURA BERMAN. BOTTOM: BRINDA MANDELLA

9–2), a clump-forming perennial native to much of eastern North America and parts of the mountain west. Site it in full sun, where its fragrant pink to purple summer flower clusters will delight you and a variety of wildlife, including monarchs. A cultivar called 'Ice Ballet' with beautiful pure white flowers is worth seeking out.

River oats or Indian woodoats *(Chasmanthium latifolium*, Zones 5–9, 9–1) thrives in medium to wet soil in full sun or part shade. This clump-forming, upright ornamental grass can be found in rich woodlands, moist bluffs, and along streams. Notable characteristics include bright green bamboolike leaves and attractive silvery green seeds that resemble flattened oat clusters. The large, graceful seedheads turn purplish-bronze to copper in fall; these can self-sow vigorously under ideal conditions, so deadhead if self sowing is not desired.

PLANTS FOR MODERATELY WET SITES

The following plants are well suited to soil that is consistently moist—but not waterlogged.

Atlantic white cedar *(Chamaecyparis thyoides*, Zones 3–8, 8–1) is a beautiful coniferous evergreen, native to eastern North America. With cultivars ranging from four to 50 feet tall, it's a good choice for gardens large or small. It thrives in moist to average soil with moderate acidity, and full sun to light shade. The winter foliage color is especially striking, ranging in hues from plum-purple to a deep bronze.

American hornbeam or musclewood *(Carpinus caroliniana*, Zones 3–9, 9–1) is a dense, pyramidal tree growing 30 to 40 feet tall. "It grows on the edges of swamps and wetlands and adapts beautifully to moderately well-drained soil in full sun to part shade," says Neil Diboll, president of Prairie Nursery in Westfield, Wisconsin, and a consulting ecologist. It makes an ideal living screen when planted six feet apart. Autumn attractions include fruiting clusters for birds, and leaves of mottled yellow and red. "The Firespire™ variety has excellent red fall color and does best in northern climates. For the southern Midwest, Native Flame® is a good choice," says Diboll.

Native to eastern North America, wahoo *(Euonymus atropurpureus*, Zones 3–8, 8–1) grows from 12 to 25 feet tall. It can be pruned as a single-stemmed tree or allowed to grow as an informal hedge or screen. The attractive red berries—relished by birds—and its dark purple fall foliage combine to make this a great replacement for the invasive non-native burning bush *(E. alatus)*. It's best in full sun and well-drained sites that rarely dry out.

American hornbeam is a medium-size tree with attractive bark and good fall foliage color. Here, several specimens thrive in a Maryland garden.

Smooth hydrangea *(Hydrangea arborescens*, Zones 4–9, 9–1) is a dense, upright shrub that grows 10 feet tall and wide. "It is very pH-adaptable but prefers moist soil and may require supplemental watering in hot, dry summers," notes James E. Klett, professor and Extension landscape horticulture specialist with Colorado State University in Fort Collins. Its white, mid- to late summer blooms age to pale green. Massed plantings are extremely striking.

Summersweet *(Clethra alnifolia*, Zones 3–9, 9–1) is a hardy, deciduous native of eastern North America that grows two to eight feet tall, depending on the cultivar. It features fragrant, showy summer flowers that attract butterflies. White-flowering 'Hummingbird' makes an attractive low hedge; 'Ruby Spice' with its pink flowers is stunning as a specimen for the border. Summersweet thrives in moist, organic, slightly acidic soil and part shade, although it will tolerate full sun with consistent moisture.

Seashore mallow *(Kosteletzkya virginica*, Zones 6–9, 9–5) is a close relative of the eastern hibiscus. Native to the eastern seaboard and Gulf Coast, this elegant perennial grows up to five feet tall, with butterfly-attracting pink flowers that typically bloom in mid- to late summer. "Plant it in a good sunny spot that can be moist to very moist, but not soggy," suggests Mellichamp.

The showy flowers of 'Ruby Spice' summersweet are fragrant and attract butterflies.

TOP: SUSAN A. ROTH (KAREN BURROUGHS DESIGN). BOTTOM: JANET DAVIS

MORE PLANTS FOR WET SITES

The following plants are adaptable to soggy, moderately wet, or seasonally wet soil conditions, depending on where the garden is located. The regions of the United States where they perform well are specified in the chart using the following abbreviations: NE (Northeast), SE (Southeast), MW (Midwest), PNW (Pacific Northwest and Northern California), and MTW (Mountain West). Since soggy conditions are rarely a concern in the Southwest, it has not been included. —K.W.

Name	Appropriate Regions	Height/Spread (feet)	Exposure	Comments	USDA Hardiness Zones, AHS Heat Zones
TREES					
Acer rubrum (red maple)	NE, SE, MW	40–70/30–50	Full sun	Superb shade tree with good fall color; tolerates occasional flooding	3–9, 9–1
Asimina triloba (pawpaw)	NE, SE, MW	15–20/15–20	Full sun to shade	Often multi-trunked; bears interesting dark purple flowers in May followed by edible fruit 2 to 5 inches long	6–8, 8–6
Betula occidentalis (water birch)	MTW, PNW	20–30/10–20	Full sun to part shade	Multi-trunked tree with rounded form, coppery bark adds winter interest, flood tolerant	4–6, 6–1
Cornus nuttallii (Pacific dogwood)	MTW, PNW	20–40/20–25	Part shade to shade	Prefers growing as an understory plant in a cool, moist location; showy white flower bracts in spring	7–8, 8–6
Magnolia virginiana (sweetbay magnolia)	NE, SE	10–35+/10–35	Full sun to part shade	Grows larger in the South; bears fragrant white flowers in summer	6–9, 9–6
SHRUBS					
Cornus sericea syn. *Cornus stolonifera* (red-osier dogwood)	NE, SE, MW MTW, PNW	6–10/6–12	Full sun to part shade	Multi-stemmed, stoloniferous shrub with vivid red stems in winter	3–8, 8–1
Ilex decidua (possumhaw)	SE, MW	7–15/5–12	Full sun to part shade	Deciduous, multi-stemmed large shrub with attractive gray stems and red to orange fruit in fall and winter	5–9, 9–1
Itea virginica (Virginia sweetspire)	NE, SE MW	4–6/4–6	Full sun to shade	Four-inch clusters of white flowers in summer; leaves provide excellent fall color; can form large colonies in moist soils	6–9, 10–7
Rhododendron viscosum (swamp azalea)	NE, SE	2–8/3–8	Part shade	Open habit, forms thicket with age; fragrant white flowers in early summer	3–9, 9–1
Salix purpurea (purple-osier willow)	NE, SE, MW MTW, PNW	8–15/8–15	Full sun to part shade	Rounded form, good for stabilizing banks along streams; stems mature from purple-red to light gray	4–7, 7–1
PERENNIALS					
Astilbe ×arendsii (astilbe)	NE, SE, MW, PNW	2–3/2–3	Part shade	Mounding habit with fernlike foliage and feathery plumes of tiny flowers in spring or summer	4–8, 8–2
Carex muskingumensis (palm sedge)	NE, MW, MTW	1–2/2–5	Full sun to part shade	Clump-forming sedge with green or variegated grasslike foliage can be used as a groundcover. Look for named selections like 'Ice Fountains' and 'Oehme'.	4–8, 8–1
Chelone glabra (turtlehead)	NE, SE, MW	1–3/1–3	Full sun to part shade	Erect, clump-forming perennial with pink to white flowers in late summer and fall	3–8, 9–1
Iris ensata, syn. *Iris kaempferi* (Japanese iris)	NE, SE, MW PNW, MTW	2–4/1–2	Full sun to part shade	Flattened flowers 3 to 6 inches across in summer; thrives in standing water during growing season but needs dryer soil in winter	3–9, 9–1
Veronicastrum virginicum (Culver's root)	NE, SE, MW, MTW	2–6/1–2	Full sun to part shade	Erect habit with densely clustered spikes of white flowers from summer to fall	4–8, 8–3

Sources

Forestfarm, Williams, OR. *www.forestfarm.com.*
Prairie Moon Nursery, Winona, MN. *www.prairiemoon.com.*
Sooner Plant Farm, Park Hill, OK. *www.soonerplantfarm.com.*
Woodlanders, Aiken, SC. *www.woodlanders.net.*

Resources

Managing the Wet Garden: Plants That Flourish in Problem Places by John Simmons. Timber Press, Portland, OR, 2008.
Rain Gardens: Sustainable Landscaping for a Beautiful Yard and a Healthy World by Lynn M. Steiner and Robert W. Domm. Voyageur Press, Minneapolis, MN, 2012.
Rain Gardens—Using Spectacular Wetland Plantings to Reduce Runoff by Janet Marinelli. Brooklyn Botanic Garden, Brooklyn, NY, 2004. *www.bbg.org/gardening/article/rain_gardens.*

Joe Pye weed *(Eutrochium fistulosum*, syn. *Eupatorium fistulosum*, Zones 3–8, 8–2) comes to life in late summer when many other blooms have faded. It grows from two to nine feet tall with 12-inch-diameter flowerheads favored by many butterfly species, particularly swallowtails. It thrives in full sun to light shade and moist to wet soil.

PLANTS FOR SEASONALLY WET SITES

Many gardeners encounter this type of site; it might be a small spot within a bed, a band at the base of a border situated on a slope, or a large area in the landscape. The site may become saturated during the rainy season and dry out reasonably well between rainfalls, or the soil may be dry for several months once the rainy season is over.

While wet soils may not be as relevant in much of the Southwest due to minimal rainfall, Nan Sterman, a Southern California-based garden designer, writer, and horticultural consultant says that swales are just coming onto the scene in her area, with most being dry water courses filled with cobbles. "It's a challenge because under these conditions plants could stand in water for maybe a week, then dry for a month, then be wet for a week again, then dry for another month and by then, the rainy season is over....with no rain for potentially another nine or 10 months," she says. Deer grass *(Muhlenbergia rigens)*, alkali sacaton *(Sporobolus airoides)*, and a variety of sedges *(Carex* spp.) and rushes *(Juncus* sp.) are good choices for such seasonally wet swales in Mediterranean climates.

For gardeners in less dry climates, plants that do well in rain gardens—which alternate between wet and dry—fall into this category. These plants are typically hardy, non-invasive, drought-and-flood-tolerant selections that are adapted to the region, the light exposure in the garden, and the variable moisture conditions.

American elm *(Ulmus americana*, Zones 3–9, 9–1) is a large, impressive tree, with both upright and pendulous branches, gray furrowed bark, and leaves that turn yellow in autumn. "There are now selections of American elm that are highly resistant to Dutch Elm disease, including 'Princeton', 'Jefferson', and 'Valley Forge', so you can once again enjoy the magnificence of this classic tree," says Diboll. "It's highly adaptable to a variety of soil types and tolerates moist sites and even fairly dry soils, reaching its maximum glory when planted in full sun with plenty of room to spread its crown."

Hackberry *(Celtis occidentalis*, Zones 2–9, 9–1) grows naturally near floodplains, wet woods, drainage ditches, and other seasonally wet places. This elm family member adapts to a wide range of soils—whether clay or rocky, rich or poor, acidic or alkaline, wet or dry. It's also very pollution tolerant. Diboll calls hackberry "one of the most under-appreciated of all our North American native trees. It grows to 80 feet tall in full sun. The bark has a unique corky character, and birds love the seeds."

River birch *(Betula nigra*, Zones 4–9, 9–1) is a relatively fast-growing, generally multi-trunked tree with graceful leafy branches. Growing from 30 to 60 feet tall, it is commonly grown in moist soils in full sun. "This is a classy wetland tree that naturally grows on riverbanks that regularly flood, but not where there is continuous standing water," says Mellichamp. "The trunks are covered with a salmon-colored peeling bark that looks great all year."

Swamp white oak *(Quercus bicolor*, Zones 4–8, 8–1) is a magnificent south-

Deer grass can grow well in intermittently moist and dry sites such as swales and drainage ditches.

JANET DAVIS

Garden designer Ana Hajduk combined moisture-tolerant perennials such as cardinal flower and Joe Pye weed in this rain garden in Wassaic, New York, that is often wet with overflow from a nearby brook. The garden also doubles as a haven for pollinators and other wildlife.

KAREN BUSSOLINI

eastern United States native tree that grows at a relatively slow pace, eventually reaching 50 to 80 feet tall. "This long-lived hardwood is tough as nails and tolerates compacted soil, poor drainage, and full sun to moderate shade," says Diboll. "It makes an excellent street tree as well as a fine specimen in the home landscape." It tolerates wet soil and thrives where soil is well drained.

Mountain alder *(Alnus incana* ssp. *tenuifolia*, Zones 6–8, 8–6) is a western North American native that makes a great choice for wet areas subject to erosion. It grows 20 to 25 feet tall and wide, and its leaves turn yellow in fall. It can be grown as a multi-stemmed shrub or pruned to a single trunk with a rounded crown. It prefers some shade, and adapts well to stream banks or seasonally moist mountain slopes.

Black chokeberry *(Aronia melanocarpa*, Zones 3–8, 8–1) is a tough shrub that grows three to eight feet tall. Native to the eastern United States, it's well suited to informal plantings and woodland edges, or as a hedge when planted four feet apart. "This is a great shrub for moist soils as well as well-drained situations—it even grows in dry rock ledges," says Diboll. It grows in sun or part shade, but fruiting and fall color are best in full sun.

Fox sedge *(Carex vulpinoidea*, Zones 3–8, 8–3) is a clump-forming perennial that grows one to three feet tall in almost any soil when provided adequate moisture. In midsummer, it produces elongated flower spikes with 10 or more spikelets. "This amazing plant is right at home in continuously damp soils, but also tolerates dry conditions during summer's heat," says Diboll.

DESIGNING GARDENS IN WET LOCATIONS

Design ideas and strategies that work for other areas of a landscape apply equally well to gardens in wet places: combining plants in attractive groups, incorporating textural layers within the vertical space by arranging plants with good visual hierarchy, mixing a variety of colors and textures for visual interest, and finding a common thread that ties everything together through a consistent style. "The combination of good garden design and appropriate plants can create beauty and inspirational space," says Ann English, a RainScapes program manager with the Montgomery County, Maryland, Department of Environmental Protection.

Wet areas provide a wonderful opportunity for creating high-impact designs. For example, you might turn a poorly drained, fairly sunny site into a wet meadow with appropriate bird- and butterfly-attracting wildflowers and grasses. "Native plants for wet places represent the opportunity to have novel and unexpected beauty in the garden that will be animated with birds, butterflies, and other pollinators that welcome the feast," says English.

A rain garden utilizes runoff in a way that not only beautifies your space, but also benefits both wildlife and the environment. By employing a few rainscaping techniques, more water will filter into the soil or be contained for future use rather than being lost as runoff.

Swales offer another opportunity for utilizing wet spaces. Swales between property lines or other low-lying areas offer an ideal environment for growing moisture-loving plants such as Louisiana irises or sedges within the swale or along its edges.

While there are many ways to transform a wet space from unusable to beautifully functional, the key to making it work is to carefully examine your site and its conditions, then select plants that will thrive in those conditions. When you put all the pieces of the puzzle together, a problematic wet area becomes an asset with a purpose.

Kris Wetherbee is a freelance writer based in Oakland, Oregon. This is an updated version of an article that was originally published in the November/December 2012 issue of The American Gardener.