

# Recommended Plant List for Extensive Vegetated Roofs Fairfax County, Virginia



February 1, 2007

## RECOMMENDED PLANT LIST FOR EXTENSIVE VEGETATED ROOFS – Fairfax County, Virginia

The following list of plants for extensive vegetated roofs was developed by staff from the Department of Public Works and Environmental Services (Storm Water Planning Division and Urban Forest Management Division). It is a “recommended” list of plants for use in extensive vegetated roofs. These plants were chosen because they are known to perform well in our area in growing medium depths of about four inches. The list is not exhaustive and is intended to give the designer a palette of plant materials to choose from. Other species may be used, and the acceptability of proposed plant materials is subject to review and approval by the Director. This plant list may be updated periodically to reflect other species that have been shown to perform well in extensive vegetated roofs in our area. Design guidelines for vegetated roofs can be found in the Public Facilities Manual § 6-1310.

### KEY:

- **Light:** The amount of sunlight a plant requires is defined as:
  - Full sun ☀, the site is in direct sunlight for at least six hours daily during the growing season.
  - Partial shade ☁, the site receives approximately three to six hours of direct sunlight or lightly filtered light throughout the day.
  - Shade ☁, the site receives less than three hours of direct sunlight or heavily dappled light throughout the day.
- **Moisture:** The amount of soil moisture a plant requires is defined as:
  - Dry (D), areas where water does not remain after a rain; supplemental watering will not be needed, except under the most extreme drought conditions. Plants with the Dry designation can be considered drought tolerant.
  - Moist (M), areas where the soil is damp, and may be occasionally saturated.
  - Wet (W), areas where the soil is saturated for much of the growing season, except in droughts.
- **Mature Size:** The size, in inches, that a plant can be expected to reach under green roof conditions. Plant size is affected by growing medium depth and nutrient and water availability. Measurements are:
  - Height (H), the height a plant is expected to grow under the conditions on a roof.
  - Spread (S), the annual distance a plant can grow. Note that competition can limit this growth and some plants die back under extreme conditions or naturally over the winter.

**SOURCES:** For a list of sources see the notes at the end of this document.

If you have any questions about this list or suggestions for changes, please contact the Stormwater Planning Division at 703-324-5500 or the Urban Forest Management Division at 703-324-1770. Questions pertaining to the use of plants on this list for application to a specific plan should be directed to the Urban Forest Management Division.

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Botanical Name (* = native to United States)	Time of Bloom and other Characteristics	Conditions	Mature Size Height Annual Spread
<i>Allium schoenoprasum</i>	Chives, a versatile plant on green roofs. Can be used as an ornamental and as a kitchen herb. Since it is self sowing, keep initial quantities low. Pink-purple flowers bloom April – May.	Light: ☀️ 🌑 Moisture: D	H 10" S 6"
<i>Allium senescens</i> subsp. <i>montanum</i> var. <i>glaucum</i>	Pink flowers bloom in September; attractive blue-green foliage. Self sowing.	Light: ☀️ 🌑 Moisture: D	H 8" S 6"
<i>Delosperma cooperii</i>	Pink flowers bloom July – October; plants grow rapidly and produce large flowers.	Light: ☀️ Moisture: D	H 4" S 12"
<i>Delosperma dyeri</i>	Large red flowers with light centers bloom July – October.	Light: ☀️ Moisture: D	H 3" S 6"
<i>Delosperma</i> 'Kelaidis'	Salmon-colored flowers bloom July – October; rapid growth.	Light: ☀️ Moisture: D	H 4" S 12"
<i>Delosperma nubigenum</i> 'Basutoland'	The hardiest of the <i>Delospermas</i> , this plant is notable for its ability to absorb a lot of rainwater after a dry period. It has thick fleshy leaves and brilliant yellow flowers from May to June. Foliage turns pink in cold weather.	Light: ☀️ Moisture: D M	H 3" S 12"
<i>Jovibarba allionii</i>	White flowers bloom in July; evergreen. Rosette-forming foliage becomes reddish in cold weather.	Light: ☀️ Moisture: D	H 4" S 4"

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<i>Jovibarba hirta</i> 'Emerald Spring'	White flowers bloom in July; evergreen mat-forming rosettes. Foliage becomes red in cold weather. This plant is similar to <i>Sempervivum</i> but is tougher.	Light: ☀ Moisture: D	H 4" S 4"
<i>Opuntia humifusa</i> * (syn. <i>O. compressa</i> )	A cactus that is native to eastern and central U.S. It has sharp spines so should not be planted near spaces used by the public. Like most cacti, it is very drought tolerant. Showy, bright yellow flowers bloom in June. The red fruits are edible and are used to make jelly.	Light: ☀ Moisture: D	H 8" S 6"
<i>Orostachys aggregatum</i>	White flowers bloom September – October; apple-green foliage is evergreen. Sends out plantlets in spring to form a mat.	Light: ☀ Moisture: D	H 6" S 6"
<i>Orostachys boehmeri</i>	White flowers bloom September – October; evergreen, interesting gray foliage. Sends out plantlets in spring to form a mat.	Light: ☀ Moisture: D	H 6" S 6"
<i>Sedum acre</i> 'Aureum'	Also called golden moss or wall pepper. Yellow flowers bloom June – August; evergreen but will die back in hot, humid summers.	Light: ☀ Moisture: D M	H 2" S 8"
<i>Sedum album</i>	White flowers bloom June – July. Foliage becomes red in the winter. This hardy plant works well from seed, cuttings, or plugs and forms thick mats.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum album</i> 'Coral Carpet'	White flowers bloom June – July but are unreliable. The attractive green and red foliage becomes more red during drought or cold. Dense and low growing.	Light: ☀ Moisture: D	H 2" S 8"

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<i>Sedum album</i> 'France'	White flowers bloom June – July; evergreen. A tall form of <i>Sedum album</i> with larger leaves. Stems are red with green leaves.	Light: ☀ Moisture: D	H 8" S 8"
<i>Sedum album</i> subsp. <i>teretifolium</i> 'Murale'	White flowers bloom June – July; foliage is red for most of the year, sometimes has a greenish tinge.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum bithynicum</i>	Blue foliage becomes reddish in winter. Tiny white star shaped flowers bloom in August.	Light: ☀ ☀ Moisture: D M	H 1" S 8"
<i>Sedum</i> 'Blue Carpet'	Mat forming with small grayish foliage. Pink-white flowers bloom June – July.	Light: ☀ Moisture: D	H 2" S 8"
<i>Sedum cauticola</i> 'Bertram Anderson'	Very dark purple foliage; pink flowers bloom September – October. Slow to become established.	Light: ☀ Moisture: D	H 8" S 8"
<i>Sedum cauticola</i> 'Lidakense'	Blue-grey foliage tipped with purple. Pink flowers bloom September – October.	Light: ☀ Moisture: D	H 8" S 8"
<i>Sedum dasyphyllum</i>	White flowers bloom June – July; evergreen foliage is blue-green.	Light: ☀ Moisture: D	H 3" S 8"
<i>Sedum hispanicum</i>	White flowers bloom June – July. Blue-green foliage can have pink or purple cast depending on growing conditions. Grows quickly.	Light: ☀ Moisture: D	H 3" S 8"

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Botanical Name (* = native to United States)	Time of Bloom and other Characteristics	Conditions	Mature Size Height Annual Spread
<i>Sedum hybridum</i> 'Immergrünchen'	Yellow flowers bloom July – August; evergreen foliage is red and green.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum kamtschaticum</i>	Extremely tough and drought tolerant plant—known to have survived 80 days without water. Yellow flowers bloom June – July.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum kamtschaticum</i> var. <i>floriferum</i> 'Weihenstephaner Gold'	An excellent groundcover for roofs and for at-grade landscaping known for its floriferous habit. Yellow flowers July – August; rosette-forming foliage is green in the summer and red in the winter.	Light: ☀ Moisture: D	H 4" S 12"
<i>Sedum lanceolatum</i> *	Native to western U.S. and Canada. Yellow flowers bloom in July; evergreen.	Light: ☀ Moisture: D	H 4" S 6"
<i>Sedum middendorffianum</i> var. <i>diffusum</i>	Bright yellow flowers bloom June – July and can form a thick carpet. Foliage turns reddish in the winter.	Light: ☀ Moisture: D	H 4" S 8"
<i>Sedum oreganum</i> *	Native to the Pacific coast. Bright yellow flowers on striking bright red stems bloom June – July.	Light: ☀ Moisture: M	H 4" S 8"
<i>Sedum pachyclados</i>	White flowers bloom June – July; blue-green foliage. Slow-growing but a good choice for wet or shady spots.	Light: ☀ Moisture: M W	H 3" S 6"
<i>Sedum reflexum</i> (syn. <i>S. rupestre</i> )	Blue-green foliage and bright yellow flowers on long, pinkish-yellow stems. Blooms in July.	Light: ☀ Moisture: D	H 8" S 8"

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<i>Sedum sarmentosum</i>	A low, fast-spreading, mat-forming trailer with light green foliage. Yellow flowers bloom July – August. Can quickly overtake and crowd out other plants, so should not be used if this will be a problem.	Light: ☀ Moisture: D	H 3" S 36"
<i>Sedum sexangulare</i>	Very similar in appearance to <i>Sedum acre</i> , but a much tougher plant. Performs equally well in full sun or in shade. Yellow flowers bloom June – July; evergreen.	Light: ☀ ☀ ☀ Moisture: D M	H 4" S 8"
<i>Sedum sichotense</i>	Amazing red foliage in fall and winter. Clump-forming habit; Yellow flowers bloom in July.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum spurium</i> 'Fuldaglut'	One of the red foliage <i>Sedum spurium</i> s; very reliable and tough. Pink flowers bloom July – September; evergreen.	Light: ☀ ☀ Moisture: D	H 6" S 8"
<i>Sedum spurium</i> 'John Creech'	A nice low growing habit; pink flowers bloom July – September. A very widely used plant.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum spurium</i> 'Roseum'	Pink flowers June – July. Extremely drought tolerant and grows well from cuttings.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum spurium</i> 'Summer Glory'	Hot pink, showy flowers bloom July – September and are offset by deep green foliage.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum spurium</i> var. <i>album</i>	A white flowering form of <i>Sedum spurium</i> that blooms in September. Tolerant of a range of light conditions. A very similar plant to <i>Sedum spurium</i> 'Album Superbum.'	Light: ☀ ☀ ☀ Moisture: D	H 6" S 8"

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Botanical Name (* = native to United States)	Time of Bloom and other Characteristics	Conditions	Mature Size Height Annual Spread
<i>Sedum spurium</i> 'Voodoo'	Spectacular red foliage with blood red flowers that bloom in September.	Light: ☀ Moisture: D	H 6" S 8"
<i>Sedum stefco</i>	White flowers bloom August – October. Foliage is green to red with a tight, low-growing habit. Tolerant of high wind areas and very tough.	Light: ☀ Moisture: D	H 2" S 8"
<i>Sedum stenopetalum</i> *	Native to western North America. Yellow flowers bloom June – August; evergreen foliage turns from green to red in winter.	Light: ☀ Moisture: D	H 5" S 6"
<i>Sedum telephioides</i> *	Native to eastern United States — known as Allegheny Stonecrop. Mostly found in the Piedmont of Virginia. Pinkish-white flowers bloom in September. Tall-growing with pinkish stems and blue-green foliage.	Light: ☀ Moisture: D	H 24" S 10"
<i>Sedum ternatum</i> *	Native to the eastern U.S.; found along edges of streams but still drought tolerant. Use in shaded areas and near drains. White flowers bloom in July.	Light: ☀ ☀ Moisture: D M	H 3" S 8"
<i>Sedum tetractinum</i>	Green foliage turns bronze in fall. Yellow flowers bloom in May. This plant grows relatively fast.	Light: ☀ Moisture: D	H 4" S 10"
<i>Sedum urvillei</i>	Yellow flowers bloom in August; blue-green foliage turns red in the winter and has a tight growth habit. This plant tolerates our hot summers well.	Light: ☀ Moisture: D	H 2" S 6"

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Botanical Name (* = native to United States)	Time of Bloom and other Characteristics	Conditions	Mature Size Height Annual Spread
<i>Sempervivum</i> species and hybrids	“Hen and Chicks”—evergreen, low-growing, rosette-forming foliage that is available in different colors. Generally hardy to zone 5 and very drought tolerant, there are many suitable <i>Sempervivums</i> to choose from.	Light: ☀ Moisture: D	H 4-6” S 6”
<i>Talinum calycinum</i> *	An American native widely distributed through the mid-west. It self-sows freely, but doesn't displace other ground covers, instead growing in between. Showy, hot pink blooms open every afternoon June – October.	Light: ☀ Moisture: D	H 4” S 2”
<i>Talinum parviflorum</i> *	Native to the western U.S. where it grows on rocky outcroppings. Suited to very dry and windy conditions. Light pink flowers bloom June – October.	Light: ☀ Moisture: D	H 8” S 4”
<i>Talinum teretifolium</i> *	Native to the mid-Atlantic region, this plant is on the threatened list due to loss of habitat. Planting it on green roofs can aid in its conservation. Rose-pink flowers bloom June – October.	Light: ☀ Moisture: D	H 12” S 6”

**NOTES:**

Information was obtained from the following sources:

- *Green Roof Plants: A Resource and Planting Guide*. Snodgrass, Edmund C. and Lucie L., Portland: Timber Press, 2006.
- *Native Plants for Wildlife Habitat and Conservation Landscaping: Chesapeake Bay Watershed*. Slattery, Britt E., Kathryn Reshetiloff, and Susan M. Zwicker, Annapolis, MD: U.S. Fish & Wildlife Service, Chesapeake Bay Field Office, 2003