

NO. 10 LANDSCAPE POLICY

Policy Statement

It is FMATS Policy to encourage landscaping associated with transportation improvement projects within the Metropolitan Planning Area to promote quality of life, livable communities, water quality and quantity benefits, long term viability and maintenance of the project.

The use of landscaping on projects is closely related to the use of green infrastructure applications. Many green infrastructure applications are a specific use of landscaping that promotes stormwater infiltration. By supporting landscaping, this policy can be seen to support FMATS Green Street and Complete Street policies.

Consistency

This policy is consistent with the adopted goals of FMATS:

- Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow.
- Provide a safe, efficient, secure and interconnected multi-modal transportation system for all users.
- Protect the environment, improve air quality and promote energy efficiency.
- Optimize the utility and lifespan of the existing transportation system.
- Ensure adequate transportation facilities to support economic development.

Principal Points

This policy affects the preferred design approach that provides long-term financial benefits while minimizing environmental impact by focusing on efforts to retain, treat and eliminate runoff at the source using landscaping elements, or green infrastructure applications. When used in green infrastructure, landscaping helps replicate natural hydrologic functions like storage, detention, infiltration, filtration, evaporation, transpiration, and uptake by plants, and can improve water quality and reduce runoff volumes. It can also reduce the urban heat island effect and improve air quality.

Landscaping can also be used as a purely aesthetic enhancement of a project. The value that aesthetics can add to a project or community can be measured quantitatively in terms of:

- property value increases
- recreational opportunities
- quality of life enhancement
- creation of habitat
- energy savings

- rainfall interception
- carbon storage

The primary area of concern is the Metropolitan Planning Area, including the “urbanized area” designated by the current U.S. Census and adjusted to reflect what is anticipated to be urbanized in the next twenty years.

The use of plant material native to the Interior Alaska ecosystem is desirable as stated in the FMATS Green Streets Policy and should be encouraged. It is recognized that availability of native landscape plant material is often not reliable so it is encouraged when available but not required. Any native plant materials utilized shall still meet ANSI Z60.1.

When vegetation mat from another site is used as transplanted groundcover, it should be recognized that this mat will require several years of increased weeding maintenance, as transplanting vegetation mat to a new site often opens up the seed bank in the soil to more sun conditions and weeds that were previously dormant will grow and can out-compete the desirable vegetation unless maintained.

The use of certain non-plant materials as a part of the landscape plan may be necessary.

A. Project Planning and Design

- If vegetation is included in project design, priority should be given to native and site-adaptive species.
- Planting design shall still meet jurisdictional requirements (for the Fairbanks North Star Borough, City of Fairbanks, City of North Pole and State of Alaska) in accordance with applicable regulations.
- On transportation projects, it is strongly recommended that a qualified or experienced designer is employed to develop the landscape plan.
- On smaller projects where detailed design is not conducted, ensure proper slope and drainage and encourage landscaping solutions where possible.
- Opportunities for long-term landscaping sponsors shall be explored.
- Preliminary plans should be reviewed by the FMATS Staff for consistency of the Policy.
- Plant selection should include only those that do not attract wildlife that could cause a collision within the right-of-way.
- Plant design should consider safety and not conflict or impact utilities or other infrastructure within or above the right-of-way.

B. Maintenance

- Landscaping shall only be done where a sponsor for maintenance is identified.
- Low-maintenance solutions are preferred such as chemical free and annual mowing.

C. Project and Program Funding

- Develop partnerships with municipal jurisdictions, agency representatives, and non-profits to identify innovative financing options for landscaping and maintenance of the landscape.

Distribution

All FMATS member jurisdictions and agencies should be involved in the implementation of the Landscape Policy through a collaborative process. Partners include, but are not limited to: City of Fairbanks, City of North Pole, Fairbanks North Star Borough, Alaska Department of Transportation & Public Facilities, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, Tanana Valley Watershed Association, and Fairbanks Soil and Water Conservation District as well as other interested parties.

Measurement and Evaluation

Conduct ongoing monitoring of landscaped areas and track maintenance efforts. Problems and successes with installed features should be noted and lessons learned to be relayed to member agencies. Quantifying the quality of life enhancements will be done by partnering with others to perform a visual community preference survey.

Procedures

A. Approved Plant Materials

The following are plants that have proven hardy and reliable in the Fairbanks area. All plant material shall meet ANSI Z60.1. It is noted that this list may vary from the City of Fairbanks or Fairbanks North Star Borough's landscape ordinances. This list provides suggestions for planting but other species may be appropriate on an individual project based on site conditions.

Trees, evergreen:

- White Spruce (native)
- Black Spruce (native)
- Lodgepole Pine
- Scotch Pine
- Siberian Pine

Trees, deciduous:

- Paper Birch (native)
- Showy Mountain Ash (*Sorbus decora*)

- European Mountain Ash (*Sorbus aucuparia*)
- Green Mountain Ash (*Sorbus scopulina*)
- Canada Red Cherry – Choke Cherry
- Amur Choke Cherry
- Crabapple- Dolgo, Siberian
- Eastern Larch (Tamarack) (native)
- Siberian Larch
- Ussurian Pear
- Quaking Aspen
- Siberian Elm
- Greene’s Mountain Ask

Shrubs:

- Cotoneaster
 - Silverberry (native)
 - Amur Maple
 - Gooseberry
 - Rose Tree of China
 - Black Currant
 - Spireas
 - Prickly Rose (native)
 - Potentilla (potentially native)
 - Lilacs
 - Nanking Cherry
 - Common Juniper (potentially native)
 - Mugho Pine
 - Dogwoods, Red-osier (native), Siberian, or Dwarf
 - Serviceberry (native)
 - Honeysuckle
 - Soapberry (native)
 - Willows (bebbiana, lasiandra – native)
 - Labrador Tea (native)
 - Honeyberry
 - Snowberry (native)
 - Dwarf Birch (native)
 - Soapberry/Buffalo berry (native)
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Groundcovers

Groundcover may include grasses, perennials, low-growing shrubs, mulch (shredded bark, cobble, or rock) and annuals. If a seed mix is used, it should be low-maintenance and locally adapted; native species are preferred.

The use of landscape fabric is determined by client preference, but is generally not recommended as it can encourage shallow surface rooting which will in turn decrease tree stability as the tree matures. It also impedes air and water exchange to some degree. While there are claims that it may keep weeds out of a landscaped bed for several years, weeds will eventually move into a bed with landscape fabric either by seed and silt deposited by air or by rhizomes underground through holes in the fabric. Once weeds are established in a bed with landscape fabric, they are difficult to remove. If used it needs to stay covered by groundcover or plant bedding.

When vegetation mat is used as transplanted groundcover from another site, it should be recognized that this mat will require several years of increased weeding maintenance, as transplanting veg mat to a new site often opens up the seed bank in the soil to more sun conditions and weeds that were previously dormant will shoot up and can out-compete the desirable vegetation unless maintained.

Some example of species that would work well as desired groundcovers:

- Lapland Rosebay (native - *Rhododendron lapponicum*)
- Bearberry (native - *Arctostaphylos alpine or rubra*, *Arctostaphylos uva-ursa*)
- Diapensia spp
- Dryas
- Creeping Juniper (potentially native)

Seed mixes should be developed with help from the Palmer Plant Materials Center.

B. Unapproved Plant Materials

The following are species that should not be planted in the Fairbanks area due to concerns that they are spreading to natural areas and threatening to push out several native species within our subarctic ecosystems. Some of these plants have cost communities economic loss and environmental damage to areas of similar environmental conditions in the lower 48.

Care should be taken when approving topsoil to ensure that it is free of weed seeds. The spread of weeds can quickly happen via contaminated topsoil, even when it appears to be weed free. Contractors should obtain or manufacture their topsoil from reputable sources and wash equipment when traveling between multiple sites.

Trees and Shrubs

- Mayday Tree (*Prunus padus*)
- Siberian Peashrub (*Caragana arborescens*)

Perennials and Grasses

- Rampion Bellflower
- Creeping Charlie
- Orange Hawkweed
- Butter and Eggs
- Purple Loosetrife
- Ornamental Ribbongrass
- Japanese knotweed
- Common Tansy
- Common Mullein
- Ornamental Jewelweed

C. Non-Plant Materials and Features

- Non-plant materials include permeable pavers or pavement, large landscape quality boulders, wood or concrete soil retaining devices, hillocks, swales, gravels, and approved mulch materials.

Definitions

Invasive: any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem; and whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Native: species that exist in a region without human introduction

Site Adapted: not native and not invasive, but are able to thrive in the local climate and soil conditions.

Stormwater (Urban runoff): runoff generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. The runoff picks up pollutants like trash, chemicals, oils, and dirt/sediment that can harm our rivers, creeks, lakes, and sloughs.

Metropolitan Planning Area: the geographic area determined by agreement between the metropolitan planning organization for the area and the Governor. It shall encompass at least the existing urbanized area and the contiguous area expected to become urbanized within a 20-year forecast period for the transportation plan. It may encompass the entire metropolitan statistical area or consolidated metropolitan statistical area, as defined by the Bureau of the Census.

References

www.alaskaplants.org

<http://plants.alaska.gov/nativeplantindex.htm>

Alaska Exotic Plants Information Clearinghouse (AKEPIC): <http://accs.uaa.alaska.edu/invasive-species/non-native-plants/>

www.uaf.edu/files/ces/publications-db/catalog/anr/FGV-00146.pdf

http://accs.uaa.alaska.edu/files/invasive-species/publications/2016/AKEPIC_ID_Book.pdf

<https://www.epa.gov/npdes/npdes-stormwater-program>

23 U.S.C. § 134

https://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=Runoff%20Control%20Econ%20Ben%20%281995%29

<http://landscapeforlife.org/plants/use-native-and-adapted-plants/>

History of Policy Updates

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