Principles of Waterside Landscape Design

Overview

The best landscape design near a body of water is one that prevents surface water runoff from entering directly into the lake, pond or stream. Existing trees, shrubs, and ground covers can trap runoff water from rain and snowmelt and allow it to settle into the soil where it can replenish groundwater.

Runoff from rain contains nutrient-laden silt. One of these nutrients, phosphorus, feeds algae in the water; algae “blooms” can kill fish, turn the water green, and create an awful odor.

Nutrient-laden silt carried into the lake settles on the bottom creating a fertile bed for unwanted weed growth. Sediment can fill stream beds, inhibit water flow, damage fish spawning areas, and suffocate organisms living on the bottom.

Keep a Green Buffer Zone

State and local regulations require a buffer zone of native vegetation to be retained in an area near the shore in order to limit runoff. (See your town's regulations, and New Hampshire’s Shoreland Water Quality Protection Act.) Plantings, including trees, shrubs, grass (best when left uncut), and other herbaceous plants trap silt and slow the flow of runoff. Plant roots hold soil together, reducing the chance of erosion, and absorb nutrients from runoff water.

It is also important to allow natural materials such as pine needles, leaves, and small branches to build up on the soil as they do in the woods to create a “duff” layer. This organic layer adds nutrients to the soil and slows the flow of surface water.

Minimize the Area of Lawn

Plants trap runoff better than manicured lawns. Ground covers and rock gardens can be a sensible alternative to grass. Careful pruning can maintain the views over shrubs. Any lawn should be minimal and as far away from the lake as possible with a good buffer zone of shrubs and trees. Lawns grown with native and naturalized grass species will require less care and need little, if any, fertilizer.

Grade for Erosion Control

Grading surfaces flattens small irregularities that naturally exist on the surface of the land. These depressions are beneficial in their ability to trap and store water, allowing it to seep down into the soil. Include depressions in your landscape planning. Plan drainage and grading so that water flows away from the shore and can settle naturally. Be sure runoff from surfaces such as driveways and roofs has the opportunity to settle into the soil of vegetated areas. Steep slopes need dense vegetation cover to control erosion.

Design Paths and Walks to Meander

Allow any path leading down to the shore to curve and meander, so that water will not travel down the path, but settle into the soil along the way. Walks should be made of permeable materials to help water settle into the soil, rather than run into the lake. Consider alternatives to pavement for driveways to increase infiltration.

Plant with Native Species

Plant species occurring naturally in this area of New Hampshire will most likely thrive, be less expensive, and require the least amount of care.

Landscaping of a lakeshore property needs special consideration, so that the lake is minimally harmed by human contact. Ground covers, shrubs, and trees serve an important function in trapping sediment and water runoff. This pamphlet explains why lakes need a green buffer area, and suggests landscaping considerations for both established and new properties. Included are lists of both native and appropriate non-native species for different soil and light considerations.

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Landscaping by the Water

Planting to protect the lakes

Plants for Shoreland Areas

— Shrubs —

The following list includes plants that are native to the Lakes Region or that are appropriate non-native species. These plants are accustomed to weather and soil conditions in the area and do not need high concentrations of fertilizer. (Fertilizer runoff is harmful to surface waters.) None of these species are considered invasive.

Serviceberry (shadbush) Highbush cranberry

A well-balanced landscape design will include trees, shrubs, and ground covers. Although larger trees are not listed in this brochure, local landscapers and nurseries can supply them and advise you as to which species are best suited to grow on your land. Before removing any trees near the shoreline remember there are local and state regulations regarding tree cutting; see your town offices for more information.

* - These plants have berries that attract birds.
\# - These plants are recommended as particularly appropriate native species.

Evergreens Good for Screening

- Eastern hemlock *(Tsuga canadensis)*
- Red pine *(Pinus resinosa)*
  Well drained, full sun
- White cedar *(Thuja occidentalis)*
- White pine *(Pinus strobus)*
  Will not tolerate salt or pollutants

Full Sun, Dry Soil

- American hazelnut *(Corylus americana)*
  Will tolerate poor, dry soil
- Blackhaw *(Viburnum prunifolium)* #*
  Sun to dense shade
- Meadowsweet *(Spiraea latifolia)*
- Mugo pine *(Pinus mugo)*
  Needs good drainage
- Potentilla *(Potentilla fruticosa)*
- Spiraea *(Spiraea species)*
- Sweet gale *(Myrica gale)*
  Will tolerate poor, dry soil

Full Sun, Average Soil

- Forsythia *(Forsythia intermedia)*
- Gray dogwood *(Cornus racemosa)*
- Lilac *(Syringa species)*

Elderberry

Highbush blueberry

Full Sun, Moist Soil

- Rhodora *(Rhododendron canadense)*
- Common witchhazel *(Hamamelis virginiana)*
- Elderberry *(Sambucus canadensis) **
  Will tolerate acidic soil
- Highbush blueberry *(Vaccinium corymbosum) * #*
  Well drained moist soil
- Northern bayberry *(Myrica pennsylvanica)*
  Slow growing
- Red twig or redosier dogwood *(Cornus sericea)*

Partially Shaded, Sometimes Wet Soil

- American cranberry *(Viburnum trilobum) * #*
- Arrowwood *(Viburnum dentatum) * #*
  Quick growing
- Inkberry *(Ilex glabra) #*
  Protect from wind
- Large fothergilla *(Fothergilla major)*
- Mountain laurel *(Kalmia latifolia) #*
  Well-drained soil — cannot tolerate clay soils and windy locations
- Rosebay rhododendron or great laurel *(Rhododendron maximum) #*
  Tolerates dense shade in well drained moist soil; avoid windy locations
- Serviceberry or shadbush *(Amelanchier canadensis) **
- Spicebush *(Lindera benzoin)*
- Swamp azalea *(Rhododendron viscosum) #*
  Sun or shade, wet or average soil
- Sweet pepperbush or summer sweet *(Clethra alnifolia) #*
  Heavy shade to full sun
- Winterberry or black alder *(Ilex verticillata) * #*
  Tolerates very wet soil

Mountain laurel

Mountain laurel buds

Partially Shaded, Dry Soil

- Hobblebush *(Viburnum alnifolium) **
  Sun or partial shade
- Maple-leaf viburnum *(Viburnum acerifolium) **
  Partial shade
- Nannyberry *(Viburnum lentago) **
  Sun or partial shade

Ground Covers

- Allegheny pachysandra *(Pachysandra procumbens) §*
- Bearberry *(Arctostaphylos uva-ursi)*
  Full sun
- Bunchberry *(Cornus canadensis) #*
  Cool moist woods
- Canby pax *(Pax canbyi)*
  Tolerates full sun to partial shade; needs well drained soil
- Creeping juniper *(Juniperus horizontalis) #*
  Full sun species: Wiltonii (6”), Bar Harbor (12”)
- Hay-scented fern *(Dennstaedtia punctilobula)*
- Honeysuckle *(Lonicera canadensis)*
  All other honeysuckle species are considered invasive
- Lowbush blueberry *(Vaccinium angustifolium)*
  Partial shade, dry soil
- Mountain cranberry *(Vaccinium vitis-idea)*
- Sweet fern *(Comptonia peregrina)*
- Virginia creeper or woodbine *(Parthenocissus quinquefolia) * #*
  Tolerates all soil, sun, and exposure to wind
- Wintergreen *(Gaultheria procumbens)*
- Yellowroot *(Xanthoriza simplicissima)*
  Partial shade, moist but well drained soil

Ornamental Options for Ground Cover

- Astilbe *(Astibe species)*
- Daylily *(Hemerocallis species)*
- Ginger *(Asarum species)*
- Plantain lily *(Hosta species)*

Daylily