

Conservation Subdivision Design

THE IMPACT OF CONVENTIONAL RESIDENTIAL SUBDIVISION DEVELOPMENT

Typically, when land is developed for a conventional residential subdivision, the parcel is divided up in a “cookie cutter” fashion of individual house lots of a specified size laid out along a road or roads. In many rural communities, like those along the Connecticut River, towns require large lot sizes for each house, generally 1 acre or more. As the picture indicates, this traditional approach for a residential subdivision is land-consumptive and detracts from the rural landscape.



Center for Rural Massachusetts, University of Massachusetts

Large-lot residential development typically results in a condition known as sprawl, with houses scattered over a large area. Sprawl consumes open space; disrupts the natural terrain, hydrologic systems and wildlife habitat; and it increases the amount of impervious surfaces in the form of wide private roadways that may threaten water quality and create erosion.

CONSERVATION SUBDIVISION DESIGN

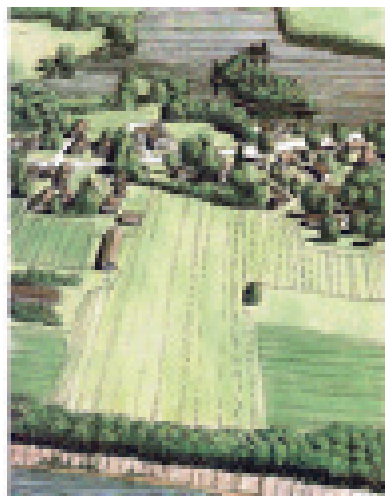
A community can encourage developers and property owners to develop their land in a more environmentally and aesthetically conscious manner through a Conservation Subdivision Design (CSD) bylaw (also known as Open Space Residential Design or Cluster Development). This technique is an innovative subdivision design process that provides the developer with the flexibility to use various lot sizes, setbacks, and frontage within the development to preserve open space and critical natural resources. CSD standards



and regulations will result in a subdivision that:

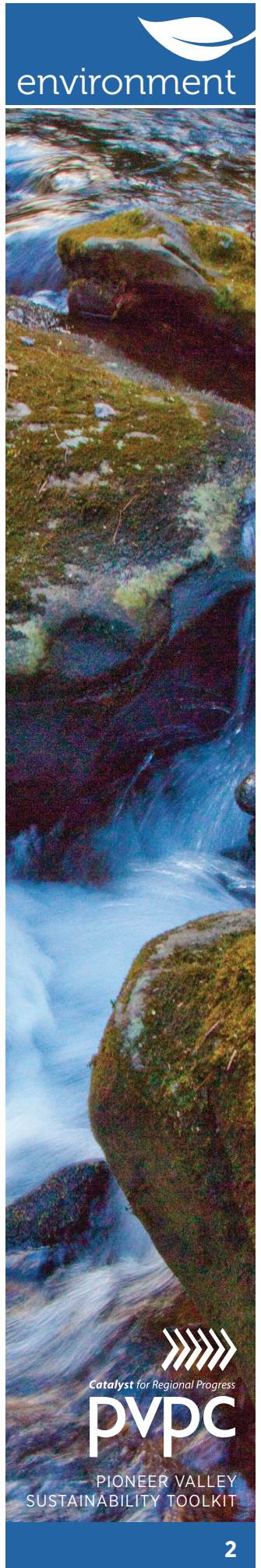
- » Preserves open space, protects natural resources and water quality, and conserves the scenic views and rural character of a community;
- » Allows for greater flexibility and creativity in the design of residential developments; and
- » Encourages a less sprawling and more efficient form of development that consumes less open land and conforms to existing topography and natural features.

A CSD project begins with determining how many lots could be developed under conventional zoning and subdivision regulations: this is called the base yield of the property. From that point, the plan development process follows four basic steps: **identify conservation areas; locate house sites; align roads, trails, and other infrastructure; and draw in lot lines.** A CSD bylaw can provide sufficient flexibility to achieve the development goals of a community and a property owner. By working in partnership, the community and the developer can determine where the building footprint will be least disruptive to the landscape and which areas and features should be preserved – wetlands, floodplains, stream buffers, wildlife habitat, farm land, forested land, and viewsheds. Some towns also allow a density bonus to encourage this type of development over a traditional subdivision.



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Usually, ownership and management of the preserved open space is conveyed to a Homeowners Association, the Town, or a non-profit land trust or conservation organization to ensure that emergency access to and the use of and management of the private lands are maintained in perpetuity. Another innovative approach, which can work well for property owners who are actively farming their land, is to have ownership and management of the preserved open space remain with the private landowner.



Conservation Subdivision Development can:

- » Preserve open space and natural resources.
- » Reduce impervious surfaces.
- » Reduce non-point pollution.
- » Preserve community character.
- » Provide a mix of housing types.

Adding Low Impact Development Techniques Further Improves the Subdivision

Coupling Low Impact Development (LID)¹ techniques with Conservation Subdivision Development further helps a developer to protect the natural and water resources on the property. These techniques include: limiting impervious surfaces by reducing private roadway and common driveway widths; using pervious pavers on driveways and walkways, and using rain gardens and roadside swales for stormwater management.

Incorporating LID strategies further protects water supplies and important habitat by reducing the amount of non-point pollution from runoff, preventing erosion and allowing for groundwater recharge.

Regional, State and Federal Resources

Massachusetts

PIONEER VALLEY PLANNING COMMISSION

www.pvpc.org/

FRANKLIN REGIONAL COUNCIL OF GOVERNMENTS

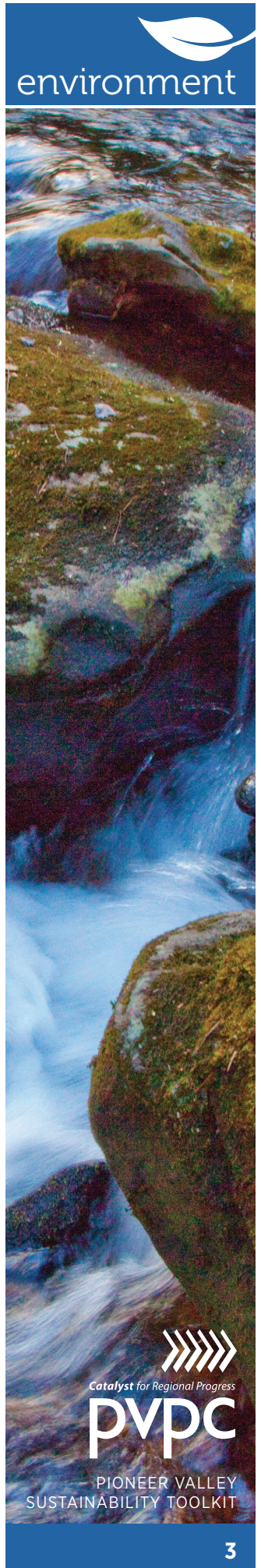
www.frcog.org/

CENTER FOR RURAL MASSACHUSETTS

www.umass.edu/ruralmass/

THE TRUSTEES OF RESERVATIONS: HIGHLAND COMMUNITIES INITIATIVE

www.thetrustees.org/



New Hampshire

SOUTHWEST REGIONAL PLANNING COMMISSION

UPPER VALLEY LAKE SUNAPEE REGIONAL PLANNING COMMISSION

NORTH COUNTRY COUNCIL

Vermont

WINDHAM REGIONAL PLANNING COMMISSION

SOUTHERN WINDSOR COUNTY REGIONAL PLANNING COMMISSION

TWO RIVERS OTTAUQUECHEE REGIONAL COMMISSION

NORTHEAST REGION DEVELOPMENT ASSOCIATION

US EPA: Smart Growth - www.epa.gov/dced/

Information on Low Impact Development can be found at the following website:

<http://www.mass.gov/eea/state-parks-beaches/land-use-and-management/land-conservation/planning-land-use/low-impact-development.html>

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