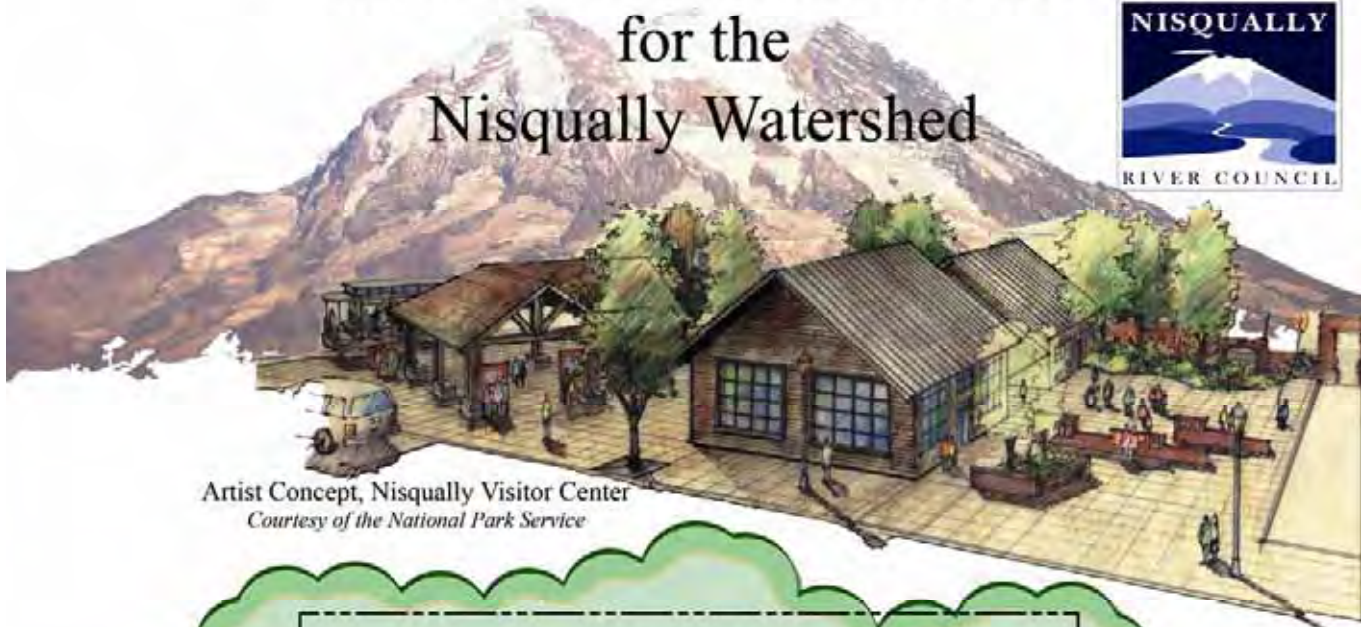


# Low Impact Development and Architectural Guidelines for the Nisqually Watershed



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## EXECUTIVE SUMMARY

*Low Impact Development Design and Architectural Guidelines for the Nisqually Watershed* represents the long term commitment to sustainable development by the Nisqually River Council, a locally-based management partnership of state and local governments, businesses and individuals. The Council's goal is to steward the Nisqually River watershed—its people, its businesses, its economy, its tourism, its wildlife habitat, and its water sources—in a sustainable manner. Steps in sustainability include—encouraging responsible site development and preservation of precious water resources through low impact development (LID) technology, designing homes and communities with unifying architectural guidelines, and building those homes and communities with sustainable materials and green technologies. The goal is that LID and sustainable building design and construction become the normal development practice in the Nisqually Watershed (map on page 4).

### Low Impact Development Design Guidelines

Low impact development (LID) is a relatively new strategy to land development and stormwater management that mimics natural hydrology patterns in residential and commercial site development. LID planning protects and uses a site's natural features: native vegetation, well draining soils, topography, and natural drainages. It combines these features with a suite of small-scale stormwater practices to clean and infiltrate stormwater as close to where it starts on impervious surfaces.

LID Design Guidelines are appropriate for all parcels in the Nisqually Watershed, regardless of lot size or density. Also, financial advantages can be significant when LID is used to reduce the stormwater detention required in conventional construction. Documented studies have shown that low impact techniques are less costly to implement than standard development, with savings ranging from 10 to 20 percent depending on the LID techniques used.

The purpose of the guidelines is to provide homeowners, developers, site designers and stormwater managers with a common understanding of LID goals and objectives for site development work in the Nisqually Watershed. These guidelines developed by AHBL (Civil and Structural Engineers and Planners) draw heavily from and are consistent with the Washington Department of Ecology 2005 *Stormwater Manual for Western Washington* and the Puget Sound Action Team 2005 *Low Impact Development Technical Guidance Manual for Puget Sound*.

Here are key elements of low impact development for the Nisqually Watershed:

- Assess the site's topography, soils, natural drainage patterns, sensitive areas, and other key elements through site planning, analysis and design. Integrate stormwater management into site planning and design at the very beginning.
- Design the site to cluster buildings and other development in a reduced development envelope. Protect sensitive areas and a large percentage of the site's native vegetation and soils. Understand and work with the site's natural drainage features. Incorporating landscaping elements is key to the successful functioning of LID.
- Reduce impervious surfaces by reducing the footprint of buildings, reducing road widths and lengths, and using pervious pavement, minimal excavation foundations, rooftop rainwater harvest, and vegetated roofs. Disconnect impervious surface that is created by using bioretention or pervious pavement.
- Educate landowners and encourage local jurisdictions to adopt ordinances that provide incentives and encourage implementation of LID technologies.

## **Architectural Guidelines for the Nisqually Watershed**

The character and design found within the Nisqually Watershed reflects the many aspects of the citizens who live there. That character and design reflects the heart and soul of the Nisqually River community. Some areas feel urban while others have a distinctly rural flavor. The Upper Nisqually area of Pierce County is a good example of a rural mountain region in the Nisqually Watershed that is working to protect and enhance its architectural character through design. This effort emphasizes the historic, rustic character of the area's communities and avoids the "corporate or franchise" style in the design of buildings. Accordingly, many of the design guidelines presented here are based on those adopted for the Upper Nisqually area.

The purpose and intent of the architectural guidelines are to: preserve, restore, and enhance the mountain-oriented, rustic, rural qualities found in the Nisqually Watershed; provide a menu of design guidelines that enable a project proponent to choose from a variety of styles suited to the overall character of the Watershed; and promote sustainable and green building design and material choices.

Key elements of the architectural guidelines include:

- Existing architectural character of the Nisqually Watershed
- Rural and commercial design guidelines
- Grading and stormwater management
- Parking and circulation
- Building placement and service areas
- Building design, roof forms, color and lighting
- Architectural character, building mass and size
- Community building and signage
- Planting design, lighting and street furniture
- Green building techniques

Green building produces safer, healthier and more efficient homes; reduce impacts of construction and development; and improve and protect valuable community and natural resources. Green building technologies are typically applied in conjunction with Low Impact Development (LID) technologies. Green building applies to the construction of the structure, while LID applies to the development of the building site. The incorporation of green building will further sustainability in the Nisqually Watershed.

## Nisqually Watershed



Nisqually Indian Tribe

Cartography by: J. Cutler, July 2006