2.1.1 New Development

New development is the conversion of previously undeveloped or pervious surfaces to impervious surfaces and managed landscape areas not specifically exempt below in section 2.1.3 or 2.1.4. See Chapter 1 for the regulatory framework under which a project may be directed to use this Manual or an approved equivalent.

All new development projects must comply with:

Core Element #1 Preparation of a Stormwater Site Plan,
Core Element #2 Construction Stormwater Pollution Prevention,
Core Element #3 Source Control of Pollution,
Core Element #4 Preservation of Natural Drainage Systems, and
Core Element #8 Local Requirements.

When the thresholds for Core Element #5 Runoff Treatment are met (see section 2.2.5), the following Core Elements also apply:

Core Element #5 Runoff Treatment, and
Core Element #7 Operation and Maintenance.

When the thresholds for Core Element #6 Flow Control are met (see section 2.2.6), the following Core Elements also apply:

Core Element #6 Flow Control, and
Core Element #7 Operation and Maintenance.

Projects that add new lanes on an existing roadway or otherwise expand the pavement edge are included in the definition of new development because they create new impervious surfaces. These projects are subject to the thresholds and requirements set forth in this Manual or adopted by a local jurisdiction or agency.

2.1.2 Redevelopment

Redevelopment is defined as the replacement or improvement of impervious surfaces on a developed site. Impervious surface replacements defined as exempt activities in section 2.1.3 and other projects identified in section 2.1.4 have reduced requirements. The project proponent must identify what Core Elements apply to all of the new and replaced impervious surfaces created by the project. All new impervious surfaces added during a redevelopment project are subject to the Core Elements identified in 2.1.1 above. The following sections apply to the impervious surfaces altered by a redevelopment project.

Objective

The long-term goal of the redevelopment standard is to reduce stormwater pollution from existing developed sites, especially when a water quality problem has been identified or the site is being improved to accommodate a use with a greater potential to contribute pollution to the receiving waters. More stringent redevelopment thresholds and requirements may

be identified through a water cleanup plan such as a Total Maximum Daily Load (TMDL) study and allocation or another basin planning process.

To encourage redevelopment projects, replaced or improved surfaces are not required to meet new stormwater standards unless the use or area thresholds identified in the Guidelines section below are met or exceeded for the redevelopment project scope. As long as the replaced or improved surfaces have similar pollution-generating potential, the amount of pollutants discharged should not be significantly different. However, following a rationale consistent with other utility standards, some redevelopment projects are required to meet current stormwater standards. (When a structure or a property undergoes significant remodeling, local jurisdictions may require the site to meet new building code requirements such as onsite sewage disposal systems, wheelchair access provisions and(or) fire systems.) Upgrading stormwater infrastructure is generally more economical when included as part of a redevelopment project than when undertaken as a separate effort.

See Chapter 1 for the regulatory framework under which a redevelopment project may be directed to use this Manual or an approved equivalent.

Impervious surfaces created by development are classified as either non-pollutant-generating (NPGIS) or pollutant-generating (PGIS) as described in detail in section 2.2.5 Core Element #5 Definitions. The majority of the impervious surfaces in a watershed are either NPGIS or PGIS with low pollutant loadings. The PGIS with low pollutant loadings may contribute a substantial portion of the cumulative stormwater pollutant load received by a water body. But in the absence of a documented water quality problem, the standard for applying runoff treatment to redevelopment projects in eastern Washington applies primarily to sites where pollutant concentrations in runoff are expected to exceed water quality standards. Therefore, replaced impervious surfaces with low pollutant loadings are not generally subject to runoff treatment requirements in eastern Washington; but treatment is required for redeveloped surfaces (PGIS) with medium or high pollutant loadings (see guidelines below).

Guidelines

When the following conditions are met, the identified Core Elements (detailed in sections 2.2.1 through 2.2.8) apply to replaced impervious surfaces. For projects that are implemented in incremental stages, the redevelopment threshold applies to the total amount of impervious surfaces replaced at full build-out; the new development thresholds apply to the total amount of impervious surfaces added at full build-out. To maintain their integrity and function, stormwater treatment facilities must be sized for the entire flow that is directed to them.

Where replacement of 5,000 square feet or more of existing PGIS occurs:

- **Core Elements 1, 2, 3, 4, 7, and 8** shall apply to the portion of the site where any impervious surfaces are replaced (includes both PGIS and NPGIS areas).
- **Core Elements 2 and 3** shall be applied to the entire site that is affected by the project activities.
- In addition to the above requirements, **Core Element 5** shall be applied to the replaced PGIS area at the site if any of the following conditions exist. Unless otherwise noted, the project is only required to provide basic runoff treatment to remove solids.
    - The project takes place at an industrial site as defined by EPA (40 CFR 122.26(b)(14)) with outdoor handling, processing, storage, or transfer of solid raw materials or finished products. Additional treatment to remove metals is required for sites that are subject to benchmark monitoring requirements for metals.
    - The project takes place at a commercial site with outdoor storage or transfer of solid raw materials or treated wood products.
    - A need for additional stormwater control measures has been identified through a TMDL or other water cleanup plan or other planning process. (Local jurisdictions are cautioned that they may have difficulty meeting TMDL waste load allocations if they wait until corrective actions are required by a TMDL. See Supplemental Guidelines below.)
    - The project takes place at a "high-use site" as defined in section 2.2.5 Core Element #5 Definitions. Additional treatment must be provided to remove oil at high-use sites.
    - The project takes place in an area subject to vehicular traffic under any of the following conditions. Preservation/maintenance projects and some improvement and safety enhancement projects that do not increase motorized vehicular capacities are exempt from the Core Elements as defined in section 2.1.3 or partially exempt as defined in section 2.1.4. *See the definition of average daily traffic and trip ends in Core Element 5 (Chapter 2.2.5).*
        a) The project improves a soft shoulder to a curb and gutter roadway with an average daily traffic volume of 7,500 or more vehicles. (See section 2.1.4 for partial exemptions for other safety improvement projects.)
        b) The project replaces and(or) improves the surface of a parking area where the projected number of trip ends exceeds 40 per 1,000 square feet of building area or 100 total trip ends per day. Additional treatment to remove both oil and metals is required

if the projected number of trip ends exceeds 100 per 1,000 square feet of building area or 300 total trip ends per day.

c) The project replaces and(or) improves the surface of an urban road where the projected average daily traffic volume is 7,500 or more vehicles per day. Additional treatment to remove both oil and metals is required if the average daily traffic volume is greater than 30,000 vehicles per day.

d) The project replaces and(or) improves the surface of a rural road, freeway, or highway with limited access control where the projected average daily traffic volume is 15,000 or more vehicles per day. Additional treatment to remove both oil and metals is required if the average daily traffic volume is greater than 30,000 vehicles per day. (A *freeway* is defined as a multilane, arterial highway with full access control.)

e) The project affects the area within 500 feet of a controlled intersection on a limited access control highway with projected average daily traffic volume of 7,500 or more vehicles per day. Only this area must be treated.

- In addition to the above requirements, **Core Element 6** shall be applied to <u>all of the replaced impervious surfaces at the site</u> (includes both PGIS and NPGIS areas) if required by the state, federal, or local jurisdiction based on flooding studies or habitat assessments.

<u>Local Retrofit Programs</u>:

If the local jurisdiction has an equivalent or more stringent retrofit program in place, then those requirements may replace these conditions. The program must meet the intent of the requirements above and may need to be approved by Ecology. The requirements must be at least as stringent as the thresholds above, meaning that the number and types of projects regulated by the local requirements is the same or greater. Local jurisdictions can select from various bases for identifying projects that must retrofit the replaced impervious surfaces on the project site. Those can include:

- Exceeding 50% of the assessed value of the existing improvements;
- Exceeding 50% of the replacement value of the existing site;
- Exceeding a certain dollar value of improvements;
- Exceeding a certain ratio of the new impervious surfaces to the total of replaced plus new impervious surfaces; or exceeding an established threshold of added or replaced surfaces (e.g., the project adds 10,000 square feet or more of new impervious surfaces or replaces 20,000 square feet of impervious surfaces);

- There is a change in the use of the site to a use with greater potential to contaminate stormwater.

The local jurisdiction may allow the Core Elements to be met for an area with equivalent flow and pollution characteristics within the same site. For public road projects, the equivalent area does not have to be within the project limits, but must drain to the same water body segment and be located upstream from a confluence with another water body downstream from the project site.

A local jurisdiction may provide exemptions or institute a maximum retrofitting cost provision for redevelopment projects from compliance with Core Elements for treatment, flow control, and wetlands protection as applied to the replaced impervious surfaces if the local jurisdiction has adopted a plan and a schedule that fulfills those requirements in regional facilities.

Supplemental Guidelines

Local jurisdictions may institute a stop-loss provision on the application of stormwater requirements to replaced impervious surfaces. A stop-loss provision is an upper limit on the extent to which a requirement is applied. For instance, there could be a maximum percentage of the estimated total project costs that are dedicated to meeting stormwater requirements. A project would not have to incur additional stormwater costs above that maximum though the standard redevelopment requirements will not be fully achieved. Allowances may also be made for sites that would, by imposing the treatment requirement, become non-conforming to other requirements that apply to the site. Every effort should still be made to find creative ways to meet the intent of the Core Elements. The allowance for a stop-loss provision pertains to the extent that treatment, flow control and wetlands protection requirements are imposed on replaced impervious surfaces. It does not apply to meeting stormwater requirements for new impervious surfaces.

For redevelopment projects that discharge into the municipal storm sewer system, local jurisdictions may also establish criteria for allowing payment of a fee-in-lieu of constructing water quality or flow control facilities. At a minimum, the fee should be the equivalent of an engineering estimate of the cost of meeting all applicable stormwater requirements for the project. The local jurisdiction should use such funds for the implementation of stormwater control projects that would have similar benefits to the same receiving water as if the project had constructed its required improvements. The stormwater control project could be a regional facility that includes service to the redevelopment site, or a facility serving other public or private lands tributary to the same receiving water. Expenditure of such funds is subject to other state statutory requirements.

Ecology cautions local jurisdictions about the potential long-term consequences of allowing a fee-in-lieu of stormwater facilities. Sites that

are allowed to pay a fee continue without stormwater controls. If it is determined, through future basin planning for instance, that controls on such sites are necessary to achieve water quality goals or legal requirements, the public may bear the costs for providing those controls.

Local jurisdictions may require treatment facilities for redevelopment projects that discharge to a receiving water that has a documented water quality problem. This provision should focus on water quality problems for metals, oil and grease, bacteria, sediment, suspended solids, phosphorus, or any other water quality problem to which stormwater is considered a contributor.

Sites with 100% existing building coverage that are currently connected to a municipally-owned storm sewer or combined sewer must be evaluated on a case-by-case basis to continue to be connected without treatment; additional local requirements such as flow restrictors may also be required.

Responsibilities of Local Jurisdictions

As part of the routine project approval and permitting process, local jurisdictions should review redevelopment project plans for intent and completeness in meeting the redevelopment guidelines. Where space is limited, staff may assist project proponents in modifying BMPs and(or) finding creative ways to meet the intent of the Core Elements. Local jurisdictions should begin planning regional treatment facilities in areas where meeting the on-site treatment objectives for individual redevelopment projects will be challenging.

2.1.3 Exemptions

The following practices are exempted from the Core Elements:

Forest Practices
Forest practices regulated under Title 222 WAC are exempt from the provisions of the Core Elements. Conversions of forest lands to other uses are not exempt.

Commercial Agriculture
Commercial agriculture practices involving working the land for production are generally exempt. However, the construction of impervious surfaces is not exempt.

Road and Parking Area Preservation/Maintenance
The following road and parking area maintenance practices are exempt (see also section 2.1.4 Partial Exemptions below):

- Pothole and square cut patching;
- Crack sealing;
- Resurfacing with in-kind material without expanding the road prism;

- Overlaying existing asphalt or concrete pavement with bituminous surface treatment (BST or "chip seal"), asphalt or concrete without expanding the area of coverage;
- Shoulder grading;
- Reshaping/regrading drainage systems; and
- Vegetation maintenance.

2.1.4 Partial Exemptions

The following practices are generally exempted from all of the Core Elements except for Core Element #1 Preparation of a Stormwater Site Plan and Core Element #2 Construction Stormwater Pollution Prevention:

Underground Utility Projects
Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics are subject only to Core Element #1 Preparation of a Stormwater Site Plan and Core Element #2 Construction Stormwater Pollution Prevention.

Road and Parking Area Preservation/Maintenance
A preservation or maintenance project is defined as preserving/protecting infrastructure by rehabilitating or replacing existing structures to maintain operational and structural integrity, and for the safe and efficient operation of the facility. Maintenance projects do not increase the traffic capacity of a roadway or parking area. The following practices are subject only to Core Element #1 Preparation of a Stormwater Site Plan and Core Element #2 Construction Stormwater Pollution Prevention:

- Removing and replacing a concrete or asphalt roadway to base course or subgrade or lower without expanding or improving the impervious surfaces.
- Repairing the roadway base or subgrade.
- Overlaying existing gravel with bituminous surface treatment (BST or "chip seal") or asphalt or concrete without expanding the area of coverage, or overlaying BST with asphalt, without expanding the area of coverage. For this type of project, partial exemption applies **only** under the following conditions:
    - For roads, these practices are exempt from additional Core Elements **only** if the traffic surface will be subject to an average daily traffic volume of less than 7,500 on an urban road or an average daily traffic volume of less than 15,000 vehicles on a rural road, freeway, or limited access control highway. If these thresholds are exceeded, refer to the Redevelopment Guidelines in section 2.1.2 to determine which Core Elements apply.
    - For parking areas, these practices are exempt from additional Core Elements **only** if the traffic surface will be subject to less than 40 trip ends per 1,000 square feet of building area or 100 total trip

ends. If these thresholds are exceeded, refer to the Redevelopment Guidelines in section 2.1.2 to determine which Core Elements apply.

Safety Improvement Projects

Projects to improve motorized and(or) non-motorized user safety that do not enhance the traffic capacity of a roadway are subject only to Core Element #1 Preparation of a Stormwater Site Plan and Core Element #2 Construction Stormwater Pollution Prevention except as specified under sub-item (a) under conditions for applying Core Element #5 Runoff Treatment in section 2.1.2 Redevelopment Guidelines. Certain safety improvement projects such as sidewalks, bike lanes, bus pullouts and other transit improvements must be evaluated on a case-by-case basis to determine whether additional Core Elements apply. A safety project that enhances the traffic carrying capacity of a roadway is not exempt from other Core Elements.

2.1.5 Local Exceptions/Variances

Guidelines

Exceptions to the Core Elements may be granted prior to permit approval and construction. The local jurisdiction may grant an exception following an application for an exception with legal public notice per the local jurisdiction's guidance and requirements for exceptions and variances. The administrator's decision should include a written finding of fact that documents the following:

- There are special physical circumstances or conditions affecting the property such that would prohibit the strict application of these provisions; and
- Every effort has been made to find alternative ways to meet the objectives of the Core Elements; and
- The granting of the exception or variance will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and
- The exception is the least possible exception that could be granted to comply with the intent of the Core Elements.

If the local jurisdiction chooses to allow jurisdiction-wide exceptions or variances to the requirements of the Manual, those exceptions must be approved by Ecology or other agency exercising its permitting authority. Project-specific design deviations based on site-specific conditions generally do not require approval of the permitting authority and are left to the discretion of the local jurisdiction.

Supplemental Guidelines

The adjustment and exception provisions are an important element of the plan review and enforcement programs. They are intended to maintain a necessary flexible working relationship between local officials and applicants. Local jurisdictions should consider these requests judiciously, keeping in mind both the need of the applicant to maximize cost-effectiveness and the need to protect off-site properties and resources from damage.

2.2 Core Elements

This section describes the eight Core Elements for stormwater management at development and redevelopment sites in eastern Washington. Chapters 5 through 8 of this Manual contain Best Management Practices (BMPs) to choose from in implementing these Core Elements for each project.

The requirements of these Core Elements do not excuse any discharge from the obligation to apply whatever technology is necessary to comply with state water quality standards, Chapter 173-201A WAC, or state groundwater standards, Chapter 173-200 WAC. Additional treatment requirements to meet those standards may be required by federal, state, or local jurisdictions.

This Manual is intended to assist projects discharging to surface water and projects with discharges to groundwater via Underground Injection Control (UIC) Facilities in complying with regulatory requirements to protect water quality. Nearly all of this section applies to projects with discharges to surface water, and most of it also applies to projects with discharges to groundwater. Each Core Element includes a section identifying the applicability of that Core Element to projects disposing of stormwater runoff using UIC facilities in order to clarify how the Core Element might be applied differently for projects discharging to surface and groundwaters. Some Core Elements also include a section on applicability to wetlands where special considerations are needed for those discharges.

2.2.1 Core Element #1 Preparation of a Stormwater Site Plan

Objective

Stormwater management is most successful when integrated into project planning and design. Projects are expected to demonstrate compliance with the applicable Core Elements through preparation of a Stormwater Site Plan.