Skagit County
Planning & Development Services
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Staff Report

From: Dale Pernula, AICP, Director

Re: Stormwater Code Update

Date: June 11, 2015

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Background

Skagit County is proposing an update to our stormwater code driven by the requirement in our NPDES Permit to amend our development codes to require and facilitate Low-Impact Development principles and Best Management Practices in our NPDES Permit Area.

Congress adopted the Federal Water Pollution Control Act (FWPCA) Amendments of 1972, which contains the National Pollution Discharge Elimination System (NPDES). As a general matter, any facility that discharges pollutants from any point source into waters of the United States must obtain an NPDES permit. EPA writes rules to implement the NPDES program, and has gradually increased the level of pollution control that dischargers must implement. In 2003, EPA rules requiring NPDES permits for smaller jurisdictions like ours went into effect.

In Washington State, the Department of Ecology issues and administers the NPDES permits. Skagit County (and other municipal governments) are required NPDES permittees because our municipal stormwater system (i.e., our ditches) discharges to waters of the United States.

Along with 80 cities and four other counties, Skagit County is a Phase II permittee in Western Washington, meaning we obtained our permit after Phase I jurisdictions with larger populations, e.g., Snohomish and King Counties and Seattle. We currently are subject to our third permit, effective August 1, 2013. That permit, which was modified and reissued in December 2014, gradually rolls out requirements that we must comply with.

What is Low-Impact Development?

Low-Impact Development is a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design. Examples of LID techniques include rain gardens, retention of native vegetation, permeable pavement, and water re-use.

Requirement for Low-Impact Development

The requirement for the County to implement LID in our development code is found in section 5.C4 of the County's NPDES permit, and especially paragraph (f).

S.5. STORMWATER MANAGEMENT PROGRAM FOR CITIES, TOWNS AND COUNTIES

> ***C.4. Controlling Runoff from New Development, Redevelopment and Construction Sites***
> *Each Permittee shall implement and enforce a program to reduce pollutants in stormwater runoff to a regulated small MS4 from new development, redevelopment and construction site activities. The program shall apply to private and public development, including roads. The minimum performance measures are:*
>
> *a. Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects…"*
> *b. … e. …*
> *f. Low impact development code-related requirements.*
> *i. No later than December 31, 2016, Permittees shall review, revise, and make effective their local development-related codes, rules, standards, or other enforceable documents to incorporate and require LID principles and LID BMPs….*
>
> *The intent of the revisions shall be to make LID the preferred and commonly-used approach to site development. The revisions shall be designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations. Permittees shall conduct a similar review and revision process, and consider the range of issues, outlined in the following document: "Integrating LID into Local Codes: A Guidebook for Local Governments (*Puget Sound Partnership, 2012)".

The permit requires the code updates by December 31, 2016. Because the Planning Department will be preoccupied with the Comprehensive Plan update and other significant projects during the latter half of 2015 and most of 2016, the Department and Board of Commissioners intend to complete this code update as early as possible in 2015.

Ecology added this requirement to the 2013 permits as a result of decisions by the Pollution Control Hearings Board that the prior permit did not do enough to manage stormwater. This is not a negotiable requirement, and the Department's proposed code amendments **must** include requirements to use LID principles and BMPs. The Clean Water Act carries significant civil and criminal penalties, including imprisonment, for permit violations. See permit sections G17 and G19.

Geographic Scope of the Permit Requirement

It's important to keep in mind that the requirements of the permit apply only to the NPDES permit area (see the map on the proposal webpage). As Ecology developed our current permit, Public Works staff successfully worked with Ecology to exclude several major areas of farmland that didn't logically fit within the permit area and the industrial area at March's Point that is covered by separate NPDES permits. At this stage, however, the permit area map is now set, and the County must apply the requirements within that area.

The 2012 Stormwater Manual

In addition to the stormwater *permits,* Ecology issued a new 2012 Stormwater Management Manual for Western Washington. It is a design manual for stormwater management for development projects and directs the use of LID techniques as the preferred approach. It does not require LID where soils or other conditions indicate those techniques will not work.

Adopting the 2012 Stormwater Manual will fulfill the NPDES permit requirement. The second paragraph of Chapter 1- Introduction, part 1.1 Objective, states:

> *"This manual identifies minimum requirements for development and redevelopment projects of all sizes and provides guidance concerning how to prepare and implement stormwater site plans. These requirements are, in turn, satisfied by the application of BMPs from Volumes II through V. Projects that follow this approach will apply reasonable, technology-based BMPs and water quality-based BMPs to reduce the adverse impacts of stormwater. This manual is applicable to all types of land development including residential, commercial, industrial, and roads. Manuals with a more-specific focus, such as a Highway Runoff Manual, that have been determined to be equivalent to this manual, may provide more appropriate guidance to the intended audience….."*

What about when Low-Impact Development won't work?

The Stormwater Management Manual requires that new development *evaluate* the application of Low-Impact Development techniques, but does not require their use where they wouldn't work. Low-Impact Development techniques may not function, or they may be counterproductive because of soil types and other geologic features of some areas. For example, they may introduce additional water into a thin soil layer above bedrock, which could lead to sloughing. LID would not be required in such circumstances.

How stormwater is managed in Skagit County

Inside the NPDES Permit Area, the County is mandated to require development to manage its own stormwater consistent with the Permit and the Stormwater Management Manual. Outside the NPDES Permit Area, there is no external requirement for the County to regulate stormwater at all. But the County's longstanding practice has been to regulate stormwater throughout the County—both stormwater quantity and quality—for protection of neighboring property owners, for protection of the environment, and to reduce the impact on County stormwater facilities.

Skagit County has established a Drainage Utility to correct stormwater drainage problems, whether due to natural or man-made conditions. The Drainage Utility is funded by a special assessment on

real property, but excludes property assessed by another district, such as cities, drainage and irrigation improvement districts, commercial forestlands, and federal or tribal lands. Stormwater regulations for property development are essential to the County's overall stormwater management, as they lower the costs to the Drainage Utility, and therefore, the taxpayer.

Summary of Proposal

Overview

At a high level, the proposed code amendments do the following:

- **SCC 14.04: Update definitions.** The existing code contains a number of definitions that can be deleted. Stuffing content into definitions makes the code more difficult to read and should be avoided. Many of the terms previously used in Chapter 14.32 are no longer used and so their definitions can be deleted.
- **SCC 14.16.810: Relax parking requirements.** The NPDES Permit requires us to evaluate our parking requirements to see if we can modify them to reduce creation of impervious surface. The proposal creates a "compact parking space" definition and allows development to substitute some regular sized spaces with compact spaces.
- **SCC 14.16.830: Allow LID to substitute for landscaping.** If a low-impact development stormwater facility also complies with required landscaping standards, the applicant doesn't have double the landscaping requirements.
- **SCC Chapter 14.32: Reorganize and update drainage chapter.** The meat of the proposal is in the drainage chapter, where the code was entirely reorganized and many sections were deleted and changed. More description of these changes is below.
- **Update cross-references** in SCC 14.10 Variances, 14.18 Land Divisions, 14.36 Public Works Standards, and 14.44 Enforcement/Penalties. Chapter 14.44 is also made applicable to new chapter 16.32 described below.
- **Move illicit discharges and connections** to new chapter 16.32. This section of code is not a development regulation and development does not vest to it, so it should be located in another title.

In much of the code proposal, changes from the existing code are shown in strikethrough and underline. Because of the significant organizational changes to Chapter 14.32, that portion of the proposal is not shown in strikethrough and underline, but comment bubbles document the source of the provisions.

Changes to Chapter 14.32 Drainage

The proposed changes to this chapter are extensive and summarized as follows:

- Rename chapter "Stormwater Management" to better reflect the content.
- **.010:** Consolidate purpose, authority, and administration sections into a single section .010 that also describes the goals of Low-Impact Development.

- **.020:** Create new Applicability section to clearly indicate when this chapter applies. The closest analog in the existing code is the "Regulated Activities" section, but it currently contains unrelated sections.
    - Move the thresholds for applicability (e.g., new development or redevelopment) into the text of the applicability section.
    - Make the list of exemptions match the NPDES permit; eliminate the "procedural" exemption for construction projects done by Skagit County.
    - Provide a section to add more exemptions outside the permit area.
- **.030:** Consolidate several sections into a single Application Requirements section.
    - Eliminate erosion control plan, engineered drainage plan, etc., in favor of a single new plan called a 'stormwater site plan,' which is also what the Stormwater Management Manual calls it.
    - Maintain the existing thresholds for when an engineer is required to prepare the plan; otherwise, anyone can prepare the plan.
    - Move existing security requirements in .050 into this section.
- **.040:** Define a single version of Ecology's Stormwater Management Manual as the manual to be applied countywide.
    - Delete the technical stormwater management requirements of the chapter and replace with application of the standard Stormwater Management Manual.
    - Outside the NPDES area, back out some Stormwater Management Manual requirements for single-family residences and other uses that are likely to have less stormwater impacts.
    - Move existing code provisions for experimental BMPs, technical deviations, and critical drainage areas to this section.
- **.060:** Delete most of the specific erosion and sediment control requirements in favor of using the Stormwater Management Manual.
- **.070:** Create new Low-Impact Development section.
    - Require LID inside the permit area.
    - Allow LID outside the permit area.
    - Allow use of permeable pavement in place of regular pavement.
    - Require retention of native vegetation where it is used as a LID facility to comply with stormwater requirements.
- **.080:** Delete most of this section; rename "Stormwater conveyance facilities" to reflect remaining content.
- **.090:** Because this section is not a development regulation, move .090 regarding illicit discharges and connections out of Title 14 to new chapter 16.32; create new section for county acceptance of stormwater facilities (existing code that used to be in .100 but should move from there because it's not related to the rest of that section). Remove distinction

between new and existing stormwater facilities for the purpose of county acceptance of them.

- **.100**: Reorganize and clarify responsibility for stormwater facility maintenance both inside and outside the NPDES permit area.
- **.110**: Delete and move content into .030.
- **.120**: Delete and move content into .030.

About the Stormwater Management Manual

The existing stormwater code includes significant technical detail about how to model and manage stormwater. The proposal deletes those technical requirements and replaces them with references to the 2012 Stormwater Management Manual for Western Washington. Inside the County's NPDES permit area, this change is required—the County's NPDES permit requires that the Manual be used and applied per the thresholds established in the permit.

Outside the County's permit area, there is no external requirement for the County to regulate stormwater at all. But the County's longstanding practice has been to regulate stormwater throughout the County—both stormwater quantity and quality—for protection of neighboring property owners, for protection of the environment, and to reduce the impact on County stormwater facilities.

The proposal's simplified approach to stormwater management is to use the Stormwater Manual both inside and outside the permit area.[1] Outside the permit area, where we have flexibility in how to apply the Manual, the proposal incrementally applies the Manual's various Minimum Requirements based on the intensity of the proposed land use. The result should be improved management of stormwater and drainage by development.

Land Use Intensities

In the proposal, land uses are divided into three categories — low, medium, and high.[2] Consistent with our desire to minimize requirements for individual residences, single-family residences and their accessory uses are considered "low-intensity" land uses when they are developed on lots greater than one acre. The same uses, when developed on smaller lots, are considered "medium-intensity." Commercial, industrial, or institutional land uses, land divisions into more than four lots, and large projects (greater than 20,000 sq ft) are considered "high-intensity."[3]

Application of the Minimum Requirements

The Stormwater Manual is divided into nine Minimum Requirements (MRs):[4]

- MR1 Stormwater Site Plan
- MR2 Construction SWPPP (erosion and sediment control)

[1] This is consistent with the practice in other jurisdictions. Few other jurisdictions include all the technical specifications of stormwater management in their code.

[2] See Brown and Caldwell's March 17 memo for more information on this approach.

[3] The Planning Commission may want to recommend other uses be included in the various land use intensity categories.

[4] Appendix 1 of the County's NPDES permit provides a good summary of these requirements.

- MR3 Source Control
- MR4 Preserve Natural Drainage
- MR5 Onsite Stormwater Management
- MR6 Treatment
- MR7 Flow Control
- MR8 Wetlands Protection
- MR9 Operation and Maintenance

In the proposal, see SCC 14.32.030 for the table of how these Minimum Requirements are applied. All land use intensities are required to comply with MR2, which provides instruction on how to control erosion and sediment. That requirement is consistent with the approach taken by the current code, which emphasizes and prioritizes erosion and sediment control.

Low-intensity land uses that exceed a certain square footage threshold also have to comply with MR1, a stormwater site plan that meets the manual's requirements. Low-intensity land uses that don't meet the threshold still need to submit a stormwater site plan, but the requirements are relaxed from what the Manual requires and generally consistent with current code. Similarly, low intensity land uses only have to comply with MR4 and MR8 if they exceed the square footage thresholds.

Medium-intensity land uses that exceed a lower square footage threshold have to comply with all of the Minimum Requirements. High-intensity land uses have to comply with the Minimum Requirements when they exceed the normal thresholds described in the Manual.

How We Determined Thresholds

The Stormwater Manual's thresholds for triggering Minimum Requirements 1 and 3-5 (MR2 is always required) are approximately 2,000 sq ft of new plus replaced hard surface, or 7,000 sq ft of land-disturbing activity.[5] For low-intensity land uses, the code proposal increases that threshold to 7,000 sq ft of hard surface and 14,000 sq ft of land disturbing activity to accommodate the amount of surface area that typical single-family residences convert to hard surface or disturb during construction.

For medium-intensity land uses, the proposal lowers the thresholds, but they are still double the thresholds in the Manual, per our consultant's recommendation. For high-intensity land uses, the proposal is to use the same thresholds as in the Manual and Permit.

Analysis

The existing drainage code chapter (SCC 14.32) is poorly written and difficult to apply. This code proposal was written with the objective of limiting the regulatory impact on most single-family development, while improving the organization and readability of the code and applying consistent standards by using the same Stormwater Management Manual that is used throughout the Puget

[5] This is a summary. For the full details (that would be applied only to high-intensity land uses), see the flowcharts in the Stormwater Management Manual (attached at the end of this memo).

Sound. The proposal retains the existing thresholds for requiring hiring an engineer and requiring an off-site analysis,[6] and unifies the existing requirements for several different plans (drainage plans, grading plans, temporary erosion and sedimentation control plans) under a single stormwater site plan. The result of these changes is expected to be significant additional clarity in how stormwater should be managed for both the public and for County staff.

Recommendation

The Department recommends adoption of the proposal. The update makes the stormwater code much cleaner, shorter, and easier to administer. It cleans up a substantial amount of 'definition pollution' in the definitions chapter. It also fixes a significant problem with the existing code where it adopts the latest version of the stormwater manual instead of a specific version. The Planning Commission has several times complained about the County's management of stormwater from development; these changes should improve that management.

Consistency

This proposal is consistent with, and implements, the following Comprehensive Plan policies:

- CPP 12.14: Public drainage facilities shall be designed to control both stormwater quantity and quality impacts.
- Policy 5A-5.3(t): Storm water runoff, flow rates, flow volumes and pollution caused by site development shall be managed so that detrimental impacts to water resources and property are maintained at pre development levels.
- Goal 9B: Protect and enhance natural hydrologic features and functions by: maintaining water quality and fish and wildlife habitat; incorporating natural drainage patterns into measures to protect the public from health and safety hazards and property damage; maintaining a sustainable groundwater discharge/recharge budget; and by promoting beneficial uses as well as water resource education and planning efforts.
- Policy 9B-1.1 Solutions – Nonstructural storm water measures should be preferred over structural measures.
- 9B-1.3 Planning – Strategies for surface water management should balance engineering, economic, environmental and social factors in relationship to stated comprehensive planning goals and policies.
- 9B-1.8 Natural Drainage – Natural drainage shall be preferred over the use of pipelines or enclosed detention systems, where possible.
- 9B-1.9 Best Management Practices – Storm water runoff from impervious surfaces should be treated by utilizing best management practices (treatment BMPs) before the storm water is allowed to enter the natural drainage system, infiltrate into the ground or enter Puget Sound. Examples of treatment BMPs are, but not limited to: detention ponds, oil/water separators, biofiltration swales and constructed wetlands.

[6] SCC 14.32.030(3)(b).

- 9B-1.10 Coordination of Regulations – The county shall work with other jurisdictions and agencies toward standardization and monitoring of regulations that affect storm water management.

Process

Planning and Development Services has spent a substantial amount of time on, and worked closely with, the Public Works Department and the Prosecutor's Office in developing this proposal. Public Works hired consultant AHBL in 2012 to perform an audit of our existing code for compliance with the NPDES permit. In 2015, Planning and Development Services hired consultant Brown and Caldwell to help us develop an approach to the update of the stormwater code chapter.[7] Representatives from Brown and Caldwell will attend the Planning Commission deliberations on the proposal in order to answer any questions about the stormwater manual.

The Department has had two work sessions with the Planning Commission (on January 6 and February 3, 2015) to review the approach to the update, and PDS and Public Works reviewed an early draft of the proposal with the Skagit-Island County Builders Association and with Planning Commissioner Keith Greenwood.

Public Notices

Skagit County issued a Notice of Availability for this proposal on June 11, 2015.

SEPA Threshold Determination

The Skagit County SEPA Responsible Official has issued a Determination of Non-Significance for this non-project legislative proposal.

Adoption Process

The proposal will receive at least one public hearing and written comment period before the Planning Commission, consistent with the process for adoption of land use regulations in SCC Chapter 14.08. The Board of County Commissioners must approve the final adoption. The deadline for code amendments to implement the County's NPDES Permit is December 31, 2016.

For More Information and How to Comment

Please visit the project website at www.skagitcounty.net/planning and click on "Stormwater Permit 2015 Code Update." Read the Notice of Availability for deadlines and how to comment. You may also be interested in the County's Stormwater Management Program webpage at www.skagitcounty.net/stormwater.

Attachments

The following pages contain flowcharts for determining requirements for new development and redevelopment from the 2012 Stormwater Management Manual for Western Washington. These charts would be applicable only (a) for development within the NPDES Permit Area, and (b) for high-intensity land uses. Note these charts from the Manual are identical to the charts in Appendix 1 of the County's NPDES Permit.

[7] See March 17 memo for more information. Public Works also contracts with Brown and Caldwell for assistance complying with other requirements of the County's NPDES permit.

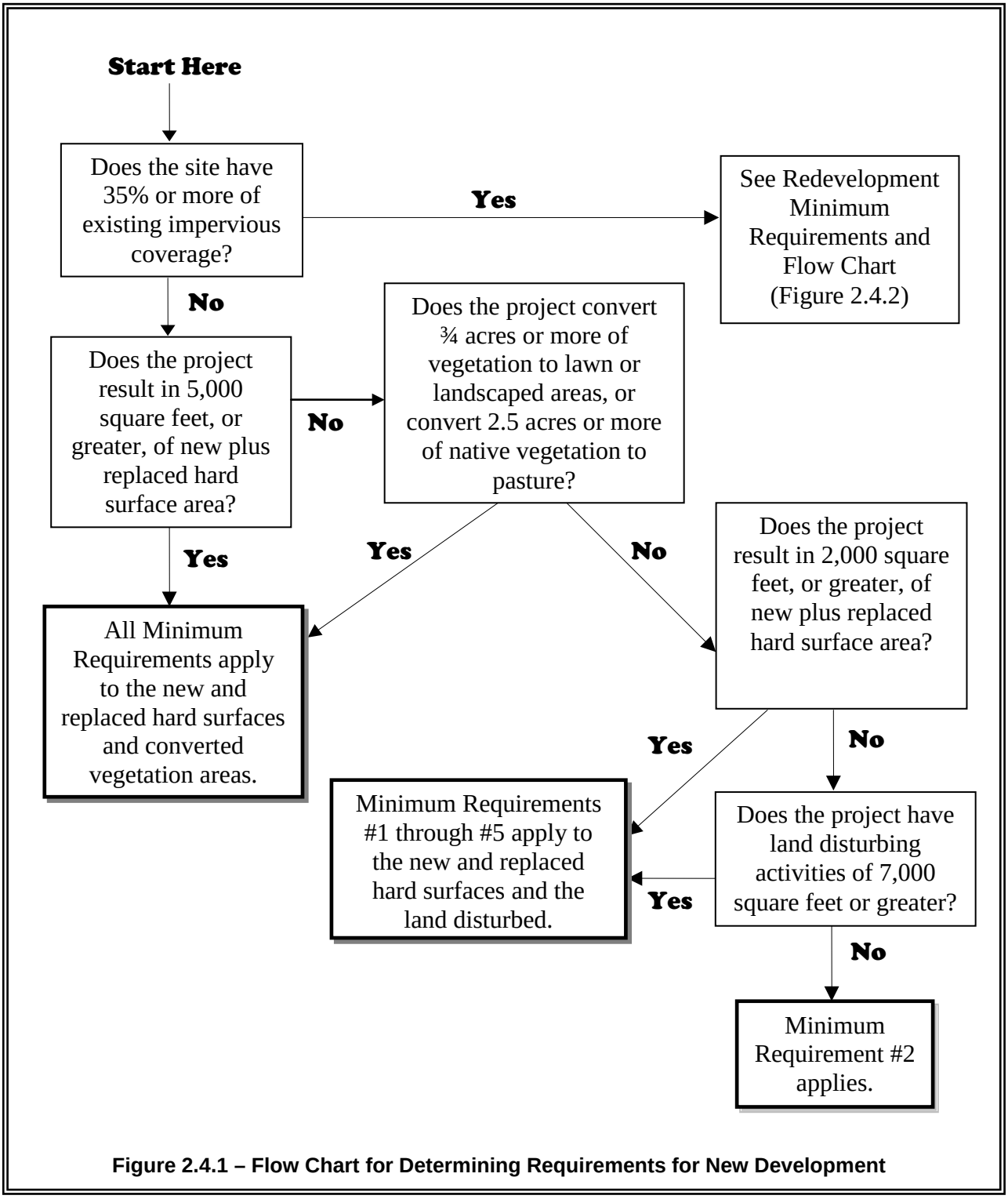

Figure 2.4.1 – Flow Chart for Determining Requirements for New Development

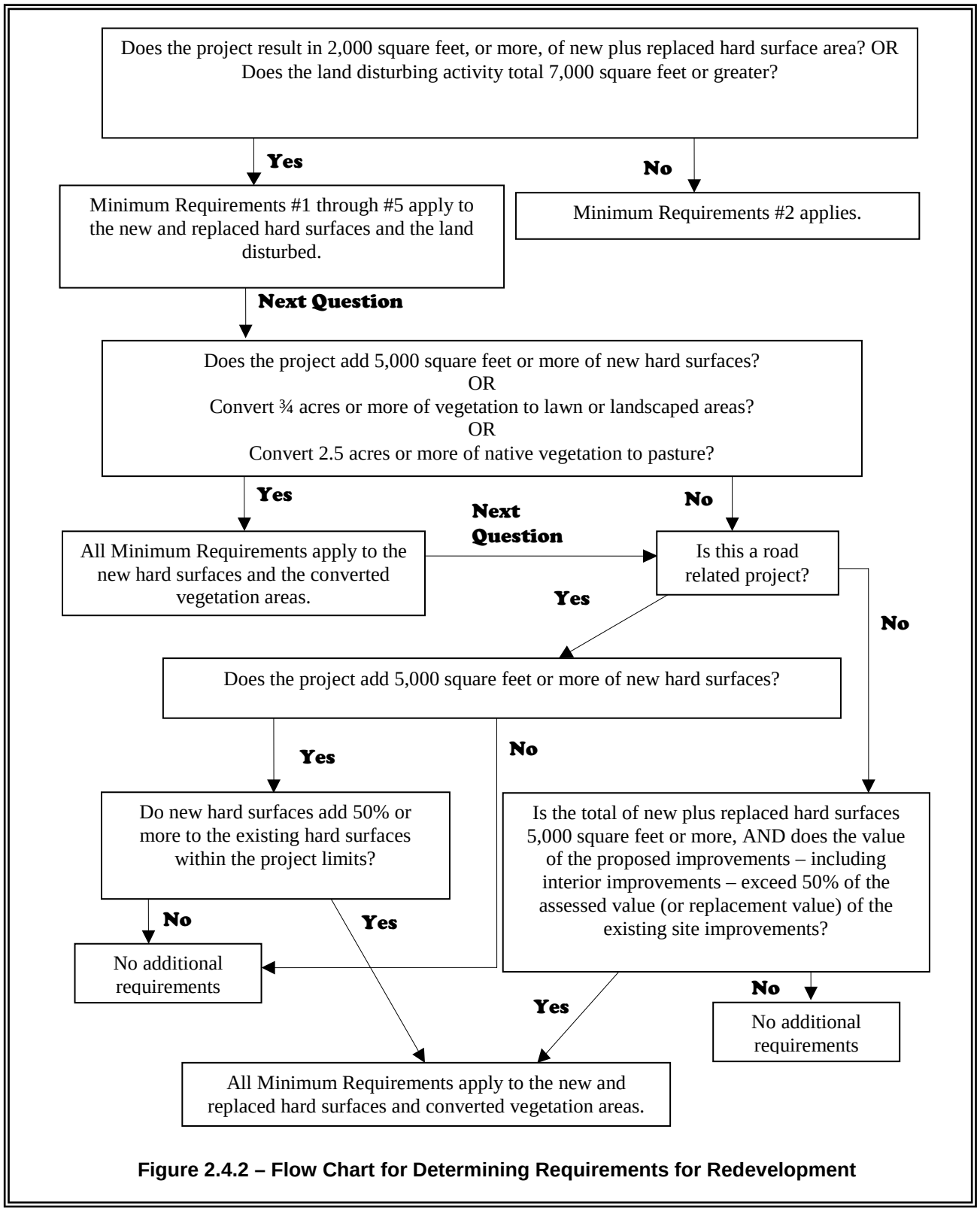

Figure 2.4.2 – Flow Chart for Determining Requirements for Redevelopment