

Low Impact Development Site Assessment

Information session/workshop agenda

Doors open:	9:00 am
Low impact development Site assessment presentation:	9:00 am-9:15 am
Questions/workshop:	9:15 am- 11:00 am
workshop close:	11:00 am

Presentation Overview

- I. Why we are here
- II. Background
- III. What is LID?
- IV. LID Site Assessment
- V. Schedule
- VI. Resources

I. Why we are here

We are here to present site assessment reviews!

and

We are here to listen!

We are at the onset of integrating LID principles into the City's codes and enforceable standards for new and redevelopment projects.

I. Why we are here

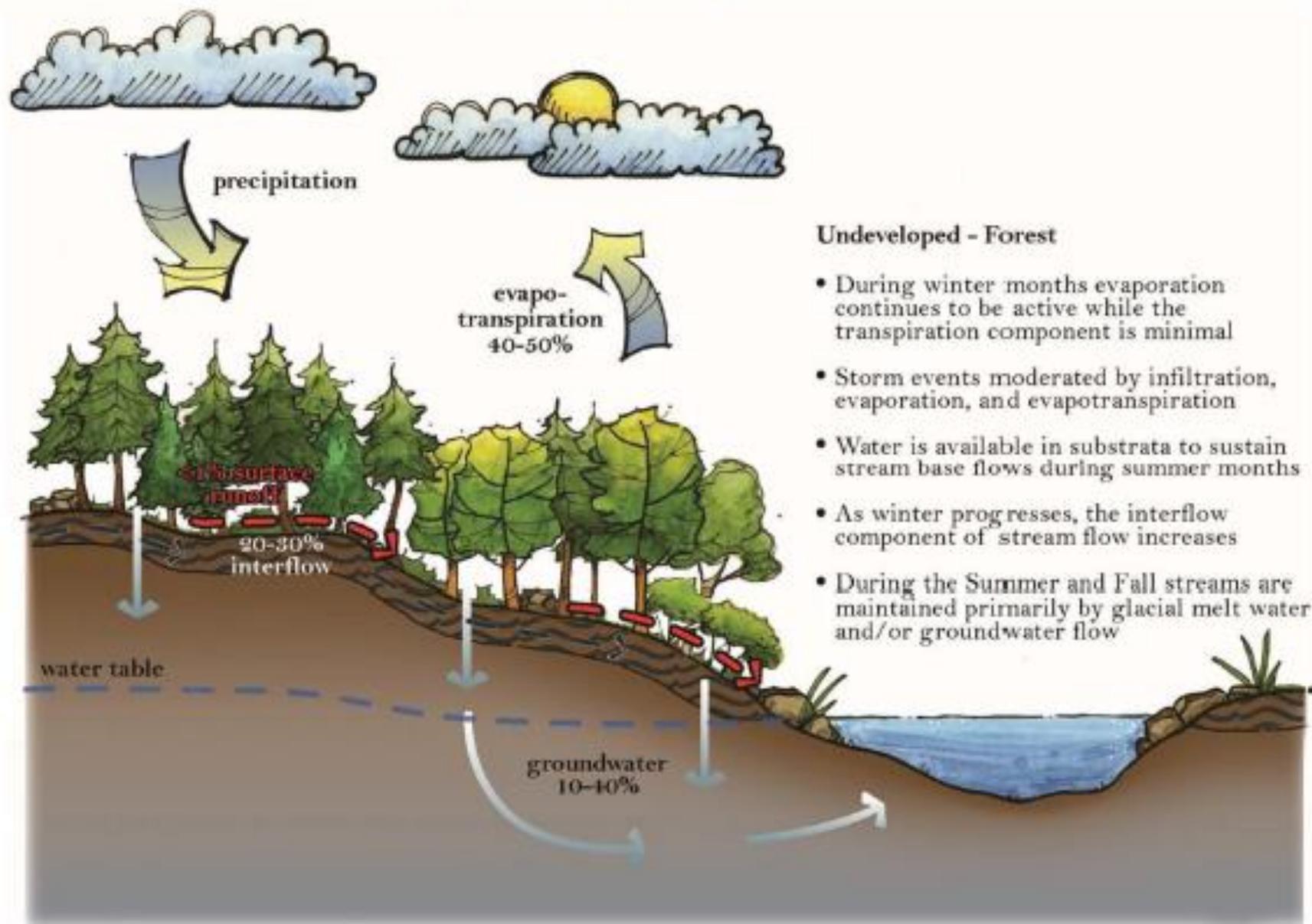
- Site assessment is a fundamental step in low impact development. Completing the site assessment up-front will ensure implementation of lid techniques to the greatest extent practicable.
- We are here to present our preliminary concept of this site assessment review, listen to your ideas and concerns answer the questions that we can.

II. Background

- NPDES Permit Requirement - Controlling Runoff from New Development, Redevelopment and Construction Sites.
 - ❖ By 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 shall be to make LID the preferred and commonly-used approach to site development.
 - ❖ The LID approach is designed to **minimize impervious surfaces, native vegetation loss, and stormwater runoff** in all types of development situations.

III. What is LID?

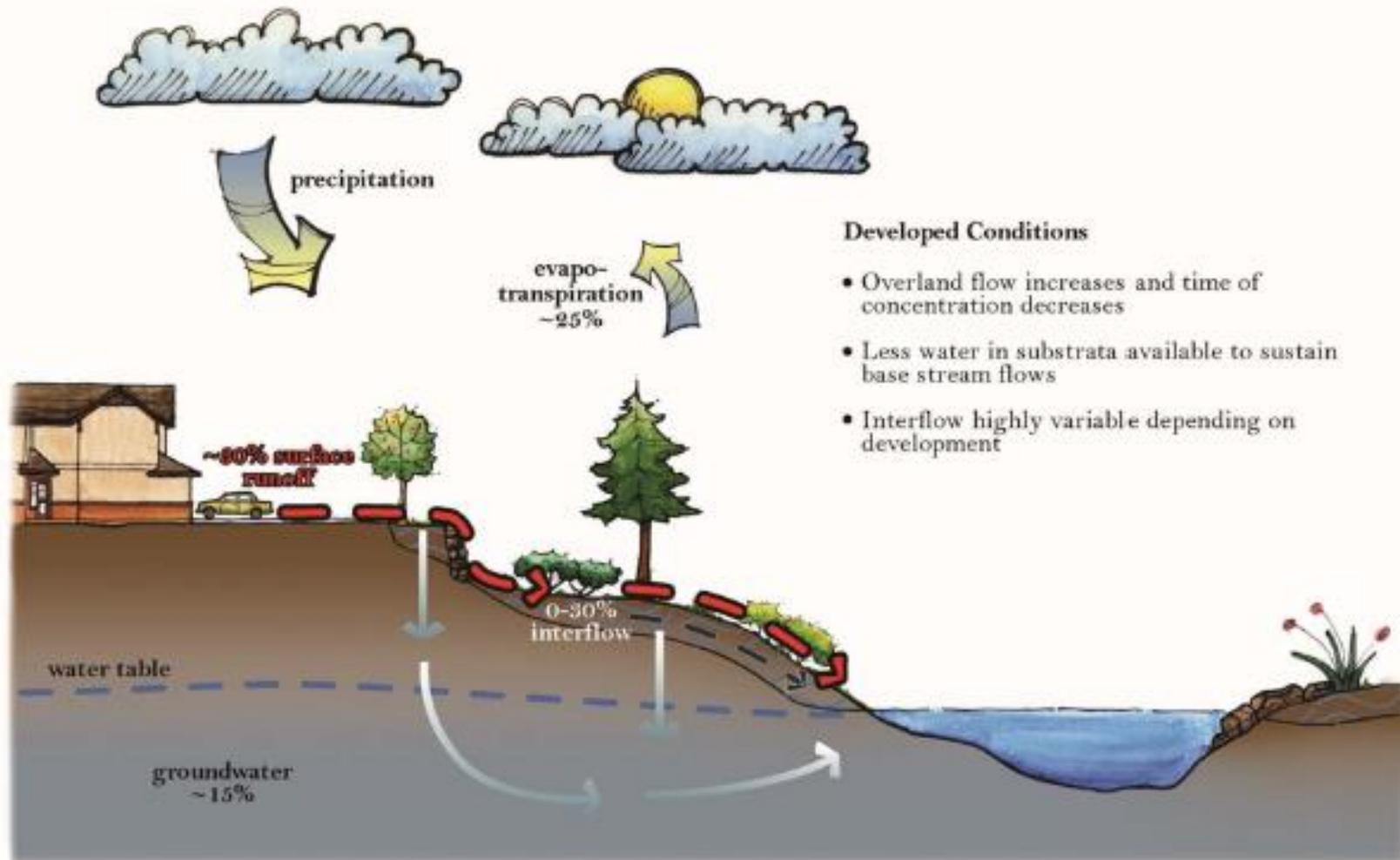
Pre-Development Hydrologic Conditions



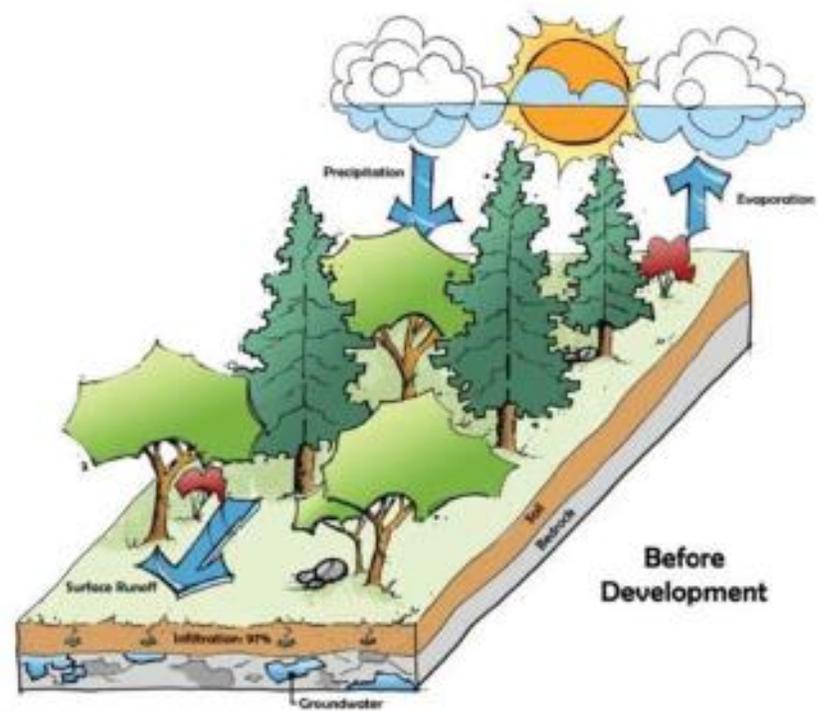
Undeveloped - Forest

- During winter months evaporation continues to be active while the transpiration component is minimal
- Storm events moderated by infiltration, evaporation, and evapotranspiration
- Water is available in substrata to sustain stream base flows during summer months
- As winter progresses, the interflow component of stream flow increases
- During the Summer and Fall streams are maintained primarily by glacial melt water and/or groundwater flow

Post-Development Hydrologic Conditions



Pre- and Post-Development Hydrologic Conditions



III. What is LID?

“Low-impact development (LID) 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.”

*Source: Department of Ecology's Phase II
NPDES Municipal Stormwater Permit*

III. What is LID?

What the Permit Says:

- Key LID principles – site design/planning [aka SITE ASSESSMENT] to minimize impervious surfaces, native vegetation loss, and stormwater runoff
- Key LID best management practices (BMPs) required where feasible.

III. What is LID?

Benefits of LID stormwater BMPs:

- Increases groundwater recharge and helps to address lower stream flows in critical late summer months.
- Reduce size of conventional stormwater facilities
- Increase open space
- Visually attractive landscape features
- Can result in construction, possibly maintenance, savings
- Provide multiple functions

IV. LID Site Assessment

STEP 1 – Site Assessment

“The initial inventory and analysis process will provide baseline information necessary to design strategies that utilize areas most appropriate to evaporate, transpire, and infiltrate stormwater, and achieve the goal of minimizing the pre-development natural hydrologic conditions on the site.”

– 2014 SWMMWW



IV. LID Site Assessment – Site Assessment Review (SAR) – The Proposal

Bainbridge Island Municipal Code (BIMC) 15.19 Establishes the SAR

- Who Needs to Complete a Site Assessment Review?
- What comprises a Site Assessment Review?
- Who in the City will Review the Site Assessment Review?
- How Long will the Site Assessment Review take to Complete?
- How much will it cost?

Who Needs to Complete a Site Assessment Review?

Figure 1
Flow Chart for New Development

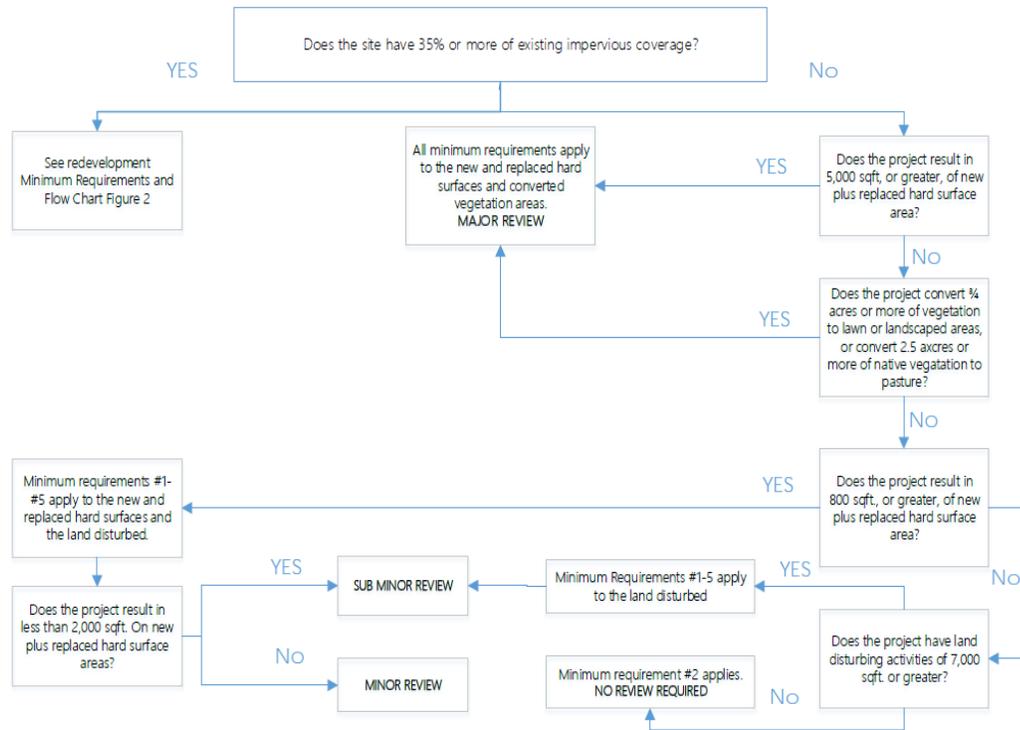
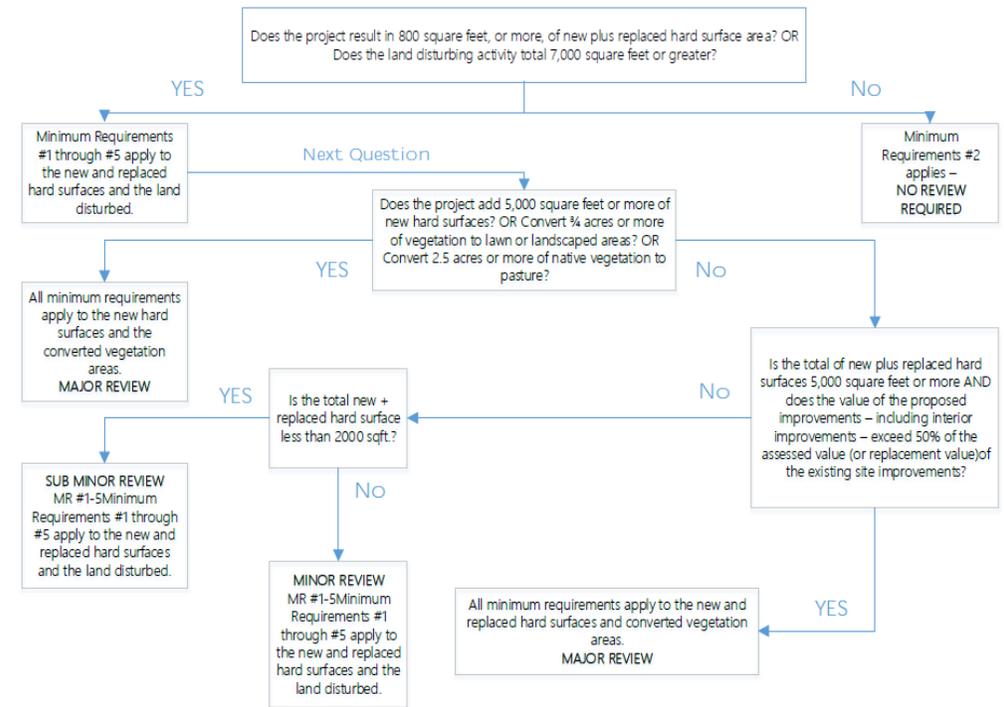
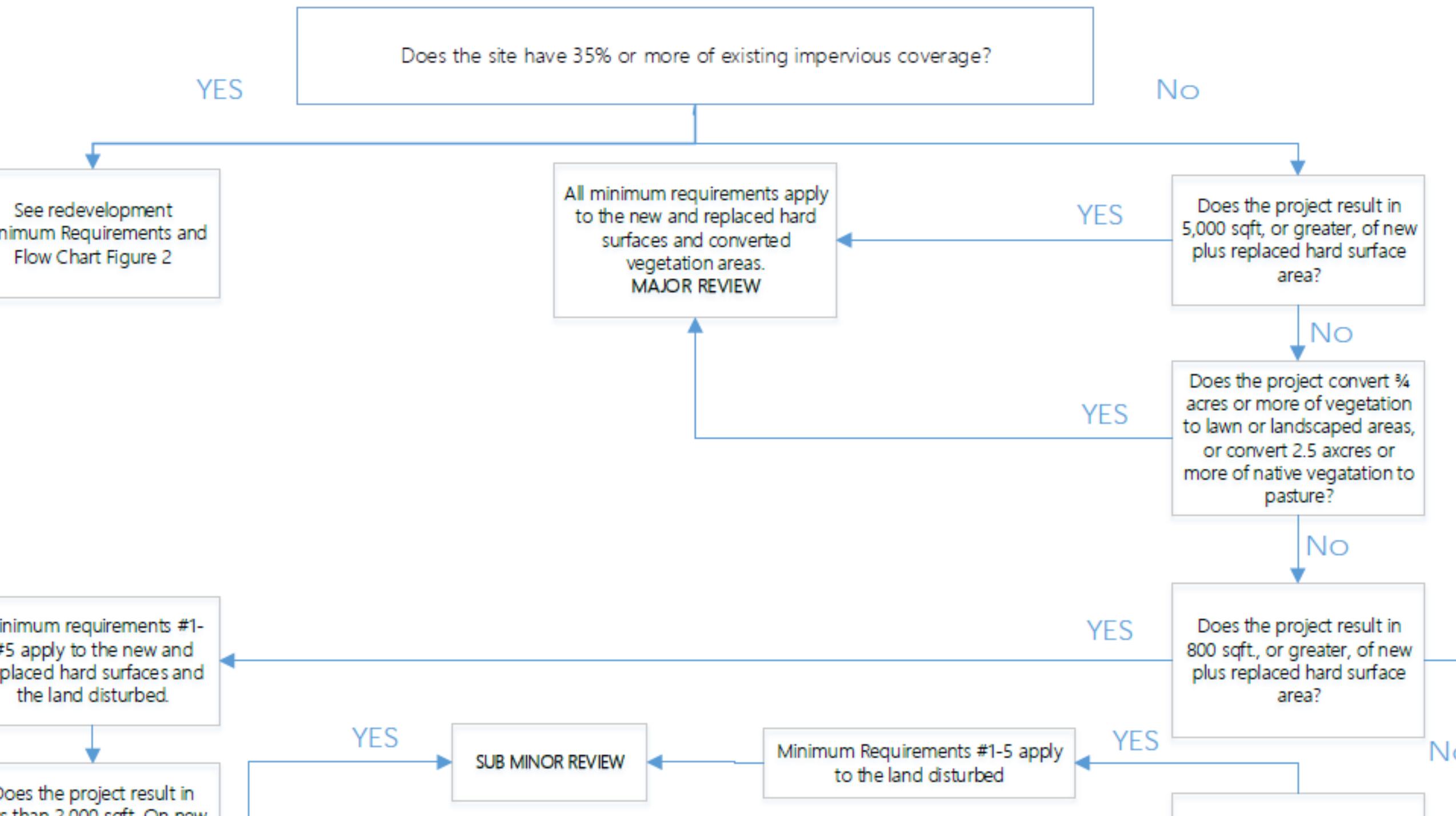


Figure 2
Flow Chart for Determining Requirements for Redevelopment





Does the project result in 800 square feet, or more, of new plus replaced hard surface area? OR
Does the land disturbing activity total 7,000 square feet or greater?

YES

No

Minimum Requirements #1 through #5 apply to the new and replaced hard surfaces and the land disturbed.

Minimum Requirements #2 applies – NO REVIEW REQUIRED

Next Question

Does the project add 5,000 square feet or more of new hard surfaces? OR Convert ¼ acres or more of vegetation to lawn or landscaped areas? OR Convert 2.5 acres or more of native vegetation to pasture?

All minimum requirements apply to the new hard surfaces and the converted vegetation areas.
MAJOR REVIEW

No

Is the total of new plus replaced hard surfaces 5,000 square feet or more AND does the value of the proposed improvements – including interior improvements – exceed 50% of the assessed value (or replacement value) of the existing site improvements?

YES

Is the total new + replaced hard surface less than 2000 sqft.?

No

SUB MINOR REVIEW
MR #1-5 Minimum Requirements #1 through #5 apply to the new and replaced hard surfaces and the land disturbed.

No

MINOR REVIEW
MR #1-5 Minimum Requirements #1 through #5 apply to

All minimum requirements apply to the new and replaced hard surfaces and converted vegetation areas.

YES

What comprises a Site Assessment Review?

Needed at Submittal:

1. Survey
2. Soils Report
3. Vegetation survey*
4. Preliminary Drainage Report
5. Preliminary Site Plan
6. Sewer and Water non-binding availability letter*
7. Other technical reports*

*as needed

Who in the City will Review the Site Assessment Review?

- Public Works – Development Engineer
- Planning Staff

How Long will the Site Assessment Review take to Complete?

- Dependent on Submittal Package?

How much will
it cost?

- Sub – Minor: \$360
- Minor: \$1,440
- Major: \$4,320

- Revisions: ?

IV. Schedule

- Tree/LID Committee – March 15
- City Council – March 21
- City Council Public Hearing – April 11
- Adoption by Consent – April 25

V. Resources