General Compliance Training

DEPARTMENT OF ENERGY & ENVIRONMENT

CENTER FOR WATERSHED PROTECTION

Agenda

- 9:00 – 9:10 Intro/Welcome
- 9:10 – 9:25 Chapter 2, including MSI and MLD
- 9:25 – 9:45 SWRv Calculations
- 9:45 – 10:15 CDA vs. SDA
- 10:15 – 10:30 Break
- 10:30 – 11:15 Chapter 3 Specifications
- 11:15 – 11:30 Detention Example
- 11:30 – 11:45 PROW to the MEP
- 11:45 – 1:00 Lunch
- 1:00 – 1:30 Offv and SRCs
- 1:30 – 2:00 Plan Submittal Process and SWDB
- 2:00 – 2:45 Proposed Changes to the Regulations and Guidebook

Objectives

- Know when the stormwater rules apply
- Calculate the SWRv for a site
- Understand the difference between SDA and CDA
- Understand the basic concepts of the BMPs in the Guidebook and the important design specifications
- Understand PROW to the MEP
- Know what Offv is and how to comply
- Understand the overall process to have a plan approved
- Know what the SWDB is and how to access
- Be able to complete a design example using the General Retention Compliance Calculator
- Understand when detention is required

Stormwater Management Requirements

Chapter 2

CENTER FOR WATERSHED PROTECTION

Stormwater Retention Volume

$$SWRv = P\ (Rv_I * \%I + Rv_C * \%C + Rv_N * \%N) * SA * 7.48 / 12$$

- SWRv = Volume required to be retained on site (gal)
- P = Precipitation (in)
- Rv_I = 0.95 (runoff coefficient for impervious cover)
- Rv_C = 0.25 (runoff coefficient for compacted cover)
- Rv_N = 0.0 (runoff coefficient for natural cover)
- %I = % of site in impervious cover
- %C = % of site in compacted cover
- %N = % of site in natural cover
- SA = Surface area (square feet)

When Stormwater Rules are in Effect

- Major Substantial Improvement (MSI)
  - Construction costs for building renovation/addition are greater than or equal to 50% of the pre-project assessed value of the structure.
  - AND Combined footprint of structure(s) exceeding the cost threshold and any land disturbance are greater than or equal to 5,000 square feet.

- Major Land Disturbing (MLD)
  - Activity that disturbs, or is part of a common plan of development that disturbs, 5,000 square feet or greater of land area

Anacostia Waterfront Development Zone (AWDZ)

DISTRICT DEPARTMENT OF THE ENVIRONMENT
green forward

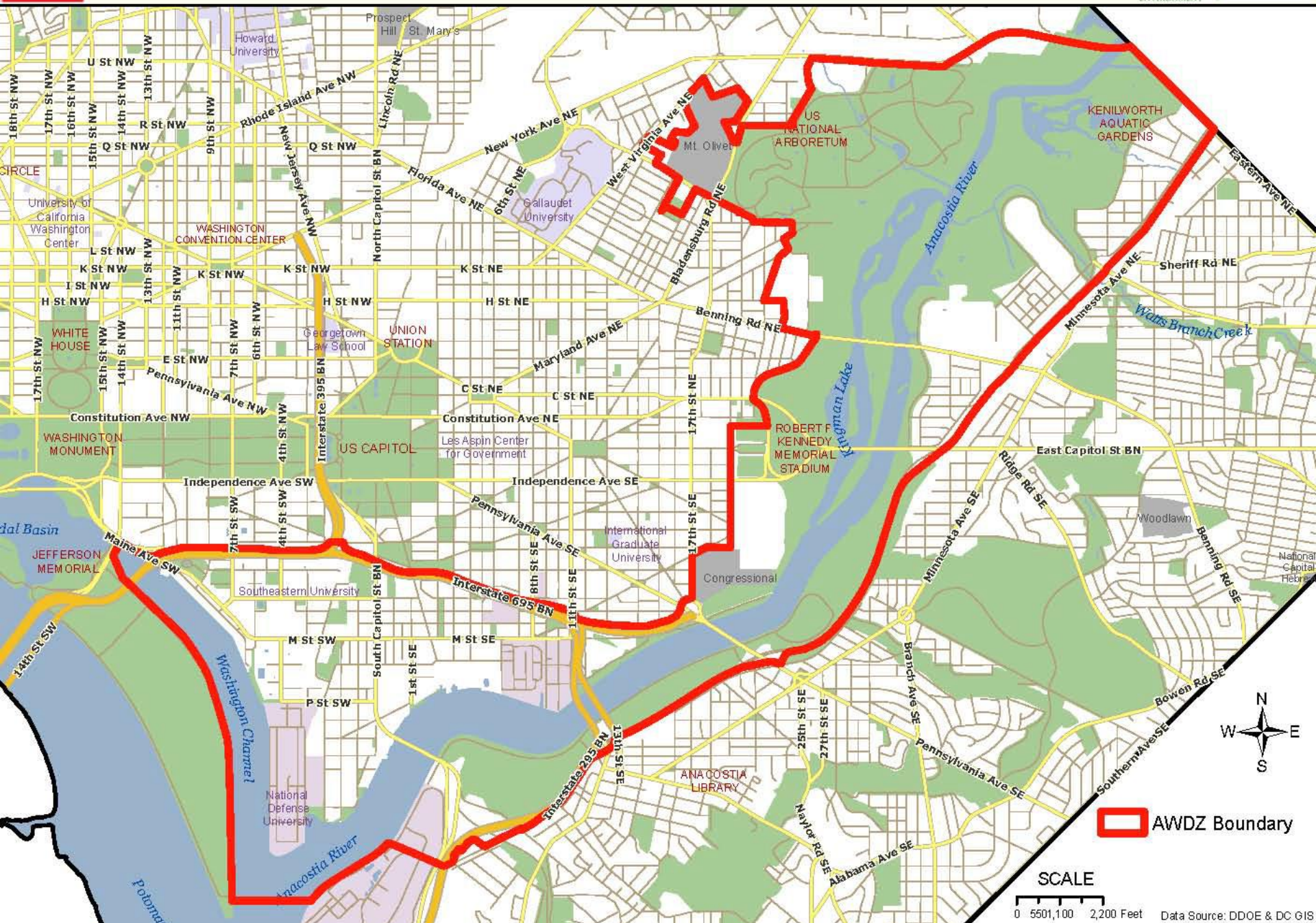


Figure 2.3: Precipitation Event

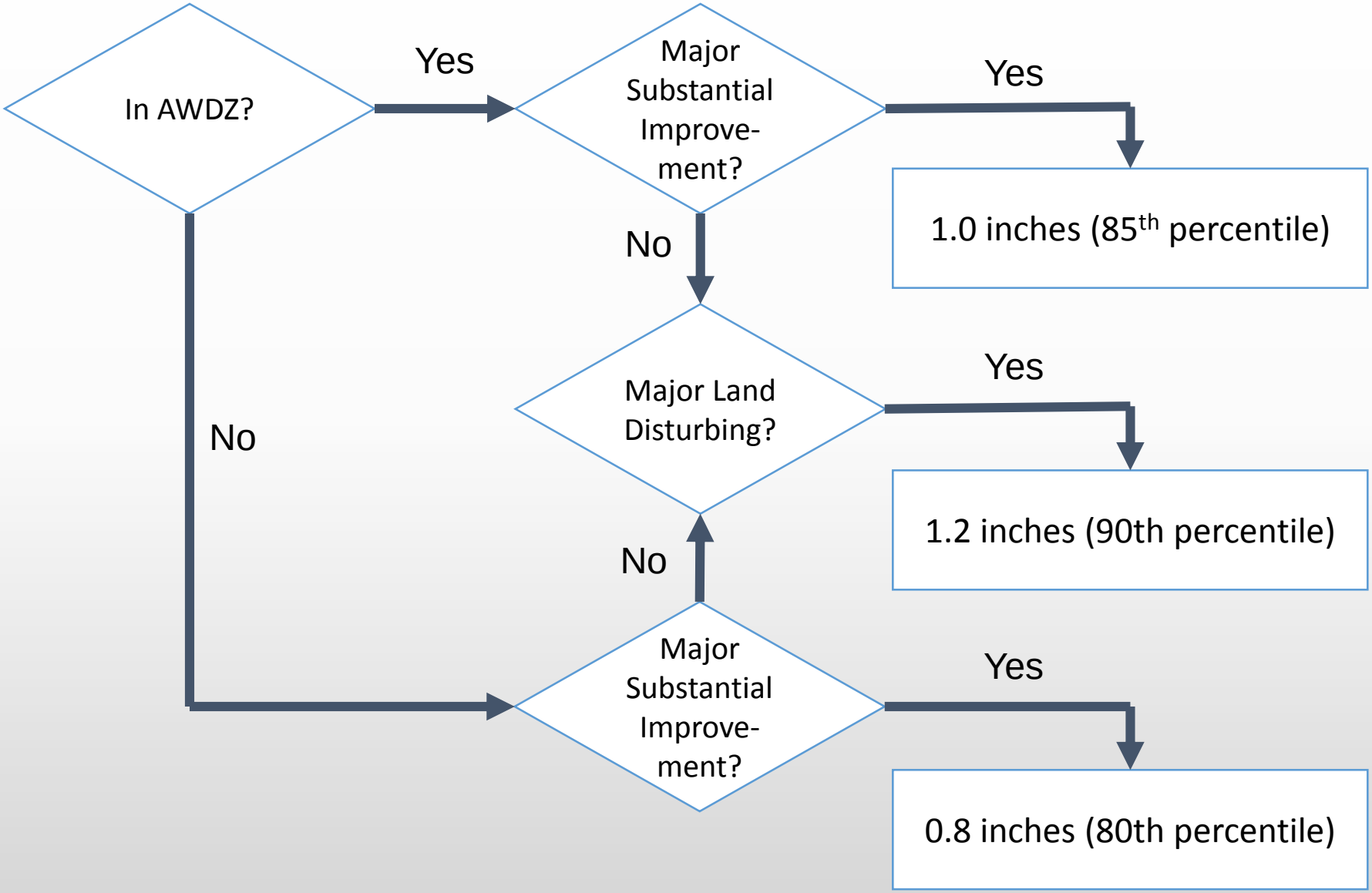


Figure 2.4: Overall Requirements

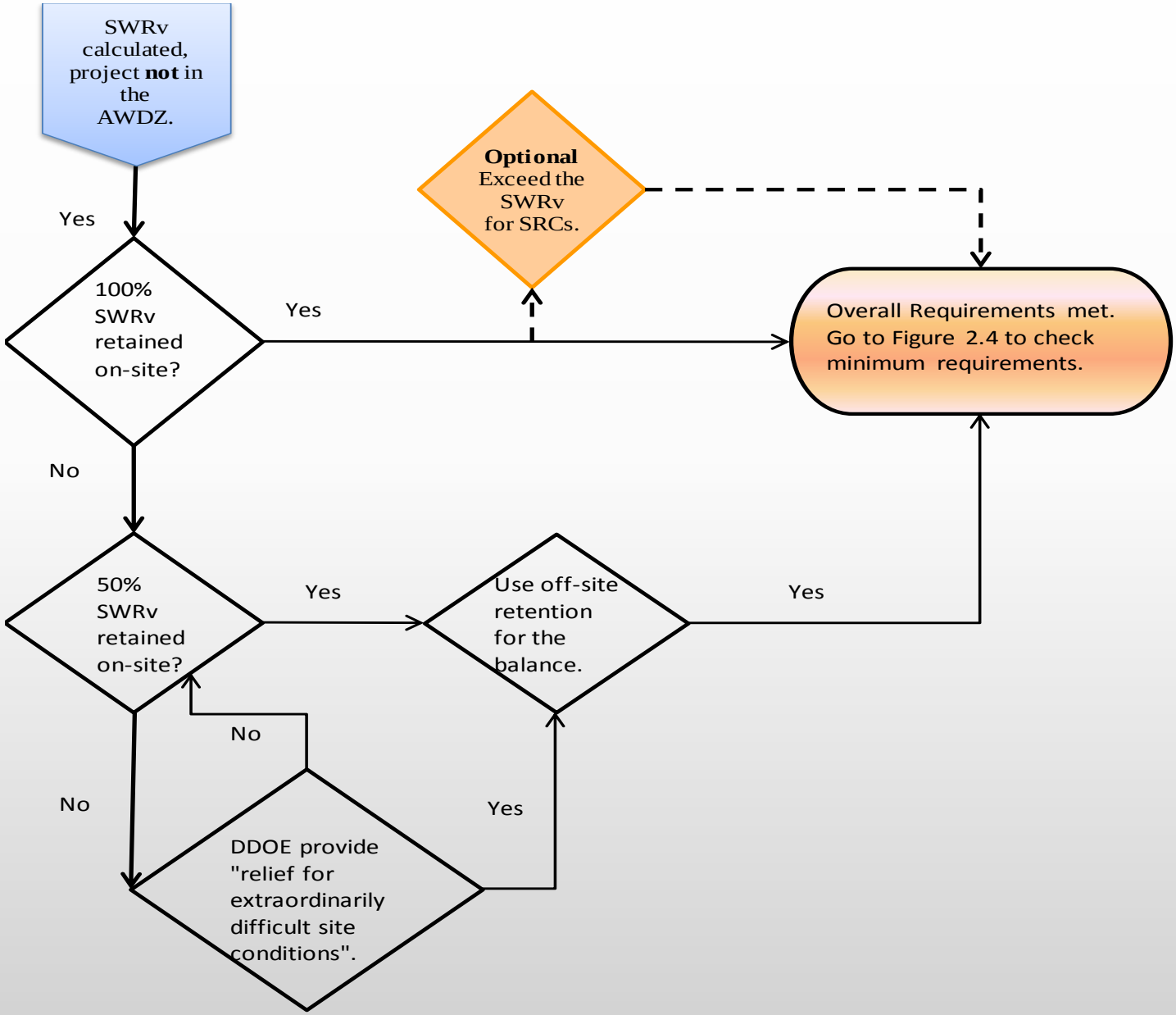


Figure 2.5: AWDZ Requirements

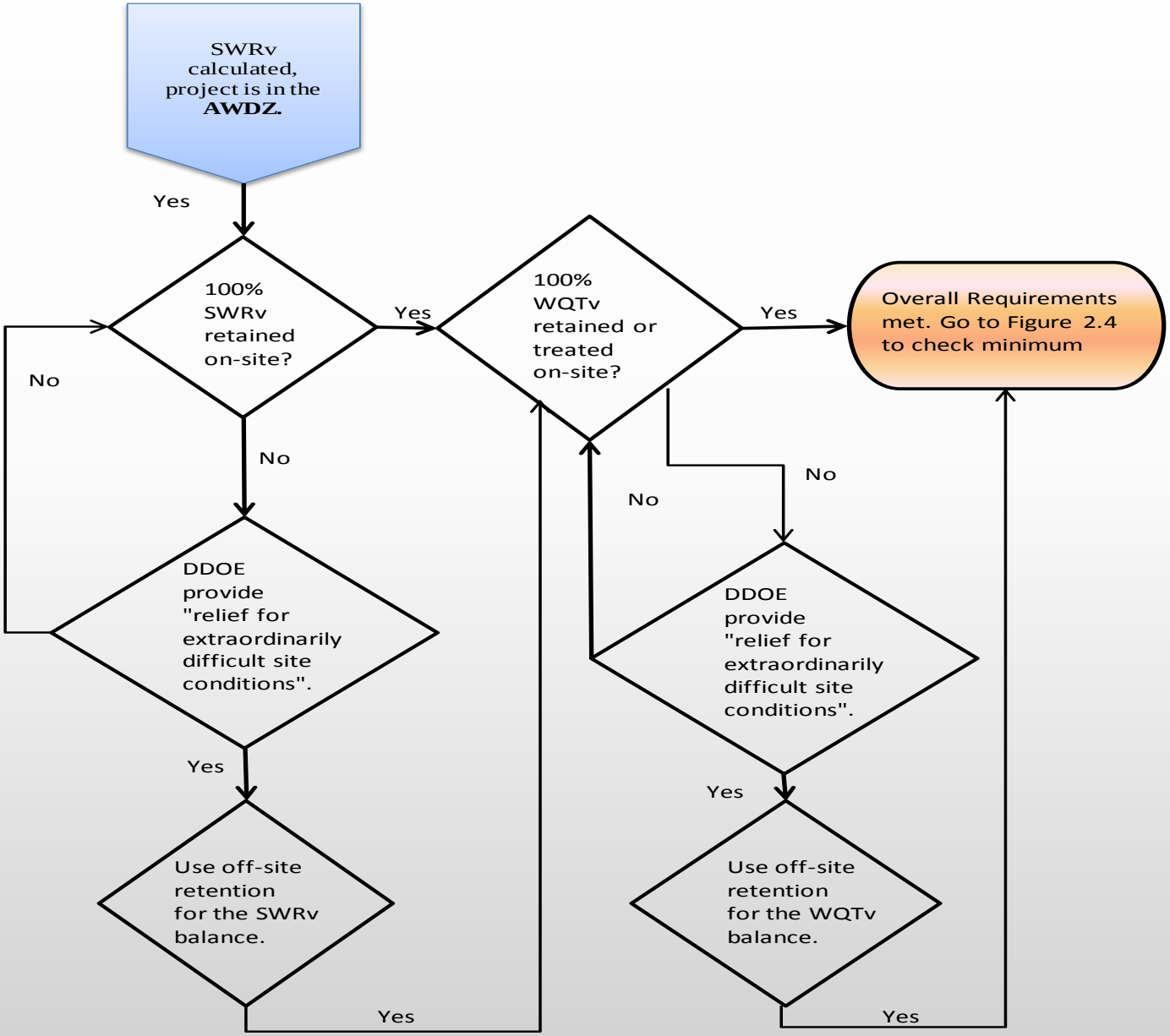
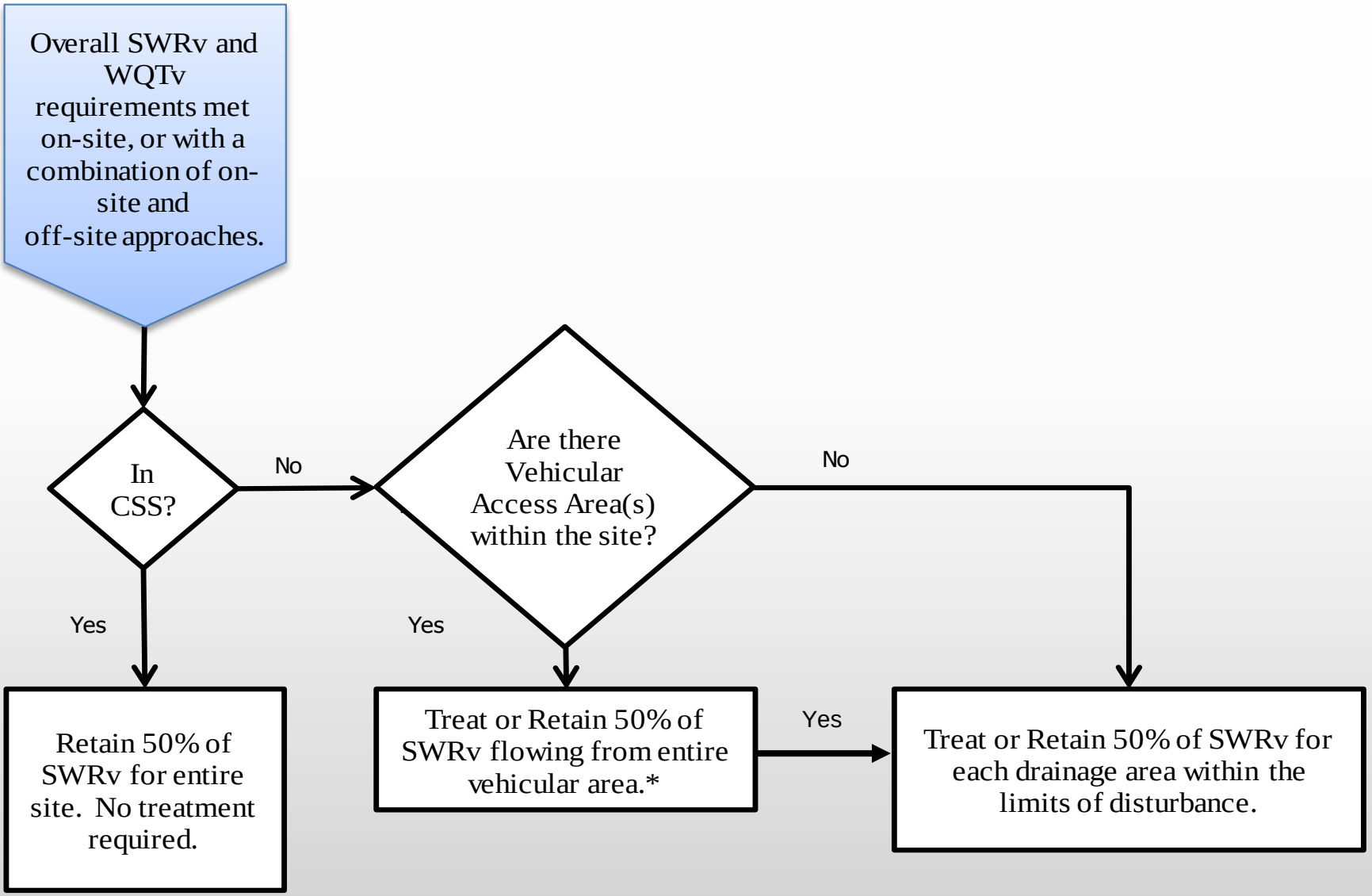
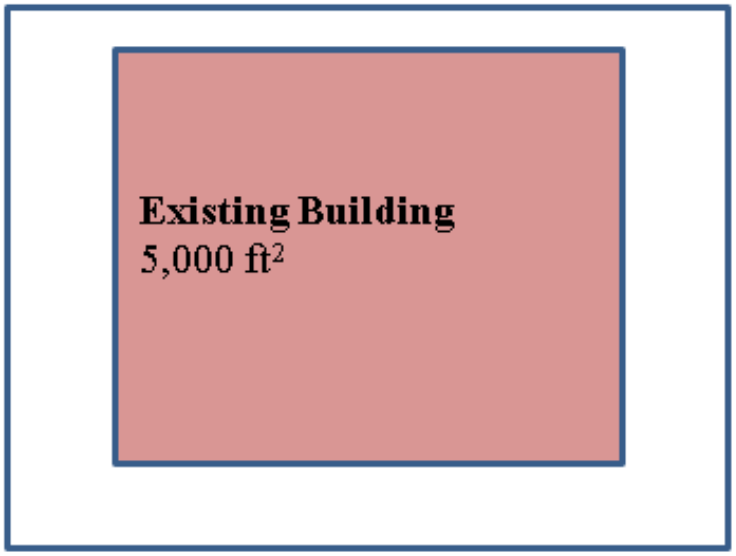


Figure 2.6: Minimum Requirements



Examples of Major Substantial Improvement

Example 1 Site



Building Footprint = 5,000 ft²

Assessed Property Value = $1,500,000

Renovation Cost = $750,000

Percent of Property Value = 50%

Land Disturbance Area = 0 ft²

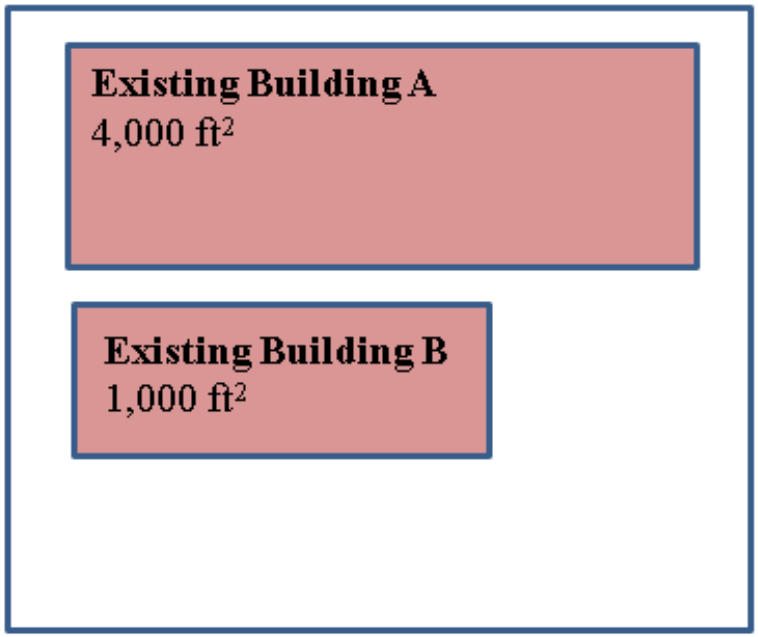
Total Project Footprint = 5,000 ft²

Activity Type = Major Substantial Improvement

SWRv Rainfall Depth = 0.8 inch

Examples of Major Substantial Improvement

Example 2 Site



Building A Footprint = 4,000 ft²

Assessed Property Value A =$750,000

Renovation Cost A = $500,000

Percent of Property Value A = 67%

Building B Footprint = 1,000 ft²

Assessed Property Value B =$300,000

Renovation Cost B = $175,000

Percent of Property Value B = 50%

Land Disturbance Area = 0 ft²

Total Project Area = 5,000 ft²

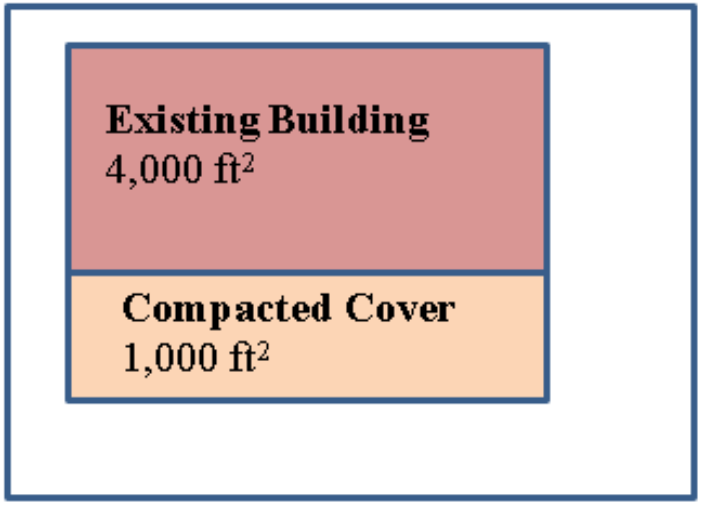
Stormwater Management is required:

Activity Type = Major Substantial Improvement

SWRv Rainfall Depth for Project = 0.8 inch

Examples of Major Substantial Improvement

Example 4 Site



Building Footprint = 4,000 ft²

Assessed Property Value = $800,000

Renovation Cost = $400,000

Percent of Property Value = 50%

Land Disturbance Area = 1,000 ft²

Total Compacted Cover Area = 1,000 ft²

Total Project Footprint = 5,000 ft²

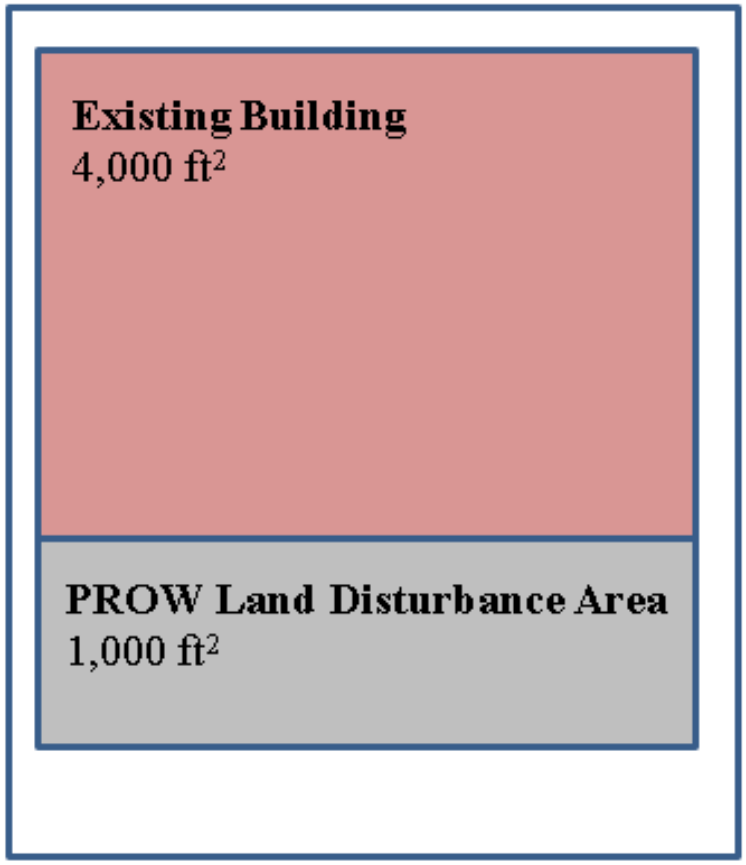
Post-Project Impervious cover = 4,000 ft²>2,500 ft²

Activity Type = Major Substantial Improvement

SWRv Rainfall Depth for Project = 0.8 inch

Examples of Major Substantial Improvement

Example 9 Site



Building Footprint= 4,000 ft²

Assessed Property Value =$700,000

Renovation Cost = $350,000

Percent of Property Value = 50%

Land Disturbance Area= 1,000 ft²

(Includes PROW = 1,000 ft²)

Total Project Footprint = 5,000 ft²

Activity Type for Building =

Major Substantial Improvement

Activity Type for Land Disturbance =

Major Substantial Improvement

SWRv Rainfall Depth for Building = 0.8 inch

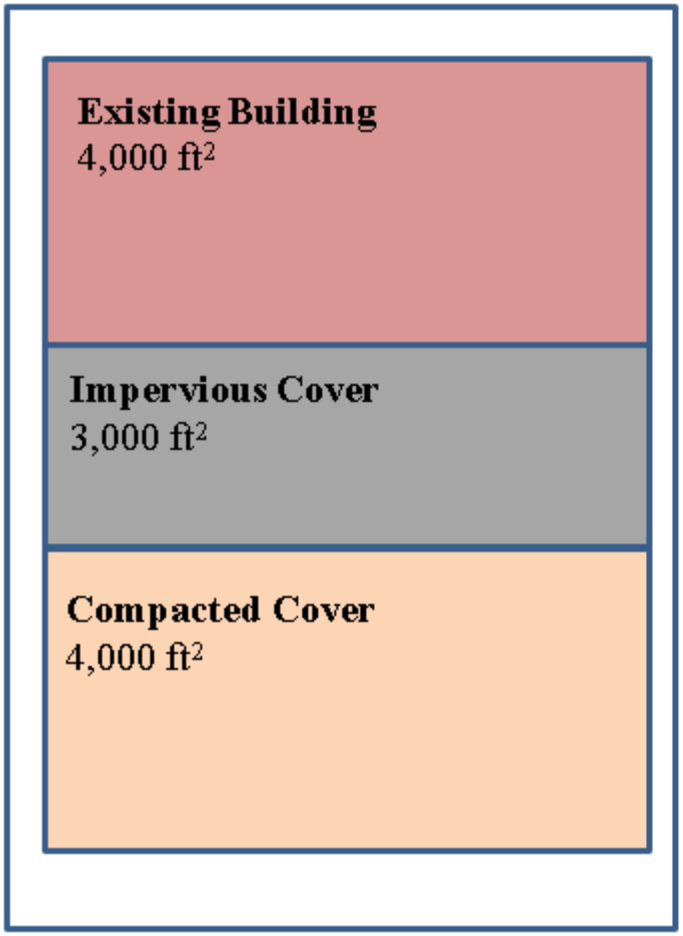
Building Area = 4,000 ft²

SWRv Rainfall Depth for PROW Land Disturbance = 0.8 inches (MEP)

PROW Land Disturbance Area = 1,000 ft²

Example of Major Substantial Improvement and Major Land Disturbance

Example 5 Site



Building Footprint = 4,000 ft²

Assessed Property Value = $800,000

Renovation Cost = $400,000

Percent of Property Value = 50%

Land Disturbance Area = 7,000 ft²

Total Compacted Cover = 4,000 ft²

Total Impervious Cover = 3,000 ft²

Total Project Footprint = 11,000 ft²

Activity Type for Building =

Major Substantial Improvement

Activity Type for Land Disturbance =

Major Land Disturbing

SWRv Rainfall Depth for Building = 0.8 inch

Building Area = 4,000 ft²

SWRv Rainfall Depth for Land Disturbance = 1.2 inches

Land Disturbance Area = 7,000 ft²

Quantity Control Requirements:

- 2-year storm: control peak discharge to pre-development conditions.
- 15-year storm: control peak discharge to pre-project conditions.