

Natural Landscaping

Session 1
Site Analysis

Clallam Conservation District

Fall 2017





Clallam Conservation District

- **Sub-Division of State Government**
Established in 1959

- **Mission:**

To conserve the natural resources of Clallam County by assisting land users and public organizations with the planning and implementation of conservation practices.





A Landscape should be

a Place to:

- ✓ Grow Food
- ✓ Recreate & Relax
- ✓ Be Inspired by Nature's Beauty

in Harmony with Environment:

- ✓ Fish & Wildlife Habitat
- ✓ Stormwater Management
- ✓ Air Quality





Unsustainable



Unproductive





Natural Landscaping

Landscaping WITH Nature

- Suited to ecological conditions of site
 - Soil, topography and moisture
 - Local climate and microclimate
- Mimic Natural Plant Communities
 - Predominantly NATIVE Plants

Natural Landscapes are Designed to become increasingly Self-Sustaining







COURSE SCHEDULE

Session 1: Introduction, Site Inventory & Analysis

**Session 2: Field Trip 1 – Native Plant Communities,
Dungeness Recreation Area**

Session 3: Site Design

**Session 4: Field Trip 2 – Native Plants in the
Cultivated Landscape, Sequim**

Session 5: Planting, Maintenance and Special Topics

**Session 6: Field Trip 3 – Natural Landscaping &
Stormwater Management, Peninsula
College**



Landscape Design Steps

- 1. Identify Wants and Needs**
- 2. Inventory and Analyze Site**
 - Built Resources
 - Natural Resources
 - Climate and Microclimate
- 3. Develop Schematic Plan**
 - Site Layout – How Site can meet Needs
 - Determine Plant Communities
- 4. Develop Detailed Designs**
 - Select Appropriate Plant Species
- 5. Develop an Implementation Strategy**
 - Site Preparation, Planting and Maintenance



Wants and Needs

List goals & objectives for landscape

- Food Production
- Small Lawn for Recreation
- Space for Dog
- Low Maintenance
- Low Water Use
- Attract Birds, Butterflies
- Frame Views
- Enhance Privacy
- Screen neighbor's house
- Fit with Natural Setting
- Year-round Interest





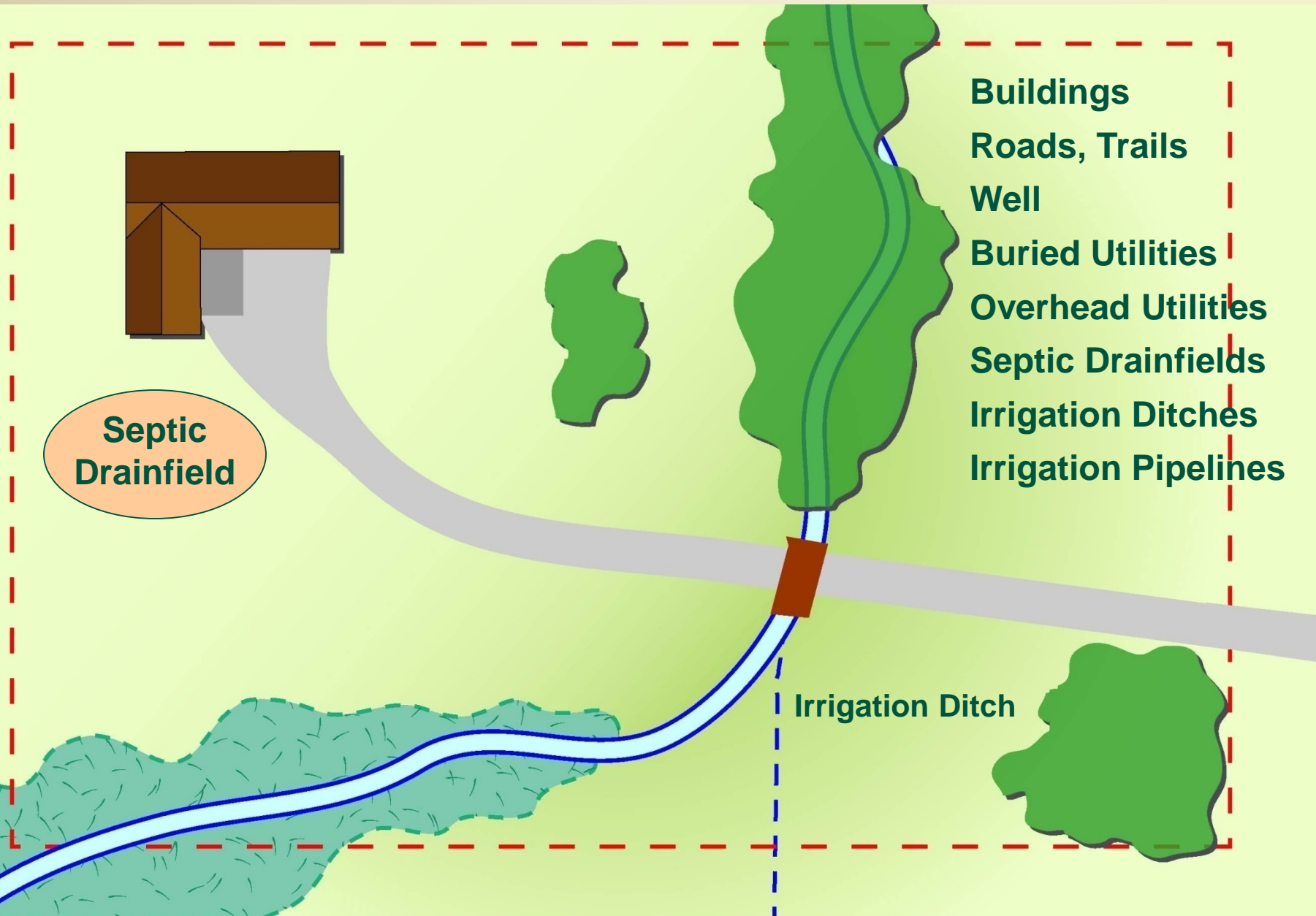
Site Inventory & Analysis

- **Built Resources**
 - Buildings
 - Roads and Trails
 - Utilities, Septic Drainfields
- **Natural Resources**
 - Topography
 - Soils
 - Hydrology (streams, ditches, wet areas)
 - Vegetation
- **Climate and Microclimate**





Site Plan - Built Resources



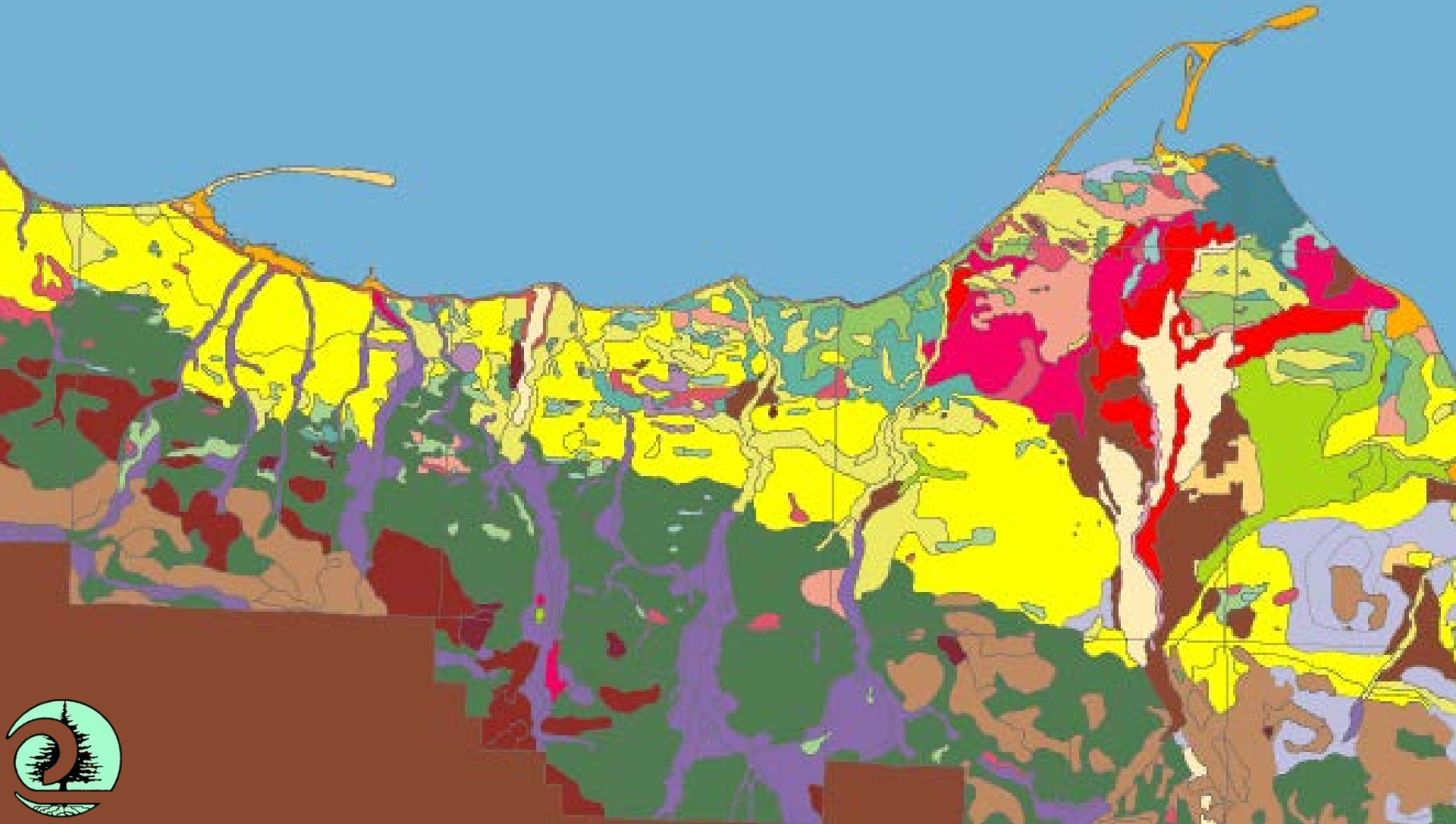


Soils

- **Depth**
 - To Hardpan or Bedrock
 - To Water Table
- **Texture**
- **Condition and Variability on Site**
 - Compacted
 - Subsoil
- **Physical & Chemical Properties**
 - pH (acidity)
 - Organic Matter Content

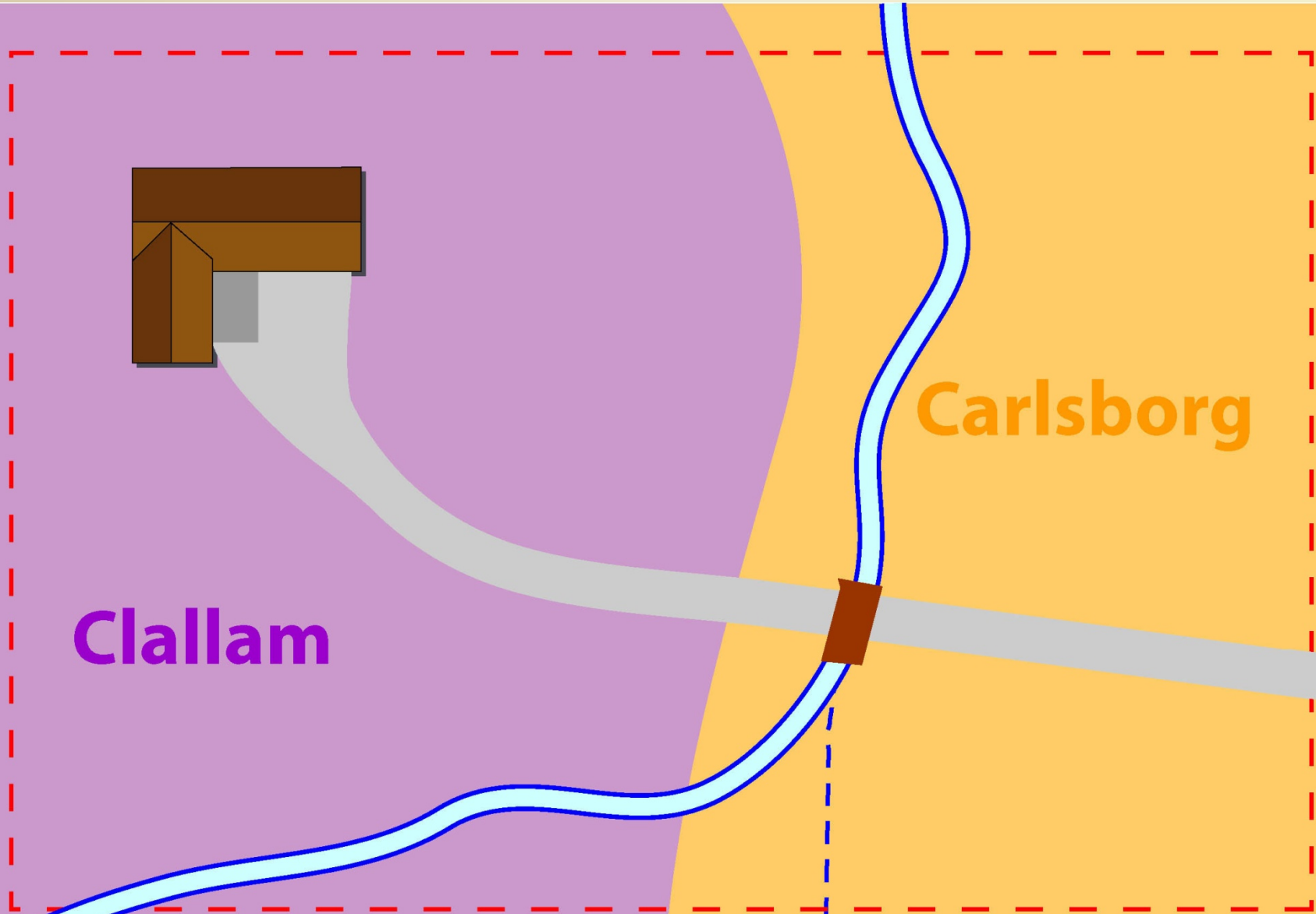


Eastern Clallam County Soils





Soils



Clallam

Carlsborg

Soils

Clallam Gravelly Sandy Loam, 0-15% Slopes

- Moderately deep
- Compact glacial till at 20 to 40 inches depth
- Moderate permeability to till and very slow through it
- Perched water above till January through April
- Available water capacity is low
- 3-5% organic matter content

Carlsborg Gravelly Sandy Loam, 0-5% Slopes

- Very deep
- Somewhat excessively drained with rapid permeability
- Available water capacity is very low
- Effective rooting depth is 60 inches or more
- 1-4% organic matter content



Soils

Clallam Gravelly Sandy Loam

- Best suited for woodland, also used for pasture, hay & cropland
- Native vegetation mainly conifers & shrubs
- Dominant conifer is Douglas fir
- Common understory plants include:
 - salal, evergreen huckleberry, red huckleberry, Oregon grape, twinflower, blackberry, and western brackenfern

Carlsborg Gravelly Sandy Loam

- Commonly used for woodland, hay, pasture, crops & homesites
- Native vegetation mainly conifers & shrubs
- Dominant conifer is Douglas fir
- Common understory plants include:
 - salal, Oregon-grape, oceanspray, salmonberry, and western swordfern



Soils

Dungeness Silt Loam

- Very deep
- Well drained with moderate permeability
- Available water capacity is high
- Effective rooting depth is 60 inches or more
- 2-5% organic matter content
- Well suited for irrigated crop production with few limitations
Native vegetation mainly mixed conifers and deciduous trees & shrubs
- Dominant conifer is Douglas fir
- Common understory plants include:
Oregon grape, salmonberry, bedstraw, and western swordfern



Soil Texture & Water Movement

TYPE	TEXTURE	DRAINAGE	WATER-HOLDING CAPACITY
Clay	Fine	Poorly	High
Silt Loam	Medium	Somewhat Well	High
Sand & Gravel	Coarse	Excessively	Low



Soils

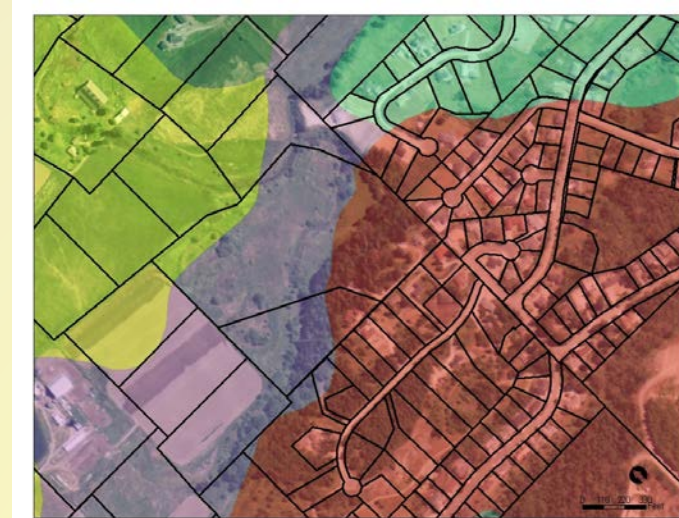
Soils Maps

- NRCS on-line

<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

- Clallam County on-line
- Conservation District
- Permit records

Note variations on your site!

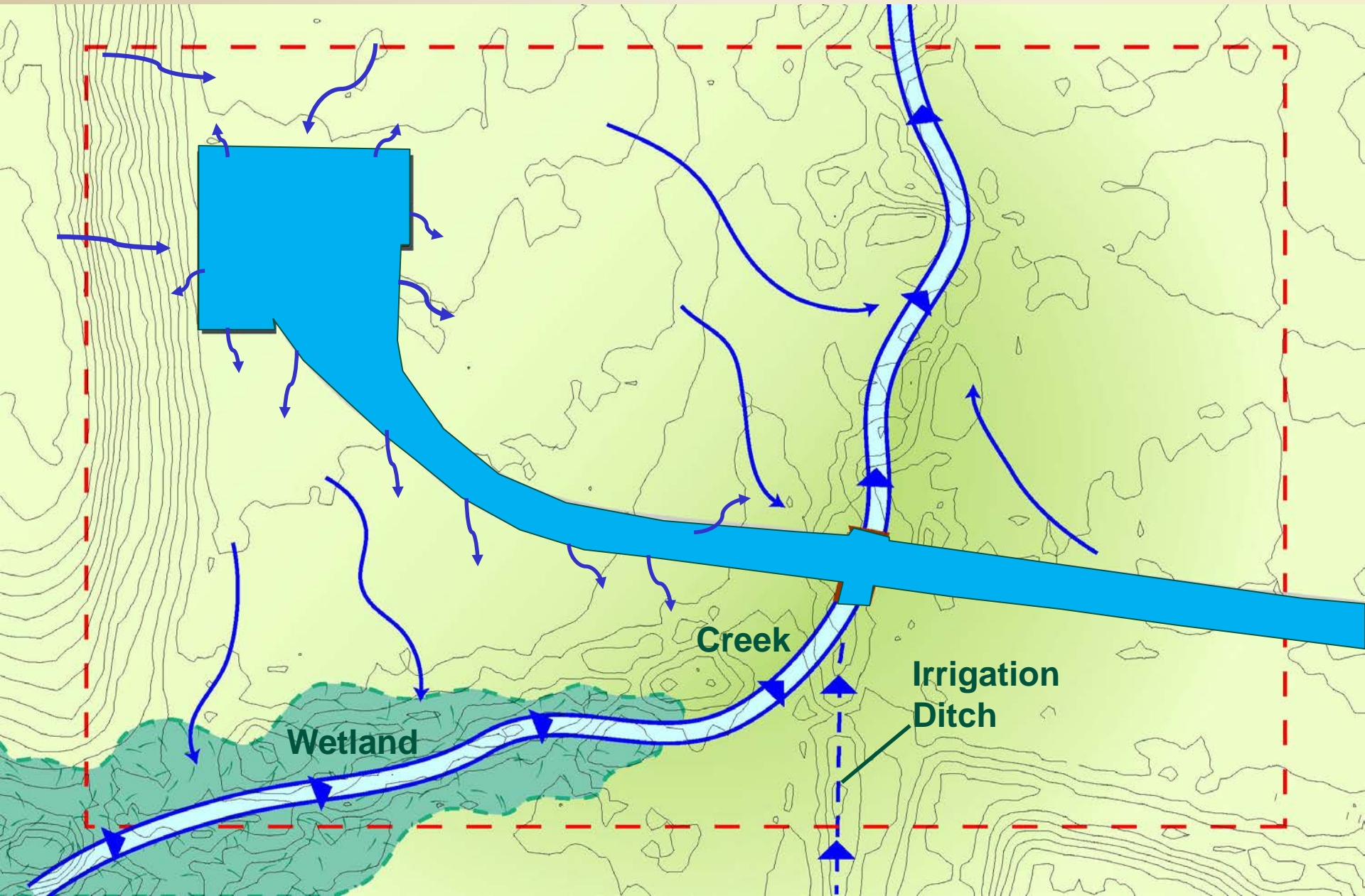


Soil Survey provides good general information, but it is no substitute for actual field observations





Topography & Hydrology



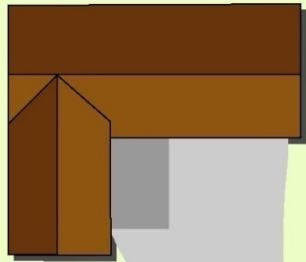
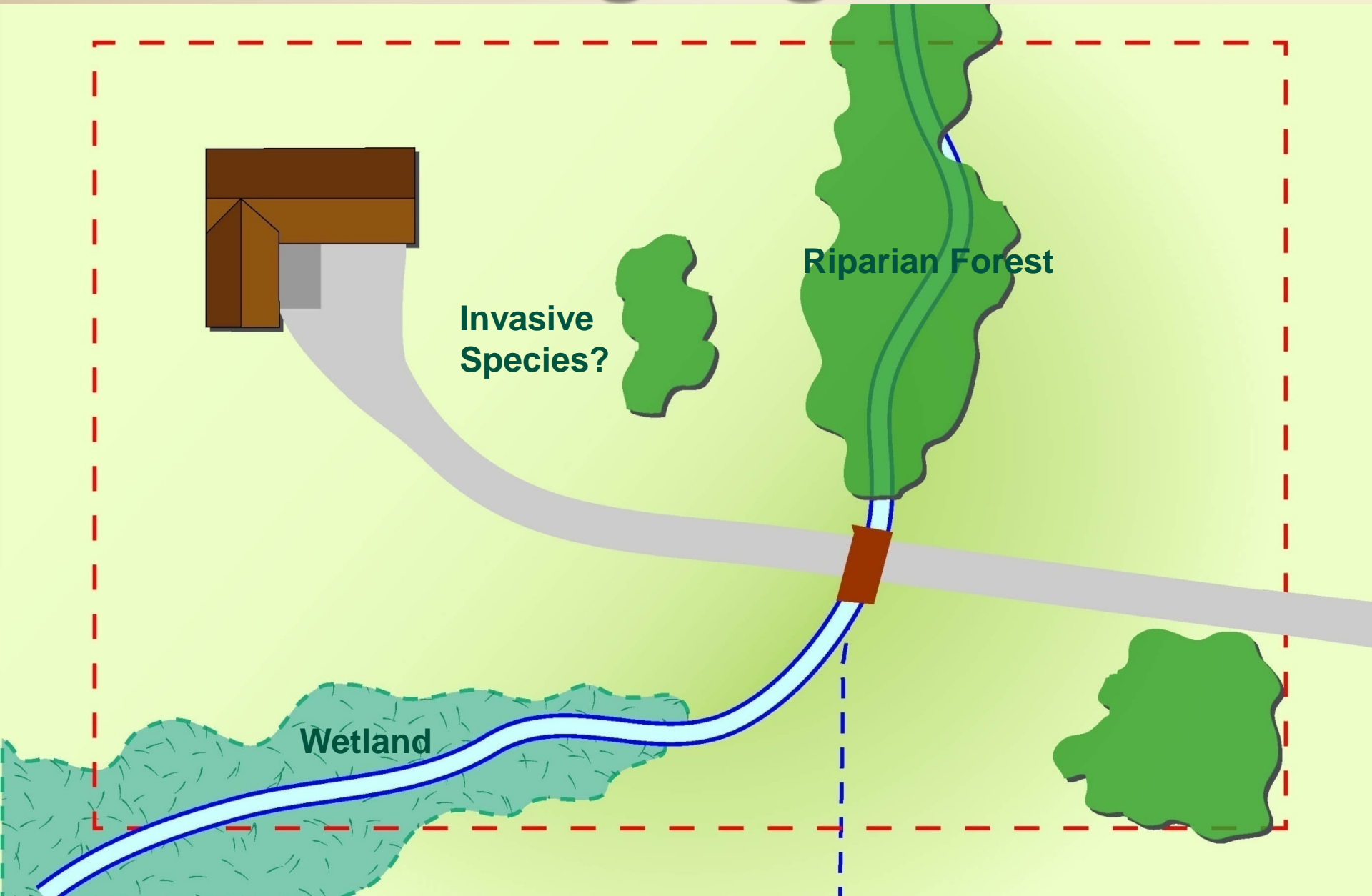
Creek

Irrigation
Ditch

Wetland



Existing Vegetation

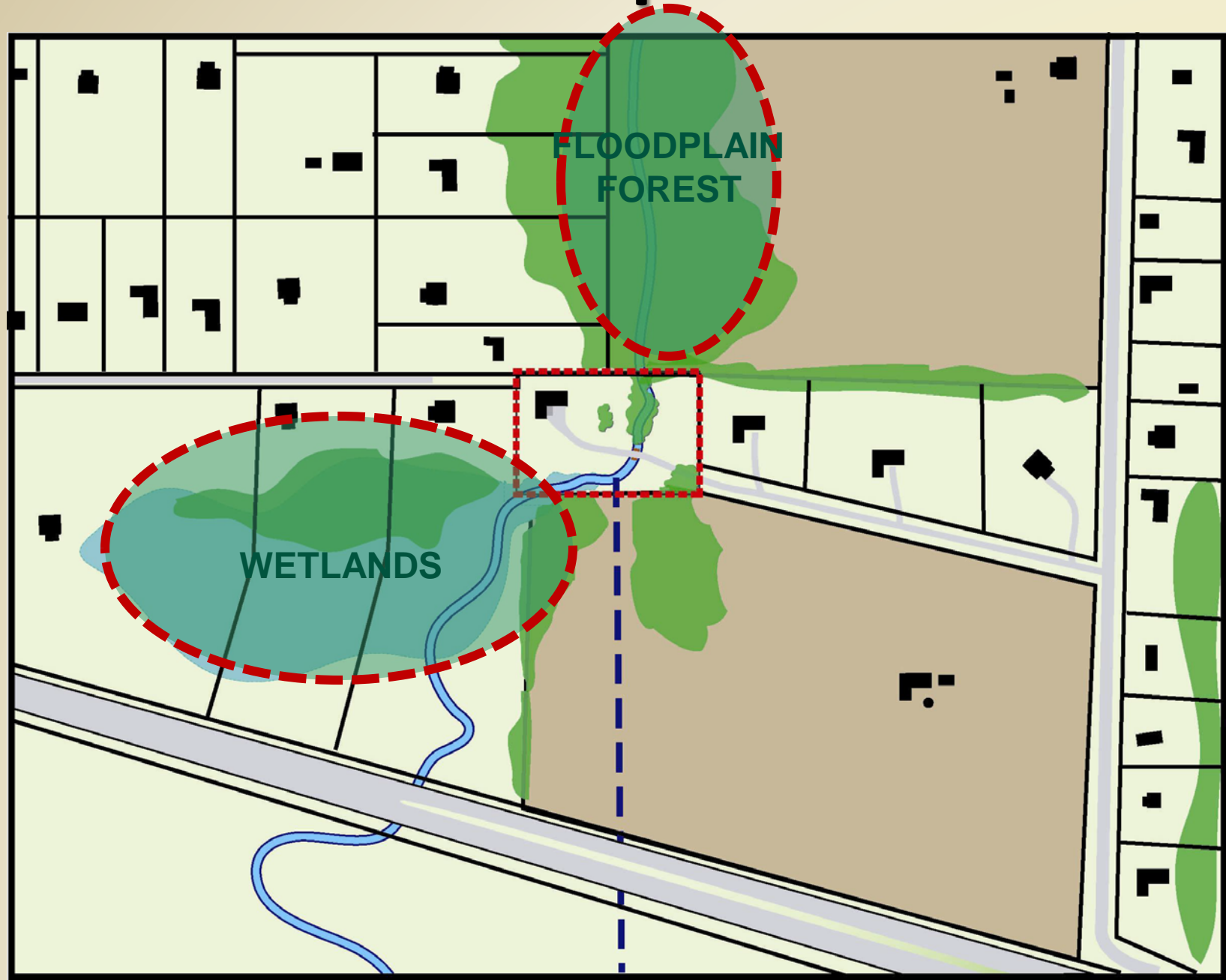


Invasive
Species?

Riparian Forest

Wetland

Landscape View



BREAK

04 20 00





Climate & Microclimate



04 20 2008

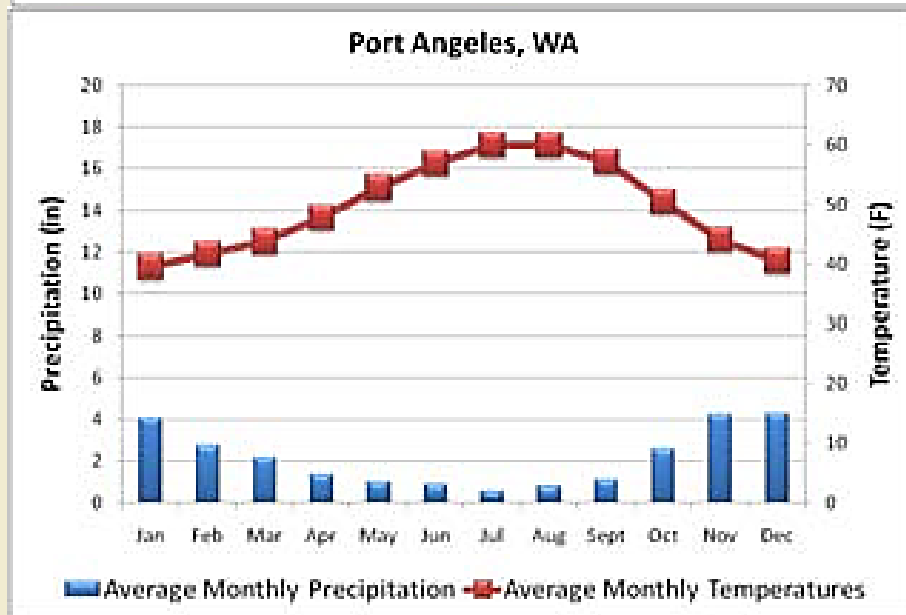
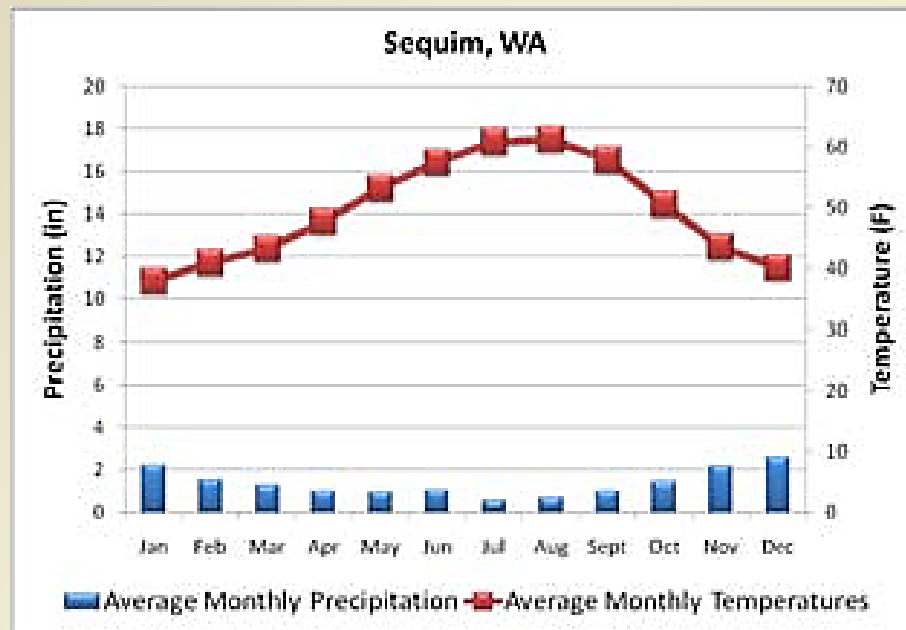


Climate and Microclimate

- **Precipitation**
 - Monthly and Annual Rainfall Averages
- **Temperature**
 - Average Maximums and Minimums
 - First Frost and Last Frost Dates
- **Wind**
 - Exposed areas, protected areas
- **Sun and Shade**
 - Sunny areas, shady areas, areas needing shade

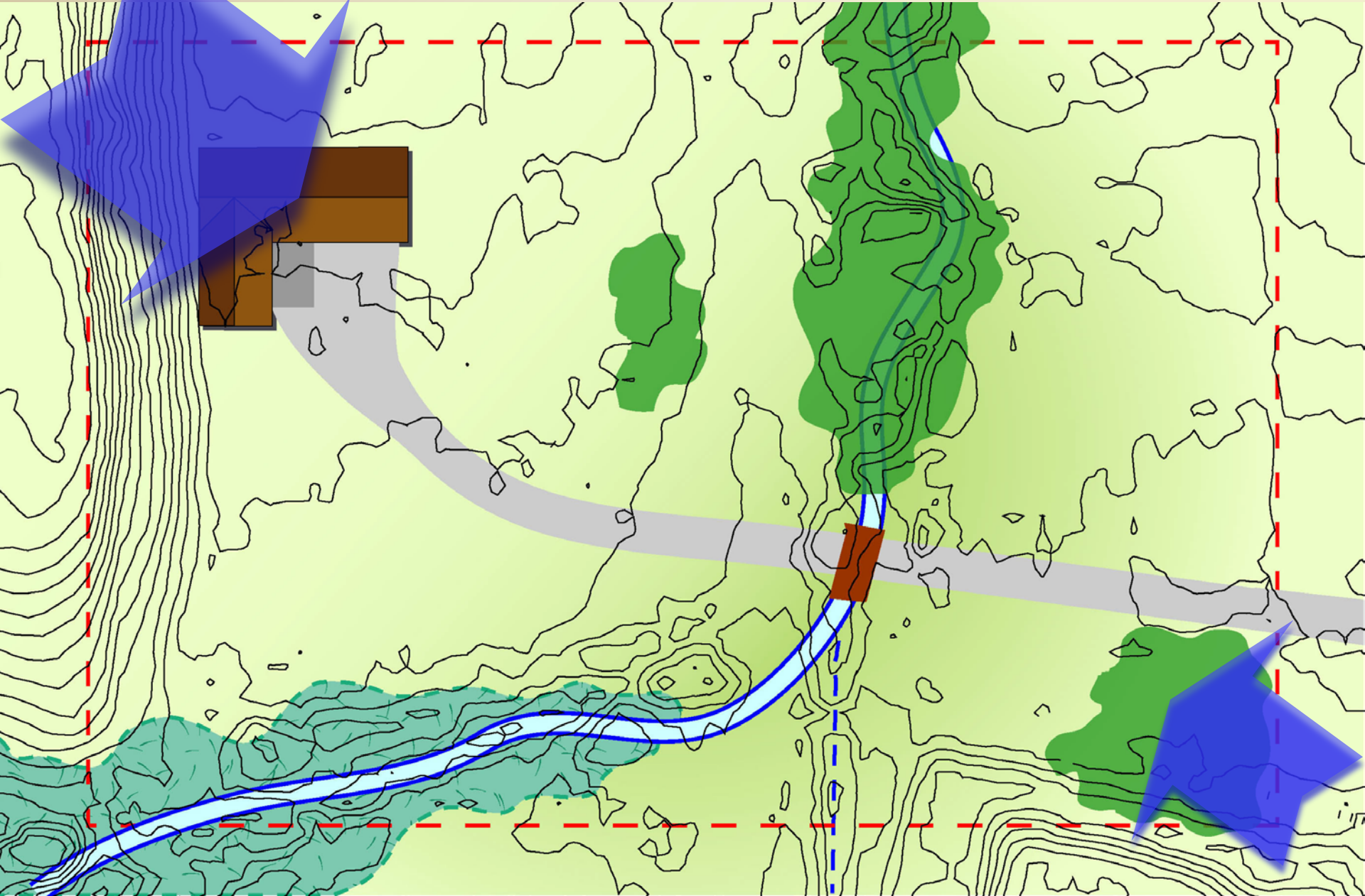


Climate and Microclimate

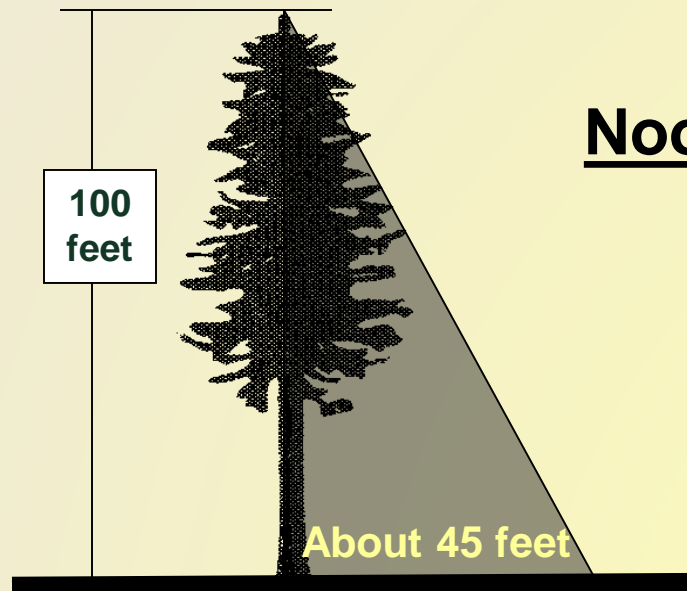
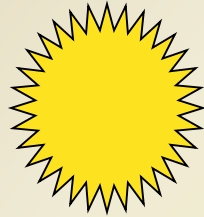




Wind, Sun, Shade & Frost



Sun & Shade



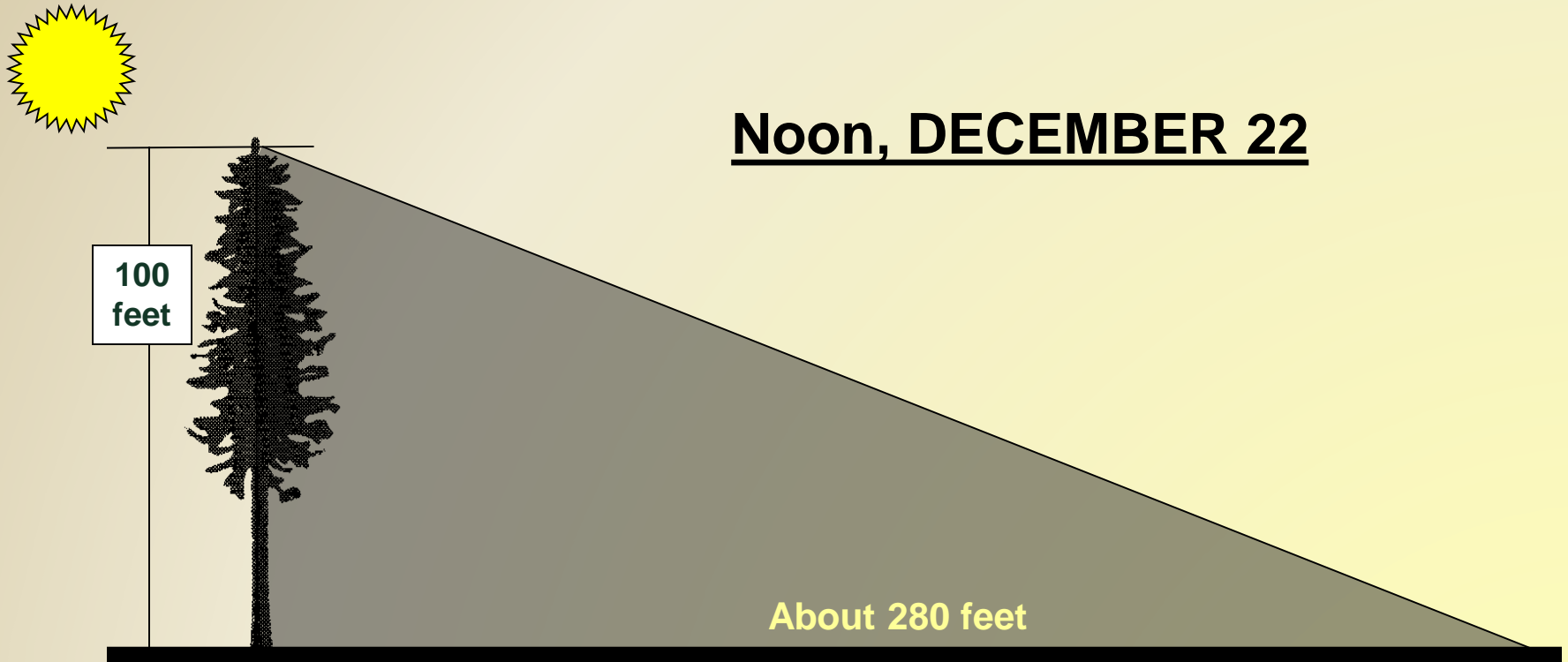
Noon, JUNE 22

<http://www.findmyshadow.com/>



Sun & Shade

Noon, DECEMBER 22

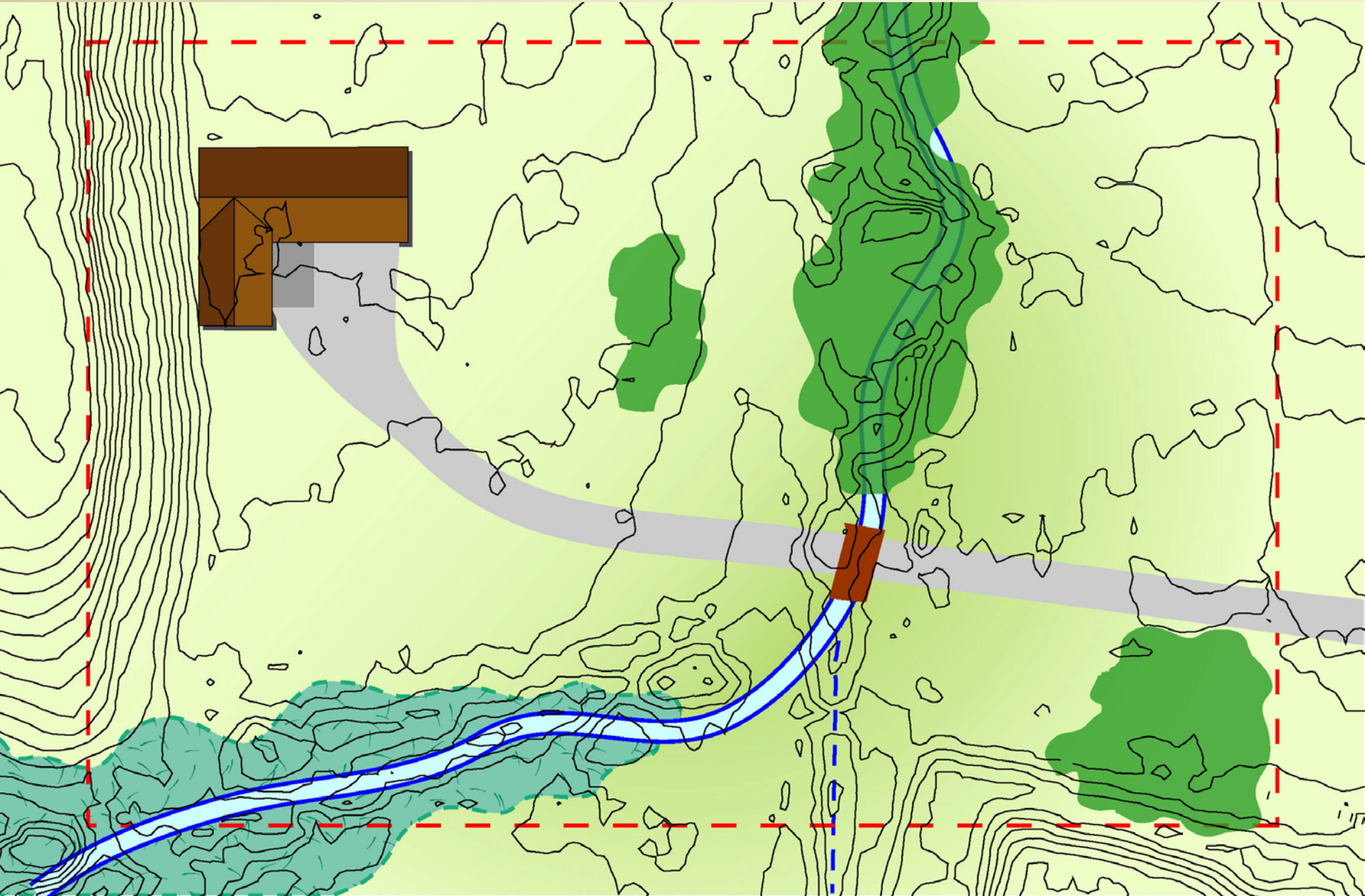


<http://www.findmyshadow.com/>





Views – Good & Bad



Site Analysis – County Website

Clallam County Parcel and Critical Areas Map - Windows Internet Explorer

http://www.clallam.net/aimswbsite/CA_public_htmlcust/viewer.htm

File Edit View Favorites Tools Help

Clallam County Parcel and Critical Areas Map

Zoom to....

Legend

- County Boundary
- Highways
- Roads
- Interim Official Controls
- Rivers
- Range & Township Lines
- Lakes
- Cities
- Olympic National Park
- Tribes
- DNR Land
- Olympic National Forest
- Boundaries
- Clallam County
- Water
- Other Counties

Layers Refresh

Visible/Active


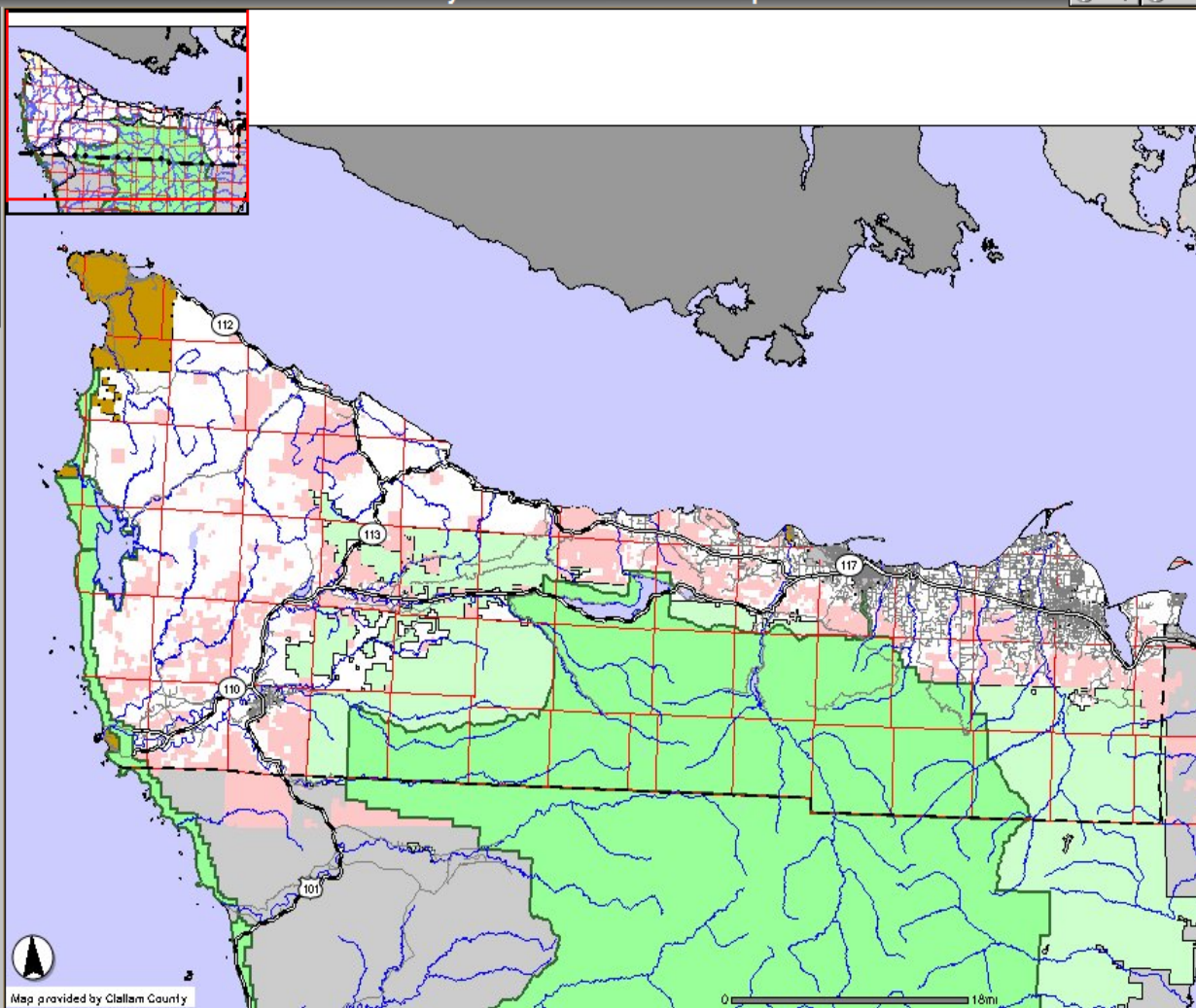
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Map provided by Clallam County

Zoom In Zoom to Parcel: [] Go Zoom to Scale (no commas) 1: 609039 Go

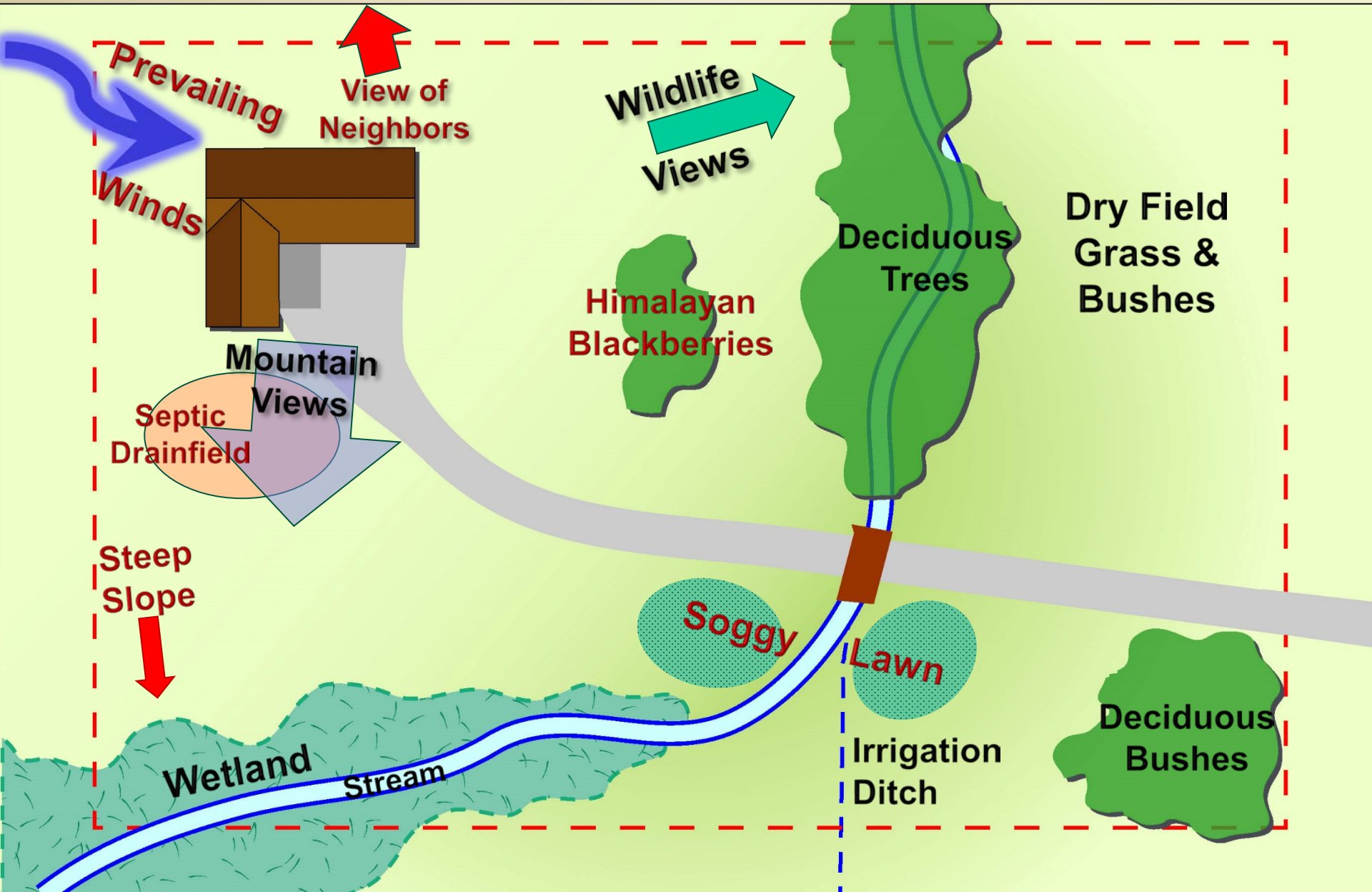
Done Internet 100%

Start Inbox - Microsoft Outlook S:\Service_Center\Conse... Sequim Natural Landscap... Maps Home Page - Wind... Clallam County Parce... 12:30 PM



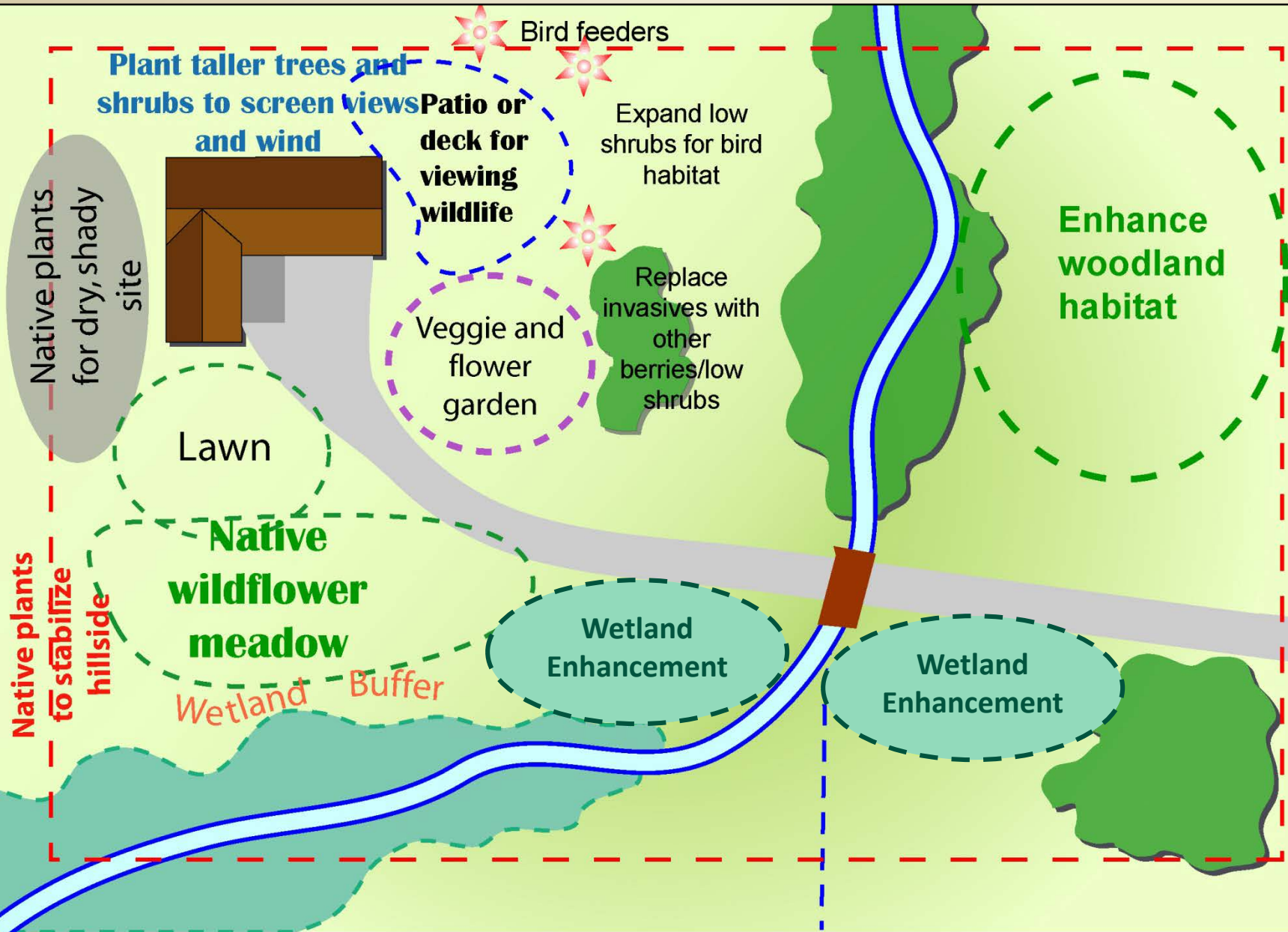


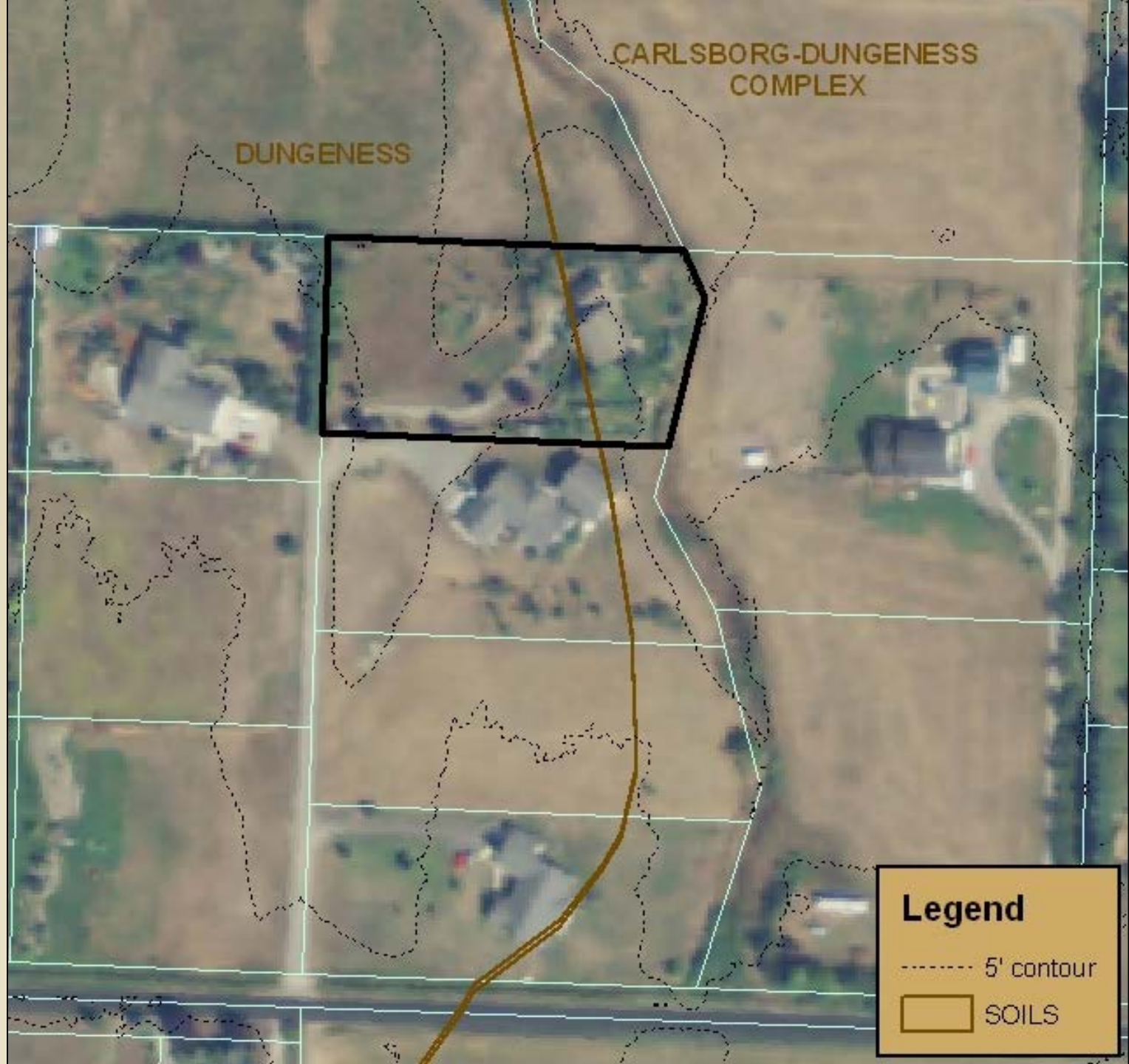
Site Analysis



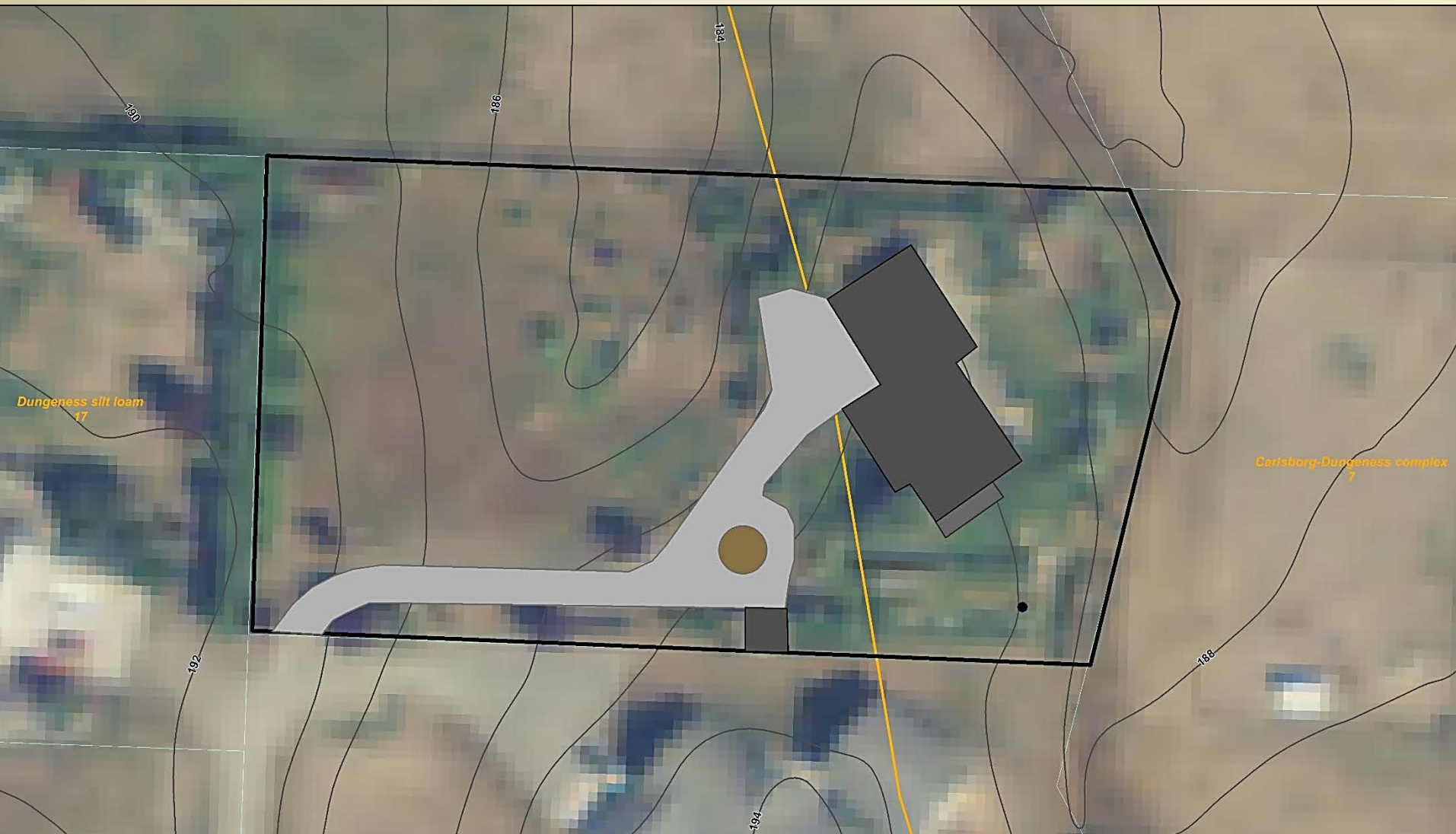


Schematic Plan



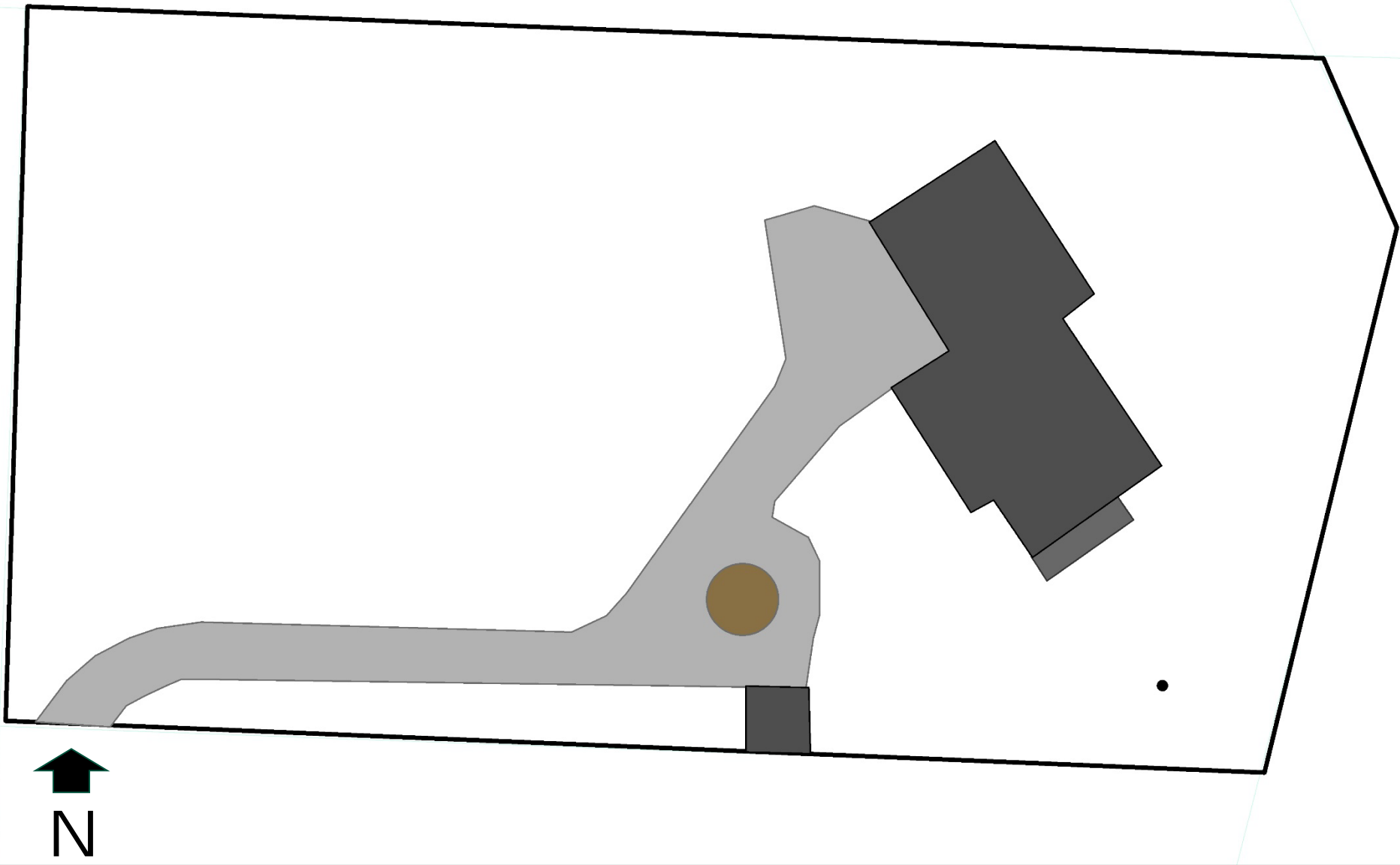


Site Inventory & Analysis



Soils & Drainage

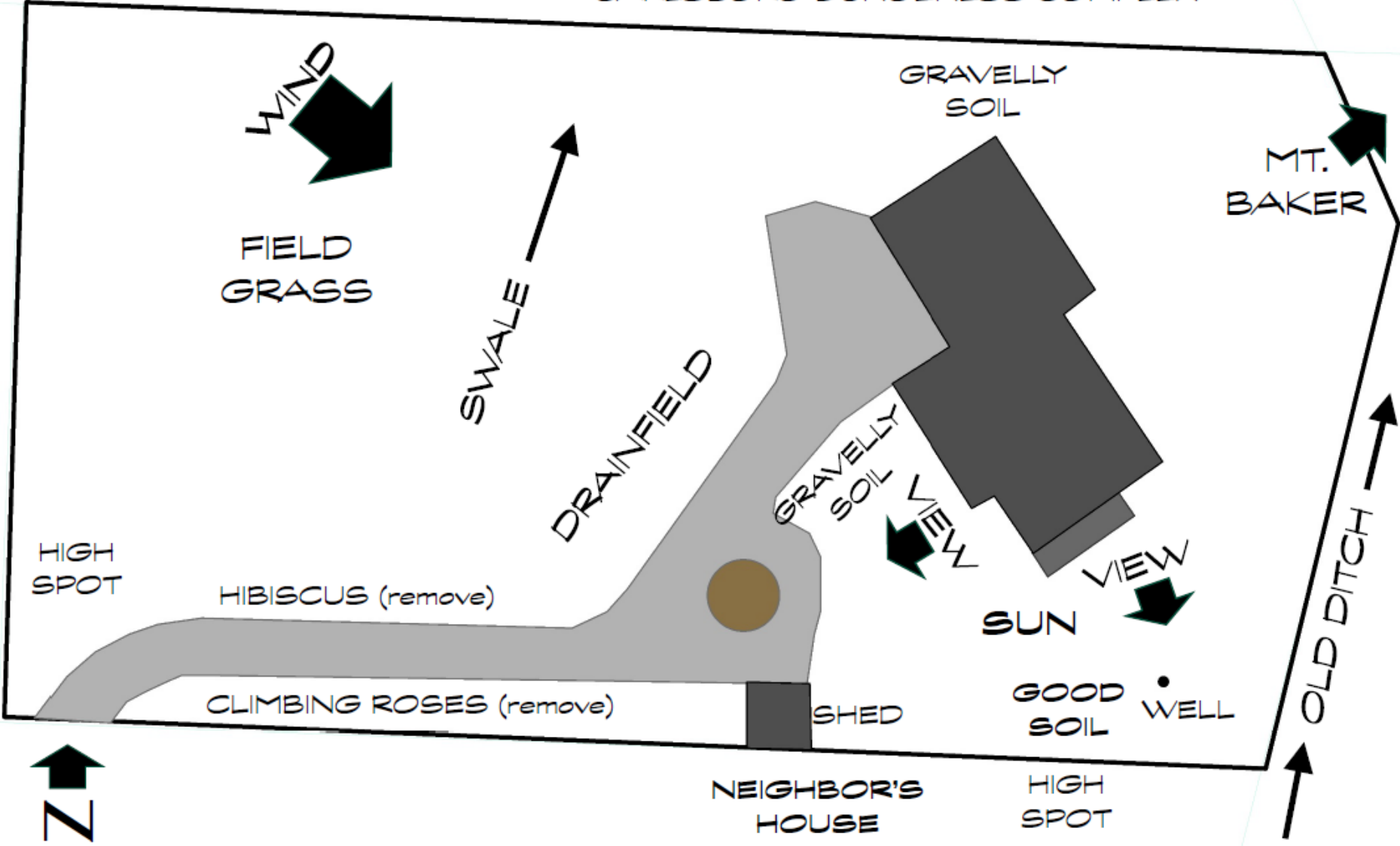




Base Map

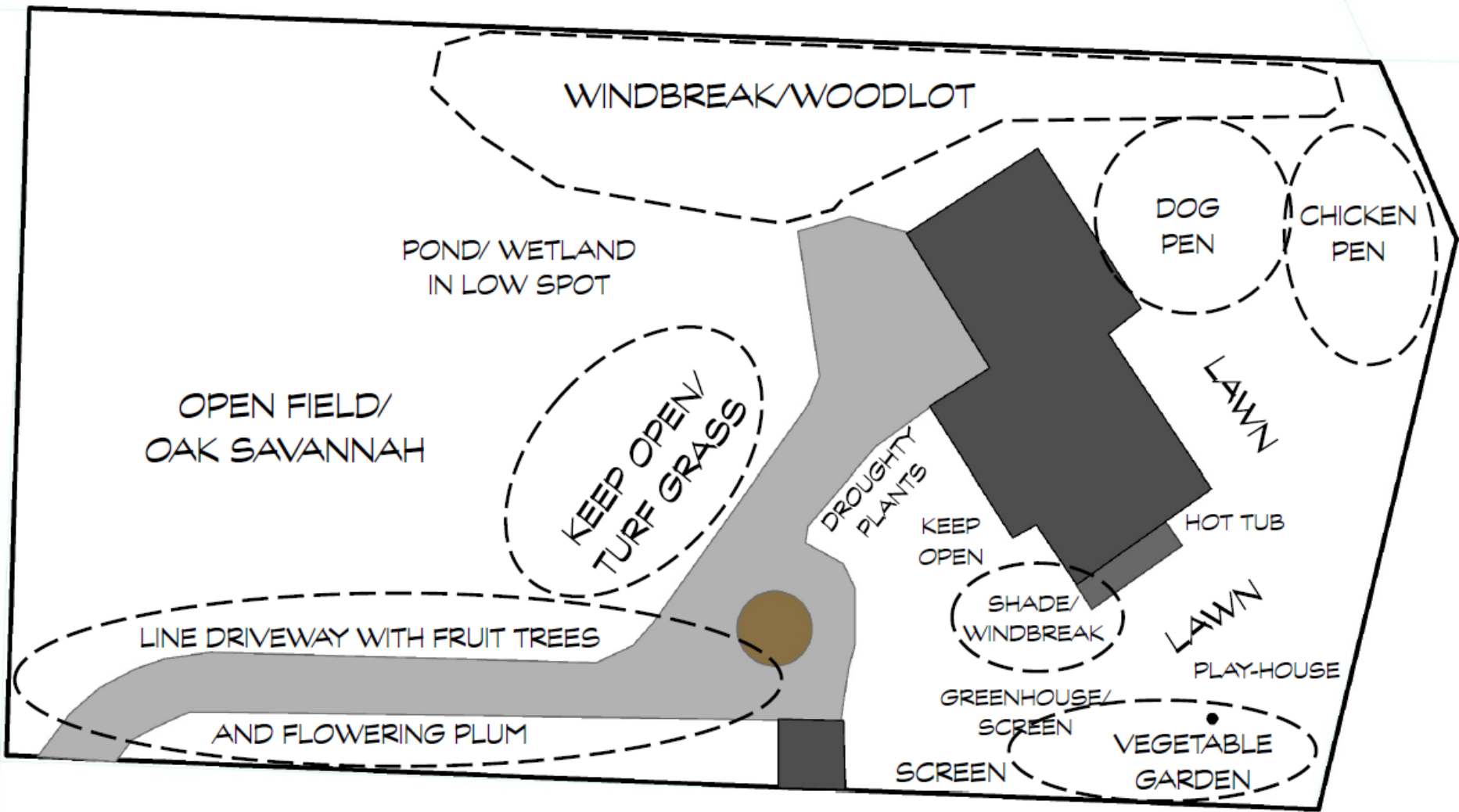


SOILS MAPPED AS DUNGENESS AND CARLSBORG-DUNGENESS COMPLEX



Site Inventory & Analysis

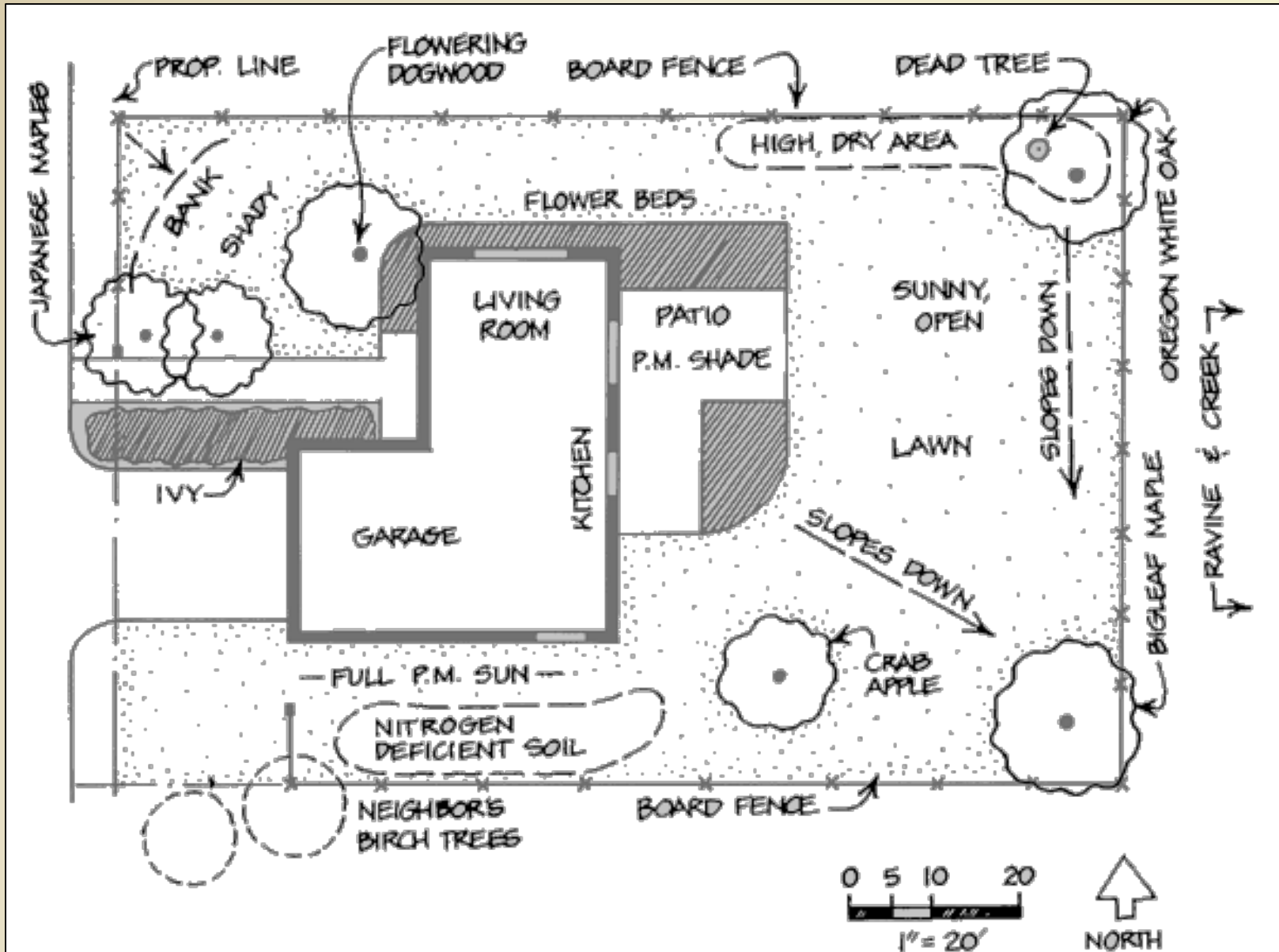




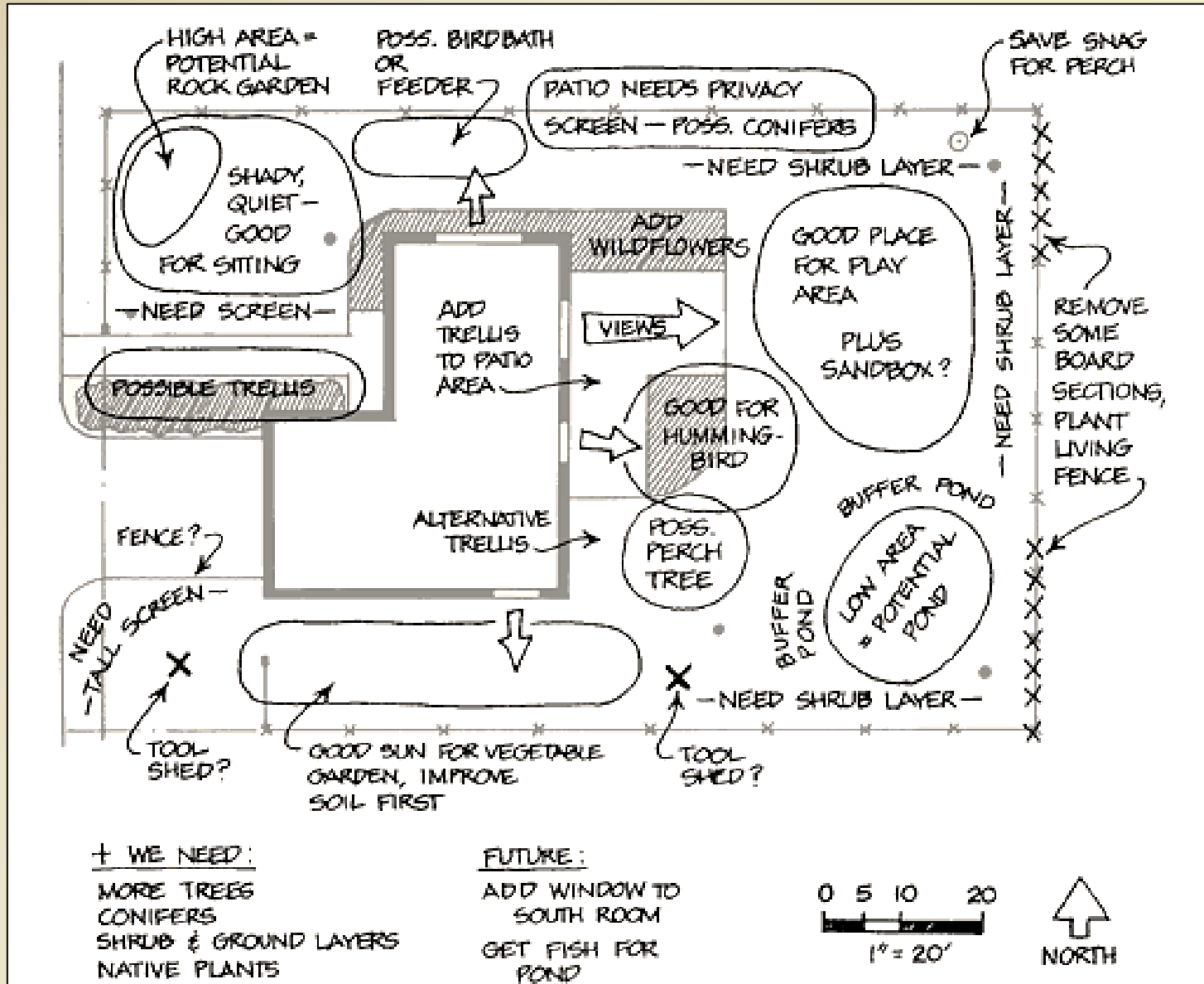
Schematic Plan



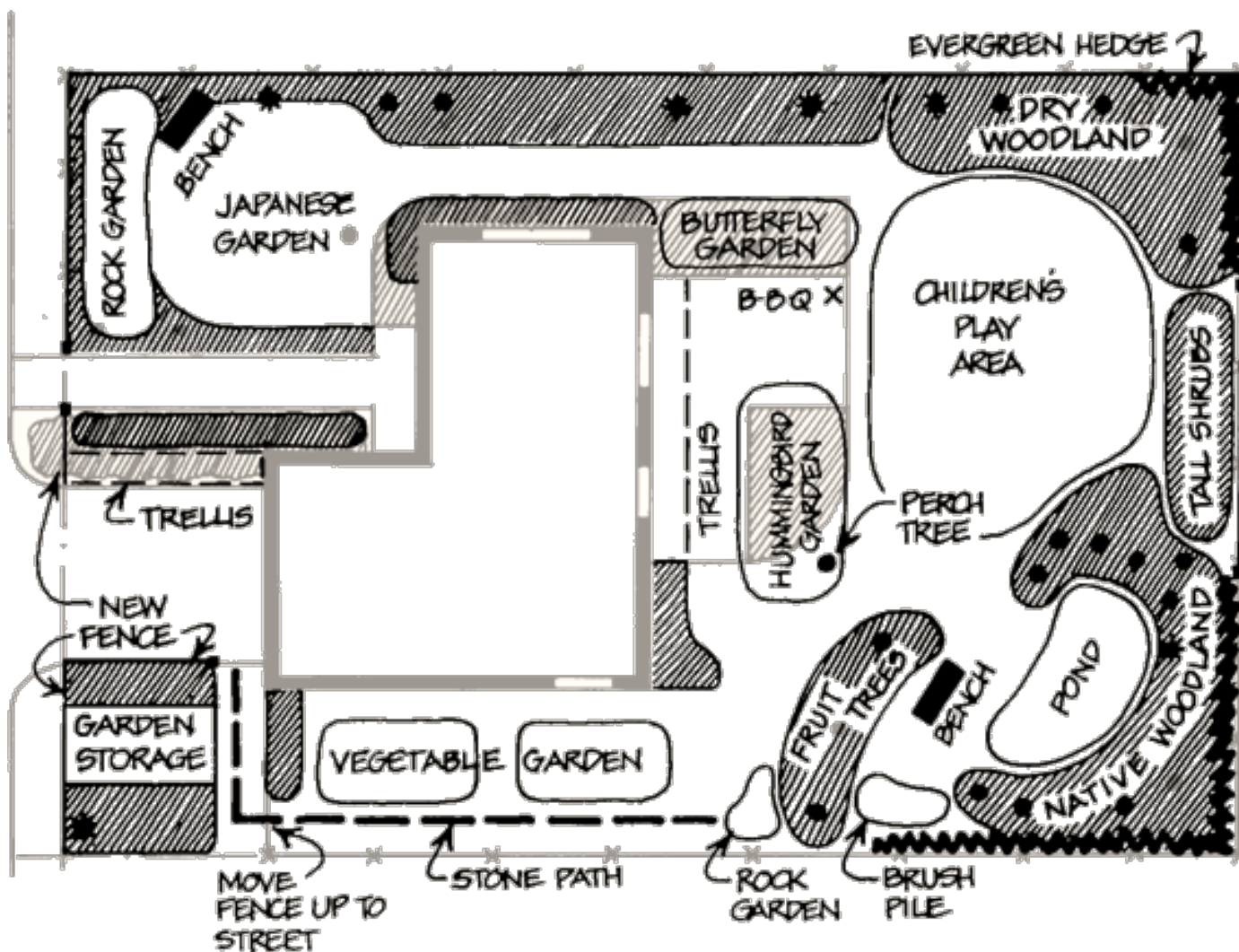
Site Inventory & Analysis



Site Analysis & Schematic Plan



Schematic Plan





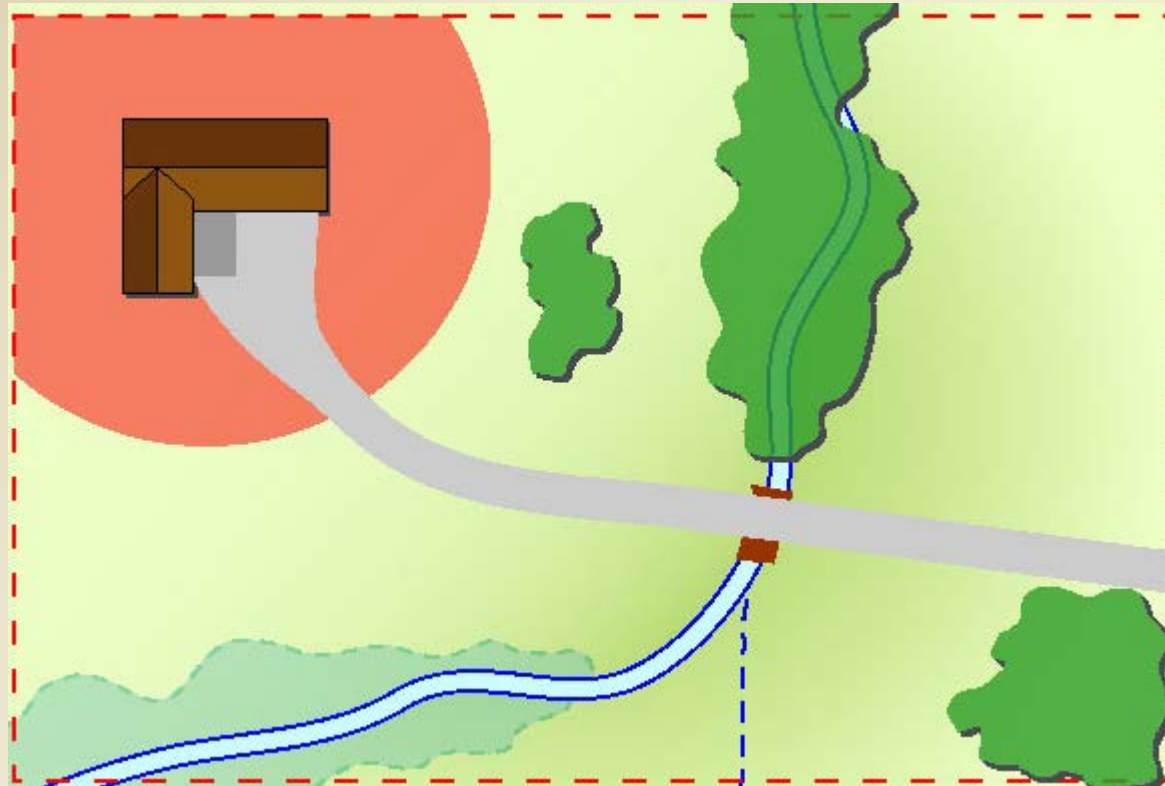
General Layout

Divide Landscape into Zones & “Rooms”

- Entire property does not need to be landscaped like a city lot
 - Restrict high maintenance/high disturbance activities to area near house
 - Make landscape increasingly “wild” as you move away from house
- Create “rooms” to serve different functions
 - Don’t forget “hallways”



Zone 1: People Place

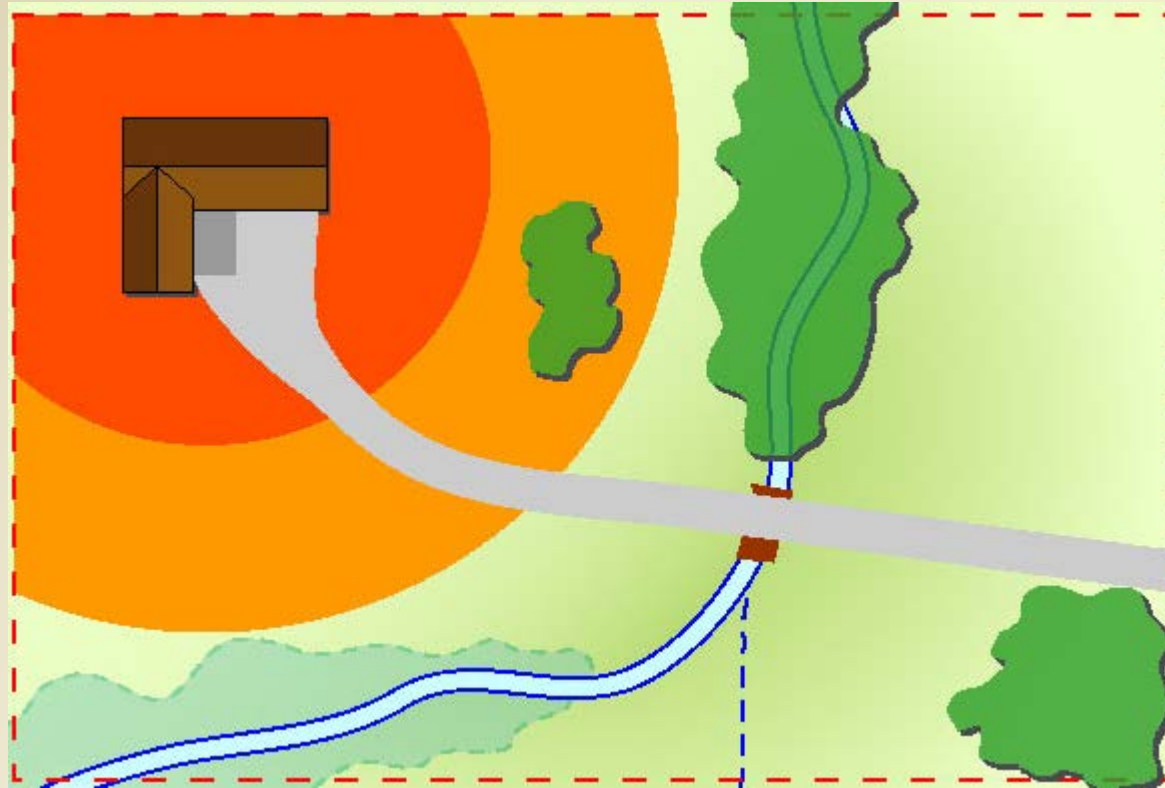


Cultivated Ecosystem

- ✓ Highest human activity
- ✓ Highest maintenance
- ✓ Wildfire defensible space



Zone 2: Shared Space

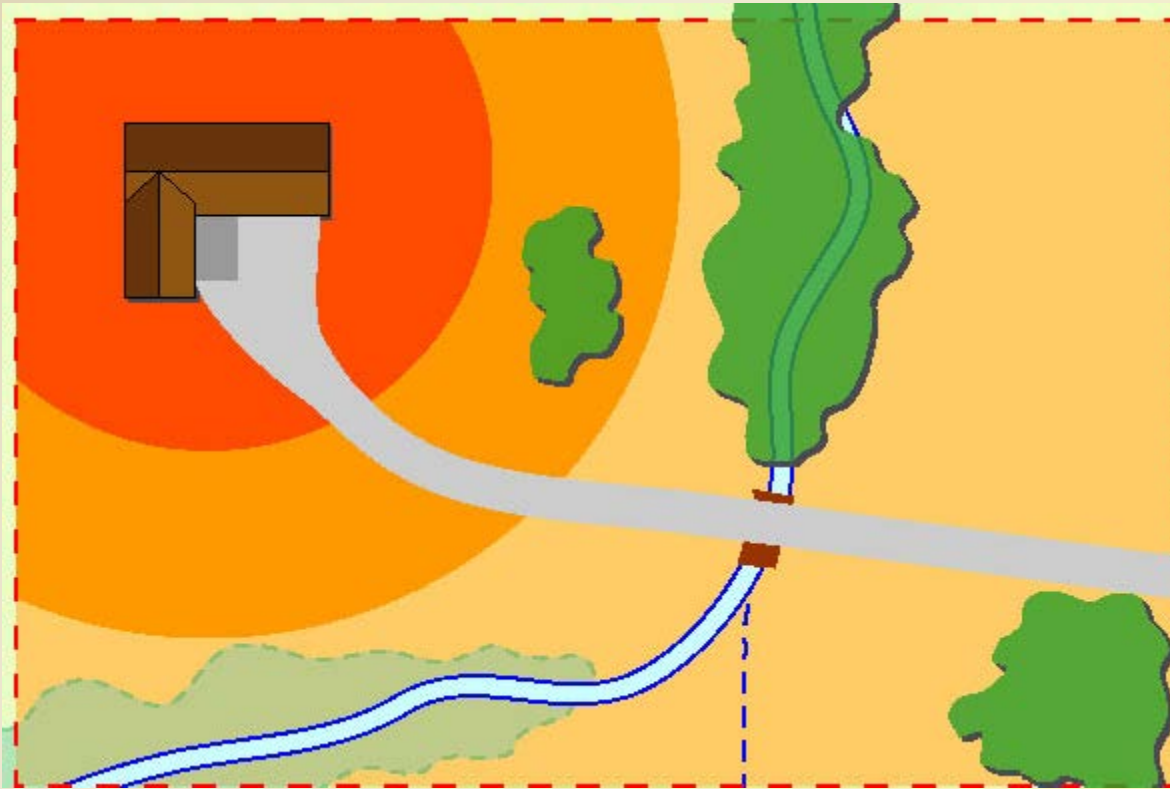


Transition

- ✓ Occasional human activity
- ✓ Reduced maintenance
- ✓ Physical & psychological transition



Zone 3: Wild Areas



Natural Ecosystem

- ✓ Least disturbed area on property
- ✓ Little or no maintenance
- ✓ Ecosystem enhancement and/or restoration



Landscape Maintenance & Wildlife Disturbance



High Maintenance

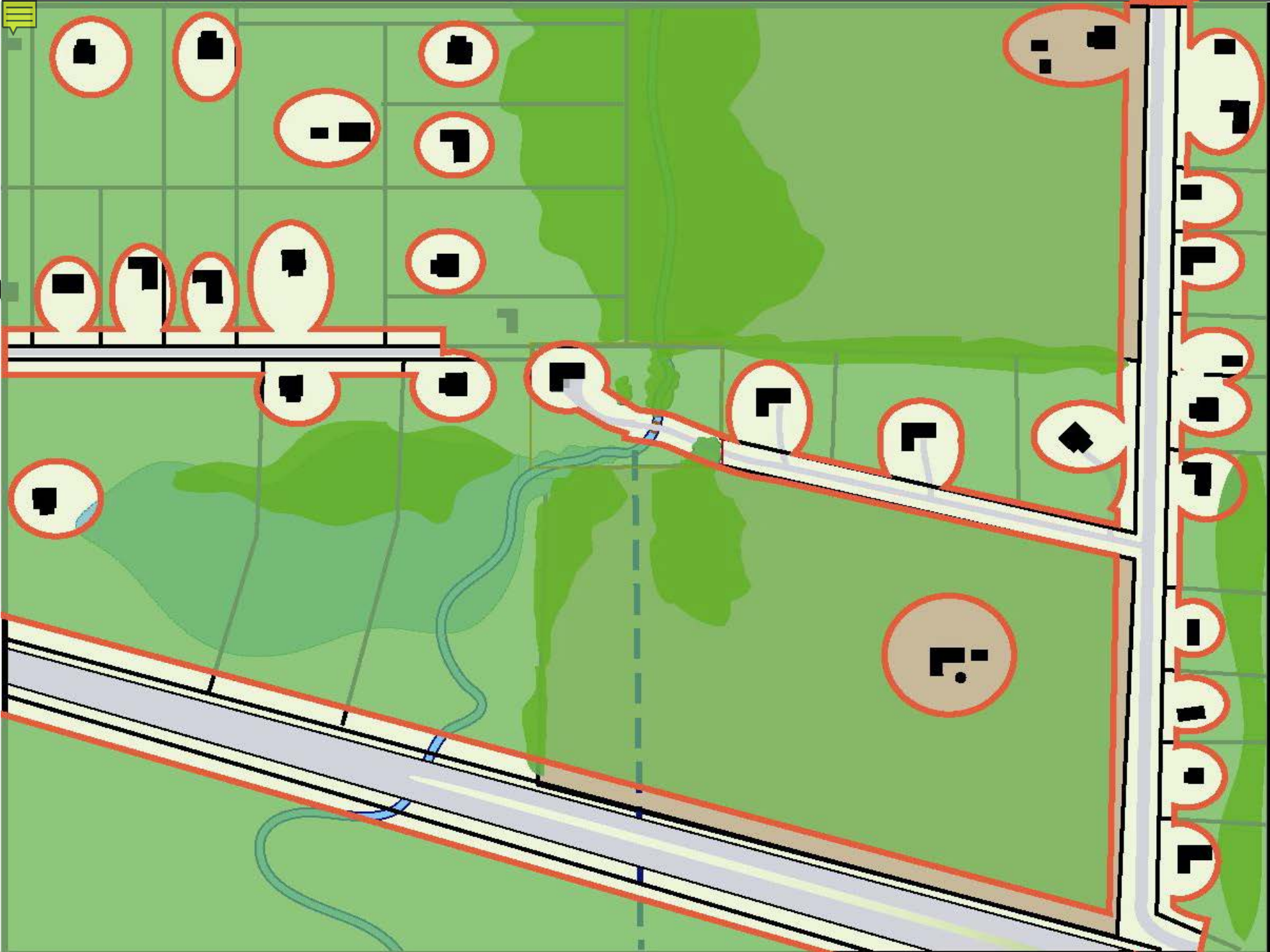
High Disturbance



Low Maintenance

Low Disturbance





Putting It All Together

Determine Landscape Wants and Needs

- ✓ What do you need from your landscape?
- ✓ How do you spend time in your yard?
- ✓ What might make being outside more pleasant?
- ✓ What do you see from inside your house?

Map All Built Resources

- ✓ Buildings
- ✓ Roads and Trails
- ✓ Utilities



Putting It All Together

- **Analyze Ecology of Site**
 - ✓ Soils (particularly soil texture)
 - ✓ Site Drainage and Runoff
 - ✓ Desirable and Undesirable Vegetation
- **Note Microclimates of Site**
 - **Prepare Wants & Needs List and complete site inventory & analysis before next class**

Can you meet your needs with what nature has given you to work with?





Putting It All Together

- **Observe and listen to nature**
 - **Visit natural plant communities, such as**
 - Dungeness Recreation Area
 - Robin Hill Farm Park
 - Carrie Blake Park
 - Railroad Bridge Park
 - East Beach (Lake Crescent)
 - **Find reference sites near your property**
- **FIELD TRIP:**
Dungeness Recreation Area



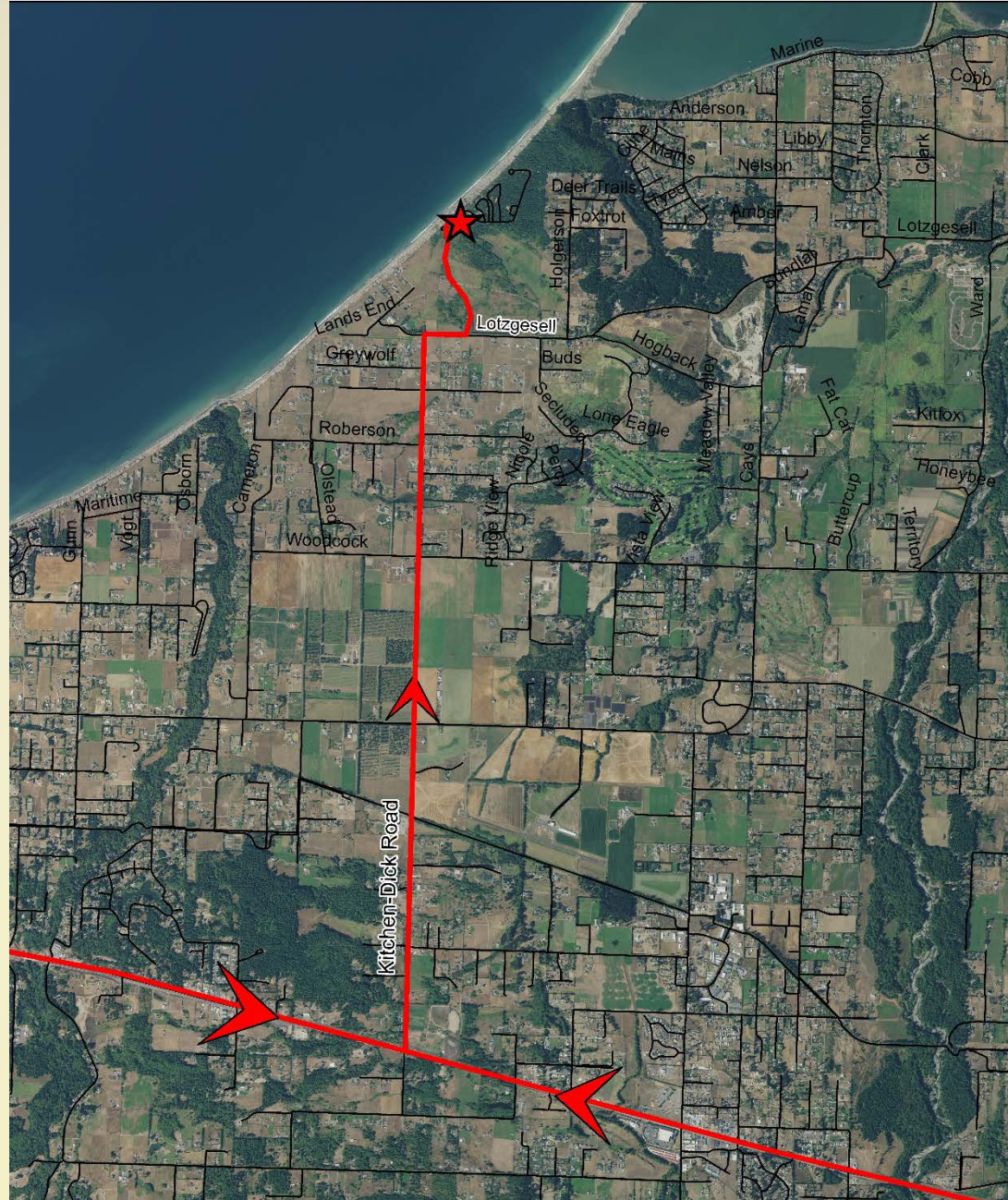
FIELD TRIP:

Meet at Dungeness
Recreation Area
Picnic Area Parking

Take Voice of America
Road about 1/2 mile. Lot
is on right, sign reads:

**PICNIC AREA
POTABLE WATER**

Come prepared to
walk about two
miles on easy
hiking trails.



Route to Dungeness Recreation Area

