CHAPTER 2: PROPERTY DESCRIPTION

Contents

WATERSHED AND SUB-WATERSHED MAPS – NAPA COUNTY AND SONOMA CREEK

The maps below may be useful in determining the watershed and sub-watershed where your property is located.

FINDING YOUR EXACT LOCATION IN THE WATERSHED

You can often find your property by looking at roads, streams, and other features on a simple watershed map. It is also helpful to understand topographic maps. Below is a short list of vocabulary used in mapping:

Latitude - an imaginary line around the Earth parallel to the equator

Longitude - an imaginary great circle on the surface of the earth passing through the north and south poles at right angles to the equator

You can obtain the latitude and longitude for any address using websites, including http://www.latlong.net/convert-address-to-lat-long.html

Section - In U.S. land surveying, a section is an area nominally one mile square, containing 640 acres.

Topographic map - a map showing the relief features of the earth's surface, usually by means of contour lines to show changes in elevation

Township - Survey township, sometimes called Congressional township, as used by the United States Public Land Survey System, refers to a square unit of land, that is nominally six (U.S. Survey) miles (~9.7 km) on a side. Each 36 square mile township is divided into 36 one-square mile sections.

TRS - Township/Range/Section - a grid system used for surveying land

Township, Range and Section can be obtained for any latitude/longitude using websites, including http://www.earthpoint.us/TownshipsSearchByLatLon.aspx

Universal Transverse Mercator (UTM) - A grid system based upon the Transverse Mercator projection. The UTM grid is used for topographic maps and georeferencing satellite images.

Find coordinates on a map by learning how the earth is divided. The earth is divided into 360 degrees, because it is spherical. Longitude is measured 180 degrees east and 180 degrees west of the meridian in Greenwich, England. Latitude is measured 90 degrees north and 90 degrees south from the Equator. Each degree is divided into 60 units called minutes and each minute is divided into 60 seconds. By using this grid system, each place on the planet has a specific set of coordinates on the map's gridlines. Most topo maps are 7.5-minute maps, which means they cover an area that is 7.5 minutes of latitude by 7.5 minutes of longitude.

Learn to read contour lines. These are what show the land's topography. These lines, which you will see all over the map, represent certain elevations above sea level. A contour interval is the difference of elevation between two contour lines. On 7.5-minute maps, 40 vertical feet is the usual contour interval, and on 15-minute maps, 80 vertical feet is the usual contour interval. If a trail is crossing lines that are steadily increasing in interval, then you know the trail is gaining elevation. These lines will also show features of the land, such as cliffs, slopes, ravines, valleys, mesas, summits, passes or ridges.

Read colors on a topographical map carefully and learn them well to know what kind of terrain you might be heading into. Red lines are major roads; blue lines can represent water, such as rivers, lakes, springs, waterfalls or ice; black lines are trails or small roads; green represents forest or partial vegetation, depending on the darkness of the color; white-and-blue contour lines usually represent a glacier or snowfield; white-and-brown contour lines represent dry, rocky area; brown lines are the contour lines, and purple are any revisions on a map.

The brown lines or contour lines can be used to calculate slope from a topographic map, with just a ruler and a calculator. Because slope is the change in elevation over a horizontal distance, measurements needed to find slope are linear distance and elevation change. The brown contour lines on the USGS topographic quadrangle (quad) maps each represent a uniform increment in elevation for that map (contour intervals are given at the bottom of individual quad maps under the scale). The most common contour intervals for quad maps are 20’ and 40’. Each contour line represents an increase or decrease in elevation from the adjacent contour line. On a 40’ contour interval map, the bold contour lines represent

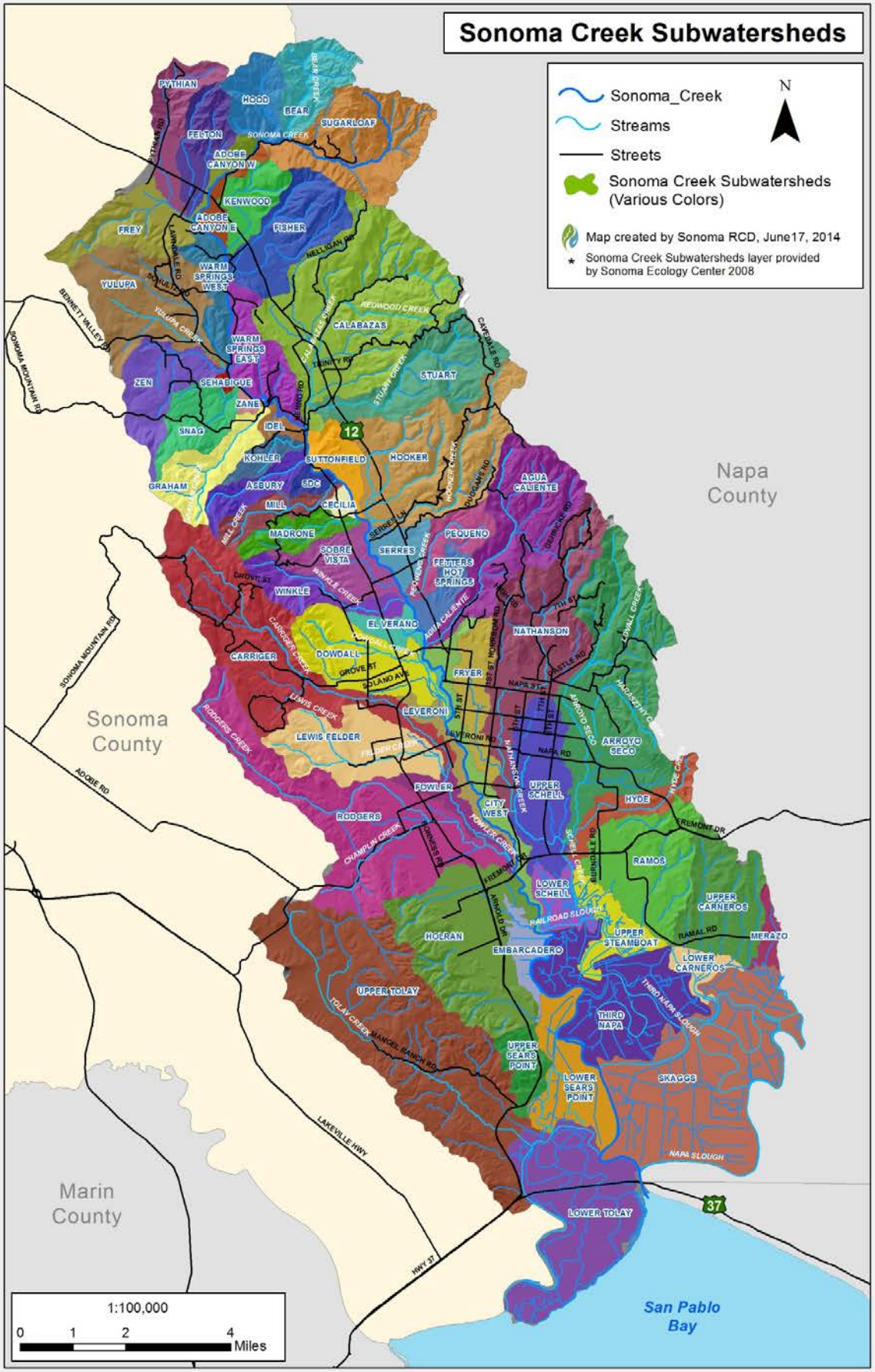
increments of 200’ in elevation and lighter contours between these each represent a 40’ changes in elevation.

Example:

To calculate slope from a quad map, measure the length of the slope from top to bottom. For example, if the measured distance is .75” at a scale of 1”=2,000’, then it would represent 1,500’ (2,000’ x .75”).

To find the elevation change, count the number of contour lines in the measured distance. For example, if there are 10 contour lines in the .75” measurement from above, and the contour interval is 40’, then the elevation change would be 400’ (40’ interval x 10 contour lines).

To calculate the slope, divide the elevation change by slope length and multiply by 100 to get the percent. So from the example above, it would be 400’/1,500’ x 100 = 27% slope.


Sonoma Creek Subwatersheds
Sonoma_Creek
Streams
Streets
Sonoma Creek Subwatersheds (Various Colors)
Map created by Sonoma RCD, June17, 2014
Sonoma Creek Subwatersheds layer provided by Sonoma Ecology Center 2008
N
Napa County
Sonoma County
Marin County
San Pablo Bay
1:100,000
0 1 2 4 Miles
PYTHIAN
HOOD
BEAR
SUGARLOAF
FELTON
SONOMA CREEK
ADOBE CANYON W
KENWOOD
ADOBE CANYON E
FISHER
FREY
WARM SPRINGS WEST
YULUPA
WARM SPRINGS EAST
CALABAZAS
REDWOOD CREEK
STUART
ZEN
SEMABIQUE
ZANE
SNAG
IDEL
KOHLER
SUTTONFIELD
HOOKER
GRAHAM
ASBURY
EDC
MILL
CECILIA
AGUA CALIENTE
MADRONE
PEQUENO
SOBRE VISTA
SERRES
FETTERS HOT SPRINGS
WINKLE
EL VERANO
NATHANSON
CARRIGER
DOWDALL
FRYER
LEVERONI
LEWIS FELDER
ARROYO SECO
UPPER SCHELL
HYDE
FOWLER
CITY WEST
RODGERS
RAMOS
LOWER SCHELL
UPPER CARNEROS
HOLRAN
UPPER STEAMBOAT
EMBARCADERO
LOWER CARNEROS
UPPER TOLAY
THIRD NAPA
UPPER SEARS POINT
LOWER SEARS POINT
SKAGGS
NAPA SLOUGH
LOWER TOLAY
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Napa County, California
Subwatersheds of the Napa River
Kimball Creek
Garnett Creek
Simmons Canyon Creek
POPE VALLEY
Lake Berryessa
Blossom Creek
Selby Creek
CALISTOGA
Cyrus Creek
Napa River
ANGWIN
Bell Canyon Creek
Diamond Mt. Creek
Ritchey Creek
DEER PARK
Lake Hennessey
Mill Creek
York Creek
SAINT HELENA
Napa River
Sulphur Creek
Bale Slough
Conn Creek
Napa River
Soda Creek
YOUNTVILLE
Napa River
Dry Creek
Milliken Creek
Napa Creek
Salvador Channel
Carneros Creek
NAPA
Tulucay Creek
Congress Valley Creek
Huichica Creek
Arroyo Creek
South Creek
Suscol Creek
Sheehy Creek
Fagan Creek
Napa River Marshes
AMERICAN CANYON
American Canyon Creek
0 5 10 Miles
0 5 10 15 Km
N
W
E
S
NAPA COUNTY RCD
Resource Conservation District
J. Koehler, Napa County RCD
NapaRiver_subs_2015