

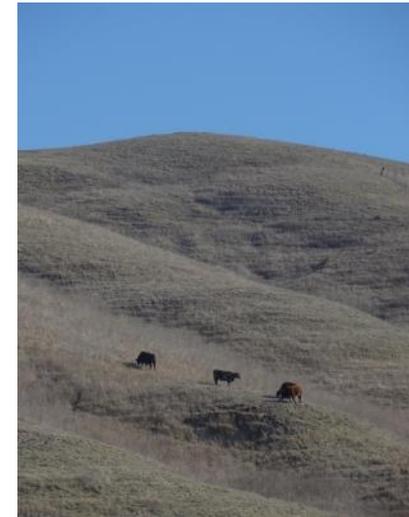


# MORAGA HILLSIDES AND RIDGELINES PROJECT

# Project Overview



- ❑ The Hillsides and Ridgelines project will amend existing Town hillside regulations to increase certainty, clarify requirements, and better achieve desired outcomes
- ❑ Existing Regulatory Framework:
  - General Plan
  - MOSO Ballot Initiative
  - MOSO Guidelines
  - Town Design Guidelines
  - Grading Ordinance
  - Zoning Code



# Key Project Issues



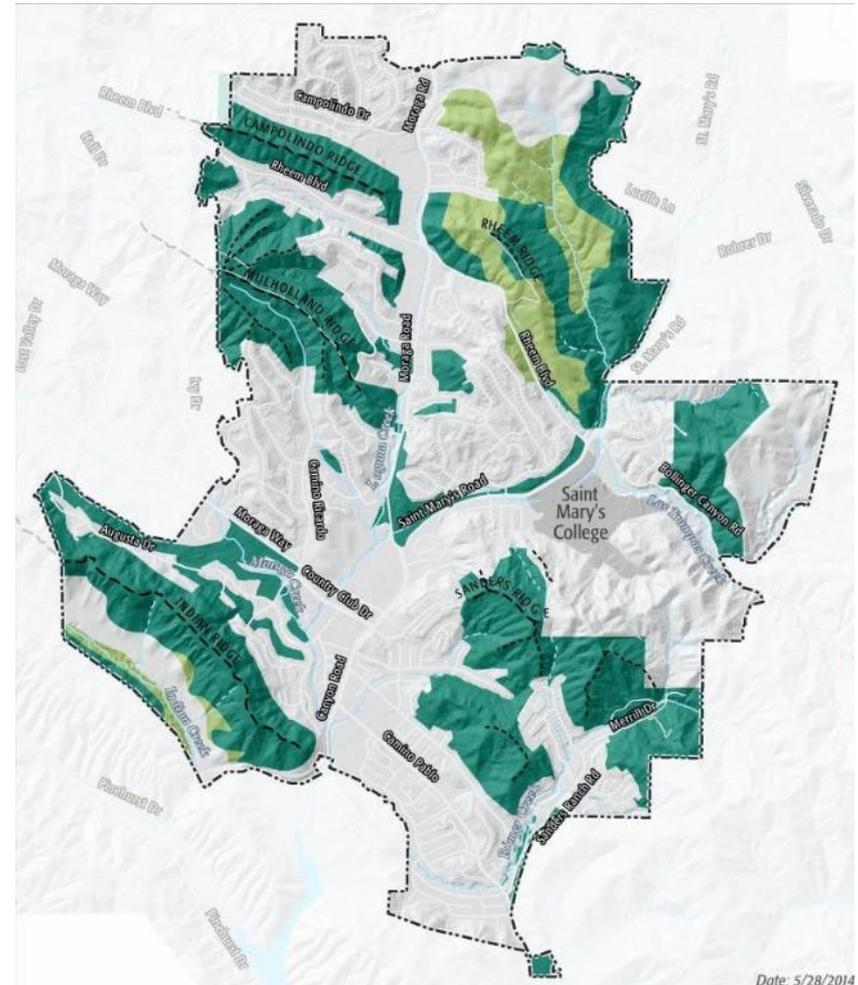
1. MOSO Open Space Map
2. MOSO Ridgeline Map
3. High Risk Areas Map
4. Definition of Development
5. Hillside Development Permits
6. Ridgeline Definition and Mapping
7. Protecting Ridgelines and Viewsheds
8. Steep Slope Limitations in MOSO Open Space
9. Remediation of High Risk Areas
10. Building Size on Large Lots

# 1. MOSO Open Space Map



## Issue Description

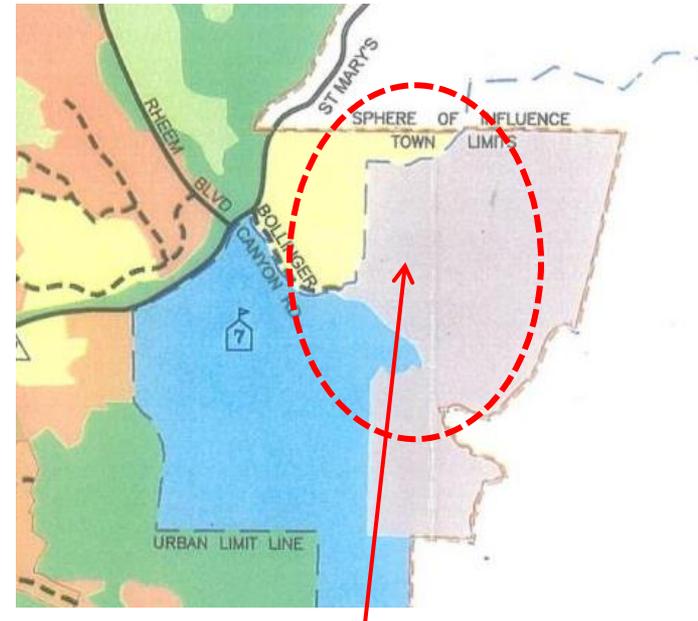
- ❑ MOSO Open Space boundaries are shown differently on Moraga's Zoning Map and General Plan Land Use Map
- ❑ The Town needs to clarify the boundaries of MOSO Open Space areas and make these maps consistent with one another



# 1. MOSO Open Space Map



**Zoning Map: MOSO  
Open Space**



**General Plan Land Use  
Map: "Study"**

# 1. MOSO Open Space Map



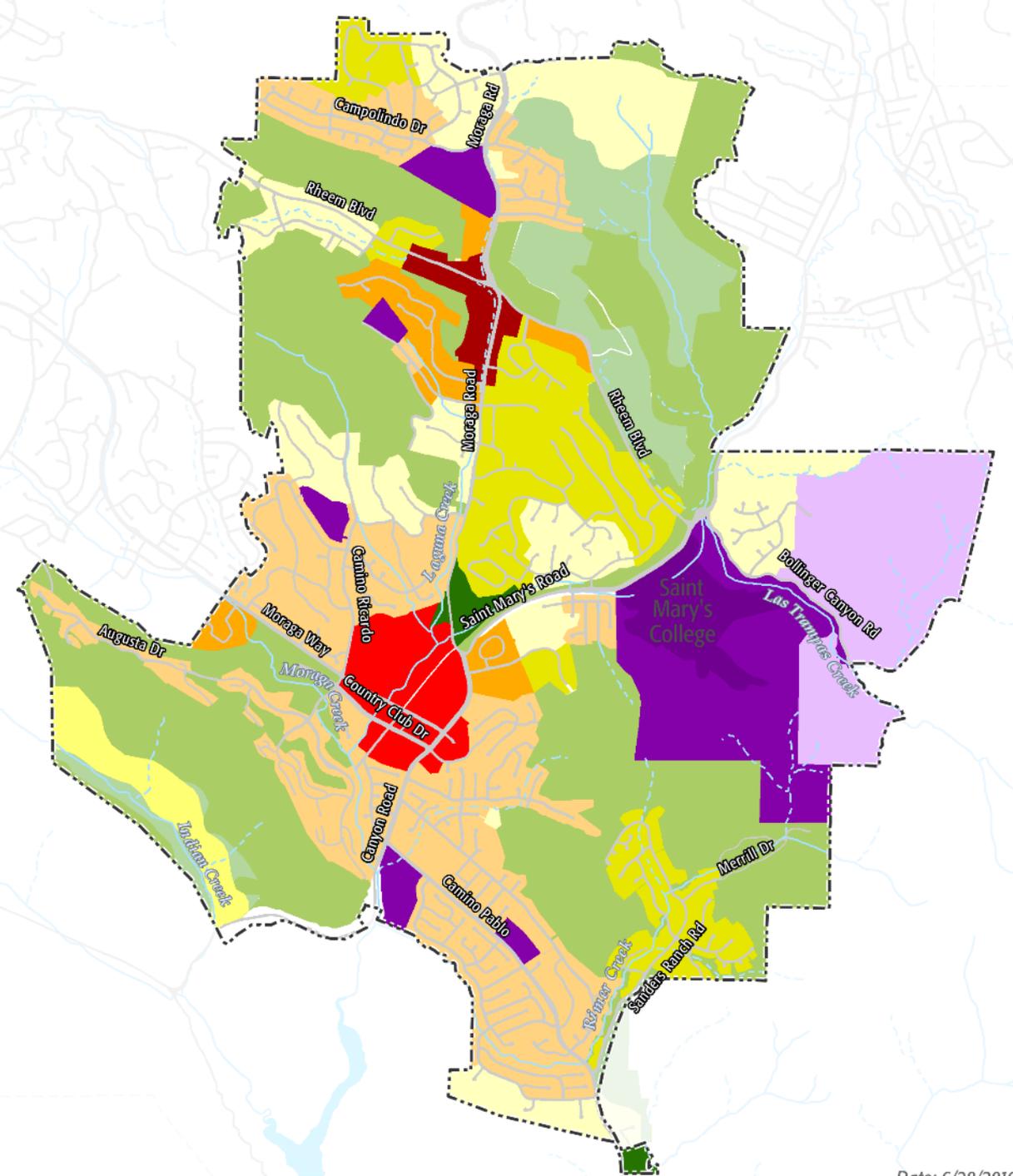
## Amendments

- ❑ Amended General Plan Land Use Map, Zoning Map, and MOSO Guidelines Exhibit A Map
- ❑ All maps shows MOSO boundaries consistently
- ❑ Revisions reflect established property lines and development patterns
- ❑ Staff recommends assigning to Planning Commission detailed review of maps



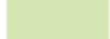
# General Plan Land Use Map

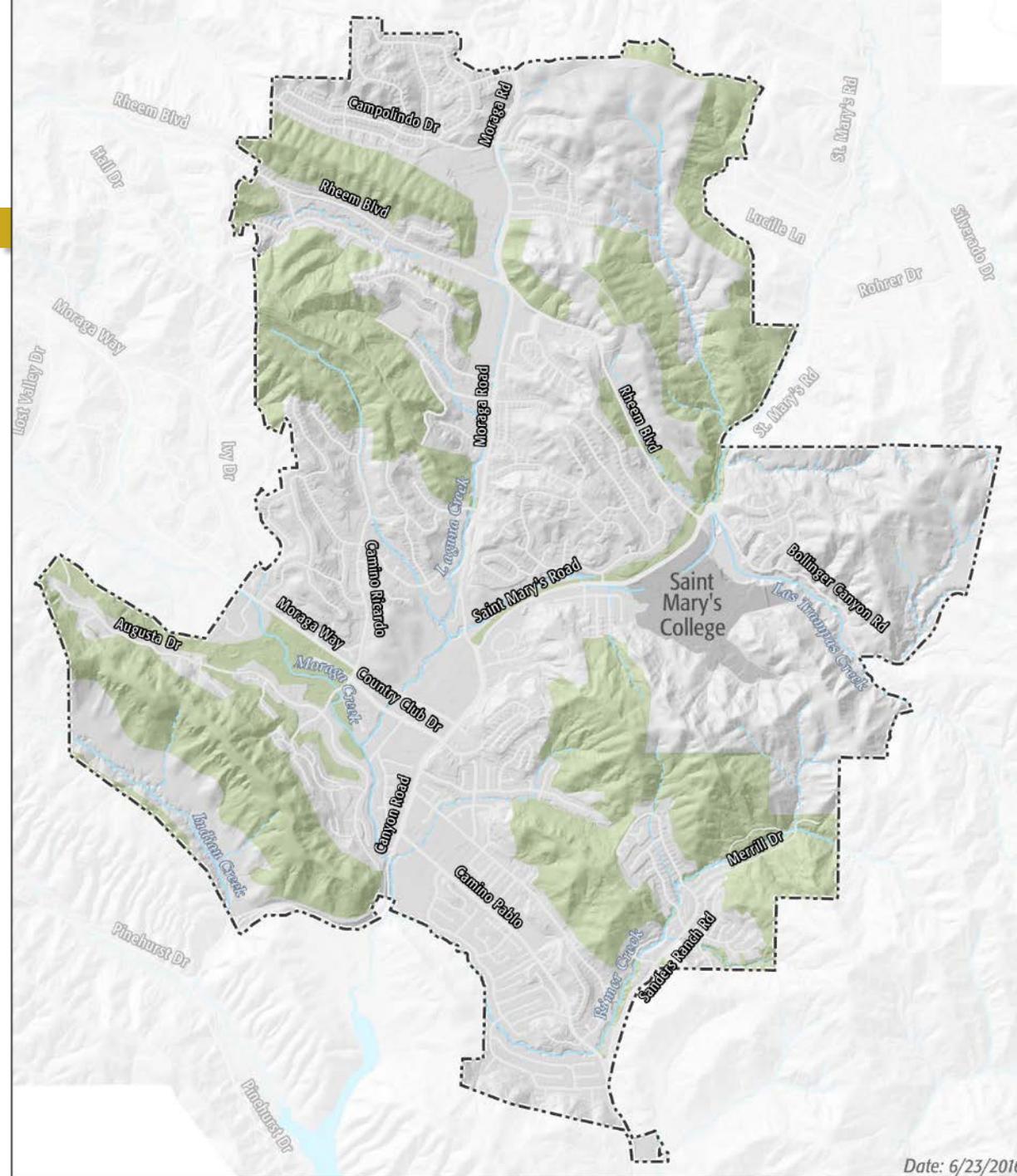
Residential Designation	Commercial Designation	Open Space
1-DUA	Moraga Center	Open Space
1.5-DUA	Rheem Center	Parks
2-DUA	Parks/Open Space Designation	Other Designations
3-DUA	MOSO Open Space	Institutional
6-DUA		Study





# MOSO Guidelines Exhibit A MOSO Lands

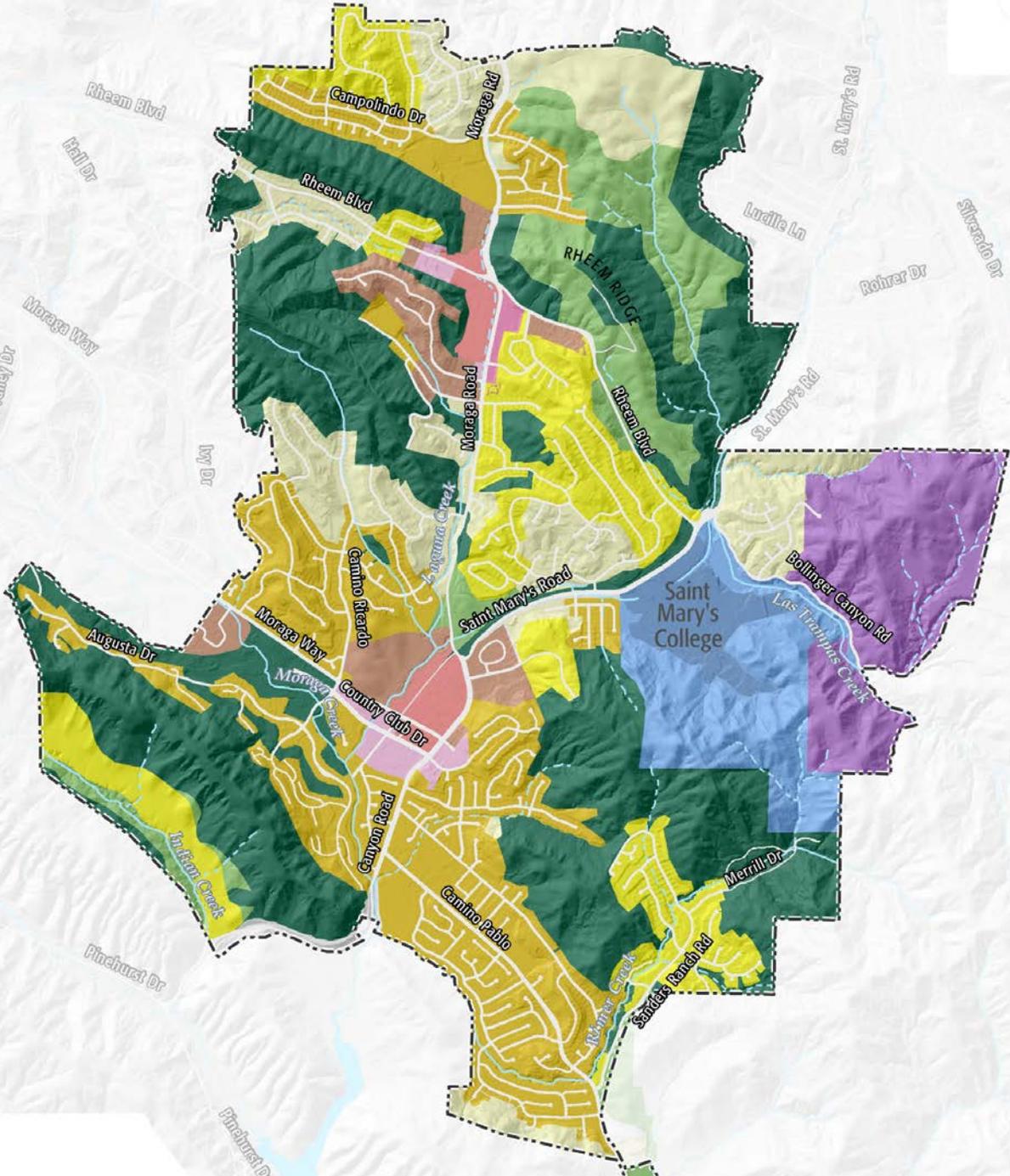
-  Town Boundary
-  Major/Permanent Stream
-  Minor/Intermittent Stream
-  MOSO Open Space Land Use Designation



Date: 6/23/2016



# Zoning Map



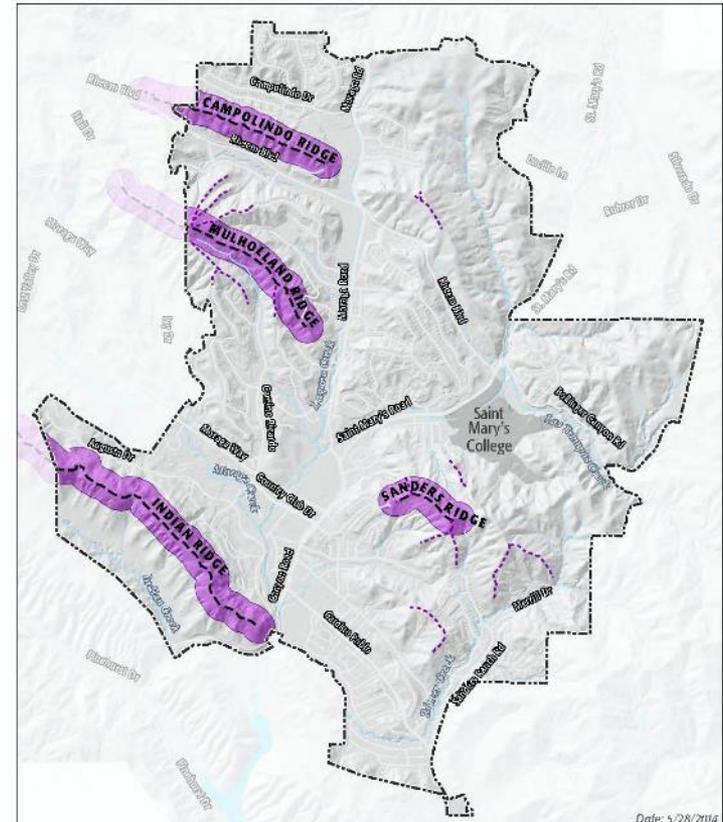
Zoning	
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<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffcc00; border: 1px solid black;"></span>	3-DUA
<span style="display: inline-block; width: 15px; height: 15px; background-color: #cc9933; border: 1px solid black;"></span>	6-DUA
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ff6666; border: 1px solid black;"></span>	Community Commercial
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<span style="display: inline-block; width: 15px; height: 15px; background-color: #ff99cc; border: 1px solid black;"></span>	Suburban Office
<span style="display: inline-block; width: 15px; height: 15px; background-color: #66b3ff; border: 1px solid black;"></span>	College
<span style="display: inline-block; width: 15px; height: 15px; background-color: #90ee90; border: 1px solid black;"></span>	Non-MOSO Open Space
<span style="display: inline-block; width: 15px; height: 15px; background-color: #006400; border: 1px solid black;"></span>	MOSO Open Space
<span style="display: inline-block; width: 15px; height: 15px; background-color: #800080; border: 1px solid black;"></span>	Study

# 2. MOSO RIDGELINE MAP



## Issue Description

- ❑ The Town's MOSO ridgeline maps are inconsistent
- ❑ MOSO Guidelines Exhibit B shows the furthest northwest extent of Indian Ridge as a Minor Ridgeline
- ❑ Maps prepared using the Town's GIS data shows the full the full extent of Indian Ridge within Town limits as a Major Ridgeline





# 2. MOSO RIDGELINE MAP

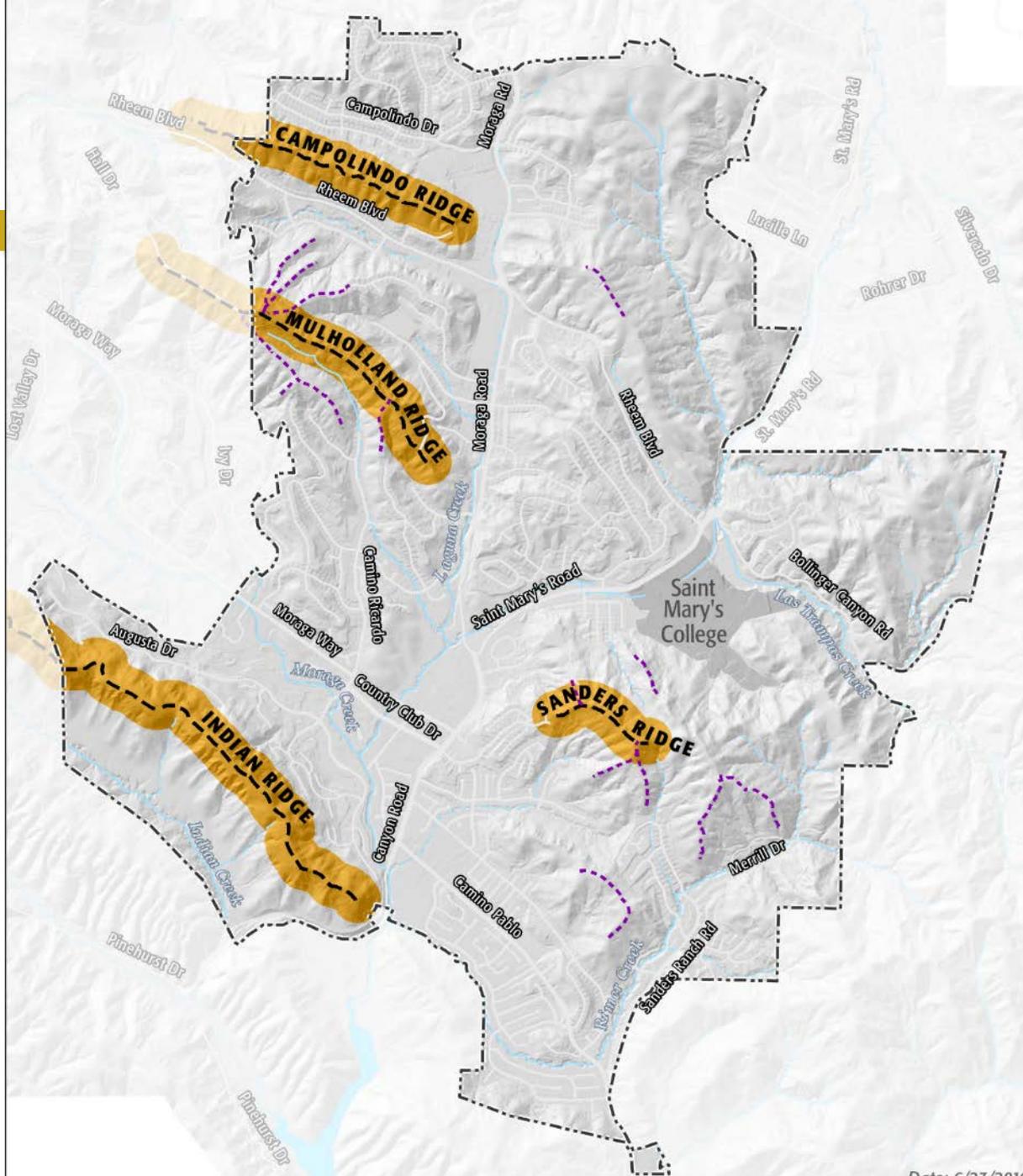


## Amendments

- ❑ Revised MOSO Guidelines Exhibit B MOSO Ridgeline Map
- ❑ New General Plan Designated Ridgeline Map



# MOSO Guidelines Exhibit B MOSO Ridgelines



-  MOSO Major Ridgelines
-  MOSO Minor Ridgelines
-  500-Foot Buffer of MOSO Major Ridgelines



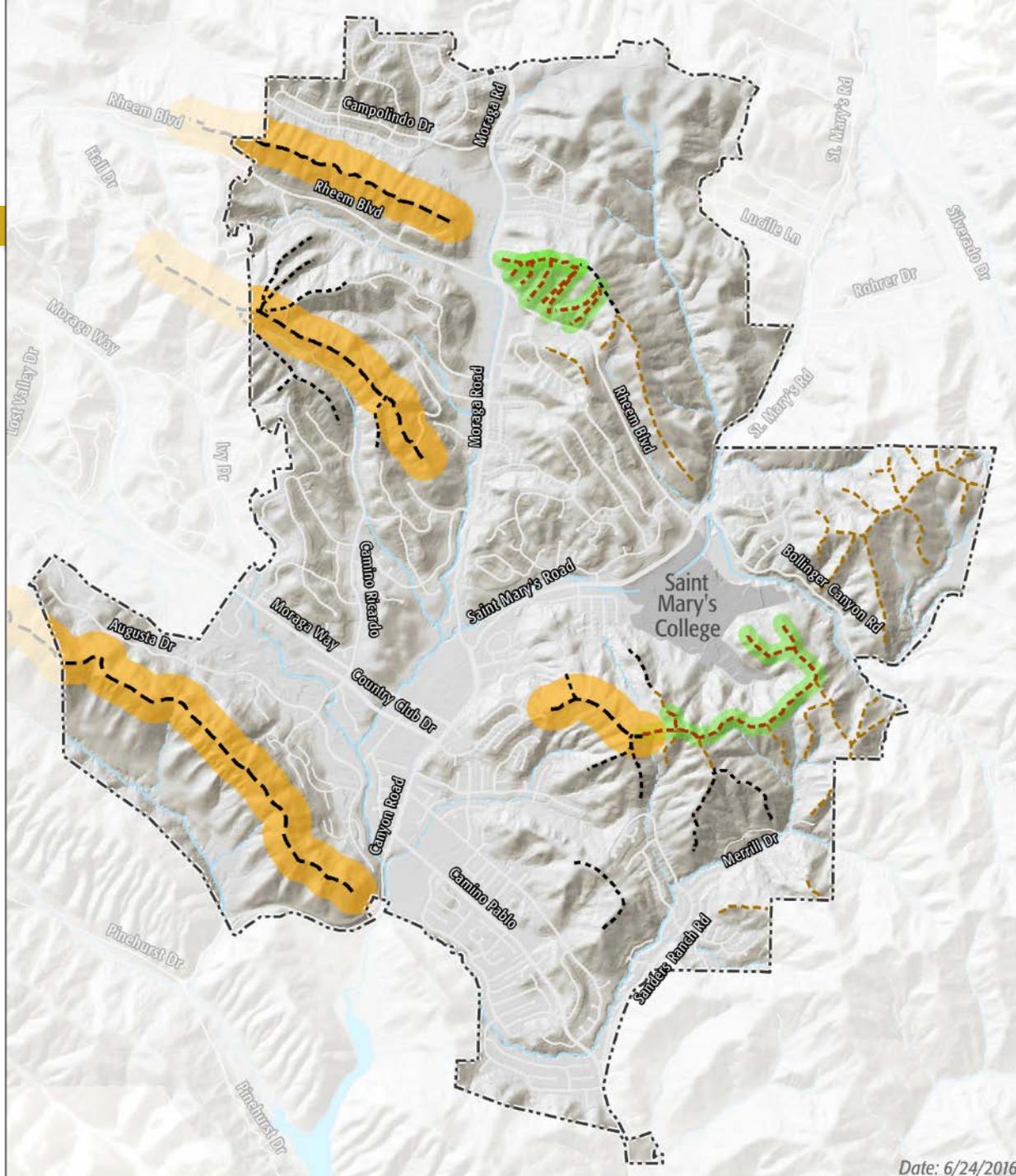
## Figure CD-1 Designated Ridgelines

### MOSO Ridgelines

- MOSO Major Ridgelines
- - - MOSO Minor Ridgelines
- 500 Foot Buffer for Major MOSO Ridgelines
- Town Boundary

### Non-MOSO Ridgelines

- - - Significant Non-MOSO Ridgeline
- - - Other Non-MOSO Ridgeline
- 200 Foot Buffer for Significant Non-MOSO Ridgelines

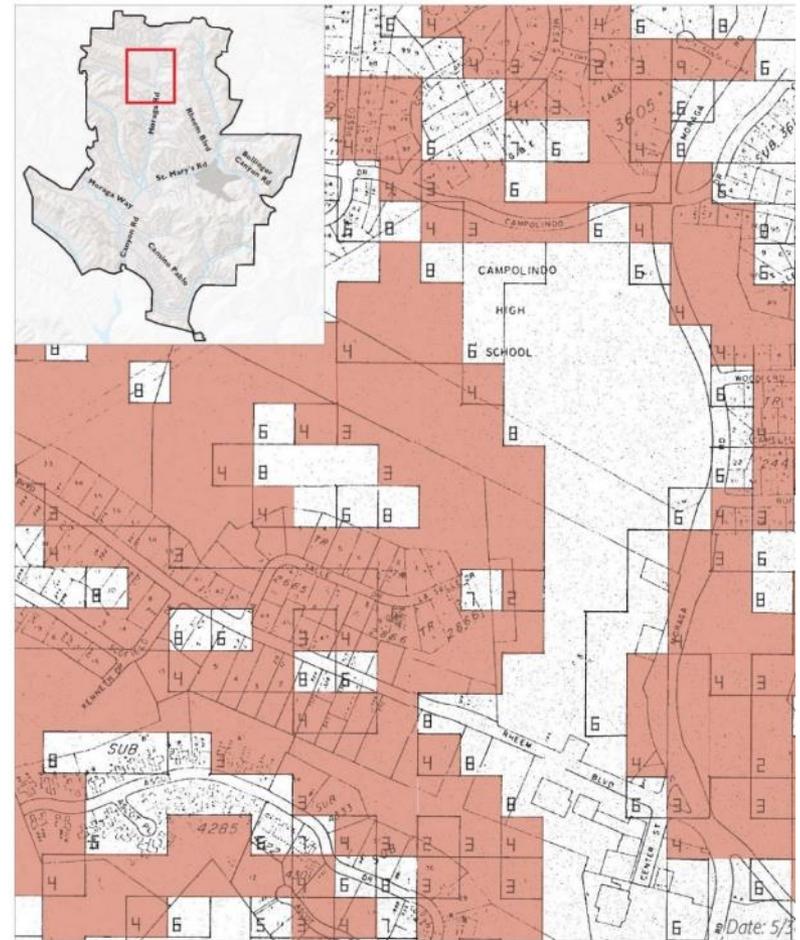




# 3. High Risk Area Map

## Issue Description:

- ❑ “High risk” areas in MOSO Open Space are limited to a maximum density of 1 unit per 20 acres.
- ❑ MOSO Guidelines Exhibit D (Development Capability Map), adopted in 1989, establishes a preliminary determination of high risk areas.

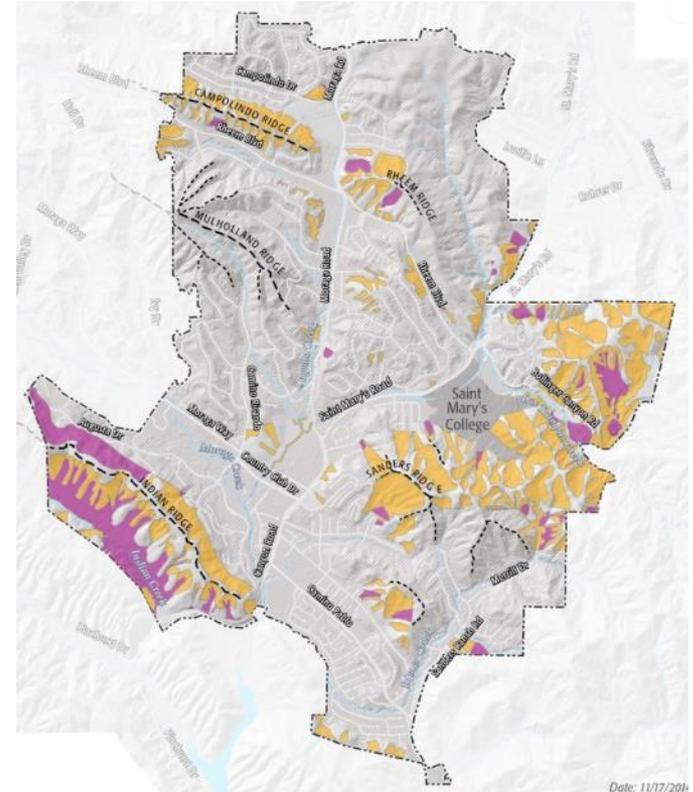


# 3. High Risk Area Map



## Issue Description:

- ❑ Project applicants request a final determination of high risk status on a property based on a site-specific geologic study.
- ❑ The findings of geologic studies frequently differ from the Development Capability Map.
- ❑ Discrepancies also were found between the Development Capability Map and landslide hazard mapping prepared for the Hillside and Ridgelines project.



 Areas not included in landslide mapping

Areas with Significant Potential for Landsliding

 Shallow unstable, unconsolidated material on gentle to steep slopes, commonly less than 10 feet in thickness, subject to shallow landsliding (includes identified shallow landslides and potentially unstable colluvium).

 Deep unstable, unconsolidated or detached materials on moderate to steep slopes, commonly more than 10 feet in thickness, subject to more significant landsliding (includes identified deep landslides and earth materials susceptible to deep failure).

# 3. High Risk Area Map



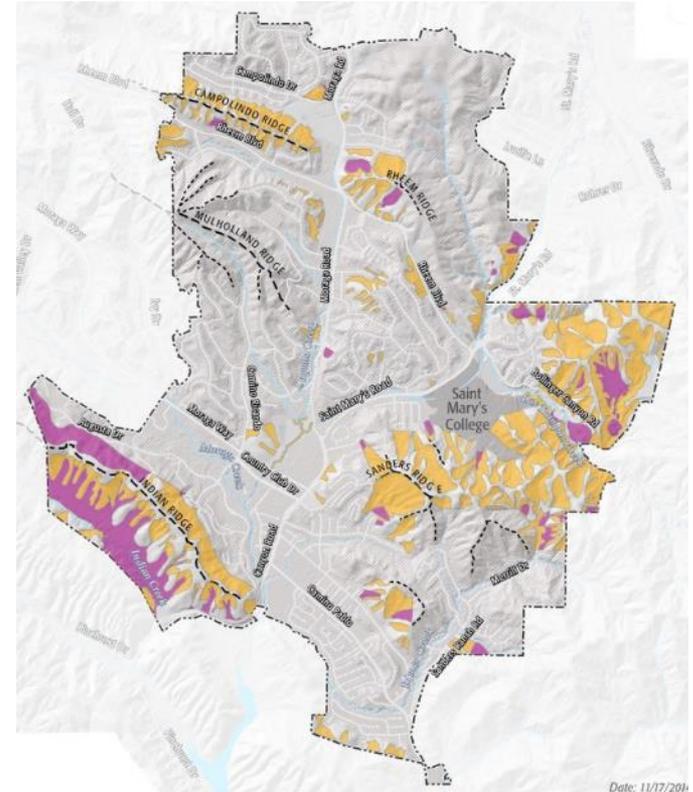
## Amendments:

- ❑ Updated Preliminary High Risk Determination Map (MOSO Guidelines Exhibit D)
- ❑ New Development Constraints Map (MOSO Guidelines Exhibit E)
- ❑ New Methodology Description for both maps (MOSO Guidelines Exhibit F)

# Area of Analysis



- ❑ Both maps prepared only for areas included in Cotton Shires 2015 landslide hazard analysis
- ❑ High Risk Area map shows only MOSO areas
- ❑ Constraints Analysis map includes MOSO and Non-MOSO areas



 Areas not included in landslide mapping

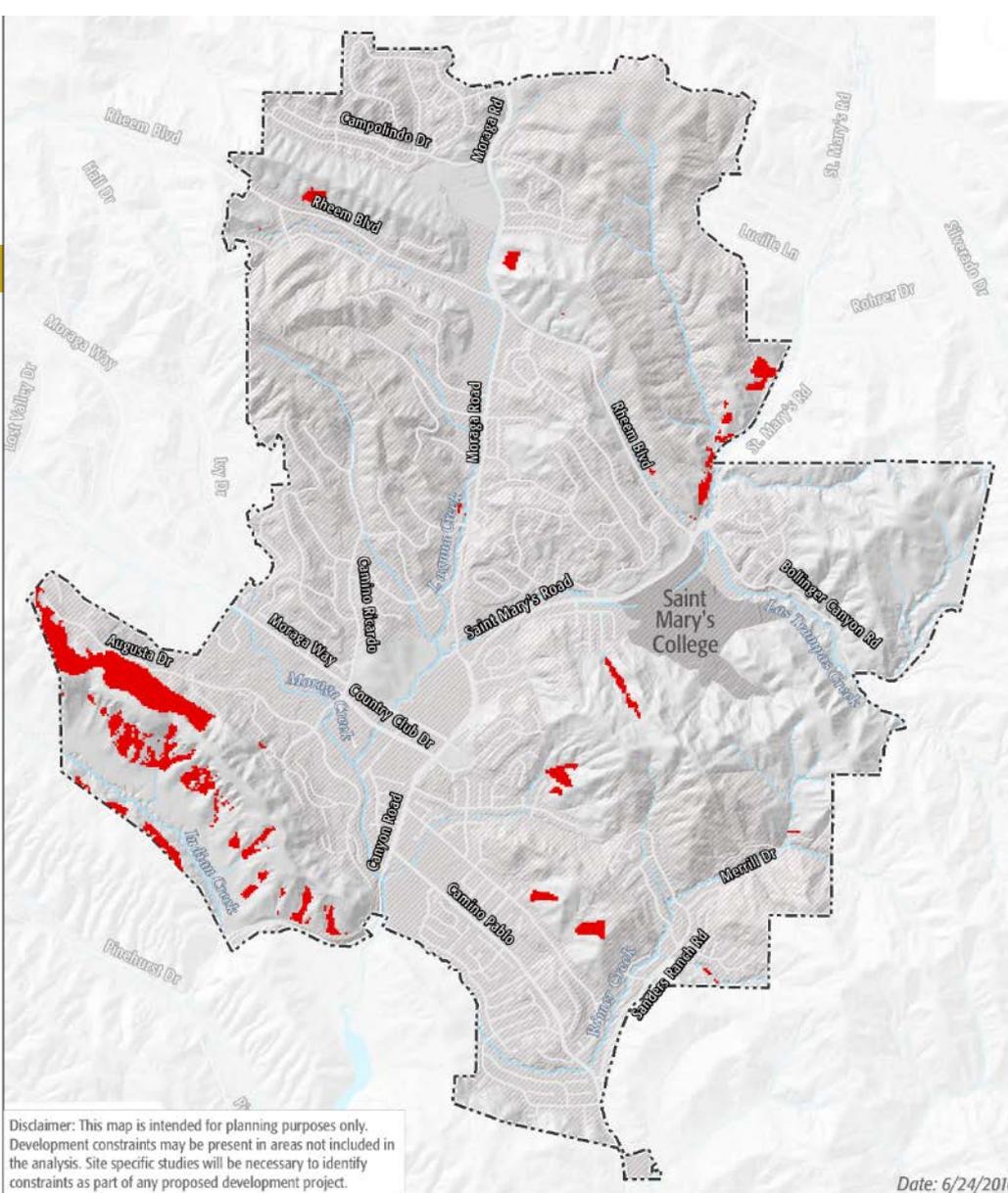
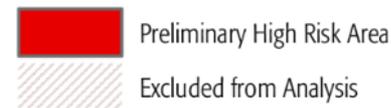
Areas with Significant Potential for Landsliding

 Shallow unstable, unconsolidated material on gentle to steep slopes, commonly less than 10 feet in thickness, subject to shallow landsliding (includes identified shallow landslides and potentially unstable colluvium).

 Deep unstable, unconsolidated or detached materials on moderate to steep slopes, commonly more than 10 feet in thickness, subject to more significant landsliding (includes identified deep landslides and earth materials susceptible to deep failure).

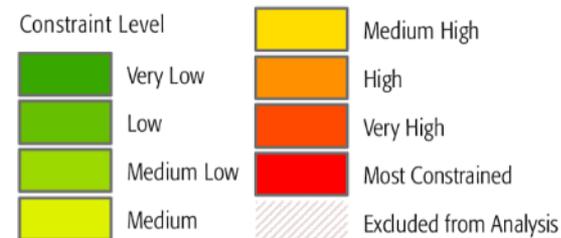
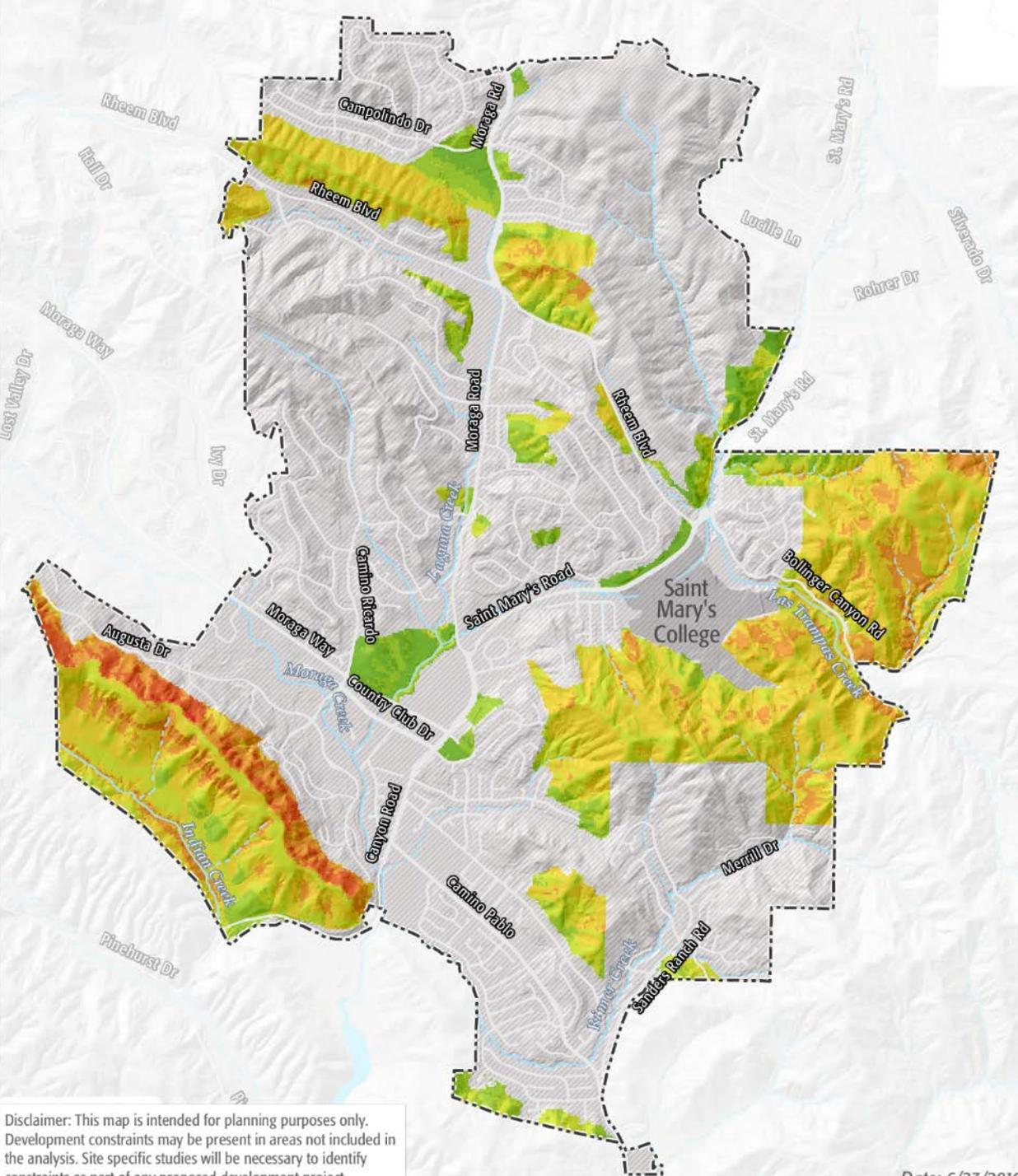


# MOSO Guidelines Exhibit D Preliminary High Risk Determination





# MOSO Guidelines Exhibit E Development Constraints



Disclaimer: This map is intended for planning purposes only. Development constraints may be present in areas not included in the analysis. Site specific studies will be necessary to identify constraints as part of any proposed development project.

# 4. Definition of Development



## Issue Description

- ❑ There are minor differences in the definition of "Development" in the MOSO Guidelines, General Plan, and Municipal Code
- ❑ This definition is important because "development" is prohibited or restricted in certain hillside and ridgeline areas

# 4. Definition of Development



## Amendments:

- ❑ General Plan, MOSO Guidelines, Zoning Ordinance contain the same definition of development
  - “Development” means the placement, discharge or disposal of any material, the grading or removal of any material, the change in the density or intensity of use of the land, the subdivision of land, or the construction or erection of a structure.
- ❑ New General Plan policies OS1.7 and MOSO Guideline Section III.A.1.b address exceptions where development is allowed when otherwise prohibited: public health and safety, fire trails, ridgeline crossing
- ❑ New General Plan policy OS1.8 identifies more precisely when the Town may approve a road that crosses a ridgeline and what a “road” and “crossing a ridge” means in the context of this policy

# 5. Hillside Development Perm



## Issue Description:

- ❑ A Hillside Development Permit (HDP) is required to “clear, construct upon, or alter” land with a slope of 20 percent or greater.
- ❑ HDP chapter in Zoning Ordinance pre-dates more recent Town regulations including the MOSO Initiative, Design Review/Design Guidelines, and the Grading Ordinance
- ❑ Purpose of HDP requirement is unclear relative to these other regulations

# 5. Hillside Development Perm



## Amendments:

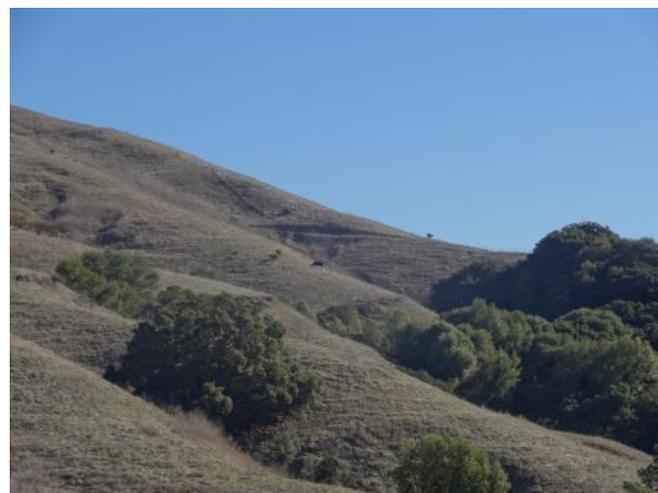
- ❑ New Chapter 8.136 (Hillside Development) in Zoning Ordinance replaces the existing Chapter 8.136 (Slope Density)
- ❑ Defines approval process for more significant hillside development projects:
  - Hillside Development Permit for projects that don't require any other discretionary permit, and
  - Special hillside development findings for projects that require other discretionary permits such as use permits and tentative maps

# 6. Non-MOSO Ridgeline Definition and Map



## Issue Description

- ❑ The General Plan does not contain a general ridgeline definition that applies town-wide.
- ❑ Do Town policies to protect ridgelines apply only to MOSO ridgelines, or apply to non-MOSO ridgelines in different ways?
- ❑ The Town needs to clarify what constitutes a “ridgeline” and the location of these ridgelines.



# 6. Non-MOSO Ridgeline Definition and Map



## Amendments:

- ❑ New definitions for non-MOSO ridgelines in General Plan and Zoning Ordinance:
  - A *Significant Non-MOSO Ridgeline* means the ridgelines shown as a Significant Non-MOSO Ridgeline in General Plan Figure CD-1.
  - An *Other Non-MOSO Ridgeline* means the ridgelines shown as an Other Non-MOSO Ridgeline in General Plan Figure CD-1.
- ❑ New General Plan Figure CD-1 shows all MOSO Ridgelines, Significant Non-MOSO Ridgelines, and Other Non-MOSO Ridgelines
- ❑ Significant Non-MOSO Ridgelines mapped as the centerline or crest of a ridge located outside of the MOSO Open Space designation where the crest is 800 feet or more above mean sea level, or is the continuation of a crest 800 feet or more above sea level, and constitutes a prominent landscape feature visible from public places within the surrounding area.
- ❑ *Other Non-MOSO Ridgelines* mapped as ridgelines outside of MOSO Open Space that meet these same elevation requirements and are designated as a Significant Non-MOSO Ridgeline.



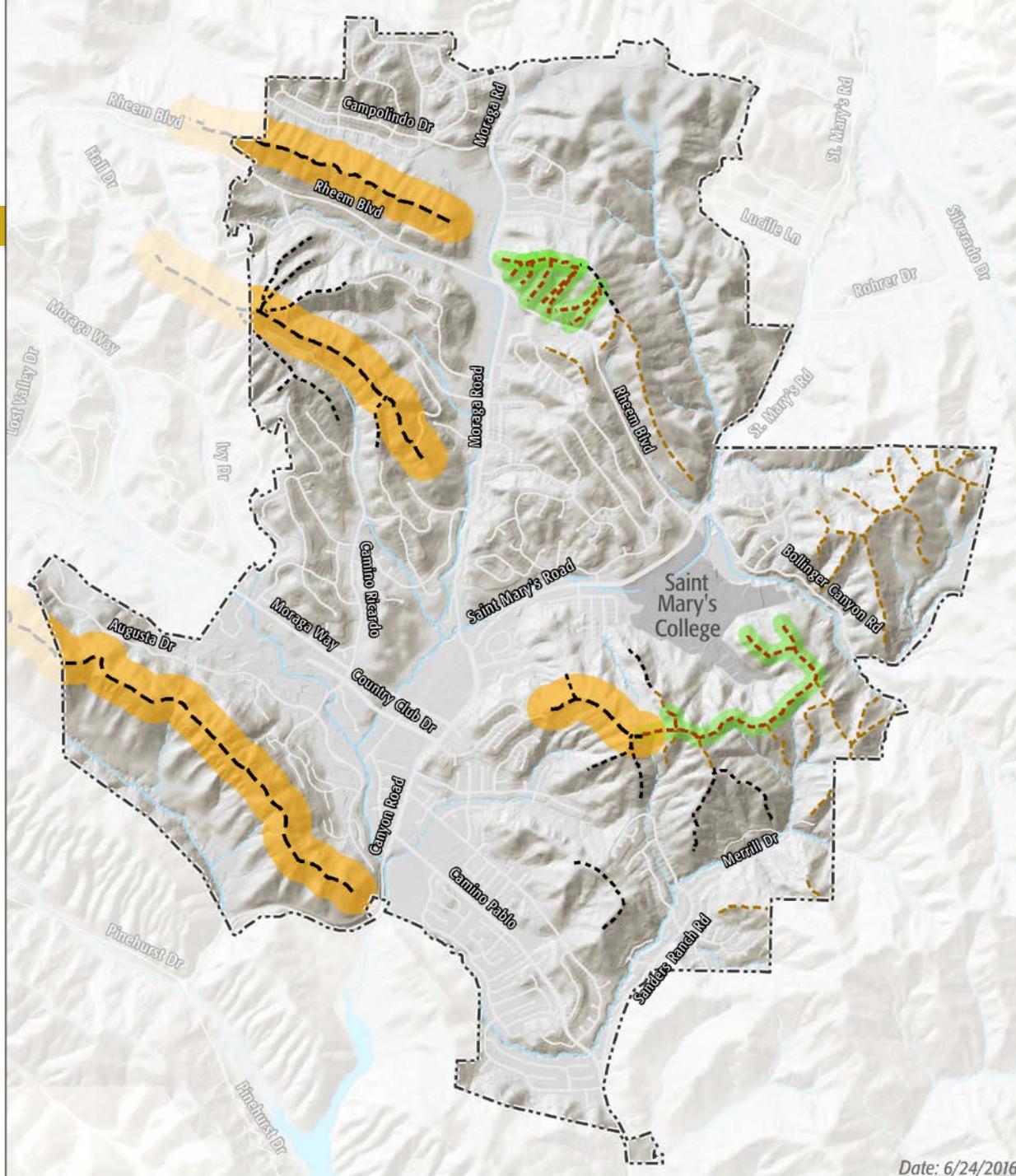
# Figure CD-1 Designated Ridgelines

## MOSO Ridgelines

- MOSO Major Ridgelines
- - - MOSO Minor Ridgelines
- 500 Foot Buffer for Major MOSO Ridgelines
- Town Boundary

## Non-MOSO Ridgelines

- - - Significant Non-MOSO Ridgeline
- - - Other Non-MOSO Ridgeline
- 200 Foot Buffer for Significant Non-MOSO Ridgelines



# Rheem Ridge



# Sanders Ridge



# Bollinger Property



# 7. Protecting Ridgelines and Viewsheds



## Issue Description:

- ❑ General Plan Policy CD1.5 calls for the Town to “protect ridgelines from development.”
- ❑ It is unclear how this policy applies to ridgelines outside of MOSO Open Space, if at all.
  - Should development be allowed on or near ridgelines outside of MOSO Open Space?
  - If so, how should this development be designed so that it complies with Town goals and policies?



# 7. Protecting Ridgelines and Viewsheds



## Issue Description (cont.):

- ❑ Moraga's General Plan and Zoning Code identify several roadways in Moraga as scenic corridors.
- ❑ General Plan Policy CD1.3 calls for the Town to "protect" viewsheds along these scenic corridors.
- ❑ It is unclear what "protect" means in the context of proposed projects located in visually prominent hillside areas as viewed from scenic corridors.



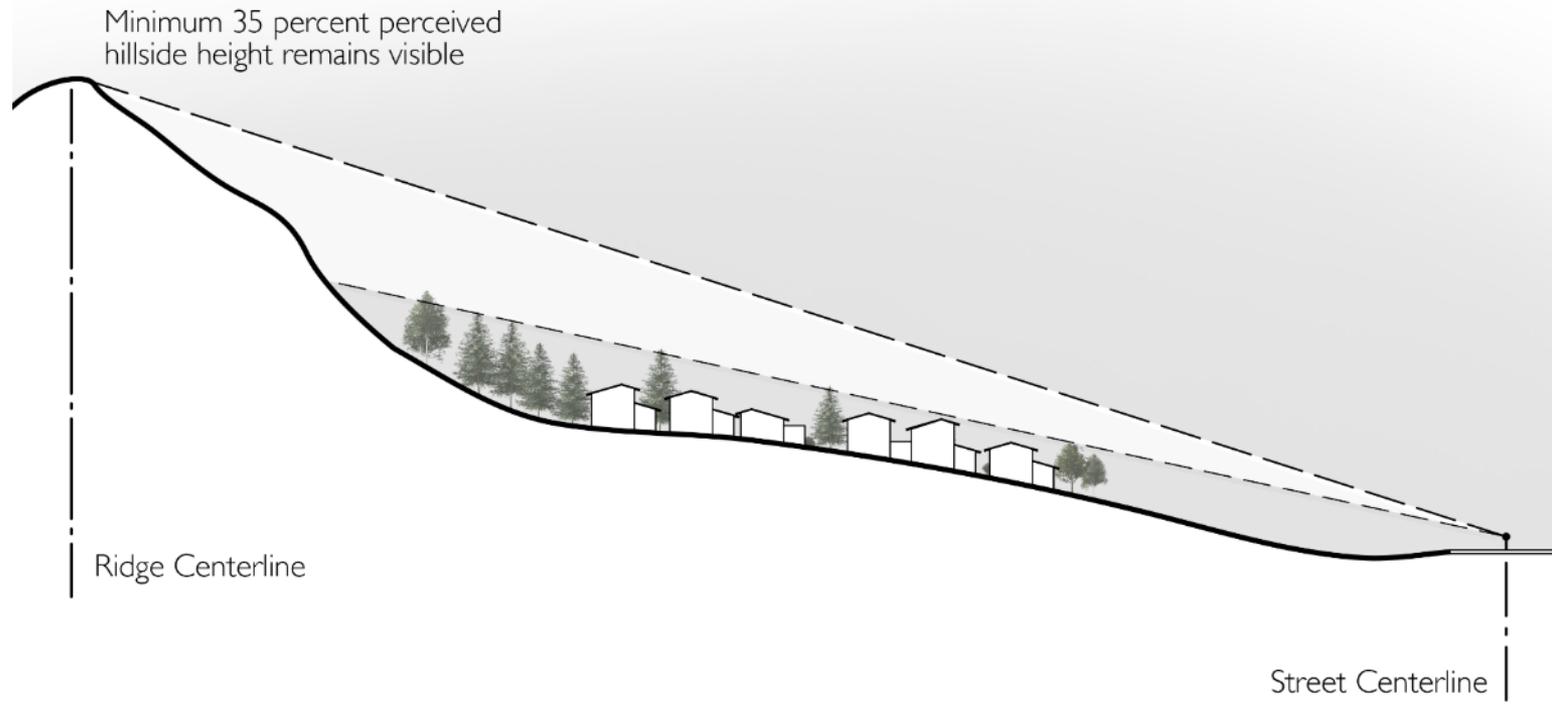
# 7. Protecting Ridgelines and Viewsheds



## Amendments:

- ❑ New General Plan Goal CD8 and related policies replace existing policy CD1.5
- ❑ New Zoning Ordinance Chapter 8.128 (Ridgeline Protection) establishes standards for Significant Non-MOSO Ridgelines:
  - 200-foot Buffer
  - 35 percent visible hillside above structure and below ridgeline
  - Exception provision if 35-percent requirement denies reasonable economic use of property
  - Studies of different ridgeline protection standards found a strict numerical standard applied to all locations may preclude any reasonable development and/or fail to achieve the intent of maintaining an adequate visual separation between the top of homes and the ridgeline behind
- ❑ New standards and guidelines in Design Guidelines

# 7. Protecting Ridgelines and Viewsheds



# 7. Protecting Ridgelines and Viewsheds



## Amendments: Design Standards and Guidelines

- ❑ Replaces existing guidelines in “Protect Ridgelines and Hillside Areas (RH) section of Design Guidelines
- ❑ Applies to hillside areas, defined as:
  - A parcel or site with an average slope of twenty (20) percent or greater; or
  - The area of disturbance of a proposed development project with an average predevelopment slope of twenty (20) percent or greater.
- ❑ Some standards and guidelines apply only to new homes and subdivisions, others also apply to additions that add an upper story to an existing home and/or increase the floor area of an existing home by 35 percent or more.

# 7. Protecting Ridgelines and Viewsheds



## Amendments: Design Standards and Guidelines

- ❑ Contains both standards and guidelines
  - **Standards:** Mandatory requirements that apply to all projects. These requirements are measurable and quantitative standards similar to height, setback, and other development standards in the Zoning Code. Projects may deviate from standards only with Planning Commission approval of a Variance.
  - **Guidelines:** Provide direction on the more qualitative aspects of a project and may be interpreted with some flexibility. A guideline establishes a design objective and allows for alternative approaches to achieve this objective. The Town may grant an exception to a guideline in accordance with the process described on page 7 of the Design Guidelines.
- ❑ Majority of new design standards and guidelines are guidelines (Discussion item)

# 7. Protecting Ridgelines and Viewsheds



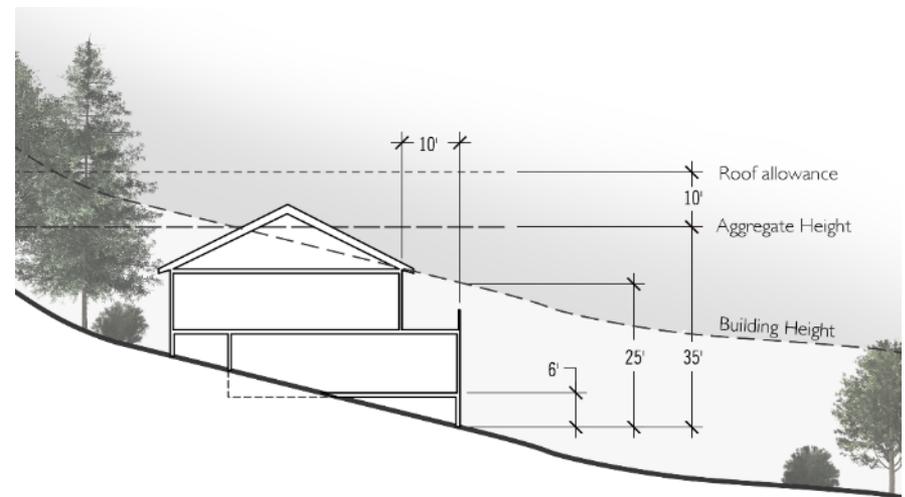
## Example Standards

### □ RH4.1: Building Height

- Maximum building height: 25 feet
- Maximum aggregate building height: 35 feet
- Roof allowance: 45 feet

### □ RH4.2: Stepbacks

- Maximum height of down sloping vertical plane : 20 feet
- Step back for vertical walls above 20-foot limit: 10 feet

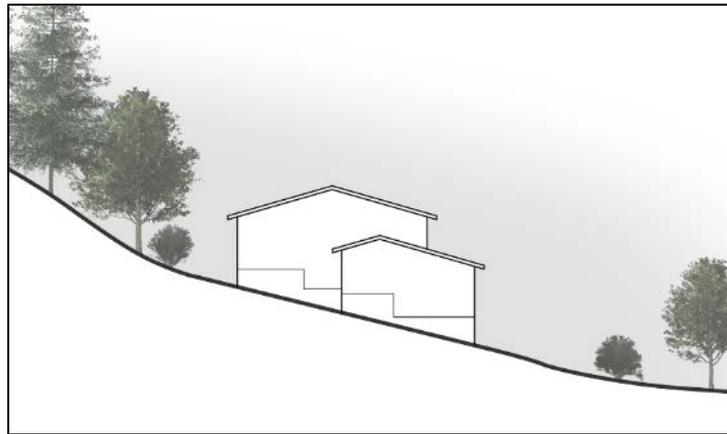


# 7. Protecting Ridgelines and Viewsheds

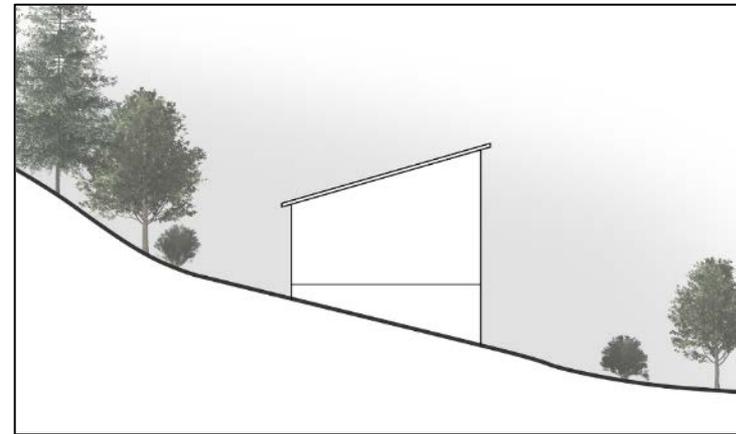


## Example Guidelines

- ❑ **RH4.4: Building Mass.** Building design should incorporate techniques to effectively reduce the appearance of mass, bulk and volume where visible from a public place or neighboring property.
- ❑ **RH4.5: Roofs.** Roofs should be designed to minimize the visual prominence of buildings and complement the surrounding landscape.



**DO THIS**



**DON'T DO THIS**

# 7. Protecting Ridgelines and Viewsheds



## Amendments:

- ❑ New scenic corridor development guideline added to Section 8.132.050 (Scenic Corridors)
- ❑ Buildings must be located and designed to maintain views of distant hillsides while allowing for an appropriate intensity of development consistent with the intent of the applicable zoning district and General Plan designation.

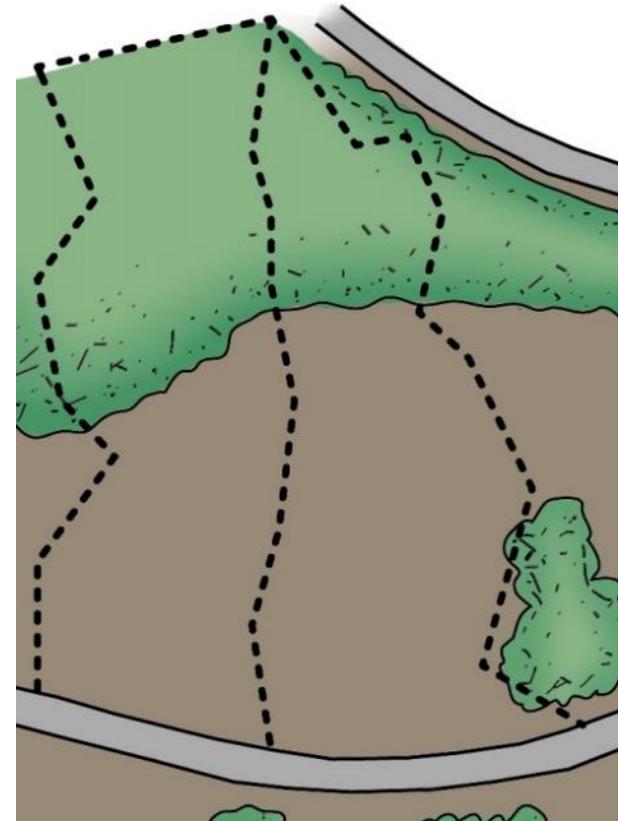
# 8. Steep Slope Limitations in MOSO Open Space



## Issue Description:

- ❑ In MOSO Open Space, development is prohibited in areas with an existing slope of 20 percent or more.
- ❑ MOSO Guidelines require a development "Cell" to be defined with an average grade of less than 20 percent
- ❑ Some applicants have calculated average slope for a very large or irregularly shaped area (a "contorted cell").
- ❑ Also, is development allowed in particularly high-slope areas in a cell if the average slope is less than 20 percent?

## Contorted Cells



# 8. Steep Slope Limitations in MOSO Open Space



## Amendments:

- ❑ In MOSO Guidelines addresses, new development envelope definition replaces the cell definition (Section II.A, page 2) and rules applying the new development envelope concept (Section II.C, page 5).
- ❑ Size of a development envelope limited to 10,000 square feet
- ❑ Each home within subdivision would have to have its own development envelope, with each required to meet the 20% slope limitation standard
- ❑ Streets are not included in development envelope calculation. A street is allowed if the area of disturbance to accommodate the street does not exceed an average slope of 20 percent, with no limitation on maximum size of this area.

# 9. Remediation of High Risk Areas



## Issue Description:

- ❑ Geologic hazards, such as landslides, on a hillside site can often be remediated through earthmoving, excavation, and the installation of engineering structures.
- ❑ MOSO Guidelines allow for reclassification of high risk areas as a result of remediation.
- ❑ Reclassification allows for increased residential density (up to either 1 unit per 10 acres or 1 unit per 5 acres).
- ❑ Should this practice of allowing increased density as a result of remediation continue?

# 9. Remediation of High Risk Areas



## Amendments:

- ❑ Amended MOSO Guidelines Section II.D.2 and General Plan policies LU1.6 and LU1.7 state that density increases are not allowed as a result of remediation
- ❑ Allows all types of grading in high risk areas, but not to increase density
- ❑ Clarifies rules for calculating permitted density for sites containing both high risk and non-high risk areas

# 10. Building Size on Large Lots



## Issue Description:

- ❑ Floor area ratio (FAR) is a measurement of the size of a building relative to its lot size.
- ❑ Design Guidelines establish a maximum FAR for single-family homes up to a maximum lot size of 20,000 sq. ft.
- ❑ Design Guidelines do not address maximum FAR for lots greater than 20,000 sq. ft.

# 10. Building Size on Large Lots



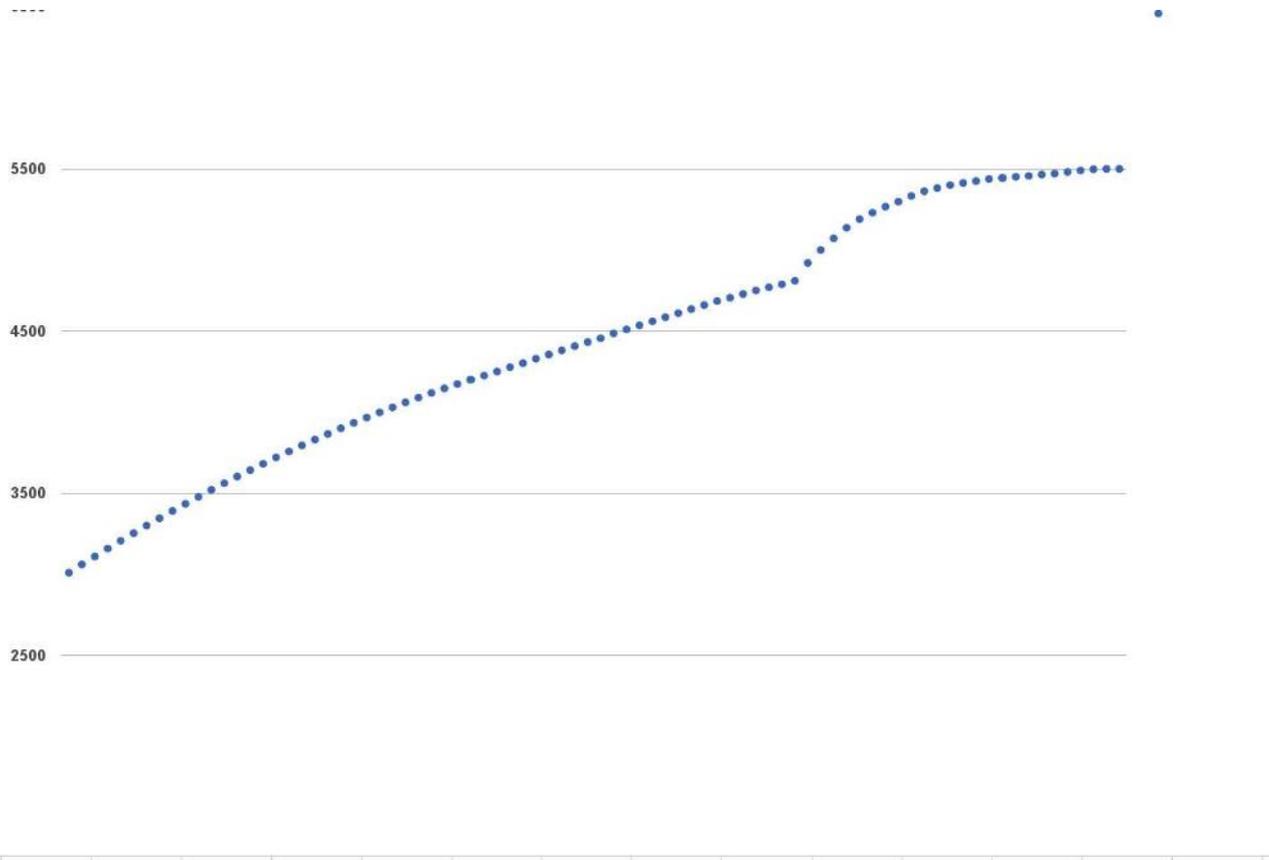
## Amendments:

- ❑ Design Guidelines Appendix D revised to specify a maximum floor area for lots greater than 20,000 square feet, allowing up to 5,500 square feet homes on a 1-acre lot.
- ❑ FAR and building size numbers prepared with assistance by Planning Commissioner Kovac
- ❑ New limits apply only to homes in a hillside area visible from a public place
- ❑ No quantified maximum FAR or building size standard for lots greater than 1 acre.
- ❑ Commissioner Kovac prepared alternative numbers producing a more natural curve allowing maximum home size of 5,100 square feet on a 1-acre lot

# 10. Building Size on Large Lots

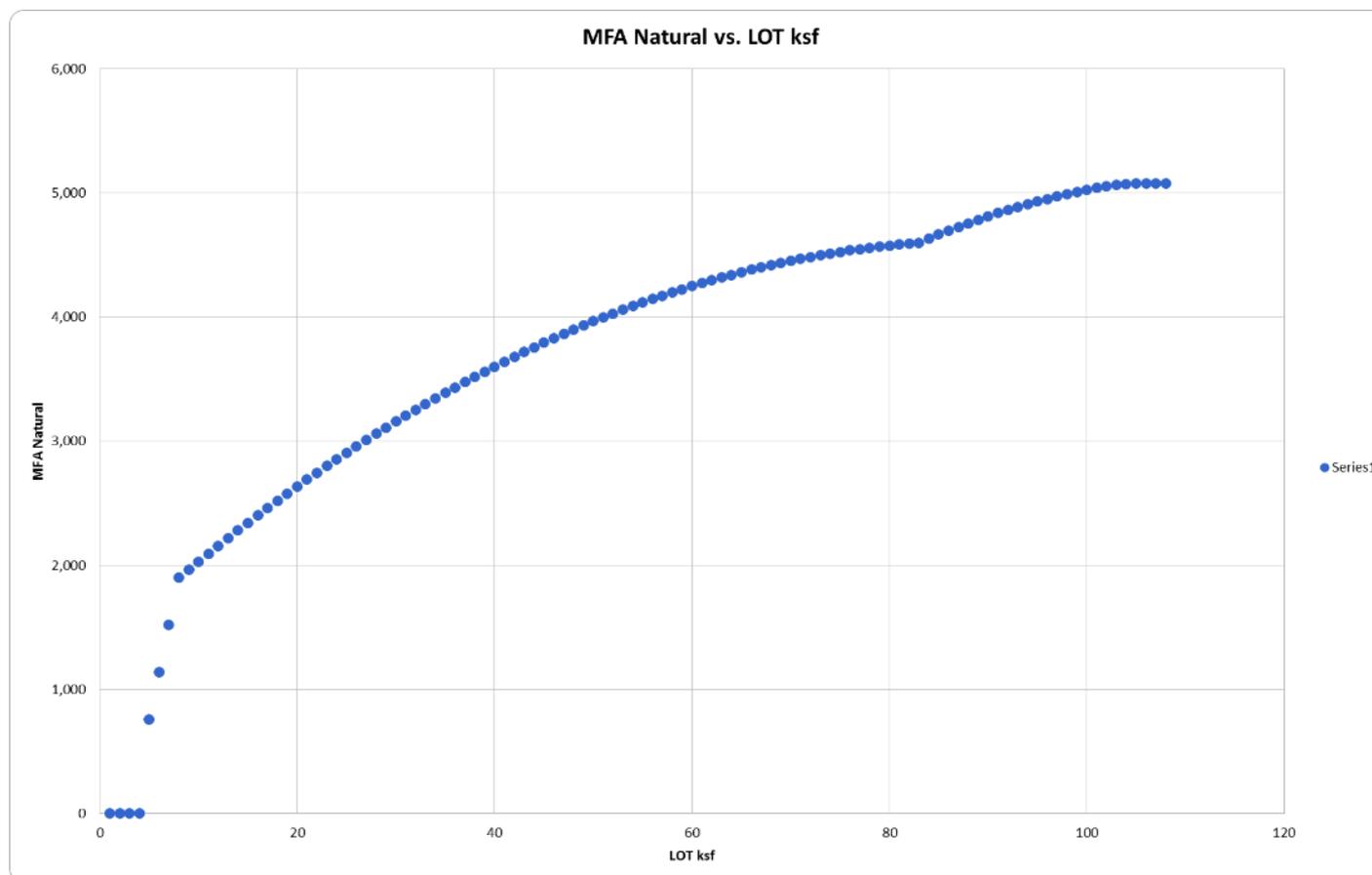


Maximum FAR and Home Size Limitations – 5,500 square feet maximum home size at 1-acre lot size





## Alternative Maximum FAR and Home Size Graph (Natural Progression to 5,100 Square Feet)





# MORAGA HILLSIDES AND RIDGELINES PROJECT