

SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN

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MEMORANDUM

DATE: August, 2020

TO: WMA, CMA and EMA GSA
Committees

FROM: GSA Agency Staff

SUBJECT: Management Area Boundary Modifications

Background

This memorandum describes proposed changes to the internal boundaries of the three management areas (MA) in the Santa Ynez River Valley Groundwater Basin¹ (SYRVGB). The proposed changes to the CMA-EMA boundary are based on a request from the City of Solvang and a further analysis of parcel boundaries and hydrogeologic information. The proposed changes to the CMA-WMA boundary are based on an analysis of the hydrologic and hydrogeologic data by Stetson.

The two consultant teams coordinated together on the proposed changes. Agency Staff from all eight agencies in the Basin reviewed the proposed boundary changes. As the Groundwater Sustainability Plans (GSP) and associated technical memoranda are currently being prepared, the timing of the proposed changes will allow the consultants to proceed with preparing the GSP figures with the new boundaries. The proposed changes are shown in Figures 1 and 2. No changes to the DWR Bulletin 118¹ basin boundaries are proposed herein. None of the proposed changes are considered “material changes” as defined by DWR. Table 1 below summarizes the

¹ The extents of the SYRVGB were determined by the Department of Water Resources in Bulletin 118 (“DWR”) and are based on regional geology studies. The SYRVGB is identified as California basin 3-15.

total acres of the SYRVGB and MAs based on original boundaries and proposed revised boundaries.

Table 1. Area Within Original and Revised Boundaries of the WMA, CMA and EMA (Acres)

	Area within Original Boundaries (Acres)	Area within Revised Boundaries (Acres)	% change
Western Management Area (WMA)	85,300	85,600	0%
Central Management Area (CMA)	21,200	21,000	1%
Eastern Management Area (EMA)	96,500	96,400	0%
Total Santa Ynez River Valley Groundwater Basin	203,000	203,000	0%

Proposed Change to CMA-EMA Internal Boundary

The proposed change to the CMA-EMA boundary adjusts the existing boundary between the CMA and EMA to align with parcel and hydrogeologic boundaries. This change is based on updated Santa Barbara County Assessor parcels maps. Additionally, the existing MA boundary split several parcels. The revised boundary does not split any parcels and follows a topographic and geologic break at the base of Skytt Mesa, on the western side of the City of Solvang. The new boundary coincides with the contact between several geologic units which will simplify water budget calculations. All parcels included in the boundary change were previously part of a GSA. No additional land is subject to the Sustainable Groundwater Management Act (SGMA) as a result of the boundary change, therefore not considered a material change by DWR. Figure 1 shows the original and draft proposed boundary between the CMA-EMA.

Proposed Change to WMA-CMA Internal Boundary

The proposed change to the WMA and CMA boundary is based on the following:

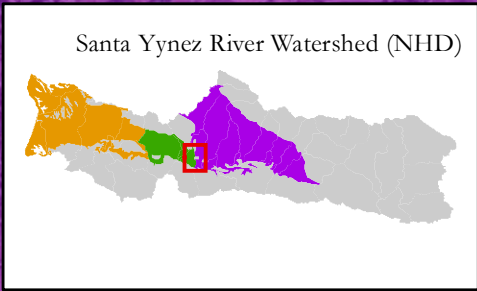
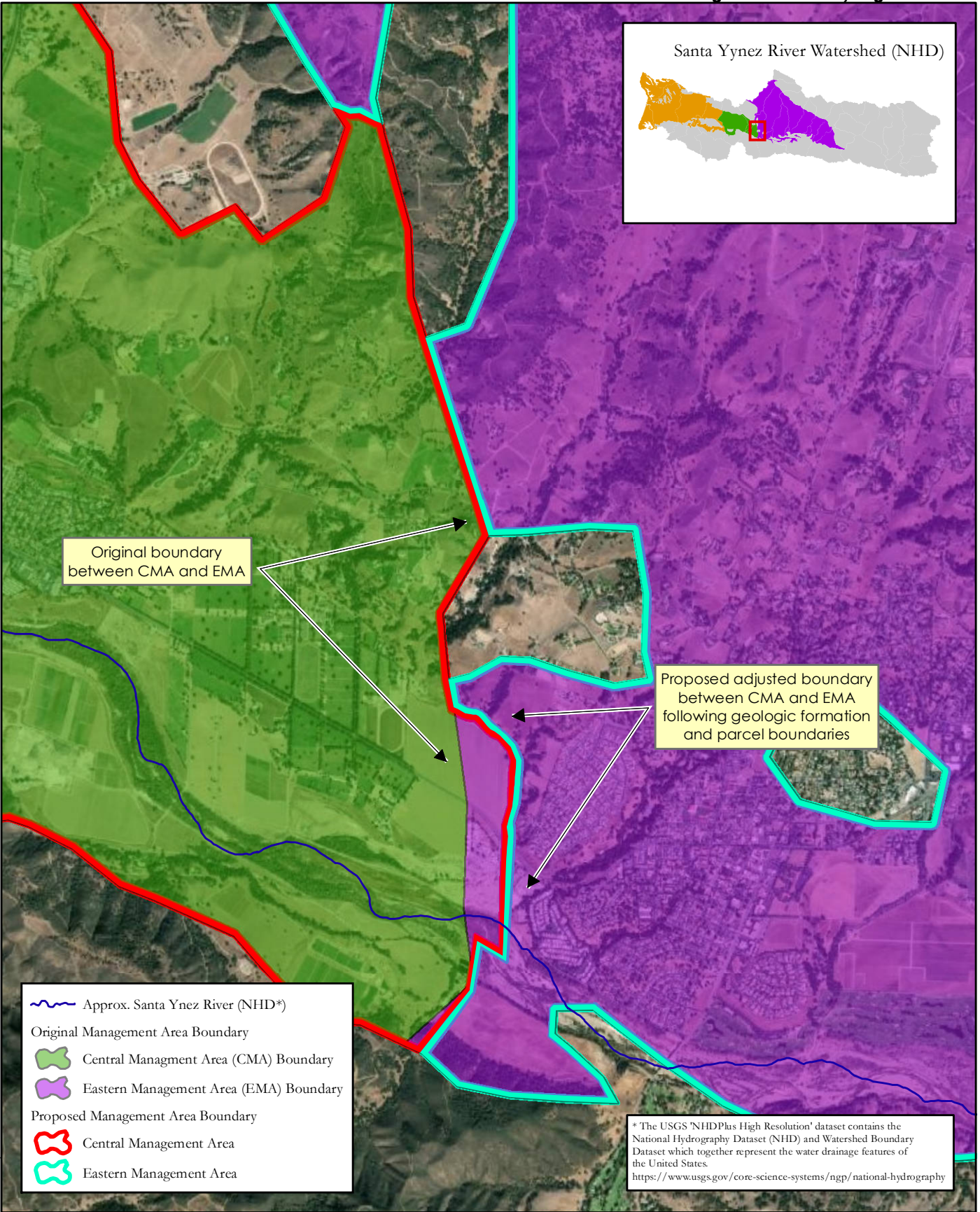
- 1) Aligns the MA boundary with the surface water drainage, the local topography and hydrogeology.
- 2) Encloses a large portion of the Careaga formation within the CMA, which aids in calculations for the water budget.

- 3) Aligns the WMA-CMA GSA boundary to the SYRWCD boundary in the Santa Rita and Buellton Uplands.
- 4) Shortens the boundary between the WMA-CMA, which will simplify water budget calculations.
- 5) Moves the MA boundary at the Santa Ynez River near to a former USGS gauge location (ID 11131000) and a bedrock high. The new boundary is less arbitrary than the previous boundary and will make the calculation of groundwater and surface water flux between the CMA and WMA easier to quantify.

Figure 2 shows the original and draft proposed boundary between the WMA-CMA. All parcels included in the boundary change were previously part of a GSA. No additional land is subject to the Sustainable Groundwater Management Act (SGMA) because of the proposed boundary change, and therefore not considered a material change by DWR.

Once the GSAs have concurred with the change, Staff will formerly update the Geographic Information System (GIS) files and upload the revised GIS files to DWRs SGMA Portal with a letter documenting the changes.

Staff recommendation: Staff recommends that the WMA, CMA and EMA GSAs endorse the proposed boundary changes.



Original boundary between CMA and EMA

Proposed adjusted boundary between CMA and EMA following geologic formation and parcel boundaries

- Approx. Santa Ynez River (NHD*)
- Original Management Area Boundary
- Central Management Area (CMA) Boundary
- Eastern Management Area (EMA) Boundary
- Proposed Management Area Boundary
- Central Management Area
- Eastern Management Area

* The USGS 'NHDPlus High Resolution' dataset contains the National Hydrography Dataset (NHD) and Watershed Boundary Dataset which together represent the water drainage features of the United States.
<https://www.usgs.gov/core-science-systems/ngp/national-hydrography>

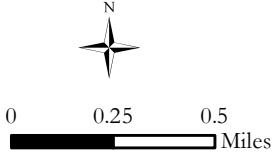
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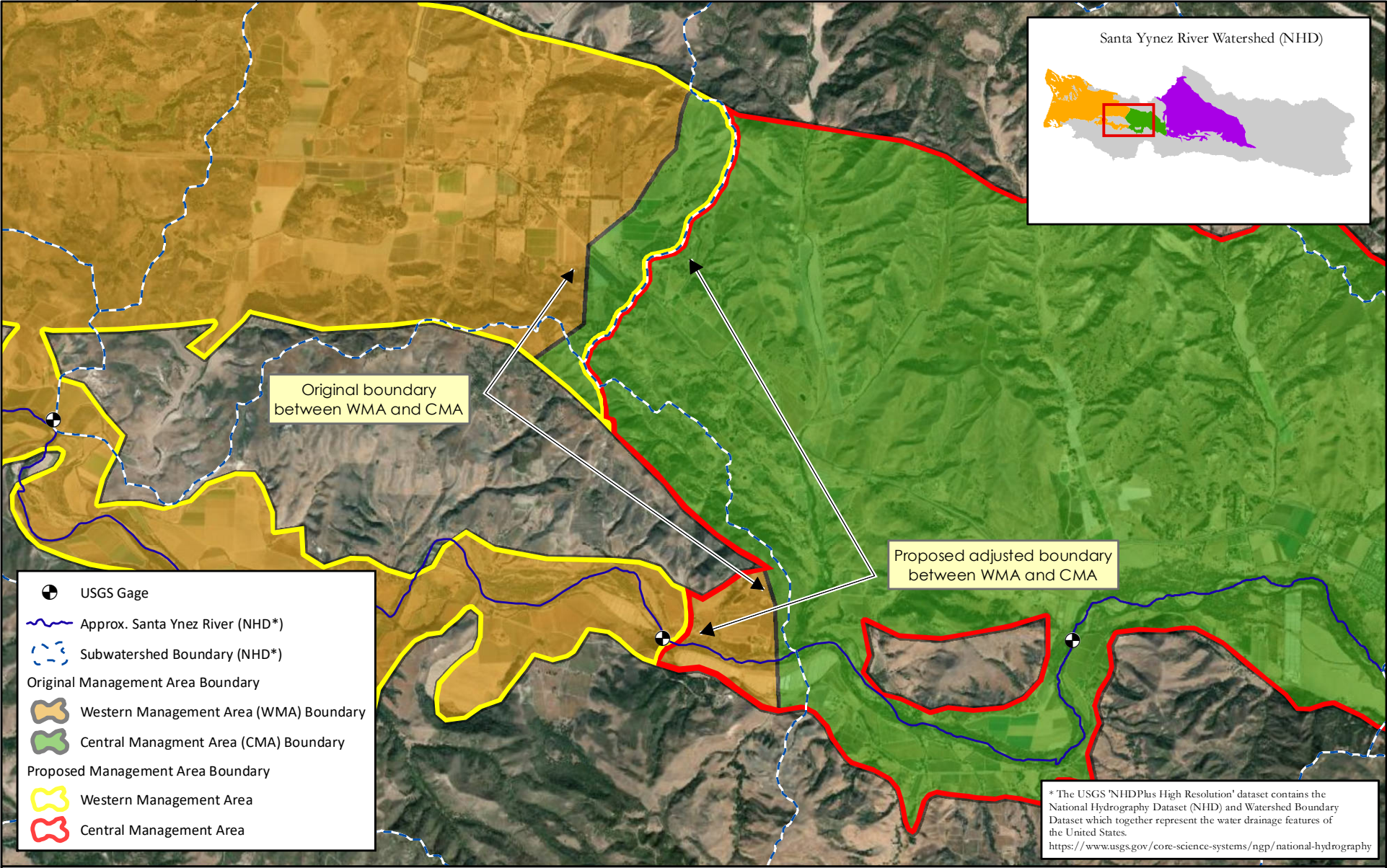
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 7/31/2020

**PROPOSED BOUNDARY ADJUSTMENTS
 CENTRAL AND EASTERN MANAGEMENT AREAS**

Proposed adjusted boundary between CMA and EMA following geologic water-bearing formation boundary and parcels; No exterior DWR Bulletin 118 boundaries are changed.



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**PROPOSED BOUNDARY ADJUSTMENTS
 CENTRAL AND WESTERN MANAGEMENT AREAS**

0 0.5 1 Miles



This map proposes that internal management area boundaries within the Santa Ynez River Groundwater Basin be redrawn to follow watershed boundaries more accurately and to utilize a historical USGS gage location; no exterior DWR Bulletin 118 boundaries are changed.

FIGURE 2