

The Ranch Plan Planned Community Planning Areas 3 and 4 Runoff Management Plan

Final Report

Rancho Mission Viejo
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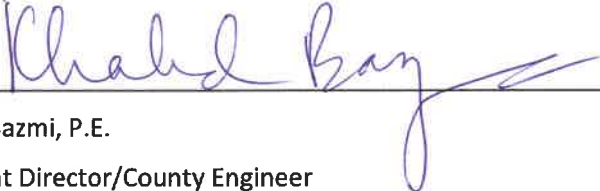
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Entitlement Compliance

This document provides compliance with the Ranch Plan Final Environmental Impact Report #589 Mitigation Measures 4.5-1 (Items 19, 21, 22, 25, 26, 27), 4.5-5 (Items 36-38), and 4.5-8 (Items 80-83 and 92-97), and the Ranch Plan Planned Community Program Text (Zoning) Condition of Approval 4 (Items 247-249), for the San Juan Creek Watershed and Ranch Plan Planning Areas 1-5. The PA-3&4 ROMP also documents compliance with the Approved Ranch Plan ROMP Table 19-1 Stormwater Management Development Submittal/Analysis Checklist.

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1 Introduction

The Ranch Plan Planned Community Planning Area 3 and Planning Area 4 Runoff Management Plan (PA-3&4 ROMP) provides an update of the hydrology, hydraulics, water quality and stream stability analyses included in the “Comprehensive Regional Stormwater Plan for The Ranch Plan Planned Community Runoff Management Plan (Ranch Plan ROMP)” dated April 2013 prepared by Pacific Advanced Civil Engineering, Inc (PACE). This report will focus in detail on supporting the planning and design efforts of Planning Area 3 (PA-3) and Planning Area 4 (PA-4) within Rancho Mission Viejo (RMV). The RMV Planning Areas are located within the San Juan Creek (SJC) watershed, which is approximately 176 square miles at the ocean outlet. The Ranch Plan regional vicinity map is shown in Figure 1-1.

1.1 Background

The Ranch Plan ROMP included five development Planning Areas: PA-1, PA-2, PA-3, PA-4 and PA-5, as shown in Figure 1-2. A description of each area, as described in the Ranch Plan ROMP, follows:

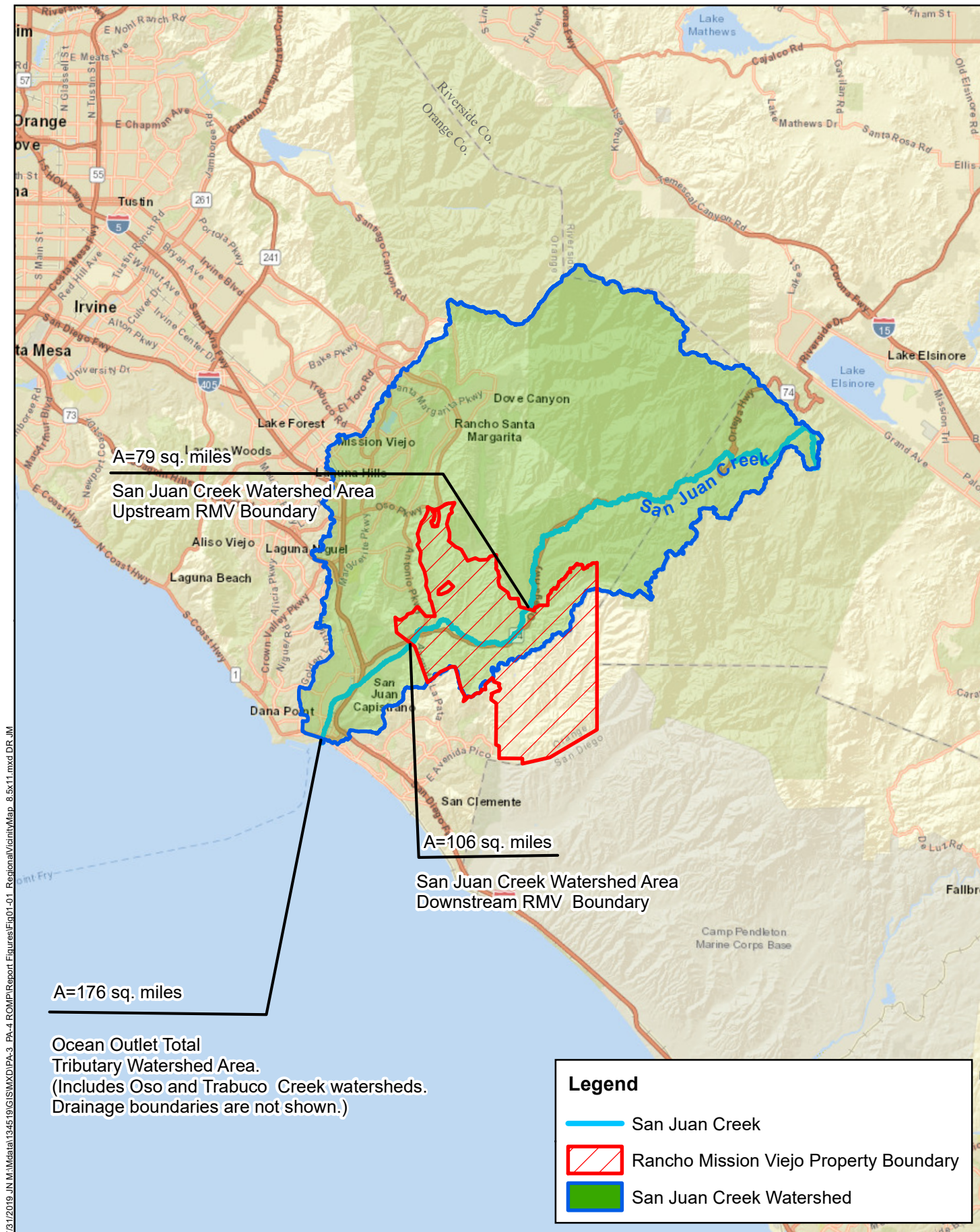
- PA-1 is located primarily in the Narrow Canyon watershed sub-basin. PA-1 is also referred to as the Sendero. Development in PA-1 consists of 704 Planning Area gross acres and 464 gross development acres. Planning Area 1 has been constructed per a planning level ROMP previously prepared and approved by the County.
- PA-2 is primarily located within the Chiquita Canyon sub-basin. Development in PA-2 consists of 1,680 Planning Area gross acres and 824 gross development acres. Planning Area 2 is currently being constructed per a planning level ROMP previously prepared and approved by the County.
- PA-3, the focus of this Planning Area Runoff Management Plan, is located within the Gobernadora and Central San Juan Creek regional watershed sub-basin. PA-3 includes 2,185 gross acres (Limits of PA Boundary). Figure 1-3 shows the portion of PA-3 that is being included as part of this ROMP.
- PA-4, another focus of this Planning Area Runoff Management Plan, is located within the Verdugo and Central San Juan Creek watershed sub-basins. PA-4 currently includes 1,127 gross acres (Limits of PA Boundary). The actual limits of the proposed development within PA-4 are significantly less than the gross acreage. Figure 1-3 shows the portion of PA-4 that is being included as part of this ROMP.
- PA-5 is located within the Central San Juan Creek and Trampas regional watershed sub-basins. Development in PA-5 would consist of 1,191 gross acres. This planning area will ultimately contain the large Santa Margarita Water District (SMWD) recycled water reservoir (Trampas Reservoir); however, for this study the land uses, assumed grading and regional detention basins are the same as what was used in the approved Ranch Plan ROMP.

1.2 Previous Studies

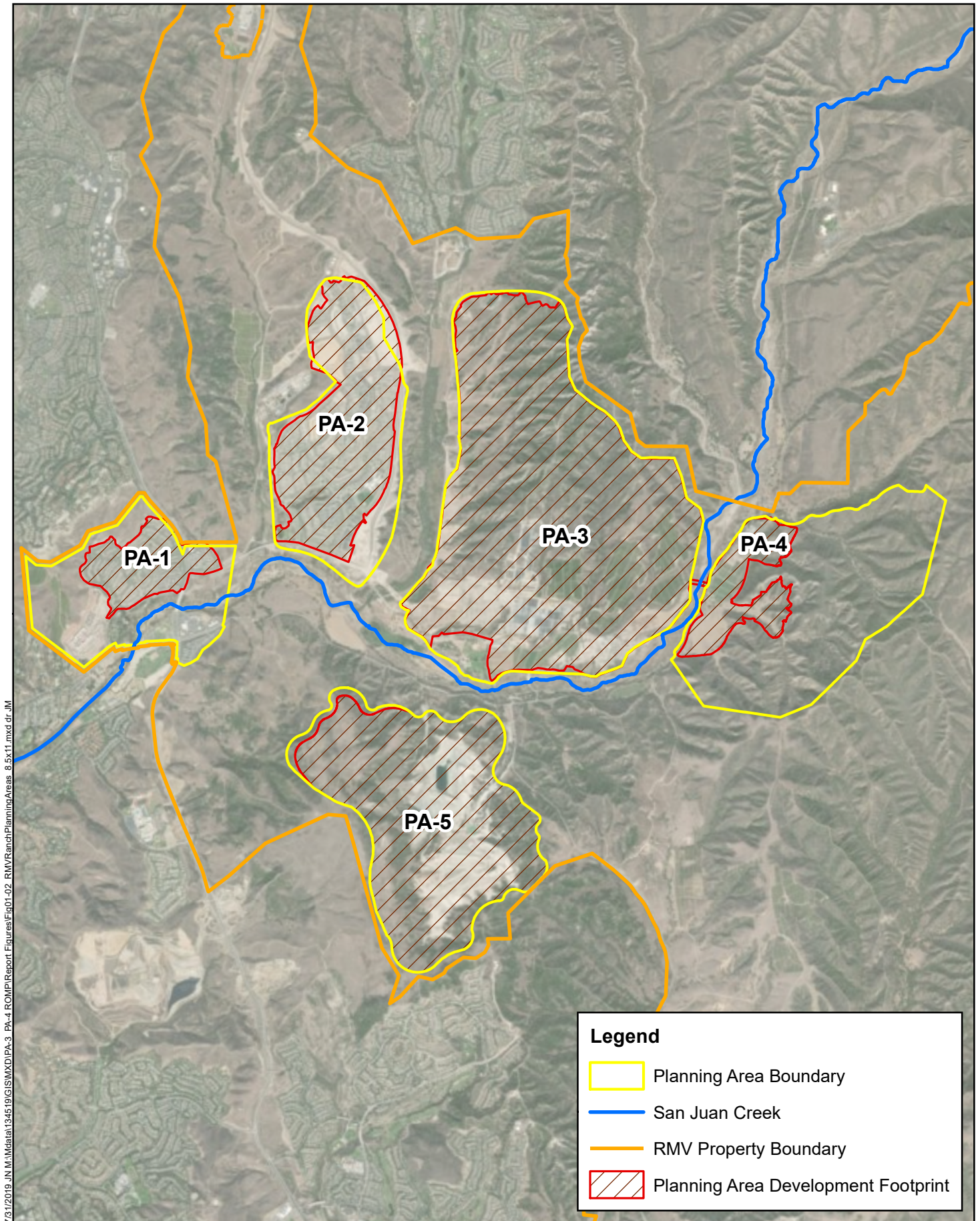
The approved Ranch Plan ROMP (PACE, 2013), and the Ranch Plan Planned Community PA-2 Runoff Management Plan Update (PA-2 ROMP), prepared by Michael Baker International (formerly RBF Consulting) and approved in April 2014, were the primary background studies used in this PA-3&4 ROMP. The Ranch Plan ROMP document is a comprehensive watershed planning tool that was developed to support the planning and design efforts for future development within RMV. The document provides planning guidance that implements the specific mitigation measures required in the Final Environmental Impact Report No. 589 (FEIR), to address flood protection, surface hydrology, water quality, and stream stability for future RMV development. The guidelines and requirements in the Ranch Plan ROMP and the PA-2 ROMP were used to establish the studies for this focused PA-3&4 ROMP and

provided the base models for the hydrology, hydraulic and stream stability analyses. This study used Geographic Information System (GIS) data, land use tables and base hydrology and hydraulic models developed as part of the Ranch Plan ROMP and PA-2 ROMP.

The PA-2 ROMP (Michael Baker International [formerly RBF Consulting], 2014), updated the Ranch Plan ROMP models to incorporate the final PA-2 stormwater management plan. This document provided local and regional hydrology analysis of the SJC watershed, master plan storm drain hydraulics, water quality management and stream stability studies specific to the overall effects of the development of PA-2. This PA-3&4 ROMP update incorporates the final PA-2 ROMP models as needed and follows the future submittal requirements of Section 6.2 of the final PA-2 ROMP.

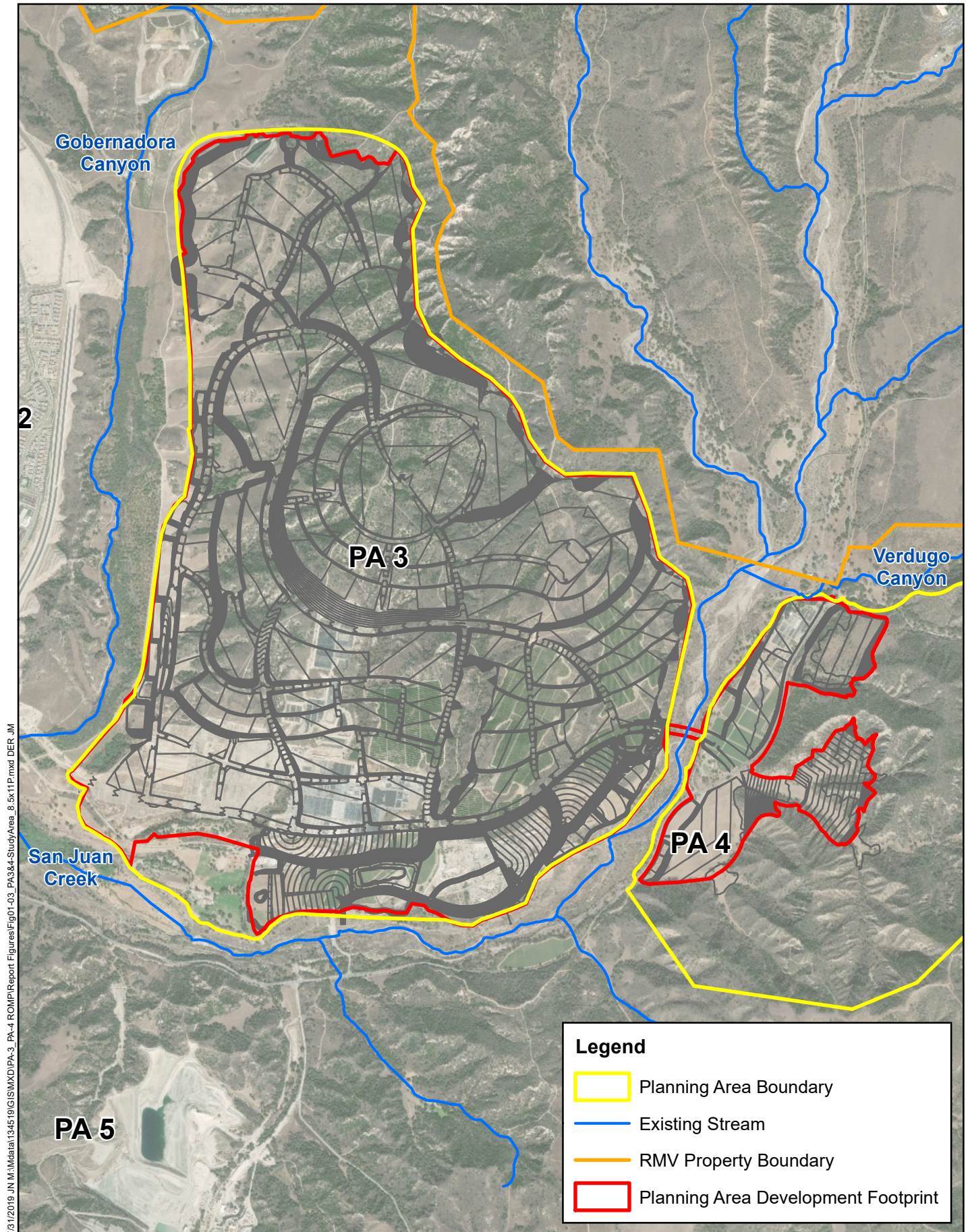


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PA-3 and PA-4 Study Areas

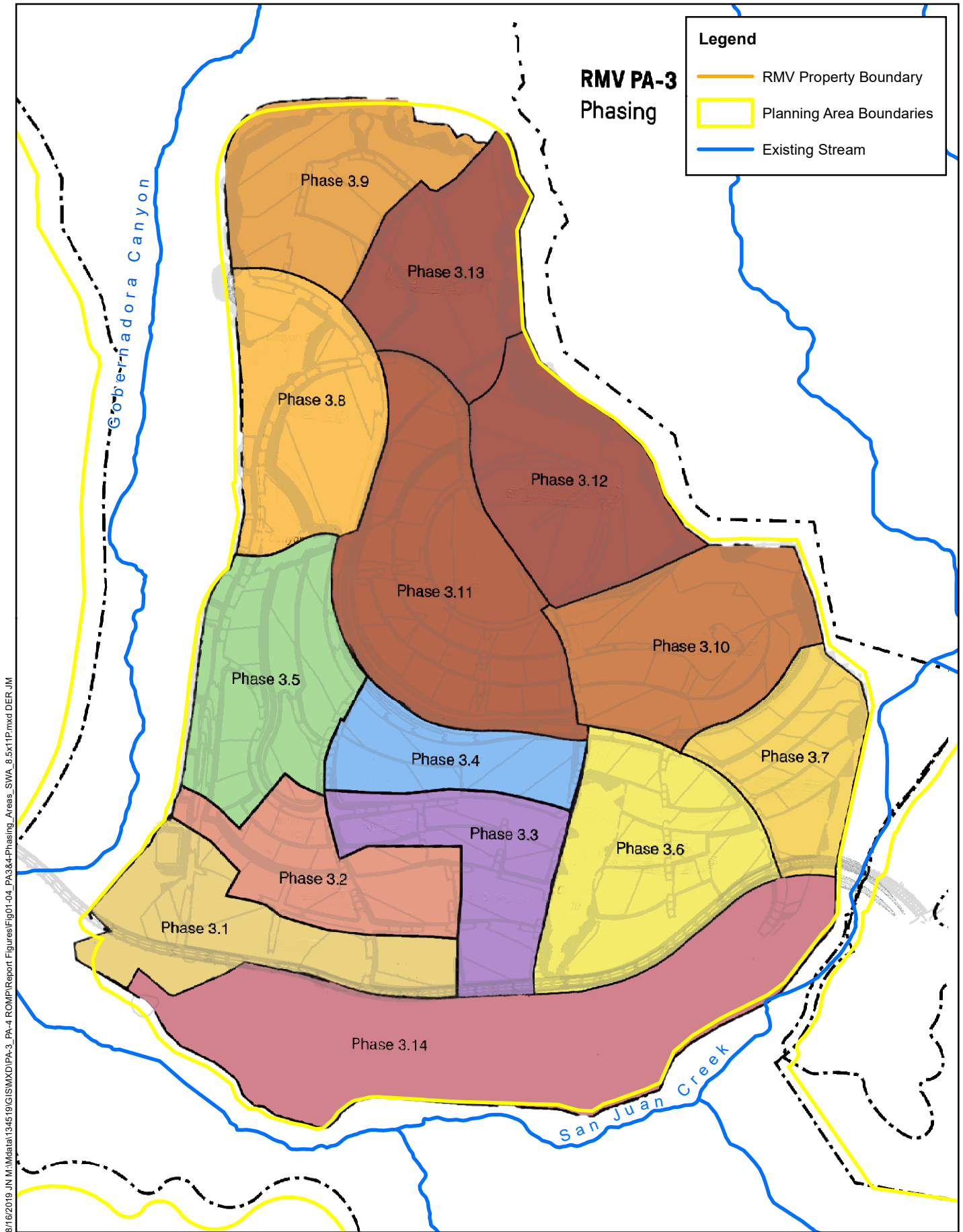
1.3 Study Purpose

The purpose of the PA-3&4 ROMP is to provide a focused study with additional details in the PA-3 and PA-4 areas for the hydrology, hydraulics, water quality, and stream stability studies that were prepared as part of the Ranch Plan ROMP. The PA-3&4 ROMP will serve as both a Master Plan of Drainage and a Runoff Management Plan as detailed in Chapter 19 of the Ranch Plan ROMP. Chapter 19 indicates that there are 63 Mitigation Measures related to water resources/stormwater management in the Ranch Plan FEIR. The overall approach to address those mitigation measures are outlined in the Ranch Plan ROMP. This study will show how the refined details of the PA-3 and PA-4 development are consistent with the Ranch Plan ROMP and satisfy the requirements of the mitigation measures in FEIR 589. Appendix A provides a detailed description of these measures.

Prior to this study, several documents and analysis for related projects have already been approved by the County. This PA-3&4 ROMP was developed in accordance with the following approved documents:

1. Comprehensive Regional Stormwater Plan for The Ranch Plan Planned Community Runoff Management Plan (Ranch Plan ROMP)” dated April 2013 prepared by PACE.
2. The Ranch Plan Planned Community PA-2 Runoff Management Plan Update approved April 4, 2014 prepared by Michael Baker International (formerly RBF Consulting).
3. “PA-1 Development Area and the Ranch Development Plan San Juan Creek Watershed Stream Monitoring Program” dated 2011 prepared by PACE.
4. Gobernadora Multipurpose Basin Design Report dated August 2014 prepared by PACE.
5. Sediment Transport and Scour Analysis Report of Gobernadora Canyon for Cow Camp Road Bridge dated September 2017 prepared by Michael Baker International.
6. Gibby Road Bridge Hydraulics & Scour Analysis of San Juan Creek dated March 2018 prepared by PACE.

This PA-3&4 ROMP study is also being prepared to support the extension of Cow Camp Road and the rough grading plans for Planning Area 3 phase subareas 3.1, 3.2, 3.3, 3.4, and 3.5 shown in Figure 1-4. Cow Camp Road currently extends from Antonio Parkway to the most south-eastern edge of PA-2 and is the major infrastructure facility that will provide access to the future development of PA-3 and PA-4. The Cow Camp Road extension through the south of PA-3 consists of a bridge over Gobernadora Canyon that will connect PA-2 and PA-3, and the road extension within PA-3. The extension through PA-4 consists of a bridge over San Juan Creek that will connect PA-3 and PA-4. Currently, the major effort is to provide storm drain facilities requirements and sizes that will be necessary for the construction of Cow Camp Road Phase 2B through PA-3. Refer to Cow Camp Road Improvements Phase 2B (2019) for basis of design for Cow Camp Road storm drain. The PA-3&4 ROMP is a general document that supports the PA-3&4 Master Area Plan. Separate detailed drainage studies are being prepared for concurrent projects such as the Cow Camp Road Extension and grading plans for the local PA-3 phase areas.



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