Commenter	Section, Subsection, and Page Number	Comment Scope (text highlighted by comment bubble, * indicates tracked chanaes exist)	Comment or Issue	Responsible Party	Response	Status/Notes	Flag?
TAG / Bryan	2.3.1, Page 13, Cmt #B1	FCGMA	FCGMA historically and currently does not monitor groundwater levels (or quality). The County of Ventura does, which is a different agency.	CK	We have revised the text to say "County of Ventura" in place of "FCGMA."	Complete	
TAG / Bryan	2.3.1, Page 13, Cmt #B2	FCGMA	As above	CK	We have revised the text to say "County's" in place of "FCGMA."	Complete	
TAG / Bryan	2.3.1, Page 13, Cmt #B3	Self-reported groundwater extraction data for the year 2015 are shown in Figures 2-5 and 2-6 for wells screened in the UAS and the LAS, respectively. In the UAS, the location of the greatest amount of extraction is within the forebay, with additional extraction areas both west and south of the City of Oxnard (Figure 2-5). The majority of the production from the LAS is in the area south of the Spanish Hills, near the boundary between the Pleasant Valley Basin and southeastern portion of the Subbasin (Figure 2-6). The volume of groundwater extracted from the LAS is greater than that extracted from the LASUAS. *	This discussion of pumping just appears in the middle of this section about groundwater elevations. I understand why it is added here, but other readers may not. Consider providing the context for this text. See suggested edits and additions above.	CK	We accepted the changes suggested at the beginning of this paragraph.	Complete	
TAG / Bryan	2.3.1.1, Page 14, Cmt #B4	37.9 to -30.7	List lowest value first?	CK	The lowest value has been listed first.	Complete	
TAG / Bryan	2.3.1.1, Page 14. Cmt #B5	10-Feb	Incorrect fieure reference	CK	The figure reference has been corrected.	Complete	
TAG / Bryan	2.3.1.1, Page 14. Cmt #B6	groundwater elevations in the Oxnard aquifer are hiaher on the western	Need to discuss onshore groundwater flow here as it is extremely relevant to managing the basin to protect against seawater intrusion. UWCD reports should be able to provide context that can be referenced.	CK	The following sentence has been added to this paragraph: "Coastal elevations were measured below or near sea level in both spring and fall of 2015, and consequently the hydraulic gradient was generally landward at the coast (Figure 2-7 and 2-8)." Onshore groundwater flow is discussed further in Section 2.3.3.	Complete	
TAG / Bryan	2.3.1.1, Page 14, Cmt #B7	In this central area, groundwater elevations are over more than 20 feet below sea level in both the spring and fall of 2015 (Figures 2-7 and 2-8). This reflects the groundwater production from wells south of the City of Oxnard in the central Oxnard Subbasin (Figure 2-7). *	I think it would be proper to provide more context here. Should this be described as a pumping trough? Is it a pervasive feature or does it only exist during droughts. UWCD reports should be able to provide context that can be referenced.	CK	The following sentence has been added to this paragraph: "Water elevations in the UAS in the central Oxnard Subbasin are typically measured above sea level during wet climatic periods and fall below sea level during droughts (UWCD 2016a)".	Complete	
TAG / Bryan	2.3.1.1, Page 14, Cmt #B8	but several production wells screened in multiple aquifers	This does not make sense - something is missing here.	CK	Reviewed. No information is missing. The sentence indicates that much of the water elevation data that existst in the southern Oxnard Subbasin comes from wells screened in multiple aquifers, which cannot be used in the Oxnard-specific water elevation map.	Complete	
TAG / Bryan	2.3.1.1, Page 15. Cmt #B9	throughout	How do we know this to be true everywhere – we only know where we have nested monitoring wells.	CK	The text has been revised to say "In all areas of the Oxnard Subbasin for which Mugu-specific elevation data is available" instead of "throughout the Oxnard Subbasin".	Complete	
TAG / Bryan	2.3.1.1, Page 15, Cmt #B10	The vertical gradients along the coast are lower than they are inland, reflecting the influence of seawater in the aquifer, moderating water levels at the coast.	Not sure I agree with this. Perhaps the vertical gradients are lower at the coast because there is less pumping near the coast (see figs 2-5 and 2-6) and/or perhaps they are higher inland because it is closer to the recharge area which affects Oxnard heads more than the other aquifers?	CK	The suggested language has been added to the text.	Complete	
TAG / Bryan	2.3.1.1, Page 17. Cmt #B11	Historical Groundwater Elevation Trends	The discussion below focusses exclusively on the relationship between water levels and precipittation and is missing the context of the major management actions implemented in the 1980s/1990s – the Freeman Diversion, PTP system, and prohibition on UAS wells, which is critical to understanding the trends. The FD increased recharge notably (Oxnard most affected) ; PTP system took replaced Oxnard pumping with LAS pumping; and the prohibition shifted additional Oxnard pumping to the LAS. These are major factors that need to be discussed in the context of interpreting the water level trends – without these management measures, the Oxnard water levels may not have recovered as much in the 1990s.	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete	
TAG / Bryan	2.3.1.1, Page 17. Cmt #B12	Fiaure 2-9a	Global Comment for all hydrographs: X-axis labels are offset from the tick marks – hard to figure out what year is where. Some are missing tick marks altogether.	CK	Tick marks have been edited.	Complete	
TAG / Bryan	2.3.1.1, Page 17, Cmt #B13	Groundwater elevations recover after each drought period.	While this statement is true, it implies that everything is OK because of the recovery. However, the important part that is missing in this discussion is that, despite the "recovery", water levels in wells near the coast do not or barely get back to levels high enough to prevent sea water intrusion. This is a critical observation that needs to be made.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal wells do not always recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to this section of the text.	Complete	
TAG / Bryan	2.3.1.1, Page 17, Cmt #B14	The amount of recovery depended on the length of time between droughts and the amount of precipitation received in each of the water years between the droughts.	And management measures operative during the various time periods.	CK	The suggested language has been added to the text.	Complete	
TAG / Bryan	2.3.1.1, Page 17, Cmt #B15	and by 1999, water levels exceeded the 1941 maximum	Need context for why this happened - 1980s/1990s – the Freeman Diversion, PTP system, and prohibition on UAS wells.	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete	
TAG / Bryan	2.3.1.1, Page 18. Cmt #B16	The patterns of water level decline and recovery observed in well 01N21W07H01S are observed in Oxnard Aquifer wells throughout the Oxnard Subbasin although absolute changes in water level vary geographically within the Oxnard Subbasin (Figure 2-9a and 2-9b). Wells in the forebay area and northeastern Oxnard Subbasin have experienced water level declines of approximately 90 feet since 2011 (Figure 2-9b) while water levels in wells adjacent to the coast and in wells farther south have declined between 18 and 40 feet over the same time period (Figure 2-9a). The larger water level changes observed in the northeastern Oxnard Subbasin reflect the influence of groundwater recharge from spreading basinsUWCD's managed aquifer recharee activities in the forebay area. *	Discussion of changes is fine. But what is more important and missing from this section is discussion of the absolute elevations, particularly near the coast. The relative percentage of time spent above/below elevations that are protective of seawater intrusion is a critical factor that is not discussed.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal wells do not always recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to this section of the text.	Complete	
TAG / Bryan	2.3.1.2, Page 18, Cmt #B17	The hydraulic gradient in the forebay in the spring of 2015 was approximately 0.003 feet/feet with groundwater flowing to the south and southwest. In the fall of 2015 the hydraulic gradient was approximately 0.002 feet/feet with groundwater flowing to the south and southwest	Need to caveat gradient discussion – no data in western part of basin – "However, it is noted that there are not groundwater elevation data in the western portion of the basin; thus, the gradients may be notably different than indicated. "	CK	The text has been revised.	Complete	

Legend: Complete | In progress | Not started

TAG / Bryan	2.3.1.2, Page 18, Cmt #B18	Groundwater elevations in the Mugu aquifer are lowest in the southern area of the Subbasin.	I think it would be proper to provide more context here. Should this be described as a pumping trough? Is it a pervasive feature or does it only exist during droughts. UWCD reports should be able to provide context that can be referenced.	CK	The following sentence has been added to this paragraph: "In general, elevations in the UAS in the southernmost corner of the Subbasin tend to be lower than in the central Subbasin (by as much as 40 to 80 feet), regardless of climatic cycles (FCGMA 2013)".	Complete
TAG / Bryan	2.3.1.2, Page 18, Cmt #B19	60	Many are higher than -60 in this area?	CK	The text has been revised to indicate elevations 30-100 feet below sea level, rather than 60-100 feet below sea level.	Complete
TAG / Bryan	2.3.1.2, Page 18, Cmt #B20	The hydraulic gradient, directed toward the area of low groundwater elevations, was approximately 0.002 feet/feet to the southeast in the spring of 2015. In the fall of 2015 the hydraulic gradient directed toward the area of low groundwater elevations ranged from approximately 0.004 to 0.009 feet/feet to the east-southeast.	Need to discuss onshore groundwater flow here as it is extremely relevant to managing the basin to protect against seawater intrusion. UWCD reports should be able to provide context that can be referenced.	CK	The sentence "Coastal elevations were measured below or near sea level in both spring and fall of 2015, and consequently the hydraulic gradient was presumably landward at the coast (Figure 2-7 and 2-8)." has been added to the text.	Complete
TAG / Bryan	2.3.1.2, Page 18. Cmt #B21	The uncertainty in hydraulic gradient, flow direction, and groundwater elevation within the Mugu aquifer is particularly pronounced in the southern and eastern Oxnard Subbasin	I disagree – this is where we have the most data. The greatest uncertainty is in the western and central portions of the subbasin where we have no data at all.	CK	The phrase "southern and eastern" has been replaced with "central and eastern".	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B22	At monitoring well cluster 01N22W20M, adjacent to Point Hueneme, the downward vertical hydraulic gradient was 0.033 feet/feet in the spring of 2015 and 0.039 feet/feet in the fall of 2015. At monitoring well cluster 02N22W23B, in the forebay, the downward vertical hydraulic gradient was 0.012 feet/feet in the spring of 2015 and 0.028 feet/feet in the fall of 2015.	Clarify between which aquifer pair Ox>Mugu or Mugu>Huen.	CK	The phrase "between the Oxnard and the Mugu Aquifers" has been added to the text.	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B23	Historical Groundwater Elevation Trends	See comments on same section for Oxnard about the providing context for trends related to implementation of Freeman Diversion, PTP system, and prohibition on UAS wells.	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B24	since the 1930s	We cannot make this conclusion because the water level data presented does not begin until the 1970s.	CK	The text has been revised to say "1970s" instead of "1930s".	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B25	Groundwater elevations recover after each drought period.	While this statement is true, it implies that everything is OK because of the recovery. However, the important part that is missing in this discussion is that, despite the "recovery", water levels in many wells never get back above levels protective against seawater intrusion. This is a critical observation that needs to be made because it has serious implications for basin management.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal Mugu-specific wells in the southern Subbasin typically do not recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to the text.	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B26	The amount of recovery depends on the length of time between droughts and the amount of precipitation received in each of the water years between the droughts	And management measures operative during the various time periods.	CK	The suggested language has been added to the text.	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B27	. In 1996, water levels exceeded the previous maximum in 1980 (Figure 2-12).	Why did this happen? Need to mention Freeman Diversion, PTP system, and prohibition on UAS wells. Also, importantly, although forebay area levels exceeded previous 1980 maximum, levels near the coast were still largely below levels protective of seawater intrusion. This is important context.	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete
TAG / Bryan	2.3.1.2, Page 19, Cmt #B28	The patterns of water level decline and recovery observed in well 02N22W24P01S are observed in Mugu aquifer wells throughout the Oxnard Subbasin although absolute changes in water level vary geographically within the subbasin (Figure 2-12). Well 02N22W24P01S is located in the forebay area. Other wells in the forebay area experienced similar water level declines and recoveries to those observed in well 02N22W24P01S (Figure 2-12). Water levels in wells adjacent to the coast and in wells farther south, however, tend to have larger intra-annual variation in water level, but a smaller inter-annual drought response (e.g. Wells 01N21W32Q05S and 01N21W19L11S; Figure 2-12). The groundwater elevation in these wells declined between 20 and 80 feet between 2011 and 2015, whereas the groundwater elevation in wells in the forebay area declined approximately 100 feet over the same time period. The larger water level changes observed in the northeastern Oxnard Subbasin reflect the influence of groundwater recharge from spreading basins in the forebay area. *	Discussion of changes is fine. But what is more important and missing from this section is discussion of the absolute elevations, particularly near the coast. The relative percentage of time spent above/below elevations that are protective of seawater intrusion is a critical factor that is not discussed.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal Mugu-specific wells in the southern Subbasin typically do not recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to the text.	Complete
TAG / Bryan	2.3.1.3, Page 20, Cmt #B29	Spring and Fall 2015 Groundwater Elevations	See prior comments for Oxnard and Mugu aquifers about providing discussion of landward gradient and implications for seawater intrusion. This is more important than the discussions of the forebay pumping depression around UWCDs El Rio wells.	CK	The language "Coastal elevations were measured below or near sea level in both spring and fall of 2015, and consequently the hydraulic gradient was presumably landward at the coast (Figure 2-7 and 2-8)" was added to the text.	Complete
TAG / Bryan	2.3.1.3, Page 20, Cmt #B30	particularly south of 5th Street	Isn't Hueneme absent in the SE portion of the basin?	CK	Yes. Language to this effect has been added to the text.	Complete
TAG / Bryan	2.3.1.3, Page 20. Cmt #B31	The switch between the downward and upward directed vertical gradient in the forebay from spring to fall likely represents the combined effects of surface water spreading in the spring and groundwater production from the Fox Canyon aquifer in the fall.	Not sure I agree – why would more FCA production in Fall contribute to an upward gradient? I suspect (and this could easily be confirmed with UWCD) that it probably has more to do with when UWCD was operating the El Rio well field and which wells they were operating when.	JW	Removed from text - speculative.	Complete
TAG / Bryan	2.3.1.3, Page 21, Cmt #B32	Historical Groundwater Elevation Trends	See comments on same section for Oxnard about the providing context for trends related to implementation of Freeman Diversion, PTP system, and prohibition on UAS wells.	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete
TAG / Bryan	2.3.1.3, Page 21. Cmt #B33	Groundwater elevations recover after each drought period.	I do not agree with this conclusion. The hydrograph clearly shows that 02N21W31P03S did not recover fully in the 1990s relative to 1980 highs, neither did 26M03. Additionally, even if these wells had recovered fully, the text, implies that everything is OK because of the recovery. However, the important part that is missing in this discussion is that, despite the "recovery", the water level did not get back above sea level. This is a critical observation that needs to be made because it has serious implications for basin management.	CK	The text has been revised.	Complete

TAG / Bryan	2.3.1.3, Page 21, Cmt #B34	The amount of recovery depends on the length of time between droughts and the amount of precipitation received in each of the water years between the droughts.	And management measures operative during the various time periods.	CK	The suggested language has been added to the text.	Complete
TAG / Bryan	2.3.1.3, Page 21, Cmt #B35	Between 1996 and 2010, groundwater elevations were relatively stable in well 01N22W26M03S	I do not agree – looks like the levels were declining, at least the spring highs appear to have declined year over year.	CK	The suggested language has been added to the text.	Complete
TAG / Bryan	2.3.1.3, Page 21, Cmt #B36		Discussion of changes is fine. But what is more important and missing from this section is discussion of the absolute elevations, particularly near the coast. The relative percentage of time spent above/below elevations that are protective of seawater intrusion is a critical factor that is not discussed.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal wells do not always recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to this section of the text.	Complete
TAG / Bryan	2.3.1.4, Page 22, Cmt #B37	Spring and Fall 2015 Groundwater Elevations	See prior comments about providing discussion of landward gradient and implications for seawater intrusion.	CK	The language "Coastal elevations were measured below or near sea level in both spring and fall of 2015, and consequently the hydraulic gradient was presumably landward at the coast (Figure 2-7 and 2-8)" was added to the text.	Complete
TAG / Bryan	2.3.1.4, Page 22, Cmt #B38	Mugu	Do we mean Hueneme?	CK	Typo in Table 2-2 has been fixed. The sentence is correct and refers to the Mugu aquifer.	Complete
TAG / Bryan	2.3.1.4, Page 22, Cmt #B39	Mugu	Do we mean Hueneme?	CK	Typo in Table 2-2 has been fixed. The sentence is correct and refers to the Mugu aquifer.	Complete
TAG / Bryan	2.3.1.4, Page 23, Cmt #B40	The reversal in the direction of the gradient is likely a reflection of the combined influence of surface water spreading in the spring, and groundwater production from the lower Fox Canyon aquifer in the fall.	Not sure I agree – why would more FCA production in Fall contribute to an upward gradient? I suspect (and this could easily be confirmed with UWCD) that it probably has more to do with when UWCD was operating the El Rio well field and which wells they were operating when.	CK	Removed from text - speculative.	Complete
TAG / Bryan	2.3.1.4, Page 23, Cmt #B41	Groundwater elevations recover after each drought period.	The text, implies that everything is OK because of the recovery. However, the important part that is missing in this discussion is that, despite the "recovery", the water level in this an many other wells did not get back above levels protective of sea water intrusion. This is a critical observation that needs to be made because it has serious implications for basin management.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal Fox-specific wells in the southern Subbasin typically do not recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to the text.	Complete
TAG / Bryan	2.3.1.4, Page 23, Cmt #B42	The amount of recovery depends on the length of time between droughts and the amount of precipitation received in each of the water years between the droughts. In 1999, water levels exceeded the previous maximum in 1983 (Figure 2-18).	And management measures operative during the various time periods.	CK	The suggested language has been added to the text.	Complete
TAG / Bryan	2.3.1.4, Page 23, Cmt #B43	The patterns of water level decline and recovery observed in well 01N22W26K04S are observed in Fox Canyon aquifer wells throughout the Oxnard Subbasin although absolute changes in water level vary geographically within the Oxnard Subbasin (Figure 2-18). Well 01N22W26K04S is located south of Hueneme Road. Other wells this area experienced similar water level declines and recoveries to those observed in well 01N22W26K04S (Figure 2-18). Water levels in wells farther inland tend to have larger intra-annual variations in water level (e.g. Wells 01N21W06J05S and 01N21W09CD4S; Figure 2-18). The groundwater elevation in these wells declines by 40 to 50 feet each year between the spring high and fall low water levels. In contrast, well 01N23W01C02S, adjacent to the coast decline approximately 5 feet between the spring high and fall low water level (Figures 2-16, 2-17, and 2-18).	Discussion of changes is fine. But what is more important and missing from this section is discussion of the absolute elevations, particularly near the coast. The relative percentage of time spent above/below elevations that are protective of seawater intrusion is a critical factor that is not discussed.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal Fox-specific wells in the southern Subbasin typically do not recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to the text.	Complete
TAG / Bryan	2.3.1.5, Page 24, Cmt #B44	Grimes Canyon Aquifer	Need to describe where Grimes Canyon Aquifer is absent and show on map so as to not confuse with lack of water level data.	CK	A description of locations where the Grimes Canyon Aquifer is absent has been added to the text.	Complete
TAG / Bryan	2.3.1.5, Page 25. Cmt #B45	Similar to the water levels in the overlying Fox Canyon Aquifer, the water levels in the Grimes Canyon Aquifer recovered between 1990 and 1996 (Figure 2-21).	The text, implies that everything is OK because of the recovery. However, the important part that is missing in this discussion is that, despite the "recovery", the water level in this an many other wells did not get back above levels protective of sea water intrusion. This is a critical observation that needs to be made because it has serious implications for basin management.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal Fox-specific wells in the southern Subbasin typically do not recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to the text.	Complete
TAG / Bryan	2.3.1.5, Page 25, Cmt #B46		Discussion of changes is fine. But what is more important and missing from this section is discussion of the absolute elevations, particularly near the coast. The relative percentage of time spent above/below elevations that are protective of seawater intrusion is a critical factor that is not discussed.	CK	The language "Although groundwater elevations in the Oxnard Subbasin recover to some degree after each drought period, elevations in coastal Grimes-specific wells in the southern Subbasin typically do not recover to mean sea level. Historical elevations of coastal wells over time in relation to sea level are discussed in Section 2.3.3." has been added to the text.	Complete
TAG / Bryan	2.3.2, Page 25, Cmt #B47	Estimated Change in Storage	The numbers in this section need context. Was 1985-2015 a period of average hydrology, dry, or wet? Do the numbers include sea water intrusion or not?	CK	Climatic cycle info is included previously in Chapter 2 and water year type is indicated on the Change in Storage figures. The Change in Storage figures did not account for SWI. Figures in which SWI has been subtracted from annual and cumulative Change in Storage.	Complete
TAG / Bryan	2.3.3, Page 25, Cmt #B48	high *	What is considered a "high" seaward gradient? GW will flow out to the ocean with any magnitude of a seaward gradient. GW when GW levels are above equivalent fresh water heads.	CK	The text has been revised to say "seaward groundwater gradients" instead of "high seaward gradients".	Complete
TAG / Bryan	2.3.3, Page 26, Cmt #B49	below sea level	Because of the density difference, onshore flow can occur at GW elevations above sea level.	CK	The text has been revised to say " below sea level (or, in confined aquifers, the sea level-equivalent elevation according to the depth of the aquifer outcrop[FOOTNOTE]), with a footnote saying "Because seawater is approximately 1.025 times denser than freshwater (using the Ghyben-Herzberg theory [De Wiest 1965]), the elevation of confined freshwater necessary to counterbalance the pressure of the water in the sea can be several feet above sea level, and depends on the depth at which an aquifer outcrops in the ocean (i.e., the deeper the outcrop, the higher the freshwater elevation necessary to counterbalance the pressure of seawater).	Complete

TAG / Bryan	2.3.3, Page 26, Cmt #B50	Historical Progression of Seawater Intrusion	Overall, the text below does not really address the heading. Discussion of time series WQ data along the coast would be appropriate here in this section about the historical movement of seawater.	CK	A discussion of time series WQ data along the coast has been added in section 2.3.3.	Complete
TAG / Bryan	2.3.3, Page 26, Cmt #B51	Seawater intrusion can be controlled, or prevented during wet or even average climatic periods.	Not sure what the purpose of this sentence is in the context of this section. This section is about the historical progression of seawater intrusion. "Can be controlled" vs "was controlled"? Are you saying it was controlled during wet or average climatic periods? If so, I disagree – see the many comments above about not achieving groundwater levels protective of seawater intrusion near the coast even during the wettest periods.	CK	The text has been revised	Complete
TAG / Bryan	2.3.3, Page 26, Cmt #B52	Increased LAS pumping	We should describe how it was a conscious management action implemented by FCGMA and UWCD to switch considerable pumping from UAS to LAS.	CK	The text has been revised	Complete
TAG / Bryan	2.3.3, Page 26, Cmt #B53	In order to	In order to what?	CK	The text has been revised.	Complete
TAG / Bryan	2.3.3, Page 27, Cmt #B54	Although the major aquifer units in the Oxnard Subbasin are separated by low-permeability units, vertical gradients between aquifers can result in vertical groundwater movement between most of the major aquifers (UWCD 2016). This groundwater movement can occur through the aquitards that separate the various aquifer units and through wells that are screened across both the UAS and LAS. In particular, a downward gradient is created when LAS groundwater levels are substantially lower than UAS groundwater levels (UWCD 2016). This gradient can result in leakage of UAS groundwater into the LAS. Similarly, when heads in the UAS are lower than heads in the Semi-Perched Aquifer, a downward pressure gradient can exist. Heads are lowered in the UAS either regionally by drought conditions or locally by pumping wells (UWCD 2016).	What does this paragraph have to do with the Historical Progression of Seawater Intrusion? This paragraph seems out of place.	CK	The text has been revised.	Complete
TAG / Bryan	2.3.4, Page 28, Cmt #B55	Groundwater Quality	Some of the figures referenced in this section have overlapping labels that make it difficult to read the well id and/or data value.	CK	Noted.	Complete
TAG / Bryan	2.3.4, Page 28, Cmt #B56	Groundwater Quality	Overall, this section should include more discussion about sources/causes of impairments to provide context for setting sustainability goals and consideration of management measures. One specific example is more discussion of areas identified by tzbiki as susceptible to upwared migration of saline water vs seawater intrusion and/or where those areas overlap. We need to understand the mechanisms and where they are operative in order to more effectively manage the basin.	CK	Brief descriptions of the sources of water high in TDS, chloride and nitrates have been included in Sections 2.3.4.1 - 2.3.4.3.	Complete
TAG / Bryan	2.3.4, Page 28, Cmt #B57	FCGMA has adopted Basin Management Objectives (BMOs) for nitrate (mg/L as nitrate, or NO3), chloride (Cl) and total dissolved solids (TDS) in the Oxnard Subbasin (FCGMA 2007).	We will be developing MOs and MTs, which may be different than the 2007 BMOs, so I am not sure it makes sense to list BMOs in this section.	CK	The text has been revised to say: "In the management plan developed in 2007, FCGMA adopted..."	Complete
TAG / Bryan	2.3.4, Page 28, Cmt #B58	sulfate (SO4), and boron (B)	There are WQOs for TDS and chloride too. Why are they omitted?	CK	The text has been revised to include the WQOs for TDS, Cl, and NO3. Additionally, these threshold values have been included in a table in this section.	Complete
TAG / Bryan	2.3.4.1, Page 29, Cmt #B59	There is no clear pattern of TDS distribution within the UAS	The highest concentrations are generally found near the coast in the areas identified as being intruded?	CK	The text has been revised to say, "The highest concentrations of TDS are found in coastal wells in areas known to be impacted by seawater intrusion (e.g., 01S21W08L04S and 01N22W27R05S), but aside from this observation there is no clear pattern of TDS distribution within the UAS."	Complete
TAG / Bryan	2.3.4.2, Page 30. Cmt #B60	Groundwater quality in this well is likely impacted from upward migration of brines, induced by groundwater production in the LAS.	Describe the basis for this conclusion or add a reference.	CK	Citation added.	Complete
TAG / Bryan	2.3.4.3, Page 30, Cmt #B61		The nature and causes of the elevated nitrate in the forebay deserves more discussion because it is an important issue for the GSP.	CK	Brief descriptions of the sources of water high in TDS, chloride and nitrates have been included in Sections 2.3.4.1 - 2.3.4.3.	Complete
TAG / Bryan	2.3.4.3, Page 30, Cmt #B62	57 mg/L	We should note that the 57 appears to be an outlier – it is a single well and the the next highest concentration is only 22.1.	CK	A note has been added to this effect.	Complete
TAG / Bryan	2.3.4.6, Page 32, Cmt #B63		Describe how the oil fields either impact or do not impact groundwater management.	CK	A note has been added to this effect.	Complete
TAG / Bryan	2.3.4.7, Page 32, Cmt #B64	Impaired surface waters	What are the impairments (which constituents) and how are the impairments related or not related to the groundwater quality trends described in earlier sections. Esp. Santa Clara River at Freeman Diversion.	CK	A table of selected columns of the 303(d)-listed impairments for each reach has been included as an Appendix. This map was a requirement of the original FCGMA scope, and additional discussion is not required in the GSP regulations.	Complete
TAG / Bryan	2.3.4.7, Page 33, Cmt #B65	(Figure X	Figure 2-45	CK	The text has been revised to reference the correct figure number.	Complete
TAG / Bryan	2.3.4.7, Page 33. Cmt #B66		OK, but did Dudek review the cases to see if any plumes are documented in the UAS? Particularly DNAPL sites?	CK	Additional discussion of case review has been added to Section 2.3.4.7.	Complete
TAG / Bryan	2.3.5, Page 33, Cmt #B67	aquifer	This primarily manifests in the aquitards, not the aquifers.	CK	Noted.	Complete
TAG / Bryan	2.3.5, Page 33, Cmt #B68	Direct measurement of subsidence within the Oxnard Subbasin is limited.	These measurements need to be caveated – cause of subsidence is likely related to more than just GW pumping.	CK	Caveat language is included in the previous paragraph: "Active causes of land subsidence in the Oxnard Subbasin include tectonic forces, petroleum reservoir compaction, and aquifer compaction."	Complete
TAG / Bryan	2.3.6, Page 34, Cmt #B69	shallow groundwater	Be more specific – which aquifer(s)? Semi-perched aquifer?	CK	"Semi-Perched Aquifer" has been specified.	Complete
TAG / Bryan	2.3.6, Page 34, Cmt #B70	The Santa Clara River, Calleguas Creek, Revolon Slough, Mugu Lagoon, Ormond Beach, and McGrath Lake have all been identified as surface water bodies that may have a connection to shallow groundwater in the Oxnard Subbasin.	Reference a map with these features noted on it.	CK	A figure reference has been added.	Complete
TAG / Bryan	2.3.6, Page 34, Cmt #B71	shallow groundwater elevation data	Which aquifer(s)?	CK	"Semi-Perched Aquifer" has been specified.	Complete
TAG / Bryan	2.3.6, Page 34, Cmt #B72	shallow aquifer	Which aquifer?	CK	"Semi-Perched Aquifer" has been specified.	Complete
TAG / Bryan	2.3.6, Page 34, Cmt #B73	shallow aquifer system	This is a new term used in this section – needs to be defined – unclear which aquifers are being referred to.	CK	"Semi-Perched Aquifer" has been specified.	Complete
TAG / Loeb, Kim	2.2.4, Page 11, Cmt #LK1	As a result, water quality in the Hueneme Aquifer has not been affected by seawater intrusion (Turner 1975; USGS 2003).	How does that square with Figure 2-30?	CK	Text has been revised to state, not affected "in this area" which is shown on figure 2-30.	Complete
TAG / Loeb, Kim	2.3.1, Page 13, Cmt #LK2	The volume of groundwater extracted from the LAS is greater than that extracted from the LAS.	One of these must be the UAS.	CK	Correct. The typo has been corrected.	Complete
TAG / Loeb, Kim	2.3.1.1, Page 14, Cmt #LK3	37.9 to -30.7	Should be consistent order with other ranges of water levels from low to high.	CK	The lowest value has been listed first.	Complete
TAG / Loeb, Kim	2.3.1.1, Page 14, Cmt #LK4	In this central area, groundwater elevations are over 20 feet below sea level in both the spring and fall of 2015 (Figures 2-7 and 2-8).	Sounds funny to say "over...below." Perhaps "more than..." or something like that would read better.	CK	The text has been revised to say "more than".	Complete
TAG / Loeb, Kim	2.3.1.1, Page 16, Cmt #LK5	Hueneme	Format table so Hueneme doesn't break.	CK	The table has been reformatted.	Complete
TAG / Loeb, Kim	2.3.1.1, Page 16. Cmt #LK6		Blank row?	CK	An aquifer designation has been added for well 02N21W07L03. The table has been reformatted.	Complete
TAG / Loeb, Kim	2.3.1.1, Page 16, Cmt #LK7	Hueneme	Repeat header on each page. Make sure rows don't break across pages.	CK	The table has been reformatted.	Complete
TAG / Loeb, Kim	2.3.1.1, Page 16, Cmt #LK8	Port Hueneme	Table formatting / column width.	CK	The table has been reformatted.	Complete
TAG / Loeb, Kim	2.3.1.2, Page 18, Cmt #LK9	southern	Southeastern?	CK	The text has been revised as suggested.	Complete
TAG / Loeb, Kim	2.3.1.2, Page 18, Cmt #LK10	This apparent flow direction is likely an artifact of contouring wells that are solely screened in the Mugu aquifer, and may not reflect actual flow directions within the aquifer.	This doesn't make sense. How are water levels screened only in the Mugu creating an artifact regarding flow in the Mugu?	CK	The text has been revised to indicate that it is "likely an artifact of the small number of measurements collected in the central and eastern Oxnard Subbasin."	Complete

TAG / Kim	Loeb,	2.3.1.2, Page 19, Cmt #LK11	The larger water level changes observed in the northeastern Oxnard Subbasin reflect the influence of groundwater recharge from spreading basins in the forebay area.	Conversely, could changes at the coast be attenuated by seawater intrusion?	CK	The suggested language has been added to the text.	Complete	
TAG / Kim	Loeb,	2.3.1.3, Page 20, Cmt #LK12	Forebay	Forebay is inconsistently capitalized.	CK	Forebay terminology has been revised to be "Forebay".	Complete	
TAG / Kim	Loeb,	2.3.1.4, Page 23, Cmt #LK13	In contrast, well 01N23W01CD2S, adjacent to the coast decline approximately 5 feet between the spring high and fall low water level (Figures 2-16, 2-17, and 2-18).	Is this attenuated by seawater intrusion?	CK	No, the chloride record indicates that SWI hasn't impacted this area/aquifer (Cl concentrations below 60 mg/L since the 1990s).	Complete	
TAG / Kim	Loeb,	2.3.1.5, Page 23. Cmt #LK14	These wells are located in the southern part of the Subbasin, west of Revolon Slough (Figure 2-19).	Could the way this is stated lead to reader inference that flow in the Grimes is somehow influenced by Revolon Slough?	CK	The phrase "all located west of the Revolon Slough" has been added to clarify that it is only a geographic term, and does not imply an influence on groundwater.	Complete	
TAG / Kim	Loeb,	2.3.1.5, Page 24, Cmt #LK15	Groundwater elevations in wells 01N22W28G01S and 01N22W35E01S vary less than groundwater elevations in other Grimes Canyon aquifer wells because they are adjacent to the coast (Figure 2-19 and 2-21).	Implying seawater intrusion?	CK	Text has been added to clarify potential reasons for less variance in wells 01N22W28G01S and 01N22W35E01S.	Complete	
TAG / Kim	Loeb,	2.3.2, Page 24, Cmt #LK16	UWCD pers com. D. Ritter	Inconsistent reference format. No date or inclusion in References Cited. Whom did D. Ritter speak with at UWCD?	CK	The personal communication references have been reformatted.	Complete	
TAG / Kim	Loeb,	2.3.2, Page 24, Cmt #LK17	Spreading	Is "spreading" the best term to use. Would "artificial groundwater recharge" be better?	CK	The text has been revised as suggested.	Complete	
TAG / Kim	Loeb,	2.3.3, Page 25, Cmt #LK18	Oxnard Forebay Area	Inconsistent usage: sometimes "forebay," other times "Forebay," and here "Oxnard Forebay Area." Needs to be consistent.	CK	Forebay terminology has been revised to be "Forebay".	Complete	
TAG / Kim	Loeb,	2.3.3, Page 25, Cmt #LK19	groundwater *	Redundant.	CK	The text has been revised as suggested.	Complete	
TAG / Kim	Loeb,	2.3.3, Page 26, Cmt #LK20	In order to 1998 FCGMA ordinance prohibited new wells in the LAS in the Oxnard plain area and requires that new wells extract water from the UAS in order to take advantage of the more easily recharged UAS.	Something missing in this sentence.	CK	The text has been revised.	Complete	
TAG / Kim	Loeb,	2.3.3, Page 26, Cmt #LK21	UAS in order to take advantage of the more easily recharged UAS.	Should there be reference to the pipelines that are operated to minimize seawater intrusion? I assume these will be discussed in detail n a section on current management practices.	CK	The impact of pipeline operation on groundwater elevations is discussed in Section 2.3.1.	Complete	
TAG / Loeb,		2.3.3, Page 26,	Title; Author/Agency; Date	Repeat header across pages; don't allow page breaks across	CK	The table has been	Complete	
TAG / Kim	Loeb,	2.3.4, Page 28, Cmt #LK23	Historical groundwater quality hydrographs are presented in Appendix B.	I thought you planned to include concentration v. time plots for BMO wells in text.	CK	During the August 6th TAG meeting it was decided that the development of concentration versus time plots would be delayed until the TAG ad-hoc sub committees had a list of key wells which would be used to define minimum thresholds. Concentration vs time plots would be developed for (potentially a subset of) these wells.	Complete	1
TAG / Kim	Loeb,	2.3.4.1, Page 28, Cmt #LK24	1,500 mg/L	Why is a 1,500 mg/L break used if both BMO and Basin Plan require 1,200 mg/L?	CK	TDS figures have been revised.	Complete	
TAG / Kim	Loeb,	2.3.6, Page 34, Cmt #LK25	Model boundaries do not necessarily coincide with the boundaries of FCGMA. As a result, stream leakage numbers include leakage to portions of the shallow aquifer that lie outside of the jurisdiction of the FCGMA.	How is this relevant? The GSP applies to the entire DWR Bull 118 basin.	CK	The text has been removed.	Complete	1
TAG / Loeb,		2.3.6, Page 34,	Water Year: Santa Clara River Percolation*:	Repeat header for multiple pages.	CK	The table has been	Complete	
TAG / Kim	Loeb,	2.3.7, Page 35, Cmt #LK27	2.3.7 Groundwater Dependent Ecosystems	As we discussed in our 8/10/17 phone call, the GDE section is way too long and out of proportion to the other sections in this text. It needs to be rewritten to be consistent with the other GSP sections.	JW	The GDE section has been reduced in length.	Complete	
				References are not listed in References Cited.	JW	The section has been revised and has gone through internal formatting.	Complete	
TAG / Kim	Loeb,	2.3.7, Page 35, Cmt #LK28	Six groundwater dependent ecosystem (GDEs) units were identified in the Oxnard Groundwater Subbasin (TNC 2017a).	Shouldn't these be considered potential GDEs?	JW	Yes, in some cases. Section has been revised to reflect this distinction.	Complete	
TAG / Kim	Loeb,	2.3.7, Page 35, Cmt #LK29	Figure 2-46	Figure is labeled LPV GW Basin.	JW	Removed from figure label	Complete	
TAG / Kim	Loeb,	2.3.7, Page 35, Cmt #LK30	Ventura 2011	This should be referenced as "Stillwater" or "City of Ventura."	JW	The section has been revised and has gone through internal formatting.	Complete	
TAG / Kim	Loeb,	2.3.7, Page 36, Cmt #LK31	VWRF	Abbreviations and acronyms should be defined on first use. This has not.	JW	The section has been revised and has gone through internal formatting.	Complete	
TAG / Kim	Loeb,	2.3.7, Page 41, Cmt #LK32	considered to be the most important wetlands restoration project in southern California	By whom, the CCC?	JW	Yes. Reference included	Complete	
TAG / Kim	Loeb,	2.3.7, Page 43, Cmt #LK33	Tony Chen 2017	Was this a personal communication? I assume it was documented.	JW	removed from text	Complete	
TAG / Kim	Loeb,	2.3.7, Page 43, Cmt #LK34	Lower Calleguas Creek maintains a perennial streamflow due to a combination of wastewater effluent and pumped tile drain discharge from adjacent agricultural fields, with the addition of natural precipitation and stormwater runoff during winter months.	Is it a GDE then if it is supported by surface-water flows?	JW	Text has been revised. This is classified as a potential GDE.	Complete	
TAG / Kim	Loeb,	2.6, Page 46, Cmt #LK35	2.6 REFERENCES CITED	All references cited should follow a consistent format. I would suggest GSA or NGWA. As discussed at TAG, citation of personal communications should be limited and when used, must have written memorialization of details.	CK	The references have been standardized.	Complete	
TAG / Kathleen	Riedel,	2.1, Page 1, Cmt #RK1	CGS 2002	Add comma between author and date. This comment applies to all citations.	BGH	Dudek follows the Chicago Manual of Style's conventions regarding in-text citations, which specifices no comma separating author and year.	Complete	
TAG / Kathleen	Riedel,	2.1, Page 1, Cmt #RK2	The northern boundary of the Oxnard Subbasin is the Oak Ridge Fault	The fault should be labeled on WQ and WL maps.	CK	The water level maps have been re-produced with the fault labeled. Faults are not included on the water quality maps.	Complete	
TAG / Kathleen	Riedel,	2.2, Page 3, Cmt #RK3	unitsformations*	"formations" relate to geologic formations such as the Saugus, San Pedro, and Santa Barbara formations	JW	The word "formations" has been replaced ith "Units".	Complete	
TAG / Kathleen	Riedel,	2.2.4, Page 9, Cmt #RK4	Wells screened in the Oxnard Aquifer are typically screened in multiple aquifers, including the underlying Mugu Aquifer.	What about sealine zones?	CK	The parenthetical language "For information on well construction requirements intended to prevent degradation of water quality of the aquifers in the LAS, see DWR Bulletin 74-9, 1968" has been added to the text.	Complete	
TAG / Kathleen	Riedel,	2.2.4, Page 9, Cmt #RK5	pers. comm.	I thought TAG requested a limit or placed conditions on personal communication citations.	CK	The citation has been standardized. The data cited comes from multiple reports which were combined and sent to us in aggregate in response to a data request.	Complete	
TAG / Kathleen	Riedel,	2.2.4, Page 10, Cmt #RK6	For wells screened in both the Oxnard and Mugu Aquifers,	Sealing Zones?	JW	See parenthetical note above.	Complete	
TAG / Kathleen	Riedel,	2.2.4, Page 12, Cmt #RK7	water quality in this aquifer has not been degraded by seawater intrusion (Izbicki et al. 2005)	Was statement verified against BMO wells, and UWCD work relative to seawater intrusion?	JW	Statement removed - speculative.	Complete	Flag for Jill
TAG / Kathleen	Riedel,	2.2.4, Page 12, Cmt #RK8	there are no wells perforated solely in the Grimes Canyon Aquifer	Per the water level maps there are wells perforated solely in the Grimes Cyn Aquifer. Should this be clarified to state groundwater production wells?	CK	The suggested clarification has been added to the text.	Complete	Flag for Jill
TAG / Kathleen	Riedel,	2.2.4, Page 12, Cmt #RK9	oilfield	Are the brines really limited to those associated with oilfields. In this case which oil fields?	CK	The word "oilfield" has been removed.	Complete	Flag for Jill
TAG / Kathleen	Riedel,	2.2.4, Page 12, Cmt #RK10	some basal portions of the aquifer have brackish water that is likely a result of limited flushing since deposition and upward migration of oilfield brines from underlying formations	What about sea water intrusion? See Figure 2-32.	CK	A sentence referring to seawater intrusion has been added to the text.	Complete	Flag for Jill
TAG / Kathleen	Riedel,	2.3.1.1, Page 15, Cmt #RK11	SWN	Missing last two digit of SWNs.	CK	The column headers in the table have been revised to say "Nested group (First 9 digits of SWN)" and "Well (Penultimate 2 digits of SWN)" in order to clarify that nested wells are being referred to in a group.	Complete	
TAG / Kathleen	Riedel,	2.3.1.2, Page 18, Cmt #RK12	60	7 30 based on Spring map.	CK	The text has been revised to indicate elevations 30-100 feet below sea level, rather than 60-100 feet below sea level.	Complete	
TAG / Kathleen	Riedel,	2.3.1.2, Page 19. Cmt #RK13	the 1930s 1970s *	Plot begins with 1960. Water levels begin in 1972.	CK	The text has been revised to say "1970s" instead of "1930s".	Complete	

TAG / Riedel, Kathleen	2.3.1.2, Page 19, Cmt #RK14	2011 and 2016	Should it be from the start of the decline in 2008-2009 or the most recent decline in 2011? Or keep as "2011 and 2016" for consistency with the other sections?	CK	Most recent decline; Keep as 2011 and 2016.	Complete
TAG / Riedel, Kathleen	2.3.1.2, Page 19, Cmt #RK15	2011,	?2008 or 2009?	CK	Reviewed. Text is correct as written - the decline in question starts in 2011.	Complete
TAG / Riedel, Kathleen	2.3.1.2, Page 19, Cmt #RK16	100	Approx. 120 feet if 2008-2009 period used.	CK	Reviewed. Text is correct as written - the decline in question starts in 2011 and is approximately 100 feet.	Complete
TAG / Riedel, Kathleen	2.3.1.3, Page 21. Cmt #RK17	Fiaure 2-15	Figure 2-15 should be updated to include the 2006 to 2017 data.	JW	Fiaure 2 has been uodated	Complete
TAG / Riedel, Kathleen	2.3.1.3, Page 21. Cmt #RK18	2011 and 2016	No data plotted in Figure 2-15 for this well during this period. Per Appendix A the hydrograph indicates that data is available. Figure 2-15 should be updated to include the 2006 to 2017 data.	JW	Fiaure 2 has been uodated	Complete
TAG / Riedel, Kathleen	2.3.1.3, Page 21, Cmt #RK19	Since 2011, groundwater elevations in this well have declined approximately 40 to 60 feet (Figure 2-15).	? No data plotted for 31P03 after approx. 2006. Do you mean 26M03? Update plot, change reference well, or remove sentence.	JW	Figure 2 has been updated	Complete
TAG / Riedel, Kathleen	2.3.1.3, Page 21, Cmt #RK20	01N22W03F05S and 01N22W26M03S	? 26M03 and 03F05 started recovering before drought ended/1990 rains which suggests that at least one other factor also influences groundwater levels in this area. The write up links water levels fluctuations to only cumulative departure from the mean precipitation.	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete
TAG / Riedel, Kathleen	2.3.1.4, Page 23. Cmt #RK21	and 2011 and 2016. *	Not clear/visible is in Figure 2-18 data plot. Per appendix A water level data ends in approximately 2010.	CK	Figure 2-18 and Appendix A were reviewed. Data ends in 2016.	Complete
TAG / Riedel, Kathleen	2.3.1.4, Page 23, Cmt #RK22	Since 2011, groundwater elevations in this well have declined approximately 50 feet. *	No data for 26K04 data after approx. 2010. Is this comment for another well?	JW	Sentence removed from text.	Complete
TAG / Riedel, Kathleen	2.3.1.5, Page 24, Cmt #RK23	2010,	? 2011? See Figure 2-21	CK	Reviewed. Text is correct as written.	Complete
TAG / Riedel, Kathleen	2.3.1.5, Page 24, Cmt #RK24	2011	?2012	CK	Reviewed. Text is correct as written.	Complete
TAG / Riedel, Kathleen	2.3.3, Page 25, Cmt #RK25	Fiaure 2-26	Edit Figure 2-26. Change "McGrath Fault" to "Oak Ridge Fault."	CK	"McGrath Fault" on Figures 2-4 and 2-26 have been revised to "Oak Ridge Fault."	Complete
TAG / Riedel, Kathleen	2.3.3, Page 26, Cmt #RK26	In order to 1998 FCGMA ordinance prohibited new wells in the LAS	Something is missing from this sentence. Note: The referenced Ordinance Code is not currently in effect.	CK	Noted. This text has been removed.	Complete
TAG / Riedel, Kathleen	2.3.3, Page 26, Cmt #RK27	In particular, a downward gradient is created when LAS groundwater levels are substantially lower than UAS groundwater levels (UWCD 2016). This gradient can result in leakage of UAS groundwater into the LAS.	The converse is also true, upward vertical gradient when LAS heads are higher than the UAS head.	CK	Noted. The text has been revised.	Complete
TAG / Riedel, Kathleen	2.3.4.2, Page 29, Cmt #RK28	The water quality objective for total chloride is 150 mg/L in the forebay and confined aquifers, and 500 mg/L in the unconfined aquifers (LARWQCB 2013). The basin management objective for chloride is 150 mg/L for the LAS. *	Repeated paragraph.	CK	The text has been revised as suggested.	Complete
TAG / Riedel, Kathleen	2.3.4.6, Page 32, Cmt #RK29	(Figure 2-43)	Label the two plotted locations of the Santa Clara Avenue oilfields off to the side so that the plotted area of the oil fields are visible.		The labels have been moved.	Complete
TAG / Riedel, Kathleen	2.3.5, Page 34, Cmt #RK30	the DWR	DWR evaluation? determination? Study?	CK	The text has been revised to say "the DWR classification of the Subbasin."	Complete
TAG / Riedel, Kathleen	2.3.7, Page 36, Cmt #RK31	least Bell's vireo and salt marsh bird's beak	Capitalization is inconsistent with page 2-42 Paragraph 1.	JW	The section has been re-written.	Complete
TAG / Riedel, Kathleen	2.3.7, Page 41, Cmt #RK32	McGrath Lake is pumped to reduce the flooding of agricultural fields adjacent to the lake	By whom? When? For how many years? (Since?)	JW	The section has been re-written.	Complete
TAG / Riedel, Kathleen	2.3.7, Page 41, Cmt #RK33	drained, filled, and degraded by past industrial and agricultural use.	Provide reference(s) for statement.	JW	Section has been re-written and references included.	Complete
TAG / Riedel, Kathleen	2.3.7, Page 42, Cmt #RK34	Belding's Savannah Sparrow, Salt Marsh Bird's-Beak, Least Bell's Vireo, Light-Footed Clapper Rail, Western	Capitalization is inconsistent with other sections of this report, such as p.2-36, p. 2-43, and p. 2-44.	JW	The section has been revised and has gone through internal formatting.	Complete
TAG / Riedel, Kathleen	2.3.7, Page 42, Cmt #RK35	01N22W27CD4S	Move label in Fiaure 2-49 as the "C" looks like a "G".	JW	The figure was provided by the nature conservancy and the label cannot be moved.	Complete
TAG / Riedel, Kathleen	2.3.7, Page 42, Cmt #RK36	Belding's Savannah Sparrow, Salt Marsh Bird's-Beak, Least Bell's Vireo, Light-Footed Clapper Rail, Western	Capitalization is inconsistent with other sections of this report, such as p.2-36, p. 2-43, and p. 2-44.	JW	The section has been revised and has gone through internal formatting.	Complete
TAG / Riedel, Kathleen	2.3.7, Page 43, Cmt #RK37	least Bell's vireo	Capitalization inconsistent with page 2-42 paragraph 1.	JW	The section has been revised and has gone through internal formatting.	Complete
TAG / Riedel,	2.3.7, Page 44,	least Bell's vireo,	Capitalization inconsistent with page 2-42 paragraph 1.	JW	The section has been revised	Complete
Hand-markup (CH)	2.2.5	the LAS	?	CK	The typo has been corrected.	Complete
Hand-markup (CH)	2.3.2.1	by 1999	After Freeman Diversion	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete
Hand-markup (CH)	2.3.3	In order to	Abate S.W. Intrusion in the LAS	CK	The text has been revised.	Complete
Hand-markup (CH)	2.3.4.4	below the detection limit	Test error?	CK	It's possible this value was a lab error or an error in how the data was entered or stored in the database. But, without lab data, we have no way of verifying that it is false, so we will stick to the water quality data provided by public agencies.	Complete
Hand-markup (CH)	2.3.4.4	an additional 0.1 to 1 feet of subsidence by 2040	Not sure how 0.1 to 1 could agree with low, med., and high potential. See PVB	CK	The text has been revised.	Complete
Hand-markup (CH)	2.3.4.4	below previous maximum declines	for a substantial period of time	CK	The text has been revised as suggested.	Complete
Hand-markup (OXB1 tif)	2.2.1	poor-quality water	Need to define	JW	text has been revised to remove "poor-quality"	Complete
Hand-markup (OXB1 tif)	2.2.1	The McGrath fault, located approx. 2 miles...	Not based on the map (Figure 2-2)	CK	The text has been revised to say "1 mile."	Complete
Hand-markup (OXB1 tif)	2.2.1	suggest that [the Bailey Fault] is a barrier to groundwater movement (Turner 1975).	...is a partial barrier to groundwater movement	CK	Noted.	Complete
Hand-markup (OXB1 tif)	2.2.4	few wells are screened solely in the semi-perched aquifer	There are many monitoring wells, as showne by GeoTracker, which are being summarized by UWCD.	CK	The text has been revised.	Complete
Hand-markup (OXB1 tif)	2.2.4	few wells are screened solely in the semi-perched aquifer	"production" wells	CK	The text has been revised as suggested.	Complete
Hand-markup (OXB1 tif)	2.2.4	Although the clay cap functions as an aquitard, water can migrate vertically through the clay cap under conditions of differential head.	and well casings	CK	The text "and in some cases, through casings of wells that have been improperly abandoned" has been added.	Complete
Hand-markup (OXB1 tif)	2.2.4	Oxnard Aquifer testing	See DWR Bulletin 63-4 for description of detailed aquifer and aquitard test of Oxnard Aquifer	JW	Comments were addressed previously.	Complete
Hand-markup (OXB1 tif)	2.3.1.1	Groundwater elevations in the Oxnard Aquifer have declined...	Need to relate UWCD spreading operations as well	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete

Hand-markup (OXB1_tif)	2.3.1.2	Groundwater elevations in the Mugu Aquifer have declined....	Need to relate UWCD spreading and PTP pipeline deliveries also. Use of surface water mitigates drawdown	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete	
Hand-markup (OXB1_tif)	2.3.1.3	Groundwater elevations in the Hueneme Aquifer have declined....	Need to relate to UWCD operations regarding spreading and PTP surface deliveries	CK	A discussion of the impact of the Freeman Diversion, the PTP and the UAS well prohibition on historical groundwater elevation trends in the Oxnard Subbasin has been added to the text in Section 2.3.1. Additionally, text has been added to this section to indicate that management actions and new infrastructure, in addition to climatic cycles, impacted water elevations.	Complete	
Hand-markup (OXB1_tif)	2.3.1.4	Groundwater elevations in the Fox Canyon Aquifer have declined....	More muted than other units	CK	Noted	Complete	
Hand-markup (OXB1_tif)	2.3.2	UWCD pers com. D. Ritter	I don't think we should be using data from an incomplete model. Even UWCD staff caution against use of their results as they are not finished.	CK	Noted.	Complete	
Hand-markup (OXB1_tif)	2.3.3	UWCD 2016	UWCD may have more data on semiperched aquifer. Oxnard collected samples at the AWPF prior to constuction.	CK	Noted.	Complete	
Hand-markup (OXB1_tif)	2.3.3	In order to 1998 FCGMA ordinance	I think some words are missing here.	CK	The text has been revised.	Complete	
Hand-markup (OXB1_tif)	2.3.3	In the fall of 2015, known seawater and saline...	Need to define terms: brackish, saline, brine		This report does not attempt to define the seawater intrusion "front," and as such a numeric definition of saline water is not necessary. A TDS definition of a brine has been included in section 2.3.4.1. Definitions are included in referenced documents.	Complete	
Hand-markup (OXB1_tif)	2.3.4	Groundwater Quality	I think you need discussion of surface water quality as it directly affects quality in the forebay	CK	A discussion of surface water quality is not required under the regulations, except a map and indication of which reaches of surface water bodies are impaired (see Appendix D and figure of impaired surface water reaches).	Complete	
Hand-markup (OXB1_tif)	2.3.4	Therefore, impacts to groundwater quality in the Subbasin should be considered based on aquifer system, rather than by individual aquifer.	May want to reconsider given groundwater level maps generated	CK	Noted	Complete	
Hand-markup (OXB1_tif)	2.3.4.1	Total Dissolved Solids	I think you should have some discussion about hydraulic gradients, seawater intrusion maps, and TDS/CL distribution to tie all this toeeter. See commetns on maps related to this.	CK	A discussion of historical water quality data as pertains to SWI has been added to the text.	Complete	
Hand-markup (OXB1_tif)	2.3.4.3	Nitrate, UAS	This probably needs discussion - see UWCD's most recent report	CK	Brief descriptions of the sources of water high in TDS, chloride and nitrates have been included in Sections 2.3.4.1 - 2.3.4.3.	Complete	
Hand-markup (OXB1_tif)	2.3.4.6	oil fields	Need to discuss whether active or inactive	CK	Abandoned status is indicated on the map of oil fields. The oil fields map was a requirement in the original FCGMA scope, and additional discussion is not required in the GSP regulations.	Complete	
Hand-markup (OXB1_tif)	2.3.4.7	Impaired surface waters	This is insufficent discussion. There needs to be more information as this directly affects groundwater quality in several respects. This deserves its own section.	CK	A table of selected columns of the 303(d)-listed impairments for each reach has been included as an Appendix. This map was a requirement of the original FCGMA scope, and additional discussion is not required in the GSP regulations.	Complete	
Hand-markup (OXB1_tif)	2.3.6	Groundwater-Surface Water Connections	I thought UWCD had various studies done to assess SCR/groundwater connection	CK	Noted.	Complete	
Hand-markup (OXB1_tif)	Table 2-5	Calleguas Creek Percolation	Note there are no data to calibrate these values!	CK	Noted	Complete	PQ
Hand-markup (OXB3_tif)	Figure 2-1	Oxnard Pressure Plain Area	Switch. Should be "Oxnard Plain Pressure Area"	CK	The label has been revised as suggested.	Complete	
Hand-markup (OXB3_tif)	Figure 2-2		Label this fault	CK	Not all faults are labeled in Figure 2-2. This fault is not referenced in the text so there is no need to label it here.	Complete	
Hand-markup (OXB3_tif)	Figure 2-5		Provide total values for each symbol	CK	Total values have been provided for each symbol.	Complete	
Hand-markup (OXB3_tif)	Figure 2-6		Provide total values for each symbol	CK	Total values have been provided for each symbol.	Complete	
Hand-markup (OXB3_tif)	Figure 2-10		See comments on next figure	CK	Noted.	Complete	
Hand-markup (OXB3_tif)	Figure 2-11		Seems there should be a seward to landward gradient to be consistent with Figure 2-29, which shows landward movement of poor quality gw. I think some discussion in text of this should be provided in the WQ section.	CK	Figure 2-29 does not include any water elevations or other indication of flow. In our experience, TDEM measurements have not matched water quality samples collected from wells, and thus may be an unreliable indicator of the extent of SWI. Additionally, curving the contours in the manner suggested would expand the contours beyond the bounds of the available data, which seems inadvisable given the lack of other corroborating data suggesting flow direction in that area.	Complete	
Hand-markup (OXB3_tif)	Figure 2-16		I think you should talk about the landward from seaward gradient in the WQ section to tie gradients, water quality, and seawater intrusion together into a coherent story.	CK	Additional text has been added to Section 2.3.3 to discuss the relationship between SWI, historical elevations, and historical water quality. Gradients are discussed in Section 2.3.1.	Complete	
Hand-markup (OXB3_tif)	Figure 2-19		See comments on Figure 2-16. Same applies to the Grimes Aquifer.	CK	See response to above comment.	Complete	
Hand-markup (OXB3_tif)	Figure 2-22		Should note that this includes seawater intrusion. I think you should also show the change in storage less seawater intrusion. Also, we should not be using UWCD's imcomplete model results.	CK	UWCD's model results represent the best available science. Additional figures of change in storage minus seawater intrusion have been included.	Complete	
Hand-markup (OXB3_tif)	Figure 2-22	Note 1: model results from May 2017	Note there were multiple versions this month.	CK	The figure note has been clarified to indicate it was from May 3, 2017.	Complete	
Hand-markup (OXB3_tif)	Figure 2-22	Note 3: water year type	DWR will specify water year types.	CK	DWR had not specified water year types at the time this figure was generated, and these values were used as a placeholder. Additionally, it may be that DWR water year types may be based on metrics such as Sierran snow pack that make little impact on southern California resources.	Complete	
Hand-markup (OXB3_tif)	Figure 2-23		You should note that this cumulation graph shows cumulative change in storage that includes seawater intrusion. You should also show the graphi where seawater intrusion is taken out.	CK	Additional figures of change in storage minus seawater intrusion have been included.	Complete	
Hand-markup (OXB3_tif)	Figure 2-23	Notes	See notes on previous figure	CK	See responses to comments on Figure 2-22.	Complete	
Hand-markup (OXB3_tif)	Figure 2-24		See comments re: seawater intrusion	CK	See responses to comments on Figure 2-22.	Complete	

Hand-markup (OXB3 tif)	Figure 2-24	Notes:	See comments on previous figure	CK	See responses to comments on Figure 2-22.	Complete
Hand-markup (OXB3 tif)	Figure 2-25		See comments re: seawater intrusion	CK	See responses to comments on Figure 2-22.	Complete
Hand-markup (OXB3 tif)	Figure 2-25	Notes:	See comments on previous figure	CK	See responses to comments on Figure 2-22.	Complete
Hand-markup (OXB3 tif)	Figure 2-27		UWCD may have additional data from GeoTracker	CK	Noted.	Complete
Hand-markup (OXB3 tif)	Fiaure 2-27		Oxnard may have data at AWPF; These are some historial data		Noted.	Complete
Hand-markup (OXB3 tif)	Figure 2-28		Need to define these labels - e.g., brackish less than 1,000 mg/TDS, etc.		This report does not attempt to define the seawater intrusion "front," and as such a numeric definition of saline water is not necessary. A TDS definition of a brine has been included in section 2.3.4.1. Definitions are included in referenced documents.	Complete
Hand-markup (OXB3 tif)	Figure 2-29		Values do not support TDEM	CK	These figures, extracted from the UWCD 2016 SWI report, do not purport to link TDEM with chloride concentrations. In our experience the TDEM tends to overrepresent the extent of SWI when compared to point measurements of water quality data.	Complete
Hand-markup (OXB3 tif)	Figure 2-31		Values do not support TDEM mapping	CK	These figures, extracted from the UWCD 2016 SWI report, do not purport to link TDEM with chloride concentrations. In our experience the TDEM tends to overrepresent the extent of SWI when compared to point measurements of water quality data.	Complete
Hand-markup (OXB3 tif)	Figure 2-32		Values do not support TDEM mapping	CK	These figures, extracted from the UWCD 2016 SWI report, do not purport to link TDEM with chloride concentrations. In our experience the TDEM tends to overrepresent the extent of SWI when compared to point measurements of water quality data.	Complete
Hand-markup (OXB3 tif)	Figure 2-33A		It would be useful to show outlines of 2010 TDEM interpreted water quality on these maps to show highest values fall in those area.	CK	In our experience the TDEM tends to overrepresent the extent of SWI when compared to point measurements of water quality data. We do not intend to include TDEM data on these WQ background conditions maps.	Complete
Hand-markup (OXB3 tif)	Figure 2-33B		I think you should compare observed WQ to surface WQ as the quality of surface water varies with flow. This comment applies to all constituents.	CK	Noted. GSP regulations do not include a discussion of surface water quality. Because surface water quality does impact groundwater quality through natural or artificial recharge, we have added a section discussing potential causes of groundwater quality impacts.	Complete
Hand-markup (OXB3 tif)	Figure 2-34A		See comment on Figure 2-33A. Consider this comment for all the maps of water quality constituents.	CK	In our experience the TDEM tends to overrepresent the extent of SWI when compared to point measurements of water quality data. We do not intend to include TDEM data on these WQ background conditions maps.	Complete
Hand-markup (DD comments)	Secion 2.2.4, Fox Canyon Aquifer	Well 02N22W18H14S	Does not exist. Likely referring to 02N21W18H14S, which is is now in WLP basin following administrative boundary change.	JW	The text has been removed.	Complete
Hand-markup (DD comments)	Section 2.3.1	and an annual groundwater monitoring program was initiated in the subbasin	Maybe a correct citation but a misleading statement. Ventura County WPD current WLE moni program dates to about 1975, but there are numerous previous records from United, VC and DWR.	CK	The text has been revised to say "Groundwater elevations in the Oxnard Subbasin were first measured in agricultural wells in the 1930s, and multiple entities, including UWCD, DWR, and the County of Ventura (the County), have recorded water elevations in the Oxnard Subbasin over the intervening decades. In the early 1990s, after the U.S. Geological Survey (USGS) installed a series of nested monitoring wells during the Regional Aquifer System Analysis (or RASA Study; Densmore 1996), an annual groundwater monitoring program was initiated in the Subbasin by the County, United Water Conservation District (UWCD), and USGS (FCGMA 2007)."	Complete
Hand-markup (DD comments)	Section 2.3.1	The FCGMA annual graoundwater monitoring program	FCGMA does not have a WLE monitoring program, but their annual reports include measurements collected by others. FCGMA has a reporting program.	CK	The text has been revised to say "the County's annual groundwater monitoring program."	Complete
Hand-markup (DD comments)	Section 2.3.1	west and south of the City	east	CK	The text has been revised as suaested.	Complete
Hand-markup (DD comments)	Section 2.3.1	The volume of groundwater extracted from the LAS is greater than that extracted from the LAS.	Typo here, compare UAS to LAS.	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.1	The volume of groundwater extracted from the LAS is greater than that extracted from the LAS.	Oxnard	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.1.1	In the sorine of 2015.	Add "recorded"	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.1.1		Add "wells"	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.1.1		Add "recorded"	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.1.1	south	east	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.1.1	The hydrualic gradient, directed toward the production wells,	would be helpful to also note there are landward gradients in all coastal areas in addition to noting flow direction in various parts of the basin.	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.1.1	south	east	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.1.1	resulting in a downward gradient from the Oxnard to the Mugu Aquifer throughout the Oxnard Subbasin	What about mention of vertical gradients between the semi-perched aquifer and the Oxnard Aquifer?	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Table 2-2	Forebay Well 06 - Aquifer	Not Fox	CK	The typo in the table has been corrected. The well is now listed as Mugu.	Complete
Hand-markup (DD comments)	Section 2.3.1.1, Historical Groundwater Elevation Trends	cumulative departure from the mean precipitation	Figure should note Cum Dept. is for rainfall.		Rainfall has been specified on the hydrograph figures which include the cumulative departure curve.	Complete
Hand-markup (DD comments)	Section 2.3.1.1, Historical Groundwater Elevation Trends	Declines in groundwater elevation	would also be helpful to note that water levels in dry periods are below sea level in some portions of the basin.	CK	The sentence "Although groundwater elevations recover after each drought period, elevations along the coast do not always recover to mean sea level." has been added to the paragraph.	Complete
Hand-markup (DD comments)	Section 2.3.1.1, Historical Groundwater Elevation Trends		Good place to comment on SWI or GW from offshore storage moderating WL declines in coastal areas.	CK	The text has been revised as suggested.	Complete

Hand-markup (DD comments)	Section 2.3.1.2	groundwater elevations	Add "recorded"	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.1.2	In the fall of 2015 the hydraulic gradient directed toward the area of low groundwater elevations ranged from approximately...	It's the gradient from Mugu Canyon to the nearby pumping depression that warrant the most discussion.		The language "Coastal elevations were measured below or near sea level in both spring and fall of 2015, and consequently the hydraulic gradient was presumably landward at the coast (Figure 2-7 and 2-8)." has been added to the text.	Complete
Hand-markup (DD comments)	Section 2.3.1.2	This apparent flow direction is likely an artifact of contouring wells that are solely screened in the Mugu aquifer, and may not reflect actual flow directions within the aquifer.	See United's 2016 SWI report. We think this southern area of low heads in the Mugu is largely related to connection and strong vertical gradient to underlying FCA and Hueneme.		Text has been revised to reflect uncertainty and this sentence was removed.	Complete
Hand-markup (DD comments)	Section 2.3.1.2	2015 wells 01N21W32Q07S and ...	In the area surroundng Mugu Lagoon the Hueneme aquifer is absent and vertical gradient noted is between the Mugu and Fox Canyon aquifers.	CK	Reviewed. The two wells cited are both screened in the Mugu, so the gradient described is within the Mugu aquifer.	Complete.
Hand-markup (DD comments)	Section 2.3.1.2	in the forebay area	near the forebay	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.1.3	2015 groundwater	Add "recorded"	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.1.3	The hydraulic gradient, directed toward the area of low groundwater elevations,	Please note significant landward gradient near Hueneme Canyon.	CK	Reviewed. It does not appear that elevations documented in Figures 2-13 and 2-14 support the presence of a significant landward gradient near Hueneme Canyon.	Complete
Hand-markup (DD comments)	Section 2.3.1.3	In the forebay, the groundwater elevations...	Take care to note this characterization is based on a single monitoring well, located near active LAS production wells. Likely a local reversal of the persistent downward gradient across the OP.		Added single well characterization to text.	Complete
Hand-markup (DD comments)	Section 2.3.1.3	The switch between the downward and upward directed vertical gradient in the forebay from spring to fall likely represents the combined effects of surface water spreading in the spring and groundwater production from the Fox Canyon aquifer in the fall.	Yes, but surface water spreading was meager in spring 2015.	CK	This text has been removed.	Complete
Hand-markup (DD comments)	Section 2.3.1.4	2015 groundwater	Add "recorded"	CK	The text has been revised as sugeested.	Complete
Hand-markup (DD comments)	Section 2.3.1.4	The lowest groundwater elevations	Add "recorded"	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.1.4	These gradients may not fully depict..	Strong landward gradient in all coastal areas should definately be noted.	CK	The following sentence has been added to the end of the paragraph: "In all coastal areas where elevation data are available, a landward gradient is present."	Complete
Hand-markup (DD comments)	Section 2.3.1.4	2015 groundwater	Add "recorded"	CK	The text has been revised as sugeested.	Complete
Hand-markup (DD comments)	Section 2.3.1.4	Canyon aquifer wells because they are adjacent...	Yes, and should note very rarely does any GCA well record WLE greater than sea level.	CK	The sentence "Elevations in wells in the Grimes Canyon Aquifer seldom rise above sea level." has been added to the paragraph.	Complete
Hand-markup (DD comments)	Section 2.3.2	UWCD pers com. D. Ritter	Odd reference... should identify person at UWCD, not Dudek staff.	CK	The citation has been standardized.	Complete
Hand-markup (DD comments)	Section 2.3.2	change in storage in the model	(change in storage calculated by the model)	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.2	Model change	Modeled	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.2		modeled	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.3		Reference	CK	A reference has been included.	Complete
Hand-markup (DD comments)	Section 2.3.3		also south and west	CK	The text has been revised to say "south and west" instead of "southwest".	Complete
Hand-markup (DD comments)	Section 2.3.3		Mugu Lagoon or Laguna Point a more accurate location description.	CK	Dudek has used "Point Mugu" to match terminology used in the FCGMA 2007 GMP.	Complete
Hand-markup (DD comments)	Section 2.3.3		of the cross section shown in	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.3	UWCD 2016	Also a couple good USGS refs for this. Especially various Izbicki papers.	CK	"Izbicki 2005" has been added as a reference.	Complete
Hand-markup (DD comments)	Section 2.3.3	Seawater intrusion can be controlled, or prevented during wet or even average climatic periods.	In recent decades SWI has been largely controlled... This statement should reflect past occurrence of SWI but stop short of predicting future success.	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.3	In order to 1998...	Fragment	CK	The text has been removed.	Complete
Hand-markup (DD comments)	Section 2.3.3	and requires that new wells extract water from the UAS in order to take advatage of the more easily recharged UAS.	Check with FCGMA staff for accuracy... don't think this is the case. and if so don't think it is enforced.	CK	This text has been removed. Additionally, the scope of the FCGMA ordinance in May 1999 has been clarified in Section 2.3.1.	Complete
Hand-markup (DD comments)	Section 2.3.3	are separated	Add "commonly"	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Section 2.3.3	vertical gradient between	Add "and areas of mergence"	CK	The text has been revised.	Complete
Hand-markup (DD comments)	Table 2-3		Hanson et al, 2003, WRIR 02-4136 also 2007 FCGMA Management Plan uodate	CK	The studies have been added to the table.	Complete
Hand-markup (DD comments)	Section 2.3.3		UWCD, 2010, TDEM study	CK	The study has been added to the table.	Complete
Hand-markup (DD comments)	Section 2.3.3		Should not suggest poor water quality in the Semi-perched aquifer is seawater intrusion.	CK	The text has been removed.	Complete
Hand-markup (DD comments)	Section 2.3.3		Would be helpful to add a comment or two related to the extent of the intruded area. If you don't look at the figures you have no sense whether it is a large area impacted by SWI or not.	CK	Text has been added to reflect the areas of intruded water.	Complete
Hand-markup (DD comments)	Section 2.3.4	Therefore, impacts to groundwater quality in the Subbasin should be considered based on aquifer system, rather than by individual aquifer.	Pumping impacts WQ in multiple aquifers, or water from various aquifers impacts composition or water discharged by the well?	CK	The former not the latter.	Complete
Hand-markup (DD comments)	Section 2.3.4.1		should note this is a brine, similar to comment in the followine paragraph (LAS TDS).		noted in text	Complete
Hand-markup (DD comments)	Section 2.3.4.1	no pattern of TDS in the UAS	I see high TDS values in the area surrounding Mugu Lagoon.		Added to text	Complete
Hand-markup (DD comments)	Section 2.3.4.1	southern Subbasin	location description and not a formal term, right?	CK	Correct.	Complete
Hand-markup (DD comments)	Section 2.3.4.1	In the forebay, the concentraion of cloride...	Fewer UAS wells with chloride are shown in 2-35B, should be the same.	CK	The figure has been revised to correct the omission.	Complete
Hand-markup (DD comments)	Section 2.3.4.6		five are listed.	CK	The typo has been corrected.	Complete
Hand-markup (DD comments)	Section 2.3.4.7	impaired surface waters	impaired for what? Maybe a table showing the various impairments by reach.	CK	A table of impairments, by reach, has been added as an Appendix.	Complete
Hand-markup (DD comments)	Section 2.3.4.6	UAS is mitigated	somewhat	CK	The text has been revised as sugeested.	Complete
Hand-markup (DD comments)	Section 2.3.4.7		Yes, but there are significant vertical gradients, especially during times of drought, and there is GW flux from the SPA to the Oxnard.	CK	vertical gradient discussion added to text	Complete
Hand-markup (DD comments)	Section 2.3.4.7		semi-perched	CK	The text has been revised as suggested.	Complete
Hand-markup (DD comments)	Section 2.3.5		How about a comment as to whether these past rates of subsidence have caused problems, or if anticipated future rates are of significant concern?	CK	The text includes a description of potential problems that could be caused by subsidence.	Complete
Hand-markup (DD comments)	Section 2.3.6	With no monitorine sites...	Good records from the landfill along south bank of SCR, on either side of Victoria Ave.	CK	Noted.	Complete
Hand-markup (DD comments)	Section 2.3.6		Yes, but the SCR is largely a gaining reach where it overlies the Oxnard Plain. Should distinguish that there are some gaining reaches on the Plain, model results characterization suggests only losing reaches.	CK	A caveat to this effect has been added to the text.	Complete

Hand-markup (DD comments)	Section 2.3.6	The 5 years of groundwater discharge…	This needs more explanation, like what reach is the gaining reach and what is the mechanism.	CK	Additional language has been added to reflect that the spatial extent of gaining and losing reaches are seasonally variable.	Complete
Hand-markup (DD comments)	Section 2.3.7	groundtruthed	validate or confirmed might be better words. "Groundtruthed" suggests field visits to me, and my understanding is that there was more use of imagery than actual field visits. I know it's the word TNC uses, and I made this comment to them as well.	JW	Changed to validated	Complete
Hand-markup (DD comments)	Section 2.3.7		the channel	JW	Section has been revised and sentence has been removed.	Complete
Hand-markup (DD comments)	Section 2.3.7	federally listed	Use hyphen consistently. Seems it should have one, but commonly written without a hyphen.	BGH	Section has gone through internal formatting for correction	Complete
Hand-markup (DD comments)	Section 2.3.7	hydrologically dependent ecosystems	What does this mean? I think all ecosystems are dependent on the presence of water.	JW	Section has been revised and sentence has been removed.	Complete
Hand-markup (DD comments)	Section 2.3.7	sea water intrusion	not a good term, implies intrusion as a result of GW pumpng.	JW	Section has been revised and sentence has been removed.	Complete
Bachman (separate doc)	Section 2.2.4	Semi-Perched	Water quality is actually highly variable across the aquifer, with some areas suitable for irrigation water.	CK	This observation has been included in the text.	Complete
Bachman (separate doc)	Section 2.2	Oxnard Aquifer	as with other aquifers, there are sub-sea outcrops both at the canyons and along the shelf break (not mentioned). The canyon outcrops are the short-circuit path for seawater intrusion.	CK	A discussion of submarine canyons is included in Section 2.3.3.	Complete
Bachman (separate doc)	Section 2.3.1.1	Oxnard Aquifer, historical trends	I think that it is important to point out that during very wet years (e.g., 1998), the Oxnard Aquifer was under artesian conditions are far inland as Highway 101. The biggest problem that year was flowing wells at the surface and required a significant effort in properly destroying old wells and sealing current wells. It points out how dynamic the system is with climate.	CK	This observation has been included at multiple locations in the groundwater elevations section of the text.	Complete
Bachman (separate doc)	2.3.6	Groundwater-surface water connections	We do have good data on connection in Semi-Perched with Santa Clara River in Reach 1 (west of 101 bridge). I just provided expert report to Federal Court on this topic.	CK	Additional language has been added to reflect that the spatial extent of gaining and losing reaches are seasonally variable.	Complete