

Comments and Suggestions on material handed out in draft form at the PAC Meeting of 10/3/19

From Judie Decker, EKCRC D Representative on the PAC

Due 10/10/19

It is unfortunate that the Committees who are supposed to assist the Groundwater Authority Board have so little time to review and comment. It is even more unfortunate that the material to be reviewed has been delivered piecemeal and in a disjointed fashion.

Draft GSP Text 4.2 Sustainability Goal

4.2.1 Background

While this section is discussing the condition of the groundwater Basin, it should also state that this diminishing groundwater is the **sole source of water for the Indian Wells Valley**.

4.2.2 Description of sustainability Goal

The first sentence should be: The sustainability goal...groundwater resource as a sustainable water supply for **the community, including the NAWCWD/NAWS China Lake Mission**. (NAWS is the “landlord” of the physical facility. The real purpose and accomplishments are done by NAWCWD. Considering that a part of this section deals with the total proposed demise of Agriculture-both large and small I do not think you should include the rest of the sentence: “while preserving the character...extent possible.” It is better left unsaid. **The Valley Community includes the rural areas where agriculture is important to many people. The Rural Community has an entirely different outlook than the Ridgecrest population.**

Sustainability Objectives that are listed as bullet points

Bullet 2: A better explanation of **management actions** is needed. Furthermore, it doesn’t make sense to say “...**reduce** groundwater demands and **increase** use of current supplies.” There is no mention, for instance, of increasing use by buying out large agriculture. There are also other ways to reduce demands such as conservation. This should actually be two separate bullets. Outside water sources, “supplemental” are entirely separate from recycled water. The words in parenthesis need to be removed. Since this entire section is general no details should be added at this point.

Reword the Second Bullet to read: “Implement projects and management actions to reduce groundwater demands while extending the life of the aquifer with the use of non potable water such as recycled water.”

Bullet 3 Obtain supplemental water supplies like Imported Water

4.2.3 Sustainability Measures

There is no mention in this section of landscape reduction by the City of Ridgecrest. Why not? Are they exempt from water conservation - even though they are a partner to the Groundwater Authority?

There is no mention of Kern County having **new well** restrictions - why not? Why should the existing population curtail their activities while the City and the County continue to allow more people and development?

4.2.4 Explanation of How Goal will be achieved

Implement Pumping Limitations This is a “nice” paragraph that says little. Eliminating private domestic wells or mutual well systems will only put more of a burden on the IWV Water District and the Inyokern CSD. **It will not necessarily reduce the total amount of water pumped, but will concentrate the pumping in particular and smaller areas.** This will place an additional burden and threat on small well owners that still exist.

Obtain an imported water supply **The subjects of pumping limitations and obtaining an imported water supply are two entirely different subjects and should not be lumped together.**

The document needs to mention that the cost of Imported Water will directly lead to water conservation.

Comments for WRM, Stetson Engineering

“Introduction to Sustainable Yield Allocation Chart” and “Sustainable Yield Allocation” chart

1. **No author, no date:** While the author of the document is not necessary to review the document, it would aid the understanding of the perspective of the author for the reviewer to better evaluate its contents. However, the writing style and phrases are recognizable that probably originated from one source known to this commenter.
2. The document clearly states and defines SGMA law and the Navy’s Reserve Rights, plus the water rights that existed prior to the Navy’s arrival in the valley. Further, the document clearly provides the disclaimer that this document does not, “reflect a legal determination of anyone’s water rights”.
3. This document, with attached “Sustainable Yield Allocation” chart clearly articulates the magnitude of the water situation in the IWW and shows that current pumping exceeds natural recharge by a factor of four.
4. The “Sustainable Yield Allocation” chart contains the data and the very significant management actions that will be required to achieve sustainability in the IWW as required by the SGMA law.
5. **The Problem:** When will pumping limitation actions commence? Without a commencement date, no action can, or will be done, therefore the GSP is just, “a plan” with no actionable course toward sustainability or, the GSP is, “a-plan” for “a-plan”. Meanwhile, water levels in the valley continue to decline, and precious storage is lost.

4.2 Sustainability Goal (draft)

1. The draft copy of the paragraph 4.2 “Sustainability Goal” appears to be complete and well written. The implementation of pumping limitations and obtaining an imported water supply are, by far, the most critically important goals in the entire GSP. Sources of imported water will be a requirement for the IWW to attain sustainability. Without imported water, life, as we have known it in this valley will not be possible.

GSP Implementation (Presentation and chart)

1. The GSP Implementation presentation outlined the major contents of the Implementation Plan and included the Preliminary Draft GSP Implementation Schedule.

2. Once the completed, and Board approved, GSP has been delivered to DWR the pressure of the compressed schedule and urgency associated with the GSP development and completion will be eliminated. The next required deliverable to DWR, which will be our five-year GSP update, will not occur until 2025. Board adoption of the Pumping Allocations and Pumping Limitations Plan is not scheduled to occur until mid-April 2020. Where will the urgency and motivations be, to complete and adopt this plan as scheduled? There will be no expediencies or incentives driving the schedule. Meanwhile, water levels in the valley continue to decline and precious storage is lost.

Draft GSP Text

4.2 SUSTAINABILITY GOAL

4.2.1 Background

DWR states that “SGMA requires local agencies to develop and implement GSPs that achieve sustainable groundwater management by implementing projects and management actions intended to ensure that the basin is operated within its sustainable yield by avoiding undesirable results” (DWR, 2016). As discussed in Section 3.3.5, the sustainable yield is a crucial and fundamental element of GSP development, including for establishing sustainable management criteria. The results of the water balance analysis [utilizing modeling by the U.S. Geological Survey](#) indicate the natural long-term average recharge of 7,650 AFY as the sustainable yield.

As discussed in Section 3.3.4.4, it is well documented that IWV has been in overdraft since the 1960s and before (Dutcher and Moyle, 1973). Current IWVGB outflows are approximately four times the inflows (see Section 3.3.4). The IWV community is currently experiencing the undesirable impacts of prolonged overdraft and will continue to experience increasing environmental, social, and economic impacts if sustainability is not achieved.

Commented [dz1]: Suggest language describing the specific undesirable impacts currently within the IWV basin (water quality, declining well levels).

Water reliability is critical to military sustainability and resiliency at NAWS China Lake. The continuing overdraft conditions and undesirable impacts indicate groundwater resources in the IWVGB are not currently sustainably managed and water supply and demand management projects must be implemented in order to preserve the water resource and maintain the community.

4.2.2 Description of Sustainability Goal

The sustainability goal is to develop a basin-wide management plan to preserve the IWVGB groundwater resource as a sustainable water supply for the NAWS China Lake mission and for future community survival, while also preserving the character of the community and quality of life of the basin residents to the greatest extent possible. The absence of undesired results throughout the planning horizon will be indicative the sustainability goal has been achieved. The sustainability goal will be accomplished by achieving the following objectives:

- Operate the IWVGB within the sustainable yield.
- Implement projects and management actions to reduce groundwater demands and increase use of current supplies (recycled water) and obtain additional supplemental water supplies (imported water).
- Monitor the IWVGB actively and thoroughly to ensure the plan is effective and undesirable results are avoided.

Commented [dz2]: Is this not in contrast to the next bullet which states increasing supply through recycled water and imported source(s)? This implies usage in the basin will be limited to the accepted 7,650 acre-feet average recharge.

4.2.3 Sustainability Measures

The IWVGA has developed a series of projects and management actions that will reduce demands and increase supplies, helping achieve the sustainability goal. These projects are briefly summarized below and described in greater detail in Section 5.

- Implement pumping limitations. Pumping limitations will be developed and implemented consistent with existing groundwater priorities including the reservation of the groundwater necessary for the military purpose.
- Optimize recycled water use. The City's current recycled water supplies will be optimized for direct and indirect reuse to reduce groundwater demands. The expanded recycled water project is anticipated to be online in 2025.
- Continue emphasis on water conservation. Conservation pilot projects in severely disadvantaged communities will be implemented in 2020. In addition, the IWVGA, IWVWD, NAWS China Lake, and SVM will continue to evaluate and implement additional measures to reduce groundwater demands including additional restrictions on municipal use and opportunities to recycle and reuse pumped groundwater prior to flowing to a wastewater treatment plant.
- Obtain an imported water supply. After all projects and management actions that use basin water supplies are fully implemented (Pumping Limitations, Recycled Water Project, and Conservation), it is anticipated groundwater demands will continue to be greater than the sustainable yield due to the necessity of maintaining a viable community in support of NAWS China Lake. Accordingly, the IWVGA will implement plans to develop a firm imported water supply no later than 2040 to ensure demand equals sustainable yield (plus imported water replenishment.) The goal is to have the imported water project online by 2035.

Commented [dz3]: This is still undecided as we are awaiting formal word from DWR that an extension can be granted.

Commented [dz4]: May be the case, but I would prefer to not mention this specifically and just leave it as "evaluate and implement additional measure to reduce groundwater demands".

4.2.4 Explanation of How Goal will be Achieved

The sustainability goal is described in Section 4.2.2 with the specific measures to achieve the goal listed in Section 4.2.3 above. The following is a description of how those measures will achieve the sustainability goal by 2040. (See Section 5.2 and Section 6.3 for additional information including discussion on project costs, funding, and schedule.)

- Implement pumping limitations. This management action will have a direct impact towards achieving sustainability and will be directly quantified through reported groundwater production and indirectly through groundwater elevation measurements. There is a direct relationship between reduced extractions and a reduction in the rate of decline of groundwater levels in the IWVGB. Furthermore, reduced groundwater pumping will reduce or eliminate localized pumping depressions, reduce impacts to shallow wells, reduce annual overdraft, reduce or eliminate adverse impacts to groundwater water quality (which will be quantified through groundwater quality sampling), and help to prevent the possibility of land subsidence.
- Optimize recycled water use. A recycled water project to optimize reuse of the City's recycled water supply will be implemented by 2025. This project will have a direct impact toward achieving sustainability through reduced groundwater demands which will be directly quantified through reported groundwater production and indirectly through groundwater elevation measurements.
- Continue emphasis on water conservation. Conservation will have a direct impact toward achieving sustainability through reduced groundwater demands which will be quantified directly through reported groundwater pumping and indirectly through groundwater elevation measurements. Individual groundwater savings resulting from the conservation programs can be documented and measured.
- Obtain an imported water supply. The IWVGA is anticipating~~ing~~ having an imported water supply program in place and operating by 2035. The addition of imported water for either direct use and/or groundwater replenishment will have a quantifiable benefit which will be identified through reported groundwater pumping and through groundwater level measurement. Furthermore, increased use of imported water will help to reduce or eliminate localized pumping depressions, reduce impacts to shallow wells, reduce annual overdraft, reduce or eliminate adverse impacts to groundwater water quality (which will be quantified through groundwater quality sampling), and help to prevent the possibility of land subsidence.

Draft GSP Text – Sustainability Goal

Comments

West Katzenstein

10-10-2019

I have one suggested change:

The fourth bullets under both sections 4.2.3 and 4.2.4 ('Obtain an imported water supply') should discuss that the plan will include an alternative more-austere path to sustainability in the event that it proves not feasible to import water. This does not diminish the priority of importing water. Rather it does not leave a gap in the plan that could cause the plan to be rejected by DWR.

Preliminary Draft GSP Implementation Schedule

Comments

West Katzenstein

10-10-2019

1. Offering a preliminary draft schedule is an excellent approach for inviting the public to participate. This requires a thick skin on the persons drafting the preliminary draft document.
2. The draft GSP schedule is too static, several important tasks are absent, and essential dependencies between some tasks are not present.
3. To be successful in achieving and maintaining sustainability, the GSP schedule must address:
 - a. Continuously improving the model capabilities
 - b. Ongoing assessment of recharge
 - c. Increasing understanding of useable groundwater in storage
 - d. Resolution of data gaps
 - e. Monitoring minimum thresholds
 - f. The possibility that imported water will not be realized
4. The scheduled 'GSP DWR Updates' must show that existing management actions / allocations will be revised or new management actions / allocations will be implemented if the factors listed above dictate.
5. A task is needed to continuously monitor groundwater parameters relative to minimum thresholds and trigger immediate management actions if any thresholds will be breached.
6. The GSP must have dedicated milestones to assess the likelihood that imported water will be obtained. These milestones must provide alternative branches in the plan that provide management actions to proceed with recharge water only, if imported water does not prove feasible. (Obtaining imported water is essential to maintaining the quality of life enjoyed by current residents of the basin. However, the plan would be incomplete and potentially rejected by the State if it did not address the possibility that imported water will not be possible or will be more expensive or limited in amount than expected.)
7. Communicating the ongoing improved understanding of the groundwater basin will be a critical element in maintaining an educated public and preparing the public for adjustments in management actions that may be required at future decision points. Over time new generations of citizens will become involved in groundwater management. These people must be afforded the ongoing opportunity to educate themselves on the groundwater basin and be convinced that any alternative concepts they may personally develop have been addressed or will be addressed.
8. The State of California may not approve a GSP that ignores these factors and the impact they will have on management actions needed to achieve sustainability.

Sustainable Yield Allocation Chart and Introduction

Comments

West Katzenstein

10-10-2019

1. Strengths of Sustainable Yield Allocation Chart and Introduction:
 - a. It is based on a strong water-rights hierarchy that might fare well in litigation.
 - b. It supports the US Navy presence in the IWV basin.
 - c. It satisfies the requirement to provide a basic allocation to all residents, which should provide water for health and safety and managed quality-of-life uses.
 - i. Note that agriculture needs health-and-safety water for their employees.
 - d. It maximizes 'reasonable' usage of water by preserving the most existing livelihoods and infrastructure per AF of groundwater pumped.
 - e. It does not 'waste' water.
 - f. It puts a high valuation and prioritization on useful groundwater in storage (the amount of which is uncertain).
 - g. It lays the foundation for water needed for growth to be purchased at the augmented water price.
2. Suggested additions to the Sustainable Yield Allocation Chart and Introduction:
 - a. It should address how the allocations would be changed if importing water proves to be impossible or more expensive than considered to date. This may be necessary for the plan to be approved by the State of California.
3. Comments on the concept of providing 'augmented supply' to IWVWD and SVM:
 - a. Allocating augmented pumping for IWVWD and SVM is 'reasonable' and not 'wasteful' due to the large numbers of livelihoods and investments in infrastructure for residences and businesses that will be supported per AF of groundwater pumped.
4. Comments on the concept of providing 'pool' water to agriculture.
 - a. Allocating 'pool' water to agriculture may be a 'waste' of water to use it for additional farming if farming is going to cease.
 - b. Allocating 'pool' water to agriculture may be a less 'reasonable' use of water than by IWVWD or SVM, due to the much-smaller number of livelihoods and investments in infrastructure (business, manufacturing, and residences) supported per AF of groundwater pumped.
 - c. There is risk that any fee for pool water may undervalue the useable groundwater in storage, given the current price of importing water (ie – hauling water).

Draft GSP Text

4.2 SUSTAINABILITY GOAL

4.2.1 Background

DWR states that “SGMA requires local agencies to develop and implement GSPs that achieve sustainable groundwater management by implementing projects and management actions intended to ensure that the basin is operated within its sustainable yield by avoiding undesirable results” (DWR, 2016). As discussed in Section 3.3.5, the sustainable yield is a crucial and fundamental element of GSP development, including for establishing sustainable management criteria. The results of the water balance analysis indicate the natural long-term average recharge of 7,650 AFY as the sustainable yield.

As discussed in Section 3.3.4.4, it is well documented that IWV has been in overdraft since the 1960s and before (Dutcher and Moyle, 1973). Current IWVGB outflows are approximately four times the inflows (see Section 3.3.4). The IWV community is currently experiencing the undesirable impacts of prolonged overdraft and will continue to experience increasing environmental, social, and economic impacts if sustainability is not achieved.

~~Water reliability is critical to military sustainability and resiliency at NAWS China Lake.~~ The continuing overdraft conditions and undesirable impacts indicate groundwater resources in the IWVGB are not currently sustainably managed and water supply and demand management projects must be implemented in order to preserve the water resource and maintain the community.

Commented [KJDCNSA1]: While a factual statement, it is disjointed from this paragraph. If included, discussion should flesh out all of the other stakeholder interests.

4.2.2 Description of Sustainability Goal

~~The sustainability goal is to develop a basin-wide management plan to preserve the IWVGB groundwater resource as a sustainable water supply. To the greatest extent possible, the goal preserves the character of the community, quality of life for the residents of the basin and sustains the mission at NAWS China Lake.~~

~~The sustainability goal is to develop a basin-wide management plan to preserve the IWVGB groundwater resource as a sustainable water supply for the NAWS China Lake mission and for future community~~

~~survival, while also preserving the character of the community and quality of life of the basin residents to the greatest extent possible.~~ The absence of undesired results throughout the planning horizon will be indicative the sustainability goal has been achieved. The sustainability goal will be accomplished by achieving the following objectives:

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- Optimize recycled water use. The City's current recycled water supplies will be optimized for direct and indirect reuse to reduce groundwater demands. The expanded recycled water project is anticipated to be online in 2025.
- Continue emphasis on water conservation. Conservation pilot projects in severely disadvantaged communities will be implemented in 2020. NAWS China Lake has reduced water consumption over 50% since 2007 and is dedicated to continue targeted water conservation. When practical and pending funds availability, NAWS China Lake will implement additional water conservation measures. In addition, the The IWVGA, IWVWD, ~~NAWS China Lake~~, and SVM will continue to evaluate and implement additional measures to reduce groundwater demands including additional restrictions on municipal use and opportunities to recycle and reuse pumped groundwater prior to flowing to a wastewater treatment plant.

- Obtain an imported water supply. After all projects and management actions that use basin water supplies are fully implemented (Pumping Limitations, Recycled Water Project, and Conservation), it is anticipated groundwater demands will continue to be greater than the sustainable yield ~~due to the necessity of maintaining a viable community in support of NAWIS China Lake~~. Accordingly, the IWVGA will implement plans to develop a firm imported water supply no later than 2040 to ensure demand equals sustainable yield (plus imported water replenishment.) The goal is to have the imported water project online by 2035.

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To: David Janiec, PAC Chair

From: Nick Panzer

Date: October 7, 2019

Subject: My Comments on Sustainable Yield Allocation Chart (Chart) Discussed at the
October 3, 2019 PAC Meeting

Our Plan as now implied in subject Chart contravenes state law because it relies upon proposed water imports that lack required documentation, such as:

A reliable source of import water.¹

A description of the permitting and regulatory process required to import.²

A description of how we will evaluate the expected benefits of importing.³

A reasonably complete estimate of costs to import and how we plan to meet those costs.⁴

A description of the source and point of delivery for imports.⁵

A description of how recharge areas identified in the Plan substantially contribute to the replenishment of the basin.⁶

A description of the criteria we will use to determine the feasibility of imports.⁷

A reasonably complete estimate of the financial resources necessary to import water.⁸

Without this documentation, the state will likely “disapprove”⁹ our Plan for failing to “describe a reasonable path to achieve sustainability..”¹⁰ To reduce the risk of such an outcome, I propose that the Chart add another column titled something like “Allowed GSP Pumping w/o Augmented Supplies.” A footnote to this column would set a deadline for the GA to produce the documentation listed above. If the GA cannot meet the deadline, allowed pumping would immediately drop to sustainable yield. Hope for importing water may not have enough runway to avoid irreversible, undesirable results.

¹ Reg. 354.44(b)(6)

² Reg.354.44(b)(3)

³ Reg.354.44(b)(5)

⁴ Reg.354.44(b)(8)

⁵ Reg. 354.14(d)(6)

⁶ CA 10727.2(d)(4)

⁷ Reg. 355.4(b)(5)

⁸ Reg. 355.4(b)(9)

⁹ Reg. 355.2(e)(3)

¹⁰ Reg. 354.30(e)

Searles Valley Minerals Comments on Draft *Introduction to Sustainable Yield Allocation Chart*
October 4, 2019
Camille Anderson

General Comment:

This document appears to be inconsistent with previous documents provided by Stetson Engineers. Searles Valley Minerals does not agree with the arguments expressed in this document about the allocation of water rights in the IWVGB. The chart on page 3 is confusing because of the “Carry Over” argument, and the Allowed GSP Pumping and Augment Supply Need columns. In addition, it is unclear if this chart is a point in time, an objective at the 40-year point or starts when the GSP is adopted. Certainly, the importation of water will not happen immediately, so the allocation amount of “0” for SVM is unrealistic. Also, in the footnotes, a presumption is made that SVM can pay for “augmented” water. This is not accurate.

First paragraph:

“At its core, SGMA requires that the GA bring the Basin into sustainability through the regulation of groundwater pumping in a manner that is consistent with existing California Rights law.”

Comment: The core of SGMA is stated in the Legislative Intent Section 10720.1 (a) *To provide for the sustainable management of groundwater basins and (b) To enhance local management of groundwater consistent with rights to use or store groundwater and Section 2 of Article X of the California Constitution. It is the intent of the Legislature to preserve the security of water rights in the state to the greatest extent possible consistent with the sustainable management of groundwater.* There are other intents also stated in this section, but regulation of pumping is not one of them.

“Consequently, the GA’s actual power to achieve sustainability is fundamentally linked to the GA’s ability to develop augmentation projects and require that the users of those projects pay their fair share of those augmentation costs.”

Comment: The statement above in paragraph one asserts a fundamental nexus between sustainability and augmentation projects that is neither necessary nor sufficient to achieve sustainability. The GA’s powers are enumerated in SGMA Chapter 5 Powers and Authorities section 10725. AUTHORITY PURSUANT TO THIS PART SUPPLEMENTARY TO EXISTING POWERS, section 10725.2. AUTHORITY OF GROUNDWATER SUSTAINABILITY AGENCY; NOTICE (a)(b), section 10726.2. ADDITIONAL AUTHORITIES OF GROUNDWATER SUSTAINABILITY AGENCY RELATING TO ACQUISITIONS; AUGMENTATION OF LOCAL WATER SUPPLIES; TRANSFERS AND EXCHANGES OF WATER; AND TREATMENT, (a) (b) (c)(d)(e)(f) 10726.4. ADDITIONAL AUTHORITIES OF GROUNDWATER SUSTAINABILITY AGENCY (a)(b). All of these actions the GA can undertake under section 10725.2 (a) *A groundwater sustainability agency may perform any act necessary or proper to carry out the purposes of this part.* The ability to develop augmentation projects is only one of many actions that the GA is authorized to perform, but is not fundamentally linked to achieving sustainability. In addition, “requiring the users to pay their fair share” is not part of the Chapter 5 Powers and Authorities or listed in Chapter 8 Financial Authority section 10730. REGULATORY FEES AUTHORITY; LIMITED EXCEPTION FOR DE MINIMIS EXTRACTORS, (a)(c)(d) section 10730.2. ADDITIONAL FEE AUTHORITY FOLLOWING ADOPTION OF A PLAN (a) (b)(c)(d). What are the augmentation projects? What are their costs? What is the meaning of “fair share”? Does this mean that the total costs of the recycling waste water project should be borne by the City of Ridgecrest, US Navy and Kern County since those entities will benefit from this recycled water? Is brackish water conversion considered an augmentation project? What about the costs to relocate some

wells from high density pumping areas to low density pumping areas? Is this an augmentation project? Who will pay for these? What is “fair”? If a user pays for a project that then benefits a third-party, is a percentage of the cost assigned to that third party? Are we only discussing imported water projects? This sentence is unclear.

Second paragraph:

“Accordingly the attached chart does not reflect a legal determination of anyone’s water rights, nor does it prohibit anyone from actually pumping groundwater. This chart merely reflects an analysis of California Water Law to determine the use priorities of the Basin’s sustainable yield, which is then used to determine how much, if any, augmentation supply is needed to sustain someone’s pumping.”

Comment: The wording of this paragraph misdirects the reader of this Sustainable Yield Allocation Chart. The Chart appears to be an allocation template for use as an essential component of the GSP. The fact that it can also be used to calculate augmentation scenarios does not change its fundamental purpose as an allocation tool. SVM understands that this analysis of California Water Law was performed by legal counsel for the GA and not by the acknowledged GSP authors, Stetson Engineers. Is this a correct understanding? Other analyses of California Water Law might differ substantially from the analysis presented here. However, within the framework of this analysis, what is the meaning of “Augment Supply Need”? Is it imported water, recycled water or something else?

Paragraphs 3-6:

Comment: SVM agrees that the Navy’s Federal Reserve Water Right (FRWR) “...is superior to all other water rights in the Basin, with the exception of those rights that were in existence at the time at [sic] the Base was founded.” SVM also acknowledges that the Navy’s current estimated and reported pumping is 1450 AFY and that “...the amount of water the installation could agree to use under a GSP ...” is 2041 AFY (11/2018); although the FRWR is not limited to the 2041 AFY figure provided by the Navy. SVM does not understand, and therefore cannot agree with, a claim that FRWR can be expanded without limit to any private entities or individuals who allege some affiliation with the Navy, its mission or personnel wherever located, domiciled or working.

Ninth paragraph:

Comment: This paragraph mischaracterizes Searles Valley Minerals claim as a dispute with the USN. SVM has no dispute with the USN. SVM has presented to the GA Board documented evidence of pre-Navy water production that establishes that it has water rights with priority over the Navy’s based upon the fact that those rights “were in existence at the time the Base was founded.”

Last paragraph:

“At this point, the sustainable yield of the Basin has been completely allocated and there is no native water left for inferior rights holders.”

Comment: According to the internal logic of this paper, the Navy is allocated, on a yearly basis, almost the total annual recharge amount of the groundwater. This does not appear to be in keeping with the purpose of the SGMA Section 10723.2 which states *“The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans.”* In addition, according to the SGMA section 113 *“It is the policy of the state that groundwater resources be managed sustainably for long-term reliability and multiple economic, social, and environmental benefits for current and future beneficial uses.”* The US Navy is not the only beneficial use of water in the basin.

Footnote 7 on the Chart explanation:

“This reflects the industrial use by SVM and it’s [sic] listed as a GSP allowed pumping because there is a presumption that SVM can afford the augment costs.”

Comment: The presumption that SVM can afford the augment costs is not accurate. As is a common business practice, a cost/benefit analysis will be performed in order to determine if SVM can afford augment costs, once those costs become clear. Is the word “augment” a substitute for the word “imported”? There is no cost listed in the chart. Are costs listed in Chapter 5? Is it the presumption that SVM will pay for imported water by itself? What about the large infrastructure costs? Will those costs be borne by Kern County? The State? The Water District? The Federal Government/ DOD?

Footnote 8 on the Chart explanation:

Comment: What is the pool amount?

Comments on Draft GSP Text by Searles Valley Minerals

4.2 SUSTAINABILITY GOAL

4.2.1 Background

DWR states that “SGMA requires local agencies to develop and implement GSPs that achieve sustainable groundwater management by implementing projects and management actions intended to ensure that the basin is operated within its sustainable yield by avoiding undesirable results” (DWR, 2016). As discussed in Section 3.3.5, the sustainable yield is a crucial and fundamental element of GSP development, including for establishing sustainable management criteria. The results of the water balance analysis indicate the natural long-term average recharge of 7,650 AFY ~~as is~~ the sustainable yield.

As discussed in Section 3.3.4.4, it is well documented that IWV has been in overdraft since the 1960s and before (Dutcher and Moyle, 1973). Current IWVGB outflows are approximately four times the inflows (see Section 3.3.4). The IWV community is currently experiencing the undesirable impacts of prolonged overdraft and will continue to experience increasing environmental, social, and economic impacts if sustainability is not achieved.

Water reliability is critical to sustaining any community and the diverse interests that operate in the IWVGA. It is also critical to military sustainability and resiliency at NAWS China Lake. The continuing overdraft conditions and undesirable impacts indicate groundwater resources in the IWVGB are not currently sustainably managed and water supply and demand management projects must be implemented in order to preserve the water resource and maintain the community.

4.2.2 Description of Sustainability Goal

The sustainability goal is to develop a basin-wide management plan to preserve the IWVGB groundwater resource as a sustainable water supply for the ~~NAWS China Lake mission and for future community survival, communities and businesses that are located in the Indian Wells Valley~~ while also preserving the character of the community and quality of life of the basin residents to the greatest extent possible. The absence of undesired results throughout the planning horizon will be indicative that the

Comment [CA1]: Section 10723.2 states “The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans.” The NAWS China Lake Mission, while important, is not the only reason for preserving the IWVGB groundwater resource. This interjection should be removed, especially as it is also stated in the preceding paragraph.

sustainability goal has been achieved. The sustainability goal will be accomplished by achieving the following objectives:

- Operate the IWVGB within the sustainable yield.
- Implement projects and management actions to reduce groundwater demands and increase use of current supplies (recycled water) and obtain additional supplemental water supplies (imported water).
- Monitor the IWVGB actively and thoroughly to ensure the plan is effective and undesirable results are avoided.

4.2.3 Sustainability Measures

The IWVGA has developed a series of projects and management actions that will reduce demands and increase supplies, helping achieve the sustainability goal. These projects are briefly summarized below and described in greater detail in Section 5.

- Implement pumping limitations. Pumping limitations will be implemented consistent with existing groundwater priorities including the reservation of the groundwater necessary for the military purpose.
- Optimize recycled water use. The City's current recycled water supplies will be optimized for direct and indirect reuse to reduce groundwater demands. The expanded recycled water project is anticipated to be online in 2025.
- Continue emphasis on water conservation. Conservation pilot projects in severely disadvantaged communities will be implemented in 2020. In addition, the IWVGA, IWVWD, NAWS China Lake, and SVM will continue to evaluate and implement additional measures to reduce groundwater demands including additional restrictions on municipal use and opportunities to recycle and reuse pumped groundwater prior to flowing to a wastewater treatment plant.
- Obtain an imported water supply. After all projects and management actions that use basin water supplies are fully implemented (Pumping Limitations, Recycled Water Project, and Conservation), it is anticipated groundwater demands will continue to be greater than the sustainable yield due to the necessity of maintaining a viable community in support of NAWS

Comment [CA2]: "Sustainability goal" means the existence and implementation of one or more groundwater sustainability plans that achieve sustainable groundwater management by identifying and causing the implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield. So the first bullet point is the goal, not just an objective.

Comment [CA3]: Where will the funding for this monitoring come from? Will there be an increase in fees?

Comment [CA4]: If the priorities are those stated in the accompanying document "Introduction to Sustainable Yield Allocation Chart" please see SVM comments on that chart. Otherwise, what are the priorities?

Comment [CA5]: See comment 1 above.

Comment [CA6]: We would like to see a list of conservation projects that will be implemented and the timetable for the implementation. Will this be in Chapter 5?

Comment [CA7]: Searles Valley Minerals does not allow pumped water used in its processes to flow to any wastewater treatment plant. This phrasing is confusing and should be expanded and/or clarified. Does this refer to gray water projects?

China Lake. Accordingly, the IWVGA will implement plans to develop a firm imported water supply no later than 2040 to ensure demand equals sustainable yield (plus imported water replenishment.) The goal is to have the imported water project online by 2035.

4.2.4 Explanation of How Goal will be Achieved

The sustainability goal is described in Section 4.2.2 with the specific measures to achieve the goal listed in Section 4.2.3 above. The following is a description of how those measures will achieve the sustainability goal by 2040. (See Section 5.2 and Section 6.3 for additional information including discussion on project costs, funding, and schedule.)

- Implement pumping limitations. This management action will have a direct impact towards achieving sustainability and will be directly quantified through reported groundwater production and indirectly through groundwater elevation measurements. There is a direct relationship between reduced extractions and a reduction-decrease in the rate of decline of groundwater levels in the IWVGB. Furthermore, reduced groundwater pumping will reduce or eliminate localized pumping depressions, reduce impacts to shallow wells, reduce annual overdraft, reduce or eliminate adverse impacts to groundwater water quality (which will be quantified through groundwater quality sampling), and help to prevent the possibility of land subsidence.
- Optimize recycled water use. A recycled water project to optimize reuse of the City's recycled water supply will be implemented by 2025. This project will have a direct impact toward achieving sustainability through reduced groundwater demands which will be directly quantified through reported groundwater production and indirectly through groundwater elevation measurements.
- Continue emphasis on water conservation. Conservation will have a direct impact toward achieving sustainability through reduced groundwater demands which will be quantified directly through reported groundwater pumping and indirectly through groundwater elevation measurements. Individual groundwater savings resulting from the conservation programs can be documented and measured.
- Obtain an imported water supply. The IWVGA ~~is-anticipate~~^{ed} having an imported water supply program in place and operating by 2035. The addition of imported water for either direct use

Comment [CA8]: According to the SGMA section 113 "It is the policy of the state that groundwater resources be managed sustainably for long-term reliability and multiple economic, social, and environmental benefits for current and future beneficial uses." NAWs China Lake is not the only entity in this community or the only beneficial use.

Comment [CA9]: As stated in previous comments on previous sections, who will pay for this project? Will the details be listed in section 5? Is this going to be a IWVWD project? Will it be paid for by a bond issued by Kern County? Will the state pay for this since we are a small rural area? Just how realistic is imported water given the cost and the small population of the IWV to spread that cost if this is not a government project.

Comment [CA10]: This section does not distinguish itself very well from the section above. It is repetitive. Is it needed if the detail will be in a different section?

Comment [CA11]: It is unclear if the new WWTF being planned will achieve the treatment quality sufficient to be pumped into the ground as recharge or if it will mainly be used to offset current irrigation needs of landscaping for the city, county, Navy and community college. If it is mainly used as an offset for landscape irrigation, this will not have as great an impact on reduced groundwater demands because landscape is the least beneficial use of water and the first thing to be removed with conservation regulations.

and/or groundwater replenishment will have a quantifiable benefit which will be identified through reported groundwater pumping and through groundwater level measurement. Furthermore, increased use of imported water to offset pumping of water from the IWVGB will help to reduce or eliminate localized pumping depressions, reduce impacts to shallow wells, reduce annual overdraft, reduce or eliminate adverse impacts to groundwater water quality (which will be quantified through groundwater quality sampling), and help to prevent the possibility of land subsidence.

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Sustainability Goal

The comments on this slide are the same as comments on Draft Section 4.2. Section 10723.2 states “The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans.” The NAWES China Lake Mission, while important, is not the only reason for preserving the IWVGB groundwater resource.

Sustainable Management Criteria for Reduction of Storage

This section needs more explanation of the chart on page 6. Why is the measurable objective not achieved until 2070?

Sustainable Management Criteria for Chronic Lowering of Groundwater Levels

This section is well thought out and explained.

Sustainable Management Criteria for Degraded Water Quality

Searles Valley Minerals agrees with comments made during the TAC meeting that the minimum thresholds set for wells that will measure degraded water quality should be chosen carefully to reflect the water quality that currently is coming from those wells. Some wells may already be above the minimum threshold in certain areas. If that is the case, the thresholds should be set higher.

Sustainable Management Criteria for Land Subsidence

Searles Valley Minerals thinks this area is one of data gaps. It is unclear whether the areas of subsidence are of tectonic or hydrogeologic in origin. In addition, the BMP documents covering land subsidence criteria only have examples of management criteria for this undesirable result if subsidence affects something of importance to the community such as subsidence affecting a road interchange, housing or an airport runway. If subsidence happens in the desert in a remote location, it may not rise to the level of an undesirable result and may not need management.

The current rate of subsidence as stated on page 11 of 3mm/year is very small compared to undesirable subsidence rates in other basins. What is the margin of error of this number? The minimum threshold is too small. What is the error in measurements? The reference monitoring points have not been selected yet. What will determine these monitoring points? Also, subsidence will not be the same in every area of the basin. Will the monitoring points be across the basin? In those areas of known subsidence? Both? There is too much unknown for accurate thresholds and objectives to be set for this section.

It is recommended that this section state that land subsidence might be a concern and that we need more data and there will be monitoring to determine if that concern is valid.

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Only an outline was submitted to the TAC and PAC. The outline seems to be complete, and hopefully there will be more detailed costs, timetables and funding determinations included in this chapter. SVM would like to know where the funding for the myriad of projects is going to come from. If the GA is relying on government funding for projects, is there a back-up plan for funding if these sources are not available?