Deficiency Number	Deficiency and Corrective Actions	Revision	Page Numbers of the Plan	Section Numbers	Figure Numbers	Table Numbers
1	**The GSP does not include a reasonable assessment of overdraft conditions and reasonable means to mitigate overdraft**					
1.a.	Reevaluate the assessment of overdraft conditions in the Basin. Specifically, the GSA should examine the assumptions that were used to develop the absence of historical and current overdraft and the projected overdraft estimates in the projected water budget considering the results vary greatly from the values reported in the recent annual report data. The assessment should include the latest information for the Basin to ensure the GSP includes the required projects and management actions to mitigate overdraft in the Basin.	**Chronic Lowering of Water Levels:** The GSA has re-evaluated hydrographs of wells throughout the basin and documented both, historic condition when water levels had been stable and identified recent conditions, since at least 2000, as chronic lowering of water levels.				
1.a.		**Baseline and Recent Groundwater Storage Change Amount:** Four methods were employed and compared to estimate storage changes in the Basin: the GSA compared spring-to-spring storage changes and fall-to-fall storage changes using two different methods to interpolate/extrapolate water levels from measurement points: continuous interpolation and Thiessen polygon extrapolation. Results were consistent among each other. Errors in previous values of change in groundwater storage, reported in the annual reports, were corrected: For reporting purposes, the Thiessen polygon method is used to compute spring-to-spring groundwater storage changes in the Basin, past and present.				
1.a.		**Sustainable Yield Re-examination:** Three analyses are provided to estimate the sustainable yield of the basin: two spreadsheet methods based on simplified conceptual models of the groundwater basin, as either closed or open basin, and a numerical model based analysis. Based on these analyses, the revised sustainable yield for the Basin is found to be 65 TAF/year. This also corresponds to the average groundwater extraction from 1990 to 2014 and is consistent with groundwater extraction numbers reported in the 1970s. **Achieving the sustainable yield of 65 TAF/year requires a 10-15% reduction in groundwater extraction** which will be achieved through the "Groundwater Demand Management" program in Chapter 4. Starting with the 2027-2032 implementation period, groundwater pumping in the Basin will be limited to the sustainable yield of the Basin. Monitoring and further analysis will be instrumental to consider future updates to the sustainable yield during the implementation period.				
1.b.	Provide a reasonable means to mitigate the overdraft that is continuing to occur in the Basin. Specifically, the GSA should describe feasible proposed management actions that are commensurate with the level of understanding of groundwater conditions of the Basin and with sufficient details and consideration for Department staff to be able to clearly understand how the Plan's projects and management actions will mitigate overdraft in the Basin under different climate scenarios.	**Four new PMAs to address mitigation and need for reduced pumping:** The GSA added four projects and management actions to Chapter 4 to mitigate effects of declining groundwater levels in the Basin: a) City of Dorris Well Depending and Pipeline Replacement Project (already in progress), b) Well Inventory and Well Mitigation Program, c) Preliminary Groundwater Allocation Program and, d) Groundwater Demand Management. These PMAs are added to avoid groundwater level declines and ensure the Basin operates within its sustainable yield by the beginning of the 2027-2032 implementation period (Groundwater Demand Management Program and Groundwater Allocation Program) and immediately begins to address negative impacts to beneficial uses and users due to groundwater level declines (City of Dorris project, Well Mitigation Program).				
2	**The GSP does not establish sustainable management criteria for chronic lowering of groundwater levels in a manner substantially compliant with the GSP Regulations**					
2.a	Describe the specific, quantitative undesirable results they aim to avoid through implementing the Plan.	**Quantitative Description of the Undesirable Results:** The quantitative undesirable result occurs when fall water levels in more than 25% of wells exceed the MT in two or more consecutive years.				
2.a	This must include a quantitative description of the negative effects to beneficial uses and users that would be experienced at undesirable result conditions. The GSA should fully disclose and describe and explain its rationale for determining the number of wells that may be dewatered and the level of impacts to groundwater dependent ecosystems that may occur without rising to significant and unreasonable levels constituting undesirable results. Lastly, the GSA should explain how well mitigation will be considered by the GSA during its management of the Basin in a project or management action as part of the GSP. Department staff also encourage the GSA to review the Department's April 2023 guidance document titled Considerations for Identifying and Addressing Drinking Water Well Impacts.	**Quantitative description of the negative effects to to beneficial uses and users:** **Well Users for domestic, public, agricultural, and wetland management water supplies**: An updated Well Failure Analysis (Appendix 3-C), was implemented and used to evlauate wells that may be dewatered under undesirable results. The quantitative undesirable result definition was modified to consider this updated evaluation. The GSA is committed to mitigate up to 20% of domestic wells (48 domestic wells) during the implementation period. Public supply wells and wetland management supply wells have been identified in the GSP. Well failures in these wells was identified as an undesirable result. Well mitigation s part of the "Well Inventory and Well Mitigation Program" in Chapter 4, which has been substantially updated. **Interconnected Surface Waters:** Butte Creek, Ikes Creek, Harris Creek, Muskrove Creek, Prather Creek, and Meiss Lake are now explicitly considered potentially interconnected surface waters (ISWs) and the extended data collection will help understanding which of those should be considered ISW. **ISWs and GDEs:** Understanding the impacts to ISWs and GDEs at 2015, current, or future conditions is subject to large data gaps. Monitoring of ISWs and GDEs has begun, and the planned work and timelines to further understand, evaluate, and protect ISWs and GDEs in the Basin have been updated.				
2.b.	Revise minimum thresholds to be set at the level where the depletion of supply across the Basin may lead to undesirable results. Provide the criteria used to establish and justify minimum thresholds.	**Minimum Threshold (MT) revision:** Minimum thresholds were re-assessed based on the revised and more clearly defined qualitative and quantitative description of undesirable results. Minimum thresholds were set to avoid non-mitigatable undesirable results. The revised minimum thresholds are at least 15 ft above the originally proposed minimum thresholds.				

2.b.	Consider and disclose how minimum thresholds may affect the interests of beneficial uses and users. Fully document the analysis and justifications performed to establish the criteria used to establish minimum thresholds. Clearly show each step of the analysis and provide supporting information used in the analysis.	**Analysis of Undesirable Results to set Sustainable Management Criteria:** The Well Failure Analysis was re-implemented, updated, extended and a revised, detailed documentation of methods and results was provided. Additional methods were introduced into the well failure analysis to expand on and validate the original results. Additional maps are provided including maps that document the location and type of wells at risk of well failure prior to 2015, in 2023, and if water levels consistently declined to the minimum thresholds across the Basin ("at MT").				
2.c.	Provide an evaluation of how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests. Identify the number and location of wells that may be negatively affected when minimum thresholds are reached. Compare well infrastructure for all well types in the Basin with minimum thresholds at nearby suitably representative monitoring sites. Document all assumptions and steps clearly so that it will be understood by readers of the GSP. Include maps of potentially affected well locations, identify the number of potentially affected wells by well type, and provide a supporting discussion of the effects. Also, provide an evaluation of how the proposed management may impact environmental users such as GDEs.	The analysis found that as many as 14 domestic wells (6%) may have fallen dry between 2015 and 2023, which is somewhat higher but consistent with survey data and DWR well outage data. An additional 14 wells (6%) may fall dry "at MT". The estimated number of affected beneficial users of domestic wells, at the selected MTs, is therefore significantly less than the 20% of domestic wells that the GSA is committed to address throught it's well mitigation program. Post-2015, 10 agricultural wells would fall dry "at MT". None of the existing public supply wells or wetland management irrigation wells are at risk of failure if the Basin water levels all were to decline to "at MT". Impacts to ISWs and GDEs in 2015, current, or "at MT" is currently unknown, but will be addressed through monitoring that has already been initialized, additional studies scheduled for the current five-year implementation period, evaluation of mitigation measures where needed, and additional analyses. Discussion of these thresholds, and consideration for beneficial uses and users, is included in the revised discussion of the chronic lowering of groundwater levels sustainability indicator and the more clear connection of ISW sustainability indicator with the chronic groundwater level indicator in Chapter 3, and the updated Well Failure Analysis in Appendix 3-C. Section 3.4.1.5 has been updated to include more discussion on minimum thresholds and beneficial uses and users of groundwater. The number and location of wells that may be negatively affected when minimum thresholds are reached, as well as well infrastructure discussion, and maps of affected well locations by type can be found in Appendix 3-C.				