San Francisco Bay Regional Water Quality Control Board

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Subject: Comments on Environmental Impact Statement for a General Management Plan Amendment, Point Reyes National Seashore and North District of Golden Gate National Recreation Area, Marin County

Dear Mr. Ketcham:

San Francisco Regional Water Quality Control Board (Water Board) staff appreciates the opportunity to comment on the Draft Environmental Impact Statement (draft EIS) for a General Management Plan (GMP) Amendment, Point Reyes National Seashore (PRNS) and North District of Golden Gate National Recreation Area (planning area). The EIS for the GMP Amendment will establish guidance for all lands currently under agricultural lease or permit within the planning area, relating to preservation of natural and cultural resources and management of infrastructure and visitor use. Based on the information provided in the draft EIS, we offer the comments below. These comments are to advise NPS of our concerns, so they may be incorporated into the planning and regulatory compliance process at an early date. We have focused our comments on the preferred alternative identified in the draft EIS, Alternative B.

We strongly support continued grazing and dairy operations on PRNS lands as identified in Alternative B and the development of longer leases up to 20 years. These longer leases should provide ranches and dairies with the ability to build needed improvements and infrastructure. We will continue to work closely with NPS and ranches/dairies through our permitting and 319(H) grants program to upgrade facilities and eliminate existing water quality impacts. In our work on PRNS lands, we have found that rangeland and dairy infrastructure and operation improvements can lead to significant water quality and habitat improvements.

The draft EIS, however, does not adequately identify all potential adverse water quality impacts for the proposed land-use changes, including diversification in the Range (goats, sheep, chickens) and Ranch Core Subzones (pigs, sheep, goats, chicken), row crops in the Ranch Core Subzone, and increased public use facilities. Further, the draft EIS does not adequately incorporate mitigations for these impacts. The most significant of these impacts may occur in the Ranch Core Subzone.

Through our confined animal facility (CAF), grazing, and grants programs, we have worked closely with NPS to improve rangeland and dairy operations and management. All the actions

identified as "high priority" in the NPS rangeland assessment have been implemented. As demonstrated through ongoing water quality monitoring (draft EIS pages 68-69), these efforts have resulted in significant water quality improvements. However, additional improvements are needed because water quality standards exceedances still occur. With NPS, we will evaluate recent data to determine what additional actions are needed to resolve existing water quality standard exceedances. We are concerned that many of the proposed Ranch Core Subzone diversification activities will lead to new exceedances which cannot easily be remediated due to technical or financial feasibility.

The Water Board listed Tomales Bay, and major Tomales Bay tributaries, including Lagunitas Creek and Olema Creek, as impaired for nutrients, pathogens, and sedimentation/siltation under section 303(d) of the Clean Water Act (SWRCB 2010). The proposed diversification and increased public use facilities (trails, picnic areas, and housing with associated restrooms and septic systems) could potentially increase discharges of sediment, pathogens, nutrients, and pesticides. Further, these activities may alter watershed hydrology (surface water and groundwater flows) and degrade wetland, riparian and stream integrity and function. Increases in the discharge of pollutants above existing baseline levels and loss of habitat critical to beneficial use function would violate State Antidegradation Policy (State Water Resources Control Board Resolution No. 68-16).

The draft EIS identifies Alternative B as the preferred alternative. In this alternative, the ranchland zone is divided into Subzones: Resource Protection Zone, Range Subzone, Pasture Subzone, and Ranch Core Subzone. Our comments below focus on Alternative B and activities in the latter two Subzones because this is where most impacts would be expected to occur.

Alternative B comments

Resource Protection, Range and Pasture Subzones - Vegetation, Erosion and Water

We support the delineation of Subzones as described in Appendix H. The increase of 1200 acres in the Resource Protection Subzone will provide for significant water quality and habitat improvement.

The Pasture Subzone is identified "as lands where no sensitive resources are known to occur". In this area diversification will allow pasture use by sheep, goats and chicken. If properly managed, this diversification should have only minor and limited impacts. However, the draft EIS discussion does not clarify how these livestock and chickens will be managed. What mechanism or BMP prevents the sheep and goats, placed into the Pasture Subzone, from foraging in adjacent areas that are zoned differently and where sensitive resources do exist? Further, will the existing water infrastructure be adequate to effectively rotate the sheep and goats between fields to prevent overgrazing? It is unclear if the measure preventing sheep and goats from moving between Subzones is steep slopes (> 20%) and if so, if this effective. The draft EIS should fully identify the potential impacts to sensitive resources, water quality, and soil in the Resource Protection, Range and Pasture Subzones resulting from diversification in the Pasture Subzone, and how these Subzones will be managed to prevent impacts from goats, sheep and chicken.

Alternative B – Diversification - Water Resources

In our comments on the Notice of Intent (Nov. 30, 2018) we noted that the list of Impact Topics should be expanded to include watershed scale processes such as geomorphic and hydrologic processes. Geomorphic processes should include sediment generation and transport processes, as well as stream and floodplain geomorphic functions. Hydrology should include impacts to stormwater runoff characteristics (e.g., runoff volume and timing, percolation, Horton overland flow due to soil compaction); stream flow (e.g., volume, peak flow magnitude and timing, seasonal persistence) and groundwater recharge and discharge. These impacts may be significant in the Ranch Core Subzone (see below) but were not identified and evaluated.

Diversification in Ranch Core Subzone

The Ranch Core Subzone comprises a small lease/permit area (< 1% of total). However, the Ranch Core Subzone's potential to increase pollutant loading to streams, groundwater, wetlands, and degrade water quality and sensitive habitat greatly exceeds its relative size and may be very significant. These areas are the most likely of the newly prosed Subzones in the GMP to cause significant water quality and stream habitat degradation under the proposed diversification practices for the following reasons:

1. **Location of Ranch Core Subzones**: due to historic practice of siting dairy complexes and ranch facilities adjacent to creeks and on flat areas, several core areas are in low-lying areas at the base of a sub-watershed in alluvial fans or historic (now drained) wetlands. These areas are subject to frequent flooding, high volumes of converging stormwater flow from upslope hillsides, and creek planform instability (alluvial fan). Other ranch core areas, situated closer to the ridgetops, may discharge pollutants directly to headwater swales and small tributaries or be susceptible to more extreme weather than low-lying areas.
2. **Impact of existing degradation in Ranch Core Subzone**: Due to existing degradation of habitat and vegetation, these areas have little pollutant buffering and pollutant assimilative capacity. The proposed diversification activities will generate a higher pollutant loading and direct discharge to adjacent waterbodies in these areas due to a lack of existing vegetative buffers (filter strips, soil vegetative cover, and complex riparian zones. For instance, in many areas an increase in diversified livestock use will generate additional erosion due to presence of bare earth and there will be less pollutant filtration due to the lack of a complex riparian zone.
3. **Diversification activities in Ranch Core Subzone**: the actual proposed diversification activities have the potential to generate significant pollutant discharges due to the nature of the activities (see below - diversification activity impacts).
4. **Technical or financial infeasibility of implementing appropriate BMPs, management or mitigation measures to eliminate or reduce impacts**: In some Ranch Core locations, the suggested mitigation measures, such as "comply with requirements in the General CAF permit" may not be adequate. For example, the requirement to eliminate stormwater run-on into areas containing waste products, may be technically or financially infeasible. In the locations where the measures cannot

successfully be implemented, there will be significantly greater impacts than identified in the EIS. Further, the actual impacts of installing the necessary measures, for many of the diversification activities have not been fully considered. Examples include:

- Rerouting stormwater or altering the drainage patterns in row crop fields which may alter groundwater recharge and affect stream hydrology (low and high flow)
- Disposing of manure and urine-soaked bedding in horse boarding facilities, or high nitrogen chicken manure through composting. See also Attachment A of CAF Order No. R2-2016-0031 (General CAF WDR).

Impacts from Specific Diversification Activities in Ranch Core Subzone

1. **Waste generation**: The proposed diversification activities related to increased livestock diversity (pigs, sheep, goats, chickens, horses), horse boarding, and small-scale processing of dairy products may generate wastes that include manure, process wastewater, animal wash water, and any water, precipitation, or rainfall runoff that contacts animal confinement areas and/or raw materials, products, or byproducts such as manure, compost piles, feed, bedding materials, silage, eggs, or milk. Waste from such facilities can contain pathogens, oxygen-depleting organic matter, sediment, nitrogen compounds, compounds toxic to fish and other aquatic organisms, and other suspended and dissolved solids that can impact both groundwater and surface water if not properly managed. Daily operations can cause degradation of water quality as a result of waste discharges and activities that result in soil erosion and destruction of riparian habitat.

   Adverse aquatic habitat impacts associated with improper waste management and application may include: nutrient enrichment resulting in algal blooms, organic waste loading resulting in lowered oxygen levels, siltation of gravel areas that can eliminate fish habitat, high levels of ammonia that are toxic to fish and aquatic invertebrates, and elevated levels of nitrates and other salts in groundwater. Additionally, animals whose movement is not controlled through fencing or other methods may further degrade riparian zone, wetland, or other sensitive habitat and lead to further loss of the function of those habitats, including pollutant filtration, shade and stream temperature control, and streambank and soil stability.

   The draft EIS does not clearly indicate if the diversified livestock will be corralled/fenced or free range, nor does it identify potential impacts of free range livestock, such as loss of riparian zone and wetlands. If livestock are confined[1], the requirements of the General CAF WDR must be met. Even so, the EIS still should fully identify and evaluate potential impacts associated with CAF operations. As discussed above, the technical/financial

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[1] California Code of Regulations, Title 27 section 20164, defines a CAF as "*... any place where cattle, calves, sheep, swine, horses, mules, goats, fowl, or other domestic animals are corralled, penned, tethered, or otherwise enclosed or held and where feeding is by means other than grazing.*"

feasibility of many of the proposed management and mitigation measures requires evaluation. Where such measures are not feasible, there will be impacts the draft EIS does not currently identify, and the impacts of those identified will be more significant.

2. **Row crops**: Row crops have the potential to increase soil erosion and discharge of sediment to streams; increase nutrient runoff from manure or compost application; increase the need for invasive plant control, as conditions for invasive plant germination and dissemination are improved (see integrated pest management discussion below); increase soil compaction; alter stormwater flow paths and increase runoff leading to a decrease in groundwater recharge and altered stream hydrology (low and high flow). Some mitigative measures proposed in the draft EIS may provide only limited erosion control depending on the site characteristics. For example, mulching and seeding have variable success at erosion control depending on factors such as slope, wind, soil moisture and temperature. The draft EIS does not fully discuss harvest methods, whose impacts can be significant depending on machinery used. Additional clarity is needed in the description of allowable row crop activities and identifying their impacts.

3. **Integrated Pest Management (IPM) for invasive weed control**: As stated in the draft EIS, "*Vegetation management practices for invasive plants in crop areas would be subject to mitigation measures to minimize or prevent adverse impacts associated with these practices….using herbicides and biocides on cultivated or rangeland areas for purposes of weed management would continue to comply with NPS IPM regulations and procedures. Compliance with these regulations and procedures and applicable handling and disposal laws and the use of appropriate herbicide application methods (e.g., restrictions on spraying during windy or wet days) would minimize or prevent adverse impacts on surface water and groundwater quality.*" (pg. 115). This discussion does not fully identify the impacts of herbicides on groundwater and aquatic habitats that support salmonids and other species known to be sensitive to herbicides.

4. **Public use and enjoyment**: the proposed increase in farm tours and overnight use facilities would increase sewage production and water use. The draft EIS does not fully identify or evaluate potential impacts associated with increased sewage generation and appropriate management measures.

5. **Water use:** the draft EIS does not adequately identify all the increased water demands associated with the proposed diversification, row crop, and public use and enjoyment. The draft EIS identifies the volume of daily drinking water consumption by goats, chicken, and horses, and this increased use is relatively minor. However, numerous water demands are not considered including: pig and sheep daily drinking consumption; wash water needed for horse boarding facilities including horse and stall washing; wash water for management of CAF facilities; water use for public use and enjoyment including overnight facilities (cooking, showers, restrooms, etc.); flower/vegetable gardens associated with landscaping for overnight facilities; crop produce and equipment wash water; cheese making or other commercial process manufacturing water.

This increased water demand could be met through use of existing permitted stored reservoir/pond water, redevelopment of existing wells and springs, or new wells and new surface water diversions. In our work with NPS on existing rangelands, we have supported the redevelopment of existing wells to provide alternate water supply for cattle fenced out of creeks. In such cases, the overall water use is unchanged, and riparian zone and water quality benefits accrue from fencing cows out of creeks. However, we do not support allowing activities that significantly increase water demand, because it may further reduce stream flow, wetlands and groundwater recharge. Research in the Olema Creek watershed by the University of California-Berkeley has found reduced Coho growth and mortality in Olema tributaries due to low flow conditions. Further, increased demand on ponds/reservoirs could result in lowering of reservoir water levels, reduce their capacity to meet demands during droughts, and decrease pond wetland and amphibian habitat. The draft EIS states that no new wells will be developed. However, the EIS does not identify potential impacts resulting from the development of new water supply reservoirs/ponds or diversions that may be allowed though a state water rights process.

Closing

In conclusion, we strongly support the issuance of longer leases and diversification into the Pasture Range Subzone. Additional clarity is necessary regarding control of livestock movement between Subzones. However, due to the sensitive location of the Ranch Core Subzone, high level of existing degradation, significant pollutant generation by diversification activities, and potential for technical/financial infeasibility of installing mitigation/manage measures, we find the EIS does not fully identify the impacts of Ranch Core Subzone diversification.

Sincerely

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