San Francisco Bay Regional Water Quality Control Board

ATTACHMENT F

Checklist Form for Assessing Grazing Operations in the Tomales Bay Watershed

IN COMPLIANCE WITH RESOLUTION NO. R2-2018-004

Date: _____ Weather: _____

Name of Person Completing checklist: _____

Ranch Information

Ranch Name:	**Owner Name & Address (if different):**
Address:	**Nearest Water Body:**
Operator Name & Address:	**Number of Animals:**
Operator Telephone Number:	**Type of Animals:**
Acreage:	**Animal Density:**
Ranch Assessor's Parcel Number (number of parcels):	

Erosion and Sediment Sources

Sediment from Sheet, Rill, and Gully Erosion: Sheet and Rill erosion generally occurs on cropfields or overgrazed pastures and corrals. Gullies can occur from these same conditions, or can be caused by natural occurrences, such as from burrowing animals.

Pastures	**Yes**	**No**
Upon close inspection, is bare soil visible in pastures?		
At a distance of 20 feet, can you distinguish small objects such as roots and cow pies?		
Are there gullies or headcuts in pastures?		

Crop Fields	**Yes**	**No**
Do crop fields have rill or other signs of surface erosion?		
Are crop fields clean cultivated so that all plant residue is tilled under?		
Road Erosion		
Do ranch roads show signs of surface erosion such as rills or gullies?		
Are there any gullies caused by unprotected culverts?		
Are drainage ditches eroding?		
Do road surfaces consist of bare soil?		

Other types of erosion noted:

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Suggestions for correcting problems indicated by yes answers above:

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Nutrients and Pathogens

Pollution from animal waste: This generally occurs where animals congregate or are confined, or where animals have access to creeks. Nutrient pollution problems are best evaluated during the rainy season when water testing can be used to locate problems.

Pollution from animal waste	**Yes**	**No**
Are there possible sources of nutrients and pathogens from direct animal access to creeks?		
Are feeding areas, water troughs, or salting areas near creeks?		
Are manure stock piles located where runoff could flow into creeks?		

Locations of problem areas:

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Other types of animal waste pollution noted:

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Suggestions for correcting problems indicated by yes answers above:

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Riparian Areas

Condition of Creek and Streams: Riparian areas are sensitive to damage from livestock. Livestock should be excluded from or carefully managed in riparian areas. Condition of riparian areas can be evaluated at any time of the year.

Condition of Creek and Streams	**Yes**	**No**
Do creek banks lack good cover of grasses trees and shrubs?		
Are creeks exposed to full sun?		
Is there excessive growth of algae in creeks?		
Are creek banks actively eroding or trampled?		
Do livestock have access to riparian areas?		
Is there cattle exclusion fencing?		
If cattle fencing exists is it for seasonal exclusion?		
Do livestock congregate in riparian areas?		
Are waterway crossings secure and bermed?		
Are water troughs located away from riparian areas?		

Describe cattle grazing seasonality (which seasons, how long, cattle density, trigger to let cattle in riparian area):

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Vegetation types in riparian areas (full riparian, sporadic riparian, wetland, grasses, bare dirt):

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Location of problem areas:

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Other types of degradation observed in riparian areas:

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Suggestions for correcting problems indicated by yes answers above:

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Mercury

Properties in the Walker Creek watershed, downstream of the Gambonini Mine, have mercury laden sediments in the depositional (floodplain) zone adjoining the creek. Mercury-laden sediment from bank failure, sheet, rill, and gully erosion can disperse into the water column where it can be re-suspended or can be

transformed by certain microorganisms into methylmercury, a highly toxic form that builds up in fish, shellfish, and animals that eat fish. Additionally, many deposits on the floodplain can also produce methylmercury. As well as performing the assessments for erosion and sediment sources, nutrients and pathogens, and riparian areas, landowner/operators in the Walker Creek watershed, downstream of the Gamboninini mine, are required to assess their land management practices to evaluate the potential for mercury and methyl mercury pollution.

Mercury	**Yes**	**No**
Is irrigation runoff unmanaged?		
Are creek bank's sections unstable?		
Are structures that collect sediment a potential source of methyl mercury?		
Could buffer zones potentially produce methyl mercury?		
Could off-site water supply/storage facilities increase methyl mercury production?		

Locations of problem areas: _____
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Suggestions for correcting problems indicated by yes answers above:_____
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Ranch/Farm Site Map