4.12 Aesthetics and Visual Resources

4.12.1 Impact Criteria and Methodology

Marin County has established significance criteria for visual impacts. Using these criteria, this analysis evaluates the project's potential to alter the visual character of the project area. An alternative would have a significant impact on visual resources if its implementation would result in the following:

- Be out of compliance with county goals and policies related to visual quality;
- Significantly alter the existing natural viewsheds, including the natural terrain or vegetation;
- Significantly change the existing visual quality of the region or eliminate significant visual resources;
- Significantly increase light and glare in the project vicinity; or
- Significantly reduce sunlight or introduce shadows in areas used extensively by the public.

Visual impacts were assessed by estimating the amount of visual changes introduced by project components, the degree to which visual changes could be visible to surrounding viewers, and the general sensitivity of the viewers to landscape alterations. Visual changes are typically measured using three factors: The amount of visual contrast that a particular project component may create (e.g., changes to form, line, color, texture, and scale in the landscape); the amount of view obstruction (i.e., loss of view); and degradation of a specific scenic resource (e.g., construction of a facility that blocks views of the ocean).

4.12.2 Riparian Alternative

Significant Impacts

Impact 4.12.1: Alteration of Terrain and Water

During and after project construction, immediate impacts would include significantly altering the terrain of the lagoon by changing the lagoon shoreline at Pine Gulch Creek Delta and Dipsea Road and along Highway 1; immediate impacts would also include changes in water flow, volume, location, and possibly color all through the lagoon. No mitigation has been identified for this impact.

Mitigation 4.12.1: no feasible mitigation has been identified for this impact.

Impact 4.12.2: Short-Term Changes in Vegetation

The Riparian Alternative would remove over 100 acres of upland habitat, including all the vegetation on Kent Island, but would retain the mature trees in the PGC Delta. This would significantly change the view from the eastern and northern shores of the

lagoon, as well as from viewing locations along Highway 1 and along the hiking trails on Bolinas Ridge. While the impact would be less than that under the Estuarine Alternative because the mature trees in the PGC Delta would be left in place, this would be a significant impact under Marin County Guidelines. No mitigation has been identified for this impact.

Mitigation 4.12.2: no feasible mitigation has been identified for this impact.

Impact 4. 12.3: Long-Term Changes in Vegetation

Compared to the No Action Alternative in 2058, the Riparian Alternative in 2058 would result in there being 100 fewer acres of upland, 34 acres more of intertidal habitat, and 82 acres more of subtidal habitat. The long-term effects of the changes in vegetation under the Riparian Alternative would be less than from the Estuarine Alternative because the riparian vegetation in the PGC Delta would be left in place and would continue to mature. No mitigation has been identified for this impact.

Mitigation 4.12.3: no feasible mitigation has been identified for this impact.

Significant but Mitigable Impacts

Impact 4.12.4: Light and Glare

Because lagoon sediment is scheduled to be excavated around the clock, the dredge would require night-time lighting. The project area has very little artificial light, and thus the light or glare may constitute a significant impact.

Mitigation 4.12.4: This impact would be mitigated by the use of shielding, which would direct the light downward to the work area. Implementing this measure should reduce light and glare impacts to a less than significant level.

Impact 4.12.5: Changes to Existing Visual Quality of Water

The excavation in the lagoon would be likely to produce turbid water in the area of excavation and around the disposal scow in Bolinas Bay.

Mitigation 4.12.5: This impact would be mitigated by the use of a hydraulic suction dredge and siltation screens at the dredging site and dredge scow. Implementing this measure would reduce visual quality impacts to a less than significant level.

Impact 4.12.6: Changes in Terrain

As discussed in Section 4.4, potential significant impacts on the lagoon include bluff erosion on the west bank of the inlet channel from increased tidal prism and increased water velocity through the inlet. Additionally, increased velocity of water through the lagoon inlet could have a detrimental effect on Bolinas Beach and Stinson Beach on either side of the inlet. Such changes would constitute a substantial and permanent change to existing terrain.

Mitigation 4.12.6: As discussed in Section 4.4, the impact on the bluffs would be mitigated by placing protection structures at the base of the bluff. The rate of erosion would be monitored to determine whether mitigation is warranted. Impacts to the beaches could be mitigated by replacing any lost sand.

Less than Significant Impacts

Changes to Existing Visual Quality

The presence of powered machinery, even the relatively small dredge being considered for the project, would interfere with the visual environment of Bolinas Lagoon. However the dredge is likely to be no more than 30 feet long and in certain locations may not be noticeable from the shore of the lagoon. Stinson Beach residents are unlikely to see the dredge while it is operating at the north end of the lagoon, while Bolinas residents may not see the dredge when it is operating at the far southeast end of Bolinas Lagoon. Dredging the South Lagoon Channel would have the most impact on Stinson Beach residents, and that period is estimated to last only 30 days in total. Residents with views overlooking the lagoon from Bolinas Ridge may see the dredge but at such a distance it would not have a significant impact on their enjoyment of the lagoon's viewshed. In addition, dredging would take place for a total of 290-300 days over nine years, for no more than three months out of any given year.

Visual impacts on recreation from the dredge are similarly not significant. Passersby along Highway 1 may find the dredge an interesting sight rather than a negative impact. Kayakers may find their enjoyment of the lagoon environment disrupted by the presence of the dredge, but as noted above, the dredge would not always be visible from all areas of the lagoon, and its presence would be limited to no more than three months of the year.

Standard land-based machinery would be used to remove vegetation and excavate upland areas at Kent Island, PGC Delta, the Highway 1 fills, and the Dipsea Road fills. Although a great quantity of material would be removed, the volume is less than would be taken out by dredge, and the land-based machinery is not expected to be in use for long, compared to the rest of the project. As the machinery's presence would be only temporary, any visual impacts would be insignificant.

The presence of the black, green, or red disposal pipeline across the natural environment of the Stinson Beach sand spit may be an impact on recreational users of the beachfront along the spit. As the pipeline would be in place for up to three months of the year for nine years, this could be considered a significant impact. This impact could be minimized by burying the pipeline in the sand or by using a pipeline that is a less obtrusive color in a beach environment.

While watercraft are frequent in Bolinas Bay, these are usually small recreational boats or fishing craft. The scow and tugboat might be perceived as out of keeping with the recreational/natural feel of the oceanside viewshed, but the scow would be anchored

well out of the surf zone and would be in place for only three months of the year. It would not be a prominent element of the viewshed from the beach because it would be in the background of swimmers, surfers, and kayakers. Travelers on Highway 1 above Stinson Beach may find the scow a disruptive element in the ocean scenery. Boaters and surfers in Bolinas Bay, who would approach the scow and tugboat more closely than viewers on the shore, might find the scow an unwelcome element in their recreational activities.

Compared to the projected length of the project period, these impacts are temporary, would be experienced only during a certain period of the year, and would not dominate the viewshed. These temporary changes would not significantly change the quality of the views or eliminate any significant visual resources.

Changes in Vegetation and Terrain

Long-term conditions of the project area are difficult to predict with accuracy, but the Corps has prepared estimates of long-term changes in the lagoon as a result of each alternative. According to the Corps, the Riparian Alternative would remove 116 acres of upland habitat, but by 2058 the lagoon would contain only 24 fewer acres of upland than in 1998. Much of the upland habitat to be removed is on Kent Island and in the PGC Delta, and vegetation is expected to reestablish itself relatively quickly in those locations, although it is not possible to identify exactly where. This alternative would increase intertidal habitat by eight acres by 2058 and subtidal habitat by 19 acres. Given the overall size of the lagoon (1,100 acres), these changes are not significant impacts to the viewshed, compared with 1998.

Consistency with Countywide Plan

Under the Marin Countywide Plan, Environmental Quality Policy EQ-2.24 requires that views of stream conservation areas (SCAs) be preserved and that "the integrity of the streamside environment should be protected." The removal of upland habitat in the PGC Delta under the Estuarine Option could be considered a violation of this county policy. However, EQ-2.26 states that "Damaged portions of SCAs should, wherever possible, be restored to their natural state." In addition, SCAs are designated along "natural watercourses" under Policy EQ-2.3, and the section of Pine Gulch Creek that would be affected by the project is not natural, in the sense that it was built up by intentional filling of the delta in the early 1900s and by sediment deposition from timber-related erosion in the upper watershed. The removal of upland habitat in the PGC Delta would further the purposes of EQ-2.26 by restoring the delta, inasmuch as possible, to its natural state; therefore, this would not be a significant impact.

Beneficial Impacts

Compared to the No Action Alternative, this alternative in the long term would maintain the diversity of vegetation, color, and form that are aesthetic qualities of the lagoon as it currently exists.

4.12.3 Estuarine Alternative

Project impacts resulting from the Estuarine Alternative would be roughly the same as the impacts identified under the Riparian Alternative, although the intensity of impact may be slightly greater in some instances because of the greater amount of excavation and vegetation removal in the PGC Delta.

Significant Impacts

The impacts of the changes in vegetation under the Estuarine Alternative would be somewhat greater than those under the Riparian Alternative because the riparian vegetation in the PGC Delta would be taken out, and there would be a delay while new vegetation filled in. Habitat acreages under the Estuarine Alternative in 2058 are expected to be roughly the same as those under the Riparian Alternative, so the expected impacts resulting from changes in vegetation in comparison to the No Action Alternative or current conditions are the same.

Less than Significant Impacts

Construction impacts unrelated to vegetation would be identical to those from the Riparian Alternative, except that there would be greater amounts of land-based machinery in the PGC Delta, which would temporarily interfere with the visual appreciation of the lagoon by kayakers and other recreationists.

Beneficial Impacts

Compared to the No Action Alternative, this alternative in the long term would maintain the diversity of vegetation, color, and form that are aesthetic qualities of the lagoon.

4.12.4 No Action/No Project Alternative

With no removal of sediment, the lagoon would begin to suffer seasonal closures within the next 50 years. This would degrade wildlife habitat and would result in open water and wetland areas evolving into mudflats and upland. Indirect changes resulting from this alternative include changes in wildlife behavior in the lagoon.

The No Action/No Project Alternative would result in the expansion of upland habitat and the reduction of intertidal and subtidal habitat throughout the lagoon, which would significantly change the aspect and the vegetation in the lagoon. The lagoon would contain 80 acres more upland by 2058 and 60 acres fewer of subtidal habitat, and as a result the visual character of the lagoon would change. Instead of broad expanses of mudflat and water, there would be more vegetation, both wetland and upland. There would be significant long-term impacts on the visual quality of Bolinas Lagoon as a result of the projected changes in lagoon habitats during the next 50 years. While the conversion of open water to mudflat or wetland to upland might not necessarily be an adverse impact on a viewer, this would be a significant change to the Bolinas Lagoon viewshed. The natural quality of the lagoon area could be significantly changed as substantial portions of the lagoon evolve into upland and wetland. Wildlife viewers

would experience changes in types and numbers of wildlife active in the lagoon as a result of the changes in habitats.

Less than Significant Impacts

Temporary closures of the lagoon would have a visual impact on the appearance of the lagoon, but these would not be significant if they were only seasonal.