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Fox Hollow NOV/13267 Order

Photo Log

Discharge Event No. 1- Observed on October 31, 2016, by City of Santa Rosa staff Clayton Jones.

Photo 1. Sediment-laden water discharged from the southwestern corner of the Site. Clayton Jones of the City of Santa Rosa oberved five discharges of sediment-laden water from the Site during his October 31, 2016, inspection. Photo was taken by Clayton Jones on October 31, 2016, facing southwest.

November 3, 2016, Regional Water Board staff (Staff) inspection- All photos taken by Devon Jorgenson.

Photo 2. This photo depicts one of the discharges locations from the Site that Staff observed during the inspection. Staff observed a lack of erosion controls on the twenty-plus acres of disturbed soil onsite, plus inadequate sediment controls that were overwhelmed during the rain event that occurred in late October, 2016. Photo was taken facing roughly west at 10:48 on November 3, 2016.

Photo 3. Conditions of the Site during the inspection. Photo depicts around one third of the Site. Staff did not observe any erosion controls in place to prevent sediment from being dislodged and discharged in storm water runoff. Sediment controls that were in place were overwhelmed and ineffective during late October, 2016, rains. Photo was taken standing adjacent and east of the preserved wetlands, facing northeast at 11:01 on November 3, 2016.

Photo 4. Conditions of the Site near the western boundary. Staff did not observe any erosion controls in place to prevent discharges of sediment. Soil was highly saturated and sediment-laden puddles of water remained on most of the Site after a couple of days of dry weather. Photo was taken facing southeast at 11:05 on November 3, 2016.

Photo 5. Conditions of the Site adjacent to the east side of the persevered wetland. In order to prevent discharges of sediment into the wetland in future rain events, the sediment controls needed to be maintained immediately. Photo was taken facing roughly south at 10:49 on November 3, 2016.

Discharge Event No. 2- Observed on November 20, 2016, by Staff- All photos taken by Devon Jorgenson on the Peterson Creek Trail adjacent to the western boundary of the Site

Photo 6. Background condition of Peterson Creek upstream of Site. Photo was taken at bridge over Peterson Creek just east of the Community Park to the north of the Site, facing northwest, at 09:02 on November 20, 2016.

Photo 7. Sediment-laden water discharged through BMPs on the western boundary of the site adjacent to Peterson Creek. Photo was taken facing southeast on November 20, 2016, at 09:25.

Photo 8. Sediment-laden water discharged offsite into a swale on the adjacent property and into a drop inlet beneath the fence in the foreground of the photo. The adjacent property is well-vegetated and was not the source of sediment in the discharge. Photo was taken facing southeast on November 20, 2016, at 09:28.

Photo 9. Sediment-laden water discharged into the drop inlet to a culvert and into Peterson Creek. Photo was taken facing west on November 20, 2016, at 09:28.

Photo 10. Sediment-laden water discharged from the southwestern boundary of the site (see orange fencing in background) to a swale on the adjacent property to the south, and into a culvert to Peterson Creek. Photo was taken facing east on November 20, 2016, at 09:13.

Photo 11. Sediment-laden water discharged from the site to Peterson Creek. Photo was taken facing southeast on November 20, 2016, at 09:13.

Photo 12. Sediment-laden water seeped through silt fencing on the western boundary of the Site as a result of highly-saturated exposed soil. Silt fencing (in the background of the photo) was breached by a large volume of sediment-laden water. Photo was taken facing southeast on November 20, 2016, at 09:22.

Discharge Event No. 3- Observed on December 15, 2016, by Staff- All photos taken by Bryan McFadin on the Peterson Creek Trail adjacent to the western boundary of the Site

Photo 13. Sediment-laden storm water runoff discharged from the Site along the western boundary at the bridge over Peterson Creek as a result of the lack of adequate best management practices (BMPs). The runoff flowed under the bridge and into Peterson Creek. Photo was taken facing southeast at 13:24.

Photo 14. Sediment-laden storm water runoff discharged from the Site along the western boundary and into Peterson Creek. The containment area was overwhelmed by the volume of water, causing it to flow over the berm and over the silt fences and into the creek. Photo was taken facing southeast at 13:25.

Photo 15. Sediment-laden storm water runoff from Site discharged into Peterson Creek. This area was also overwhelmed by the overflow of water in the containment area. Photo was taken facing southeast at 13:27.

Photo 16. Sediment-laden storm water runoff discharged from the Site into Peterson Creek along western boundary. Discharges were a result of overwhelmed BMPs and highly-saturated, unprotected soils, which allowed the water to seep under BMPs and through the bank of the creek. Photo was taken facing southeast at 13:28.

Photo 17. Sediment-laden storm water runoff overwhelmed a silt fence near the southwest corner of Site where the November 20, 2016, discharge was documented. This water flows to a swale on the adjacent property and into a drop inlet into Peterson Creek. Photo was taken facing southeast at 13:30.

Photo 18. Conditions of the Site at the time of the discharge. Note the lack of erosion controls. Photo was taken at the northern boundary of the Site facing southwest at 14:02.

Photo 19. Conditions of the Site at the time of the discharge. Note the lack of erosion controls and the stockpiles lacking coverage and berms/perimeter controls (Construction General Permit, Attachment D.B.1.b.) Photo was taken at northern boundary of project facing roughly south at 13:54.

Photo 20. Sediment-laden discharge from Site's entrance to Fulton Road. Discharge occurred due to lack of adequate BMPs on construction entrance. Photo was taken by Mr. Gary Morris of LJP Construction Services during his inspection on December 15, 2016.

Photo 21. Sediment-laden discharge from Site's entrance to Fulton Road. Discharge occurred due to lack of adequate BMPs on construction entrance. Photo was taken by Mr. Gary Morris of LJP Construction Services during his inspection on December 15, 2016.

December 20, 2016, Staff inspection- All photos taken by Devon Jorgenson on December 20, 2016

Photo 22. Gullies formed along the one of the roads on the southern portion of the project. The gullies ranged from one to two feet wide and deep along this and other roads. The gullies formed as a result of concentrated flow on the exposed soil lacking erosion and adequate sediment controls. Photo was taken facing west at 11:48.

Photo 23. Gullies formed on the slopes of the housing pads as a result of concentrated flow on the soil lacking erosion and sediment controls. Gully depicted in photo ranged from one to three feet wide and one to feet deep. Photo was taken facing roughly north at 11:47.

Photo 24. Stockpiled sediment lacked cover and a berm for perimeter control (red rectangle). As a result, the stockpile exhibited rilling. Photo was taken facing roughly north at 11:57.

Photo 25. Inadequately secured fabric on slopes of the perimeter of disturbed area allowed for rilling and sediment transport during rain events. If fabric was properly secured, water would not be allowed to flow underneath the fabric, preventing erosion and sediment transport. Photo was taken east of the preserved wetland's eastern boundary at 12:04.

Photo 26. Storm water containment area along western boundary of Site adjacent to Peterson Creek (on the other side of the orange fencing). During the inspection, the containment area was filled near capacity with sediment-laden water. During the previous rain event, the containment area was overwhelmed by the volume of storm water runoff, and water flowed onto the adjacent vegetated area and into the creek. The containment area is not properly designed per the California Storm Water Quality Association's (CASQA) BMP standards, and therefore is not sized adequately to detain the volume of runoff expected from its drainage area, and poses a threat to discharge in future rain events. Photo was taken facing northwest at 12:07.

Photo 27. Deposits of fine sediment in the flow path to the MS4 inlet represent evidence of a previous discharge. The inlet is located around 10 feet to the right of the photo. Deposited sediment and debris was observed closer to the inlet, but the lighting at the time of the photograph did not allow for a clear image. Photo was taken at 11:44.

Photo 28. The red rectangle outlines remnants of the bonded fiber matrix (BFM) that Mr. Fortney said was applied prior to the December 15, 2016, rain event. Photo was taken on the eastern-most road on the Site. Note the lack of erosion and sediment controls. Photo was taken facing south at 11:36.

Discharge Event No. 4- Observed on December 23, 2106, by Staff- All photos taken by Brendan Thompson on December 23, 2016, and photo captions were taken from Mr. Thompson's inspection memo, dated December 29, 2016.

Photo 29. Peterson Creek discharge location 1. Photo was taken at 8:36 a.m. The camera time stamp was corrected after this photo was taken. Water was running down the stream bank and causing turbidity along the left bank channel margin as shown in the photo.

Photo 30. Peterson Creek discharge location 1. It appeared that storm water was passing underneath the silt fence. This discharge location appears to correspond with discharge sampling location #1 as provided in the 12/23/16 Sampling Field Log sheet.

Photo 31. Peterson Creek discharge location 2. This discharge location appears to correspond with discharge sampling location #5 as provided in the 12/23/16 Sampling Field Log sheet. As shown in Photo 4, storm water was either passing beneath the silt fence or infiltrating and discharging at a uniform elevation on the bank of Peterson Creek. Storm water may have infiltrated and forced to emerge from the bank after hitting an impervious soil layer.

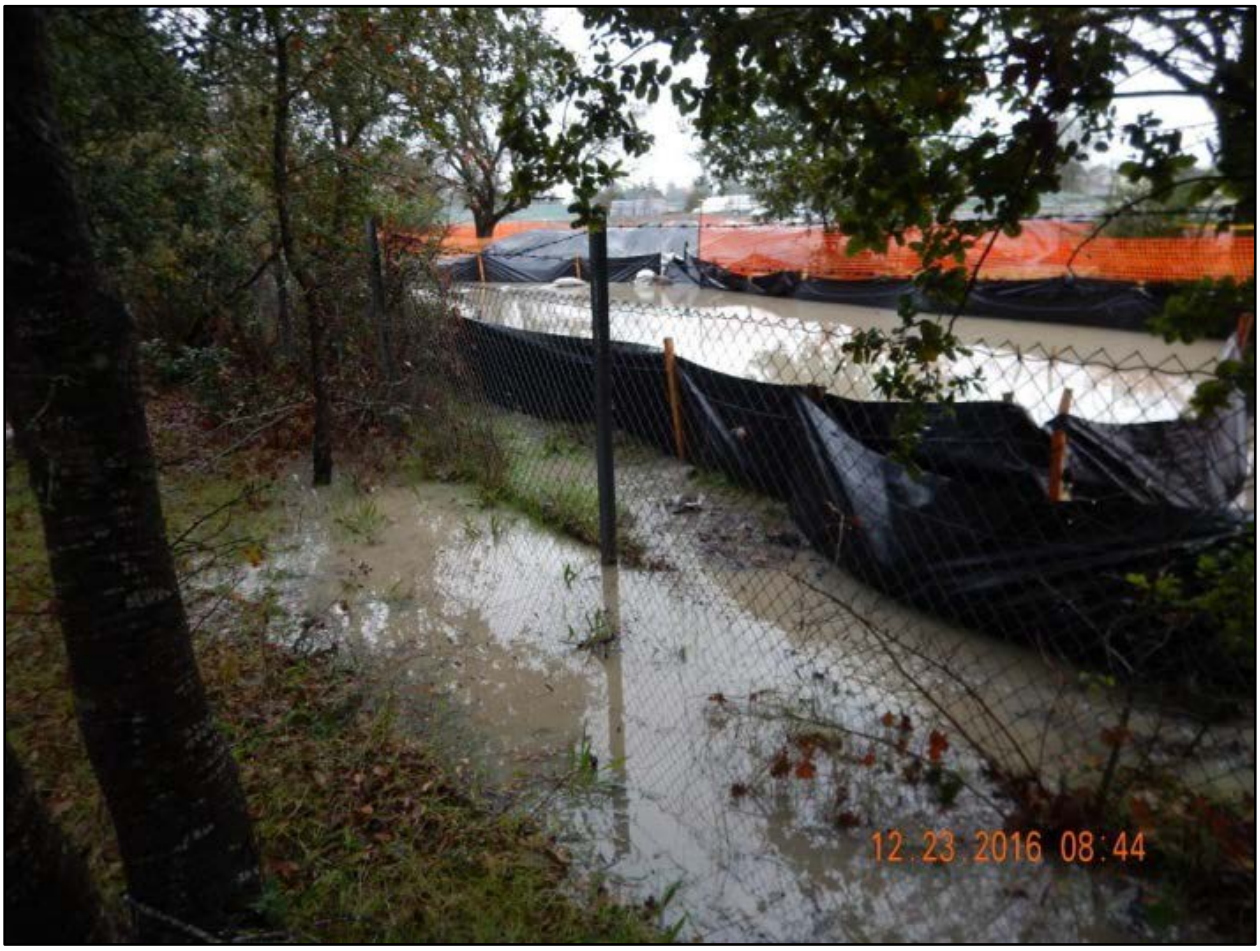

Photo 32. Peterson Creek discharge location 2.

Photo 33. Peterson Creek discharge location 3. It was unclear where or whether this discharge originated from the Project site. This outfall does not appear to be listed as a discharge location on the 12/23/16 Sampling Field Log sheet, though sampling location #4 may be in the background at the silt fence, where runoff leaves the southwest Project boundary.

Photo 34. Earthen berm covered with filter fabric. Looking north. Peterson Creek is approximately 40 feet to the left.

Photo 35. Disturbed area with hydromulch after rainfall.

Photo 36. One of the earthen basins failed and storm water was flowing into the next downstream basin. The blue line shows flow direction.

Photo 37. Photo taken within the eastern catchment. The storm water runoff on the bottom half of the photo is from areas treated with hydraulic mulch and has a green hue, unlike the water in the top of the photo, which is from areas largely not treated with hydraulic mulch. Ponded water throughout the Project area, in areas where hydromulch had been applied, had a green hue.