

June 3, 2021

Jonathan Meyer
95 Nymph
Bollinas CA, 94924

Subject: Drainage Ditch and Ornamental Pond Assessment for 95 Nymph Road, Bollinas California

Dear Jonathan,

This letter report has been provided to satisfy the Marin County Planning Department's requirement for a professional biological opinion regarding a drainage ditch and pond located at 95 Nymph Road, Bollinas, California. The Marin County planning department resources database identified a blue line representing a water course crossing the property from the east, on the northern half of the site. This review includes the observation of existing conditions and clarifies the origin and nature of the man-made drainage ditch associated with the pond within the property boundary. It additionally discusses the adjacent drainage ditches located on Nymph and Cherry Roads.

Field work was conducted on May 28, 2021 by wetland and regulatory scientist Julia King to characterize the blue line feature and the detention basin "pond" using regulatory definitions based on field observations.

Prior to field work, background research of the available databases was conducted and included the review of the following sources:

- Google Earth and Bing aerial photography - which did not reveal wetland signatures on aerial photography.
- US Geological Survey (USGS) maps – which did not indicate a drainage at this location.
- National Wetland Inventory maps – which showed no federally recognized wetlands or waters.
- Natural Resources Conservation Service (NRCS) soils maps – which did not show a blue line feature on the property.
- NEPAssist – which shows a meandering blue line on its "Streets" base map.
- California Department of Fish and Wildlife BIOS – which shows a layer matching the Streets layer in NEPAssist and is possibly the source of the Streets layer.

Field Observations

The 95 Nymph Road property gently slopes from southeast to northwest. The existing house and accessory buildings are situated in the center of the property and extensive landscaping is present surrounding the structures and extending to all the fence lines. Walking paths, sitting areas, and statuary exist throughout the ornamental gardens which support horticultural species including roses (*Rosa* sp.), sages (*Salvia* spp.), African lilies (*Agapanthus praecox*), buckbrush (*Ceanothus* sp.), golden bamboo (*Phyllostachys aurea*), ivy (*Hedera* sp.), fruit trees, and succulents (Photos 1 and 2), among others. The northern portion of the property supports some weedy, wilder vegetation including white-flowered onion (*Allium triquetrum*), upright velt grass (*Ehrharta erecta*), manroot (*Marah fabacea*), blackberry (*Rubus ursinus*), periwinkle (*Vinca major*), western buttercup (*Ranunculus occidentalis*), bristly ox-tongue (*Helminthotheca echioides*), cut-leaf geranium (*Geranium dissectum*), garden nasturtium (*Tropaeolum majus*), and others.

Drainage Ditch

An open drain ditch occurs on the property which captures stormwater during rainfall events and transports it to a detention basin in the southwestern corner (Photo 3). The ditch originates at the southern property boundary (higher elevation on the property) where it follows its constructed path to the east making a 90-degree turn to run parallel with the fence line adjacent to Nymph Road (Photo 4). In this reach, it is a square-sided, one-foot-wide feature. As the ditch nears the house, its course gently meanders through a shallow rock-lined channel that was constructed to accent the ornamental landscaping and seating areas (Photo 5). The meander veers to the west, north of the primary residence.

Detention Basin

The ditch enters the constructed detention basin which is approximately 32 feet long by 12 feet wide (approximately 300 square feet) (Photo 6). Its long side is parallel to the western fence line (Photo 7). A corrugated plastic outlet pipe in the northwestern corner of the pond drains water to the street side ditch, north of the fence line. It occurs approximately 6 inches higher than the bottom of the detention basin floor (Photo 8). The detention basin was empty during the site visit but it likely supported a few inches of rainwater during the rainy season. A water line was visible which corresponds with the elevation of the culvert pipe. The pond edges are also lined with large rocks which form a two-foot border over which African lilies, English ivy, and golden bamboo grow. Two mature weeping willow trees overtop the detention basin almost in its entirety.

Ditch and Detention Basin Characterization

The ditch is not characterized by scour or a naturally occurring configuration with its right angles and “S” turns and is clearly a man-made construct designed to preemptively

capture hillside runoff before it reaches the main residence. It was created by the former resident, prior to 2004, and is maintained by the current resident in form and function. The detention basin into which rainfall runoff collects was created to complement the intricately landscaped property and add the aesthetic value of the site without filling the pond with valuable domestic water. To further add water to the detention basin “pond,” the grey water line from the residence discharges to the southern side of the detention basin and supports the growth of scouring rushes (*Equisetum* sp.), horticultural iris (*Iris pseudacorus*), willow dock (*Rumex salicifolia*), upright velt grass, and ornamental rose (*Rosa* sp.) as shown in (Photo 9). Current gray water discharge does not result in water reaching the bottom of the basin. The basin was dry during the survey and had no signs of current saturation.

The lands to the south of the property rise only a few feet in elevation to where Nymph Road levels out approximately 60 feet from its fence line. The lands to the east rise slightly but increase in elevation for approximately 130 feet southeast from Nymph Road. The total square footage of land located above the elevation of the property is very limited in size and does not represent a water shed which is generating significant water flows even during storm events. The drainage ditch on site does not serve to collect stormwater runoff from adjacent properties. It serves to collect the sparse quantity of water which runs off the site for ornamental purposes.

Ditches Outside of 95 Nymph Road

A roadside ditch occurs to the east of the paved surface of Nymph Road immediately east of the property. This roadside ditch is confined to the east and flows north into a corrugated metal culvert pipe which undergrounds at the southeastern corner of Nymph and Cherry Roads, then daylights to the northwest across Cherry Road. The blue lines on the Streets layer of NEPAAssist are not accurate in the representation of the alignment of local roadside drainages. Drainage ditch water does not flow from the east side of Nymph Road to the west, and through 95 Nymph Road. Please see attached Photos 10 - 12.

Conclusion

The blue line shown on the Streets layer of NEPAAssist does not accurately represent existing conditions for the area. Regulatory agencies would not regulate the detention basin and drainage ditch at 95 Nymph Road as they are excavated on dry land for the purposes of draining uplands. The ornamental pond exists only due to the excavation of a shallow basin in which onsite runoff is directed and captured. In absence of the construction of the ditch and pond features, and in absence of all the development of houses in the neighborhood, water would sheet flow across the lands in this area and eventually be tributary to Alder Creek to the north. The development of the lands into subdivision requires the development of drainage systems which occur along most of the roadways in the Bolinas Mesa.

In conclusion, the drainage ditch and ornamental pond are not wetlands or waters which fall within the 100-foot set back designation within Marin County coastal areas.

Please review the attached photos which show the relevant features discussed above. Feel free to contact me with any questions regarding the drainage ditch, pond or other concern.

Sincerely,



Julia King
JK Botany and Wetland Science
14015 Murphy Ave
San Martin, CA 95046
jkbotany@yahoo.com

attachments