



# FORMER RODDY RANCH GOLF COURSE HABITAT RESTORATION AND PUBLIC ACCESS

## Alternative Concept Summary Report

### Introduction

This report accompanies the three draft alternative concepts for the former Roddy Ranch Golf Course in Antioch, California. Following the analysis of the existing conditions of the site, three separate approaches were chosen to explore alternative design options. The following descriptions provide an overview of each concept followed by a brief comparison. The preferred alternative will be developed as a refinement of ideas presented here and will be based on direction received from the East Contra Costa County Habitat Conservancy (Conservancy) and the East Bay Regional Park District (EBRPD), as well as input from the public and project stakeholders.

### Project Goals

The former Roddy Ranch Golf Course project is guided by the Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP) regional conservation and development guidelines. All concept alternatives bear in mind that “In all preserves, recreation is of secondary importance and must defer to the biological goals and objectives of this HCP/NCCP” (Jones & Stokes, October 2007). To enhance habitat and public access of the site, the following overall goals have been identified by the project partners to guide the design and evaluate each alternative.

#### Restoration Goals

- Maximize the goals of the Conservancy’s HCP/NCCP for enhancement and restoration for sensitive species and habitat creation.
- Improve function of grassland habitat.
- Restore, create, enhance and manage water resources on site (ponds and seasonal wetlands) to provide optimal habitat for wildlife.
- Support wetlands with stormwater drainage and installation of “green infrastructure.”

#### Public Access Goals

- Open the former golf course as a regional park
- Provide passive recreation opportunities while using existing infrastructure.
- Plan for eventual public access to Black Diamond Mines through trail connections, while meeting requirements for habitat protection.
- Support diversity of outdoor recreational activities, including picnic areas, interpretive opportunities, and restrooms.

### Design Considerations

Based on preliminary site studies there are a few factors to be mindful of throughout the concept alternative review process:

- Any storm drain infrastructure to remain will require frequent maintenance
- Variable annual rainfall will result in variable performance of seasonal wetlands

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- Pond 30 and 31 have the greatest potential to support breeding habitat for California Red-legged Frog (CRLF) and California Tiger Salamander (CTS)
- The drought conditions of the 2020-2021 water year did not provide the data required to refine the pond and wetland performance metrics
- Additional monitoring is required to estimate pond and wetland performance
- Significant grading to improve drainage and remove sand traps and greens is likely to occur outside the conceptual limit of disturbance as rendered on the plans
- The Habitat Conservation Plan allows up to 8 picnic tables at the staging area
- Public access is focused on passive recreation
- Potential connection points to proposed trails within the former golf course have been identified but are contingent upon additional trail planning outside of the former golf course

### Permitting

Permit requirements will be the same for each alternative, but the details in the permits will change depending on the concept. For example, the building permit may include shade structures depending on the concept. For more specific guidance on permitting see the Permitting Memo dated October 20, 2020.

### Environmental Impacts

The greatest potential impacts are associated with public access. These impacts may be permanent since the location, density and type of access could affect the long-term ecological function of Roddy Ranch. However, the change of use from a an irrigated and actively managed golf course to open space significantly improves the ecological function of the site. Active and passive restoration will further increase the ecological benefit. The three alternatives offer significant gains in ecological value once implemented.

Alternatives that limit public access at sensitive aquatic resources reduce environmental impacts the most. The HCP/NCCP guidelines stipulate trails have a 300-ft buffer away from aquatic resources that could support listed species. Each alternative addresses this in a different way although none remain fully outside the 300-ft buffer due to the adoption of existing cart paths as preferable trail alignments. It should also be noted that the three alternatives were not organized to represent the spectrum of ecological impact. The alternatives acknowledge public access as a component of the project and with that will come some level of environmental impact. Each alternative looks to address the type and location of access and restoration to provide a greater understanding of the options that might achieve all the project goals.

Active restoration will result in temporary impacts due to grading activities, demolition of infrastructure and reconfiguration of ponds and basins. Although Alternative B “Roddy Ranch Reuse” has the potential to have the lowest temporary impact, the degree of temporary impacts associated with restoration is less important than potential impacts of public access. Temporary impacts of restoration will result in greater long-term ecological benefits compared to leaving the site in its current state.

In addition to the proximity of trails to aquatic resources, other elements considered during the development of the concept alternatives that may affect ecological function include, the extent of trails across the property, the sustainable design of the trails, and the footprint of

public access elements. A more detailed evaluation of potential environmental impacts will occur during the CEQA process.

### **Concept A: Welcome the Wetlands**

With a focus on maximizing aquatic habitat, this concept enhances drainage channels, ponds and basins while providing inner and outer multi-use loop trails throughout the site.

#### Restoration

This concept maximizes wetland habitat and drainage channels. Infiltration of runoff encourages shallow groundwater recharge that will slowly provide water to wetlands at the base of the slope through lateral migration. Infiltration also reduces the amount of surface flow that otherwise could result in gully erosion down the many unstable drainages. Ponds 30, 31, and 32 will be restored to target CRLF and CTS habitat. Concept A showcases the creation of vernal pools, which can support a suite of native species often endemic to this unique wetland type, including vernal pool fairy shrimp and endemic plant species (Nomad Ecology, 2021), (RDG, 2021).

To maximize grassland habitat and to restore open vistas and natural topography, existing golf course infrastructure is actively demolished and removed, and sand traps and artificial golf course grading is re-naturalized. In addition, a bioretention facility is included within the existing parking lot to treat surface runoff prior to entering Pond 33.

#### Public Access

With the deliberate preservation of views across the site at the entrance, this concept provides the most “open space” visitor experience. Amenities, such as restrooms, drinking fountains, picnic areas and interpretive elements defer to the views and are tucked to the side. Once on the trails, visitors are guided through a variety of features at the top and bottom of the site. A future trail connection to Empire Mine Road acknowledges the potential use of this road as an important connection to adjacent public lands and preserves beyond. Restoration sites in Drainage Areas 1 and 7 are not accessible by trail, fully setting aside these drainages for habitat enhancement and conservation. The picnic area is concentrated to one area with views to the north and sheltered from the prevailing wind. This area takes advantage of existing trees to provide shade. An overlook provides visual access across Pond 30, along the trail connection to Empire Mine Road. This overlook provides a location for the public to connect, engage and become familiar with habitat types that support sensitive species.

### **Concept B: Roddy Ranch Reuse**

With the intention of maximizing value, this concept reuses as much existing infrastructure as possible. With the remains of the former golf course intact, visitors can appreciate various aspects of the site’s former history.

#### Restoration

Lower drainages are restored while the upper drainages are left within the existing storm drain system. Leaving the steeper and more erosive upper watershed within the storm drain keeps a functioning system in place, but at the expense of the potential water quality and habitat benefits of restoring this natural drainage network. This approach lends itself to a

phased sequencing of hydrologic restoration. Upslope drainages can be restored in the future with the benefit of insight from ongoing monitoring of restored lower drainages.

Ponds and basins are minimally improved to enhance ecological function and slope stability. One potentially large new vernal pool can be created at the base of Drainage 7 by using an existing depression created for the golf course.

#### Public Access

In this alternative, existing golf cart paths are extensively reused for trails and picnic areas are concentrated to the disturbed area of the former golf clubhouse. The existing clubhouse deck currently provides an elevated vantage point of the site. This alternative reconfigures this promontory as a large gathering area and interpretive hub under a large shade structure. Sand traps and some remnant infrastructure are generally left as they are so visitors can understand the change of recreation use while learning about conservation and restoration efforts of the site. Interpretive elements can educate visitors about ongoing restoration efforts and land-use of the site through time. This approach works well to slowly implement changes and welcomes visitors to contemplate a landscape in flux along with broader questions of conservation and development.

#### **Concept C: Focus on Flow**

Focusing on the opportunity of water, this concept concentrates surface flows to fewer wetlands and provides users with multiple routes to move through the site. Recreation and access are approached in a way to limit user conflicts and allow for a wider variety of experiences on site.

#### Restoration

Historic flow paths are favored here. Water is kept on the surface as much as possible. This requires more intensive grading to ensure the restored channels and swales can convey stormwater in a stable manner. In most instances this does not require regrading to pre-golf course conditions, however this option will require the greatest amount of earthwork of the three alternatives. With this approach the upfront cost of regrading the channels to improve stability is rewarded by reducing the long-term costs to maintain the storm drain system or fix unstable channels on-site. A bioretention facility is installed to treat surface runoff from the parking lot.

#### Public Access

With the most extensive trail network of all the alternatives, this concept provides the most dynamic public access to the site and the potential to connect to future offsite trails in three locations. With multiple routes, the trail network also provides the opportunity for seasonal trail closures to avoid nesting birds or other sensitive species. To minimize user conflicts, segments of multi-use trails are designated for uphill/downhill bicycle use. This option clusters picnic tables with shade structures adjacent to a central gathering area to host a variety of group sizes.

## Concept Alternative Comparison

RDG has taken three distinct approaches to designing for habitat restoration and public access at the former Roddy Ranch Golf Course. The lists below describe some of the main differences between the alternatives.

### Concept A Distinguishing Characteristics:

- Focuses on habitat creation aligns with conservation goals
- Vernal pool complexes are a prominent feature, though additional assessments are required to refine their composition and quantity
- Amenities are nested off to the side, preserving open views at the entry
- A central gathering and interpretation area are located by existing trees at the southwestern corner of the parking lot
- The picnic site is out of view from the parking area and has views to the north
- No shade structures are provided
- Two trail loops through the site
- Formalizes a trail connection to Empire Mine Road with an overlook at Pond 30.
- Promotes a more open feel and natural experience with the re-naturalization of topography and removal of the much of the golf course infrastructure

### Concept B Distinguishing Characteristics:

- Phased approach to channel restoration minimizes upfront construction costs
- Most cost-effective trail construction as trails are reused as much as possible and entry disturbance is limited
- Maintenance costs will be higher to maintain existing storm drain network
- Two picnic areas with one large shade pavilion located at the former clubhouse deck
- Multiple trail loop permutations including a short (0.4 mi) loop to a nearby viewpoint

### Concept C Distinguishing Characteristics:

- Restoration to historic hydrologic flows, less infiltration, and more daylighting
- Most extensive trail network with 1.4 miles of uphill/downhill bicycle trail designation on multi-use trails
- One large picnic area with smaller shade structures for groups of various sizes
- A central gathering area located at trailhead for easy wayfinding
- An area set aside for a future demonstration garden at parking lot

#### Restoration Comparison Matrix

Restoration Features	Concept A	Concept B	Concept C
<b>Channel Restoration / Creation / Enhancement</b>	2.7 mi	1.8 mi	3.0
<b>Infiltration Areas</b>	9	7	0
<b>Vernal Pools</b>	17	1	0
<b>Regraded channel entry into basin</b>	5	3	6
<b>Bioretention Basin</b>	In Parking Island		Downslope
<b>Regrade Sand Traps to Natural Topography</b>	Extensive	Limited	Moderate

#### Public Access Comparison Matrix

Public Access Features	Concept A	Concept B	Concept C
<b>Accessible Multi-use Trail Length</b>	1.3 mi	1.0 mi	1.5 mi
<b>Multi-use Trail Length</b>	1.7 mi	2.2 mi	3.0 mi
<b>Total Trail Length (including trails to overlooks &amp; viewpoints)</b>	3.0 mi	3.2 mi	4.5 mi
<b>Pond Overlooks</b>	1	1	0
<b>Shade Structures</b>	0	1 large	3-5 small
<b>Boardwalks/Bridges</b>	6	2	7
<b>Viewpoints</b>	2	4	3
<b>Potential Future Trail Connections</b>	2	2	3

Restoration Cost Comparison

Restoration Costs	Concept A	Concept B	Concept C
<b>Pond Restoration</b>	\$\$\$	\$\$	\$\$
<b>Basin Enhancement</b>	\$\$\$	\$\$	\$\$
<b>Channel Restoration/Creation/Enhancement</b>	\$\$\$	\$\$	\$\$\$
<b>Vernal Pool Creation</b>	\$\$	\$	N/A
<b>Regrading/Topographic Restoration</b>	\$\$\$	\$	\$\$\$
<b>Long-term Maintenance Obligation</b>	\$	\$\$\$	\$\$

Public Access Cost Comparison

Public Access Costs	Concept A	Concept B	Concept C
<b>Trail Creation</b>	\$\$	\$\$	\$\$\$
<b>Overlooks</b>	\$	\$	N/A
<b>Gathering/Picnic Area</b>	\$	\$\$\$	\$\$
<b>Demolition</b>	\$\$\$	\$	\$\$

## References

Jones & Stokes. (October 2007). *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan*. San Jose, CA.

Restoration Design Group. (2020). *Drainage Network Inventory & Assessment*.

Restoration Design Group. (2021). *DRAFT - Restoration Opportunities Memorandum*.

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