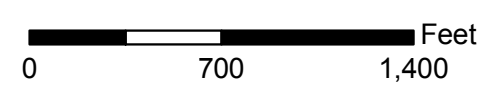


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SOURCE: DIGITALGLOBE 2008.

- | | | | | |
|---------------------|--------------------|---------|------------------------------|--|
| Buck Gully Boundary | Bobcat Trail Kiosk | Bridge | Proposed Trail Map | Spur 0.09 mi/0.15 km |
| Bridge Trail Kiosk | Viewparks | Culvert | Bobcat Trail 2.27 mi/3.66 km | Public Sidewalk |
| | | | Bridge Trail 1.05 mi/1.69 km | Southern California Edison Access Routes |

DUDEK



Buck Gully Reserve - Resource & Recreation Management Plan
Proposed Trails Map

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Buck Gully Reserve Resource and Recreation Management Plan

2.5.2 Urban Edge Effect

The BGR is surrounded by single-residential homes, a golf course and arterial transit roads. Due to the high residential and urban surrounding, urban edge effects have the potential to cause impacts to BGR resources. Urban edge effects into habitat areas are the primary result of habitat fragmentation and can have a substantial negative effect on biological resources. A quarterly report conducted from April 1–September 30, 2006, by the USGS (September 2006), reveals the effects of habitat fragmentation on bobcats within Orange County, California. During this study, 10 bobcat carcasses were found, and the cause of death for all cases was due to vehicular strikes.

Urban edge effect impacts can be directly related to anthropogenic causes, while others may be a result of natural disturbances. Human-related edge effects include increased lighting, noise, moisture, invasive plants, pesticides and pollutants, pets and feral animals, unauthorized public access, fire (accidental and intentional), species collection, vegetation trampling, and trash. Fires are most likely to occur along roadsides and at urban-wildlife interfaces within the BGR. A human-induced fire as a result of accidental or intentional reasons has a much greater impact on biological resources than those listed above because of the potential to spread rapidly. Many residential yards have direct contact with the BGR and; therefore, potential fire impacts are much greater.

Urban edge effects may also result in natural disturbances to biological resources and include increased exposure to sun, wind, and changes in soil ecology. These natural disturbances can greatly alter vegetation community's composition and wildlife species habitat range.

The best way to reduce these and other urban edge effects is to educate members of the public who live adjacent to the BGR about the effects of human disturbance on habitat and wildlife and explain the ways they can reduce impacts to the BGR and why there is a concern. The City should enforce compliance of accepted fuel modification and hazard reduction landscape plans and promote revegetation of bare areas with low fire-risk natives.

2.5.3 Invasive Plant Species

Invasive species degrade existing native habitats and reduce biodiversity by outcompeting native plants for resources and habitats. Invasive plant species within the BGR have potential to impact existing vegetation communities as a result of adjacent development of single-family residences and associated roadways to the north, east, south, and west; a golf course located to the west and recreational trails in the north-central portion of the BGR. Primary exotic plants of concern include black mustard, artichoke thistle, and myoporum. Other secondary exotics resulting from

Buck Gully Reserve Resource and Recreation Management Plan

disturbances listed above include pampas grass, milk thistle, castor bean (*Ricinus communis*), garland chrysanthemum and wild fennel.

Black mustard and artichoke thistle. Black mustard dominates the ruderal areas of Buck Gully and is occasionally found invading annual grasslands and California buckwheat scrub. Artichoke thistle is primarily found invading the southwestern and northeastern portions of Buck Gully. From 1996 to 2000, TIC funded artichoke thistle removal program (LSA 2003) and, since then, NROC has been conducting an annual thistle spraying. However, a high density population remains dominant within the ruderal and wild rye areas of the central portion of Buck Gully.

Myoporum. The largest area of Myoporum is found within the coastal sage California buckwheat scrub. Smaller densities of Myoporum are found in lower Buck Gully in scattered areas.

Garland chrysanthemum. This species dominates the truck trails on the north side of Buck Gully, which also occurs as an ornamental landscaping species along San Joaquin Hills Road. This species has been treated annually since 1999 under NROC's HREP, but remains a threat.

Pampas grass and sweet fennel. These species occur in scattered grassland and riparian vegetation communities throughout the study area.

Areas dominated by invasive were mapped for the NROC HREP by The Nature Conservancy with a minimum mapping unit of one acre (LSA 2003). Variables collected for each polygon consisted of polygon number, access potential, erosion potential, disturbance factors, the top four dominant exotic species present, percent exotic cover value, existing native habitat, percent native cover value, and number of native species. Review of conditions is ongoing.

Additional invasive mapping efforts were conducted within the BGR by Dudek biologist Andrew Thomson, Patricia Schuyler, Travis Smith, and Vipul Joshi on May 10–11, 2007 (Figure 12). Invasive species mapped included artichoke thistle, myoporum, pampas grass, black mustard, wild fennel, castor bean, pepper tree and tree tobacco. Invasive points were recorded for up to fifty individuals and; in higher density areas with greater than 50 individuals, polygons were mapped. Mixed non-native polygons included a variety of invasive species that were greater than 50 individuals. Artichoke thistle and wild mustard heavily dominated annual grassland and ruderal communities and were recorded as having the highest population sizes within the BGR. Polygons for artichoke thistle were recorded and included densities of 1 to 99 individuals, 100 to 4,999 individuals, and greater than 5,000 individuals within a polygon.

Chambers Group conducted additional invasive mapping on November 1–2, and November 18, 2005, (Figure 12). Invasive species mapped included artichoke thistle, Brazilian pepper tree

Buck Gully Reserve Resource and Recreation Management Plan

(*Schinus terebinthifolius*), castor bean, ice plant (*Carpobrotus chilensis* and *Carpobrotus edulis*), myoporum, pampas grass, pride of Madeira (*Echium candicans*), and wild fennel. Invasive points were recorded for individual occurrences of species and larger densities of mixed non-natives, ice plant, myoporum and pampas grass were mapped as polygons.

Figure 12 illustrates the distribution of invasive species within the BGR recorded by Chambers Group and Dudek.

2.5.4 Water Quality

Surface water quality within Buck Gully has experienced increased degradation in recent years as a result of streambed instability (head-cutting and slope failures), the establishment of invasive plant species, and the loss of native wetland and riparian habitats. The effect of these factors and over-irrigation from upstream developments has been the "perennialization" of Buck Gully Creek. The contribution of bacteria, fertilizer, and pesticides to dry-weather flows forced the Santa Ana RWQCB to place Buck Gully on the draft 303(d) List of Impaired Water Bodies for total coliform and fecal coliform in 2006. In addition, the coastline located at the mouth of Buck Gully was placed on the 303(d) list for trash.

In order to address the destabilization and degradation of the coastal canyons within the Newport Coast watershed; the County, the City of Newport Beach, and other collaborators have developed the Central Orange County IRCWM Plan for the Newport Coast as an organizing tool for future activities (Dudek 2007). Based on the City's LCP (2005), which included directives and measures to control erosion and urban runoff to protect marine water quality, this watershed management program identified a project within Buck Gully to reduce sediment loads, improve water quality, and reduce erosion through the construction of a wetland treatment system, grade control structures, and bank stabilization, as mentioned above in Section 1.3.5. Buck Gully, along with Los Trancos Canyon and Muddy Canyon, were identified as natural habitat areas where runoff should be directed to protect marine water quality. Erosion control techniques to slow runoff and protect these natural drainage courses from excessive flows above natural rates have been a recent priority. To support this effort, a flow and water quality assessment was performed by Weston Solutions (2007) to evaluate the extent and magnitude of the current and potential problems within the watershed. Results of the study revealed the most common constituent that exceeded water quality standards was bacteriological indicators followed by cadmium. Additional non-point source controls may be implemented as necessary to comply with State, regional, and County standards.

Buck Gully Reserve Resource and Recreation Management Plan

2.5.5 Habitat Fragmentation

The NCCP recognizes two main effects of habitat fragmentation on ecosystem functions including the reduction in total habitat area which results in an effect on population sizes and extinction rates, and in the remaining area to be redistributed into fragments which affects dispersal and immigration rates.

Upper Buck Gully is a designated habitat linkage within the Coastal NCCP Reserve. Coyote Canyon extends northward from Buck Gully, providing linkage to a narrow southeast-northwest corridor through the San Joaquin foothill that links Upper Newport Bay and the main body of the Coastal Reserve. Upper Buck Gully is connected to Crystal Cove State Park and thence to the main body of the Coastal Reserve, via the Pelican Hill Golf Course Special Linkage Area that extends to the southeast. The upper part of Morning Canyon is within this Special Linkage Area (County of Orange 1996).

Management to address habitat fragmentation effects includes habitat restoration, control of edge effects, and management of habitat linkages and wildlife corridors to maximize the likelihood of continued dispersal and movement.

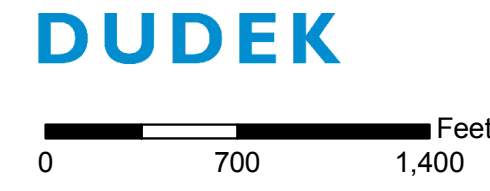
2.5.6 Existing Fuels and Fire Hazards

Based on the vegetative cover, topography, fire history, and regional climate, a wildfire threat to adjacent homes and habitats within the BGR exists. The topographic alignment of the BGR and climatic conditions of the region can have considerable effect on wildland fire behavior, the impact of fire on existing habitats, and on the ability of fire fighters to suppress wildfires. The slope and canyon alignments within the BGR are conducive to channeling, deflecting, concentrating, or dispersing winds, and creating extremely erratic wildfire potential, especially during off-shore, Santa Ana conditions. Additionally, while wildfire is a potential threat to adjacent structures, the proximity of urban development also increases the risk for ignitions in the reserve itself. Finally, fire history data can provide an understanding of fire frequency, fire type, vulnerability, and potential ignition sources. According to a review of available historical fire perimeter data (FRAP 2008), there have been no recorded fires in the BGR in the period between 1910 and 2008. The closest large fire burned to within 200 feet of the eastern-most portion of the BGR in 1993 (Laguna Fire).



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Buck Gully Boundary	Ice Plant	Chambers 2005 Invasives	Dudek 2007 Invasives	Pepper Tree	Dudek 2007 Invasives	Vegetation	DEV=Developed Land	SCS=Southern Cactus Scrub
Chambers 2005 Invasives	Myoporium	Mixed Non-Native	Artichoke Thistle	Pulicaria	Artichoke Thistle 1-99	AGL=Annual Grassland	DH=Disturbed Habitat	SMC=Southern Mixed Chaparral
Artichoke Thistle	Pampas Grass	Iceplant	Canary Island Date Palm	Salt Cedar	Artichoke Thistle 100-4,999	CBS=Coyote Brush Scrub	dMEW=Disturbed Mexican Elderberry Woodland	SOC=Scrub Oak Chaparral
Brazilian Pepper Tree	Pride of Madeira	Myoporium	Castor Bean	Tree Tobacco	Artichoke Thistle 5,000	CBSS=California Buckwheat Sage Scrub	MEW=Mexican Elderberry Woodland	SRW=Sycamore Riparian Woodland
	Wild Fennel	Pampas Grass	Myoporium	Wild Fennel	Mixed Non-Native	CSCB=Coastal Sage California Buckwheat Scrub	NGL=Southern Coastal Needlegrass Grassland	SSG=Sage Scrub Grassland
			Pampas Grass	Black Mustard	Myoporium	CSMF=Coastal Sage Monkeyflower Scrub	ORN=Ornamental	SWS=Southern Willow Scrub
					Black Mustard	CSS=Coastal Sage Scrub	RUD=Ruderal	TSC=Toyon Sumac Chaparral
						CSS/GRASS=Coastal Sage Scrub/Grass	SBCB=Sagebrush Coyote Bush	WR=Wild Rye



Buck Gully Reserve - Resource & Recreation Management Plan
Invasives Map

FIGURE 12

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Buck Gully Reserve Resource and Recreation Management Plan

Vegetation distribution throughout the BGR varies by location and topography. Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (leaf size, branching patterns), and overall fuel loading. For example, fire burning in grasslands may exhibit shorter flame lengths than those burning in CSS; however, fire in grasslands often spreads more rapidly than fire in other vegetation types.

Wildfire disturbances can also have dramatic impacts on soil stability, individual plants, and plant composition, including exotic species invasion. Heat shock, accumulation of post-fire charred wood, and change in photoperiods due to removal of shrub canopies may all stimulate seed germination. The post-fire response for most species is vegetative reproduction and stimulation of flowering and fruiting. The combustion of aboveground biomass alters seedbeds and temporarily eliminates competition for moisture, nutrients, heat, and light. Species that can rapidly take advantage of the available resources will flourish.

Another critical factor to consider is the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes affects plant community succession. Succession of plant communities, most notably the gradual conversion of shrublands to grasslands with high frequency fires and grasslands to shrublands with fire exclusion, is highly dependent on fire regime. With the lack of natural fire disturbance or manual fuel reduction efforts, it is assumed that biomass and associated fuel loading will increase over time. Currently, fuel load reduction efforts within the BGR are limited to the fuel modification zones (FMZs) adjacent residential development that abuts the reserve.

2.5.7 Erosion

Steep slopes, particularly areas without vegetation, are susceptible to threats and impacts of erosion. Erosion is the process by which soil particles are displaced and transported by wind or water, occurring naturally from weather or runoff (LSA 2006). The BGR topography is characterized by a relatively narrow floodplain zone bordering Buck Gully Creek on either side, with moderately steep slopes to the north and south. Portions of the BGR exhibit steeper slopes, exceeding 50%, while the remaining slopes within the BGR average between 20% and 35%. Slope aspect varies significantly throughout the BGR, directly affecting vegetation composition and local drainage patterns; and, therefore, erosion impacts. The threat of erosion within the BGR is significant. Potential impacts resulting from erosion include:

- Increased sedimentation within Buck Gully Creek and its tributaries
- Degradation of surface water quality (i.e., increased turbidity)

Buck Gully Reserve Resource and Recreation Management Plan

- Reduction in soil productivity and water-holding capacity
- Alteration of natural drainage patterns
- Increased periodicity, volume, and velocity of storm water runoff
- Loss of ecosystem value as a result of habitat type conversion
- Degradation of public resources resulting in hazardous conditions for hikers, bikers, and equestrian users
- Reduction in scenic value as a result of increased barren areas.

In order to reduce the impacts of erosion within the BGR barren areas should be revegetated with native vegetation. This would minimize erosion throughout portions of the BGR and reduce impacts to riparian habitat and water quality to the Buck Gully Creek.

Buck Gully Reserve Resource and Recreation Management Plan

3.0 PUBLIC ACCESS AND RECREATION MANAGEMENT

3.1 City of Newport Beach Management Goals

A variety of diverse, valuable and sensitive biological resources occur within the City of Newport Beach. The City has a long established history of sustainable development through the efficient use and conservation of its natural resources. Newport Beach has had a Recreation and Open Space Element since 1973 and was most recently amended in 1998.

The City of Newport Beach has several undeveloped areas that support various habitats and numerous biological resources that are referred to as ESAs by the local Coastal Plan. There are 28 identified ESAs within the City including the BGR. Additionally, the City is comprised of open space resources that consist of undeveloped areas such as the ESAs, the Newport Bay, and the Newport Harbor. Other resources include the City's undeveloped canyons and hillsides located primarily in the Newport Coast area. Some of these resources are not preserved as parks or dedicated open spaces; however, local, state, and federal regulations help protect, preserve, and restore lands containing hillsides, sensitive biological resources, coastal beaches, and sensitive coastal bluffs.

The City proposed General Plan includes broad goals that encompass preservation of the land and recreational amenities for the residents:

Goal NR 10, Protection of sensitive and rare terrestrial and marine resources from urban development.

Policy NR 10.8, Standards for Buck Gully and Morning Canyon – Prepare natural habitat protection regulations for Buck Gully and Morning Canyon for the purpose of providing standards to ensure both the protection of the natural habitats in these areas and of private property rights. Include standards for the placement of structures, native vegetation/fuel modification buffers, and erosion and sedimentation control structures. (Imp 2.1, 6.1)

Policy NR 23.6, Canyon Development Standards – Establish canyon development setbacks based on the predominant line of existing development for Buck Gully and Morning Canyon. Do not permit development to extend beyond the predominant line of existing development by establishing a development stringline where a line is drawn between nearest adjacent corners of existing structures on either side of the subject property. Establish development stringlines for principle structures and accessory improvements. (Imp 2.1, 6.1)

Buck Gully Reserve Resource and Recreation Management Plan

The City has historically been sensitive to the need to protect and provide access to these scenic resources and has developed a system of public parks, piers, trails, and viewing areas.

3.2 Adaptive Management

The Central and Coastal Subregion NCCP/HCP defined adaptive management as "a flexible, iterative approach to long-term management of biotic and abiotic resources that is directed over time by the results of ongoing monitoring activities and other information." This NCCP conservation guideline was adopted by the CDFG in 1993 and incorporated into the Section 4(d) Special Rule (Special Rule) for the coastal California gnatcatcher which recommended that an "adaptive management" plan take place. The conservation guidelines implemented are necessary to maintain the net long-term habitat value of the Reserve System. The following guidelines contribute to the maintenance of the Reserve and are discussed in Section 5.2 within the Central and Coastal Subregion NCCP/HCP. These include:

- Monitoring and associated adaptive management of the biological resources located within the Reserve System
- Restoration and enhancement actions (other than creation of new CSS habitat) such as eradication of invasive, non-native plant species, predator control grazing management plans, construction of additional western spadefoot toad breeding sites
- Management carried out by means of short-term and long-term fire management programs within the Reserve System
- Management of public access and recreational uses within the Reserve System
- Management designed to minimize the impacts of ongoing operations/maintenance of uses within the Reserve System that existed prior to approval of the NCCP-HCP
- Assurance that permitted infrastructure uses proceed in the manner provided for in the Central-Coastal Subregion NCCP/HCP in order to minimize impacts of new uses to be allowed within the Reserve System
- Interim management of privately-owned lands for the above adaptive management elements purposes prior to transfer of legal title to permanent public or non-profit ownership within the Reserve System
- Restoration and enhancement measures through: (a) acquisition of existing CSS habitat or (b) the creation of new CSS habitat to offset potential loss of net long-term habitat value due to development of CSS habitat located outside the Reserve System by "non-participating landowners."

Buck Gully Reserve Resource and Recreation Management Plan

The overall purpose is to help maintain and, where feasible, enhance the long-term net habitat value within a subregion. The broad overall goals as defined within the Principles of Reserve Design Species Conservation and Adaptive Management (1997) for land management are as follows:

- Ensure the persistence of a native-dominated vegetation mosaic in the planning area
- Restore or enhance the quality of degraded vegetation communities and other habitat-types consistent with overall conservation goals for species and natural communities
- Maintain and restore biotic and abiotic natural processes, at all identified scales, for the planning area.

3.3 Existing Facilities

Existing facilities such as trails, trailheads, and visitor resources, provide the public with recreational and educational outlets. These facilities can include expansive trail systems, trailheads that provide educational kiosks and panoramic views, as well as educational facilities such as nature centers or community centers. The following sections recognize the existing facilities within the BGR.

3.3.1 Trails and Trailheads

The existing recreational and trail vicinities are depicted in Figure 11 for the BGR. Recreational trails outside the BGR boundary are limited to the north central portion which includes two view parks along San Joaquin Hills Road that provide panoramic views overlooking Buck Gully and an additional trail within the BGR extends along the Buck Gully Creek. This trail restricts off-trail use into heavily vegetated and sensitive areas. There are neither existing designated hiking trails nor staging areas within the BGR.

3.3.2 Visitor Resources

Currently, the BGR does not include any existing visitor resources. There are two view parks along San Joaquin Hills Road that provide panoramic views overlooking Buck Gully, but are outside of the BGR. These view parks provide parking, benches, trash receptacles, native vegetation, paved walkways and a view overlooking the Buck Gully and the City of Newport Beach.

Buck Gully Reserve Resource and Recreation Management Plan

3.4 Proposed Facilities

3.4.1 Trails and Trailheads

The BGR will potentially include one loop trail and one linear trail dedicated for public use (Figure 11). An existing trail that was created as a result of unauthorized public access would be improved to support recreational hiking and reduce current erosion issues. The trail would be established at the end of Poppy Road and extend from the west and continue east along the drainage and up the hill-top trail on the Edison access road to San Joaquin Hills Road. From there, the trail system would utilize existing public sidewalk along San Joaquin Hills Road to the east, return south to the canyon bottom via the existing access road and connect with the existing unauthorized trail back to the eastern portion of BGR. Several improvements would be required to create this sustainable trail loop including four bridges to cross Buck Gully Creek, a series of three culverts across Buck Gully Creek, erosional repairs, and trail clearing and widening.

The following trail measures shall be implemented into the proposed BGR trail system:

- Only authorized trails will be permitted. Recreational trails will be limited to existing trails and truck roads in order to minimize damage to open space resources.
- Trails shall be designated as "hiking only" or "hiking and mountain biking only."
- Trail users will be restricted to well-defined areas with off-trail encroachment into heavily vegetated and sensitive resources prohibited.
- Trails shall offer several overlook areas offering panoramic views.
- Trail use shall be prohibited for appropriate periods (usually three days) following rains greater than 0.5 inches" to avoid trail damage and impacts on adjacent habitat.
- Trail use shall be accessible during operational hours as determined by the Community Service Department.
- Any unauthorized trails will be eliminated and impacted habitat restored.
- Trail use shall be monitored through patrols to minimize off-trail use.

No official trailheads occur within the BGR. However, adjacent to the BGR are two view parks located along San Joaquin Hills Road that provide panoramic views overlooking Buck Gully. This area could serve as a main trailhead for the proposed trail system and two additional proposed trailheads could be located at the end of Poppy Road and at the eastern access road. No additional trailheads are proposed at this time.

Buck Gully Reserve Resource and Recreation Management Plan

The following are trailhead measures that shall be implemented into the proposed trailheads:

- Trail access for pedestrian use
- Kiosk/signage
- Benches.

3.4.2 Visitor Resources

Currently, there are no proposed visitor resources for the BGR aside from the three proposed visitor kiosks.

3.4.3 Fencing and Signage

It is assumed that two or three kiosks would be placed within or near the adjacent view park and at the end of Poppy Road and at the eastern access road. These kiosks would be an incorporation of the City and contain IRC logos. However, there are no additional proposed fencing and signage within the BGR. The following fencing and signage measures are to be incorporated within the BGR:

Fencing

- Trail fencing should be provided where needed to control trespass, confine users within the trail width, or for safety, such as at steep slope areas, bridges, adjacent golf courses, high traffic, and other potentially hazardous areas.
- Fences shall be made of sustainable wood, recycled plastic or concrete wood look products, steel posts and wire cable. Barbed wire is not permitted.
- Plantings such as trees hedges or large rocks can also serve as trail fencing or barriers.
- Other fencing may be acceptable as trail fencing with the approval of the City of Newport Beach Community Services Department.

Signage

- A minimum of signs shall be installed in order to control and direct visitor uses along with trail maps, route descriptions, brochures, etc.
- Signs should only be provided for visitor information, safety, and resource protection.
- They should range in size and complexity from small simple arrow directional posts at trail junctions, to regulatory signs posting open space rules as well as signs denoting resource features and points of interest.

Buck Gully Reserve Resource and Recreation Management Plan

- To protect the natural scenic quality of the natural open space areas, visitor information kiosks and signs will utilize natural earth-tone colors and natural sustainable or recycled materials.
- Additional signage shall be installed in order to indicate dog restrictions within the BGR.
- The preferred location of signage shall be at trailheads or the main entrances to open space. A signage program will be developed separately.

Signs could include entry monuments/signs, kiosk/bulletin board signs, and trail signs. Detailed trail signs can be utilized to inform trail users of trail names, destinations, directions, information of each trail, intersections, trail warnings and trail user yielding signs.

3.5 Proposed Management

Permitted public access and recreation uses are set forth in Section 5.8 of the Central-Coastal NCCP/HCP. The Reserve design was formulated with the assumption that public access, passive recreational uses, and development of future recreational facilities would be compatible with and permitted within the reserve system (County of Orange 1996). A majority of the lands that comprise the current reserve system were included by governmental agencies specifically for recreational purposes. A few areas identified on Figure 26 within the Central-Coastal NCCP/HCP were determined to support biological resources so sensitive that no access would be appropriate. The BGR was determined to support lands suitable for public access and recreation uses. The remainder of this section describes the permitted uses, accessibility, prohibited uses, recreational uses, infrastructure, special access permits, enforcement procedures, safety and security measures, and emergency procedures within the BGR.

3.5.1 Permitted Uses

The BGR shall be managed to provide for public recreation in ways consistent with the preservation and conservation of its biological resources. Uses permitted within the Reserve System are stated below and are listed within the Central-Coastal NCCP/HCP in Section 5.3:

- Passive recreation activities such as hiking, and nature interpretation
- Mountain biking
- Park and reserve administrative and interpretive facilities if deemed necessary
- Construction, operation, and maintenance of new facilities necessary to support permitted recreation uses, including concessions that support permitted uses/activities within the reserve

Buck Gully Reserve Resource and Recreation Management Plan

- Maintenance and operation of existing infrastructure facilities consistent with the NCCP/HCP provisions.

The recreational use polices above are intended to be compatible with CSS protection. This will provide monitoring and management of such uses for habitat protection purposes. Public access shall be monitored by the respective reserve owner/managers consistent with the protocols established in Section 5.4 of the Central-Coastal NCCP/HCP and managed to avoid negative biological impacts within the BGR.

3.5.2 Accessibility

Buck Gully is characterized by a relatively narrow floodplain zone bordering Buck Gully Creek on either side, with moderately steep slopes to the north and south. Due to the nature of the existing topography, much of Buck Gully is not fully accessible. Extreme slopes, exceeding 50%, while the remaining slopes within the BGR average between 20% and 35%, provide difficult access to various portions of the Reserve. An easily accessible paved trail exits outside the BGR boundary alongside San Joaquin Hills Road and provides the public with informative signage, paved trails through native vegetation, and a panoramic view of the coastline.

3.5.3 Prohibited Uses

In order to provide public recreation that ensures the preservation and conservation of BGR's biological resources, the following recreational uses shall be strictly prohibited within the BGR as addressed within the Central-Coastal NCCP/HCP:

- Use of trails shall be prohibited for appropriate periods following heavy rain and during red-flag events (high fire hazard conditions)
- No dogs are allowed on trails with the exception of the lower segment near Poppy Avenue
- Active sports facilities (baseball diamonds, soccer fields, tennis courts, etc.)
- Golf courses
- Stadiums, field houses, etc.
- Concert facilities or lighted outdoor amphitheaters
- Facilities requiring night lighting except for safety purposes (e.g., restrooms in campgrounds, entry areas, park ranger/administrative facilities, etc.)
- Motorized recreation vehicle activities

Buck Gully Reserve Resource and Recreation Management Plan

- Other facilities that would significantly harm "Identified Species" or sensitive natural habitat resources.

3.5.4 Operation and Access Strategies

Buck Gully is to have an operation and/or access strategy plan. Implementation of an operation model and/or access strategies would be dependent upon the City's approval based on available funds. The RRMP will allow the City to meet specific guidelines for management as required under the NCCP efforts, as well as provide various levels of approved public access.

Acquisition of additional land for incorporation within the BGR is not anticipated. Additionally, special access permits to BGR will be administered on a case by case basis by the City and application process. Any organization interested in working within the BGR would need to obtain a special access permit. Special access permits are to be issued by the City's designee, and, if implemented, permit guidelines are to be established and monitored by City staff and the IRC shall be notified. Organizations that are anticipated to utilize special access permits include the NROC, USGS, the University of California Irvine (UCI), and the coast keeper. There are currently no special access permits proposed for authorized groups or individual access such as research or other events considered appropriate.

3.5.5 Recreational Uses

All recreational uses within the BGR will be carefully controlled and monitored to ensure habitat protection and visitor safety is being provided. All recreational activities within the reserve will abide by the Central-Coastal NCCP/HCP guidelines, as well as the policies contained within the Recreation Element of the Newport Beach General Plan. Recreational uses that will be permitted are described above in Section 3.5.1.

3.5.6 Infrastructure

Public infrastructure that is essential for maintaining public health and safety or economic reasons will be permitted within the subregional Reserve System as described in section 5.9 within the Central-Coastal NCCP/HCP. The following permitted facilities include:

- Arterial and other identified roads
- Water lines, reservoirs and associated facilities (e.g., pump stations, pressure control facilities, and access roads), and regional water storage and treatment facilities
- Sewer lines and pump station
- Electric, telephone, cable televisions, and natural gas facilities

Buck Gully Reserve Resource and Recreation Management Plan

- Storm drain and flood control facilities
- Landfill gas recovery facilities; borrow sites, access roads, monitoring wells, and maintenance facilities.

3.5.7 Enforcement Procedures

Enforcement procedures within the BGR shall be enforced and guided under local, state, and federal laws. Routine patrol and enforcement performed by Newport Beach park patrol shall be implemented by Newport Beach authority and appropriate signage shall specify proper behavior within the BGR. Additionally, park patrol group citation authorization shall be based on City code.

3.5.8 Safety and Security Measures

The BGR is a wilderness area and proper security measures shall be enforced for the safety of the public. Appropriate signage shall inform public users of the inherent dangers that are within the BGR as well as the extreme fire hazard conditions. The BGR will be closed off to public access during Santa Ana winds and fire hazards as designated by the Fire Marshal.

3.5.9 Emergency Procedures

It is expected that emergencies associated with infrastructure located within the reserve will occur. In such cases, immediate repairs shall be permitted in accordance with the following policies and procedures to protect the public and the habitat within the reserve.

Emergencies that require immediate attention (e.g., pipeline breaks and downed power lines) shall be addressed as described within the Central and Coastal Subregion NCCP/HCP:

- The affected agency shall enter the reserve and complete necessary repairs consistent with normal practices
- It will not be necessary for a biologist to be present
- The extent of disturbed area shall be determined upon completion of the repairs and revegetation plans prepared, implemented and monitored by the project proponent in accordance with the standards and requirements
- Revegetation shall be limited to the area determined to be disturbed.

If an emergency will require more than eight hours of preparation before disturbance of natural habitat occurs (e.g., water tank leak), the affected agency will delineate the area of disturbance and have a biologist map the resources present. This delineation will be the bases for the

Buck Gully Reserve Resource and Recreation Management Plan

revegetation plans. The affected agency may use their biologist, or should the affected agency have no staff biologists, they may request the reserve manager to provide one.

3.6 Community Outreach and Education

3.6.1 Outreach and Education Plan

Community outreach and public education are one of the most important components of a RRMP. Due to the location of Buck Gully and the urban surrounding, it is highly influenced by human activities; therefore, proper education to visitors and local residents would minimize impacts to biological resources within the BGR. Community outreach and public education programs will be supported by the City's designee.

Other outreach programs could include the following tools to limit impacts on biological resource: interface with schools and youth groups, academic research or internships, docent training, volunteer stewardship, good neighbor program, arts community outreach, Orange County Natural History Museum, and maps and informational brochures.

These tools educate the public on the importance of the biological resources present within parks and reserves. Public awareness of these resources will provide a deeper appreciation and understanding of these intrinsic values. Outreach and education may provide additional management of natural and cultural resources within the BGR.

3.6.2 Docent and Volunteer Programs

Docent and volunteer programs provide necessary assistance and support to carry out outreach and education programs. The BGR will potentially utilize:

- Docents
- Trail guides
- Land stewards
- Collaborative volunteer programs.

These programs provide guided public access field trips, trail guides, trail maintenance and management, Fire Watch deployment, and restoration and revegetation projects. These programs supply important information on the sensitivity of biological resources, as well as providing maintenance and restoration to preserve these resources. If the BGR implements a community outreach and education program, all docent and volunteers shall be designated through the City

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and shall implement standard IRC procedures. The City shall provide appropriate training programs and guidelines.

3.7 Donation and Sponsorship Programs

Donation and sponsorship programs do not currently exist for the BGR. These programs would provide additional resources that shall contribute to the overall preservation the Reserve. Sponsorship programs could include both public participation and corporate sponsors.

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