

**FOCUS PROGRAM: Priority Conservation Area Designation
Nomination Form**

PART 1: AREA INFORMATION

Area Name: San Bruno Mountain
Area Location: San Bruno Mountain State and County Park,
and adjacent lands in Brisbane and South
San Francisco (see attached detailed
description of those areas in those cities).
Total Acreage: Approximately 2,326 acres

PART 2: NOMINEE CONTACT INFORMATION

Lead Nominating Agency/Organization: San Mateo County Parks Department
Contact Person: Sam Herzberg, Senior Planner
Address: 455 County Center, 4th Floor, Redwood City
Phone Number: 650/363-1823
Partnering Agencies/Organizations: Cities of Brisbane, Colma, Daly City, South
San Francisco, and San Bruno Mountain
Watch

Natural Landscapes—areas critical to the functioning of wildlife and plant habitats, aquatic ecosystems and the region’s water supply and quality

Agricultural Lands—farmland, grazing land and timberland that support the region’s agricultural economy and provide additional benefits such as habitat protection and carbon capture. .

Urban Greening—existing and potential green spaces in cities that improve community health, capture carbon emissions, address storm water, and enhance the public realm.

Regional Recreation—existing and potential regional parks, trails, and other publicly accessible recreation facilities. Examples: regional trail networks, areas for potential regional park expansion.

Area Description

This proposed Priority Conservation Area (PCA) includes lands in San Bruno Mountain State and County Park, and adjacent lands not included in the park in the cities of Brisbane and South San Francisco. San Bruno Mountain Park is a landmark of local and regional significance, standing as a unique open-space island in the midst of the peninsula's urbanization at the northern end of the Santa Cruz Mountain Range. The Mountain's ridge line runs in an east-west configuration, with considerable slopes and elevations ranging from 250 feet to 1,314 feet at the summit. The 2,326 acres of rugged landscape offer excellent hiking opportunities and outstanding views of San Francisco and Central Bay Area. In 1983 the first Habitat Conservation Plan in the world was

developed to balance the need for limited (300 acres) of residential and commercial development acres around the periphery and top of the mountain, and perpetual protection of habitat for the Federally listed rare and endangered species of butterflies that live in grassland and rocky outcroppings on San Bruno Mountain including the Mission Blue, Callippe Silverspot, and San Bruno Elfin butterflies. Additional information about the Habitat Conservation Plan can be found at <https://parks.smcgov.org/san-bruno-mountain-habitat-conservation>

PART 3: AREA CRITERIA

A. Level of Consensus

The County Board of Supervisors, and Cities of Brisbane, Colma, Daly City, and South San Francisco have all adopted resolutions concurring with the proposal to include the State and County Park in the Priority Conservation Area. Daly City wanted the sand dunes to be included and in March 2015 they have been accepted into the State and County Park. The Cities of Brisbane and South San Francisco have some additional lands that they would like to see added to the San Bruno Mountain Priority Conservation Area (see attachments for additional area descriptions), and the County Board of Supervisors has concurred.

B. Regional Significance

Conservation of these areas would contribute to the preservation of critical resources in support of San Bruno Mountain State and County Park and areas in Brisbane and South San Francisco. These areas, located at the northern boundary of San Mateo County, comprise one of the largest open spaces in an urban setting in the United States. Creating additional conservation corridors between protected lands would provide connectors to public lands and provide access to a wealth of recreational, natural, cultural and scenic resources in the San Francisco Bay Area

By expanding the existing open space network in northern San Mateo County, conservation of the lands would provide connections for both people and wildlife on a regional scale and add contiguous protected open space to existing San Mateo County Park property and preserved land, thereby protecting their integrity. Protection and restoration would provide opportunity to improve and expand habitat for struggling species and could regionally improve the status of these populations.

C. Urgency

San Bruno Mountain (including Sign Hill) is a 3,600-acre island of biodiversity surrounded by a sea of urbanization. Located just south of San Francisco, it's the largest and closest wilderness to a population of over one million people. Encompassing grasslands, ancient oak forests, and riparian habitats, parts of San Bruno Mountain are remarkably intact – it is home to 13 rare and endangered species and three endangered butterflies. In the area remain intact grassland, among which grasslands statewide are

disappearing to almost none. However, its native ecosystems are under constant attack from development, invasion of exotic species, and biological imbalances due to global warming.

Habitat is critical to San Bruno Mountain's butterflies. The major threats to loss of habitat are development, non-native invasive plants, and natural scrub succession. Plant succession is a natural process where a few species of plants expand to dominate a habitat when they have the opportunity and no negative factors. Succession can be slowed and reversed using a strategy of controlled burns, which also benefits the required host plants. All three species of endangered butterflies evolved with fire being a natural part of their environment and have adapted by spending the majority of their life cycle on the ground or in the ground around their host plant.

The most pervasive threat on San Bruno Mountain today is the rapid succession of grasslands to scrublands due to the lack of fire, grazing, and climate change (as a result of increased nitrogen emissions from automobiles), and invasion of exotic species. Exotic invasive species removed from their natural ecosystems have no natural predators and can overtake native environments in one season. The grassland habitats of the endangered Mission Blue butterfly and the Callippe Silverspot butterfly are particularly susceptible to this. Both of these butterflies were once prolific in the Bay Area. The Callippe Silverspot is now *only* found on San Bruno Mountain, and the Mission Blue lives in only five spots, with San Bruno Mountain's population being the largest. Unless humans proactively intervene in protection of these species, they and their habitats will face extinction.

The potential extinction of these butterflies represents a wider, global threat that is rapidly becoming a crisis. Scientists estimate that 40% of the Earth's species have died out in the last 25 years. The best way to communicate the urgency of this loss is to introduce people to an intact ecosystem *near where they live*, so that they can become intimate with it and with the factors that threaten its survival. This way, the general population can understand the ramifications of the global loss of biodiversity in a personal and real way.

Three rare and endangered butterflies struggle to survive on San Bruno Mountain - the Mission Blue, the San Bruno Elfin and the Callippe Silverspot. All are federally listed as endangered and San Bruno Mountain is the only place on the planet where these 3 species coexist. These rare butterflies have very specific habitat requirements - and butterfly habitat on San Bruno Mountain is under constant threat. Loss of habitat means loss of butterflies.

These three butterflies have several things in common: all are subspecies of more common butterflies; all are **host plant-specific** - see description below; all have limited range; all have very short adult stages; all have **one-year life cycles** - explanation of stages below; and all find their largest population here on San Bruno Mountain.

Butterflies require both nectar plants to feed adults and host plants to house and feed larvae (caterpillars). Many butterflies use a variety of plants (polyphagous butterflies) as host plants and those species tend not to be endangered - they have an easier time and can adapt to varied habitats.

Host-specific butterflies have a harder time - some may be able to use more than one species from one plant genus (the Mission Blue can use three different species of lupine), but frequently butterflies will rely solely on one plant species to lay their eggs and feed the larvae (caterpillars). The Callippe Silverspot, for example, must use the California Golden Violet (*Viola pedunculata*) and the San Bruno Elfin must use the Pacific Stonecrop (*Sedum spathulifolium*). Consequently, the disappearance of the host plant, for any reason, spells disaster - and the extermination of the species.

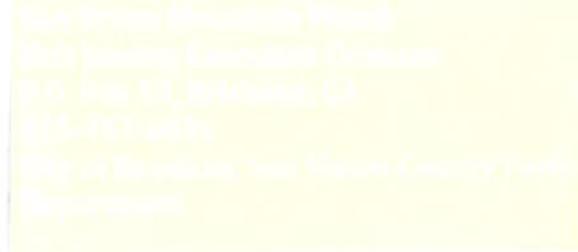
**FOCUS PROGRAM: Priority Conservation Area Designation
Nomination Form**

PART 1: AREA INFORMATION

Area Name: City of Brisbane
Area Location: City of Brisbane, adjacent to San Bruno
Mountain State and County Park
Total Acreage: Approximately 1,175 acres

PART 2: NOMINEE CONTACT INFORMATION

Lead Nominating Agency/Organization:
Contact Person:
Address:
Phone Number:
Partnering Agencies/Organizations:



Natural Landscapes—areas critical to the functioning of wildlife and plant habitats, aquatic ecosystems and the region’s water supply and quality. Examples: wetland restoration, riparian corridor protection.

Agricultural Lands—farmland, grazing land and timberland that support the region’s agricultural economy and provide additional benefits such as habitat protection and carbon capture. Example: conservation easements.

Urban Greening—existing and potential green spaces in cities that improve community health, capture carbon emissions, address stormwater, and enhance the public realm.

Example: urban portion of riparian corridors, potential sites for parks and community gardens.

Regional Recreation—existing and potential regional parks, trails, and other publicly accessible recreation facilities. Examples: regional trail networks, areas for potential regional park expansion.

Benefits and potential co-benefits are identified for each designation (i.e. wildlife and plant habitat, agricultural economy). Applicants are required to discuss how the PCA provides these benefits—referencing data and maps. ABAG will provide resources (e.g. maps, databases, etc) to assist applicants in this process, drawing upon data published by federal and state sources as well as scientific research.

Area Description

This proposed Priority Conservation Area (PCA) includes Brisbane Acres and other lands in the City of Brisbane, or in their area of influence, adjacent to San Bruno

Mountain State and County Park, Callippe Hill and surrounding areas, the Brisbane Quarry, the Brisbane Lagoon, Bayfront and Baylands. This proposed PCA includes corridors through Brisbane and connects to the Brisbane portion of the San Francisco Bay Trail. Inclusion of these parcels, parks, pathways and thoroughfares will improve access to area open space in areas with high park need," will connect residents of South San Francisco to proposed regional trails.

Areas Adjacent to San Bruno Mountain State and County Park

Upper Brisbane Acres is approximately 110 acres of undeveloped open space above the City of Brisbane with several parcels being privately owned. Brisbane Acres hosts some of the last remnants of California native grasses, not just in the San Francisco Bay Area, but in the state. Some of the most pristine grassland habitat still exists in the upper portion of these parcels. This area provides opportunities for hiking and serves as a vital interface between housing and the last of the native Franciscan habitat. Like other areas in this proposal, it is vital habitat for two of the three federally listed endangered butterflies as well as many other rare plants. Most importantly, it presents a full functioning habitat with high biodiversity. This open space also helps to preserve the fog patterns which in turn supplies vital moisture, even in a drought. These parcels provide Natural Landscapes, Urban Greening and Regional Recreation.

Brisbane Quarry is 140 acres of formally active aggregate quarry. This area includes all areas owned by the Quarry, the upper benches, access roads and surrounding habitat to the property lines shared with the San Bruno Mountain State and County Park, U.S. Fish and Wildlife Service, City of Brisbane and others. The Brisbane Quarry is home to the federally listed as endangered San Bruno Elfin Butterfly (*Callophrys mossii bayensis*). The host plant to this engaging little animal is the Broadleaf Stonecrop (*Sedum spathulifolium*) that has colonized the upper benches of the quarry. To the periphery of the quarry is prime habitat for the Mission Blue and Callippe Silverspot butterflies that are also listed and endangered by the federal government. The lower portion of this property is frog and wetland habitat. The quarry has a huge potential as a water resource through runoff and existing springs. These parcels provide Natural Landscapes, Urban Greening and Regional Recreation.

Callippe Hill and surrounding areas are 75 acres to the east of San Bruno Mountain and is surrounded by housing developments that have encroached on critical Mission Blue Butterfly and Callippe Silverspot habitat. Included in this area are all undeveloped areas in and around the Northeast Ridge Development, Peking Handicraft property, Levinson property, PG&E marsh area and lands bordering Guadalupe Canyon Parkway and east of Carter Street. It's rich in biodiversity, home to rare native Franciscan grassland habitat and home to three rare and endangered butterfly species, the Mission Blue, the Callippe Silverspot, and the San Bruno Elfin. As with similar areas, it is threatened by the spread of invasive non-native plants. This area is perfect for regional recreation and possibly agriculture on the site of a former dairy farm. All of the open areas surrounding this area are critical habitat

and flight corridors that keep vital butterfly habitat from being fragmented. The Peking Handicraft and Levinson sub-areas, in addition to their high habitat value once restored, provide a unique opportunity to serve as a gateway to the San Bruno Mountain State and County Park. Some envision creating a demonstration farm and interpretive center on the site of the old ranch with trails leading up to the Mountain. This could serve as the base for grazing, a possible habitat management tool, on the Mountain. The area is within walking distance of San Francisco public transportation and is a key connector between the Mountain and the Brisbane Baylands. Restoring the PG&E marsh area greatly enhances the historic wetlands of the area and adds to its value not only as a unique habitat, but as part of the potential learning center. These parcels provide Natural Landscapes, Urban Greening, Agricultural Lands and Regional Recreation.

Brisbane Lagoon and surrounding areas includes 150 acres including all of Brisbane Lagoon and associated shoreline, the Shoreline Trail, Fisherman's Park and remnant Guadalupe Creek wetlands and waterways draining into the Lagoon from Bayshore Blvd. and the Brisbane Firehouse, as well as areas under the Tunnel Road railroad bridge overpass and alongside the railroad tracks. The Lagoon is the last tidal water of San Francisco Bay that actually touches San Bruno Mountain along the Lagoon's western side. The Lagoon is a very valuable riparian area with many rare and common birds, both year-round and migratory, making this their home and/or nesting and resting area. It is tidal and a great fishing area which is critical to local recreation. This is an important natural resource in need of protection. Some envision a trail that circumnavigates the area in addition to ensuring the creation of protected areas for birds and a salt marsh. Fisherman's Park, located on the lagoon, is already heavily used for fishing and provides wonderful views of the Mountain and the City of Brisbane. The surrounding Bayfront and Bay Trail provide additional recreational opportunities that include kayaking, sailing and other activities. These parcels provide Natural Landscapes, Urban Greening and Regional Recreation.

Crocker Industrial Park, Guadalupe Creek and the Old Ranch Road Trail to the Dairy Ravine includes approximately 300 acres and a 2.5 mile trail that loops around many of the Crocker Park Businesses. This trail provides a level and scenic route that makes the trail experience all the more enjoyable. The trailhead begins on Park Lane across the street from the Dog Park and adjacent to the Purcell Murray business. What used to be the Southern Pacific Rail Lines is now the trail's compacted rock surface, which is suitable for walking, jogging, or biking year-round. Along the trail, you can find park benches, mutt mitt dispensers, route and distance signage and trash receptacles. A portion of this trail includes the Cypress Lane Wetland that is home to the Pacific Chorus Frog (*Pseudacris regilla*) and an ongoing restoration project in partnership with San Bruno Mountain Watch, the City of Brisbane and local businesses. The wetland is also home to several rare and uncommon plants including the last population in the area of horsetail (*Equisetum hyemale*). Freshwater wetlands and creek side riparian habitat throughout the Bay Area, and particularly on the San Francisco Peninsula, have been drastically reduced due to urbanization. The habitat along the remaining perennial and seasonal creeks

on San Bruno Mountain support a wide variety of native wetland plant species, including significant Willow Riparian Forests that in turn support a diverse bird fauna. This plant community is important in providing crucial habitat for migrating birds, in particular neo-tropical migrants moving up and down the Pacific flyway. The wetlands of San Bruno Mountain still support the rare San Francisco Forktail Damselfly (*Ischnura gemina*) and the more common Pacific Tree Frog (*Pseudacris regilla*). The mountain's wetlands once supported the threatened California Red-legged Frog (*Rana draytonii*) and the endangered San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*) and it is our hope and expectation that they will once again. Daylighting and restoring more of Guadalupe Creek would greatly improve water quality in the Lagoon and the Bay as well as provide critical wetland habitat and enhance Crocker Park. This area also has beautiful seasonal waterfalls and the locally famous Crystal Cave. The entire area has islands of endangered butterfly habitat and is part of a vital flight corridor connecting the Northeast Ridge and the Callippe Silverspot populations between Callippe Hill and the rest of the range. It is also important watershed area that feed the whole upper Guadalupe Creek. Along the public areas of these paths are opportunities for restoration and greening with appropriate native plants currently grown from San Bruno Mountain seed stock. These parcels provide Natural Landscapes, Urban Greening, Agricultural Lands and Regional Recreation.

Icehouse Hill and Upper Brisbane Baylands This area includes over 400 acres with Icehouse Hill, and Wetlands as well as the sites of the Machinery and Equipment and Mission Blue Nursery businesses and the drainage channel to the Bay. Icehouse Hill hosts an active horse ranch and is Callippe Silverspot habitat. The brick building that houses the Machinery and Equipment business, and the brick building at 40 Industrial Way are all historically significant. The Mission Blue Native Plant Nursery is toward the southern end of this area and is critical to habitat restoration on the Mountain. Furthermore, the area between Icehouse Hill and the Nursery is a seasonal wetland and an important trailhead connecting the Baylands to Crocker Park. These parcels provide Natural Landscapes, Urban Greening Agricultural Lands and Regional Recreation.

Brisbane and Baylands Circle Trail This area includes Tunnel Road, Lagoon Way, Beatty Way, Alanna Way, Harney Way and the San Francisco Bay Trail including the east and west sides of Highway 101. It is our hope to complete a circle pedestrian and bicycle trail that connects Tunnel Road to Lagoon Way which would then connect to the Brisbane portion of the Bay Trail. Tunnel Road also connects Bayshore Blvd. and central Brisbane to a potential trail through the railroad tunnel to Crocker Park. This will all connect with the Caltrain stop on Tunnel Road and the SamTrans bus stop in Brisbane. These parcels provide Natural Landscapes, Urban Greening Agricultural Lands and Regional Recreation.

PART 3: AREA CRITERIA

A. Level of Consensus

The pathways and parcels included in this nomination, as described above, are owned and operated by the City of Brisbane in addition to private property owners. The City voted on a resolution in support of including these pathways and parcels on July 17, 2014.

Within this proposed Brisbane Conservation Area, opportunities for conservation through multiple owners/managers should be pursued for additional key parcels. Active conservation efforts are likely for specific parcels.

B. Regional Significance

Conservation of these areas would contribute to the preservation of critical resources in support of San Bruno Mountain State and County Park (Mountain) and open space within the City of Brisbane. San Bruno Mountain, located at the northern boundary of San Mateo County, comprise one of the largest open spaces in an urban setting in the United States. Creating additional conservation corridors between protected lands would provide connectors to public lands and provide access to a wealth of recreational, natural, cultural and scenic resources in the San Francisco Bay Area

By expanding the existing open space network in northern San Mateo County, conservation of the lands would provide connections for both people and wildlife on a regional scale and add contiguous protected open space to existing San Mateo County Park property and preserved land, thereby protecting their integrity. Protection and restoration would provide opportunity to improve and expand habitat for struggling species and could regionally improve the status of these populations.

C. Urgency

San Bruno Mountain (including Sign Hill) is a 3,600-acre island of biodiversity surrounded by a sea of urbanization. Located just south of San Francisco, it's the largest and closest wilderness to a population of over one million people. Encompassing grasslands, ancient oak forests, and riparian habitats, parts of San Bruno Mountain are remarkably intact – it is home to 13 rare and endangered species and three endangered butterflies. In the area remains intact grassland, among which grasslands statewide are disappearing to almost none. However, its native ecosystems are under constant attack from development, invasion of exotic species, and biological imbalances due to global warming.

The most pervasive threat on San Bruno Mountain today is the invasion of exotic species. Removed from their natural ecosystems, these pernicious invaders have no natural predators and can overtake native environments in one season. The grassland habitats of the endangered Mission Blue butterfly and the Callippe Silverspot butterfly are particularly susceptible to this. Both of these butterflies were once prolific in the Bay Area. The Callippe Silverspot is now *only* found on San

Bruno Mountain, and the Mission Blue lives in only five spots, with San Bruno Mountain's population being the largest. Unless humans proactively intervene in protection of these species, they and their habitats will face extinction.

The potential extinction of these butterflies represents a wider, global threat that is rapidly becoming a crisis. Scientists estimate that 40% of the Earth's species have died out in the last 25 years. The best way to communicate the urgency of this loss is to introduce people to an intact ecosystem *near where they live*, so that they can become intimate with it and with the factors that threaten its survival. This way, the general population can understand the ramifications of the global loss of biodiversity in a personal and real way.

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These three butterflies have several things in common: all are subspecies of more common butterflies; all are **host plant-specific** - see description below; all have limited range; all have very short adult stages; all have **one-year life cycles** - explanation of stages below; and all find their largest population here on San Bruno Mountain.

Butterflies require both nectar plants to feed adults and host plants to house and feed larvae (caterpillars). Many butterflies use a variety of plants (polyphagous butterflies) as host plants and those species tend not to be endangered - they have an easier time and can adapt to varied habitats.

Host-specific butterflies have a harder time—some may be able to use more than one species from one plant genus (the Mission Blue can use three different species of lupine), but frequently butterflies will rely solely on one plant species to lay their eggs and feed the larvae (caterpillars). The Callippe Silverspot, for example, must use the California Golden Violet (*Viola pedunculata*) and the San Bruno Elfin must use the Pacific Stonecrop (*Sedum spathulifolium*). Consequently, the disappearance of the host plant, for any reason, spells disaster - and the extermination of the species.

Habitat is critical to San Bruno Mountain's butterflies. The major threats to loss of habitat are development, non-native invasive plants, and natural scrub succession. Plant succession is a natural process where a few species of plants expand to dominate a habitat when they have the opportunity and no negative factors. Succession can be slowed and reversed using a strategy of controlled burns, which also benefits the required host plants. All three species of endangered butterflies evolved with fire being a natural part of their environment and have adapted by

spending the majority of their life cycle on the ground or in the ground around their host plant. In areas where burning is not feasible, we turn to other tools such as grazing and selective manual clearing.

While we no longer have large swaths of sweeping grasslands on the San Francisco Peninsula to support large populations of these three endangered butterflies, we still have the opportunity to enhance their chances for survival as species. This depends not only on the continued vigilance in the care of already preserved areas, but by enhancing the yet to be conserved areas and the multitude of “habitat islands” that help to make a larger, contiguous home for numerous threatened species, not just butterflies.

Fragmentation of remaining habitat is a huge threat to most species’ survival. According to Dr. E.O. Wilson, Professor Emeritus Harvard University and one of the world’s leading scientist, when a species habitat is reduced by 10%, their viability is reduced by 50% and this reduction formula continues to apply until the species is extirpated from that habitat. When it is their last habitat, the species becomes extinct.

“Species are disappearing at an accelerating rate through human action, primarily habitat destruction but also pollution and the introduction of exotic species into residual natural environments. I have said that a fifth or more of the species of plants and animals could vanish or be doomed to early extinction by the year 2020 unless better efforts are made to save them. This estimate comes from the known quantitative relation between the area of habitats and the diversity that habitats can sustain... In the world as a whole, extinction rates are already hundreds or thousands of times higher than before the coming of man. They cannot be balanced by new evolution in any period of time that has meaning for the human race.

“Why should we care? What difference does it make if some species are extinguished, if even half of all the species on earth disappear? Let me count the ways. New sources of scientific information will be lost. Vast potential biological wealth will be destroyed. Still undeveloped medicines, crops, pharmaceuticals, timber fibers, pulp, soil-restoring vegetation, petroleum substitutes, and other products and amenities will never come to light...

“It is easy to overlook the services that conserved ecosystems provide humanity. They enrich the soil and create the very air we breathe. Without these amenities, the remaining tenure on Earth of the human race would be nasty and brief. The life-sustaining matrix is built of green plants with legions of microorganisms and mostly small, obscure animals—in other words, weeds and bugs. Such organisms support the world with efficiency because they are so diverse, allowing them to divide labor and swarm over every square meter of the earth’s surface...

“To disregard the diversity of life is to risk catapulting ourselves into an alien environment. We will have become like the pilot whales that inexplicably beach themselves on New England shores... Humanity coevolved with the rest of life on this particular planet... As extinction spreads, some of the lost forms prove to be keystone species, whose disappearance brings down other species and triggers a ripple effect. The loss of a keystone species is like a drill accidentally striking a power line. It causes lights to go out all over.” Dr. E. O. Wilson.

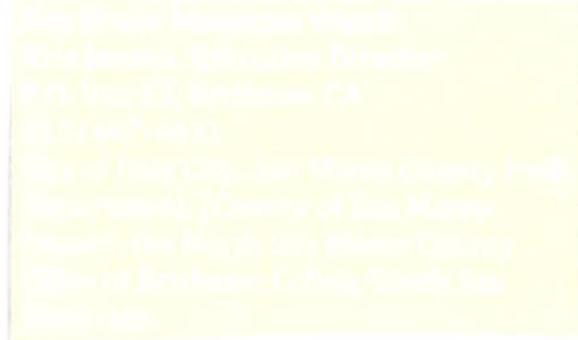
**FOCUS PROGRAM: Priority Conservation Area Designation
Draft Nomination Form**

PART 1: AREA INFORMATION

Area Name: Daly City Dunes
Area Location: City of Daly City, adjacent to San Bruno Mountain State and County Park
Total Acreage: Approximately 10 acres

PART 2: NOMINEE CONTACT INFORMATION

Lead Nominating Agency/Organization:
Contact Person:
Address:
Phone Number:
Partnering Agencies/Organizations:



Natural Landscapes—areas critical to the functioning of wildlife and plant habitats, aquatic ecosystems and the region’s water supply and quality. Examples: wetland restoration, riparian corridor protection.

Agricultural Lands—farmland, grazing land and timberland that support the region’s agricultural economy and provide additional benefits such as habitat protection and carbon capture. Example: conservation easements.

Urban Greening—existing and potential green spaces in cities that improve community health, capture carbon emissions, address stormwater, and enhance the public realm.

Example: urban portion of riparian corridors, potential sites for parks and community gardens.

Regional Recreation—existing and potential regional parks, trails, and other publicly accessible recreation facilities. Examples: regional trail networks, areas for potential regional park expansion.

Area Description

This proposed Priority Conservation Area includes lands in the City of Daly City adjacent to San Bruno Mountain State and County Park. This undeveloped land would include both private (Area A.) and city owned land (Area B). The land surrounding San Bruno Mountain State and County Park is densely developed with little opportunity for Park expansion or open space corridors. Inclusion of these undeveloped properties is important to the ecology and preservation of the Park as

a whole. These two properties also represent a contiguous expansion of the natural areas from the park.

Area A includes approximately 3.5 acres of property owned by Richard Haskins that is in the final stages of being donated to the County of San Mateo to be included as part of the San Bruno Mountain State and County Park. This land is surrounded by J.F.K. Middle School to the east, San Bruno Mountain State and County Park to the north, undeveloped private property to the west and a housing development running along Bonnie Street to the south.

Area B includes the City of Daly City owned 4.0 acre Hillside Park. This land borders Lausanne Av. to the east; Wyandotte Av. to the north and west; and a housing development to the south bordered by Price St.

PART 3: AREA CRITERIA

A. Level of Consensus (Daly City)

The parcels included in this nomination include Hillside Park, a 4.0 acre park owned and operated by the City of Daly City and the 3.5 acre Haskins property which is in the final stages of being transferred to the County of San Mateo for inclusion in the San Bruno Mountain State and County Park. The city council of the City of Daly City voted on a resolution in support of the inclusion of these two properties on February 23, 2015.

This parcel is in walking distance of seven schools: Hilldale School (private- owner of the 'Dune' site adjacent to the north), four elementary schools, one middle school, and three high schools.

Within this proposed Daly City Dunes Conservation Area, opportunities for conservation through multiple owners/managers should be pursued for key parcels. Active conservation efforts are likely for specific parcels.

B. Regional Significance

Conservation of these areas would contribute to the preservation of critical resources in support of San Bruno Mountain which is located at the northern boundary of San Mateo County and is one of the largest open spaces in an urban setting in the United States. Creating additional conservation corridors between protected lands would provide connectors to public lands and provide access to a wealth of recreational, natural, cultural, historic and scenic resources in the San Francisco Bay Area.

The Daly City Dunes are the remnants of ancient sand dunes formed from 80,000 to 125,000 years ago during the Pleistocene Epoch as part of the Colma Formation. Sand deposition occurred during an interglacial period when sea level with much higher than it is today. This higher water level from melted glaciers made the

northern San Francisco Peninsula an island separated from the southern peninsula by a narrow stretch of water connecting the ocean to the Bay.

The Dunes provide habitat to several rare, threatened or endangered species. Three of these are the seriously endangered San Francisco Lessingia (*Lessingia germanorum*), the fairly endangered San Francisco Campion (*Silene verecunda* ssp. *verecunda*) and the rare San Francisco Spineflower (Chorizanthe cuspidata var. cuspidate). Other plants endemic to the Dunes include, but are not limited to, the Davy's Fairyfan (*Clarkia davyi*), Chamisso bush lupine (*Lupinus chamissonis*), Mock Heather (*Ericameria ericoides*), California Phacelia (*Phacelia californica*), Goldenrod (*Solidago spathulata*), Dune Knotweed (*Polygonum paronychia*), Dune Gilia (*Gilia capitata* ssp. *chamissonis*).

What is incredibly special about the Daly City Dunes, however, is that this habitat supports the only remaining, naturally occurring, population of the rare and endangered San Francisco Lessingia (*Lessingia germanorum*) outside of the Presidio in San Francisco. In recognition of its rare status, the San Francisco Lessingia was protected as an endangered species under the Federal Endangered Species Act in 1997.

On the eastern edges of the Dunes and in a canyon to the east, resides a large colony of the Dutchman's Pipe Vine (*Aristolochia californica*) host plant to the Pipevine Swallowtail butterfly (*Battus philenor*). They are active on the Dunes from Spring until Summer.'

The San Francisco Lessingia, an annual herb in the sunflower family, once occurred throughout San Francisco's vast dune system. Like many dune plants, it thrives in open sandy areas subject to being disturbed—thus reducing the competition from both invasive species and other natives. But it is not immune to the threats of habitat loss due to development, or the many other potential dangers resulting from human activities and their ecological consequences.

Parcels at the heart of these rare dunes are privately owned and are currently threatened with development. A recently purchased property is slated for a school classroom extension, a new ball field and up to twenty-five parking spots. This construction would require a large retaining wall and extensive grading. The planned development, involving addition of street access, would fragment the dune area and make much of the remaining area vulnerable to more building and habitat destruction.

In the upper reaches of the dune area there is another important feature—a shellmound from the indigenous Ohlone people. This shellmound has been documented and registered with the State of California. Such sites are considered sacred, and there are laws governing how they are treated. It takes vigilance and public will to assure that the laws are followed, and that these sites are treated with the respect they deserve.

The reasons to preserve this unique feature of San Bruno Mountain are obvious: preserving biodiversity leads to a healthier ecosystem; open spaces provide a sense of well-being; and future generations should be able to continue to enjoy San Bruno Mountain as one of the world's biodiversity hotspots. We hope to convince the owners of the threatened parcels of the value of saving this rare treasure. It would be a wonderful legacy gift to the people of Daly City and the Bay Area if they were to work with us to preserve this unique area.

By expanding the existing open space network in northern San Mateo County, conservation of the lands would provide connections for both people and wildlife on a regional scale and add contiguous protected open space to existing San Mateo County Park property and preserved land, thereby protecting their integrity. Protection and restoration would provide opportunity to improve and expand habitat for struggling species and could regionally improve the status of these populations. These parcels provide Natural Landscapes, Urban Greening and Regional Recreation.

C. Urgency

There are continuous threats to parcels in the proposed Daly City Dunes Conservation Area. It is adjacent to residential development pressures and numerous active development proposals. Further development of these parcels could potentially have detrimental effects on regional sensitive species possibly destroying or fragmenting habitat. There are many indirect impacts from development as well such as proliferation of invasive non-native plant and animal species, water pollution and increased storm run-off.

It is essential that the land be protected to reduce or eliminate the adverse effects of development that could threaten the integrity of the adjacent parkland and put species at risk.

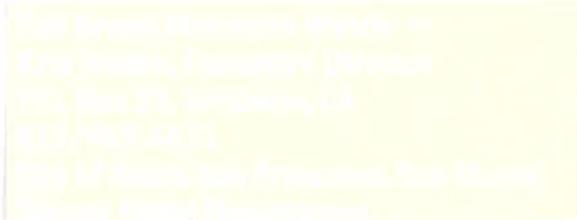
**FOCUS PROGRAM: Priority Conservation Area Designation
Nomination Form**

PART 1: AREA INFORMATION

Area Name: City of South San Francisco
Area Location: City of South San Francisco, adjacent to San Bruno Mountain State and County Park
Total Acreage: Approximately 75 acres

PART 2: NOMINEE CONTACT INFORMATION

Lead Nominating Agency/Organization:
Contact Person:
Address:
Phone Number:
Partnering Agencies/Organizations:



Natural Landscapes—areas critical to the functioning of wildlife and plant habitats, aquatic ecosystems and the region’s water supply and quality. Examples: wetland restoration, riparian corridor protection.

Agricultural Lands—farmland, grazing land and timberland that support the region’s agricultural economy and provide additional benefits such as habitat protection and carbon capture. Example: conservation easements.

Urban Greening—existing and potential green spaces in cities that improve community health, capture carbon emissions, address stormwater, and enhance the public realm. Example: urban portion of riparian corridors, potential sites for parks and community gardens.

Regional Recreation—existing and potential regional parks, trails, and other publicly accessible recreation facilities. Examples: regional trail networks, areas for potential regional park expansion.

Area Description

This proposed Priority Conservation Area (PCA) includes lands in the City of South San Francisco adjacent to San Bruno Mountain State and County Park, Sign Hill Park, Orange Park, the Centennial Way Bike Path and the South San Francisco portion of the Bay Trail. This proposed PCA includes corridors through South San Francisco that pass through two Priority Development Areas, include bicycle pathways, the South San Francisco portion of the Bay Trail and thoroughfares that lead to and intersect with San Bruno Mountain State and County Parks as well as Sign Hill Park and Orange Park (both owned and operated by the City of South San Francisco). The thoroughfares are primarily roads currently owned and operated by the City of South San Francisco and the Centennial Way Bike Path. The land through which

these thoroughfares pass is densely developed with little opportunity for park expansion or open space corridors. Inclusion of these parks, pathways and thoroughfares will “improve access to neighborhood parks in areas with high park need,” will connect residents of South San Francisco to proposed regional trails.

Sign Hill Park is 44.7 acres of undeveloped open space with three parcels on the west side of the hill being privately owned. The park includes five hiking trails and three trailheads (end of Poplar Avenue; end of Ridgeview Court; and the steps above Spruce Avenue at Diamond Avenue and Telford Avenue). The park is also home to the famous “*South San Francisco the Industrial City*” sign that was installed in 1923 and was placed on both the National Register of Historic Places and the California Register of Historical Resources in 1996.

Over 70 native plants have been documented on the Sign Hill site and it’s one of only six places in the world where colonies of the endangered Mission Blue butterfly survive. It’s rich in biodiversity, home to rare native Franciscan grassland habitat and home to three rare and endangered butterfly species, the Mission Blue, the Callippe Silverspot, and the San Bruno Elfin. As with similar areas, it is threatened by the spread of invasive non-native plants. These parcels provide Natural Landscapes, Urban Greening and Regional Recreation.

Orange Memorial Park is South San Francisco’s centrally located 28 acres flagship community park. It’s amenities include an indoor swimming pool; the Fernekes Recreation Building; a Sculpture Garden; tennis, bocce, and basketball courts; picnic areas (including shelter); two playgrounds; baseball, softball, and soccer fields; a skate park; artist studios; a dog park; three sets of restrooms; and is adjacent to the Centennial Way bicycle and pedestrian trail. The Orange Park Master Plan identifies an opportunity to expand the park by developing adjacent vacant property owned by the City of South San Francisco, demolishing the old Corporation Yard temporarily being used as artist studios; and acquiring land owned by CalWater. Colma Creek, which was channelized many years ago, bisects the park.

Chestnut Av. between Mission Rd. and Hillside Blvd. is the western most pathway to be included in this PCA, the path continues along Hillside Blvd (which abuts the southernmost portion of San Bruno Mountain State and County Park and includes two trailheads) and continues to the east as Sister Cities Blvd. This pathway will merge into Oyster Point Blvd. and connect with the South San Francisco portion of the Bay Trail. Midway on this portion of the Bay Trail the path connects to Grand Ave. heading west through downtown South San Francisco to Chestnut Av. intersecting three north/south pathways. Orange Av. connects Orange Park and the Centennial Way Bike Path in the south of the City to Sign Hill Park and a trailhead in the north. Spruce Av. similarly runs from the Centennial Way Bike Path to Hillside Blvd and directly to trailheads for both Sign Hill Park and San Bruno Mountain State and County Park. Finally, the Linden Av. Pathway runs from the southern portion of the City at the San Bruno boarder to Hillside Blvd. in the north connecting to the Mountain.

These pathways represent critical thoroughfares that connect major transit hubs that include BART, CalTrain and SamTrans to walking, biking and automobile pathways to take people to the Mountain, Sign Hill Orange Park and the San Francisco Bay Trail. These parcels provide Natural Landscapes, Urban Greening and Regional Recreation.

Along the public areas of these paths are opportunities for restoration and greening with appropriate native plants currently grown from San Bruno Mountain seed stock.

PART 3: AREA CRITERIA

A. Level of Consensus

The pathways and parcels included in this nomination, as described above, are owned and operated by the City of South San Francisco. The City voted on a resolution in support of including these pathways and parcels on February 25, 2015.

Within this proposed South San Francisco Conservation Area, opportunities for conservation through multiple owners/managers should be pursued for additional key parcels on North Sign Hill. Active conservation efforts are likely for specific parcels.

B. Regional Significance

Conservation of these areas would contribute to the preservation of critical resources in support of San Bruno Mountain State and County Park (Mountain), Sign Hill Park, the South San Francisco portion of the Bay Trail and the Centennial Way Bike Path. These areas, located at the northern boundary of San Mateo County, comprise one of the largest open spaces in an urban setting in the United States. Creating additional conservation corridors between protected lands would provide connectors to public lands and provide access to a wealth of recreational, natural, cultural and scenic resources in the San Francisco Bay Area

By expanding the existing open space network in northern San Mateo County, conservation of the lands would provide connections for both people and wildlife on a regional scale and add contiguous protected open space to existing San Mateo County Park property and preserved land, thereby protecting their integrity. Protection and restoration would provide opportunity to improve and expand habitat for struggling species and could regionally improve the status of these populations.

C. Urgency

San Bruno Mountain (including Sign Hill) is a 3,600-acre island of biodiversity surrounded by a sea of urbanization. Located just south of San Francisco, it's the largest and closest wilderness to a population of over one million people.

Encompassing grasslands, ancient oak forests, and riparian habitats, parts of San Bruno Mountain are remarkably intact – it is home to 13 rare and endangered species and three endangered butterflies. In the area remain intact grassland, among which grasslands statewide are disappearing to almost none. However, its native ecosystems are under constant attack from development, invasion of exotic species, and biological imbalances due to global warming.

The most pervasive threat on San Bruno Mountain today is the invasion of exotic species. Removed from their natural ecosystems, these pernicious invaders have no natural predators and can overtake native environments in one season. The grassland habitats of the endangered Mission Blue butterfly and the Callippe Silverspot butterfly are particularly susceptible to this. Both of these butterflies were once prolific in the Bay Area. The Callippe Silverspot is now *only* found on San Bruno Mountain, and the Mission Blue lives in only five spots, with San Bruno Mountain's population being the largest. Unless humans proactively intervene in protection of these species, they and their habitats will face extinction.

The potential extinction of these butterflies represents a wider, global threat that is rapidly becoming a crisis. Scientists estimate that 40% of the Earth's species have died out in the last 25 years. The best way to communicate the urgency of this loss is to introduce people to an intact ecosystem *near where they live*, so that they can become intimate with it and with the factors that threaten its survival. This way, the general population can understand the ramifications of the global loss of biodiversity in a personal and real way.

Three rare and endangered butterflies struggle to survive on San Bruno Mountain - the Mission Blue, the San Bruno Elfin and the Callippe Silverspot. All are federally listed as endangered and San Bruno Mountain is the only place on the planet where these 3 species coexist. These rare butterflies have very specific habitat requirements - and butterfly habitat on San Bruno Mountain is under constant threat. Loss of habitat means loss of butterflies.

These three butterflies have several things in common: all are subspecies of more common butterflies; all are **host plant-specific** - see description below; all have limited range; all have very short adult stages; all have **one-year life cycles** - explanation of stages below; and all find their largest population here on San Bruno Mountain.

Butterflies require both nectar plants to feed adults and host plants to house and feed larvae (caterpillars). Many butterflies use a variety of plants (polyphagous butterflies) as host plants and those species tend not to be endangered - they have an easier time and can adapt to varied habitats.

Host-specific butterflies have a harder time - some may be able to use more than one species from one plant genus (the Mission Blue can use three different species of lupine), but frequently butterflies will rely solely on one plant species to lay their

eggs and feed the larvae (caterpillars). The Callippe Silverspot, for example, must use the California Golden Violet (*Viola pedunculata*) and the San Bruno Elfin must use the Pacific Stonecrop (*Sedum spathulifolium*). Consequently, the disappearance of the host plant, for any reason, spells disaster - and the extermination of the species.

Mission Blue butterfly eggs were found on lupine plants located in South San Francisco on Sign Hill ridges in 2013 and 2014.

Habitat is critical to San Bruno Mountain's butterflies. The major threats to loss of habitat are development, non-native invasive plants, and natural scrub succession. Plant succession is a natural process where a few species of plants expand to dominate a habitat when they have the opportunity and no negative factors. Succession can be slowed and reversed using a strategy of controlled burns, which also benefits the required host plants. All three species of endangered butterflies evolved with fire being a natural part of their environment and have adapted by spending the majority of their life cycle on the ground or in the ground around their host plant.