



Midpeninsula Regional
Open Space District

R-20-50
Meeting 20-11
May 27, 2020

AGENDA ITEM 3

AGENDA ITEM

Award of Contract for Vegetation Mapping Services in Santa Clara and Santa Cruz Counties

GENERAL MANAGER'S RECOMMENDATIONS

1. Authorize the General Manager to enter into a four-year cooperative agreement with San Mateo County Resource Conservation District for regional vegetation mapping services, for an amount not-to-exceed \$200,000.
2. Authorize a 12% contingency of \$24,000 to request additional mapping services, if deemed beneficial and appropriate, for a total contract amount not-to-exceed \$224,000.

SUMMARY

To inform land management needs, Midpeninsula Regional Open Space District (District) seeks to collaborate with the San Mateo County Resource Conservation District (RCD) and other regional partners to produce fine-scale vegetation mapping and landscape data products for Santa Clara and Santa Cruz Counties, including District lands. The RCD acts as the fiscal sponsor for the Santa Cruz Mountain Stewardship Network (SCMSN). The RCD and SCMSN have the staff, experience, and partnerships to lead this project. This map and data will support future project planning and resource protection efforts by providing staff with higher resolution data of existing natural resource conditions, forming a baseline by which to compare future survey data. To date, a similar effort has been accomplished for San Mateo County. This work will provide the missing information to cover the District's entire jurisdiction and will facilitate regional partnership projects that extend across property and jurisdictional boundaries within the Santa Cruz Mountain Region. The General Manager recommends awarding a cooperative agreement with the RCD to take the lead in retaining vegetation mapping services in Santa Clara and Santa Cruz Counties for a base amount not-to-exceed \$200,000 and authorizing a 12% contingency amount of \$24,000. There are sufficient funds in the Fiscal Year 2019-20 (FY20) budget to cover the recommended action and anticipated scope of services through end of June. Funding for future year budgets would be requested as part of the annual Budget and Action Plan process.

BACKGROUND

Santa Clara and Santa Cruz Counties' land managing agencies and stewards have the responsibility of caring for a diverse mix of ecosystems, including estuarine, marine, oak woodland, redwood forest, coastal scrub, and oak savannah. Home to more than 300,000 acres¹ of protected lands, open spaces provide residents, neighbors, and visitors with water, varied

¹ Source: California Protected Areas Database (CPAD), 2017, Green Info Network

recreation opportunities, scenic vistas, wildlife habitat, and vital refuges for many threatened, endangered, and special status species. The natural resources provide numerous ecological, economic, and social benefits that are vitally interlinked to each county's communities. However, the health of the natural resources is threatened by global climate change, altered fire regimes, invasive non-native plants and animals, habitat fragmentation, plant diseases and pathogens, noise, light, and air pollution, and other human and natural impacts.

To care effectively for the counties' ecosystems and infrastructure, resource and land managers must know the location and distribution of those ecosystems across the county and have the ability to monitor change overtime. Unfortunately, there are serious gaps in knowledge about the vegetation and landscapes of the Santa Cruz Mountain Region. In 2006, the District acquired fine-scale vegetation maps for preserves and filled in county gaps with low-resolution statewide vegetation mapping data. In 2019, the District entered into contract with the Golden Gate National Parks Conservancy of San Francisco to complete a comprehensive, countywide, fine-scale vegetation map for San Mateo County (R-19-10). This Award of Contract will complement the San Mateo County effort and update Santa Clara and Santa Cruz Counties' portions of the 2006 map.

Santa Cruz Mountain Stewardship Network

The RCD acts as the fiscal sponsor for the SCMSN and holds funding provided by network members. The SCMSN is a region-wide and cross-sector collaboration of independent individuals and organizations who are committed to practicing effective stewardship on their own lands and coordinating their efforts with other land stewards to enhance stewardship throughout the Santa Cruz Mountains. The collaborative effort to bring together partners to fund this project began with the SCMSN and they are well suited to work with the RCD to carry out the vegetation mapping project.

This interagency collaborative project will result in improved scientific understanding of vegetation conditions within the Santa Cruz Mountain Region. This information will allow the District to make better decisions, inform multiagency efforts to manage the wildland-urban interface for fire and fuel projects through a countywide vegetation and ladder fuels maps, and provide baseline information to assess changes following landscape level events, such as wildfire. This project will also allow the District to address more effectively a California Environmental Quality Act mitigation requirement from the Final Environmental Impact Report for the Integrated Pest Management Program (R-14-148) calling for the development of a landscape-level monitoring program. In addition, the vegetation and ladder fuels map will aid Wildland Fire Resiliency Program to prioritize vegetation management areas (R-20-42).

DISCUSSION

Having accurate and consistent spatial vegetation data will be an invaluable tool in managing and monitoring fire and flood hazards, critical habitats, and the resiliency of habitats to climate change impacts. To address these needs, the SCMSN and other open space partners in the Santa Cruz Mountains are working together to achieve the common goal of developing a fine-scale countywide vegetation map and landscape database.

The SCMSN network members and other partners in Santa Cruz and Santa Clara Counties will contribute expertise to the project's ecological design and goals, and provide

resources to support and implement the work. For this project, the SCMSN will provide centralized data management, project management support, contracting, and fundraising.

Support for this project is broad and substantial as illustrated by Table 1, which lists the partners who have pledged funding for this project. Table 2 includes the anticipated budget to complete the project. Table 3 includes additional scope and services that are partially funded. The General Manger recommends a 12% contingency (\$24,000) as part of the authorization in the event the District can leverage additional funds from partner agencies to acquire this additional publicly-beneficial mapping products (e.g. location of riparian areas, evergreen to conifer ratios). If the additional funds are not secured, the additional scope will be reduced or not completed. Other organizations have voiced support for the project and are providing expert advice, as appropriate, including California State Parks, the California Native Plant Society, California Department of Fish and Wildlife, Santa Cruz Resource Conservation District, and Peninsula Open Space Trust.

Table 1 – Funding Partners and Amount Pledged

| <i>Partner/Organization</i> | <i>Santa Clara County</i> | <i>Santa Cruz County</i> | <i>Total</i> |
|---|---------------------------|--------------------------|---------------------------|
| <i>Big Creek Lumber</i> | - | \$2,000 | \$2,000 |
| <i>California Department of Fish and Wildlife</i> | \$75,000 | \$75,000 | \$150,000 |
| <i>California Department of Forestry and Fire Protection</i> | \$365,724 | \$199,431 | \$565,155 |
| <i>California State Coastal Conservancy</i> | \$50,000 | \$50,000 | \$100,000 |
| <i>California State Parks</i> | \$100,000 | \$200,000 | \$300,000 |
| <i>County of Santa Clara and partnering cities/agencies²</i> | \$700,000 | - | \$700,000 |
| <i>County of Santa Cruz and partnering cities/agencies³</i> | - | \$130,000 | \$130,000 |
| <i>Gordon and Betty Moore Foundation</i> | \$25,000 | \$25,000 | \$50,000 |
| <i>Midpeninsula Regional Open Space District</i> | \$150,000 | \$50,000 | \$200,000 |
| <i>National Oceanic and Atmospheric Administration</i> | \$25,000 | \$25,000 | \$50,000 |
| <i>Peninsula Open Space Trust</i> | \$25,000 | \$25,000 | \$50,000 |
| <i>Resource Legacy Fund</i> | \$17,500 | \$17,500 | \$35,000 |
| <i>San Francisco Public Utilities Commission</i> | \$100,000 | | \$100,000 |
| <i>Santa Clara Valley Habitat Agency</i> | \$25,000 | - | \$25,000 |
| <i>Santa Clara Valley Open Space Authority</i> | \$50,000 | - | \$50,000 |
| <i>Santa Clara Valley Water District</i> | \$25,000 | - | \$25,000 |
| <i>Save the Redwoods League</i> | - | \$15,000 | \$15,000 |
| <i>United States Geological Survey</i> | - | \$23,883 | \$23,883 |
| <i>University of California, Santa Cruz</i> | - | \$1,000 | \$1,000 |
| <i>Total Funding for both Counties⁴</i> | <i>\$1,733,224</i> | <i>\$838,814</i> | <i>\$2,575,038</i> |

² Estimated in-kind contribution from Santa Clara County and partnering agencies for LiDAR acquisition. The District is one of the partnering agencies.

³ Estimated in-kind contribution from Santa Cruz County and partnering agencies for aerial imagery acquisition

⁴ Final cost allocation for some funding sources TBD

Table 2 – Fully Funded Scope of Services

| <i>Item</i> | <i>Santa Clara County</i> | <i>Santa Cruz County</i> | <i>Total</i> |
|--|---------------------------|--------------------------|---------------------------|
| <i>Project management and administration</i> | \$95,000 | \$95,000 | \$190,000 |
| <i>LiDAR acquisition and post-processing (QLI for Santa Clara; QLI for Santa Cruz)</i> | \$700,000 | \$124,000 | \$824,000 |
| <i>6-inch orthoimagery acquisition and post processing⁵</i> | \$15,350 | \$130,000 | \$145,350 |
| <i>Enhanced Lifeform Vegetation Map⁶</i> | \$207,742 | \$71,479 | \$279,221 |
| <i>Countywide 5m Fuels Map and Ladder Fuels Map⁶</i> | \$50,300 | \$50,300 | \$100,600 |
| <i>Multi-class Impervious/Pervious Surfaces Map⁶</i> | \$52,492 | \$22,462 | \$74,954 |
| <i>Alliance level mapping of Tidal Wetlands</i> | \$25,000 | \$25,000 | \$50,000 |
| <i>Total cost</i> | <i>\$1,145,884</i> | <i>\$518,241</i> | <i>\$1,664,125</i> |

Table 3 – Partially Funded Additional Scope of Services

| <i>Item</i> | <i>Santa Clara County</i> | <i>Santa Cruz County</i> | <i>Total</i> |
|---|---------------------------|--------------------------|---------------------------|
| <i>Countywide vegetation classification production: field data acquisition and analysis</i> | \$200,000 | \$200,000 | \$400,000 |
| <i>Fine-scale vegetation map production and accuracy assessment</i> | \$793,730 | \$394,697 | \$1,188,427 |
| <i>Total cost</i> | <i>\$993,730</i> | <i>\$594,697</i> | <i>\$1,588,427</i> |
| <i>Funding Needed to Complete Additional Scope</i> | <i>\$406,390</i> | <i>\$274,124</i> | <i>\$680,514</i> |

FISCAL IMPACT

There are sufficient funds in the amended FY20 operating budget to cover the recommendation through the end of June 2020. Funds for future year budgets will be recommended as part of the annual Budget and Action Plan process. A summary of the anticipated contract expenditures for the next four years is shown in the table below.

| Santa Clara & Santa Cruz Vegetation Map Services | FY20 | FY21 | FY22 | FY23 | Total |
|---|-----------------|-----------------|-----------------|-----------------|------------------|
| Award of Proposed Contract | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$200,000 |
| Contingency (12%) | \$0 | \$0 | \$12,000 | \$12,000 | \$24,000 |
| Total Not To Exceed: | \$50,000 | \$50,000 | \$62,000 | \$62,000 | \$224,000 |

⁵ Santa Clara cost shown is to purchase commercial use high-resolution (30cm) version of existing National Agriculture Imagery Program (NAIP) imagery collected in August of 2018 which will supplement the county's planned winter 2020 leaf-off collection.

⁶ Costs included in Fire Prevention Grant Award from Cal Fire

BOARD COMMITTEE REVIEW

A Board Committee did not previously review this item.

PUBLIC NOTICE

Public notice was provided as required by the Brown Act.

CEQA COMPLIANCE

Funding the agreement to create a vegetation map is not a project subject to the California Environmental Quality Act. However, this project will address more effectively the California Environmental Quality Act requirement from the Final Environmental Impact Report for the Integrated Pest Management Program (R-14-148) to develop a landscape-level monitoring program. The deliverables will also be used to help refine work needing to be completed for the proposed Wildland Fire Resiliency Program (R-20-42).

NEXT STEPS

Following Board approval, the General Manager will execute a contract with the San Mateo County Resource Conservation District for a four-year period beginning in FY2019-20. District staff will facilitate and participate in field verification with other professional botanists from the region on District managed lands.

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