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PUBLIC WORKS DEPARTMENT

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PARKS AND RECREATION COMMISSION STAFF REPORT

Special Meeting: May 18, 2022

Subject

Update on Fiscal Year 2021-22 City Work Program Item Blackberry Farm Golf Course Needs Assessment

Recommended Action

Receive the report from National Golf Foundation Consulting (NGF) for the option to complete minor repairs and improvements to the golf course and the report from Moore Iacofano Goltsman, Inc. (MIG) for converting the golf course to natural habitat. Provide input and feedback on next steps regarding public outreach.

Background

The Blackberry Farm Golf Course was constructed in 1962 and has been owned by the City since 1991. The site is approximately 16 acres and contains a 9-hole golf course, a parking lot, one main building and three accessory maintenance facilities. The main city owned building houses a pro shop and a restaurant facility that is leased by the Blue Pheasant. See **Attachment A - Existing Site Conditions** for site overview. Most of the property is located within a designated floodplain and is adjacent to Stevens Creek which contains protected and sensitive wildlife species, such as steelhead trout.

In the early 2000's, the Stevens Creek Corridor Master Plan (SCCMP) was initiated. Its goal was to create an updated vision and plan for public lands along Stevens Creek, from McClellan Road northward to Stevens Creek Boulevard. In 2014, in parallel to the SCCMP the City hired NGF to assess various options for improvements to the golf course. In 2015 and 2016 several golf course improvement options were presented to City Council for consideration. Alternatives ranged from minor repairs to the golf course to full reconfiguration, including construction of a new clubhouse. During meetings, comments about converting the golf course back to natural habitat were raised.

The efforts associated with the SCCMP and improvements to the golf course were suspended due to City Council's decision to focus first on completion of the citywide park system master plan. Since the adoption of the *Parks and Recreation System Master Plan* in 2020 the City has reinitiated the discussion regarding the golf course. The project's objective is to determine

short-term and long-term improvements to the golf course and amenities and is part of the Fiscal Year (FY) 2021-22 City Work Program. At the June 3, 2021 Parks and Recreation Commission meeting, the commission unanimously recommended to City Council to update feasibility study for Option 1 (minimal repairs) and to continue with a feasibility study for Option 3 (return to habitat). At the July 20, 2021 meeting, the City Council unanimously agreed to have staff update feasibility study for Option 1 (minimal repairs) and to continue with a feasibility study for Option 3 (return to habitat). The first option is intended to focus on completing minor repairs and improvements to the golf course. See **Attachment B - NGF Report – Minimal Repairs to Golf Course**. The second option is to convert the site to natural habitat. See **Attachment C - MIG Report – Convert to Natural Habitat**.

Discussion

Following the aforementioned direction from Council to "…update the study for minimal repairs to the golf course (Option 1) and to study returning the golf course to natural habitat (Option 3)…" the City hired two consultants to complete these studies, NGF and MIG.

NGF was directed to update their previous 2014 report and provide additional input to complete minor improvements of the golf course. This scope of work did not include assessment of the city owned building that houses the Blue Pheasant Restaurant and pro shop or assessment of business uses.

MIG was asked to complete a feasibility study for habitat restoration of the entire site. This would include a natural park focusing on a diverse ecosystem utilizing native plant species. The park would also include walking trails and active and passive restoration actions.

A. NGF Report Summary

Prior to the COVID-19 pandemic, the golf course averaged approximately 28,000 rounds of golf annually. During the pandemic the average number of rounds increased to 41,000. The City anticipates post-pandemic averages to be closer to pre-pandemic levels. Ongoing maintenance of the existing tees, greens, and fairways of the golf course is a primary expenditure for the City at this site. On average, the City subsidizes the golf course with $272,000 (pre-COVID) of funding.

The study completed by NGF includes the following primary features for repair or improvement.

1) Replacement of the irrigation system.
2) Replace historical ponds with lowland native vegetation.
3) Replace tees and greens as needed.
4) Installation of protective netting between tee #6 and hole #4.
5) Shorten hole #9 to limit errant shots into the existing parking lot.
6) Grading or terracing of small areas of the course to improve safety and access.

7) Assess conversion of the water source from municipal potable water to well water.

Golf Course Irrigation

The viability of the golf course is directly tied to the irrigation system. The current irrigation system is 60 years old. It has antiquated mainline pipes and has outlived its intended lifecycle by over 30 years. Mainline pipe failures occur no less than one time per year and lateral pipe breaks or leaks occur frequently. This is cause for substantial waste of water as well as financial resources. Additionally, many replacement parts for the system are no longer available.

In 2011 the City hired Russell D. Mitchell & Associates (RDMA) to re-design the irrigation system. The new irrigation system was not constructed due to the recognition that a wider Stevens Creek Corridor Master Plan was needed to steer the direction of the entire corridor prior to improvements to the golf course. RDMA is a subconsultant to NGF for this current NGF report.

Irrigation practices since 2014 have included restrictions on total water use due to drought conditions. Prior to 2014 no restrictions were imposed on the site. **Table 1 – Irrigation Water Use Pre-2014 and Post-2014** below demonstrates the difference in water use before and after 2014.

Table 1 – Irrigation Water Use Pre-2014 and Post-2014

Year Range	Average Annual Water Use
2008 through 2013	**15.9 million gallons**
2014 through 2021	**8.5 million gallons**

The volume of potable water used after 2014 has been 53% of that used prior to 2014. The current average use of 8.5 million gallons included measures taken to improve the irrigation control system as well as extensively cutting back the total acreage irrigated. At times, up to 1/3 of the irrigation heads have been shut off for extensive periods to limit water use. This reflects irrigation of about 8 acres of the 12.5-acre site. Areas designated for limited or no irrigation tend to brown and have typically included the fairways and the rough. Critical areas to keep healthy and green include the tees and greens.

Replacement of the irrigation system will not only allow the golf course to continue operation many years into the future but will also improve water-use efficiency and effectiveness. The improved irrigation design allows for irrigation of up to 12.5 acres of the site. In times of water-use restrictions the new system can readily be adjusted to meet use limitations. This may include less water on a wide area of the golf course or irrigation of less acreage of the site. Projections for water use with a new irrigation system as reflected in the 2011 RDMA design are outlined below in **Table 2 – Water Use Projections with New Irrigation System**. **Table 2**

indicates that water savings over the current annual average of 8.5 million gallons can be achieved by limiting the total acreage irrigated to less than 12.0 acres assuming a standard irrigation regime for golf course turf. As drought conditions continue and water use restrictions are in place for the golf course as little as 9.5 acres of turf can be watered and would reflect a 21% decrease in water use relative to the post-2014 average.

Table 2 – Water Use Projections with New Irrigation System

Projected Irrigated Acres	Total Reduction in Irrigated Acres	Projected Annual Water Use (ETWU) (gallons)	Percentage Reduction in Water Use vs. Irrigating Full 12.5 Acres	Percentage Change from Post-2014 Average of 8.5M Gallons
12.5	0.0	8,825,050	0%	4% More
11.5	1.0	8,119,046	8%	4% Less
10.5	2.0	7,413,042	16%	13% Less
9.5	3.0	6,707,038	24%	21% Less

Note: ETWU = (Acres*Acre-In *Eto*PF)/IE. To calculate ETWU RDMA assumed an average Annual Evapotranspiration Rate (ETo) of 30 inches, a Plant Factor (PF) of 0.65%, and an Irrigation Efficiency (IE) of 75%.

Water Source Conversion – Potable vs. Well

Over the past 10 years the City has explored the option to revitalize the existing well located near the site. This well was used as the primary source of irrigation for the golf course from 1962 until 2003. Failure of a storage tank, which held water pumped from the well, caused the City to convert from well use to municipal potable water. Currently, potable water is the sole source of irrigation for the site.

A study to test the existing well water production capacity completed in January 2012 by Balance Hyrdologics indicated that the well could pump up to 200 gallons per minute (gpm) but that pumping at such a high rate could have a detrimental effect on flows in Stevens Creek. Regulatory agencies would likely require additional testing and continuous monitoring of Stevens Creek flows to ensure the creek would not be impacted by well operations for irrigating the golf course. This testing and monitoring of Steven Creek could be a substantial cost for the City depending on the regulatory requirements.

NGF's assessment to convert the well back to use for irrigation at BBF golf course indicate an additional capital cost of approximately $932,000 with annual maintenance costs of at least $9,900 over the cost of continuing to utilize potable water. Between initial capital costs, ongoing maintenance costs, groundwater use fees, and any required ongoing testing and monitoring of the system to irrigate the golf course the revitalization of the well is not likely a financially or environmentally sound alternative.

Replacement of Tees and Greens

The NGF Report accounts for replacement of all tees and greens. It is noted that the tees and greens could be replaced on an as needed basis to save initial capital costs. New tees and greens will improve the playability of the course. Regardless, typically it is recommended to replace tees and greens every 10 years.

Shortening Hole #9

NGF recommends shortening hole #9 from approximately 560 ft. to 450 ft. to improve site safety due to errant ball going into the existing parking lot. The space gained by shortening of hole #9 could be converted to additional practice hitting bays and a small practice green.

Addition of Protective Netting

NGF is recommending as a minimal baseline safety measure to add netting between holes #4 and #6. This will help eliminate concerns associated with errant shots from hole #4 onto the tee box at hole #6. NGF also notes that this measure will not eliminate other safety concerns for the golf course. Several other safety concerns are discussed within the NGF Report but are not included in the cost estimates provided.

Minor Repair and Improvement Costs

NGF estimates the capital costs for completing minor repairs and improvements to BBF Golf Course to be $1.97 million. The City estimates that, over a 25-year period, the total cost of operation and maintenance (O&M) with these improvements will be $8.12 million after accounting for projected revenues. Total cost to the City over a 25-year period is projected to be $10.09 million.

B. MIG Report Summary

The City has hired MIG, Inc. to assist with a feasibility study of the option to convert BBF Golf Course to natural habitat. MIG's scope includes an assessment of existing site and habitat conditions. Generally, Stevens Creek has been a protected resource for more than 100 years due to its value as a wildlife corridor. The value of the corridor has increased over time, given the continued urbanization of the area.

BBF Golf Course is predominately located within the Federal Emergency Management Agency's (FEMA) 100-yr Flood Zone. Habitat native to the golf course would typically include multiple special-status plants but currently these plants cannot be found at the site. Additionally, MIG determined that up to three wildlife species may currently occur at the site.

At BBF Golf Course the historic ecology was likely oak savanna. This includes a low density of oak trees with mostly open canopy. The understory was likely annual grass with scattered shrubs and perennial grasses. MIG's analysis accounts for adaptation to projected climate change conditions. A return to oak savanna is compatible with anticipated ecological changes due to climate change. MIG proposes a restoration approach that includes the delineation of a riparian regeneration zone, the establishment of wildflower meadows, and designated habitat islands. Habitat islands would include flowering shrubs and native oaks. Existing coastal redwood trees would remain onsite.

Amenities for the public would include nature trails, outdoor seating, and environmental education opportunities along with other potential recreational opportunities. Park rangers would be present onsite through conversion of the pro shop to office space. The existing restrooms adjacent to the pro shop will also be available. Additionally, there would be an expansion of the parking lot located south of the golf course.

The conversion to natural habitat would include sustainable management practices. There is an estimated three-to-five-year establishment period for plantings. During this period habitat islands would be irrigated via drip irrigation and areas outside of the islands would either be trail facilities or be allowed to naturally migrate to an ecological "steady state" with use of native vegetation. This vegetation will be maintained periodically to establish standard defensible space management practices to limit exposure to fire hazards.

Use of potable water for irrigation would be limited to the habitat islands and be operational for a period of up to eight years to ensure establishment of vegetation. After an eight-year period the irrigation can be removed from the area. MIG anticipates that the native and drought-tolerant vegetation will survive within its natural environment without irrigation. Due to the type of vegetation species and the limited area planned for irrigation the City anticipates a substantial reduction in potable water use relative to continued operation of the golf course.

Natural Habitat Costs

MIG estimates a capital cost of $1.88 million to convert the golf course to natural habitat. The City estimates that, over a 25-year period, the total cost of operation and maintenance for this option will be $10.22 million after accounting for projected revenues. Total cost, over a 25-year period, to convert the golf course to natural habitat is projected to be $12.10 million. The City is confident some grant funding will be available for this option. Costs presented here to not account for potential grant funding.

Note: The City anticipates that grant funding may be available for this option. The City projects potential grant funding of $300,000 for initial improvements and $300,000 in operational grant funding.

C. Comparative of Total Project Costs – 25 Year Outlook

Based on the planned improvements and recommendations for the site within the NGF and MIG reports, the City has established a cost estimate for each option. The estimates reflect a 25-year operational period. The cost estimates are provided in today's dollars and do not account for inflation. Costs included account for initial capital costs to construct the improvements, projected revenues, and ongoing operations and maintenance of the respective facilities. **Attachment D – Blackberry Farm Golf Course Use Analysis Comparative Costs – 25 Year Outlook** provides a summary of costs associated with each option.

In summary, after accounting for projected revenues, costs for the option to repair the golf course are $1.97 million in capital costs with an additional $8.12 million in ongoing O&M costs. Costs for converting the site to natural habitat is $1.88 million in capital costs with an additional $10.22 million in ongoing O&M costs.

Additionally, as a comparative, **Attachment D** provides an estimate of the total projected water use over 25 years for each alternative. This is a relevant metric in terms of costs as well as use of natural resources. It is anticipated that in Santa Clara County the cost of potable water will continue to increase at a rate higher than the overall Consumer Price Index for the area. This may lead to disproportionate costs associated with water use in the future. It is projected that the option to convert the site to natural habitat will use less than 10% of the water needed to irrigation the golf course over a 25-year period.

D. Proposed Public Outreach Process

During the Parks and Recreation System Master Plan public outreach process the City received a variety of input about the community's priorities for programming and use of park space. Survey information received during the master planning process indicates that 83% of respondents noted that improving access to natural open space is very or somewhat important. This compares with 74% of respondents who stated that a variety of recreational opportunities is very or somewhat important. See **Attachment E – Selected Pages from Parks Master Plan** for additional detail. The Blackberry Farm Golf Course site offers great opportunities for either of these community priorities.

The City understands the importance of allowing the community to provide input specific to the future use Blackberry Farm Golf Course. To facilitate public input the City plans to issue an online survey specifically asking the community it's preferences between the two alternative uses of the site. See **Attachment F – Draft Online Survey** for the specific questions associated with the survey. The survey will be open to the public the week of May 23, 2022 and close no

later than July 15, 2022. Residents will be notified about the project and online survey through a postcard to be mailed to each residence. Additionally, the City will be holding a virtual community meeting on June 6, 2022 at 6:30 p.m. to provide an overview of the alternatives and hear directly from the community.

The City has retained Cascadia Consulting to assist with the public outreach process and analysis of community input. Once community input is provided and analyzed City staff will return to the Parks and Recreation Commission for recommendations on next steps for the project.

Sustainability Impact

The primary sustainability impact for these projects is the potential for considerable water use savings. For continued use of the golf course installation of an improved irrigation system can decrease water use by up to 21% of current levels. If the site is converted to natural habitat water use will be less than 10% that used for the golf course over a 25-year period.

Fiscal Impact

The pre-COVID annual subsidy for operation of the golf course has averaged $272,000. After accounting for projected revenues, costs over a 25-year period for each option is summarized below:

A. Repair the Golf Course
    a. $1.97 million (Total Capital Cost)
    b. $8.12 million (Total O&M Cost)
    c. Average Annual O&M Cost = $324,705
B. Converting the Site to Natural Habitat
    a. $1.88 million (Total Capital Cost)
    b. $10.22 million (Total O&M Cost)
    c. Average Annual O&M Cost = $408,824

    (Note: Potential grant funding may reduce projected capital and O&M costs)

Attachment D provides a summary of costs associated with each option.

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Attachments:
A – Existing Site Conditions
B – NGF Report – Minimal Repairs to Golf Course
C – MIG Report – Convert to Natural Habitat
D – Blackberry Farm Golf Course Use Analysis Comparative Costs – 25 Year Outlook
E – Selected Pages from Parks Master Plan
F – Draft Online Survey