

PRC Special Meeting

May 18, 2022

Presentations

Item 1

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

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

Feasibility Studies for Two Alternatives
May 18, 2022



CUPERTINO

Overview

- Background
- Current Issues
- City Actions to Date
- Parks and Recreation System Master Plan
- Option A - Minor Repairs and Improvements Study – NGF
- Option B - Convert to Natural Habitat Study – MIG
- Comparative Cost Analysis
- Next Steps – Public Outreach

Site Location

BBF Golf Course

BBF Golf Course

Total area of site = 16 acres (approx.)

Maximum total irrigated area = 12.5 acres

Stevens Creek Blvd

North



Background

- Constructed in 1962
- City owned and operated since 1991
- Entire site approximately 16 Acres
 - Parking lot
 - Main building – Pro Shop, Blue Pheasant, Restrooms
 - 9-Hole Golf Course
 - 3 Accessory Buildings
- Well water was used for irrigation until 2003
- Currently, irrigation source is municipal potable water

Background

- Adjacent to Stevens Creek and riparian corridor
 - Corridor contains special-status plants and protected wildlife species
- Golf Course is within a designated floodplain
- Historic ponds do not retain water
- Average 28,000 rounds annually (pre-Covid)
 - Cupertino residents account for 39% of rounds
- Annual average subsidy is \$272,000 (pre-Covid)

Current Issues

- Irrigation System is over 60 years old
 - Frequent leaks and pipe failures which waste a high quantities of water and is costly
 - Antiquated, inefficient system
 - Drought-related water restrictions may drive future water use and increase costs.
- Safety Concerns

City Actions

- 2011 – New irrigation design by RDMA
 - Not implemented
- 2012 Investigation into renovation of well for irrigation by Balance Hydrologics
 - Use limitations
- 2014 - 2016 – Stevens Creek Corridor Master Plan
 - Put on hold to complete Citywide Parks Master Plan

City Actions

- 2014 – 2016 – Feasibility study on improvements to BBF Golf Course by NGF
 - Provided 3 alternative plans
 - Options looked at repairs and financial self-sufficiency
 - No options were implemented
- 2017 - 2020 – Parks and Recreation System Master Plan
- 2021 – FY21-22 City Council Work Program - Reinitiated discussions regarding use of BBF Golf Course

City Actions

- July 20, 2021 City Council Meeting, staff was directed to...

“update the study of minimal repairs to the golf course (Option 1) and to study returning the golf course to natural habitat (Option 3).”

Future Use Options

- **Option A** – Complete Minor Repairs and Improvements for the Golf Course - NGF
- **Option B** – Convert Golf Course to Natural Habitat - MIG

Parks and Recreation System Master Plan

- Evaluate the benefit prior to doing a like-for-like replacement
- Avoid replacing failing amenities without reviewing current needs
- Increase ecological value along Stevens Creek Corridor

Parks and Recreation System Master Plan

2017 Activity Participation Survey

- 939 respondents
- 16.8% of residents participate in golf or use a driving range.
- 67% of respondents are residents who walk for pleasure or fitness and take part in nature walks or hikes.
- 83% of respondents noted that improving access to natural open space was very or somewhat important
- 80% of respondents favor adding trails and pathways
- 74% of respondents stated that a variety of recreational opportunities is very or somewhat important

Option A
Blackberry Farm Golf Course
Minor Repairs and Improvements
NGF Feasibility Study



Minor Repairs and Improvements

- Replace all tees, greens, and ponds
- Address primary golf course safety issues
- Replace irrigation system
- Assess feasibility of restoration of well for irrigation

Proposed Improvements – Tees, Greens and Pond

- Replace Tees, Greens
 - Improve playability and drainage
 - Opportunity to marginally expand the footprint of some tees and greens
 - May replace selectively if needed
 - Industry standard to replace every 6-10 years
- Replace Empty Ponds
 - Ponds to be planted with native lowland species and remain empty

Proposed Improvements - Safety

➤ Safety Issues

- Shorten Hole # 9 to avoid errant balls going into the parking lot
- Level or terrace uneven or steep areas on the course
- Add netting between Holes #4 and #6

Proposed Improvements – Irrigation System

- Replacement of Irrigation System
 - New Mainline and Lateral pipes
 - New Sprinkler Heads
 - New Control System

 - Goals:
 1. To improve efficiency and effectiveness of system to help the City reduce costs and address water use restrictions.
 2. Limit potential for catastrophic break of existing mainline.

Water Use Analysis – Historic Irrigation Practices

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

Note: Water-use restrictions put in place in 2014. In 2014 City reduced total acreage being irrigated and implemented improved control system of individual sprinkler heads.

Water Use Analysis – New Irrigation System

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%.

Renovation of Well for Irrigation

- Due to well flow rate limitations, a storage tank is required.
- Tank volume to be no less than 30,000 gallons
- Flow rate test limited to 50 gpm
- Unknown if higher flow rates will influence flows in Stevens Creek
- Ongoing monitoring of Stevens Creek may be required
- Additional capital costs to restore well is \$932,000 with \$10,000 annually for maintenance
- Groundwater use fees substantial and will increase

Conclusion: Use of well water for irrigation of the Golf Course is not a financially or environmentally sound alternative

Option A – Minor Repairs and Improvements Costs (25 Year Outlook)

Capital Cost = \$1.97 million

25 Year Operations and Maintenance Cost = \$8.12 million

Total Cost = \$10.09 million

Note: Costs account for projected revenue. Costs are in 2022 dollars and are not adjusted for inflation

Option B
Blackberry Farm Golf Course
Natural Habitat Restoration

MIG Feasibility Study



Natural Habitat Restoration

- Native oak woodland and grassland plant communities (historic habitats)
- Riparian regeneration zone
- Bioswale Planting of existing ponds
- Habitat Islands
- Wildflower Meadows
- Existing Redwoods would remain
- Development of trails and amenities for public enjoyment
- Addition of 35-40 parking spaces to southern parking lot

Natural Habitat Restoration

Benefits

- Integrate natural landscapes in the urban environment
- Irrigation water demand is less than 10% of that used for Golf Course
- Environmental education opportunities
- Stronger connection with nature within an urban setting
- Provide essential habitat patches and corridors to ensure the survival of native species in a human-dominated landscape

Natural Habitat Restoration



Existing Golf Course



Oak Woodland with Trails

Habitat Islands



Existing Golf Course



Native Habitat Island

URBAN WILDLAND RESTORATION APPROACH



- Future bus turnout/dropoff
- Existing building: convert pro shop to ranger office. Restroom available for public use.
- Existing shed available for ranger storage
- Outdoor education area with log seating
- Future nature play area
- Accessible trails with benches
- Existing fairway trees to remain
- Low maintenance zone (at areas outside habitat islands and wildflower meadows)
- Future exercise par course along trail
- Expand parking area
- Existing golf maintenance building available for parks maintenance
- See separate entry proposal for roadway and path improvements by others

MAP LEGEND

- | | | |
|-----------------------------------|----------------------------|--|
| STUDY AREA | CREEK | RIPARIAN REVEGETATION ZONE |
| PARK BOUNDARY | PROPOSED PATHS | DRY POND - POTENTIAL BIOWHALE PLANTING |
| (E) EXISTING BUILDING / STRUCTURE | PROPOSED BUILT FEATURE | HABITAT ISLAND |
| (E) STEVENS CREEK TRAIL | EXISTING RIPARIAN CORRIDOR | WILDFLOWER MEADOW |
| (E) PATHS | | |
| (E) BRIDGE | | |

FEBRUARY 2022



Option B – Convert to Natural Habitat Costs (25 Year Outlook)

Capital Cost = \$1.88 million

25 Year Operations and Maintenance Cost = \$10.22 million

Total Cost = \$12.10 million

Note: Costs account for projected revenue. Costs do not account for potential grant funding. Costs are in 2022 dollars and are not adjusted for inflation

Comparative Costs

25 Year Outlook



Comparative Costs

Blackberry Farm Golf Course Use Analysis				
Comparative Costs - 25 Year Outlook				
Item #	Item		Repair Golf Course	Natural Habitat
1	Capital Cost		\$1,970,000	\$1,882,825
2	Total O&M Expenditure (0-25 yr)		\$17,496,250	\$10,720,594
		O&M Expenditure Breakdown		
	2A	Irrigation Water Cost***	\$1,575,000	\$100,800
	2B	Sewer Discharge Cost	\$525,000	\$297,200
	2C	City Labor Costs	\$7,569,500	\$9,591,844
	2D	Contracted O&M Services	\$7,610,000	\$562,000
	2E	O&M Miscellaneous	\$216,750	\$168,750
3	Estimated Revenue (0-25 yrs)		\$9,378,624	\$500,000
4	O&M Expenditure minus Revenue (0-25 yrs)		\$8,117,626	\$10,220,594
5	Total Cost minus Revenue (0-25 yrs)		\$10,087,626	\$12,103,419
6	Irrigation Water Use (0-25 yrs) Gallons*		168 to 212 million Gallons	14 million Gallons
7	Grant Funding Potential**		N/A	\$600,000

Next Steps

Public Outreach



Public Outreach

- Review of Survey Questions by P&R Commission
 - Staff is seeking input regarding survey questions and process.
 - Eligibility to take online survey
 - Collection of demographic data
 - Additional input regarding proposed survey questions

Public Outreach

- Citywide distribution of informational postcards
- Engage Cupertino Website
- Online survey – open by May 25 - closes July 15
- Virtual community meeting on June 6, 2022
- Analysis of survey results and public input
- Return to P&R Commission for further guidance – August 2022
- Presentation to City Council for recommendations – September 2022

THANK YOU !!

QUESTIONS?