

CITIZENS' REPORT
ON THE
DISC GOLF COURSE PROPOSAL
FOR
PASO NOGAL PARK OPEN SPACE
JUNE 1, 2015

BY
FRIENDS OF PASO NOGAL PARK

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I. OVERVIEW

This report has been prepared by the Friends of Paso Nogal Park, a coalition of local citizens who are concerned for the future of this beautiful natural space. A proposal to create an 18-hole disc golf course in Paso Nogal Park is being considered by the Pleasant Hill Recreation and Parks District Board. As frequent users of the park, we are troubled that this wild open space could be considered as an appropriate site for this sport.

The authors of a recent study on the impact of disc golf concluded, "Disc golf is an emerging sport and most courses in the U.S. are in public parks. Because of the newness of this recreational activity, its potential negative impacts are just now becoming apparent. Across the country, disc golf courses, existing and proposed, are being re-evaluated, opposed or closed because of concerns about environmental damage to landscape and physical danger to people on or near a course."

The 60+ acres of Paso Nogal Park are designated as open space. Photos in Section I illustrate it is a jewel situated amidst the urban sprawl of Pleasant Hill and nearby cities. Beautiful photos of how the park exists today contrast with later sections documenting disc golf courses in California parks. These parks show severe environmental damage to trees, shrubs and underbrush – along with soil erosion – that destroy not only the land, but also animal habitats. In the case of Paso Nogal Park, its function as an oasis for wild creatures would be severely threatened by a disc golf course. Our report offers detailed data of the projected impact of the proposed course, physical evidence of damage at existing disc golf courses, animal vulnerability, and government regulations and laws.

The Pleasant Hill Recreation and Park District Board should reject this disc golf proposal due to the park's designation as open space and the documented evidence that disc golf causes significant environmental damage. U.S. and California codes specify environmental and open space protections, which restrict the type of development and activities that can occur in the park. The report also points out that the Pleasant Hill Rec's own Master Plan calls for 4.4 acres of open space per 1,000 population, a goal that has not yet been achieved, and falls far short of the California average of 8.4 acres per 1,000 population.

The Friends of Paso Nogal Park believe in the original intention of the park as open space, and the environmental laws that protect it. Disc golf is completely inappropriate for this particular park.

II. PASO NOGAL PARK

Paso Nogal Park is a beautiful open space area beloved by generations of Pleasant Hill residents. Its history predates the city of Pleasant Hill itself. A portion of the land and improvements were purchased with federal Land and Water Conservation Fund grants, which give the park federal protection to remain park land (see Appendix A).

Paso Nogal Park has been a place for a relaxing walk or jog or for quiet reflection for longer than Pleasant Hill has been a city. Numerous memorial benches throughout the park reflect the community's sense of this special place. The main vista area is dedicated to Leonard Grote, the first mayor of Pleasant Hill, who was instrumental in obtaining park land for future generations. The open space hiking trails are used on a daily basis by many local hikers, joggers and dog walkers who cherish the experience of an unspoiled natural space with vista views and abundant wildlife. There is a strong sense of community ownership of the park; residents treat it with care, remaining on the trails and keeping the park clean.



This photo shows the hill that proposed holes 10-12 of the disc golf course would cover. It is visible from numerous trail points throughout the park.

The proposal to install an 18 hole disc golf course has sparked controversy. Many users of the park feel outrage at the thought of numerous cement slab tees, metal poles, clanging baskets, signs and people trampling over the unspoiled natural areas. This sense of betrayal is fueled by

an almost instinctual need for a place of peaceful retreat and majestic natural views that are so rare in our hectic developed world. Ironically, the memorial vista to Mayor Grote would be surrounded by and overlook numerous holes of the proposed disc golf course. Another memorial bench, to Pleasant Hill mayor, James Maguire and his wife, Nancy, which overlooks a grove of trees, would also be surrounded by several proposed holes.



This is the Leonard Grote Memorial Vista. Note the same hill as in the previous picture (holes 10-12) in the distant left of this picture.



Plaque to Leonard Grote

Below are several areas of the park that would be impacted by the proposed disc golf course.



Another memorial bench and grove of young trees opposite that would be at the heart of the proposed course. At least 6 holes of disc golf would surround this bench area and the bench area to Mayor James Maguire.



One of the most beloved places in the park, the tree lined path above, would be adjacent to the proposed warm-up area of the course.



Approximate location of 18th hole of proposed disc golf course

PLEASANT HILL PARK AND REC MASTER PLAN

Paso Nogal Park is designated as open space in the Master Plan of the Pleasant Hill Recreation and Park District (see details in Appendix B: map, chart and Open Space Areas description). All of the documentation throughout this Master Plan refers to its use as open space and defines open space as: "Natural open space is defined as undeveloped land primarily left in its natural environment with recreation uses as a secondary objective." See items c-f below listed under the **Open Space General Development and Use Guidelines** on page 7-42 (Appendix C) of the Master Plan:

- c. Within open space areas, improvements should be kept to a minimum, with the natural environment, interpretive and educational features emphasized.
- d. Design and manage these types of areas for a sense of solitude, separation or environmental protection.
- e. Parking and overall use should be limited to the numbers and types of visitors the area can accommodate, while retaining its natural character and the intended level of solitude.
- f. Where feasible, public access and use of these areas should be encouraged, but environmentally sensitive areas should be protected from overuse.

The Pleasant Hill Recreation and Park District Master Plan page E-24 (Appendix D), lists under the section Trends for Natural Open Space Areas:

In larger metropolitan areas, the preservation of open space has become very important to residents.

It then lists under the Recommendation section on the same page:

It is recommended that the District increase its current ratio for open space lands. However, this will be difficult due to the high level of development within the community. The recommended standard is based on the following factors: The demand for open space is typically high in well-developed communities.

This recommendation is based on the current open space in Pleasant Hill of 3.61 acres/1000 population and the consulting group (MIG) recommends trying to increase this to 4.41 acres/1000 to get closer to the average California ratio of 8.81 acres/1000 population and west coast average of 8.42/1000. The recommended standard for agencies studied by this consultant group (MIG) is 7.25/1000 (See page E-23 of District Master Plan in Appendix D). Since it will be difficult to obtain more open space land, it is imperative to protect the limited amount that exists today. It is followed by a Design Standards section for Natural Open Space Areas (page E-25 in Appendix D) listing the basic elements as natural areas and optional elements as nature trails and paths.

The Master Plan section on Pathways and Trails on page 7-23 (Appendix E) states Paso Nogal Park as a popular destination for hiking:

According to results of the community survey, residents visited Paso Nogal Park an average of 9.2 times per year and Dinosaur Hill Park an average of 7.2 times per year. Hiking and jogging were popular activities with residents according to survey results. In addition, walking for pleasure is typically an activity with a very high participation rate, and interest in walking has been increasing nationally.

Clearly, this was the original purpose and intent of Pleasant Hill Rec as noted by the sign in the main bulletin board by the parking lot (see photo next page).

The first paragraph under the Park Land Definitions section of the PH Recreation and Parks Master Plan (on page B-6 Appendix B) states the following:

The most effective and efficient park system to manage is one made up of different park types, each designed to provide a specific type of recreation experience or opportunity. When classified and used properly, they are easier to maintain, create fewer conflicts between user groups and have less impact on adjoining neighbors.

The Recommendations and Policies section of the Master Plan (pages 7-20/7-21 Appendix F) for Paso Nogal Park indicates that conflicts already exist due to the limited mixed use nature of the park between hikers and a subset of dog owners who allow their dogs off leash on trails. As stated above the easiest way to avoid these conflicts is to keep activities according to the designation for the park. This park is designated for passive recreation and not for an organized sport like disc golf requiring a huge portion of the land dedicated to that one purpose. The



Pleasant Hill
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People, Parks and Programs Since 1951

PLEASANT HILL RECREATION and PARK DISTRICT

Paso Nogal Park includes 56 acres of open space area that varies from ridge top views to marsh bottoms, from native oak woodlands to orchards of fruit trees from another era. The park is home to many animals, although they may not always be seen. Deer, fox, opossum, skunk, raccoon, and coyote are some of the mammals that pass through. Their tracks can be found if you look carefully!!

The park also supports a large population of birds. So do not concentrate on just what passes beneath your feet but take the time to look to the skies above. You may see Turkey vultures, Red tail hawks, Red shouldered hawks, and other raptors.

Paso Nogal has many unique qualities. It is home to the valley oak, live oak and has the farthest western stand of blue oaks in the country. Its close proximity to the populated areas of central county and its feeling of remoteness enhance the beauty that is held within the park. Enjoy the park and the wildlife that this island of nature brings. As with all land, treat it with respect.

Park Maintenance Staff

Official Pleasant Hill Rec sign posted by the main bulletin board near the parking lot.

conflicts will only compound if the park is allowed to be used for a third specific use. The District has already recognized the potential for environmental harm from off-leash dogs (see last item in the list below). How can it possibly consider an 18 hole disc golf course which would

have a far more devastating impact on the environment? The recommendations given for the park in the master plan are listed below:

- Continue present uses on remainder of site.
- Improve signage both for users of the off-leash dog area and other park users. Consider adding educational signage about the impacts of off-leash pets on natural areas.
- Continue working with the local dog owners group to manage the off-leash area and enforce the rules, throughout the site.
- Look for ways of addressing the issue of off-leash dogs in the natural areas and on the trails. It may be effective to work with a local environmental advocacy group to develop educational outreach about the impacts of off-leash pets, or to monitor/ patrol the trail system for leash law violators.

The Master Plan also has guidelines for Special Use Areas (page 7-41 Appendix G) and disc golf would qualify under the category of “single purpose sites used for field sports or other activities” since no one else could use the area designated for the course when it is in use. These guidelines state:

Prior to the addition of any special use area, the District should prepare a detailed feasibility and cost/benefit analysis for each proposed site considered.

Has any study of the feasibility or cost/benefit analysis been done for this proposed disc golf course?



***Please preserve this beautiful space
for future generations of Pleasant Hill residents to enjoy!***



III. SCOPE OF A DISC GOLF COURSE

WHERE DISCS LAND

Disc golf courses are often illustrated with a straight or curved line between the tee off area and the target basket or goal. The proposed course for Paso Nogal Park (Appendix H, submitted with proposal at March 2014 Board Meeting) uses such lines to illustrate the course. However, it is a well known phenomenon that a thrown frisbee or disc does not always land where the thrower intends. In addition, disc golf courses are often designed with known “obstacles” consisting of trees and other natural elements of the park. Players must attempt to aim around such obstacles, generating further deviations from the desired flight path of tee to goal. Paso Nogal Park has many trees that would interfere with a simple path from the tee to the basket.

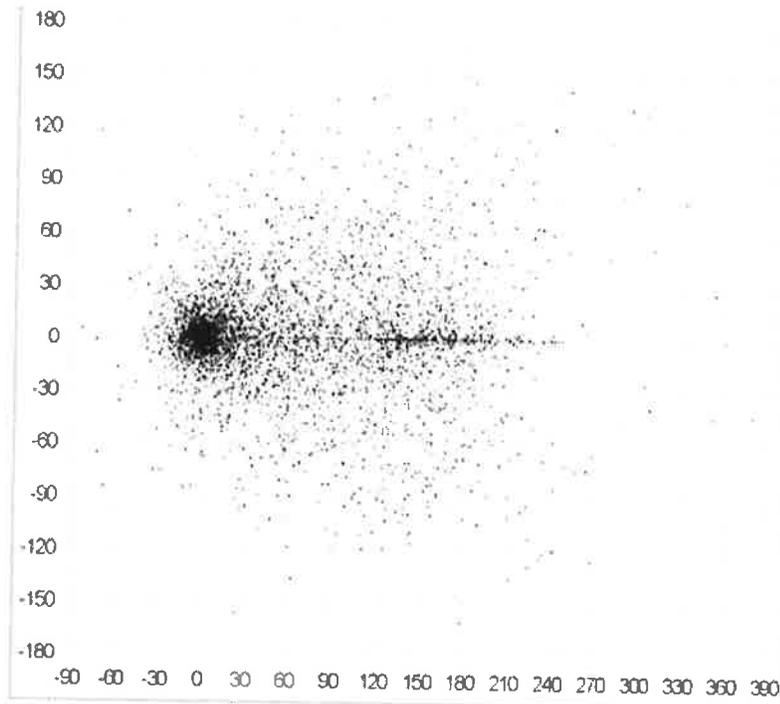
The effective impact of each disc throw is two-fold. The first impact is of the flight and landing of the disc itself. Flying discs can clip branch tips and damage trunks, or strike other users of the park, including people and animals. The second impact is the tromping path of the player to retrieve the disc from its landing position.

Just how large of an area would be expected to be impacted in Paso Nogal Park from disc golf? A study by Steve West (2006) can help answer this question. He gathered data from Boy Scouts (aged 11 to 17 years) who played a 200 foot long disc golf hole on flat level grass on days with little wind, conditions that would be conducive to straighter and more accurate throws. He then modeled play looking at theoretical holes of differing lengths.

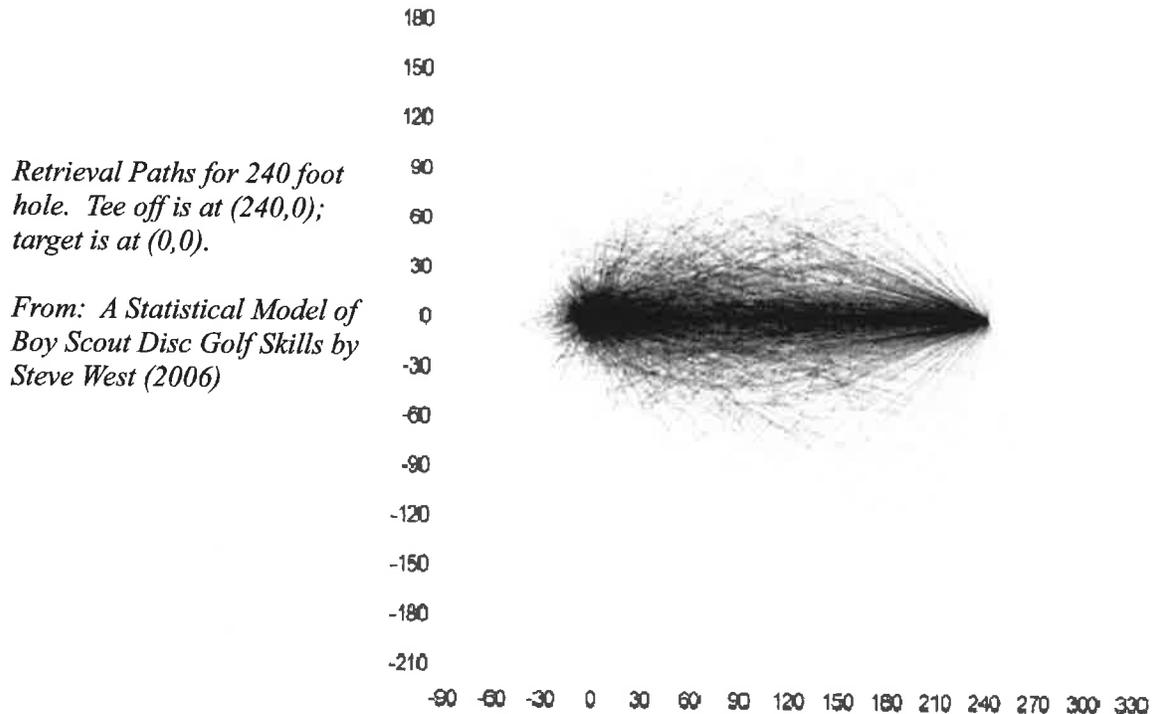
West found that the longer the distance between tee and goal, the greater the width of disc landings. Most importantly, *the plot of disc landings was wider than the length of the hole itself.* For an example, see the plot below for a 240 foot hole, in which the width of disc landings exceeds 300 feet.

Pattern of throws for 240 foot hole. Tee off is at (240,0); target is at (0,0).

From: A Statistical Model of Boy Scout Disc Golf Skills by Steve West (2006)



Player paths to retrieve discs also have significant impact on the soil and vegetation. Just as the width of disc landings exceeds the length of the hole, the retrieval paths will carve an equally wide area. The graph below plots the paths of 1000 players on a 240 foot hole.



DISC LANDINGS AT PROPOSED PASO NOGAL DISC GOLF COURSE

How does this look when applied to Paso Nogal Park? Based on the data and modeling of the West paper, each of the 18 holes for the proposed course at Paso Nogal Park was modeled for disc landings. (See Figure 1 on next page.) Each fairway on the Paso Nogal layout uses the scatter chart that is closest to the actual fairway distance and then is scaled to the exact distance.

Inspection of the scatter plots on the Paso Nogal Park map reveals that **over half** of the park (>30 acres) would be affected by the proposed course. The proposal claims that 18-22 acres would be used for the course, which is inaccurate and misleading. Several of the proposed holes are near the main loop of the park open space. Discs are predicted to fly into trees, across walking paths and into adjacent streets and neighborhoods. Many of the goals are located near foot paths, which would result in large numbers of discs crossing the paths. The risk of hitting other users of the park is extremely high.

Foot traffic to locate discs is expected to impact sensitive areas of the park and will likely trespass into private property to retrieve discs. In fact, homeowners adjacent to the park near Kiki Drive reported disc throwers crossing into their yards to retrieve discs, presumably as a result of some “trials” of the proposed course.



Figure 1 Course layout from 2014 proposal and disc landing predictions

Each black dot around the basket and fairway at each hole represents the landing of one disc. Throws are made by players of various skill levels. One thousand throws are shown at each tee/basket, which is the *estimated use during one week*. The landings were predicted without regard for slope or obstacles, such as trees, fences and houses. Slopes and obstacles would be expected to increase the errant throws on the course.

DISC LANDINGS AT PROPOSED HOLES 1 THROUGH 4

Let's take a closer look at the first 4 proposed holes and their impact on the park and nearby homes.



For each of holes 1, 2, 3 and 4, the goal is placed near trees and near walking paths. The path of hole 3 goes directly through a large oak tree. These trees would be struck frequently by discs, sustaining cumulative damage to leaves, branches and bark. Walking paths near these holes would be unsafe for other users. Areas close to the goals would be particularly hazardous.

Holes 1, 2 and 3 are placed close to nearby homes. *One week of use is predicted to result in more than 200 discs hitting the fence or homes, and/or landing on private property.* Discs that cross the fence will likely result in players climbing over or through the fence to retrieve discs. Over the course of a year, the number of discs impacting this one neighborhood could easily number over 10,000.

RESEARCH RESULTS REGARDING DISC SPEED AND DISTANCE

The discs used in disc golf are not the familiar, floppy plastic found in frisbees. Sport discs are made of hardened plastic, honed to a sharp edge. They must be thrown at high velocity, often at highway speeds, to reach the distances found on a typical disc golf course. Discs thrown at these speeds can do significant damage by striking trees, other vegetation, or other park users.

Below is a summary of disc speed (published at http://www.aracnet.com/~stuart/disc_content.htm#speed):

A Northwest disc golfer, Theo Pozzy, performed a study in the summer of 2000. The relationship between the speed of a disc and the distance that it travels is shown in the chart below. A radar gun was used to make the measurements. Professional disc golfers throwing at a "distance competition" in New Mexico were the subjects of the study.

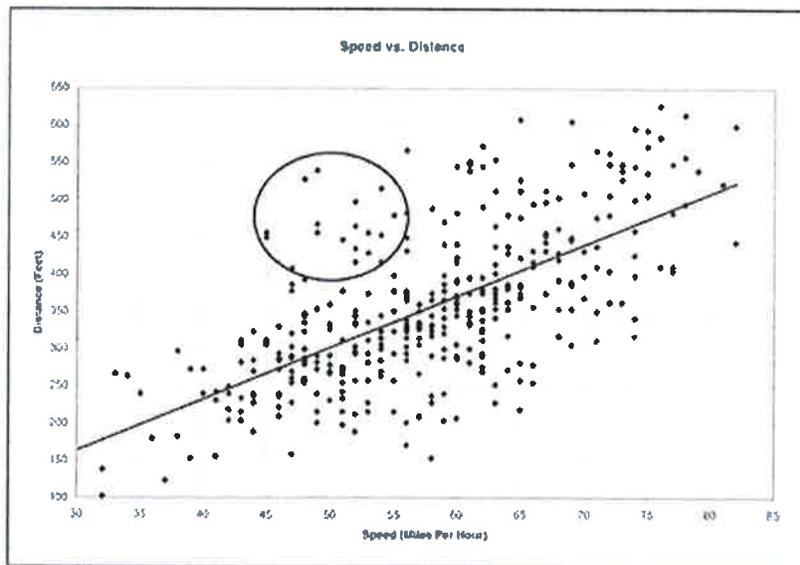


Chart 1: Relationship between disc speed and distance traveled

Source: (Disc Golf World News, spring 2001, pg. 25)

The speed of the disc is shown on the horizontal axis. The chart shows a good correlation between speed and distance. For example, a disc thrown correctly and efficiently at a speed of 50 mph is likely to travel about 300 feet. Reaching a distance of 400 feet or more requires a disc speed of around 70 to 75 mph. The circled group of plots seems to be a slight anomaly. It shows a group of discs that traveled a long distance, but with a slower disc speed. This might be attributed to the amount of spin imparted on the disc, the height that it was thrown, and wind direction. Increased angular momentum (spin) will help keep the disc stable and aloft for a longer period of time.

The weight and model of discs thrown varied from player to player. This factor also contributed to how fast a disc was thrown, and how far it glided. The most popular weights of disc used by the professionals in this study were 165 grams (11%), 172 grams (10%), 174 grams (14%), and 175grams (17%).

Additional speed and distance measurements were taken using amateur players. Table 1 gives the disc golfer an idea about the level of expertise needed to play in a particular division.

DIVISION	ENTRANTS	THROWS	MAX DIST	AVG DIST.	MAX SPEED	AVG SPEED
Open	49	266	630	425	82	63
Masters	6	15	396	294	63	54
Pro Women	4	15	345	270	54	47
Adv Men	33	104	507	299	75	55
Adv Masters	3	6	324	245	56	52
Adv Women	1	3	240	222	44	41
Int Men	15	41	360	289	63	51
Int Women	1	2	156	155	41	40
Novice Men	1	1	210	210	46	46
Junior < 16	6	18	300	206	57	45
Junior < 12	3	7	306	238	52	43
Total	122	478				

Table 1: Distance based on division rating

Even junior players less than 12 years of age achieved average speeds above 40 miles per hour. Given the mass and speed of discs, it is not surprising that people have sustained significant injuries from being struck by one.

IV. PROPOSED DISC GOLF COURSE & CEQA REQUIREMENTS

CEQA is the California Environmental Quality Act which was passed in 1970, one year after NEPA, the National Environmental Policy Act, was passed. CEQA requires that all public agencies carefully consider and evaluate the consequences of any action on the environment. If a proposed project has **potentially significant adverse impacts** (“significance” being defined by the courts via many CEQA cases since 1970) and if the proposed project is **controversial**, the law says that a full Environmental Impact Report shall be prepared.

Section 15070 of the CEQA code allows a public agency to prepare a negative or mitigated negative declaration **if** the agency does an initial study and finds no substantial evidence that the project may have a significant effect. A mitigated negative declaration means that the agency has made revisions or adjustments to the proposed project such that all significant impacts are avoided.

In this particular situation, there is **no possible way** that an Initial Study resulting in a negative declaration would suffice. This would open up the District to an easy legal challenge and force the District to in effect start over with a proper and full Environmental Impact Report process.

ENVIRONMENTAL CHECKLIST FORM

Appendix G of CEQA provides the format for a public agency to analyze a potential project and make a determination of potential for significant impact. One of the first questions is “*What environmental factors would be potentially affected?*” The form includes 18 boxes that could be checked. The Recreation & Parks Board would have to as a minimum check the following factors:

- Aesthetics
- Biological Resources
- Land Use
- Transportation/ Traffic
- Public Services
- Geology/ Soils
- Noise
- Recreation

Eight of 18 factors have the potential to be adversely affected.

The next section asks for a determination with five choices. The only choice that could be made is that, “*I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required*”.

The balance of the Environmental Checklist (9 pages) asks the public agency to respond to a series of questions with four possible choices and boxes to check: (1) potentially significant impact; (2) less than significant with mitigation incorporated; (3) less than significant; and (4) no impact.

We have chosen to list only the questions that we feel must be checked as, “**potentially significant impact**”:

-- *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

-- *Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans?*

-- *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

-- *Would the project result in substantial soil erosion or the loss of topsoil?*

-- *Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project?*

-- *Would the project substantially alter the existing drainage pattern of the site or area and result in erosion or siltation on- or off-site?*

-- *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?*

-- *Would the project result in substantial physical impacts associated with the provision of public services such as fire protection, police protection, and other public facilities (i.e. sanitation)?*

-- *Would the project increase the use of existing parks or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

-- *Would the project conflict with transportation/ traffic systems including intersections, streets, highways, freeways, or pedestrian paths?*

-- *Would the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly (i.e., public safety hazard)*

It doesn't take much to see that a full Environmental Impact Report would be required if this proposal were to move forward.

ENVIRONMENTAL IMPACT REPORT

The EIR process would require the conduct of a Scoping Meeting, where citizens could voice their concerns about the potential impacts and help shape the scope of work; preparation of a Draft EIR, which would be published for public review and comment; conduct of one or more

hearings on the Draft EIR; preparation of written responses to all comments on the Draft EIR; and preparation of the Final EIR.

Only after the Recreation & Parks Board has certified the Final EIR as being complete can the Board act on the proposal. This entire process would most likely take at least one full year if not more.

A series of special studies would need to be undertaken including but not limited to the following:

- Tree Survey
- Vegetation and Wildlife Habitat Assessment
- Soil Erosion Analysis
- Traffic and Parking Assessment

A professional arborist spoke at the Public Hearing on May 12th and explained the currently poor condition of the live oaks in the park. A contractor spoke and pointed out that heavy equipment and excavation would be required to install the concrete “tees” and baskets and that he would not touch this project unless indemnified against damage to trees and plants in the park.

While the Recreation & Park District owns the park property, the City of Pleasant Hill has jurisdiction over the trees. Oaks and buckeyes of 12” or larger in diameter are protected as are the large eucalyptus. The City would in all likelihood require a complete survey of protected trees requiring a survey crew, unique identifiers for each tree, numbering, descriptions, dripline depictions, and a formal report. During construction, all access routes would have to be on the drawings and trees protected with fencing from all construction, material storage, and staging areas.

Interestingly -- and shockingly --, if you examine the national website on pointers in designing disc golf courses, the authors recommend finding locations with many trees and shrubs because that “increases the challenge”. In fact, finding a tree that is “V-shaped” makes an especially challenging throw, between the two tree trunks. Imagine how many players miss this shot and scar the tree.

COST OF THE ENVIRONMENTAL IMPACT REPORT PROCESS

At the Public Hearing on May 12th, a resident who has prepared well over 200 EIRs and EISs offered that the cost of a full EIR could run between \$50,000 and \$100,000. After further consideration of the number of technical studies that would be required as a part of the EIR, this number could easily exceed \$100,000.

So, for the District and the proponent to say at the public meeting that this project “would cost only \$18,000” is far from the truth and is misleading the public.

Long-term maintenance and operations costs have also not be factored in. Nor have the cost of delays due to law suits.

V. NEGATIVE ENVIRONMENTAL IMPACT OF DISC GOLF

Several studies have evaluated the environmental impact of disc golf. The age of the evaluated courses vary, providing both a short term and long term window on environmental damage. Disc golf courses range in size, from tiny 9 hole courses that criss cross short holes, to 27 hole courses that hold tournaments. Whether the disc golf course is 9 holes or 27, or whether the individual holes are long or short, or whether the park is natural open space or largely developed, disc golf has a significant negative impact on the natural environment of the hosting parks.

PINTO LAKE

While many studies have been done with similar findings, one of the most comprehensive studies examined the environmental effects of disc golf at Pinto Lake County Park in Watsonville. The disc golf course was installed in Spring 2008; study of environmental impacts was performed in 2012, roughly four years after the course opening. The authors concluded:

Our investigation has revealed strong evidence of current and ongoing adverse effects on the environment at Pinto Lake as a result of the disc golf course. We have observed and photographed trees with severe bark damage from discs, seasonal creeks trampled by players, and acres of vegetation that have been entirely removed from sloped hillsides, sending sediment and agricultural run-off into the lake. Areas of the lakeshore marked as out-of-bounds are continually being disturbed by players looking for and retrieving misthrown discs.

Although there is generally, no massive grading, cutting, or filling in constructing a disc golf course, it is well documented that building a course alters existing landscapes in many ways - from the construction to the playing. Land is cleared for fairways, concrete pads are constructed for tees, vegetation is cleared in a large area around a basket, meadows are mowed, and new paths are created between the various elements. Trees are frequently either removed or have limbs and branches cut off. Vegetative underbrush is commonly removed.

During play, trails and paths become wide swaths of bare soil without definition, caused by the random movement of players moving between holes. Retrieval of wayward discs takes golfers into the fringes and out-of-bounds areas of the course, causing even more damage. Injuries to tree bark and limbs from disc strikes are evident on every disc golf course. Depending on how these various things are done, an existing terrain can be, at best, somewhat altered, and at worst, essentially destroyed.

In the four years since the disc golf course was installed, the character of Pinto Lake County Park has changed to an almost unrecognizable environment. What was once a thriving, diverse habitat is now, in large part, a denuded recreational zone. We find it indefensible for disc golf proponents to claim that the sport is "environmentally friendly" when hundreds of trees are damaged, riparian corridors have been trampled, and steep hillsides no longer have vegetation or undergrowth.

SOIL COMPACTION AND UNDERBRUSH DAMAGE

Several studies have documented that disc golf courses cause soil compaction, particularly in areas near the tee and basket. Soil compaction rearranges soil particles, reducing the amount of large pore space in the soil. These changes can restrict root growth directly and lead to growth restriction or disease from their negative impact on water infiltration, drainage and aeration.

Disc golf courses impact the soil and vegetation in a wide area around the tees and baskets. Below are photos from established disc golf courses. Focus on the ground in these pictures. Neither area has ground covering like the grassy flora in Paso Nogal Park; the courses have been worn to nothing but bare earth.



Tee Off Area: *The tee off area sustains player trampling far beyond the cement pad.*



Basket Area: *A large area surrounding the basket (red arrow) also takes heavy damage.*

TREE DAMAGE

The discs used in disc golf are heavier (150-175 grams) and sharper-edged than traditional frisbees. They are often thrown at high speeds (40 to 80 mph). These flying projectiles can do significant damage to objects they strike. Even if the object is the trunk of a mature oak tree.

If a tree is on the disc golf course, it will be struck by discs. It is only a matter of how often the tree is struck and how severe the damage. Disc golf holes are often deliberately designed to use trees as obstacles. The Disc Golf Association at discgolf.com advises the following on designing courses: "A tree blocking one side of the hole is much like a quick rise in the green close to the hole in ball golf. It makes the game... I am particularly fond of a V-shaped tree or substantial bush, even large trees, where you can throw through the 'V' or around it if you prefer." The rightmost photo below shows the gouges in the bark of such a V-branched tree.

Disc damage to trees can be divided into three categories:

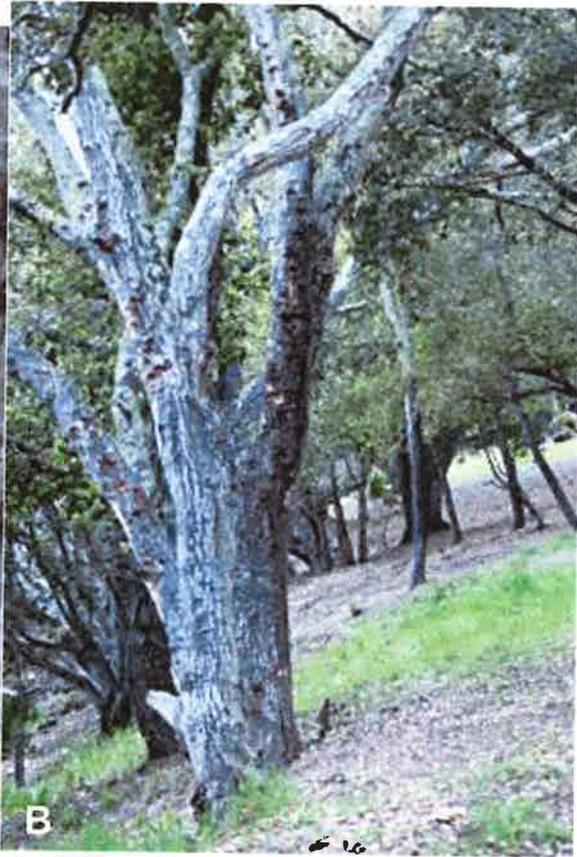
- 1) Gouges restricted to the outer bark that do not penetrate to the cambium
- 2) Gouges that penetrate through the outer and inner bark exposing the cambium
- 3) Shearing of twigs and leaves by passing discs

All three types of damage can compromise the health of the tree. Gouges in the bark decrease the trees natural protections and increase the risk of pests, such as fungus and insects. Bark damage is greater in young trees with thin bark than in older thicker barked trees. The longer disc golf is played near a tree, the greater the damage inflicted and the greater the risk to overall tree health. James R. Clark, Certified arborist (WE-0846) who examined the course at Golden Gate Park in San Francisco, described this as a dose effect: "The more trees are impacted by discs, the greater the damage. There is clearly a dose-response to the problem. One nick, gouge or lost twig will not adversely impact a tree or shrub, but thousands of the same will."



This is the common damage one sees throughout the Pinto Lake disc golf course.

While young trees are the most vulnerable, even mature trees sustain serious damage from discs.



Disc Damage to Mature Trees.

- (A) A large tree with many gouges in the trunk (Pinto Lake).
- (B) This mature oak at Pinto Lake has damage from discs on the trunk and high limbs.
- (C) Severe bark damage to a mature tree behind a goal basket at De Laveaga Park in Santa Cruz.

WHOLE CANVAS OF DAMAGE

Over time, disc golf courses destroy the undergrowth and leave only large mature trees. The remaining trees lose leaves, twigs and branches due to the shearing of passing discs. Soil compaction and erosion occur in the surrounding area. Due to the soil damage and ongoing foot traffic, new vegetation is unable to grow. The new landscape is not pretty.



Pinto Lake before (A) & after (B) installation of a disc golf course. Time between photos is 4 years.



Pinto Lake before (A) & after (B) installation of a disc golf course. Time between photos is 4 years.

CONCLUSIONS

The overall impression regarding environmental impacts of disc golf is, chiefly, of significant and predictable effects on soil compaction, decrease underbrush vegetation, and erosion related to increased foot traffic. In addition, the nature of the sport tends to produce increased foot traffic not merely on delineated paths but well away from paths as well, because of the need to retrieve misthrown discs. Finally, collisions between discs and vegetation can cause serious damage to shrubs and trees. The constellation of these adverse affects is to, over time, transform a rich and varied natural park into a largely barren recreational area.

VI. ANIMAL WILDLIFE IN PASO NOGAL PARK

INTRODUCTION

- **Park's Unique Size and Location**

The substantial 60-plus acreage offers true open space and wilderness habitat, left nearly untouched by people who walk mainly on the trails.

The location, directly in the midst of suburban congestion, offers an oasis for truly wild creatures that are otherwise unable to adapt to co-existence with mankind, as raccoons have done.

- **Wildlife Diversity**

Mt. Diablo Audubon conducts annual counts and cites 58 bird species in the park (*see Table 1 below*), some with populations whose status has moved from “common” to “of concern,” and others that are returning after decades of absence. Audubon labels the park a “hot spot” of diversity.

Wild predators and prey thrive in the park because the food chain is robust. The northern winds off Carquinez/Suisun Straits help reseed the grasslands, along with the birds and insects. They help create diversity of plants, trees, brush, and nuts covering hillsides and wooded areas that function together as an intricate ecosystem. If one element suffers damage, the entire system can be affected.

WILDLIFE DIVERSITY AND VULNERABILITIES

- **Birds**

ALL active nests, whether or not the bird is an endangered or threatened species, are protected by the California Department of Fish and Wildlife. It is unlawful to disturb/displace nests. Many, many native species nest in Paso Nogal Park, including Anna's hummingbirds, Western scrub jays, acorn woodpeckers, barn swallows, great horned owls and dozens of other species, some highlighted below. All would incur severe threat from disc golfers.

The American kestrel, recently reclassified by Audubon with “of concern” status, was prevalent in the park in 1989, with at least four nesting pairs on the west side. But in the mid-'90s, they disappeared, until finally this year, one pair has returned.

Red-tail hawks mate for life and return to the same nest each year (with necessary renovations). They select high ridges and the tallest trees, but leave if there is consistent human activity. The kestrels and hawks compete for similar prey, territory and nesting sites, thus requiring a large, wild expanse.

Table 1: Bird Species Sighted at Paso Nogal Park

Cooper's Hawk	White-crowned Sparrow
Mourning Dove	Red-winged Blackbird
Anna's Hummingbird	Red-breasted Sapsucker
Acorn Woodpecker	Red-breasted Nuthatch
Nuttall's Woodpecker	White-breasted Nuthatch
Northern Flicker	American Kestrel
Merlin	American Crow
Black Phoebe	Chestnut-backed Chickadee
Hutton's Vireo	California Quail
Western Scrub-Jay	Downy Woodpecker
Oak Titmouse	Pine Siskin
Bushtit	Red-tailed Hawk
Bewick's Wren	Rock Pidgeon
Ruby-crowned Kinglet	Ash-throated Flycatcher
Hermit Thrush	Tree Swallow
American Robin	Red-shouldered Hawk
Varied Thrush	Northern Mockingbird
Yellow-rumped Warbler	European Starling
Spotted Towhee	Cedar Waxwing
Lark Sparrow	American Goldfinch
Fox Sparrow	White-tailed Kite
Golden-crowned Sparrow	Say's Phoebe
Dark-eyed Junco	Common Raven
House Finch	Savannah Sparrow
Purple Finch	Song Sparrow
Lesser Goldfinch	Western Meadowlark
Turkey Vulture	Brewer's Blackbird
California Towhee	Hooded Oriole
Stellar Jay	Wild Turkey
Western Screech-Owl	Great Horned Owl
Western Bluebird	

Website © 2015 Friends of Paso Nogal Park

California quail lived in large quantities 30 years ago. This author observed coveys with 50-plus birds on the west side of the park. With increased human development surrounding the park, they all disappeared. Although the "Checklist of Birds of Contra Costa County" reports decreasing quail populations, in the last two years, at least four pair have been observed with young. But they nest on the ground, in underbrush, near trees and bushes that will surely be disturbed, trampled (and destroyed) by disc golfers. Quail are only returning now in small numbers because the park offers a last safe, wild refuge.

Wild turkeys returned to the park in 2013, and observed birds number about 15-20 as a flock. Like the quail, they are timid and require a large territory for foraging, with easy access to

low branches and oak-type forestation to escape predators. These appear to be areas that overlap the proposed disc golf course, and thus would drive the birds elsewhere. But, realistically, where can they go?

Migratory species such as the hooded oriole nest in Paso Nogal Park. Other migratory birds, including cedar waxwings, do not nest in the park, but rely on its open space and ample supply of native toyon berries on their feeding stopovers. Activity around vegetation, or eventual destruction, will mean these birds lose an important destination for food and rest.

- **Mammals and Reptiles**

Bats remain prolific and fly at night to consume numerous insects (thus minimizing a nuisance to human residents). They are important to the overall health of the park as an ecosystem. But they need help with nesting/roosting options, as true wilderness disappears.

Ground squirrels, gophers, moles and voles, as well as lizards and snakes, occupy the bottom of the food chain for predatory birds and the park's own family of coyotes. These rodents reproduce in large numbers during "good" years when trees, acorns and grass seeds abound. Drought will continue to decrease their populations and inevitably also stress the predators. Their tunnel systems are elaborate and extend yards away, with multiple entrances and exits. Disc golfers will:

- Demolish their tunnels
- Trample their grass and seeds
- Drive them elsewhere
- Potentially topple the entire food chain

This potential cascade effect should require a formal EIR.

A pair of coyotes moved into the park about five years ago, producing pups each year. They manage to outsmart traffic, off-leash dogs, famine and people. Residents hear their exuberance at night. They use animal trails throughout the park (also observed being used by raccoons, skunks and possums) that cut under fence lines to find protection from predators, mostly dogs. They rest in the shade under a large tree off this writer's deck. Thanks to the park's protection for hidden dens, the coyotes succeed, using all 60-plus acres in which to hunt, feasting on numerous rodents and reptiles. Disc golfers will damage their habitat and their food source, and these wonderfully wild creatures will have nowhere else to go.

Deer number a few pair: some yearlings with small antlers, fawns and at least one male with large antlers. They, too, would lose necessary protected seclusion for nesting and feeding, and face constant threat from dogs, traffic and water loss.

CONCLUSIONS

Wildlife selected Paso Nogal Park because it offers open space, fields of grass, woods and underbrush – a bountiful wilderness and a last-stand at survival amidst modern civilization. As residents and municipal caretakers, our primary purpose MUST be to protect the park's open

space and wildlife. Any considerations for people **MUST** come secondary. This primary purpose is mandated by the California Codes listed below:

California Codes

65560. (b) (1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species.

65561. (c) That the anticipated increase in the population of the state demands that cities, counties, and the state at the earliest possible date make definite plans for the preservation of valuable open-space land and take positive action to carry out such plans by the adoption and strict administration of laws, ordinances, rules and regulations as authorized by this chapter or by other appropriate methods.

65562. (a.) It is the intent of the Legislature in enacting this article: (a) To assure that cities and counties recognize that open-space land is a limited and valuable resource which must be conserved wherever possible.

65567. No building permit may be issued, no subdivision map approved, and no open-space zoning ordinance adopted, unless the proposed construction, subdivision or ordinance is so consistent with the local open-space plan.

Some people may say residents around the park perimeter claim “NIMBY” (Not In My Back Yard). But for the wildlife, the park is their **ONLY** yard. Disc golfers can play at other local courses, such as Benicia, Moraga Commons and Walden. But the wildlife cannot just pick up and go elsewhere when the golfers drive them out.

VII. LACK OF APPROPRIATE FACILITIES

Words of wisdom from the Disc Golf Association (discgolf.com) on designing disc golf courses:

“First things first: Start with some basics; a parking lot, a bathroom, better yet a country club.”

Creating an additional recreational activity that is expected to draw significantly more users to Paso Nogal Park would need supporting facilities, such as increased parking, restrooms and trash containers. Yet no plans were presented by the proponents of the proposed Paso Nogal Park disc golf course for the development, construction or financing of the new facilities that would be required by such a project.

PARKING

Foremost of these concerns would be the increased need for parking. While the park has 8 entrances, only the main entrance on Paso Nogal Road has an official parking lot. This parking lot, with only 17 regular spots, is small, and often cannot accommodate the current demand. Overflow parking onto Paso Nogal Road is already a problem (*see figure 1 below*). Paso Nogal Road is neither designed nor controlled for parking, which leads to increased traffic congestion,

COMMUTER: *Wondering if you can help me with a dog park dilemma. When cars are parked on Paso Nogal Road at Primrose Drive on the corner, they block the vision for drivers who need to turn either right or left from Primrose onto Paso Nogal*

It would be great if the cars parked along Paso Nogal Rd could be set back several feet away from the NW corner, with a “No Parking from here to Corner” type of sign. When turning onto Paso Nogal, I have had more close calls than I can count.

Here’s a photo taken while I was sticking way out into traffic so you can see how hazardous this intersection can be.



Figure 1 *Parking Creates Hazard on Paso Nogal Road*
Photo illustrates limited visibility due to overflow parking by park users on Paso Nogal Road.

decreased visibility for cross traffic from several nearby neighborhoods, and increased risks for pedestrians and drivers in the area. The city reports that there have been injuries here in the past. Increased parking demand in this area will lead to increased (illegal) parking on the private streets of the Wildflower development and the development to the north of Paso Nogal Road.

None of the other park entrances have suitable parking for disc golf users. Pleasant Hill Park and Rec has mentioned Kiki Drive as a potential parking area. This suggestion is strongly opposed by the residents of Kiki Drive. Kiki Drive is the site of Valhalla Elementary School. Parking problems already exist in this area because of parents dropping off and picking up their children. Morello Drive has also been proposed as a potential parking site. However, Morello Drive is lined with houses that would also be competing for the street parking there. In addition, the park entrance near Morello is far from the proposed disc golf course. Therefore, it is unlikely that disc golf players would actually park on Morello. Other streets that can be used to access the proposed area of the disc golf course are not suitable for parking because they are short, residential, and private.

Current parking at Paso Nogal Park is inadequate to support a disc golf course. Construction of additional parking to service the proposed project would significantly increase project cost. It would also increase the acreage of the project and further degrade the quality of Paso Nogal Park.

TOILET FACILITIES

The current proposal did not address the increased need for toilet facilities. Paso Nogal Park does not currently have any restrooms or other toilet facilities. A disc golf course would bring in additional park users who would stay a longer length of time in order to play through the course, increasing the likelihood of a needed restroom break. At an existing disc golf course at Moraga Commons, bystanders have observed disc golf players urinating on trees rather than using the existing toilet facilities. The risk for such undesirable activity would be much greater at Paso Nogal Park where such facilities are not available. Installation and maintenance of toilet facilities would increase the size and cost of the proposed project.

TRASH CONTAINERS

Trash container needs are not assessed by the proposal. Current trash containers are sparse and somewhat of an eyesore. More park users would produce more trash, which would necessitate adding additional trash cans.

VIII. DISC GOLF AT WALDEN PARK

In nearby Walnut Creek, a 9 hole disc golf course opened at Walden Park approximately one and a half years ago, on October 1, 2013. It is a small course, occupying approximately 2.5 acres in the back portion of the park.

Walden Park is very different than Paso Nogal Park. First, Walden is not a large open space; it occupies less than 10% of the area of Paso Nogal Park. Walden park is completely level, rather than having the rolling hills of Paso Nogal Park. In addition, roughly half of Walden was already developed, containing picnic tables, a children's playground, basketball court, barbecues, an open turf area, parking and restrooms. In many ways, Walden was a more appropriate location to consider installing a disc golf course. Disc golf usage is also restricted as tournaments are prohibited. Yet, there are still issues from disc golf at Walden Park.

DISC GOLFERS AND UNDESIRABLE BEHAVIOR

The city of Walnut Creek is aware of some problems resulting from disc golf at Walden Park and communicated them to the Walnut Creek Disc Golf Club. On April 7, 2015, several examples of problem behavior were posted on the Walnut Creek Disc Golf Club Facebook Page:



Walnut Creek Disc Golf Club

April 7 - 11

I've gotten feedback from the City that there have been some issues at Walden Park recently:

- disc golfers being disrespectful to park staff
- disc golfers being cited for intoxication
- disc golfers being cited for illegally parking

I hope none of this is coming from WCDGC club members.

It is an opportune to stress that the main priorities of the club are to be ambassadors for the sport and good stewards of the park.

Overall, such problems are probably underreported as many transgressions are not observed by city representatives.

CONFLICTS WITH OTHER PARK USERS

Despite efforts to isolate the disc golf course in the back portion of Walden Park (away from most other park uses), disc golfers and other park users do not always exist amicably. One park user reported being told "Hey! Get out of the way!" by disc golfers. Other park users feel at risk from flying discs. Two Yelp reviewers stated that they no longer use Walden Park due to disc golf (see next page).

Reviews from Yelp on Walden Park:



Anony M.
Walnut Creek, CA
0 friends
4 reviews

★☆☆☆☆ 5/3/2014

Used to love this park. Good for kids, walking the dog, and right on the Iron Horse Trail. Until they put in the frisbee golf course.

Due to the city's idiotic idea to put the golf course right in the middle of this rather small park, now kids and adults are in constant danger of getting beamed with flying discs.

I now go elsewhere. Walnut Creek park dept: FAIL.

Was this review ...?

👍 Useful 5 🤡 Funny 4 ❄️ Cool 1



Denise L.
Walnut Creek, CA
13 friends
51 reviews

★☆☆☆☆ 4/29/2014 · Updated review

📍 55 check-ins

Updating to say we have stopped coming since the frisbee golf course was put in. Besides being right next door to where we enjoyed kicking a soccer ball around, the course is built so that frisbees go flying right over (hopefully not in to) your head on the walking trail. Totally disappointed in the cities decision to put this here. It should be in a big open field, not in a heavily trafficked walking area next to a children's play ground structure.

Was this review ...?

👍 Useful 1 🤡 Funny 0 ❄️ Cool 1

TREE DAMAGE AT WALDEN PARK

The disc golf course has been available at Walden Park for only a year and a half, but already tree damage from discs is evident. On average, the distance between tee and basket is shorter at Walden than most courses. Longer holes would create greater tree damage as discs need to be thrown harder and more times to reach the basket on a longer hole.

Figure 1 shows an example of a crepe myrtle tree with significant damage on its trunk from being struck repeatedly by discs. Although the tree is a small obstacle between tee and basket, the trunk has been damaged from disc collisions along the entire area between the ground and main branches. This type of bark damage leaves the tree more susceptible to pests and can contribute to a decline in tree health. This is only one example of disc inflicted damage at Walden park. We are unaware of an arborist's review of tree health in the disc golf course area.

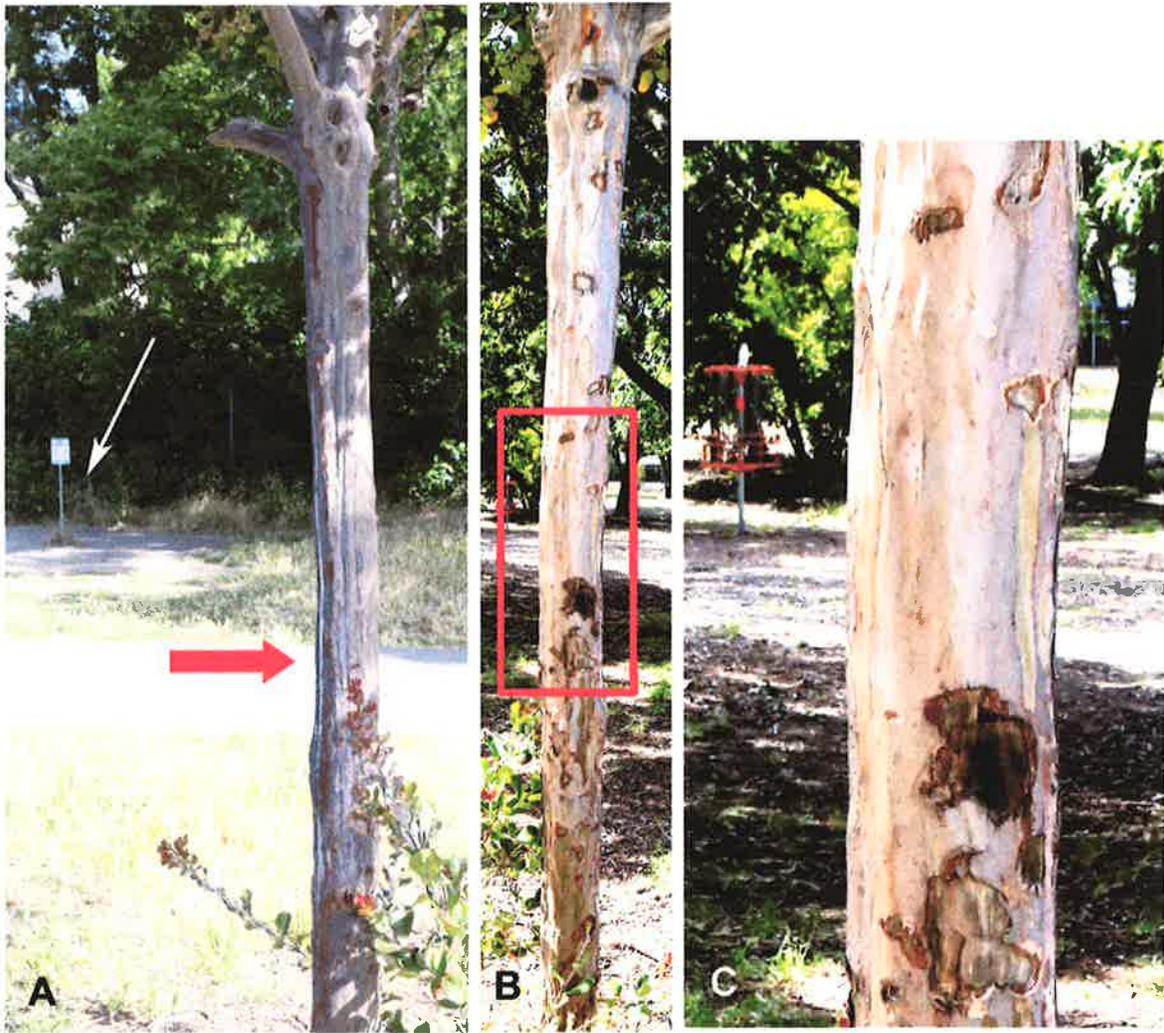


Figure 1 *Disc Damage to Crepe Myrtle Tree at Walden Park*

- (A) Crepe Myrtle tree (red arrow) located near a disc golf tee (white arrow).
- (B) Back of the same Crepe Myrtle tree as in A. This photo shows the side facing the tee. Although the tree is a small obstacle between the tee and basket, the tree has been damaged along the entire trunk from disc collisions. The red rectangle area is enlarged in C.
- (C) Enlarged trunk area showing multiple areas of bark damage from discs.

Photos by Joe McNeil

CONCLUSIONS

Nearby Walden Park illustrates several issues from disc golf in public parks. Despite being a small, level mostly developed park with supporting facilities, Walden Park has experienced problems from its limited disc golf course. Issues include undesirable behavior from disc golfers, conflicts with other park users, and tree damage. Based on the experience of disc golf at other parks, additional damage to the soil and vegetation is probably present that has not been documented.

IX. REPORT CONCLUSIONS

Pleasant Hill's Paso Nogal Park is designated as open space, which has been treasured and cared for by local residents for decades. Residents care deeply about maintaining the natural beauty, protecting the plant and wildlife, and preserving this land for future generations. These citizens **STRONGLY OPPOSE THE PROPOSAL** to install a disc golf course at Paso Nogal Park.

The park's open space is protected legally by the following:

- Pleasant Hill Recreation and Parks Master Plan
- Pleasant Hill City Tree Ordinance
- California Environmental Quality Act (CEQA)
- Land and Water Conservation Fund (LWCF) compliance responsibilities

Any attempt to move forward with the disc golf project would need to satisfy the many restrictions and requirements of the above agencies. At a minimum, an EIR would need to be prepared.

The proposed 18 hole course would impact over half of the available open space at Paso Nogal Park. Disc golf courses are known to cause soil compaction, erosion, underbrush destruction, and tree damage. A disc golf course at Paso Nogal Park is not compatible with preserving the open space. In addition, many species of wildlife would lose their home and be driven from most areas of the park. Given the course layout, discs are expected to land outside of the park boundaries, placing private property at risk of damage as well.

Disc golf is not compatible with a multi-use, passive-recreational park. Current uses of the park include hiking, jogging and dog-walking. Disc golf conflicts with the existing activities directly by putting other users at risk of being struck by flying discs. Given the scatter of disc landings around a hole, it is not possible to place a course in Paso Nogal Park without endangering others. Disc golf would also compromise the quality of the park for current users by damaging the natural environment and increasing undesirable noise (eg. chain clanging).

Not only is it inappropriate to sacrifice Paso Nogal Park to a single use activity like disc golf, the park lacks appropriate facilities to support a disc golf course. Parking and trash receptacles are limited. There are no restrooms or other toilet facilities at Paso Nogal Park.

Hundreds of nearby homeowners urge the Pleasant Hill Recreation and Park District Board to maintain the original intent of the park as solely open space, to listen to the outcry from residents, and last, but not least, comply with City and State codes, and its own master plan to preserve and protect what little open space we enjoy – Paso Nogal Park.

APPENDICES

APPENDIX A:

**United States Department of the Interior
National Park Service
Land & Water Conservation Fund**

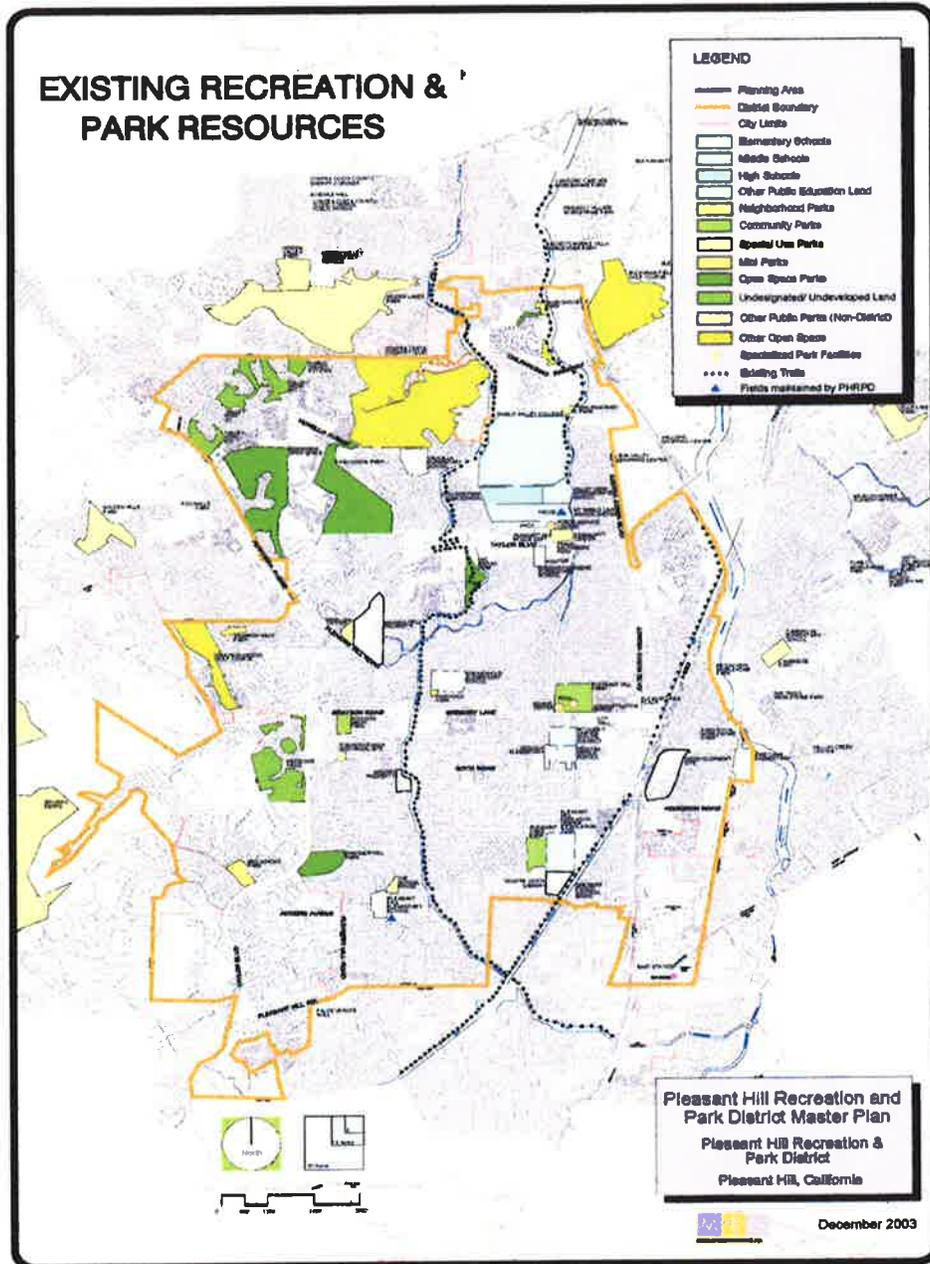
Detailed Listing of Grants Grouped by County

Today's Date: 5/17/2015

CALIFORNIA - 6

Page: 8

Grant ID & Element	Type	Grant Element Title	Grant Sponsor	Amount	Status	Date Approved	Exp. Date	Cong. District
CONTRA COSTA								
48 - XXX	A	PASO NOGAL PARK, ACQUISITION	CITY OF PLEASANT HILL	\$51,000.00	C	6/14/1967	12/31/1970	7
133 - XXX	D	PORT RICHMOND SHORELINE PARK DEVELOPMENT	EAST BAY REGIONAL PARK DISTRICT	\$249,900.00	C	6/17/1971	10/1/1977	7
235 - XXX	D	SAN PABLO RESERVOIR FISHING ACCESS	EAST BAY MUNICIPAL UTILITY DISTRICT & CA WCB	\$242,740.78	C	2/17/1972	10/1/1976	7
250 - XXX	D	HEATHER FARMS COMMUNITY PARK	CITY OF WALNUT CREEK	\$37,230.00	C	3/23/1972	10/1/1976	7
294 - XXX	A	POINT PINOLE	EAST BAY REGIONAL PARK DISTRICT	\$773,911.00	C	2/5/1973	10/1/1977	7
312 - XXX	A	POINT PINOLE ACQUISITION - PHASE II	EAST BAY REGIONAL PARK DISTRICT	\$510,000.00	C	6/25/1973	10/1/1977	7
372 - XXX	D	MARTINEZ FISHING PIER - DEVELOPMENT	CITY OF MARTINEZ & CA WCB	\$67,848.50	C	6/30/1975	10/1/1978	7
382 - XXX	D	PASO NOGAL COMMUNITY PARK	PLEASANT HILL RECREATION AND PARK DISTRICT	\$30,600.00	C	2/3/1975	10/1/1978	7
396 - XXX	A	POINT PINOLE REGIONAL SHORELINE PARK - ACQUISITION	EAST BAY REGIONAL PARK DISTRICT	\$224,752.00	C	2/5/1975	10/1/1978	7
417 - XXX	A	MOUNT DIABLO STATE PARK	CA DEPARTMENT OF PARKS AND RECREATION	\$484,346.25	C	3/25/1975	12/31/1977	10
438 - XXX	A	MT. DIABLO (MORGAN TERRITORY) ACQUISITION	CA DEPARTMENT OF PARKS AND RECREATION	\$575,663.00	C	3/19/1976	10/1/1979	10
446 - XXX	A	REGIONAL RECREATION AREA AQUISITION	CONTRA COSTA COUNTY	\$247,948.00	C	4/5/1976	12/31/1979	7
466 - XXX	D	PLEASANT HILL COMMUNITY GARDEN	PLEASANT HILL RECREATION AND PARK DISTRICT	\$1,313.11	C	4/19/1976	12/31/1978	7
470 - XXX	D	REGIONAL SHORELINE PARK DEVELOPMENT	CITY OF MARTINEZ	\$228,536.00	C	6/24/1976	12/31/1979	7
482 - XXX	D	BRENTWOOD BI-CENTENNIAL RECREATION GARDEN	CITY OF BRENTWOOD	\$606.50	C	6/2/1976	12/31/1978	10
506 - XXX	D	POINT PINOLE FISHING PIER	EAST BAY REGIONAL PARK DISTRICT & CA WCB	\$355,950.00	C	1/20/1977	12/31/1979	7
513 - XXX	A	SHELL RIDGE REGIONAL RECREATION AREA ACQUISITION	CONTRA COSTA COUNTY	\$152,400.00	C	1/12/1977	6/30/1980	7



B.2 Park Land Definitions

The most effective and efficient park system to manage is one made up of different types of parks; each designed to provide a specific type of recreation experience or opportunity. When classified and used properly, they are easier to maintain, create less conflicts between user groups, and have less impact on adjoining neighbors. In order to assess the park system in the Pleasant Hill area and to address specific land needs, the parks have been classified as follows:

Mini-Parks

Mini-parks, tot lots and children's playgrounds are all small single purpose play lots designed primarily for small children usage. Because of their size, the facilities are usually limited to a small open grass area, a children's playground and a small picnic area. Size ranges from .25 to 2 acres. Pinewood Park is an example of a mini-park.

Neighborhood Parks

Neighborhood parks are designed primarily as a combination of a playground and a park for non-supervised, non-organized recreation activities. They are generally small in size and serve an area of approximately one-half mile radius. Typically, facilities found in a neighborhood park include a children's playground, picnic areas, trails, open grass areas for passive use, outdoor basketball courts and multi-use sport fields for soccer, youth baseball, etc. Size ranges from 2 to 10 acres, with the optimum size at 5 acres. Brookwood Park is an example of this type of park.

Community Parks

A community park is planned primarily to provide active and structured recreation opportunities. In general, community park facilities are designed for organized activities and sports, although individual and family activities are also encouraged. Community parks serve a much larger area and offer more facilities. As a result, they require more in terms of support facilities such as parking, restrooms, and covered play areas. Community parks usually have sport fields or similar facilities as the central focus of the park. Their service area is roughly a 1-2 mile radius. Size typically ranges from 20 to 40 acres, with the optimum size at 30 acres. Pleasant Hill, Pleasant Oaks, and Rodgers-Smith Parks are community parks.

Large Urban Parks

Large urban parks are designed to serve the entire community. Generally, they provide a wide variety of specialized facilities such as sports fields, indoor recreation areas, and large picnic areas. Due to their size and facilities offered, they require more in terms of support facilities such as parking, restrooms, play areas, etc. They usually exceed 50 acres in size and should be designed to accommodate large numbers of people. There are currently no large urban parks in the District.

Regional Parks

Regional parks are recreational areas that serve the city and beyond. They are usually large in size and often include one specific use or feature that makes them unique. Typically, use focuses upon passive types of recreational activities. Those located within urban areas

❖ **Recreation and Parks Master Plan**

	<p>sometimes offer a wider range of facilities and activities. Although there are no regional parks in the District, Briones Regional Park (owned by the East Bay Regional Park District) offers hiking, trails, and group camping near the western boundary of the District.</p>
<p><i>Special Use Areas</i></p>	<p>Special use areas are miscellaneous public recreation areas or land occupied by a specialized facility. Some of the uses falling into this classification include community centers, senior centers, golf courses, single purpose sites used for field sports, or sites occupied by buildings. Pleasant Hill Recreation & Park District has several special use areas, including the Senior Center, Teen Center, School House Cultural Center, and Rodgers Ranch.</p>
<p><i>Linear Parks</i></p>	<p>Linear parks are developed landscaped areas and other lands that follow linear corridors such as abandoned railroad right-of-ways, canals, power lines and other elongated features. This type of park usually contains trails, landscaped areas, viewpoints, and seating areas. The Contra Costa Canal Trail and the Grayson Creek Trail are examples of linear parks.</p>
<p><i>Open Space Areas</i></p>	<p>Natural open space is defined as undeveloped land primarily left in its natural environment with recreation uses as a secondary objective. It is usually owned or managed by a governmental agency and may or may not have public access. This type of land often includes wetlands, steep hillsides or other similar spaces. In some cases, environmentally sensitive areas are considered as open space and can include wildlife habitats, stream and creek corridors, or unique and/or endangered plant species. The open space areas in PHRPD are Paso Nogal Park, Dinosaur Hill Park, Diablo Valley Estates Open Space, Las Juntas, and Ridgeview Open Space.</p>
<p><i>Undesignated/ Undeveloped Land</i></p>	<p>This is undeveloped land and has not been designated for a specific park use at this time. The Park District has five different undeveloped tracts of land it received from housing developments.</p>

Table B.4 on the next page summarizes the types of parks within the District.

❖ Recreation and Parks Master Plan

Table B.4
Summary of Parks and Recreational Areas By Type
Pleasant Hill Recreation & Park District

Park Area	Total Area	Percent Developed	Comments
Mini Parks			
Pinewood Park	0.5	100	
Sub Total	0.5	--	
Neighborhood Parks			
Brookwood Park	6.3	100	
Shadowood Park	2.6	100	
Shannon Hills Park	2.1	100	
Sub Total	11.0	--	
Community Parks			
Pleasant Hill Park	16.5	100	
Pleasant Oaks Park	11.5	100	
Rodgers-Smith Park	4.5	100	
Sub Total	32.5	--	
Special Use Areas			
Chilpancingo Park	2.5	100	Passive urban park
Frank Salinger Park/ Community Center	8.6	100	
Rodgers Ranch	2.1	100	Historical site
School House	1.9	100	Historical site
Senior Center	0.8	100	
Winslow Center	3.1	100	
Sub Total	19.0	--	
Open Space			
Diablo Valley Estates	4.00	0	
Dinosaur Hill Park	13.6	0	
Las Juntas	7.0	0	
Paso Nogal Park	63.0	10	Contains dog area
Ridgeview Open Space ¹	57.0	0	
Sub Total	144.6	--	
Linear Parks			
Contra Costa Canal Trail ²	4.1	100	
Grayson Creek Trail ³	1.5	100	
Sub Total	5.6		
Undesignated/Undeveloped			
Valley High II	12.14	0	
Valley High IV	11.00	0	
Valley High V	4.59	0	
Woodside Hills I	22.05	0	
Woodside Hills III	12.30	0	
Sub Total	62.08	--	
TOTAL	275.28⁴		

¹ Owned by City of Pleasant Hill. Formerly maintained by the Park District.
² R.O.W. owned by Contra Costa Water District. Trail maintained by EBPRD.
³ R.O.W. owned by Contra Costa County Flood Control, which also maintains the trail.
⁴ The park inventory was revised after the draft plan was written changing the undesignated parkland acreage to 62.08 acres from 55.2. While this table was revised, park inventory figures throughout the remainder of the document were not due to the lateness of the amendment.

Recreation and Parks Master Plan

- Parking requirements: depends on the activities offered.

Open Space

Definition:

Natural open space is defined as undeveloped land primarily left in its natural environment with recreation uses as a secondary objective. It is usually owned or managed by a governmental agency and may or may not have public access. This type of land often includes wetlands, steep hillsides or other similar spaces. In some cases, environmentally sensitive areas are considered as open space and can include wildlife habitats, stream and creek corridors, or unique and/or endangered plant species.

General Development and Use Guidelines:

- a. It is unlikely that there will be much opportunity to expand the District's open space areas significantly because there are so few undeveloped parcels.
- b. If acquisition is proposed, emphasis should be on those areas offering unique features or habitat corridors. Areas that will be difficult or impossible to develop should have a low priority of acquisition. Other mechanisms should be used to maintain the preservation of these areas.
- c. Within open space areas, improvements should be kept to a minimum, with the natural environment, interpretive and educational features emphasized.
- d. Design and manage these types of areas for a sense of solitude, separation or environmental protection.
- e. Parking and overall use should be limited to the numbers and types of visitors the area can accommodate, while retaining its natural character and the intended level of solitude.
- f. Where feasible, public access and use of these areas should be encouraged, but environmentally sensitive areas should be protected from overuse.

Pathways and Trails

Definition:

Trails and pathways are designed to provide walking, bicycling, and other non-motorized recreational opportunities. By providing linkages to other areas and facilities, they can provide non-vehicular options for travel throughout the community. Trails can be designed for a single or multiple types of users. The trails and pathways emphasized here are those that are recreational and multiple use in nature. Bike routes with more emphasis on transportation are not included in this definition.

Trails may be either unsurfaced or treated with a variety of hard surfacing materials including concrete, asphalt or compacted gravel.

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Natural Open Space Areas

Natural Open Space Areas/Greenways are defined as undeveloped land primarily left in its natural environment with recreation uses as a secondary objective. It is usually owned or managed by a governmental agency and may or may not have public access. This type of land often includes wetlands, steep hillsides or other similar spaces. In some cases, environmentally sensitive areas are considered as open space and can include wildlife habitats, stream and creek corridors, or unique and/or endangered plant species.

A. EXISTING CONDITIONS:

1. Current Supply:

- In the Pleasant Hill area, there are five sites totaling 144.6 acres that fall under the open space area category. All but Ridgeview Open Space are owned by PHRPD. Ridgeview Open Space is owned by the City of Pleasant Hill. The existing sites are:
 - Diablo Valley Estates (4.0 Acres)
 - Dinosaur Hill Park (13.6 Acres)
 - Las Juntas (7.0 Acres)
 - Paso Nogal Park (63.0 Acres)
 - Ridgeview Open Space (57.0 Acres)

2. Current Service Levels:

- There is no defined service area for open space. Service area is determined by its intended purpose such as separation of neighborhoods, preservation of environmentally sensitive areas, and steep hillsides.

B. ANALYSIS:

1. Comparison to Other Agencies:

- The average ratio open space areas among California agencies (15 total) that MIG has collected information for is 8.81 acres / 1,000 population. For the west coast (103 total), the average is 8.42 acres / 1,000 population.
- The average recommended demand standard for California agencies studied by MIG is 7.25 acres / 1,000 population. For the west coast (103 total), the average is 12.50 acres / 1,000 population.
- Pleasant Hill Recreation & Park District has a current ratio of 3.61 acres per 1,000 population, which is significantly lower than average for California and west coast communities.

2. Trends

- In larger metropolitan areas, the preservation of open space has become very important to residents.

C. RECOMMENDATION:

1. Level of Service:

- The service area of open space should be determined by its intended purpose (e.g., such as separation of neighborhoods, preservation of environmentally sensitive areas, and steep hillsides).

2. Determination of Demand Standard:

- It is recommended the District increase its current ratio for open space lands. However, this will be difficult due to the high level of development within the community. The recommended standard is based on the following factors:
 - The demand for open space is typically high in well-developed communities.

Currently, there is approximately 55.2 acres of land that has not been designated for any purpose that remains in public ownership. If this land (minus a five acre parcel for a neighborhood park) is designated for open space there is the potential for a net increase of 50 acres of land. If this acreage is added to the existing inventory and divided by the build-out population, we come up with a service level of 4.41 acres per 1,000 population.

Table E.13
Recommended Demand Standards
Open Space Areas

Category	Value
Present Inventory	144.6 Acres
Present Sites	5 Sites
Present Ratio	3.61 Acres / 1,000 Population
Recommended Demand Standard	4.41 Acres / 1,000 Population

3. Design Standards:

- Basic Elements: Natural areas
- Optional Elements: Nature trails/paths

4. Comments:

- There is approximately 55.2 acres of land that has not be designated for a specific purpose. A portion or all of this land could be designated as open space.

Required Actions:

- Re-designate the following sites as open space
 - Portion of Valley High II (19.1, minus 5 acres)
 - Valley High IV (11.0)
 - Valley High V (4.6)
 - Woodside Hills I (7.2)
 - Woodside Hills III (13.3)

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Contra Costa Canal Trail

T-24

Although the Contra Costa Canal Trail is not owned or maintained by the District, it is included within this plan because of its recreational significance to District residents.

It is recommended that the District coordinate with the East Bay Regional Park District (responsible for maintenance) and the Contra Costa Water District (owner) to ensure adequate maintenance and continued access to the trail for District residents.

Grayson Creek Trail

T-25

Although the Grayson Creek Trail is not owned or maintained by the District, it is included within this plan because of its recreational significance to District residents.

It is recommended that the District coordinate with the Contra Costa County Flood Control to ensure adequate maintenance and continued access to the trail for District residents. An all-weather trail surface is recommended for the Grayson Creek Trail. Flood Control may be amenable to this if the District is willing to pay part of the costs or assist with the maintenance of the trail.

E. Pathways and Trails

In addition to the Contra Costa Canal Trail and the Grayson Creek Trail discussed above, there are also trail networks within many of the District's open space parks. Paso Nogal Park, Dinosaur Hill Park, Las Juntas, Diablo Valley Estates Open Space, and Valley High Open Space all have trails for hiking and walking. According to results of the community survey, residents visited Paso Nogal Park an average of 9.2 times per year and Dinosaur Hill Park an average of 7.2 times per year. Hiking and jogging were popular activities with residents according to survey results. In addition, walking for pleasure is typically an activity with a very high participation rate, and interest in walking has been increasing nationally.

It is recommended that the District seek to facilitate pedestrian and bike linkages between its open spaces, parks, and facilities. The City of Pleasant Hill has designated bike routes along major and local streets. The District should consider increasing public awareness of bike and walking routes, including publicizing the existing trails map.

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much can it afford for the operation of the ranch as it is envisioned?

Based on the outcome of the discussion of the above topics, revision to FORR's vision for the site may be needed.

One option mentioned during the planning process was to consider moving the historic structures to another site. Due to the developed nature of Pleasant Hill, single family residences now surround Rodgers Ranch and access to the site is via residential streets. A facility as envisioned by FORR may be in conflict with the residential development, and the idea of moving the structures to a different site was suggested as a solution.

Winslow Center

SU-17

Winslow Center is located on a 3.1 acre parcel at the intersection of Taylor Boulevard and Pleasant Hill Road. The District acquired this former church to expand its indoor facilities. Strategically located at a major intersection, this parcel is visible, easily accessible, and fairly central to the District. However, the current size of 3.1 acres is limiting, particularly because a creek bisects the property. The parking lot is unpaved, and the signage for the Center is difficult to see. A preschool and other community services are located here, and the facility is also available for rentals. There is an adjacent horse enclosure that is part of the site. The District recently added an ADA compliant elevator to the building. The Mangini/Delu properties are located adjacent to the Winslow Center site.

There are several options proposed for the Winslow Center, all of which are somewhat dependent on the future of the Mangini/Delu properties. All of the options call for new use of the current site, most likely with a completely new structure. All of the options except one move the Senior Center to the Winslow Center site. Under the proposed reuse of the Winslow Center site, the preschool and other programs would be moved to other locations. See Sections 7.F and 7.G for additional details and recommendations.

Paso Nogal Park

OS-18

Paso Nogal Park is a rolling hills open space with gravel trails. It includes a fenced off-leash dog exercise area approximately 1.5 acres in size, which is posted with specific open hours. There is

an off-street parking lot near the street and adjacent to the dog area. Conflicts between hikers and off-leash dogs have been reported, but not in the off-leash area. Some dog owners allow their dogs to be off-leash on the trails. People coming to use the park trails must pass the dog area, which has been reported to discourage use by some residents. According to the results of the community survey, Paso Nogal Park is one of the most visited parks in the District. Staff also reports that there is heavy use of this park by non-District residents.

It is recommended that acreage be allocated at Paso Nogal Park for the development of neighborhood park site NP-6; with the most likely site accessible from Kiki Drive. Approximately 2 acres should be dedicated to neighborhood park use.

Other recommendations for Paso Nogal Park include:

- Continue present uses on remainder of site.
- Improve signage both for users of the off-leash dog area and other park users. Consider adding educational signage about the impacts of off-leash pets on natural areas.
- Continue working with the local dog owners group to manage the off-leash area and enforce the rules, throughout the site.
- Look for ways of addressing the issue of off-leash dogs in the natural areas and on the trails. It may be effective to work with a local environmental advocacy group to develop educational outreach about impacts of off-leash pets, or to monitor / patrol the trail system for leash law violators.

Las Juntas

OS-19

Las Juntas is a small open space area located adjacent to the Contra Costa Canal trail just south of Taylor Boulevard.

The following minor improvements are recommended for Las Juntas:

- Install a turf meadow with irrigation.
- Provide erosion controls.

Dinosaur Hill Park

OS-20

Dinosaur Hill Park is an open space park with trails. Located on a sloped site in the southwestern portion of the District, this park receives more use than Frank Salfingere Park according to the community survey results.

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General Development and Use Guidelines:

- At least two-thirds of the site should be available for active recreation use and adequate buffers of natural open space should separate active use areas from nearby homes.
- If possible, walking or bicycling distance should not exceed one mile for the area it serves.
- The site should be highly visible from adjoining streets.
- Access to the site should be via a collector or arterial street.
- Appropriate facilities include:
 - Designated sport fields - softball, baseball, soccer, etc.
 - Tennis courts
 - Sand or grass volleyball courts
 - Open multi-use grass area
 - Children's playground (tot and youth)
 - Restrooms
 - Picnic areas
 - Trails and pathway
 - Outdoor basketball courts
 - Site amenities (picnic tables, benches, bike racks, drinking fountains, trash receptacles, etc.)
- Parking requirements: depends on facilities provided. Require 50 spaces per ball field plus 5 spaces per acre of active use area.
- Permanent restrooms are appropriate for this type of park but should be located in highly visible areas and near public streets.

Special Use Areas

Definitions

Special use areas are miscellaneous public recreation areas or land occupied by a specialized facility. Some of the uses that fall into this classification include community gardens, single purpose sites used for field sports or other activities, and sites occupied by recreation buildings.

General Development and Use Guidelines:

- Prior to the addition of any special use area, the District should prepare a detailed feasibility and cost/benefit analysis for each proposed site considered.
- Size and location of facility will depend on the function of the facility being considered.
- Design criteria will depend upon the facilities and activities proposed.

