


McMillan, Acquanette (Netta)

From: Deborah Chacon
Sent: Monday, July 10, 2023 8:54 AM
To: PublicComment-AutoResponse
Subject: Major Concerns for Rose Bowl Golf Improvement Project

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We have lived in Linda Vista for 42 years. The proposed Golf Improvement project has many problems.

1. Financial viability.
2. Lighting impact to neighbors and wildlife.
3. Traffic.
4. Establishes a commercial operation in a park/golf course.
5. Quality of life for Pasadena residents will be negatively impacted.

Carlos and Deborah Chacon
Linda Vista homeowners 42 years

7/10/2023
Item 15

McMillan, Acquanette (Netta)

From: Ryan Forrest
Sent: Monday, July 10, 2023 9:49 AM
To: PublicComment-AutoResponse
Subject: July 10 City Council Meeting - Agenda Item 15 (City Advisory Bodies > Brookside Golf Course Improvement Project)

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Good Evening,

I would like to show support for the Brookside Golf Course Improvement Project.

This project increases the access and resulting character principles instilled by the game of golf. As we evolve as people, so too does the game of golf. As Covid highlighted to our society, the game of golf has increased in popularity, and our beloved City's golf facility needs to evolve. The proposed changes will create a golf destination for our City, and allow more space for amazing initiatives like The First Tee to provide access to children who wouldn't normally have the opportunity to pursue golf.

I have tried to be critical of the negatives of this project, and I can't come up with one point to criticize the RBOC's efforts. Allowing for more play and revenue, increasing access to golf to all people in and around our surrounding communities, and ultimately furthering the recreational benefits to our wonderful City are a few of the reasons why we need to support this.

Thank you,

-Ryan Forrest

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McMillan, Acquanette (Netta)

From: Marie Levine
Sent: Monday, July 10, 2023 11:15 AM
To: PublicComment-AutoResponse
Cc:
Subject: Council Meeting July 10, 2023; Agenda Item 15; Brookside Golf Course Improvements Project

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Mayor Gordo and Councilmembers,

I am a resident of the City of Pasadena and reside on Coniston Road on the East side of the Arroyo above Brookside golf course. I have lived in my house on Coniston for 33 years. I highly value and appreciate the Arroyo Seco including the Central Arroyo. I believe that I am what CEQA refers to as a "Sensitive Receptor" in that I live adjacent to the Central Arroyo and the proposed Project site.

I have reviewed the Mitigated Negative Declaration (MND) and the Biological Resources Assessment as to an issue that is very important to me: the Project's potential significant impacts on Wildlife including Birds. I have also reviewed the Expert Lighting Opinion prepared by Dr. Longcore for the Linda Vista-Annandale Association attached to their lawyer's public comment letter.

Dr. Longcore and I agree: the primary suggested Mitigation, that is, focus all lighting downward for the very large project area, is unresponsive to the facts in the Central Arroyo; is incomplete; and will be ineffective. Further, the Biological Resources Assessment is minimal and incomplete, and is in error.

I fully agree with Dr. Longcore's primary Expert conclusions: the project goals cannot be achieved without significant adverse impacts on biological resources. **The proposed Night Lighting will cause significant Light pollution; will create a large "glow" that will be always visible from off-site; and will contribute significantly to sky glow in addition to adversely impacting wildlife.**

The Central Arroyo, including the Project site, is an essential part of a complex and widespread Wildlife Corridor and habitat system that is much larger than just the concrete channel and includes both adjacent Arroyo hillside areas, but particularly the Linda Vista area, and the entire Central Arroyo. The Wildlife Corridor system has been mapped and studied extensively by environmental organizations such as Pasadena's Arroyos and Foothills Conservancy and the Santa Monica Mountains Conservancy, as well as the State of California Agencies with jurisdiction. None of this detailed and important scientific data is included, analyzed and considered for required Mitigation. Further, important animals who use these various Wildlife Corridors are excluded and ignored in the analysis such as Bobcats which are continually using the Corridors. Also excluded and ignored is any analysis and discussion of project impacts on Central Arroyo wildlife habitat.

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As to Birds, the entire Central Arroyo, including the Project Site, is home to many Bird species and is part of a significant Migratory Bird "Flyway." Neither of these facts is mentioned or analyzed at all in the MND. How exactly are the large Hawks and other large Birds that so many of us watch and enjoy regularly supposed to manage and survive all the large new netting proposed for the significantly expanded Driving Range? Why are "nesting" birds only important during construction? Shouldn't a Mitigation measure be included requiring that all healthy canopy Trees utilized by Birds in the Central Arroyo, including migrating ones, be preserved and maintained for the benefit of the Bird life in the Central Arroyo?

Most importantly, how will the proposed Project permanent nighttime lighting together with related nighttime noise and large numbers of people, impact the wildlife in the Wildlife Corridors discussed above and the Birds discussed above? The permanent night "glow" over such a large area of the Central Arroyo will disturb, disorient and undermine both the Wildlife Corridors, Wildlife habitat, and the existing and migrating Birds in the Central Arroyo. City policy for a long period of time has been to guarantee and preserve the natural area and aspects of the Arroyo with only one exception: the Rose Bowl itself. This proposed Project transforms the natural character of the Central Arroyo outside of the stadium into a permanent commercial operation that will result in significant and permanent impacts that were not studied and analyzed in the MND.

I am also very concerned about Dr. Longcore's conclusion that the project's Night Lighting over such a large area will contribute significantly to sky glow. Is there a more beautiful sight in Pasadena from above than the dark Arroyo and the dark sky above, interrupted only intermittently by temporary night lights?

Considering that the MND fails to fully and properly study the potentially significant Project impacts in the Central Arroyo on Wildlife Corridors, Wildlife habitat and Birds, including the potentially significant impacts of permanent night lighting, the MND should be rejected, and the Council should direct the preparation of a full Environmental Impact Report including a full analysis of significant impacts on Biological Resources.

Thank you for considering my comments.

Sincerely,


Marie Levine, Ph.D.

McMillan, Acquanette (Netta)

From: Patty Montbriand
Sent: Monday, July 10, 2023 11:22 AM
To: PublicComment-AutoResponse
Subject: No on miniature golf

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Dear City of Pasadena,

Tonight's City Council meeting will ask for a vote on moving ahead, or not, for the Miniature Golf Course plans at Brookside Golf Course. Please vote no.

Of course no one wants the Rose Bowl sitting in ruins but let's use common sense here. The sport of golf is universally on the wane with the public & has been for years.

Please, for many reasons not touched upon here, vote no on the miniature golf course project.

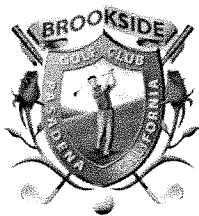
Thank you.

Sincerely,
Patty Montbriand

Pasadena 91103

Sent from my handheld device.

7/10/2023
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Brookside Men's Golf Club
1133 Rosemont Avenue, Pasadena, CA 91103

July 10, 2023

Re: City Council July 10, 2023 Item #15—RBOC Brookside Golf Course Improvement Project

Dear Mayor Gordo and Members of The City Council:

On behalf of our 1003 current members who call Brookside home, I am writing today to express concerns related to the proposed Brookside Golf Course Improvement Project.

As the City and RBOC consider moving forward with this initiative we ask that the following issues be addressed:

- 1) No or minimal impact to routing of golf course. Under the current proposal Course 2 (a Par 70 championship golf course) will be modified to a Par 69 course which we believe devalues the property and reduces the opportunities for championship quality play and tournaments. We liken it to shortening the football field inside the Rose Bowl to 95 yards.
- 2) Retention of short game practice area, The First Tee practice area and lesson tees. Under the current proposal these areas will be eliminated.
- 3) Adequate parking. On busy days the current lots (CH & D) and Rosemont Avenue are full. With the increased activity this project could bring, additional close-in parking needs to be added.
- 4) Safety. With nighttime hours and young families on the property, enhanced security and additional lighting will need to be provided. We continue to have reports from our members that their cars are broken into during the day in Lot D and on Rosemont Avenue; we expect that type of activity would only increase under the cover of darkness.
- 5) Affordability. With the implementation of an enhanced driving range experience coupled with the financial demands of the stadium and golf course, we remain concerned that community members of lesser means will be closed out of the opportunity to enjoy the driving range. We're already starting to see this with the green fee increases over the last 3 years.
- 6) Reinvestment in golf property. The golf course and related facilities are all aged with needs of significant repairs and infrastructure improvements which are estimated to be in excess of \$20M. Historically, all net proceeds from the golf property have gone to support the stadium which has resulted in the current state of neglect. Should this project go forward, we're asking that a majority of the net proceeds go back into the golf course and related facilities. Underinvesting or neglecting the needs of the golf facility will not only deteriorate its value to our members, which includes Pasadena residents, but also to the city, its citizens, and the surrounding communities.
- 7) Independent financial review. The city is being asked to make a significant investment. Concerns have been expressed about the current financial projections. The City should conduct an independent financial review to ensure the viability of the project both in terms of costs and returns.

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We do commend the RBOC for its public outreach and its verbal commitment to addressing many of the above issues. However, we are concerned that without a final design and a fully vetted project the above concerns and those of other key stakeholders could be dismissed or overlooked.

Should the City Council vote in favor of the project moving forward, we ask that a formal, collaborative process be established that involves all key stakeholders to provide input, consider alternative designs and ideas to ensure a successful project.

Respectfully,

Doug Philbin

Doug Philbin

President, Brookside Men's Golf Club

McMillan, Acquanette (Netta)

From: Philip Jespersen
Sent: Monday, July 10, 2023 1:08 PM
To: PublicComment-AutoResponse
Subject: Rose Bowl - Support of Family Golf Project

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Hello,

My name is Philip Jespersen. I am sending these correspondents to voice my support for the proposed Family Golf (Mini-golf + driving range) project at the Rose Bowl.

I am a 40+ year resident of Pasadena and currently reside with my wife and 3 children (age 12, 11 & 8) in District 6 of West Pasadena.

A huge draw for us moving to the area was the Rose Bowl and all that this legendary entertainment venue has to offer; UCLA football, sporting events, concerts, festivals, walks & bike rides around the stadium, the beautiful golf courses and so much more.

The addition of a state of the art driving range and mini-golf course would be a welcomed addition to the Rose Bowl and Arroyo area offering an amazing outdoor family-friendly activity for ALL to enjoy. We support this project 100%!

Respectfully,

- Philip Jespersen

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Linda Vista-Annandale Association
Pasadena, CA

2023 JUL 10 PM 1:40

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Re: City Council Meeting; July 10, 2023; Agenda Item 15; Brookside Golf Course Improvement Project

Mayor Gordo and Councilmembers,

What does the Linda Vista-Annandale Association (LOVAA) suggest that the Council do about the proposed Brookside Golf Course Improvement Project?

Before you get to “substance,” consider what a “process” confused situation this proposal has become. On June 6, 2022, the RBOC came to the Council and presented a list of 8 possible revenue-generating projects of which “Family Golf” was one for consideration in a “Pre-Development” phase. The Council discussed and determined according to the Minutes of the meeting:

*Explore additional opportunities in the Rose Bowl area that would broaden the monetization opportunities while being cognizant of acceptable use within the Arroyo Seco; and
(2) Direct the Interim City Manager to work together with the Rose Bowl Operating Company (RBOC) General Manager, and report to the RBOC and City Council (or designated City Council Committee) quarterly with updates on progress. . . .*

He {Mayor Gordo} also acknowledged the City must maintain a delicate balance given that the Rose Bowl is located in the middle of parkland and neighborhoods.

Did the RBOC follow this Council direction? No, as far as LVAA can determine. How is CEQA Certification, which is an essential and major step in project approval, “pre-development” anything? A long constructive Council discussion ensued at the June 22, 2023, meeting focusing on a holistic approach to revenue opportunities and related Central Arroyo uses, and the possibility of a Council workshop to discuss projects and financing issues. When did all this further discussion and public process occur before moving ahead to approve Family Golf? Has any Council Committee such as the Finance Committee fully reviewed and considered the financial analytics underpinning the Golf project such as suggested in detail in the West Pasadena Residents’ Association (WPRA) public comment letter for this Agenda item?

As to substance, consider recognizing that the MND fails to adequately inform the public under CEQA as to the project’s significant impacts and fails to adequately Mitigate them

to less than significant as required by CEQA. Instead, the MND and related documents, among other errors, defer major CEQA review and Mitigation to the future which violates CEQA. Here are just several examples, although the record is replete with examples.

The MND on Page 27 in a supposed Mitigation measure states that the RBOC will conduct a lighting study in the future and tests to really determine what will happen with the proposed Night Lighting. No need to wait to find out in the future what the real impacts of the Lighting proposed by the Project will mean to the Arroyo – LVAA has obtained an expert Study now which is attached to this letter. The Expert Opinion is that the Night Lighting impacts will be significant, are not adequately Mitigated by the MND. A permanent night glow in the Arroyo over 16 acres is NOT an acceptable “use” within the Arroyo Seco as referred to by the Council at its June 22, 2022, meeting and is incompatible with all prior Policy plans and Ordinances that apply to the Central Arroyo.

Second, the Golfers including the Men’s Golf Club, who have made the Golf Courses the great success they are currently after COVID, and who are spearheading the return of Golf to high revenue generation into the future, indicate apparently that this proposed project and its changes to both Golf Courses will degrade the quality and status of the regular Golf Courses. In the Responses to Public Comments from the CEQA Consultant at Pate 2-13, the Response states that the RBOC will hire a Golf Course Architect in the future to attempt to reduce the project’s impacts on both Golf Courses. This is deferred Mitigation under CEQA which is not permitted, and why wasn’t this effort undertaken in the beginning when the Project Description was being structured and drafted? Why didn’t the RBOC constructively engage the Golfers and attempt to resolve their concerns up front?

Third, in a major public controversy and the subject of much comment at the MND public meeting, a large number of generally healthy protected, public Canopy Shade Trees within the project outlines will be removed from 47 at a minimum to a much higher number depending on encroachment and related possible and probable impacts. Your attention is directed to the Tree Report attached to the MND which actually is very good and is a reliable public information document as intended by CEQA. So, what is the status of Tree removals as proposed in connection with the project? The RBOC staff recently at a public Urban Forestry Advisory Committee (UFAC) meeting, and otherwise, has repudiated the Tree Report. The RBOC staff now indicates that the Tree Report is inaccurate and wrong, and some other number of protected Trees will be removed as determined in the future. Such action undermines the MND as a legally adequate CEQA public information document and misleads and confuses the public in an unacceptable manner.

Related to the Tree removal issues is the observed overlap between the project area and the financially successful Music Festival area. It is indicated in the Staff Report that the Festival promoter supports the Golf project. We hear over and over from RBOC staff that the Music Festival program depends to a great extent on the beautiful and historic setting in the Central Arroyo, including the Trees and Tree Shade Canopy. Does the Festival promoter realize that clear cutting a large area of this part of the Central Arroyo will permanently alter the setting for the Music Festival programs, particularly since the MND contains no Tree Replacement requirement? Of course, a Tree Replacement program can only accomplish so much as it will take years and years to regrow the mature trees that are removed and recreate the Shade Canopy existing today.

Fourth, the MND defers full analysis of the potentially significant impacts to the Central Arroyo National Register Historic District. The Mitigation measure included on Page 55 of the MND states that to be sure that the National Register District and historic status are preserved, the RBOC in the future will hire a “qualified historic preservation professional” to figure all this out including review of a broad list of considerations involved in preserving the Setting and other aspects of the National Register Historic District and, presumably, preparing a Report. The future for this sort of effort is too late – this future Historic Preservation effort constitutes deferred Mitigation that is not permitted under CEQA. As to the National Register District Historic Setting, it is clear now that permanent Night Lighting in the Central Arroyo and removal of so many protected, public Trees will significantly alter the historic setting and that full Historic analysis of significant impacts should not be deferred.

Since the MND fails under CEQA in our view, we suggest that you direct the preparation of a full EIR to fully study and inform the public concerning the project, or, another alternative is to take no action now on the MND and instead send the matter to one or more Council Committees or a Council Working Group or a Council Workshop to reconsider publicly the project’s scope, refinements and details, and, fully consider whether or not the proposed project actually is financially feasible before committing any City funds to it.

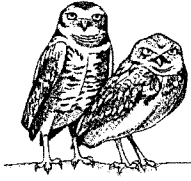
Thank you for your attention to our comments and concerns.

Sincerely,

Nina Chomsky

Nina Chomsky, LVAA President

cc: LVAA Board of Directors



Land Protection Partners

P.O. Box 24020, Los Angeles, CA 90024-0020
Telephone: (310) 247-9719

Biological Impacts of Night Lighting from Brookside Golf Course Improvements Project

Travis Longcore, Ph.D.
Catherine Rich, J.D., M.A.

July 7, 2023

The Rose Bowl Operating Company (RBOC) is proposing to make changes to the Brookside Golf Course, located in the Arroyo Seco just north of the Rose Bowl itself, consisting of the reorientation, expansion, and lighting of the driving range, and the addition and lighting of a miniature golf course. RBOC issued an Initial Study/Mitigated Declaration (MND) in January 2023, followed by revisions and responses to received comments in May 2023. We were engaged by Mitchell M. Tsai, Attorney at Law, to review these documents relative to the potential adverse impacts of light pollution from the proposal project because of our extensive and specific expertise on artificial light at night and its effects on wildlife and humans (see list of publications, Section 7). In this review, we present substantial evidence that the proposed project will have significant adverse impacts from light pollution and that the MND fails as an informational document by perpetuating the absurdity that “the Project would not result in a permanent glow in the Arroyo Seco” and that “the proposed lighting at the driving range would not substantially differ from the current (or historical) conditions on the Project Site” (MND Response to Comments, p. 2-7). As discussed in detail below, these patently false assertions fail to meet the standards necessary to inform the public or to support a final decision by the City of Pasadena.

1 No Matter How Well Shielded, Sports Lighting Causes Light Pollution

The proposed project will cause significant light pollution, notwithstanding the commitment to follow the generic code for the City of Pasadena (Zoning Code Section 17.40.080(a)). Some understanding of how light is measured, and what the Zoning Code measures, is required to comprehend why the analysis in the MND is so inadequate.

The code requires that “no lighting on private property shall produce an illumination level greater than one foot-candle on any property within a residential zoning district except on the site

of the light source.” The code also has an admonition to direct light “downward” and away from adjoining properties.

The way lighting engineers typically measure light for compliance with an ordinance like this is to calculate the illumination from the proposed light on a horizontal plane at ground level surrounding the lights. Because the ordinance does not specify where or how the illumination is to be measured, the engineer will assume that it means horizontal illumination at the ground, which will always be less than if one measured the illumination on a vertical plane at the height that a person or animal might encounter the light. The measurement is just the amount of light falling per unit area on the ground, as if the sensitive receptor were looking straight up, lying on the ground. This measurement typically does not include any analysis of the scattering and reflecting of light, but rather is just the sum of the direct light from each of the lamps. The Pasadena Zoning Code is insufficient to achieve the mitigating effects attributed to it in the MND for several reasons.

First, horizontal illuminance only deals with illuminance (light falling on a surface) at the location of a sensitive receptor, not the visual apparency (glare and glow) of the lighted area itself. This is the difference between luminance (the glare and glow), which is measured in units that reference the brightness of the surface of the lamp and other items from which light is reflecting, and illuminance, which is the amount of light falling on a surface. Illuminance can be quite low, while luminance of the light source is still high. Consider looking at a bright LED flashlight across the length of a football field. The glare will be blinding (high luminance) but you probably would not be able to read a newspaper from the light (low illuminance). The ordinance regulates whether you can read a paper by the light, not whether it appears as a glowing area, or if the individual lamps are bright point sources visible to the observer. This bears repeating; as it is written, the code can be met while still exposing people and wildlife to high levels of light and glare.

Second, the threshold of 1 foot-candle is itself very high. For comparison the full moon in Los Angeles produces about 0.02 foot-candles of illumination and often is only 0.01 foot-candles. This means that the standard adopted for impacts in the MND allows light to be 50–100 times greater than the brightest natural conditions. Natural conditions, and the conditions through most of the month, are orders of magnitude lower still. This is a problem for the analysis in the MND because 1 foot-candle is bright enough to impact human and wildlife health through suppression of melatonin (Grubisic et al. 2019) and far exceeds all thresholds for impacting wildlife behavior (Prugh and Golden 2014, Schirmer et al. 2019, Simons et al. 2022, Longcore 2023).

Third, the measurement unit foot-candle is based on the sensitivity of human eyes to different colors of light and does not consider how bright the light appears to other species. The spectral composition of the lights will make them appear even brighter to some species, which will not show up in the analysis. For example, insects tend to be quite sensitive to light that is blue and violet and so lights that contain high levels of blue and violet will appear brighter to them than is captured by their measurement in foot-candles, which incorporates human sensitivity during the daytime and has low sensitivity to violet and shorter blue wavelengths.

Having reviewed the Zoning Code and the lighting plan for the proposed project (MND, Appendix A), anyone knowledgeable about light would understand that the claims in the MND

do not have a factual basis. In particular, the claims that the project would not cause permanent glow in the Arroyo Seco and that the project would not change the condition from current conditions are unsupported, and we turn to this issue next.

The proposed lighting system for the driving range includes 33 LED lights with a correlated color temperature (CCT) of 5700 K and an output of 85,000 lumens each. This information is not stated in the MND but is found in Appendix A, where the model of the lamps (CLIR 630 EV) is listed. Then, by consulting the specifications sheet from Phoenix Lighting for that model of light,¹ one learns the lumen output and CCT of the lamps. By multiplying 85,000 lumens by 33 it is seen that the total amount of light from the driving range alone (leaving aside any other lighting for pathways or the miniature golf course) will be 2.8 million lumens.

As a comparison with the light from the driving range, a 60-Watt incandescent bulb produces about 800 lumens, which means that the proposed lighting will be as bright as 3,506 60-Watt incandescent bulbs installed in the middle of the Arroyo Seco. Put another way, it would be as bright as 561 typical streetlights (at 5,000 lumens each) installed around the driving range. This amount of light will be noticeable and “glow” no matter how low the measured illumination is at the property boundary because all that light must go somewhere, and it will be reflected and scattered by aerosols and the air.

The angle at which light shines on a surface affects the amount of light that is reflected by that surface. When light shines straight down on turf, roughly 55% of the light is reflected upward. When the light is at a 60° angle, as little as 12% of the light is reflected upward. The average amount of light reflected upward from light shining on turf at angles of 60–90° is 20–25% (from figures produced by Dr. C. Baddiley, scientific advisor to the British Astronomical Association Campaign for Dark Skies). Taking this conservative estimate of 20–25% reflected light from turf (and it will be more in reality), the proposed driving range lights would result in 561,000–701,250 lumens of light emanating outward from the site (and unregulated by the code section relied upon as a mitigation). This would be the equivalent of 112–140 streetlights’ worth of light directed upward into the sky and toward off-site receptors.

Light is also scattered by aerosols in the air. These can be dust, pollen, or droplets of water. The MND fails to account for the scattering of light from fog and clouds or other aerosols that will take place between the lamps and the ground, or the exacerbating effect of fog and clouds on the light that is reflected from the turf itself. Fog is extremely efficient at reflecting light and recent research has shown that foggy conditions result in a sixfold increase in night sky brightness (a measure of light pollution) (Ścieżor et al. 2012). Furthermore, clouds reflect light downward, so even if it were only cloudy (and not also foggy), the light reflected downward would be substantially greater than that under a clear sky (Kyba et al. 2011, Ścieżor et al. 2012). The MND does not account for either scattering of light by fog or reflection by clouds.

An assessment of light pollution from the proposed lighting should also consider scattering in the air, which is known as Rayleigh scattering. This type of scattering increases with shorter wavelengths of light, so the light from proposed full-spectrum lamps will be scattered. High

¹ https://www.phoenixlighting.com/sites/default/files/products/specification-sheets/n5400146f_clir_series_spec_sheet.pdf

CCT lamps, which are proposed for the project cause 10–20% more light pollution than high-pressure sodium lamps of the same luminous output (Bierman 2012). The proposed lighting will both exceed the illumination from streetlights in the Rose Bowl area, its CCT will result in even more light pollution. The preparers of the MND appear not to have any expertise in lighting or physics, because none of this is discussed and they made easily falsifiable claims that the driving range will not glow at night.

To the contrary, over half a million lumens of scattered light will create a glow that is always visible from off-site when the lights are illuminated, will contribute significantly to sky glow, and will adversely impact wildlife as discussed more in the following sections. Sports facilities are the second biggest contributor to light pollution in US cities, after commercial districts, and contribute far more to light pollution relative to their area than any other feature (Luginbuhl et al. 2009). This project is no different.

2 Biological Effects of Light Pollution

The analysis of impacts on biological resources, and aesthetic resources for that matter, depends on understanding and describing the difference between illuminance and luminance (also known as irradiance and radiance when measured in units not weighted to human vision). Although broadly related, it is possible for a project to cause significant new radiance sources in the nighttime visual environment (including through reflected light) even as irradiance around the property may or may not be elevated substantially.

To review, *illuminance* refers to the amount of light falling on a surface where something of interest is going on. It influences the visibility of items in the environment as well as the circadian (daily) rhythms of species. So, for example, small mammals respond to illumination in their foraging activities (Clarke 1983, Brillhart and Kaufman 1991, Vasquez 1994, Falkenberg and Clarke 1998, Kramer and Birney 2001, Prugh and Brashares 2010). It generally influences predator-prey relationships, including at levels of <0.01 foot-candle, far below the threshold of 1 foot-candle used in the MND (Kotler 1984, Simons et al. 2022).

Birds would be affected by increased ambient illumination at levels described in the MND. Species can forage at artificial lights (Goertz et al. 1980, Sick and Teixeira 1981, Frey 1993, Rohweder and Baverstock 1996) and experience significant changes in their morning singing times, especially since the lights will be turned on at 6 A.M. (Derrickson 1988, Miller 2006, Kempenaers et al. 2010, Longcore 2010). Those birds that sing earliest are responding to increases in illumination so faint that they are undetectable by humans (Thomas et al. 2002), and well below the resolution of the illumination diagram in the MND, which ignore reflected and scattered light. Such species would be affected at distances far beyond the 100-foot buffer used for biological resource analysis because of this sensitivity and the quantity of light that would reach beyond the lower resolution of precision for the lighting diagram.

Luminance refers to the brightness of the lights themselves, even as visible from a distance and even if they only negligibly increase *illuminance*. Merely seeing lights at a distance can influence the wayfinding and habitat use of an animal (Beier 1995). It is the overall luminance created by the project that will attract insects and migratory birds to their detriment, while

simultaneously reducing the value of the golf course and surroundings as a wildlife movement corridor by bats as well as terrestrial mammal species, contrary to the assertions in the MND.

2.1 Attraction of insects to light

Insects are attracted to light because they perceive the luminance of the light and adjust their behavior in response. Many families of insects are attracted to lights, including moths, lacewings, beetles, bugs, caddisflies, crane flies, midges, hoverflies, wasps, and bush crickets (Sustek 1999, Kolligs 2000, Eisenbeis 2006, Longcore et al. 2015, Owens et al. 2020, Deichmann et al. 2021). Insects attracted to lights are subject to increased predation from a variety of predators including bats, birds, skunks, toads, and spiders (Blake et al. 1994, Frank 2006). The lights proposed for use on the driving range would have a high CCT (5700 K) and therefore can be expected to be far more attractive to insects than lower CCT lights (Eisenbeis and Eick 2011, Hauptfleisch and Dalton 2015, Longcore et al. 2015, Donners et al. 2018, Longcore et al. 2018, Deichmann et al. 2021). Some studies have shown inconclusive results with respect to CCT (Pawson and Bader 2014, Haddock et al. 2019), but mechanistic assessments (Donners et al. 2018), studies in light-naïve environments with high insect diversity (Deichmann et al. 2021), and assessments of invertebrate visual systems (Longcore 2023) strongly suggest that the high CCT lamps proposed for the driving range lighting will exacerbate the attraction of insects.

2.2 Attraction of migratory birds

During a 2022 playoff game at Dodger Stadium between the San Diego Padres and the Los Angeles Dodgers, a Lesser White-fronted Goose entered the stadium and attempted a landing on the field. To light pollution experts, this was easily recognized as a case of a nocturnally migrating species being attracted to and disoriented by lights at night (Longcore 2022). The phenomenon of migratory birds being attracted to lights at night is well known and studied, in contexts ranging from communication towers to ceilometers to tall buildings and cruise ships (Gauthreaux and Belser 2006, Longcore et al. 2008, Bocetti 2011, Longcore et al. 2012, 2013, Van Doren et al. 2017, Horton et al. 2019, Van Doren et al. 2021, Burt et al. 2023). The MND does not consider the interference with movement of native migratory species represented by the introduction of a large, highly visible light source in an area traversed by millions of birds each year. Recently developed tools using weather radar estimate that 22 million birds traversed Los Angeles County during the spring 2023 migration, with close to 200,000 at peak times (see <https://dashboard.birdcast.info/region/US-CA-037?night=2023-05-17>).

Shielding the lights would not eliminate attraction of birds, because the proposed lights will be so bright, and the light will be reflected and scatter. Remote sensing studies already show that sports fields (even when lights are shielded) are the most significant contributors to light pollution in cities, and those same measures of light pollution (upward radiance) directly influence the distribution of migratory birds, as documented in many recent studies (La Sorte et al. 2017, Van Doren et al. 2017, McLaren et al. 2018, Burt et al. 2023). Light is reflected, scattered by fog, and reflected by low clouds. One of the higher bird mortality events at a wind turbine installation occurred at a location with lights that were at ground level and created a light attraction in conjunction with fog (Kerlinger et al. 2010, Kerlinger et al. 2011). Reflected light is more than adequate to attract migratory birds. Lebbin et al. (2007) documented an interspecific flock of migratory songbirds that gathered under stadium lighting consisting of 156 1500-Watt

metal halide lights illuminating a stadium at a university. Nothing about the design of the lights at Brookside Golf Course would make them proportionally any less attractive to migratory birds than other existing examples of birds being attracted to lights at sports fields.

Unless mitigated, the described lighting on its own would constitute a significant adverse impact on movement of native wildlife species through its impacts on migratory birds.

2.3 Disruption of movement of native terrestrial wildlife

The project site and immediate surroundings are well within the range of and can be expected to be used by native mammals. Species observed on the property include coyotes and mule deer, while bobcat has been observed near the project site and mountain lion approximately 1 km away within the Arroyo Seco. Each of these can be easily verified with photographs on the iNaturalist website. The irradiance and radiance produced by the project would affect the distribution of these species. We know this from extensive camera trap studies of coyotes (Schirmer et al. 2019), habitat use studies of mule deer, mountain lion, and bobcat (Rockhill et al. 2013, Ditmer et al. 2020), and radiotelemetry of mountain lions (Beier 1995). We can add to the published research a study currently in review for publication and already presented at a scientific conference that evaluated mountain lion habitat preference in Orange and San Diego counties using GPS data from 102 individuals (Barrientos et al. 2023). After accounting for other factors, the analysis found that light escaping upward from the landscape and visible by a satellite from overhead was highly negatively associated with habitat use by mountain lions at the scale of about 500 m. That is, the lighting of the driving range, which would dramatically increase the brightness of the area (through reflected light), would dramatically reduce the probability that its surrounding part of the Arroyo Seco would be used as a movement corridor by mountain lions. This, too, would represent a significant adverse impact on biological resources that is not disclosed in the MND.

The MND erroneously states the following, in the Biological Resources appendix: “Nighttime light spillage associated with the operation of the driving range and proposed miniature golf course is not expected to significantly disrupt wildlife movement when considering existing conditions” (Appendix C, p. 17). The preparers do not reference any of the peer-reviewed literature and base their conclusion on the proposed limits on horizontal illumination, when those levels of illumination are known to impact space use of relevant species (Schirmer et al. 2019). Furthermore, luminance (radiance) is equally important in determining habitat use for species moving across the landscape. The conclusion in the MND that the lighting would not affect wildlife movement therefore is not supported by substantial evidence.

2.4 Spectrum of lights proposed increases biological impacts

As already discussed, the environmental analysis for the project does not incorporate any of the voluminous research that shows the differential effects of different wavelengths of light on biological systems (Longcore 2023). Neither the aesthetics analysis nor the biological resources analysis takes into account the wavelengths of light that would be produced by the proposed project.

The conclusion from a number of studies on humans and wildlife is that whiter light (that is, full-spectrum light with blue and violet light included) has more adverse impacts (Pauley 2004, Rich

and Longcore 2006, van Langevelde et al. 2011, Gaston et al. 2012, Stone et al. 2012, Longcore et al. 2015, Longcore 2018, Longcore et al. 2018, Gaston and Sánchez de Miguel 2022). The MND does not even discuss this important feature of the project design and one even has to track down the specification sheet for the lights to be used to ascertain that 5700 K LEDs will be used. Although the sheer quantity of light to be used makes it impossible to fully mitigate the impacts of the project, the inevitable adverse impacts could be reduced slightly by reducing the CCT of the lights to be used so that they will cause less scattering in the atmosphere (Kinzey et al. 2017), have a reduced effect on circadian rhythms, and reduce wildlife impacts for the groups of species that are highly sensitive to blue light.

3 Mitigation Measures

The MND relies on two mitigation measures to argue that impacts from light at night will be reduced to a less than significant level. In the biological section, the following mitigation measure is proposed:

MM-MIO-2. *To minimize potential indirect impact to nesting birds that may utilize ornamental/landscape vegetation on site and/or wildlife movement along the Arroyo Seco, nighttime lighting associated with the driving range and miniature golf course shall be shielded downward to limit spillage onto these sensitive receptors.*

As discussed at length above, shielding lights is insufficient as a mitigation measure when so much light is going to be used that the reflected light itself will be the brightness of 112–140 streetlights. The reflection and scattering are unavoidable physical processes. Furthermore, the mitigation measure does not address impacts to migratory birds for the same reason.

In the aesthetics section of the MND a separate mitigation measure is proposed:

MM-AES-1. *Upon design of the Project, including both miniature golf and driving range lighting fixtures, RBOC shall prepare a quantified lighting study to confirm that final lighting configurations will not exceed 1.0 foot candle from the property line. Prior to installation of final lighting features, RBOC shall conduct a directional lighting test to further determine no exceedance of 1.0 foot candle of light spill.*

As already noted, this “mitigation measure” simply confirms that the project will conform with the existing Zoning Code for the City of Pasadena and offers no additional mitigation that is specific to biological setting or the sensitive resources that are acknowledged to be present. Mitigation measures must reduce impacts beyond the status quo and yet this measure applies the same lighting standard as would be acceptable in the most active commercial zone in the City to a location that is both historically significant and biologically sensitive. The threshold is comically high — 50–100 times brighter than the light of a full moon, allowing illumination that would meet street lighting standards to be experienced at the property boundary. It does not seem like anyone writing the MND understands that this limit would be far too bright to be effective at reducing the impacts from the light to a less than significant level.

4 Conclusion

Based on the analysis above, we conclude that *the project goal of a lighted driving range cannot be achieved without significant adverse impacts on biological resources*. The analysis in the MND is missing key information such as the cumulative light emissions and does not do the modeling necessary to fully visualize and quantify the impacts to the nighttime environment that result from the introduction of 2.8 million lumens of light. Impacts to migratory birds are not addressed at all, and conclusions of mitigated impacts on movement of terrestrial wildlife and nesting birds are not supported by any evidence. Comparison of the proposed project lighting with conditions known to affect wildlife behavior and physiology support our conclusion that the project will have a significant adverse impact. Make no mistake about it, the Arroyo Seco will glow while the proposed lights are on, and this impact will be amplified by the presence of low clouds and fog such that it is foreseeable that neighbors will be able to read a newspaper by the reflected and scattered light, just as one can next to the Rancho Park Golf Course driving range in Los Angeles.

5 About the Authors

Travis Longcore and Catherine Rich are principals of Land Protection Partners. Dr. Longcore is Adjunct Professor in the Institute of the Environment and Sustainability at UCLA. He has taught, among other courses, Bioresource Management, Environmental Impact Analysis, Field Ecology, and Ecological Factors in Design. He was graduated *summa cum laude* from the University of Delaware with an Honors B.A. in Geography, holds an M.A. and a Ph.D. in Geography from UCLA, and is professionally certified as a Senior Ecologist by the Ecological Society of America and as a GIS Professional by the Geographic Information System Certification Institute. He is a 24-year member of the Los Angeles County Environmental Review Board and recently received the Galileo Award for outstanding academic work on light pollution over a multi-year period. Catherine Rich is Executive Officer of The Urban Wildlands Group. She holds an A.B. with honors from the University of California, Berkeley, a J.D. from the UCLA School of Law, and an M.A. in Geography from UCLA. She is lead editor of *Ecological Consequences of Artificial Night Lighting* (Island Press, 2006) with Dr. Longcore. In 2001, she was presented with the International Dark-Sky Association Executive Director's Award for outstanding service in protecting the nighttime environment. Longcore and Rich have authored or co-authored over 65 scientific papers in top peer-reviewed journals such as *Auk*, *Biological Conservation*, *Conservation Biology*, *Environmental Management*, *Frontiers in Ecology and the Environment*, *Trends in Evolution and Ecology*, and *Urban Forestry and Urban Greening*. Longcore and Rich have provided scientific review of environmental compliance documents and analysis of complex environmental issues for local, regional, and national clients for 25 years.

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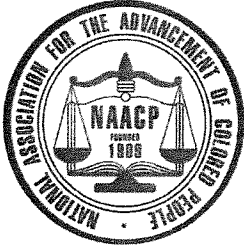
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NAACP
PASADENA BRANCH

RECEIVED

595 Lincoln Avenue, Suite 103 • Pasadena, CA 91103-3336 • (626) 793-1293

2023 JUL 10 PM 3:28

CITY CLERK
CITY OF PASADENA
JUL 10, 2023

OFFICE OF THE CITY CLERK
Attn: Mark Jomsky
100 N. Garfield Avenue, Room S249
Pasadena, CA 91109

RE: Brookside Golf Course Improvements Project

Honorable Mayor and City Council:

The Pasadena Branch of the NAACP supports the Brookside Golf Course Improvements Project, Item 15 of the July 10, 2023, City Council Agenda.

As, the President of the Pasadena Branch of the NAACP, we believe that this project would be an asset to our community.

The Brookside Golf Course is a beloved institution in Pasadena, and it has been a major source of recreation and employment for our city for many years. The proposed project would expand the driving range and add a new miniature golf course, which would create new opportunities for people of all ages and abilities to enjoy the course.

We are particularly supportive of the "Family Golf" concept, which would make the course more accessible to families and children. We believe that this would help to grow the game of golf in our community and introduce it to a new generation of players.

We are also impressed by the process that the Rose Bowl Operating Company (RBOC) has used to develop this project. The RBOC has been considering Family Golf since before the pandemic, and they have held extensive discussions with golfers, tenants, neighbors, and other stakeholders. This process has ensured that the project is in the best interests of all the users of the property.

We believe that the Brookside Golf Course Improvement Project is a win-win for our community. It would create jobs, engage new members of the community, and generate revenue for the city. We urge you to support this project.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads "Allen Edson".

Allen Edson

President

Pasadena Branch NAACP

7/10/2023
Item 15

RECEIVED

2023 JUL 10 PM 3: 28

CITY CLERK
CITY OF PASADENA



To:

Friday May 26, 2023

Rose Bowl Stadium
Attn: Jens Weiden
1001 Rose Bowl Drive
Pasadena, CA 91103

Thank you for another great run of Festivals these past couple weeks. Happy to be back home at the Rose Bowl and Brookside Golf Course. In addition to returning next month for our upcoming shows, we are looking forward to the development of the Family Golf Project on the Brookside grounds. It will no doubt continue to help and improve our event operations and festival landscape in numerous ways, and we are as eager as your team to break ground on the project.

Our festival team is looking forward to the multitude of benefits our festival team and patrons will receive as a result of the Family Golf site plans and development.

A handwritten signature in black ink, appearing to read "Nic Adler", with a long horizontal line extending to the right.

Nic Adler
VP, Goldenvoice Festivals


425 W 11th St. Los Angeles, CA 90015

7/10/2023
Item 15

McMillan, Acquanette (Netta)

From: Barbara Davis
Sent: Monday, July 10, 2023 3:15 PM
To: PublicComment-AutoResponse
Subject: City Council Agenda ~ Family Golf 7/10/23

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To whom it may concern,
I'm writing for myself as a member of the Brookside Women's Golf Club. After initial presentations and discussions from the Brookside GM and RBOC, they've incorporated many of the ideas from our group and the public. The project is golf oriented and the ideas of the RBOC seem committed to maintaining the integrity of both courses. I encourage City Council to allocate the funds to allow them to move to a more comprehensive design.
Thank you,
Barbara Davis
District 7

7/10/2023
Item 15

McMillan, Acquanette (Netta)

From: Barbara Davis
Sent: Monday, July 10, 2023 3:41 PM
To: PublicComment-AutoResponse
Subject: Re: City Council Agenda ~ Family Golf 7/10/23

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It was my understanding Course 2 would remain par 70. Changing Course 2 to a par 69 isn't acceptable.

> On Jul 10, 2023, at 3:15 PM, Barbara Davis wrote:

>

> To whom it may concern,

> I'm writing for myself as a member of the Brookside Women's Golf Club. After initial presentations and discussions from the Brookside GM and RBOC, they've incorporated many of the ideas from our group and the public. The project is golf oriented and the ideas of the RBOC seem committed to maintaining the integrity of both courses. I encourage City Council to allocate the funds to allow them to move to a more comprehensive design.

> Thank you,

> Barbara Davis


> District 7

7/10/2023
Item 15

McMillan, Acquanette (Netta)

From: Do Lots
Sent: Monday, July 10, 2023 5:03 PM
To: PublicComment-AutoResponse
Subject: Brookside's possible plans for an Executive Par 3 course at Brookside

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Dear Brookside Planning Committee,

Re: possible plans to construct an Executive course at Brookside for "family play" etc.

As you know less than 3 miles away from Brookside is South Pasadena's City Executive Arroyo Secco golf course, plus their newly remodeled range and "Pee Wee Golf" course. The Cafe is closed due to Covid years and maintenance issues etc..

Wondering if you have researched what type of \$ is generated from this facility and why this facility isn't thriving?

Sincerely,

Brookside member.

Sent from my iPhone

7/10/2023
Item 15

McMillan, Acquanette (Netta)

From: James Moylan
Sent: Monday, July 10, 2023 5:03 PM
To: PublicComment-AutoResponse
Subject: Brookside Family Golf Concept

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To the Members of the City Council,

There is a similar concept that already exists at the Arroyo Seco Golf Complex in South Pasadena which I'm sure you are aware of. It does not seem to be all that busy or economic. Has the City Council reviewed the economics of that facility to gauge the potential for success at Brookside?

Thanks,

James Moylan

7/10/2023
Item 15

RECEIVED

2023 JUL 10 PM 5:09

CITY CLERK
CITY OF PASADENA



July 10, 2023

City Council

100 North Garfield Ave.
Pasadena, CA 91101

Re: Rose Bowl Family Golf Project

Dear Mayor Gordo and City Council members:

We have reviewed the plans to remove a minimum of 47 healthy trees in the Central Arroyo in order to proceed with the above referenced project. Pasadena has always erred on the side of preserving trees at the highest standard, and we hope that city leadership again will be very cautious when considering removing trees. This is particularly important when, like here, the trees are mature and many of them protected. We have many incredible trees at the Rose Bowl, which add substantially to the value and beauty of the area. These trees, like all trees in Pasadena, deserve our protection. We are confident plans can be made in that keep the trees while at the same time provide a wonderful family experience.

Thank you,
Megan Foker,
on behalf of Livable Pasadena

McMillan, Acquanette (Netta)

From: Amy Valencia
Sent: Monday, July 10, 2023 5:15 PM
To: PublicComment-AutoResponse
Subject: Rose Bowl Golf Improvement Project--

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Dear Council members-

I am opposed to this RBOC project and the impact it will impose on not only our Arroyo Seco environment, wildlife and natural habitat in our area, but also our surrounding neighborhood with the bright lights or sky glow and noise such a project will project-

The arroyo seco and surrounding areas are in need now of proper maintenance of our trees, trails, trash clean up and crime protection that a project of this magnitude will only add to more of the same-

I feel his project is not worthy of the natural beauty and splendor the Arroyo Seco provides our city and the grandeur of the Rose Bowl-

Surely, there are other projects and ideas better suited-

Can we put it up ideas of other uses for a vote by the community before we advance \$1 million in funds to what many in our area are opposed to?

Thank you-

Amy Valencia

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7/10/2023

Item 15