



April 19,2021

To:

Campbell Planning Commission
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Jennifer W. Weeks, County Librarian
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Re: County Library District Project - 1344 and 1370 Dell Ave, Campbell

The Santa Clara County Library District applied for a Conditional Use Permit Modification with Site and Architectural Review to allow construction of an approximately 8,000 square foot "government office and facility" and associated site and landscaping improvements, including an adjustment to the landscape requirements; a Variance to allow retention of existing overhead frontage utilities; and a Tree Removal Permit to allow removal of on-site protected trees, on property located at 1344 Dell Avenue and a continued shared parking arrangement with an abutting property located at 1370 Dell Avenue (Project). This document was prepared by Shani Kleinhaus, Ph.D., Katja Irvin, MUP, AICP, and Linda Ruthruff, Ph.D.¹.

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Shani Kleinhaus, Ph.D. is a biologist with expertise in avian protection in urban habitats. Dr. Kleinhaus has worked with municipalities throughout Santa Clara Valley to advise on building standards for bird friendly development. She has also worked with many silicon valley companies to help them incorporate adequate bird safety measures, lighting and glazing treatments in new buildings and retrofits.

Katja Irvin, AICP was a city and county land use planner for several years and now uses her planning expertise to advocate on water and land use policy issues for the Sierra Club. She collaborates with local and state entities to promote environmental policies and legislation in Santa Clara County.

Linda Ruthruff, Ph.D. has her Ph.D in psychology and is a licensed therapist. Her avocation for the last 11 years has been as an environmental advocate for the Santa Clara Valley Chapter of the California Native Plant Society. Her interest is the interaction of people and nature. She seeks to improve the health and well-being of her community by bringing nature into the spaces where people work, live, and recreate through education and advocacy with people, government and private companies.

Santa Clara Valley Audubon Society, the Loma Prieta Chapter of the Sierra Club and the California Native Plant Society Santa Clara Valley Chapter write this letter with great concern that the design of the project, as proposed, will harm birds. We are also concerned that an opportunity to improve habitat to protect and promote biodiversity in Campbell is being lost, as well as an opportunity to educate the public about threats to avian and other plant and animal biodiversity.

The Santa Clara Valley Audubon Society (SCVAS) is one of the largest National Audubon Society chapters in California. Our mission is to promote the enjoyment, understanding, and protection of birds and other wildlife by engaging people of all ages in birding, education, and conservation. The Sierra Club Loma Prieta Chapter's members and supporters work to protect and restore the quality of the natural and human environment. The California Native Plant Society Santa Clara Valley Chapter's mission is to protect, promote and enhance native plant habitat through advocacy, education, restoration, and the application of scientific knowledge. Together, our organizations represent thousands of Santa Clara County residents who care about the environment and wildlife in our valley and beyond.

In this letter, we provide:

1. A description of the importance of Los Gatos Creek County Park (Oka Ponds) to migratory birds
2. A brief discussion of bird collisions with glass
3. A brief discussion of the negative effects of artificial night lighting
4. A review of relevant requirements by government agencies in the Bay Area
5. A discussion of the lost opportunity to create habitat for birds and pollinators, and to educate the public about the need to protect and promote biodiversity
6. Analysis and recommendations



Northern Harrier



Red-necked Phalarope



Purple Martin

1. A description of the importance of Los Gatos Creek County Park (Oka Ponds) to migratory birds

For those who enjoy nature and birds, Oka Ponds are a special place. During the Pandemic, SCVAS produced a popular self-guided tour to educate the public about this exceptional place, and encourage the public to explore, enjoy and learn². In the fall of 2020, several new bird species were observed here, including the Northern Harrier, the Red-necked Phalarope, and the Purple Martin. Already in 2021, 100 species have been observed at Oka Ponds. Because of the site's

² <https://scvas.org/self-guided-birding/winter-birding-at-los-gatos-creek-park-also-known-as-ok-ponds>

migratory and resident bird diversity and richness³ Oka Ponds are considered an important birding “hotspot” in Santa Clara County.

2. Bird collisions with glass

Bird populations are declining in North America⁴. While there are multiple drivers to this decline, collision with glass is considered one of the primary causes of migratory bird mortality. In North America, it is estimated that hundreds of millions of birds die each year as a result of striking glass walls, doors and windows⁵.

The American Bird Conservancy (ABC) website is a great resource to learn about the devastating impacts of bird collisions and to find solutions to incorporate into architectural designs. Recently, ABC updated their website with new recommendations for Bird Friendly Building Design⁶ and a clarifying document that establishes what qualifies as Bird Friendly Glass. ABC provides primary elements of bird safe building design. These elements are especially critical near habitat areas such as water bodies and open space.

- Minimize use of glass
- Placing glass behind screening
- Using glass with inherent properties that reduce collisions, such as fritting.

In addition, ABC provides a Products and Solutions Database⁷ to evaluate bird safety glazing treatments.

3. Lighting near sensitive habitats

3.1. Outdoor lighting

The evidence that Artificial Light At Night (ALAN) causes pervasive harm to our health, our ecosystems and our planet is overwhelming⁸. Last year, more than 950 people took part in an

³ <https://ebird.org/hotspot/L295710> and <https://www.inaturalist.org/places/los-gatos-creek-park>

⁴ <https://www.sciencemag.org/news/2019/09/three-billion-north-american-birds-have-vanished-1970-surveys-show>

⁵ <https://academic.oup.com/condor/article/116/1/8/5153098>

⁶ <https://abcbirds.org/glass-collisions/model-ordinance/> and <https://abcbirds.org/glass-collisions/resources/>

⁷ <https://abcbirds.org/glass-collisions/products-database/>

⁸ <https://www.frontiersin.org/articles/10.3389/fnins.2020.602796/full> and <https://www.popsci.com/story/science/dark-sky-places/>

online workshop⁹ titled ‘Dark and Quiet Skies for Science and Society’, The workshop explained the science based need to eliminate excessive night lighting and noise pollution. A report¹⁰, compiled by over 80 scientific experts, was published earlier this year (2021). The Bio-Environment chapter of this report makes recommendations for outdoor lighting in all areas, and particularly in protected dark sky areas. In addition, the International Dark Sky Association adopted a new policy¹¹ (2021) focused on Principles for Responsible Outdoor Lighting. The following recommendations should apply to any development adjacent to water features (such as Oka Ponds) and waterways and in the vicinity of parks, open space and other biological habitat. Here is a summary of the recommendations:

- Sensitive environments should be kept dark, and regions surrounding these sites should only make use of lighting that emits no light at wavelengths shorter than 520 nanometers.
- The correlated color temperature of lighting used in most outdoor applications should not exceed 2200K, and where light with a larger fractional emission of short wavelengths is desired, it should be carefully controlled through stringent application of the other Lighting Principles, such as lower intensity, careful targeting, and reduced operation time.
- The use of up-lighting should be avoided.
- Over-lighting relative to task-related needs should be prevented by maintaining illuminances as close as possible to the minimum levels.
- All outdoor lighting should be actively controlled through means such as dimmers and motion-sensing switches so as to reduce illuminances or extinguish lighting altogether when the light is not needed.

3.2 Indoor lighting

Most birds migrate at night and nocturnally migrating birds are attracted to light¹². The National Audubon Society’s Lights Out program¹³ is a national effort to reduce the attraction of these birds to inhospitable locations.

By convincing building owners and managers to turn off excess lighting during the months migrating birds are flying overhead (in the Bay area - March through May, and August through November), Audubon and other organizations provide birds with safe passage between their nesting and wintering grounds. For this project, relevant recommendations include:

⁹ The online workshop was organised by the United Nations Office for Outer Space Affairs (UNOOSA) and the IAU, together with the meeting hosts at the Instituto de Astrofísica de Canarias (IAC), with support from the National Science Foundation’s NOIRLab.

¹⁰ <https://www.iau.org/static/publications/dqskies-book-29-12-20.pdf>

¹¹ <https://www.darksky.org/values-centered-lighting-resolution/>

¹² <https://www.nytimes.com/2021/04/10/us/bird-migration-lights-out.html>

¹³ <https://www.audubon.org/conservation/project/lights-out>

- Turn off interior lighting at night after closing time (or close of business)
 - When the building is occupied at night, close window coverings so light is not visible from Oka Ponds
4. Review of Bird Safety requirements in the Bay Area

Recognizing that buildings and lighting are hazardous to birds, many Bay area cities have established bird safety requirements for new buildings, especially near water bodies, waterways, and open space. Most of these requirements include aspects of both glass treatments and lighting.

- In 2011 **San Francisco** created its *Standards for Bird-Safe Buildings*¹⁴, acknowledging that buildings pose a “biologically significant” risk for various bird species. The San Francisco ordinance regulates 1) location-related hazards, where buildings/structures pose a risk to birds, specifically near open space and water, and 2) feature-related hazard, in which the features of a building pose risks to birds regardless of their location. This includes, window treatments, lighting design, and lighting operation. **The City of Palo Alto** implemented the same San Francisco Standards.
- In 2018 the **City of Alameda** passed a Bird Safe Building Design and Updated Outdoor Light ordinance¹⁵ to comply with their established dark skies initiatives. The ordinance establishes glazing (glass) requirements as well as outdoor lighting restrictions with the purpose of reducing bird mortality, increasing environmental health, and ensuring human health and safety.
- The **City of San José**, within its 2021 Citywide Design Standards and Guidelines¹⁶, emphasizes citywide bird-safe building design, especially near bird habitats, such as open spaces and water bodies. Specifically, San José standards state that for façades located within 300 feet from a body of water or 100 feet of “landscaped area, open space, or park larger than one acre in size,” bird safety treatment must be applied to “at least 90 percent of glazed areas within 60 feet of grade.”
- Adopted in 2014, the **City of Sunnyvale**¹⁷ also specifies bird-safe building designs for structures within 300 feet of water or immediately adjacent to a landscaped area, open space, or park. These requirements are more stringent than their bird-safe building design requirements throughout the rest of the city as these structures are directly adjacent to bird habitat.
- In the **City of Mountain View**, the 2017 North Bayshore Precise Plan¹⁸ requires bird safety for all new buildings and retrofits in this area of the city. Ninety percent of the building

¹⁴ <https://sfplanning.org/standards-bird-safe-buildings>

¹⁵ <https://perma.cc/7CPE-UWC7>

¹⁶ <https://www.sanjoseca.gov/Home/ShowDocument?id=69148> Section 3.3.6, page 50

¹⁷ <https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?BlobID=23799>

¹⁸ <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=29702> section 5.2 page 125

facade must be protected from collisions. The plan also includes lighting restrictions, especially near parks, creeks, and wetlands.

- Most recently (April 2021), the **City of Cupertino** passed a citywide bird-safe design and dark sky ordinance. The ordinance¹⁹ identifies “bird-sensitive areas,” which include “parcels in or within 300 feet of the Wildland Urban Interface; within 300 feet of watercourses; in Residential Hillside areas; and within 300 feet of public and private, open spaces, and parks that are dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, or wetlands.”
- The **Town of Los Gatos** marks another recent addition to pledging a Dark Sky Initiative and Bird Safe Design. At their General Plan Advisory Commission meeting on March 18, 2021 the committee resolved to add a policy statement for dark skies and bird-safety to the Environment and Sustainability chapter of the General Plan 2040²⁰.
- Finally, **Santa Clara County** supervisors indicated an interest in Bird Friendly Design. The County manager has directed the Director of the Planning Department to assign a Planner to provide ‘Bird Safety Rules’, with the expectation that a proposal from the Administration would go to the Board no later than the fourth quarter, 2021²¹.

We ask the City of Campbell to join with their sister cities in protecting birds from mortalities and require bird friendly building practices.

5. Lost opportunity to educate the public, and to enhance avian habitat on the project site

Having natural environments with plant, bird and animal biodiversity in urban areas is important to people’s health, happiness and quality of life. There are multiple benefits to re-wilding and expanding habitat areas, not only for the natural community and to fight the climate crisis, but also for human mental, physical, and emotional health. For instance, a recent study²² from Germany found that high biodiversity close to humans is “as important for life satisfaction as our income.” A broader implication of this study concludes that conserving nature is also an investment in human well-being.

The City of Mountain View’s North Bayshore Precise Plan²³ is one example of a Bay Area city rewilding and increasing habitat areas. The plan includes expanding existing habitat, improving the quality of habitat areas, and ensuring that future development benefits wildlife within and adjacent to the area. Plans like this are critical because they recognize the inherent importance of biodiversity and ecosystem health within and near urban areas.

¹⁹ City of Cupertino Dark Sky and Bird Safe Design Ordinance
<https://cupertino.legistar.com/LegislationDetail.aspx?ID=4835805&GUID=2F607809-7762-4DD4-8AAF-5C6CA1BA0F6B&Options=&Search=>

²⁰ <https://www.losgatosca.gov/AgendaCenter/General-Plan-Advisory-Committee-22>

²¹ Email from County Manager Sylvia Gallegos to Shani Kleinhaus, February 10, 2021.

²² <https://www.sciencedaily.com/releases/2020/12/201204110246.htm>

²³ <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=31203>

There is strong evidence that we are in the midst of the sixth mass extinction - losing species at an alarming rate. We have a responsibility to protect our local ecosystems. There is increasing evidence that our cities can be havens for biodiversity and healthy ecosystems, rather than the “biological deserts” they sometimes are. One study²⁴ published in January of this year emphasized five pathways that cities can follow to benefit their ecosystems: (1) decreasing species’ threats in the landscape, (2) increasing an area’s biodiversity and genetic diversity, (3) acting as migratory stopovers, (4) helping species adapt to climate change, and (5) expanding public engagement, especially in environmental stewardship.

The Library facility could embrace nature and educate people about the Oka percolation ponds, water infrastructure in Santa Clara County, biodiversity, nature and habitat, and bird collisions and lighting. By planning with nature²⁵ instead of looking to merely mitigate impacts, the library can be a force for enlightened change and a better society.

6. Analysis and recommendations

Millions of birds die each year due to collisions with the glass of buildings. With each new building we construct, the design choices we make will result in increases or decreases to these deaths. One building may seem inconsequential. However, all the small numbers add up to major declines in bird populations. The only way to reverse the trend is to *make better choices one building at a time*.

6.1. Glazing

We agree with the H.T. Harvey & Associates biologist report that most of the building’s north, west, and south facades are predominantly opaque, with limited glazing. This design is good for birds. However, we disagree with the assessment that there is an absence of see-through glass.

- The glazed entrance to the building at the west facade depicts a transparent, see-through corner. This would be a hazardous element.
- There also seems to be a see-through, free standing glass extension with trees visible through the glass in the project diagram (see below). This type of architectural elements should not be allowed in buildings within 300-ft of avian habitat, such as this building.

Recommendations for the glazed entrance to the building

- If the free-standing glass extension in the picture below is not a critical structural part of the building, remove it from the design.
- Treat all glazing at the corner with fritted or etched glass with ABC Threat Factor of 15 or less.

²⁴ <https://academic.oup.com/bioscience/article/71/2/148/6102678>

²⁵ <https://www.sfei.org/documents/integrating-planning-nature-building-climate-resilience-across-urban-rural-gradient>



In our opinion, the biologist report greatly underestimates the risk to birds due to glazing on the building's east façade. This pond is a known “hotspot” for birds with 200 species of local and migrating species recorded in and around the ponds. The setback is less than 50 feet. While low-reflectivity glazing is less hazardous than highly reflective glazing, it is not listed as a viable glass treatment by the American Bird Conservancy Products and Solution Database²⁶.

Recommendations for the east facade

Choose one of the following:

- Install a metal mesh similar to other facades of the building.
- Install permanent but adjustable slatted external blinds that provide a visual cue during the day and allow blocking all light from escaping at night.
- In addition to the low-reflectivity glass, use fritted or etched glass with ABC Threat Factor of 15 or less. This could also allow the accrual of LEED credit through #55 Bird collision deterrence.

6.2. Exterior Lighting

The recommendations of the International Dark Sky Association have recently been adjusted to reflect new studies of the impact of Correlated Heat Temperature on ecosystems. For areas adjacent or close to sensitive habitats (such as Oka Ponds) they recommend 1) avoiding exterior lighting and 2) If lighting is required (for safety, for example), the Correlated Heat Temperature should not exceed 2200 Kelvin.

We recommend strengthening the Biologist Report recommendations as follows:

- Biologist recommendation 1: *“Minimize exterior lighting to the extent feasible, except as needed for safety. All exterior lights shall be directed toward facilities on the project site (e.g., rather than directed upward or outward) and shielded to ensure that light is not directed outward toward*

²⁶ <https://abcbirds.org/glass-collisions/products-database/>

coastal habitats“

- We recommend avoiding exterior lighting. If security lighting is required, follow the Biologist Report recommendation, and add a requirement that all exterior lighting should not exceed a Correlated Heat Temperature of 2200 Kelvin.
- Biologist recommendation 2: *“If up-lights cannot be eliminated from the project design, all up-light fixtures (i.e., fixtures S3) shall be switched off no later than midnight during the primary spring migration (i.e., February 15 through May 31) and fall migration (i.e., August 15 through November 30) seasons.”*
 - We strongly recommend avoiding up lighting.

6.2. Interior Lighting

We are concerned about the impacts of artificial light at night emanating from the interior of the building and trespassing into the creek. This light reflectivity is depicted in this view of the East perspective of the building, seen in Attachment 1 of the March 23, 2021 staff report.



EAST PERSPECTIVE ELEVATION

- *Biologist recommendation 3: Occupancy sensors on interior lights, with the exception of emergency lights or lights needed for safety purposes, shall be programmed to shut off during non-work hours and between 10:00 p.m. and sunrise.*
 - We agree with this recommendation. However, interior security lighting can be very bright and emit light at a cold Correlated Color Temperature range (above 2700 kelvin). If this is the case, please install curtains or blinds. As stated above, adjustable exterior blinds can be used on the east facade to provide protection from bird collision and at the same time allow closing of the blinds to avoid emission of light at night.

6.3. Choosing Plant Palette for habitat value and using set-back area for habitat plantings.

It is not clear what the proposed plant palette includes. The H.T. Harvey report states that *Shrubs and herbaceous plants to be planted on the site include native toyon (Heteromeles arbutifolia)* (page 5). But

The Planting Palette 01 (on page 29 of the staff report) lists 7 plants only three of which are California natives and does not include Toyon. The habitat value of the landscaping could be greatly improved by substituting California Native plants known for their habitat value to birds for the 4 non-native plants and by including Toyon.

With proper glass screening or treatment, additional plantings near Oka Ponds can provide habitat for birds and pollinators.

Recommendations

- Create a 25-ft minimum “habitat overlay zone” with native plantings between the eastern side of the building and the fence that borders Oka Ponds.
- Substitute high habitat value California Native plants for the 4 non-native plants in the Plant Palette and include Toyon in the palette.

6.4. Education

Recommendations

Develop partnerships to use the building and its immediate environment as an educational tool. Educate the public about:

- Avian species that can be found at Oka Ponds and bird migration
- Global threats to biodiversity
- Creating habitat by using California Native Plants
- Bird-friendly building design
- The impacts of lighting on ecosystems, light pollution, and the importance of the dark sky
- The role of the percolation ponds in supplying water to our community

We thank you for your attention, and hope that our recommendations are incorporated into the design of the building and its future educational use.

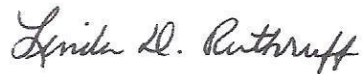
Respectfully,



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