



COMMUNITY DEVELOPMENT DEPARTMENT

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PLANNING COMMISSION STAFF REPORT

Meeting: August 11, 2020

SUBJECT

Municipal Code Amendments to adopt glazing and lighting regulations to implement the Fiscal Year 2019/20 City Council Work Program items related to Dark Sky and Bird-Safe Design. (Application No. MCA-2019-003 and MCA-2019-004; Applicant: City of Cupertino; Location: Citywide)

RECOMMENDED ACTION

That the Planning Commission conduct the public hearing and adopt the draft resolution (Attachment 1) recommending that the City Council:

1. Find that the action is exempt from CEQA; and
2. Amend the Municipal Code by adding a new Chapter 19.102 and amending Chapters 19.08, 19.12, 19.40, 19.60, and 19.72 to adopt glazing and lighting regulations to implement Bird-Safe Design and Dark Sky goals.

DISCUSSION

Background

The FY 2019/20 City Council Work Program directed the City to study and incorporate Bird-Safe Development regulations and Dark Sky regulations to the Municipal Code. At a study session held on October 28, 2019, the Planning Commission provided comments to Staff on the areas of regulation related to bird-safe and dark sky development that should be considered.¹ Since there is overlap in the two areas of regulation, this item has been proposed as one item for the Planning Commission's consideration.

¹ Staff report and attachments available online at: Staff Report, Attachments and meeting materials online at: <https://cupertino.legistar.com/LegislationDetail.aspx?ID=4204155&GUID=A2B97253-972C-41FA-893B-3854BBDEC039&Options=&Search=> and <https://cupertino.legistar.com/LegislationDetail.aspx?ID=4203814&GUID=918FAEC1-9FE9-48E2-906F-78E7BD2B709A&Options=&Search=>

Cupertino does not currently have bird-safe/bird-friendly design or dark sky standards; however, smaller projects that are not exempt from the California Environmental Quality Act (CEQA) are required to address bird strikes as part of the environmental review. Additionally, the current general plan, General Plan: Community Vision 2015-2040, includes several policies that support protecting environmental resources and ensuring high-quality site design listed below:

- **Goal LU-3:** Ensure that project site planning and building design enhance the public realm through a high sense of identity and connectivity.
 - **Policy LU-3.3: Building Design** – Ensure that building layouts and design are compatible with the surrounding environment and enhance the streetscape and pedestrian activity.
 - **Strategy LU-3.3.1: Attractive Design** – Emphasize attractive building and site design by paying careful attention to building scale, mass, placement, architecture, materials, landscaping, screening of equipment, loading areas, signage and other design considerations.
- **Goal LU-12:** Preserve and protect the City's hillside natural habitat and aesthetic values
 - **Strategy LU-12.1.1: Ordinance and Development Review** – Through building regulations and development review, limit development on ridgelines, hazardous geological areas and steep slopes. Control colors and materials and minimize the illumination of outdoor lighting. Reduce visible building mass with measures including, stepping structures down the hillside, following natural contours, and limiting the height and mass of the wall plane facing the valley floor.
- **Goal ES-5:** Protect the city's urban and rural ecosystems
 - **Policy ES-5.1: Urban Ecosystem** – Manage the public and private development to ensure the protection and enhancement of its urban ecosystem.
 - **Strategy ES-5.2.1: Riparian Corridor Protection** – Require the protection of riparian corridors through the development approval process.

Since these CEQA and city General Plan policies do not provide a clear or defined set of objective standards that specifically address concerns about bird strikes or light pollution, the following were developed to address these concerns through specific regulations.

Bird-Safe Developments: Studies suggest that between 100 million and 1 billion birds are killed each year in the US due to bird strikes (collisions into buildings). Bird-safe development regulations are intended to limit building design and site plan factors that are hazardous conditions for birds and exacerbate bird collisions, which include the following.

- Large expanses of exposed reflective glass that cause birds to fly into buildings with extensive glazing that reflects the sky, water, or landscaping, believing it is an extension of the outdoor environment
- Large expanses of exposed transparent glass that cause birds to continue flying, since they do not perceive it as a solid barrier
- Bright levels of nighttime lighting that can cause confusion for some migratory birds and affect circadian rhythms. Although most birds migrate during the day, most species of songbirds migrate at night. Inclement weather, such as rain or fog, can force birds to fly below the clouds and navigate through buildings. Since lighting is an attractant for birds, they may fly into beams of light, get disoriented in an urban environment, and collide with surrounding buildings or collapse due to the exhaustion from flying around in confusion (known as “fatal light attraction”)

Dark Sky: Based on information from the Illuminating and Engineering Society (IES) and International Dark Sky Association (DSA), the issue of light pollution was first recognized as a growing concern in the 1970s when astronomers associated the degradation of the night sky with increased lighting accompanied by growth and development. Through this, the “dark sky” movement rose to help preserve and protect the nighttime environment through environmental responsible outdoor lighting. Dark Sky regulations are intended, among others, to:

- Permit reasonable outdoor lighting for nighttime safety, utility, security and enjoyment while preserving the ambience of night;
- Prevent light pollution and intrusion;
- Curtail and reverse any degradation of the nighttime visual environment and the night sky;
- Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive or unnecessary; and,
- Help protect the natural environment from damaging effects of night lighting.

The City currently regulates outdoor lighting through development standards within the Cupertino Municipal Code (CMC). Chapter 19.60: General Commercial and Chapter 19.124: Parking Regulations include regulations for new lighting fixtures at any new site construction or building improvements within General Commercial (CG) zoning districts, including parking lots, sidewalks and other areas accessible to pedestrians and automobiles. The City’s ordinance requires that exterior lighting be white type light that is either metal halide or a comparable color corrected light unless otherwise approved as part of a development plan. To minimize the impact of lighting glare, light fixtures must be oriented and designed to preclude any light and direct glare to adjacent residential properties. Lighting glare may not be visible above three feet at a public right-of-way. In addition, lighting must be designed to illuminate with a uniform and adequate intensity

in compliance with the standards identified in the Municipal Code. The Municipal Code allows for critical areas (stairways, ramps, and main walkways) to have a higher level of illumination than other areas. See CMC tables 19.060.060.E and 19.124.040.

In addition to CG zoned properties and parking lots, the Municipal Code identifies specific lighting standards for properties zoned Residential Hillside (RHS) due to the environmentally sensitive setting in which these properties are located. CMC Table 19.040.060.H.3 requires that all outdoor lights be directed to meet the particular need. Motion-activated security lights shall not exceed 100 watts and must be shielded to avoid all off-site intrusion. In addition, the Municipal Code prohibits high-intensity lighting of tennis courts and other recreational uses.

The Municipal Code does not address lighting placed in other types of residential uses (single family, multi-family, duplex etc.), mixed-uses, or other non-residential (office, industrial, quasi-public) buildings.

Planning Commission Study Session

Planning Commission was supportive of implementing guidelines/standards to promote Bird-Safe and Dark Sky policies at the Study Session on October 28, 2019. Staff provided an overview of policy standards based on analysis of various jurisdictions' regulations of Bird-Safe and Dark Sky policies, see attachments 2 and 3. The Planning Commission discussed the following at the study session. Staff comments on how it was incorporated into the draft ordinance is shown *in italics* following each item:

- A preference for using existing professionally accepted bird-safe design standards. *Staff used resources from existing jurisdictions and from the American Bird Conservancy (ABC) to develop the bird-safe development regulations.*
- A preference for not allowing exemptions (for e.g. historic buildings complying with bird-safe treatments by using exterior netting to maintain architectural integrity.) *Based off public comments and similar exemptions set by other cities, staff has included exemptions to historic buildings and to commercial storefronts in support of economic development strategies to promote visibility in the City. The Planning Commission may consider removing the exemptions.*
- Possibility of phased implementation of bird-safe design policies. *Based on a review of the regulations in several jurisdictions, it appears that bird-safe design can be implemented easily at time of new development, redevelopment (additions or remodels), or when windows or other glazed features are replaced. Therefore, staff is recommending that the bird-safe development regulations apply when such activity occurs.*
- Importance of birds to the environment and providing educational materials and flexibility to persons wishing to incorporate bird-safe treatment to a property. *Staff has included two sections in the ordinance that provide for flexibility to applicants: a list,*

maintained by staff, as a resource for acceptable bird-safe treatments and a provision allowing an alternative compliance option proposed by the applicant. These two sections allow for flexibility by allowing for a range of bird-safe treatment that either have not been considered at this time or are yet to be designed.

- Importance of light impacts on the environment and health of people. *To provide a more thorough understanding of the issue at hand, Staff included presentation materials in the community outreach events to discuss the issue.*
- Importance of ensuring adequate security lighting. *Staff incorporated a section of outdoor lighting requirements to allow security lighting.*
- Preference of not requiring a hearing for landscape lighting or, if required, be based on the size of the project. *As proposed, no separate lighting permit is required. However, whenever an applicant applies to obtain a building permit, an electrical permit for outdoor lighting or signage, and/or city approval for any development project, the applicant will be required to submit information to allow staff to verify compliance.*
- Importance of preventing light trespass. *The proposed ordinance includes regulations to prevent light trespass to adjacent properties.*

In addition to Planning Commission direction, public comment at the study session included the following:

- Bird-safe treatments should be required citywide to all project types (including small residential projects, retrofits, and other glass features) and should not include exemptions as bird-safe treatments can be cost-effective
- Suggestion that Bird-Safe and Dark Sky regulations should be combined and reviewed together
- Role of the government is to preserve the natural environment
- Education and outreach to teach the public about the dangers of glass
- Bird-safe design is limited to development and is a good first step, but policies should also be development to regulate a variety in landscaping to protect habitat, especially for big birds.

Community Outreach

Postcards were mailed citywide for two outreach meetings to discuss regulations related to bird-safe and dark sky regulations. The outreach meetings were held on Wednesday, February 12th and Thursday, February 20th at 7:00 pm at the Quinlan Community Center. Identical presentation and materials were used at both meetings. A total of 32 people attended the meetings. Below is a summary of the comments received:

- Applicability should include all project types throughout the City (new construction, new additions, replaced glazing or glazed features, new and existing municipal buildings, in sensitive areas and to residential and non-residential uses)
- Requirements should be mandatory

- Treatments should be to the exterior and permanent
- Exemption for and against historic buildings, small residential buildings, and commercial storefronts
- Bird strikes should be monitored locally before requiring city-wide regulations and skepticism that decline in bird population is due to glazing and lighting requirements
- Apply regulations to all structures (existing and proposed)
- Comments regarding applicability to residential, both in favor, and not in favor;
- Lighting should conform to a curfew and/or duration limit;
- Lighting from motion sensors should be treated differently and/or exempted;
- Light color temperature should be regulated;
- Lighting should be appropriate to the use;
- Prohibit lights that flash or blink, flood lights, up lighting, and spotlights;
- Prevent light trespass; and
- Allow holiday lighting

In addition to outreach meetings, staff received comments through email and phone as follows:

- Support for both ordinances
- Regulations for Bird-Safe and Dark Sky should be reviewed separately
- Desire to ensure that with a reduction in up-lighting, city lights remain visible to aircrafts, so that airplanes in trouble do not assume it is a safe landing area.
- Not in support of the Work Program items - do not focus on “vanity” projects, focus on city problems (e.g. crime, housing, street cleaning, homelessness etc.)

Attachment 4 further details comments received.

Analysis

A redline document of all the proposed Municipal Code Amendment is attached as Attachment 5. This document reflects new text, deletions of text and also indicates when text has been relocated from one place in the Municipal Code to another.

Bird-Safe Design

Applicability, Exemptions, and Alternative Compliance

The draft ordinance requires bird-safe design and glass treatments be incorporated in development projects of all types across the City in order to minimize bird collisions. Most bird strikes occur closer to the ground where glass reflects the landscaped environment. Since the City protects the natural environment through its policies and programs, many properties are functionally attractive to birds. Therefore, staff recommends that all new buildings, including remodels and additions (apply standards

only to the remodeled or added portions), replacement of windows or any existing or new glass features, be required to comply with the proposed Bird-Safe development standards.

Input from residents have included support both for and against requiring implementation of bird-safe development standards for residential projects, stating prohibitive costs as the main reason. The most cost-effective way to implement bird-safe development is to incorporate muntins in windows. However, should the Planning Commission agree with the concerns of city-wide applicability, it could choose to limit applicability of Bird-Safe development standards. Staff has identified two possible ways in which to reduce applicability (See Attachment 6) as follows:

1. ***Exclude most single story development:*** Limit applicability of bird-safe design to structures taller than 20 feet in height but require bird-safe design in all structures irrespective of height in environmentally sensitive areas (e.g. properties within the Wildland Urban Interface, within 300 feet of watercourses, in residential hillside areas; within 300 feet of parks and schools with open spaces); and larger properties (2 acres or larger), with a potential for open space around it [e.g. large apartment complexes (Glenbrooks) and developments (Seven Springs)]; or
2. ***Exclude all structures under 35 feet in height:*** Limit applicability to structures taller than 35 feet in height. Doing this will exclude most single family, duplex, triplex, existing garden apartments which are about two story in height, smaller office buildings, some existing office buildings on large lots without context of where they are located. Areas where the General Plan currently allows buildings taller than 35 feet include Heart of the City, North De Anza, and North Vallco Special Areas, and some parts of Homestead Special Area.

While the two options above are proposed as alternatives, the Planning Commission could choose to recommend a modified proposal to the Council regarding applicability.

Input from residents has been on both sides of the issue for exemptions for historic buildings, and commercial storefronts. The Planning Commission was not unanimous in its direction regarding exemptions. Two exemptions are proposed in the draft ordinance based on support of historical integrity and economic development. These exemptions include an exemption for historic structures listed in the General Plan or the State or National Historic Register, and an exemption for storefronts up to a height of 15 feet for bird-safe treatment on windows.

Since there are various solutions and treatments that can be applied to glass or to the exterior and interior of glass that would provide a visual cue to prevent bird collisions, staff has included section 19.102.020 (C)(2) to allow for flexibility in selecting treatments.

This section would allow applicants to propose different solutions suitable for their specific situations. The proposed ordinance also allows staff to maintain a list of acceptable bird-safe treatment to help residents and applicants identify bird-safe strategies for their project. This list will be administratively updated from time to time to list new strategies and reflect technological advances in new materials for glazing treatments that can be used to comply with the ordinance requirements.

Application Submission Requirements

The proposed ordinance identifies additional submission requirements to allow review of plans for compliance with the ordinance's requirements. These include specific elevation drawings with details, cross sections, and other exhibits.

Lighting Standards

Lighting requirements to further bird safety are intended to regulate the strength and brightness of exterior light fixtures, prohibiting excessive lighting, and turning off or diffusing interior lighting. For readability, the exterior lighting requirements have been incorporated into the Dark Sky (Lighting) standards of the proposed ordinance (and are further discussed below) and interior requirements for lighting remain under the Bird-Safe section. These regulations include programmable automatic sensors and timers, manual turn-off, and use of interior/exterior blinds.

Dark Sky

Applicability

To ensure that the ordinance is effective in achieving a darker sky, staff recommends that applicants must with the outdoor lighting requirement whenever obtaining a building permit, an electrical permit for outdoor lighting or signage, and/or City approval for any development project.

In addition to applicable submittal requirements, the proposed ordinance identifies certain specific plans to ensure staff can verify compliance with the ordinance requirements. These include a site plan indicating all outdoor lighting fixtures, description of lighting fixture(s), and Photometric plans. The proposed ordinance includes a provision allowing the Director of Community Development to waive the requirement for photometric plans in the event it is clear that the proposed lighting would be in compliance with the provisions of the ordinance. To ensure the intent of the ordinance is met, staff has included a provision to require any other pertinent information to ensure compliance with the ordinance.

Standards

The main intent of implementing the proposed regulations is to minimize light intrusion into the night sky and to prevent glare into neighboring properties, while allowing for safety. Therefore, all outdoor lighting is required to be shielded and downward directed. Certain lighting may be unshielded, such as low wattage landscape lighting, and uplighting would be allowed for architectural features and public art, subject to City approval. Lighting for historic structures may be unshielded subject to approval of the City. All outdoor lighting, except required lighting for safety by law, must be automated to turn off after 11:00 p.m. but may be activated by motion sensors after that.

Security lighting is allowed by the proposed amendments but must be directed away from adjacent properties, shielded, and motion activated. The proposed ordinance also contains specific regulations related to service station canopies to minimize light intrusion and glare.

Existing lighting standards in Chapters 19.40, 19.60, 19.72, and 19.124 have been incorporated into the proposed lighting standards with minor clarifications to the lighting standard for color of light (no more than 3000K). New definitions were added to Chapter 19.08 to implement the proposed regulations.

Prohibited Lighting

To minimize light intrusion into the night sky, the following types of lighting have been prohibited:

- Outdoor lighting that blinks, flashes, or rotates.
- Outdoor flood lights that project above the horizontal plan.
- Lighting that unnecessarily illuminates any other lot or substantially interferes with use or enjoyment of adjacent property.
- High intensity lighting for recreation courts on private property.
- Spotlights

Exemptions

There are several exemptions from lighting standards proposed. Exemptions are proposed based on the following factors: ensuring safety, allowing observance of special events and/or holidays, and regulations within other ordinances. The following types of lighting are exempt from the proposed ordinance:

- Lighting within the public right-of-way and parks
- Permitted lighting for signs
- Lighting to illuminate address signs
- Temporary construction or emergency lighting
- Short-term lighting authorized by a special event permit

- Holiday seasonal lighting from October 15 through January 15 and
- Required lighting to comply with CA Building Code or state law

Environmental Review

The proposed ordinance is exempt from environmental review under California Environmental Quality Act (“CEQA”) Guidelines section 15308 because these regulations are being adopted to assure the maintenance, restoration, enhancement, or protection of the environment; CEQA Guidelines section 15301 because the regulations would result in the minor alteration of existing public or private structures without any expansion of use; CEQA Guidelines section 15305 because the regulations involve minor alterations in land use limitations that do not alter permitted uses or density; and CEQA Guidelines section 15061(b)(3) because it can be seen with certainty that these regulations related to glazing and lighting will have no possibility of a significant effect on the environment; and that none of the exceptions in CEQA Guidelines section 15300.2 apply to the proposed ordinance.

Public Noticing & Outreach

The following noticing has been conducted for this project:

Notice of Public Hearing, Site Notice & Legal Ad	Agenda
▪ Legal ad placed in newspaper (at least 10 days prior to hearing) ▪ Display ad placed in newspaper (at least 10 days prior to hearing)	▪ Posted on the City's official notice bulletin board (four days prior to hearing) ▪ Posted on the City of Cupertino's Web site (four days prior to hearing)

Outreach has been discussed earlier in the staff report.

NEXT STEPS

The recommendation made by the Planning Commission will be forwarded to the City Council for consideration. Upon final decision by the City Council, the ordinance will need a second reading at a subsequent hearing. The ordinance will be effective 30 days after the second reading.

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Reviewed by: Piu Ghosh, Planning Manager

Reviewed and Approved for Submission by: Benjamin Fu, Director of Community Development

ATTACHMENTS

1. Draft Resolution for MCA-2019-003 MCA-2019-004
2. Comparison of Bird-Safe Regulations
3. Comparison of Lighting and Dark Sky Regulations
4. Public Comments
5. Redline Document for Proposed Modifications to Title 19
6. Applicability Options for Bird-Safe Design