



Staff Report

Planning & Building Services – Planning Division

Report To: COW - Operations, Planning and Building Services
Meeting Date: December 9, 2025
Report Number: PBS.25.082
Title: Report in response of deputation of Judy Grinton and Ralph Chou re: light pollution
Prepared by: Adam Farr, Senior Planner

A. Recommendations

THAT Council receive for information Staff Report PBS.25.082, entitled “Report in response of deputation of Judy Grinton and Ralph Chou re: light pollution.”

B. Overview

This report provides a response to the September 8, 2025 Council deputation of Town resident, Judy Grinton and Dr. Ralph Chou, Director of the EC Carr Astronomical Observatory regarding light pollution.

C. Background

On September 8, 2025 Council passed a motion in response to the deputation of Town resident, Judy Grinton and Director of the EC Carr Astronomical Observatory and past president of the Royal Astronomical Society of Canada (RASC), Dr. Ralph Chou, regarding light pollution as follows:

AND THAT Council direct staff to work collaboratively with Judy Grinton, and to report back to Council on the subject matter taking into consideration the social, financial and environmental impacts, by December 15, 2025.

In their presentation, Judy Grinton advised that they, along with Dr. Ralph Chou, identified benefits of a light pollution abatement and sought to assist the Town in facilitating implementation strategies to gain a dark sky community designation. The term “dark sky” generally refers to measures to limit the impacts of light pollution and preserve the darkness of the night sky. “Dark sky compliant” lighting is directional, shielded lighting that purposefully illuminates areas and reduces off-site lighting impacts on surrounding properties and sky glow (illumination of the night sky resulting from lighting).

Staff have met with Judy Grinton and Dr. Ralph Chou and Pavel Krasnopolski of the RASC Toronto Centre Chapter and exchanged information to help inform this report.

EC Carr Astronomical Observatory

As a note, the EC Carr Astronomical Observatory, established in 2001, is located in the Town of The Blue Mountains. The Observatory is owned by the Toronto chapter of the RASC and is an astronomy hub that includes:

- 2 observatories: Geoff Brown and Sue-Lora observatories;
- research and educational affiliation with University of Toronto and Western University astronomy programs; and
- a gathering place for amateur astronomers.

On completion in 2021, the centre was described as “what surely must be one of the finest amateur astronomy observatories in existence today, all located in a stunning setting, under a rich, dark sky.” The member interest and unique perspective on the quality of the night sky reflects an aspect of the Town’s character that might otherwise be taken for granted.

Figure 1: South View of the Night Sky from EC Carr Observatory



RASC and Dark Sky compliant lighting

The RASC has a particular interest in the quality of the night sky to support their interest in astronomical observation but also for a variety of other reasons set out below. The RASC and Dr. Chou, in particular, has previous experience in engagement with the development industry and municipalities on dark sky related matters through detailed involvement with development surrounding the historic Dunlap Observatory in the City of Richmond Hill (a municipality in York Region located north of Toronto) The Dunlap Observatory a national historic site that houses

the largest telescope in Canada. The result included adoption of dark sky compliant measures intended to preserve the night sky around the Dunlap Observatory.

The primary goals for dark sky compliance in Canada, largely coordinated through the [Royal Astronomical Society of Canada \(RASC\)](#) and [Parks Canada](#), are to reduce light pollution, which protects nocturnal wildlife and habitats, preserves the night sky for astronomical viewing and public appreciation, and educates the public and municipalities on responsible lighting practices. Currently, through that partnership, there are 3 categories of dark sky designation:

Dark-Sky Preserves

- Focus: Pristine, dark night skies.
- Location: Typically remote, away from significant city light pollution.
- Goal: To provide a naturally dark environment for the public to experience the night sky and to protect nocturnal ecosystems.
- Examples: Kouchibouguac National Park, Fundy National Park, and Kejimikujik National Park.

Urban Star Parks

- Focus: Public education and outreach within or near urban areas.
- Location: Within cities or their immediate surroundings.
- Goal: To demonstrate responsible lighting practices, teach the public about light pollution, and provide accessible locations for city dwellers to see the night sky.
- Example: Irving Nature Park was the first in Canada, RASC notes.

Nocturnal Preserves

- Focus: Primarily protecting wildlife and their habitats.
- Location: Can be in urban or rural settings.
- Goal: To preserve the natural nighttime environment for nocturnal animals that are negatively impacted by artificial light, such as by affecting foraging, breeding, and migration patterns.
- Example: Ann and Sandy Cross Conservation is listed as a Nocturnal Preserve by the Royal Astronomical Society of Canada.

In their presentation Judy Grinton suggested that the Town pursue certification as a “dark sky community”. Dark sky community is a designation established by the group dark sky international (darksky.org) targeted mainly at the municipal level with numerous designations issued in the United States.

Dark Sky Community designation

A dark sky community is a legally organized town, city, or municipality that has committed to protecting the night sky by implementing and enforcing quality outdoor lighting ordinances. These communities actively reduce light pollution through measures like using down-cast lighting, educating residents about responsible lighting, and supporting dark sky stewardship. This preserves the natural view of the stars and provides other benefits, such as energy savings and a better illuminated environment.

Key characteristics of a dark sky community:

- Lighting ordinances (by-laws):
They adopt and enforce local laws that set standards for outdoor lighting to minimize glare, light trespass, and skyglow.
- Education:
They work to inform residents and businesses about the importance of dark skies and how to use lighting responsibly.
- Citizen support:
There is broad community support for dark sky preservation efforts, including citizen advocacy and participation.

Goal:

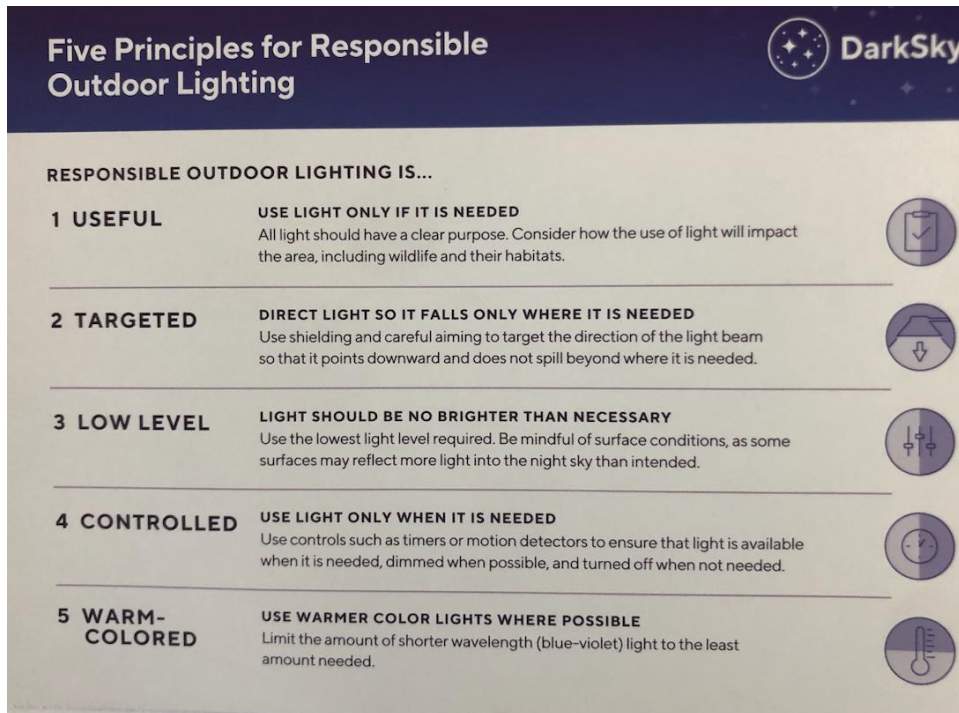
The primary goal is to reduce artificial light pollution to allow for better views of the night sky and to protect the environment.

Benefits of dark sky communities:

- Improved stargazing:
Residents and visitors can see a much clearer and brighter night sky, with phenomena like the Milky Way becoming visible.
- Energy savings:
By using lighting more efficiently, communities can save energy.
- Environmental protection:
Reduced light pollution helps protect ecosystems and nocturnal wildlife that are negatively impacted by artificial light.
- Increased safety:
Properly focused lighting can improve safety by more adequately illuminating areas where needed.

Figure 2: Dark Sky International Educational Postcard





Materials submitted by Ms. Grinton included various letters supportive of pursuing a dark sky community designation including by: business owners (the Tourism Company), NGOs including the Escarpment Corridor Alliance, Climate Action Now Network, Beaver Valley Destination Leadership, and interested members of the public. Additionally, Ms. Grinton and Messrs Choue and Koropolski provided links to many background materials and information sources.

Municipalities and Light Pollution

Many municipalities across Canada address light pollution and often include “dark sky compliant” lighting as a standard for managing off-site lighting impacts such as glare, spillage and sky glow. Specific measures taken by municipalities include:

- regulating new development to address ground level light pollution and “skyglow” and adopting dark sky compliant standards in the development review/approvals process;
- regulating off-site lighting impact in community/property standards by-laws;
- implementing dark sky compliant lighting standards in design and maintenance of municipal facilities and infrastructure; and
- educating the public about light pollution dark sky compliance.

The Town has already adopted many of these best practices and/or codified them in municipal regulatory and policy documents.

Town of the Blue Mountains Official Plan

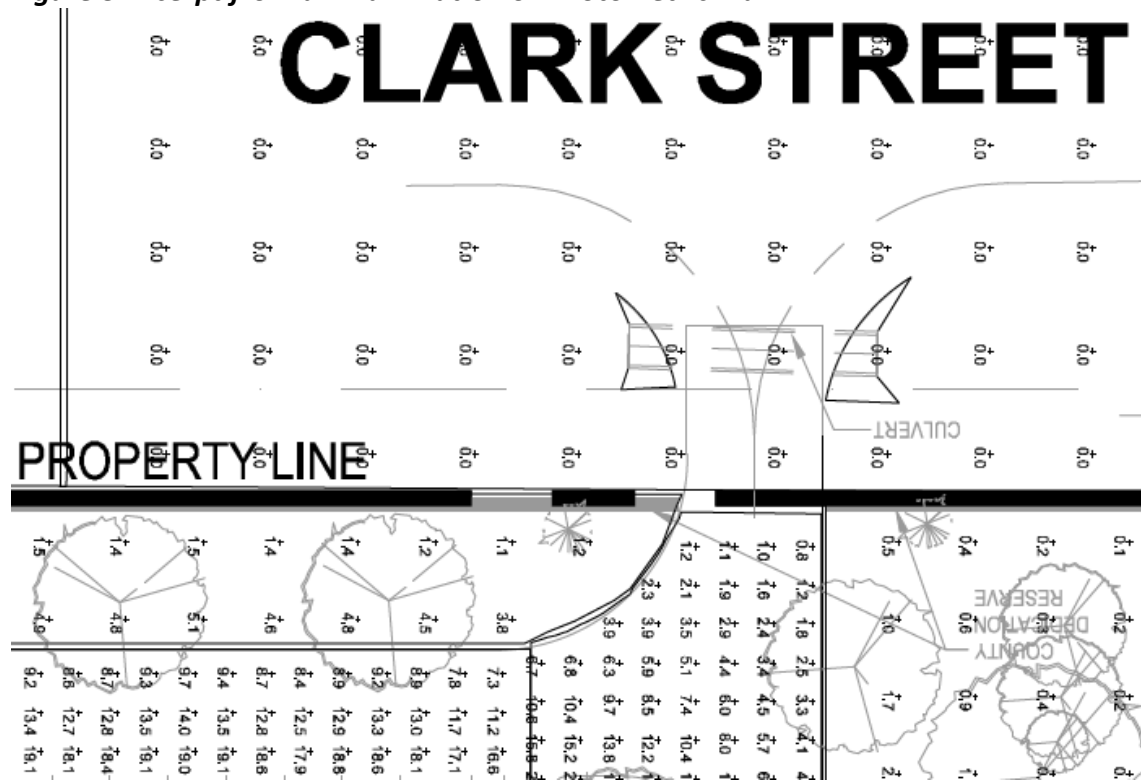
The Town’s 2016 Official Plan includes dark sky policies and provisions that enable the Town to collect studies confirming and regulating off-site lighting impacts through the development review process.

The Official Plan contains the following policies:

- **E10 Complete Application Requirements** sets out the studies and reports that may be required through the development review process as part of a complete application. Illumination or “photometric” studies are listed here. Such studies would typically be collected through the site plan approval process, review of draft plans of subdivision and in the crafting and/or fulfillment of draft plan conditions.

These illumination studies require the applicant to demonstrate that light can be contained within the site. Figure 3 provides an example which shows ground level light readings associated with the fixture locations and a 0.0 candle (measurement of illumination) light reading at the property line and higher ground level readings closer to the light source.

Figure 3 Excerpt from an Illumination or Photometric Plan



- **D8.1 Green Development Standards** provides policy direction to develop green development standards that include requirements for dark sky compliant practices for exterior lighting.
- **E1.2 Community Planning Permit By-law** of the new 2025 Official Plan that Council approved earlier this year includes provisions that enable the Town to require dark sky compliant lighting require or make it a condition of approval:

lighting facilities shall be required to minimize the impacts on night skies and environmental features and a lighting impact analysis may be required to ensure the proposal is dark sky compliant;

The Official Plan also provides a definition for “dark sky compliant”:

- ***Dark Sky Compliant*** means outdoor lighting fixtures that direct sufficient light downward and minimize light pollution and glare.

Town of The Blue Mountains Engineering Standards

The Town requires that new development adhere to development **Engineering Standards (2023)** which include dark sky provisions:

4.9.9. Dark Sky Lighting

All lighting shall be designed such that light spill is minimized in accordance with Town Dark Sky Policy. All luminaires shall be fully of shielded design and shall not emit any direct light above a horizontal plane passing through the lowest part of the light emitting luminaire.

4.9 Roadway Illumination

When designing a roadway illumination system, the engineer shall make a conscious effort to limit negative effects while still achieving the minimum required lighting levels. Meeting the required lighting levels shall not be compromised. Some of the negative impacts of improper design include:

- *Light Spill onto adjacent properties*
- *Glare creates discomfort for the human eye.*
- *Sky Glow or Illumination of the night sky by lighting systems.*

Limitations on Regulation of New Residential Development

The Province of Ontario now exempts residential development on parcels of land with 10 or fewer units from site plan approval limiting regulatory authority through site plan control on those developments. Site plan control continues to apply to parcels with greater than 10 units and non-residential development. Through Bill 60 which, at the time of writing, has not been passed into law, the Province proposes reviewing the use of "green development standards" at the lot level outside the building "to reduce barriers and costs in housing development."

Town of The Blue Mountains Dark sky compliant lighting & municipal facilities

The Town applies and meets dark sky lighting and high efficiency lighting standards in design and procurement practices for the design, outfitting and maintenance of new and existing municipal facilities. The Town regularly audits existing facilities and retrofits lighting to meet dark sky compliant standards where possible and appropriate.

Town of The Blue Mountains Regulation of Existing Sources of Light

The two primary mechanisms available to the municipality for regulating off-site light impacts are the Zoning By-law and the Property Standards By-law.

The Town's Zoning By-law includes limited provisions regarding lighting that are applied to parking lot lighting.

5.4.2 Parking Illumination

Parking lighting fixtures shall be provided in accordance with the following provisions:

- i) No part of the lighting fixture shall be more than 7.5 metres above grade; and shall be installed in such a manner that all light emitted by the fixture, either or indirectly, is projected below the lamp and onto the lot the lighting is intended to serve.*

The current Property Standards By-law does not address off-site lighting impacts. Currently, when receiving lighting related complaints, By-law staff reach out to the property owner that has the lights shining and works with them to redirect the lights. There have not been any ongoing excessive light pollution complaints. Staff have taken an educational approach to addressing related complaints. Under the current By-law regime, in the event of a non-cooperative landowner and in the absence of lighting standards, the Town would not be able to take further action. Introduction of lighting provisions into the regulatory framework to address existing land users would require creation of a standalone lighting by-law or amendments to the Property Standards By-law.

The proposed updates to the Property Standards By-law included limited new provisions regarding the regulation of off-site lighting impact not contained in the current By-law.

5.4 Buffering

5.4.1 Commercial or industrial zoned properties that because of its use, occupancy or other reasons, creates a nuisance to other properties in the neighbourhood shall be buffered from these properties so as to minimize the effect of the nuisance by the provision and maintenance of:

- a) a barrier or deflectors to prevent lighting and vehicle headlights from shining directly into a dwelling;*

5.10 Parking Areas, Walks and Driveways

5.10.1 Every owner of a property that is used for vehicular traffic or parking, including driveways, loading areas and bays, shall:

- b) provide and maintain light fixtures to the parking area that provides a level of lighting necessary to maintain safety and security commensurate with the use of the property;*

5.27 Lighting

5.27.1 The interior and exterior lighting that is visible on the exterior of any building shall be placed and maintained, or have a barrier or shade placed and maintained so as to prevent or block direct illumination of the interior of a dwelling on adjacent property regardless of whether such dwelling has or may have interior window coverings except for:

- a) lighting used by a municipal, provincial, or federal government; and*
- b) lighting located on any property owned by a municipal, provincial or federal government.*

Tracking the quality of the night sky

As shown in figures 1 and 2, dark sky conditions have deteriorated in and around the Town of The Blue Mountains in recent years and continued deterioration can be anticipated as development occurs in this and surrounding areas. RASC representatives advised that they have the ability to track the quality of the night sky over time to assess the effectiveness of any efforts by the municipality should they be undertaken.

Figure 4: 2016 Dark Site Finder

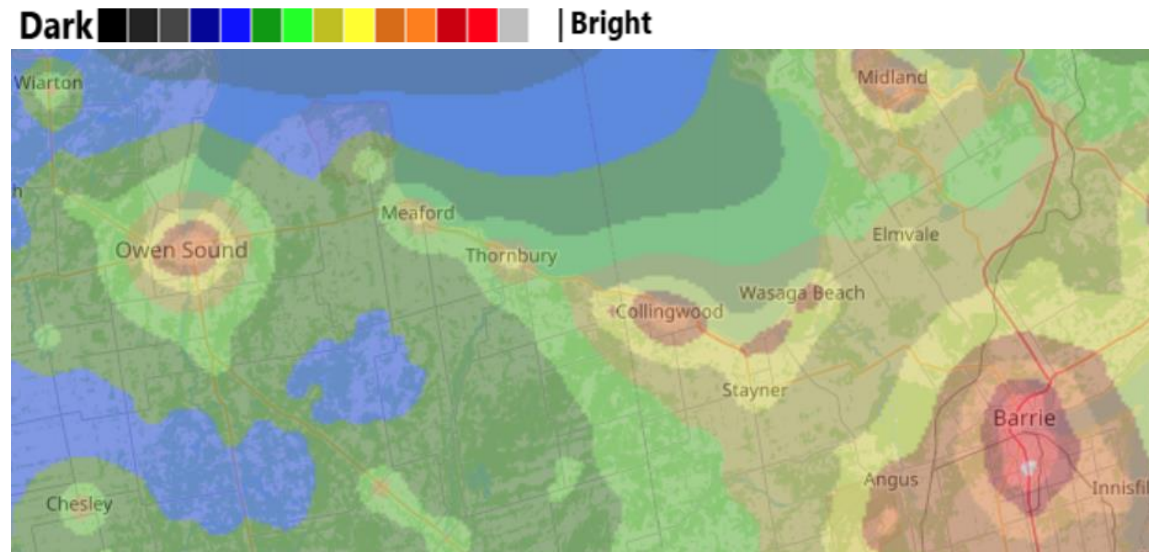
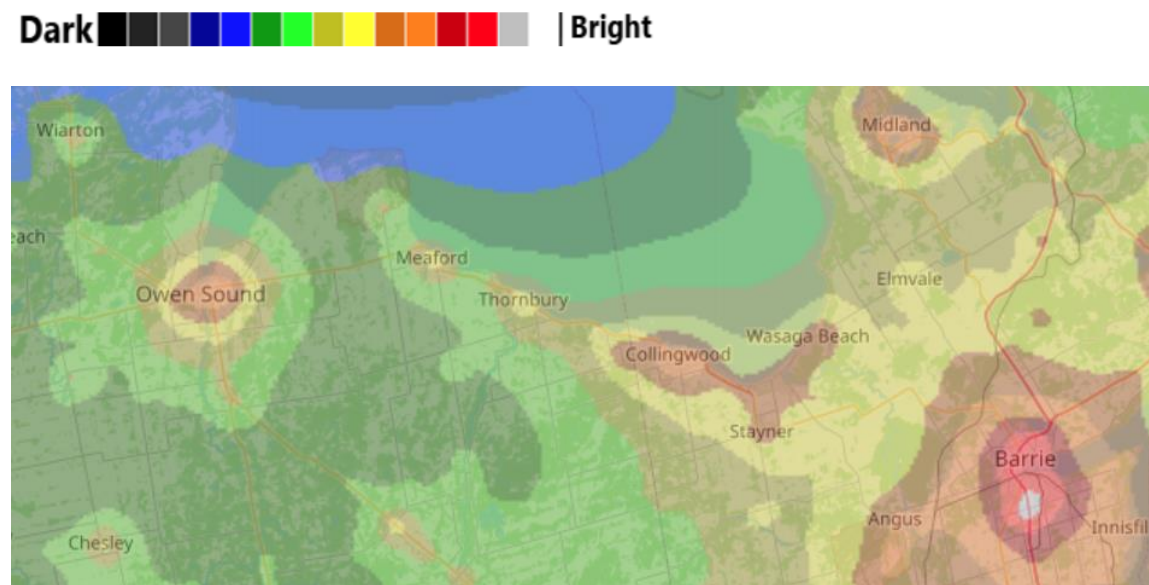


Figure 5: 2022 Dark Site Finder



D. Analysis

The Town now recognizes and addresses light pollution and dark sky lighting within its policy and regulatory framework and as part of its practices in municipal facilities management. Additionally, through its by-law enforcement division, the Town uses educational approaches to encourage management and mitigation of off-site lighting impacts where there are concerns with existing development. These provisions and practices reflect both a direct and de facto policy commitment of the Town to reduce and abate light pollution and, either directly or indirectly, to protect the quality of the night sky.

Further clarification of the Town's commitment and recognition of existing practices and provisions in a broader policy framework may be beneficial in expanding the rationale for why the Town takes an interest in managing lighting pollution and working to protect the quality of the night sky. For example, the current Official Plan links dark sky compliant lighting to green development standards which is reflective mainly of energy conservation goals and objectives. A broader perspective on the merits of protecting the night sky and limiting light pollution also includes economic, natural heritage, community character, land use compatibility etc. By unifying these objectives under an umbrella policy, the town could enhance its ability to support its existing initiatives and achieve broader goals.

Benefits of a broader policy could include:

- creating a defensible policy rationale for regulating lighting pollution where further deregulation by the Province, particularly around Green Development Standards, could remove lighting from municipal oversight in new development;
- casting the benefits of preservation of the night sky more broadly to increase awareness among all land users, acknowledge individual interests (i.e. lighting requirements in the agricultural and other sectors and among business and residential property owners) and encourage voluntarily participation (i.e. existing development) and/or cooperation with the Town where applicable (new development);
- recognizing the economic value of the Beaver Valley, Niagara Escarpment and the Town of The Blue Mountains as a special place and destination including its natural heritage, agricultural community, outdoor recreation and characteristic as a unique and welcoming place to visit, live and do business; and,
- protecting a unique character attribute of the Town and an asset for existing and future residents and future generations.

E. Strategic Priorities

The content of this report and its recommendations are consistent with and fulfill the following strategic priorities:

1. Communication and Engagement

We will enhance communications and engagement between Town Staff, Town residents and stakeholders

2. Organizational Excellence

We will continually seek out ways to improve the internal organization of Town Staff and the management of Town assets.

3. Community

We will protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

4. Quality of Life

We will foster a high quality of life for full-time and part-time residents of all ages and stages, while welcoming visitors.

F. Environmental Impacts

This report deals with the topic of light pollution and the quality (darkness) of the night sky. The scope of this topic includes consideration of impacts of light pollution on wildlife, human health and well-being and overall quality of life.

G. Financial Impacts

There are no financial impacts associated with the preparation of this report.

H. In Consultation With

Debbie Young, Manager of By-law and Licensing
Phil Pesek, Manager of Facilities and Fleet
Shawn Postma, Manager of Planning
Tim Hendry, Director of Strategic Initiatives
Tim Murawsky, Acting Director of Planning and Building Services

I. Public Engagement

The topic of this Staff Report has not been the subject of a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. However, any comments regarding this report should be submitted to Adam Farr who can be contacted at, planning@thebluemountains.ca

Respectfully submitted,

Adam Farr
Senior Planner

Report Approval Details

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Final Approval Date:	Nov 21, 2025

This report and all of its attachments were approved and signed as outlined below:

Shawn Postma - Nov 21, 2025 - 1:44 PM

Tim Murawsky - Nov 21, 2025 - 4:01 PM