



Date: November 3, 2021

To: Mayor and Council

Author: Richard J.H. Wyma, Director of Community and Development Services

RE: Update on By-Law to prohibit and regulate nuisances related to Greenhouse Odours and Lighting

Report No.: CADS 2021-03

RECOMMENDED ACTION

That this report be received for information.

BACKGROUND

In October 2020, following efforts to enhance regulations with respect to light pollution from greenhouses and odours from cannabis and challenges in including light and odour pollution expectations in site plan agreements, and subsequent investigations, Council enacted By-Law 96-2020 to prohibit and regulate public nuisances related to odours from cannabis cultivation and lighting from greenhouses.

The by-law, supported by the Municipal Act 2001, requires that greenhouse operators install "... *barriers (or curtains) to prevent or block direct illumination of the interior of a building on adjoining lands regardless of whether such building may have a barrier, shades, drapes or other interior window coverings*". Further, the provisions of the by-law may be enforced by a By-law Enforcement Officer who may make an order requiring operators to "discontinue the contravening activity" and do work to correct the contravention and establish dates for the contravention to be corrected subject to offences and penalties.

Once the By-law was passed, town administration hosted a public meeting inviting the greenhouse owners to attend and to take part in the discussions with the ongoing issues of illuminating the night sky. The outcome of the meeting was generally positive, with the understanding from the greenhouse owners that they need to install ceiling curtains within the greenhouse must take place by fall of 2021.

In March 2021, Administration reported to Council on compliance. Town By-Law Officers did undertake night-time investigations related to both night sky and odours. In

response to night-sky, offending greenhouses did take actions needed to comply with the by-law and no additional measures were required.

DISCUSSION

Cannabis Odours

Town officials monitored odour nuisances through KingsvilleWorks. Officers met with and requested statements from Town residents who were frustrated with the intense odours from cannabis operations. These actions led to closure of two Part 2 Facilities. In addition, Officers worked closely with Kingsville OPP to shut down five additional cannabis operations that were growing illegally.

Greenhouse Lighting

Between March 2021 and September 2021, Kingsville Building and By-Law Officials worked closely with the greenhouse sector to ensure facilities acquired and installed curtains or other style of barriers to block lighting from greenhouses. In response to complaints received, By-Law Officers initiated night sky investigations late September 2021 and charged one greenhouse with violations under the by-law for 'offending the night sky' by failing to close any ceiling curtains. The greenhouse had installed curtains but were not operating them at the time; and have since complied. Officers continue to monitor night sky for violations and are collecting evidence for further actions if required.

Next Steps

Overall, the Town by-law is working and has proved to be effective. Greenhouses have been and remain largely in compliance with the By-Law. Nuisances are reported and investigated and actions are taken in keeping with the By-Law.

Full closure of curtains does create some challenges for the sector. Fully closed curtains retain heat, humidity and moisture within the greenhouse which, without release, will negatively impact the plant and crop production. Administration has reached out to researchers at the Harrow Research Centre (Agriculture Canada), the Ontario Ministry of Agriculture and Rural Affairs, and the University of Guelph who are part of a research project on light abatement and energy use/conservation within the greenhouse sector.

These experts confirmed that when heat, humidity and moisture levels are too high (warm air holds more moisture and humidity than cold air), curtains and venting are automatically opened to release heat, humidity and moisture – a process known as 'gapping'. Increased moisture levels, in particular, can be damaging to the plant and affect a growing cycle if not released. Sidewall and ceiling curtains remove the primary way greenhouses can control the issue and leave few, if any, options. These experts have advised that even a small opening gives a large amount of control back to the growers (e.g. 10% open in overall area of curtains releases ~10% of light and allows air exchange which is required for plant production).

Experts also note that gapping requirements depend on the crops (some crops are more active growers than others, resulting in increased heat, moisture and humidity), weather conditions, growing cycle (full darkness is required for some plants during the growing cycle), and the plant (light stays in 'leafier' plants). The introduction of side and ceiling curtains does require time for operations to monitor and 'learn' new systems and approaches. It is expected that as operators increasingly understand and adjust systems, and as science and technology evolves, they will be better able to manage 'gapping' to be fully night sky compliant. OMAFRA has encouraged both Kingsville and Leamington to work with the greenhouse sector and researchers towards a goal of full night sky compliance as other jurisdictions, such as the Netherlands, are doing.

Current research studies are expected to inform development and continuous improvement of best management practices for use by the sector and municipalities. These studies are expected to be completed by 2023, however interim results will be monitored to inform guidance as projects progress.

FINANCIAL CONSIDERATIONS

Kingsville's By-Law Officer has shifted hours to undertake night sky investigations as required. This has reduced his availability during the day to respond to other complaints. No new financial costs are anticipated at this time.

CONSULTATIONS

Chief Building Official

By-Law Officer(s)

Dr. David Lubitz, University of Guelph – Engineering

Quade Digweed, Greenhouse Engineering, Agriculture and Agri-Food Canada – Harrow Research Centre

Dr. Fadi Al-Daoud, Greenhouse Vegetable Specialist, Ontario Ministry of Agriculture and Food



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Director of Community and Development Services

Reviewed by:



John Norton
Chief Administrative Officer

LINK TO STRATEGIC PLAN

Promote the betterment, self-image and attitude of the community.

Support growth of the business community.

Link to Council 2021-2022 Priorities

- ☐ COVID-19 and the health and safety of the community
- ☐ Customer Service: Training, Technology, Staff, Review Standards/Level of service
- ☐ Housing: Affordability (lot sizes, developer incentives, second dwellings, density, etc.)
- ☒ Greenhouse: lights & dark sky, odours (site plan compliance, bylaws, other tools)
- ☐ Programming Increase: Youth and Seniors
- ☐ A development plan for Downtown Kingsville / Main Street
- ☐ Financial savings: Schools closings, Migration Hall
- ☐ Economic Development: strengthen tourism/hospitality
- ☐ COVID - economic recovery
- ☐ Communications: Strategy – Policy (social media), Website refresh and other tools, Public engagement
- ☐ Housing: Migrant Worker Housing – Inspections (Building/Fire), regulate, reduce, or increase
- ☐ Committees / Boards: Review and Report
- ☐ Policy Update: Procedural Bylaw
- ☐ Economic Development: diversify the economy, create local jobs, industrial, Cottam
- ☐ Infrastructure (non-Municipal): Union Water expansion & governance
- ☐ Infrastructure (Municipal): Asset Management Plan update, the infrastructure funding deficit
- ☐ No direct link to Council priorities