

Briefing Note

Title	1:30 p.m. Public Hearing - Bylaw 1570/22 – Amendments to Land Use Bylaw 1385/17 – Data Processing Facility Regulations
Issue	To provide an opportunity for members of the public to submit their comments regarding Bylaw 1570/22.
Previous Council / Committee Direction	January 25, 2022 Regular Council Meeting Motion 025/22: That Council give first reading of Bylaw 1570/22.
Report	<p><u>Background Information</u></p> <ul style="list-style-type: none"> An energy company has approached the County regarding the proposed use of natural gas well sites to power data processing centres that are used for the “mining” of cryptocurrency, non-fungible tokens, and blockchain transactions. Relevant context: <ul style="list-style-type: none"> Cryptocurrency is a form of payment that can be exchanged for goods and services. It is not widely accepted as a form of payment, perhaps due to the volatility in its value. Alternatively, it can be “traded” for traditional currency, similar to how somebody would cash in casino chips. Many cryptocurrencies exist (more than 15,000 types are publicly traded), the most well-known being Bitcoin. Non-fungible tokens (NFTs) are digital items that are unique and cannot be replaced. Currently, most of the discussion regarding NFTs is based around digital art. Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system as it is a decentralized technology spread across many computers that manages and records transactions. Cryptocurrencies and NFTs use blockchain as a means of recording the transaction. The proposed data processing facilities are comprised of many computer servers and as such consume large amounts of power. Locating these facilities at natural gas well sites is ideal from the developer’s perspective as the natural gas can be used to power generators directly at the source. There are three regulatory approval bodies involved with gas wells as they pertain to this type of development: <ul style="list-style-type: none"> The Alberta Energy Regulator (AER) - regulates the natural gas well and any pipelines associated with the well.

- The Alberta Utilities Commission (AUC) - regulates power plants (the generation of electricity). Importantly, power plants that produce less than 10 megawatts (MW) are exempt from AUC approvals. However, these power plants are still required to follow AUC regulations, including:
 - Resident notification within 1,500 metres;
 - Creation of a Cumulative Noise Impact Assessment that recognizes existing residences (within 1,500m); and
 - Environmental approvals (issued by Alberta Parks and Environment) for power plants above 1MW.
- The municipality - regulates development on parcels on which it has jurisdiction, notwithstanding that some development pertaining to oil/gas wells and the generation of electricity is exempt from municipal approvals.
- Sturgeon County has previous experience with a “Data Processing Facility” with an unauthorized facility previously being located at a natural gas well site west of Greystone Manor within the Sturgeon Valley. The main concern raised from residents within the area was that the facility generated unacceptable levels of noise, specifically the frequency of that noise.
- Another potential area of concern could be the aesthetics of any proposed development. The County has seen examples of these facilities, and they typically consist of modified sea containers. Furthermore, natural gas well sites are typically open (no landscaping) and hard surfaced (compacted gravel) for ease of maintenance. The addition of sea cans may be viewed as further erosion of the aesthetic quality of such sites.
- Given the County’s experiences with this use to date, Administration has drafted the proposed bylaw in a way that could mitigate potential concerns.

External Communication

- Newspaper notifications were placed in the *Morinville Free Press* and *Redwater Review* for two consecutive weeks (February 9 and February 16) in accordance with the advertising requirements detailed within section 606 of the *Municipal Government Act* (MGA).

Relevant Policy/Legislation/Practices

- The MGA authorizes Council to establish and amend bylaws.
- Section 692 of the MGA requires that a municipality hold a public hearing prior to giving second reading to a proposed bylaw that amends the Land Use Bylaw.
- Section 618 of the MGA exempts the following forms of development from Part 17 (Planning and Development) of the MGA:
 - A well or battery within the meaning of the *Oil and Gas Conservation Act*, or
 - A pipeline or an installation or structure incidental to the operation of a pipeline.

- Section 619 of the MGA directs that any approval issued by the AER or AUC prevails over any approval issued by the municipality and that the municipality must approve the application to the extent that it complies with the approval granted to the AER and/or AUC.
- Section 640 of the MGA directs that a Land Use Bylaw may prohibit or regulate and control the use and development of land and buildings in a municipality.

Implication

Strategic Alignment:

- With this being an “emerging” industry, it is uncertain as to what the potential consequences of this type of development could be, beyond the known issue of noise and frequency of said noise. The proposed amendments would provide conditions to regulate issues such as noise, appearance, and duration of permit. However, if permits are issued on a limited-term basis, long-term effects of such development are likely to be limited.

Planned Growth – The proposed amendments recognize and aim to appropriately regulate an emerging industry.

Environmental Stewardship – The proposed amendments would be inconsistent with this guiding principle; while this type of development would allow for circular economic opportunities, it would also increase emissions.

Collaborative Governance – The proposed amendments would be subject to a public hearing, allowing affected parties to provide comment. Furthermore, the proposed use is to be listed as a discretionary use only, requiring notification of the development authority’s decision to adjacent landowners and thus allowing the opportunity of an appeal to be lodged with the appropriate appeal body.

Operational Excellence – The proposed amendments have been drafted in a manner that aims to balance the need of appropriately regulating an emerging industry, mitigating the concerns of such development, and protecting the lifestyle enjoyed by County residents.

Organizational:

- Administration has the capacity to process these proposed amendments, required advertising, and subsequent actions.

Financial:

- Based on the described typical cryptocurrency mining site and the 2021 tax rate, the estimated impact of ten sites is **approximately \$197,400 in additional property tax.**
- Administration can provide the following assumptions:

	Land (5 acres)	Buildings & Structures (Operational support)	M&E (Power Generation)	M&E (Cryptocurrency Mining)	Est. Taxable Assessment (per site)	Est. Taxation from 10 Sites
2021 Assessment	\$370k	\$150k	\$1.4m	\$2.8m	\$1.9m	\$197,400

	<p>The following assumptions were made for the purpose of creating the above table:</p> <ol style="list-style-type: none"> 1. Land - Applied value for sites in Neighbourhood G (as identified by the MDP). Will vary slightly depending on actual size used and actual location of each site. 2. Buildings and Structures - Applied value for one relocatable office building (12' x 60'). 3. Machinery and Equipment (M&E) (power generation) – Applied value for three portable 1.25MW CAT power modules assessed as M&E. 4. M&E cryptocurrency mining – Approximate value for three 180 miner Rigs (Avalon 1246 miner) if assessed as M&E. Value excluded since current legislated definitions of M&E, Processing, and Composite Assessment Review Board (CARB) decisions limit the municipality's ability to include this component in the final assessment. 5. Estimated Taxable Assessment – excludes Bitcoin mining equipment. Some value for the structures housing the mining equipment and/or site improvements could end up being added, but more detailed information for these structures is needed.
Follow Up Action	<ol style="list-style-type: none"> 1. Bring the Bylaw and a summary of the Public Hearing submissions to a future Council meeting for Council to consider further bylaw readings (Planning & Development Services, March 2022).
Attachment (s)	<ol style="list-style-type: none"> 1. Attachment 1: Bylaw 1570/22 2. Attachment 2: Public Hearing Process 3. Attachment 3: Public Hearing Submissions
Report Reviewed by:	<p>Bonnie McInnis, Manager, Planning and Development Services</p> <p>Luis Delgado, Manager, Assessment Services</p> <p>Tyler Westover, Manager, Economic Development Services</p> <p>Andrew Hayes, Director, Financial, Assessment & Procurement Services</p> <p>Travis Peter, Director, Development and Strategic Services</p> <p>Reegan McCullough, County Commissioner – CAO</p>

Strategic Alignment Checklist

Vision: *Offering a rich tapestry of historical, cultural, and natural experiences, Sturgeon County is a municipality that honours its rural roots and cultivates desirable communities. Uniquely situated to provide world-class agricultural, energy, and business investment opportunities, the County prioritizes responsible stewardship and dreaming big.*

Guiding Principles: Collaboration | Accountability | Flexibility | Excellence | Safety | Future Readiness | Affordability | Innovation

Community Outcome	Not consistent	Consistent	N/A
Planned Growth			
<ul style="list-style-type: none"> Internationally competitive to attract, grow and sustain diverse businesses; tenacious focus on new growth and innovation 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Modern broadband and digital capabilities 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Low cost, minimal red-tape regulations 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Reliable and effective infrastructure planning; comprehensive land use and infrastructure planning 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Thriving Communities			
<ul style="list-style-type: none"> Beautiful, surprising places with high standards; integrated natural spaces & trail systems; healthy and resilient 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Engaging cultural, historical, and civic amenities; strong community identity and pride 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Safe, welcoming, and diverse communities; small community feel and personal connection; commitment to high quality of life 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental Stewardship			
<ul style="list-style-type: none"> Clean air, land, and water; Carbon neutral municipal practices; circular economy opportunities 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Conservation of natural areas and agricultural lands; enhanced greening and biodiversity; safekeeping ecosystems 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Sustainable development; partnerships with industry and others to drive emission reductions 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collaborative Governance			
<ul style="list-style-type: none"> Predictable and stable external relationships; volunteer partnerships 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Meaningful connections with Indigenous communities 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Ongoing community consultation and engagement; transparent and action-oriented decision making based on sound rationale 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Respectful and informed debate; clear and supportive governance processes 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Operational Excellence			
<ul style="list-style-type: none"> Engaged and effective people – Council, Admin and Volunteers; continuous learning and improvement mindset; nimble and bold, with strong leadership 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Quality cost-effective service delivery; robust procurement and operational practices and policies; asset management and performance measurement; careful debt and reserve stewardship; long-term financial planning and sustainability 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Future focused thinking to proactively respond to emerging opportunities and challenges 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Alternative revenue generation and service delivery models integrated strategic and business planning 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>