

Inver Grove Heights Environmental Advisory Commission
8150 Barbara Avenue
Thursday, April 27, 2023, at 7:00 p.m.

Meeting Minutes

1. Call to Order

The Environmental Advisory Commission of Inver Grove Heights met in City Council Chambers on Thursday, April 27, 2023. Chair Boehmke called the meeting to order at 7:00 p.m.

2. Roll Call

Present: Chair Nichole Boehmke, Commissioners; Sarah Brass, Sara Goodman, Nick Ruiz, Ted Trenzeluk, Larry Moehring, Kevin Sethre, Todd Kruse
Absent: Brian Barner (excused)

3. Presentations

4. Approval of Minutes

A. Minutes of Thursday, January 26, 2023, Environmental Advisory Commission Meeting

Motion by Commissioner Trenzeluk, seconded by Commissioner Ruiz to approve the minutes from Thursday, January 26, 2023 as submitted.

Ayes: 8

Nays: 0 Motion carried.

5. Public Comment

A. Light Pollution

Cameron Judge, 1810 58th Court East, presented to the Commission to recommend a change in the lighting code. Mr. Judge stated the lighting at the car dealerships on 80th Street cast a large bright glow into the sky near his house. He contacted the city to understand the city's light ordinance and determined there is minimal language to regulate lighting at the car dealerships. For this land use, city code only prohibits lighting deemed offensive and therefore the dealerships are in compliance with code. He recommended the city adopt a more comprehensive lighting ordinance to address light pollution like other cities have. Mr. Judge reviewed what light pollution is and its effects on wildlife. He noted the city code only contains lighting limits for residential properties and streetlights. There is no mention of sky glow, only direct glare. The International Dark Skies association has created a model ordinance already adopted by cities of Plymouth and Bloomington. Plymouth and Bloomington regulate lighting pollution by zoning type. Mr. Judge said benefits of the ordinance change include reduced light pollution and energy cost savings.

Chair Boehmke asked if existing businesses were incentivized to make a change or if they were grandfathered into the previous code. Mr. Judge noted that Bloomington grandfathered in existing lighting. Only new commercial lighting would need to comply. Mr. Judge noted that lighting guidelines could be added to the sustainability recognition program in development to incentivize businesses to make a change.

Commissioner Sethre noted the city has made changes to street lighting but stated perhaps commercial districts should also be encouraged to explore this as well. Mr. Judge stated that initiative may have been related to past state funding available to reduce light pollution. Non-public lighting upgrades were not funded at that time.

Commissioner Ruiz requested Mr. Judge share the research on other city code with the commission.

Commissioner Trenzeluk asked if cities have seen a change in light pollution after adopting the new city code. Mr. Judge noted there are star-finding studies that identify a change.

Commissioner Trenzeluk noted that he has noticed changes in technology have resulted reduced light pollution. He also stated the city should consider safety and cost to existing businesses if considering a future city code change.

Commissioner Trenzeluk recommended Mr. Judge come back to the Commission on any updates and to present to the City Council as well to help inform them.

Commissioner Kruse questioned if lighting could affect real estate value.

6. Regular Agenda

A. Land Alteration Permit for CSAH 26 & CSAH 63 Improvements

Paul Merchlewicz, City Engineer, presented the Land Alteration Permit (LAP) for CSAH 26 & CSAH 63 Improvements, Argenta Trail & 70th Street. The applicant has a short-term mining permit approved by Dakota County. The applicant will mine sand and gravel from an adjacent property to use for this county road construction project. The LAP is related to this sand and gravel excavation, and it is proposed for 80,000 cubic yards. Any LAP request over 10,000 cubic yards must be reviewed by the EAC and City Council for approval. Dakota County is expanding 70th Street (CSAH 26) from two lanes to a four-lane divided roadway. The project began in August 2021. To construct the remaining roadway embankment, the project will need approximately 112,000 cubic yards of sand material. 20,000 to 40,000 cubic yards is estimated to come from within the project limits. Along the eastern portion of the project next to the proposed mining area, the road grade will be lowered by about 25 feet. County Project is expected to be complete at the end of the 2023 construction season. Engineering confirmed drainage patterns will be maintained but slopes will be flatter for runoff which is preferred. The applicant will remove 21.7% of trees by diameter which is less than the allowed limit of 25%, and will disturb 6.67 acres of land. Having the mining operation adjacent to the project results in shorter haul routes and less impacts to roads due to larger equipment and fewer trips. Staff recommends approval of the project with all permit conditions as stated in the staff report.

Commissioner Trenzeluk noted this project has been going on for a while and asked why the applicant is requesting approval now. Mr. Merchlewicz stated contractors initially bid on a project, but overtime may have different ideas of how to save money. This contractor found a private homeowner near the project who was willing to sell their sand to the contractor. This triggered city LAP review and approval of the mining on the private property.

Commissioner Sethre asked if this will result in change order that will cost the city or county more money. Mr. Merchlewicz stated there are no additional costs, however the city has collected about \$5,000 from the contractor for LAP fees.

Commissioner Goodman asked if the tree limits were based on tree size only. Mr. Merchlewicz stated yes it is based on the measurement of mature trees.

Commissioner Kruse asked if the applicant is a contractor. Mr. Merchlewicz stated yes.

Commissioner Kruse asked how many jurisdictions are involved. Mr. Merchlewicz stated the LAP agreement is only between the contractor and the city. The contractor has a mining agreement with the County. The County will confirm the sand and gravel mined adjacent to the property is used for the county road project. There are no agreements between the city and county.

Commissioner Kruse asked what the 10,000 cubic yard limit triggered. Mr. Merchlewicz stated any disturbance over 10,000 cubic yards triggers EAC and City Council approval.

Commissioner Kruse asked what the landscaping plan is. Mr. Merchlewicz stated the applicant is required to plant vegetation back. Tree replacement is not required because they are under the removal limit.

Motion by Commissioner Sethre, seconded by Commissioner Ruiz to approve the minutes from Thursday, January 23, 2023 as submitted.

Ayes: 8

Nays: 0 Motion carried.

B. Bituminous Roadways Sand & Gravel Zoning District Five Year Renewal

Allan Hunting, City Planner, presented Bituminous Roadway's (BRI) request for a five-year renewal of their sand and gravel mining permit. BRI operates an asphalt plant and mining operation in the southern portion of the city. A mining permit renewal is required every five years. The original Sand & Gravel zoning was approved in 1974. BRI also operates under a Conditional Use Permit to allow for the asphalt plant operation, first approved in 1979. BRI has requested a five-year permit renewal, and a modification to mine sand an additional 40 feet from 840 ft elevation to 800 ft elevation. There is more sand material at that elevation and it will extend the life of their mining pit for about 10 years. Planning Commission first reviewed this item in November 2022. There were a number of questions raised by the Commission and they requested to table the item until further analysis was completed by staff and applicant. Barr Engineering was hired by the city to review potential groundwater impacts due to proposed mining depth, and to analyze BRI's well testing data. Based on Barr's review and the information provided by BRI, the modification would not impact groundwater and the well testing is within limits established by the MPCA. Staff recommends approval of the request as presented.

Commissioner Trenzeluk asked if the Planning Commission has approved the item. Mr. Hunting stated the Planning Commission will review this item at the Tuesday, May 2nd Planning Commission meeting during a second public hearing. The Planning Commission requested the EAC review this item prior to the second public hearing.

Chair Boehmke asked if the motion for approval should be split into two parts. Mr. Hunting noted that the increased mining depth is a part of the application and can be approved jointly or separate if the EAC wishes.

Ray Woulo, Barr Engineering, presented the following PowerPoint slides to the Commission.

Barr Engineering Co. retained by City to review CUP application

- Reviewed environmental impacts: What, if any, proposed changes may result in new or increased environmental effects? Are there proposed mitigation measures? Has anything of significance changed since 2017 CUP renewal?
- Make recommendations on CUP

Who regulates aggregate and non-metallic mining?

- MPCA's non-metallic mine general permit addresses stormwater and wastewater. MPCA air permit typically not required.
- MDNR's Water Appropriations Permit for high-capacity wells and pit dewatering unless there are specific issues, groundwater monitoring may not be required.
- Some types of expansion or changes to operations may trigger an Environmental Assessment Worksheet (EAW). This proposal does not.

BRI request

Cross section of topography and elevation of mine and proposal mining depth

Backfill and reclamation

- Backfill will consist of: excess sand from mining operations, clean soil from off-site BRI construction projects, site re-graded, stormwater ditching, replace stockpiled topsoil

NO proposed changes to:

- Type and number of equipment used, rate of mining, number of trucks and truck traffic, hours of operation, location and quantity of fuel, chemicals, asphalt cement, water use or pumping

Findings: air quality

- Air quality impacts will not change. No change in number, type, or use of equipment, truck traffic/truck trips, or rate of mining

Findings: Noise

- Noise impacts will not change. No change in number, type, or use of equipment, truck traffic/truck trips, rate of mining, or times of operation
- Barr performed a noise assessment for the City on the western edge of BRI's operation in 2018. Conditions at nearby residences were likely in full compliance with state noise standards.

November 2022 Planning Commission Questions

- Question #1: Wet sand seen in mine. Is this caused by contact with the Prairie du Chien-Jordan aquifer or is BRI mining below the water table?

Cross section of mine, well, aquifer and aquitard

Conclusions regarding intersection with groundwater

- Top of Prairie du Chien-Jordan aquifer is greater than 100 feet below bottom of mine pit, water table is greater than 60 feet below bottom of mine pit, and wet soils cannot be the result of intersection with groundwater

November 2022 Planning Commission Questions

- Question #2: The High Volume Well that was agreed to be placed at a depth of approximately 600' below grade drawing water from the Tunnel City-Wonewoc rather than the Prairie du Chien-Jordan aquifer
- Question #3: There is no mention of the High Volume Well installed in 2012 that pumps 450 GPM. Will this negatively impact water levels in the area and peoples' wells?

"aquifer" vs "aquitard"

- Aquifer: soil or rock that yields useable quantities of groundwater to a well. Higher permeability and saturated thickness, groundwater flow is mostly horizontal
- Aquitard: soil or rock that DOES NOT yield usable quantities of groundwater to a well, lower permeability and saturated thickness, groundwater flow is mostly vertical

Cross section of mine, well, aquifer and aquitard

Reviewed graphs and figures of wells, aquifer and aquitard

- A pumped well results in "drawdown" of the water table. A drawdown from a pumped well in one aquifer can affect drawdown in another aquifer - but the effect is limited

Model simulation of drawdown in the Tunnel City-Wonewoc aquifer

Model of groundwater time-of-travel from BRI 1 year, 5 year, 10 year, 20 year

Well map near and onsite

November 2022 Planning Commission Questions

- Question #4: Well water testing reports provided indicate a series of mishandling problems with the water collection protocols used. Who ensures compliance with ordinances and to protect the groundwater and nearby wells?

Review and evaluation of water-quality data

- Reviewed analytical reports 2012-2022 provided by BRI. Evaluated data quality (holding times, data qualifiers, etc.), lab reports, field notes (not the lab analytical reports in their original form). Used EPA National Functional Guidelines. Plotted time-series data to evaluate trends.

Overview of what is analyzed for

- Metals (antimony, arsenic, copper, cadmium, cobalt, iron, lead, manganese, mercury, nickel, selenium, silver, zinc), barium, gasoline-range organics (GRO), diesel-range organics (DRO), total phenolics, standard parameters (pH, specific conductance, etc.)

Findings of analytical data review

- Analytical data were generally acceptable and reliable. Need to have “zero head space” for GRO and DRO samples. Quantifiable detection limits could be lower. No evidence to suggest exceedances of water-quality standards.

Recommendation and suggestions

- Consider having BRI install a dedicated monitoring well immediately to the east to sample water quality to screen across the water table instead of at the domestic wells
- Prepare a Sampling and Analysis Plan using MPCA guidance to provide testing confidence to the city
- BRI submit an annual report of monitoring with the following: QA/QC review of data collected, Time-series plots that include previous years’ data, Review detection limit, Summary of operations, Pumping records, Water-level measurements, Access the suitability of monitoring wells, A narrative explanation of the results
- Limit soil backfill to non-organic, compactable soil material that is free of contamination, recycled or salvaged aggregate, etc.
- No contaminated soil allowed – if source of imported soil is unknown, it should be tested before being brought on-site
- Spill Prevention Control and Countermeasures (SPCC) plan should be developed and submitted to the City

Concern regarding foundry sand

- Organic compounds (phenolics etc.) present in foundry sands were found by USEPA and USDA to be well below levels of concern.
- Antimony, arsenic, chromium III, cobalt, copper, iron, manganese, and nickel were all evaluated through leaching tests and modeling and found to be below all health-based water-quality benchmarks
- Silica-based foundry sands from iron, steel and aluminum foundry operations when used in manufactured soils, potting media and roadway subbase, are protective of human health and the environment

Commissioner Trenzeluk asked if the well testing was mishandled as the Planning Commission had asked. Mr. Wuolo responded no, the analytical testing was completed following proper protocols, however the analytical data could be improved going forward as described in Barr’s list of recommendations.

Commissioner Moehring asked if Barr believes annual monitoring is sufficient. Mr. Wuolo stated yes. If a site is of high concern, quarterly monitoring is recommended but nothing of concern has been detected at this site.

Commissioner Trenzeluk asked if staff’s recommendation includes Barr’s recommendation. Mr. Hunting responded yes.

Commissioner Ruiz asked what happens if the mine hits the water table. Mr. Wuolo responded nothing is triggered by the state agency. The city would need to determine a response. The monitoring well can provide a water table depth, so if that's installed, BRI should always know the water table depth and be sure to never encounter it.

Commissioner Trenzeluk stated he has been involved with past BPI permit extension requests and believes BRI has been a good corporate citizen. He does not believe BRI would intentionally mishandle data testing.

Commissioner Sethre asked if Barr was engaged by the city to represent the city and Mr. Wuolo responded in the affirmative.

Commissioner Kruse asked how much the Barr reviews costs taxpayers. Mr. Hunting stated the report and analysis was paid for by BRI. The city did not pay for any of the review.

Commissioner Kruse asked what happens in 10-years when the site closes. Kent Peterson, President of Bituminous Roadways, presented a statement to the Commission. BRI purchased the gravel pit in 1978 and installed an asphalt plant in 1980. Since then, they have been mining gravel and producing asphalt used in construction and maintenance of local streets, highways and trails. In 2001, BRI purchased the adjacent property to the south where their current mining is taking place. Every five years BRI is required to renew their permit. There is one change on this year's renewal to extend their mining depth 40 feet, to 800 feet. This would extend their mine for an additional 10 years to provide much needed aggregate to the local area. The soil used to back the site will be compactable soil, free from contamination, and will only come from BRI projects. BRI will maintain a manifest of soil sources and volumes. BRI is also agreeable to all of Barr's recommendations.

Commissioner Sethre asked why the foundry sand pile is still there per Robert Heidenreich's public comments. Mr. Peterson said almost all of this pile has been utilized for construction projects. Very little material remains.

Commissioner Sethre asked why there are asphalt shingles on site. Mr. Peterson stated they used to recycle asphalt shingles but they have not done so for 10 years and he has requested it be removed from the permit language. There is no shingle scrap on the property.

Robert Heidenreich, 11632 Akron Avenue, shared his concerns about the application request and Barr's review. Mr. Heidenreich stated that BRI has been cited for violations in 2018 and 2019 for having exposed unsealed wells on their property. He stated item 23 of the new permit conditions say some wells should be monitored every other year, but this should be updated to reflect Barr's recommendation of annual monitoring. He noted inaccuracies in well data and elevation data. He noted he was concerned about high sodium levels and is concerned about exposing the bottom of the mine to the aquifer. He recommends there should be a deadline to install the monitoring well. Mr. Heidenreich is also concerned about the accuracy of the projections for when the groundwater will reach the river based on projection inaccuracies he's heard about for other sites. He is concerned there are wells located to the east of the property. He recommends the mine not be allowed to mine deeper than 840 feet. He also recommends data typos are fixed, and that the city reviews the data annually. He recommends the well is monitored annually and surveyed by a third party.

Commissioner Sethre requested what the elevation is in related to and Mr. Wuolo confirmed it is above sea level.

Commissioner Trenzeluk stated Mr. Heidenreich is on the Planning Commission and asked if the material presented has been reviewed by the Planning Commissioner. Mr. Heidenreich said no, they will on May 2.

Mr. Wuolo stated several items Mr. Heidenreich raised are incorrect and misleading. The sodium level is typical for Dakota County. It is not a toxin, it is a taste and odor issue. Location and elevation of wells has been a problem in the Minnesota Well Index since it was created. Well drillers guess the elevation of the well at the ground surface using a topographic map. Dakota County is in the process of using a GPS to improve accuracy but likely has not surveyed this well. The well elevation is not 825, it is 840 based on lidar data.

Commissioner Goodman asked if the water table changes with drought. Mr. Wuolo stated this is being studied in the twin cities and fluctuations appear to be very minimal, about 0.5 foot to 1 foot.

Commissioner Trenzeluk believes city staff and Barr Engineering are reliable subject matter experts and for that reason would recommend approval based on staff recommendation A as included in the packet.

Commissioner Goodman asked if there has been discussion what plantings will be required onsite for when the mine is closed to improve infiltration. Commissioner Sethre and Trenzeluk stated this is a good idea for the future but not for consideration tonight.

Commissioner Kruse would like to confirm there has been a proper notification to neighbors. Mr. Hunting stated the city notified all properties within 1,000 feet of the BRI's perimeter by mail per zoning code notification requirements. It was also published in the St. Paul Pioneer Press and website.

Commissioner Sethre asked if all wells are located on this property. Mr. Peterson responded no, some are neighboring. Only the Rainbow well is onsite.

Commissioner Trenzeluk, seconded by Commissioner Sethre to approve Bituminous Roadway's request for a five-year renewal of their sand and gravel mining permit and approval of the plan set, which includes an expansion of mining depth to from 840 to 800 with conditions recommended by staff and Barr.

Ayes: 7

Nays: 0

Abstain: 1 Motion carried.

C. Participation in SolSmart and Submittal of Letter of Commitment

Ally Sutherland, Environmental Specialist, presented the following PowerPoint slides on the SolSmart program to the Commission.

EAC Action Requested

- Consider recommendation for City Council approval of SolSmart Participation and Submittal of a letter of commitment

Background | Timeline

- 8/25/2022: SolSmart presented to EAC; 11/2/2022: EAC included SolSmart in 2023 EAC Work Plan; 2/13/2023: City Council approved 2023 EAC Work Plan

Background | City Code

- City code does not explicitly define solar development requirements. Challenging for residents and developers to understand how they can add solar panels to their property

Background | SolSmart

- SolSmart is a national designation and technical assistance program that helps local governments make it faster, easier, and more affordable for residents and businesses to go solar.
- Program Benefits: Adopt best practices for solar readiness, Permitting checklist, easy to find info, streamlines application process, Recognizes cities, No-cost technical assistance from technical experts, Encourages solar energy growth in their jurisdictions
- 4 designations: Bronze, Silver, Gold or Platinum.
- 5 categories: Permitting and Inspection, Planning and Zoning, Government Operations, Community Engagement, Market Development
- ~40 communities in MN: South St. Paul, Burnsville, Woodbury, Maplewood, Northfield, Red Wing and more.

Next Steps

- April: EAC Approval; May: City Council Approval; May: City submits; commitment letter; Summer/Fall: SolSmart Technical Assistance, Ordinance update/review

Recommendation

- Staff recommended approval of SolSmart participations and submittal of letter of commitment

Commissioner Trenzeluk ask what the direction was from the EAC in 2022. Mrs. Sutherland noted the EAC approved a 2023 work plan that requested staff research the SolSmart program, and bring the item to the EAC and CC for final approval.

Commissioner Boehmke asked if EAC members signed up to be a SolSmart representative, what should they do. Mrs. Sutherland stated in this case, the item will likely be on the City Council consent agenda and therefore will likely not require additional support at this time.

Commissioner Kruse asked how many city facilities there are and how many have solar. Mrs. Sutherland is uncertain off hand how many facilities there are, but City Hall and VMCC currently have solar roof top installations owned by a third party that the city purchases energy from.

Commissioner Sethre noted he was disappointed with Great Plains Institute (GPI) website. Some claims on their website regarding greenhouse gas emissions do not site data sources. Mrs. Sutherland noted that now this program is run by MetCouncil instead of GPI.

Commissioner Kruse noted there is third party assistance for technical expertise. Mrs. Sutherland clarified the city is joining this to help update the City Code, not to install solar.

Commissioner Sethre noted the city's building planning documents should be updated.

Commissioner Trenzeluk noted that the city gets the final say in what recommendations are approved and implemented.

Commissioner Kruse asked what the MetCouncil will help the city with. Mrs. Sutherland stated they will help add language to the zoning code to help support solar development in the community, help eliminate zoning code language that unintentionally prohibits solar development, help us develop a zoning and inspection approval checklist for internal and public use, and help educate the public about solar energy benefits. She will be the point person for the city.

Commissioner Sethre is not in support of the program if MetCouncil or Great Plains Institute are providing the technical assistance.

Motion by Commissioner Goodman, seconded by Commissioner Brass to participate in SolSmart and Submittal of Letter of Commitment

Ayes: 6
Nays: 1 Motion carried.
Abstain: 1

7. Commissioner and Staff Comments

Commissioner Kruse would like the MetCouncil to present to the City.

Commissioner Sethre stated he was in favor of the salt cup provided by the City.

Commissioner Sethre encouraged the public to submit an EAC application if interest by May 8.

Commissioner Sethre suggested if the public is interested in learning more about aquifers and where your water comes from the city's annual water quality report is a helpful resource.

8. Adjourn

Commission adjourned at 9:45 p.m.

Ayes: 8
Nays: 0 Motion carried.