

July 16, 2021

Mr. Bruce M. Flower, Chairperson
Town of Wappinger Planning Board
20 Middlebush Road
Wappingers Falls, New York 12590

Re: *Gasland Petroleum Rt 9D – Subdivision, Site Plan & Special Permit Review*
Tax lots 6157-01-048643, 057642, 057654, 059643, and 040637
2361 Route 9D, Town of Wappinger, Dutchess County, New York
Chazen Project # 81941.00

Dear Chairman Flower:

We have received the following comments from the town engineering consultant, CPL, in a letter dated June 30, 2021 in response to the latest submission. A point-by-point response to each of the comments is listed below.

1. *The approvals from the NYSDOT and DCDBCH are required and should be provided, when available. The new entrance from New Hamburg Road (C.R. 28), as well as the proposed water connection will require the approval and permitting from Dutchess County DPW.*

Response: The NYSDOT, DCDBCH, and DCDPW approvals will be submitted once available.

2. *The project is proposing to connect to the United Wappinger Water District. Approval from Town Board will be required to allow for this connection, since the subject properties are not yet in the water district. It is recommended that the process for approving the connection is started soon, so the required engineering coordination and legal work can begin.*

Response: Comment noted.

3. *Dutchess County Department of Behavioral and Community Health approval is needed for the proposed backflow prevention system, sanitary disposal system and the watermain extension shown.*

Response: Comment noted.

4. *Our office has the following concerns with the proposed layout and arrangements for the proposed watermain...*
 - a. *Rather than the 10-foot wide easement proposed for the watermain, our office recommends that a 20-foot minimum width for the proposed easement is provided with the watermain that is indicated to be dedicated to the Town.*

Response: A 20 ft wide easement has been provided; see sheet C160.

- b. Any curb valves to serve adjacent neighbors must be in the proposed easement.*

Response: Curb valves have been revised to be within the proposed easement.

- c. For the watermain to be dedicated to the Town, it is preferred to avoid the excess bends and fittings shown in the vicinity of the proposed catch basin. (There may be other options for mitigating the separations.)*

Response: The water line has been revised to avoid excess bends and fitting.

- d. The layout of the proposed watermain should avoid being underneath structures such as the proposed wall and dumpster enclosure. Ideally there should be a 5-foot clearance on both sides of the watermain to allow for the Town to maintain and possibly replace it in the future, should that become necessary.*

Response: Due to limited space a 16-inch sleeve has been provided beneath the dumpster for placement of waterline.

- e. Our office suggests a meeting between CPL, CAMO and the Applicant's Engineer to review the watermain proposal.*

Response: Comment noted.

- f. Should the adjacent property owners decline the water service connections, our office would recommend Gasland offer testing of the wells for baseline parameters and then periodically during construction and after project completion. Details for this testing could be discussed at the meeting indicated above.*

Response: This office is awaiting the required testing parameters from the Town.

- 5. The plans should provide construction details for the retaining walls. Portions of the retaining walls appear to exceed 4-feet in height, so they will require design by a NYS Licensed Engineer. There also appear to be some inconsistencies on the wall and fencing layouts where the stop and start again and whether the fence is on top of the wall or not. It may also be possible to move the wall closer to the property line to provide a greater separation to the proposed watermain.*

Response: Details for the retaining wall shall be provide at a later date and can be a condition of approval.

- 6. The plans should show petroleum tank vent locations and heights.*

Response: The tank vent locations and heights are called out on sheets C130 and C160.

- 7. Some details for grading, drainage, and erosion control have not been provided yet, and will be reviewed at a later date.*

Response: Comment noted.

SWPPP Comments:

Note: the following comments were generated from a review of the SWPPP (dated August 2020, last revised May 2021) prior to the site plan revision. The comments appear applicable to the next SWPPP revision for the new layout.

8. *Infiltration basins are not recommended for water treatment for sites designated as hotspots unless additional water quality treatment objectives are met. Please specify in the SWPPP compliance with the SMDM feasibility requirements for stormwater infiltration.*

Response: This site does not include infiltration of any hot spot area. The roof runoff, canopy runoff and grass area behind the building are being collected separate from any hot spot area to be infiltrated using underground infiltration. The pavement area that is considered the hotspot, is being treated with a hydrodynamic separator or lined bioretention area.

9. *The NYSOPRHP letter referenced on page 13 in the report should be provided in the appendix of the report.*

Response: The NYSOPRHP letter has been added to Appendix M of the SWPPP report.

10. *The SWPPP should show the calculation for the channel protection volume in the SWPPP. How was the 0.003 ac-ft shown in the NOI calculated?*

Response: CPV calculations have been included in Appendix K of the SWPPP report.

11. *The SWPPP should be revised to correct discrepancies between NOI and Hydrocad flow results. (Hydrocad 10 year flow lists 0.74, while the NOI lists 0.64; both satisfy the pre-condition Hydrocad flow of 0.77. Hydrocad 100 year flow lists 1.44, while the NOI lists 1.25; the Hydrocad number does not satisfy the pre-condition flow of 1.40.)*

Response: The NOI has been revised to match the SWPPP narrative.

12. *The Applicant's Engineer should revise the NOI to include the total catchment area pre/post runoff rates for the 10- and 100-year storm events. It appears only a sub- catchment area is reported on the NOI.*

Response: The NOI has been revised accordingly.

13. *The SWPPP should provide Appendix M if still relevant. (The reference to supporting information regarding the modified bioretention found in in Appendix M is vague.) The SWPPP should include the specific information that supports the use of the modified bioretention area. I.e. which practice/ design or level of treatment is being proposed.*

Response: The modified bioretention information has been added to Appendix M of the SWPPP. Additional supporting information has been provided in Section 6.8 of the report.

14. *The SPDES note on drawing C550 references an expired General Permit. (This reference should be corrected on the drawing.)*

Response: The reference has been revised to the current permit.

15. *Construction sequences note 3 on drawing C550 is not relevant to this project, and note 14 should be revised, as necessary.*

Response: Note 3 has been removed and note 14 has been revised.

16. *The Applicant's Engineer should correct the discrepancy between UD depth and invert(s) of downstream structure. The surface of the bioswale bottom is listed as 67.30; the downstream invert for the UD at the outlet structure is listed at 64.50. This does not match the 37" between surface and bottom layer of stone/UD shown in the detail.*

Response: The bioretention area has been changed to a modified bioretention that requires a minimum of 18" soil media (our proposal includes 26-inches) and 4" of stone. This matches the surface of 67.30 and underdrain invert of 64.50.

17. *The bioretention detail on drawing C540 indicates a soil media depth of 18-inches and 8 inches of stone below the media. The calculations use a media depth of 2.5 feet. The plan sheet C140 indicates a depth to the underdrain of about 2.2 feet. The Engineer should clarify the media depth and inverts of the underdrain*

Response: The bioretention calculations in the SWPPP report have been revised to reflect the 2.2 ft media depth.

18. *Detail 7/C541 (outlet control structure): The plans should provide location and elevation of 6" pipe penetration downstream of the infiltration chamber outlet.*

Response: The detail has been revised to include the 6-inch pipes.

19. *In Report's Fig. 6 Post-Development Watershed Map: The Engineer should correct labeling; Small catchment area south of fueling station and north of infiltration chambers is labeled as 'PS'; presumably, this should be 'PS9'.*

Response: The Post Development Watershed Map has been revised. This area is PS10.

20. *In SWPPP, Appendix K 'Hydrodynamic Separator No. 3 (Hydro 3)': The Engineer should correct calculation table to list catchment number as 'PS6' in place of presumably incorrect labeling as 'PS9'.*

Response: The catchment number has been revised accordingly.

21. *In the HydroCAD model 'Routing Diagram for 3_App J_Post Development Hydrocad': The Engineer should correct diagram to match utility plan routing. 'PS10' should go directly to detention '8P'; 'PS9' should go directly to bioretention '7P'. Note: Comment E supersedes routing corrections for PS10 in this comment.*

Response: The Post Development Watershed Map was incorrectly labeled. The map has been revised. PS9 goes directly to the detention (8P) and PS10 goes directly to the bioretention area (7P).

22. *Runoff collected in the PS10 (trench drain) needs to be treated for WQv.*

Response: According to the calculations in Appendix K- Table B of the SWPPP report, 0.29 acres of new development impervious area must be treated. This project uses a bioretention area and underground infiltration to treat 0.30 acres. Also, according to Appendix K- Table B, 0.42 acres of redevelopment impervious area must be treated. Using multiple hydrodynamic separators as a treatment, 0.42 acres are treated. Therefore, the WQv requirements are met and PS10 does not need to be treated.

23. *The Engineer should provide sizing/flow capacity for each of the three hydrodynamic separators.*

Response: Calculations are provided in Appendix K of the SWPPP report. All devices used will be the Contech CDS2015-4-C, which has a maximum pretreatment and treatment flow of 0.93 cfs.

24. *The Engineer should provide detail (similar to 7/C541) for CB 11 (48x48, located south of bioretention practice). Include locations/elevations of all pipe penetrations and baffles. Structure should have some provision to prevent overflow into immediately adjacent house (at a lower elevation).*

Response: A detail has been provided for OCS 2 (formerly CB 11) on sheet C541.

25. *The Engineer should provide plan view detail (similar to 4/C541) for subsurface detention system on east corner of site (adjacent to bioretention).*

Response: A detail for the subsurface detention near the east corner of the site has been created; see detail 8 on sheet C541.

In addition to the above our office has also provided the following modifications on the plans as a result of the July 7, 2021 Planning Board Meeting

1. Hours of operation have been modified to 9 am to 11 pm on Sheet G002.
2. Deck restrictions have been provided on Sheet G002.
3. Revised elevation has been provided with railing parallel to New Hamburg Road.
4. The site plan references the railing on the architectural plans.

We have enclosed the following:

- 19 copies of the revised Plan Set dated July 14, 2021
- 5 copies of the revised SWPPP Report dated July 14, 2021
- 19 copies of the revised Elevations dated July 15, 2021
- 19 copies of the revised EAF dated July 15, 2021

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Page 6 of 6

We look forward to appearing at the July 19, 2021 Planning Board meeting. Please contact me at 845-486-1478 if you have any questions or need any additional materials.

Sincerely,

A handwritten signature in cursive script that reads "Christopher Lapine".

Christopher P. Lapine, P.E., LEED AP
Director of Land Development

cc: Nick Ward Willis, Esq. Keane and Beane P.C.
Zeidan Nesheiwat, Gas Land Petroleum