



January 16, 2024

Brad Mercer, Planning Manager
Licking County Planning & Development
20 South Second Street
Newark, OH 43055

Subject: Request for a Floodplain Development Permit Application – Parcel 019-042564-00 (MBJ Holdings).

Dear Mr. Mercer:

The City of New Albany is providing the Licking County Planning and Development Department the attached floodplain development permit application for your review and approval. This permit is for proposed field work associated with groundwater testing that will occur within the floodplain under your jurisdiction. The proposed activity would occur within the regulatory floodway along Raccoon Creek, as shown on the Flood Insurance Rate Map (FIRM) for Licking County and Incorporated Areas, Number 39089C, panel 308J, dated March 16, 2015 (refer to Attachment 1). Per our previous discussions, the proposed temporary activity and the associated floodplain development permit are being provided to give you awareness of the planned activity and demonstrate the activity's permissibility within the designated flood hazard area. Additionally, we are providing the following attachments (summarized below), to address questions received from Licking County at our discussion on September 22, 2023.

Attachment 1: Flood Insurance Map

Attachment 2: Exhibit of Location and Type of Activity within Flood Hazard Area

An exhibit demonstrating the location of the field activity on the referenced property. The exhibit includes details for accessing the proposed well location for installation and testing and other erosion and sediment control provisions related to discharging the well (groundwater) effluent to Raccoon Creek.

Attachment 3: Anticipated Well Discharge Peak Flow Rates to Raccoon Creek

The anticipated peak flow rate from the test well is 2,430 gallons per minute, equivalent to 5.42 cfs. The table below relates the test well peak flow rate to estimated peak flow rates for Raccoon Creek, derived from the USGS Stream Gauge along Raccoon Creek at Columbus Road SW.

Attachment 4: Documentation of Water Quality Testing of the Groundwater at the Test Well Locations

The attached memo from Eagon Associates is based on recent water quality sampling and testing. The values represented in this documentation indicate the groundwater is safe to discharge to Raccoon Creek. Furthermore, Eagan has considered the documentation provided by Licking County regarding the historical petroleum pipeline spill in proximity to the test well location. The Long-Term Assessment Monitoring Plan indicates direct impacts (i.e., dredging) to the Chinney Run channel could result in the release of contaminants within the surrounding soils. The aquifer test well will not disturb soils in proximity to Chinney Run and the well screen will be significantly below the channel elevation where residual contaminants may be present.



Attachment 5: No-Rise Certificate

Based on prior coordination with the Licking County Planning & Development Department, we understand a detailed flood hazard impact study is not required in support of this certificate as long as there is no fill placed; or if there is fill placed (e.g., a stone course for the access road), a comparable volume of material will be excavated and the excavated material will be disposed of on property outside of the 100-year floodplain.

Based on our review of the Licking County Flood Damage Prevention Regulations, the proposed activity is a permissible activity within a designated flood hazard area. Furthermore, the attached documentation indicates the temporary aquifer test well will not have an adverse impact on flows in the Raccoon Creek channel, on water quality within the channel, and existing flood hazard conditions.

There are no other permits required for this testing, as there is no fill proposed within wetlands or streams, and the site disturbance is expected to be less than 1.0 acre. Please do not hesitate to contact me if you have any questions regarding this permit application and the provided attachments.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "RO", is positioned above the typed name.

Ryan Ohly
City of New Albany

Copies:

Attachment List

- Attachment 1: Flood Insurance Map
- Attachment 2: Exhibit of Location and Type of Activity within Flood Hazard Area
- Attachment 3: Anticipated Well Discharge Peak Flow Rates to Raccoon Creek
- Attachment 4: Documentation of Water Quality Testing of the Groundwater at the Test Well Locations
- Attachment 5: No-Rise Certificate



100 Old Wilson Bridge Road
Suite 115
Worthington, Ohio 43085
(614) 888-5760
eagoninc.com

October 5, 2023

Mr. Ryan Ohly
City of New Albany
99 W. Main Street
New Albany, Ohio 43054

RE: Site 2 Water Quality Data

Dear Mr. Ohly:

Attached is a table summarizing water quality results from two-inch diameter test wells at the Geiger and Vanness properties east of Alexandria along Raccoon Creek in Licking County. The samples were collected by Eagon & Associates on March 23, 2023. Samples were analyzed for the parameters required by Ohio EPA for new public water supply wells. Analyses were performed by Alloway labs in Marion, Ohio.

The only result that exceeds a Federal Primary Drinking Water Maximum Contaminant Level (MCL) is arsenic at TB2-9. The MCL for arsenic is 10 micrograms per liter (ug/L) and the result for arsenic at TB2-9 was 15 ug/L. Arsenic detections above the MCL are not uncommon in the glacial outwash sand and gravel aquifers of Ohio.

There were no detections of PFAS compounds. The xylene detections reported at TB2-3, TB2-9, and TB2-10 are likely false detections and in any case are low level and well below the MCL of 10,000 ug/L.

Also note that groundwater discharge to Raccoon Creek provides the base flow of the creek. Which is to say that any groundwater pumped to the creek during a pumping test is discharging the same water (i.e., water of the same quality) that is naturally discharging to the creek.

If you have questions regarding this information, please contact me or Chris Cobel.

Submitted by:

A handwritten signature in black ink, appearing to read "Stephen J. Champa".

Stephen J. Champa
Principal Hydrogeologist

SUMMARY OF GROUNDWATER QUALITY DATA

Parameter Name	PQL	Units	Location				
			Geiger			Vanness	
			TB2-1	TB2-2	TB2-3	TB2-9	TB2-10
Alkalinity, Total	5.0	mg/L	290	340	250	320	320
Ammonia-N	0.05	mg/L	0.25	0.23	0.72	0.27	0.18
Chloride	5.0	mg/L	54	22	23	44	63
Cyanide, Total	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Fluoride	0.100	mg/L	0.476	0.558	1.11	0.536	0.101
Nitrite-N	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate/Nitrite-N	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate-N	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
pH, Laboratory Analyzed	1.0	S.U.	8.2	8.1	8.2	8.2	8.1
Sulfate	5.0	mg/L	69	47	140	39	30
Solids, Dissolved	20	mg/L	460	440	490	430	450
Calcium, Total	2.00	mg/L	99.1	99.9	92.5	92.5	97.5
Iron, Total	40	ug/L	2500	2700	2400	2400	3100
Magnesium, Total	2.00	mg/L	34.1	35.2	31.4	34.9	29.6
Manganese, Total	10	ug/L	40	47	47	68	250
Silver, Total	5.0	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0
Sodium, Total	0.40	mg/L	23.3	9.78	46.0	22.2	34.0
Zinc, Total	10	ug/L	<10	<10	<10	<10	<10
Antimony, Total	3.0	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0
Arsenic, Total	3.0	ug/L	3.4	8.2	5.1	15	5.2
Barium, Total	10	ug/L	150	110	53	210	370
Beryllium, Total	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Cadmium, Total	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium, Total	10	ug/L	<10	<10	<10	<10	<10
Copper, Total	10	ug/L	<10	<10	<10	<10	<10
Lead, Total	2.0	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0
Nickel, Total	10	ug/L	<10	<10	<10	<10	<10
Selenium, Total	3.0	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0
Thallium, Total	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0
Mercury, Total	0.2	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene	0.20	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20
m,p-Xylene	0.30	ug/L	<0.30	<0.30	0.35	0.44	0.41
1,2,4-Trichlorobenzene	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl Chloride	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene (Total)	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Atrazine	0.07	ug/L	<0.07	<0.07	<0.07	<0.07	<0.07
Alachlor	0.10	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10
Simazine	0.05	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS	1.9	ng/L	ND	ND	ND	ND	ND
ALPHA, Gross	3	pCi/L	ND	3.88	ND	3.23	ND
BETA, Gross	4	pCi/L	ND	ND	ND	ND	ND
Radium-228	1	pCi/L	ND	1.30	ND	ND	1.05
Yield		pCi/L	1.00	1.00	0.95	1.00	0.98

FLOODWAY "NO-RISE / NO-IMPACT" CERTIFICATION

This document is to certify that I am a duly qualified engineer licensed to practice in the State of Ohio. It is to further certify that the attached technical data supports the fact that proposed Aquifer Test Well will not impact the base flood elevations, floodway elevations,

(Name of Development)

and floodway widths on Raccoon Creek at published cross sections in the Flood *(Name of Stream)*

Insurance Study for, Licking County and Incorporated Areas, dated March 16, 2015 and will not impact *(Name of community)* *(Dated)*

the base flood elevations, floodway elevations, and floodway widths at the unpublished cross-sections in the area of the proposed development.



SEAL, SIGNATURE, AND DATE

Miles F. Hebert, P.E., CFM

Name

Director, Infrastructure Pursuits

Title

EMH&T, 5500 New Albany Road

Columbus, OH 43054

Address

This no-rise determination is based on the project not including fill unless compensatory excavation is also provided.

FOR COMMUNITY USE ONLY:

Community Approval

Approved Disapproved

Community Official's Name

Community Official's Signature

Title

This certification is associated with the Licking County Permit to Develop in an Identified Flood Hazard Area # _____.

Table Comparing Peak Flow Rates (Well Effluent vs. Raccoon Creek)

Parameter	Description	Peak Flow Rate (cfs.)	Percentage
Test Well Discharge	Temporary discharge to Raccoon Creek	5.42	----
Mean Annual Flow Rate ¹	The average of recorded daily flow rates	92	5.89%
2-Year Design Storm Event ¹	Representative of bank-full discharge	4,060	0.13%
10-Year Design Storm Event ¹	Representative of moderate flood conditions	7,290	0.07%

¹USGS Stream Gauge – Raccoon Creek near Granville OH 03145483

Based on the comparisons in the table above, the test well discharge to Raccoon Creek over the 72-hour period will have minimal impact on daily or flood event flows along the watercourse. **Note:** There will not be multiple aquifer tests occurring at one time.