

Stewart Engineering Services - Firm 18697

16531 Shady Lane – Channelview, Texas 77530

Phone: 281 – 862 – 9769

11 January 2024

Texas Commission on Environmental Quality
Attn: Office of Chief Clerk, MC 105, TCEQ,
P.O. Box 13087
Austin, Texas 78711-3087

RE: Request for Contested Case Hearing – WQ 0002927000
TCEQ Commissioners Meeting – January 24, 2024

Purpose of this letter – Reaffirm My request for a contested case hearing on the proposed permit WQ 0002927000.

Applicant for the permit – Lyondell Chemical Corporation
2502 Sheldon Road, Channelview, Texas 77530

Contestant – Douglas R. Stewart – 16916/16918 Shady Lane, Channelview, Texas 77530
Phone Number – 281-862-9769
I am also contesting for the other properties I own or mortgage which are
Listed in this letter requesting a contested case hearing.

It is requested that this letter be forwarded to the following by electronic mailing from the
CHIEF CLERK:

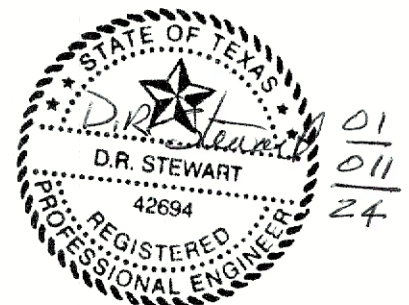
Executive Director – via electronic mail to Harrison “Cole” Malley, Staff Attorney TCEQ

Public Interest Counsel – via electronic mail to Garrett T. Arthur, Attorney TCEQ

Alternate Dispute Resolution – via Kyle Lucas, TCEQ

Mailings via the U.S. Postage Service will be made to the following:

- Nancy Ross, Senior Environmental Engineer, Lyondell Chemical Company
- Dr. Latrice Babiin, Harris County Pollution Control Services Department
- Jerry Caraviotis, Harris County Pollution Control Services Department
- Monica Baez, Technical Staff, TCEQ
- Ryan Vise, Deputy Director, TCEQ



Following my request for a contested hearing Kyle Lucas TCEQ, Nancy Ross LLC, Tom Warnement, and I met for several hours to discuss my reasons for asking for the contested hearing. Although it was hoped we could come to some agreement we could not agree on how to solve the issues associated with my concerns. I greatly appreciate the work of Kyle Lucas and the willingness of Nancy Ross and Tom Warnement to discuss the issues.

In the following comments I will attempt to demonstrate that I am an affected individual and submit enough information to indicate the substance of my concerns.

Property Map – This map will demonstrate the following: (comments are approximate)

- The properties owned or mortgaged by myself and the distances of these properties from the Harris County Flood Control Ditch used as the main channel for plant effluent discharges. My homestead is located approximately 450' from the centerline of the discharge point for G103-02-03 into Bear Lake.
- The main discharge route for stormwater runoff from the plant facility. The discharge into Bear Lake is located approximately 350' from the main discharge from G103-02-03.
- The location of the main plant discharge of effluent is shown as outfall 001 on the map.
- The approximate location of the center line of Bear Bayou is shown.
- The approximate location of a high velocity discharge pipe that empties into outfall 001.
- The locations and areas of G103-02-03 which are heavily eroded.
- The location of the main stormwater discharge ditch that is heavily eroded.
- The length of G103-02-03 which is heavily eroded and the remaining part of G103-03-02 which appears to be operating as designed.
- The approximate length of eroded soil and plant effluent that have been deposited into Bear Bayou Lake by the discharges of G103-02-03 and the main stormwater discharge ditch.

To help understand the map several aerial views are provided for view. A careful review of these aerals in the order identified will show the following:

- Outfall 001, G103-02-03, and the stormwater ditch are all heavily eroded due to high effluent flow. Increased discharge rates should not be allowed at present.
- The extent of the erosion is well confined to the areas starting at the discharge (G103-02-03) into Bear Lake and continuing to just beyond the outfall yet to be identified. This is approximately 50% of the entire length of the flood control ditch and it is significant that the erosion is limited generally to the area between the discharge point to outfall 001 (approx. 1000') and then to the unidentified outfall (approximately 3000') or for a total of approximately 4000'. Some meandering of G103-02-03 can be seen from outfall 001 to the unidentified outfall.
- The areas of erosion for the main stormwater discharge facility are also easily identified.
- The main reason for the erosion seems to be the velocity of discharged effluent in G103-02-03 and in the stormwater ditch (approximately 5-8 ft/sec) exceeds the soil strength.



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Photographs are supplied for the discharge into the lake for of the plant process effluent. These aeriels will demonstrate the damage that is being done to Bear Lake by the effluent discharged from the main LLC facility. These photographs will show the following:

- Protrusion of eroded soils into Bear Lake shown October 29, 2021. Since this date the delta has progressed further into the lake.
- It can be observed the pilot channel and streaming lines of the unceasing flow of plant water and solids will soon reach the channel centerline of Bear Bayou which feeds the lake with water. In time the channel will be filled in and the lake will likely cease to be a thriving aquatic area.
- It is noted that the color of the soils being discharged into the ditch have the same color of the soils in the flood control ditch G103-02-03.
- The second picture was recorded later in the afternoon and gives a good approximation size and of the amount of eroded soil in the lake.

I have contacted representatives of the Army Corps of Engineers, Texas General Land Office, and Harris County Pollution Control Services, and Harris County Flood Control, to inquire about my concerns regarding the excessive discharge of eroded materials into Bear Lake.

Lyondell Chemical Corporation's request to increase deposit amounts of various metals and elements into Bear Lake (particularly copper) based primarily upon a water hardness random sampling survey.

- It is my professional opinion that the data collection procedure does not conform to the normal rules for assembling and preparing data for statistical analysis.
- The data used in this statistical analysis was collected from locations outside of the main area of interest for the analysis (discharge area of G103-02-03). Samples were collected from water systems not a part of the discharge area. Some of the data came from roadside ditches and water systems not associated with Bear Lake. Some of the locations of sampling were as far as 5-7 miles from the area of interest and not a part of the Bear Lake/San Jacinto River system. The range of the data points collected, 168 mg/l, suggest a high degree of randomness which could come from the way in which the data was collected.
- Data collection points, required by the analysis procedure used, required samples to be taken from the area of mixing (at the discharge location). This was not done and should alone disqualify the use of this study.
- Increasing the amount of copper effluents into Bear Lake can cause a drop in dissolved oxygen amounts, increase in algae, and contribute to fish and shrimp kills.
- It is requested that the requested effluent limits for copper and other minerals/elements/metals (such as lead) not be allowed.
- It is further requested that the current water hardness study be rejected and a carefully planned statistical study conducted. The results of this study will lead confidence to decisions made regarding increased effluent limits for minerals/elements/metals.



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Photographs are provided for the white substance being introduced into the lake through the flood control ditch (G103-02-03). These photographs are marked 10:00 am, 1:00 pm, and 5:00 p.m. respectively. These photographs should be reviewed in sequence as it can be seen this discharge lasted for most of the daylight hours. The objective is to show that the discharge comes in great amounts with this one completely inundating Bear Lake and extending to the San Jacinto River itself. As the photographs are reviewed note should be taken of the leading edge of the discharge and one can get an idea of how fast the discharge is expanding.

- Photograph marked 10:00 a.m. was taken when the white substance was first noticed.
- Photograph marked 1:00 p.m. was taken three hours later.
- Photograph marked 5:00 pm was taken 4 hours later.


The following photograph was taken years ago showing white material apparently flowing from the plant (LLC) effluent discharging systems. This photograph is marked 4-2006 001 outfall to Bear Lake. This photograph does not charge LLC with discharging the white effluent, but the reviewer should keep in mind that this facility is the only facility discharging directly into Bear Lake. Determining the entity responsible is difficult because TCEQ will not accept samples of the discharge unless it is done with proper supervision. That is understandable, but not acceptable when it is understood that TCEQ Region 12 is 25 miles away, LLC personnel are not easily available, and Harris County Pollution Control Services (HCPCS) field people are not generally available. Years ago when this was first contested a HCPCS field person happened to be at my residence when this discharge began to take place. He went immediately to the front gate at LLC and was refused entrance. At the contested hearing the judge presiding refused to consider the samples we had taken and had permitted. It is hoped that a workable method for determining the origin of discharge can be identified and the problem corrected.

- Photograph 4-2006 001 Outfall to Bear Lake

There are other issues, but these are those which have solutions. It is my hope that the commissioners will agree with the contents of this communication, and we can begin the process of correcting the issues which have generated these concerns.

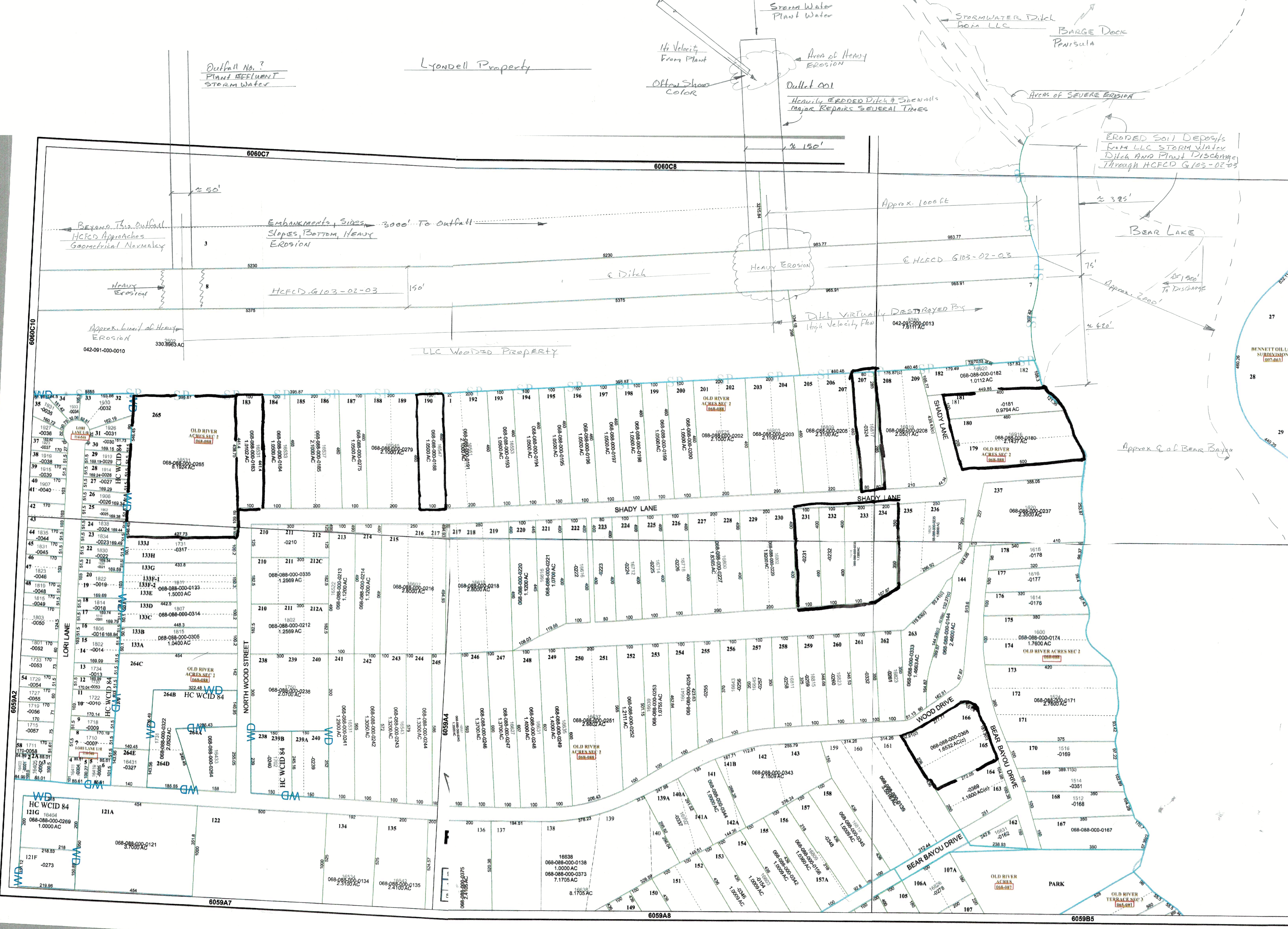
Thank you in advance for your careful review.

Respectfully,


Douglas R. Stewart P.E. 42694



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Harris
Central
Appraisal
District



0 45 90 180 Feet
PUBLICATION DATE:
14/2023

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approximate location of
property boundaries.



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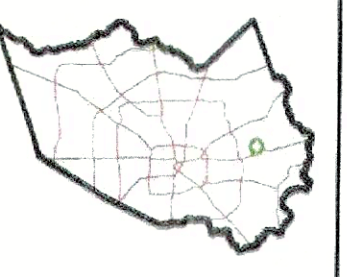
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Harris
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0 45 90 180 Feet
PUBLICATION DATE:
3/13/2023

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