EARTHJUSTICE
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ENVIRONMENTAL INTEGRITY PROJECT

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December 17, 2025

Via Certified Mail – Return Receipt Requested

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RE: Notice of Intent (NOI) to Sue for Violations of the Clean Water Act at the Seadrift Operations Facility located at 7762 Highway 185, Seadrift, TX 77983 by Union Carbide Corporation; Dow Hydrocarbons and Resources LLC; and Braskem America, Inc.

To All Recipients:

This letter is sent to inform Union Carbide Corporation (UCC); Dow Hydrocarbons and Resources LLC (Dow Hydrocarbons); and Braskem America, Inc. (Braskem) (together, the Applicable Parties) of serious and continuing Clean Water Act (CWA or Act) violations identified by the San Antonio Bay Estuarine Waterkeeper at the industrial manufacturing facility located at or near 7762 Highway 185, Seadrift, TX, 77983. These violations have occurred and will continue to occur as a result of: (1) discharges of plastic pellets (also known as "nurdles"), powder, flakes, and foam without permit authorization and/or in violation of the applicable permit; (2) effluent discharges of other pollutants in excess of permit limits; and (3) violations permit reporting requirements; and (4) violations of permit operation and maintenance requirements. The unlawful pollution is occurring into waters of the United States. These violations are causing and will continue to cause significant harm to receiving waters as well as to the mission and members of San Antonio Bay Estuarine Waterkeeper (SABEW).[1]

Pursuant to Section 505(b)(1)(A) of the CWA, SABEW is providing the Applicable Parties notice of the violations described herein as required by law. At any time more than sixty days after this notice, suit may be brought to abate the illegal discharges and other violations that cause or contribute to the described pollution as well as the pollution itself.

[1] All attachments hereto are part of this Notice of Intent and incorporated herein.

I. Clean Water Act Requirements

In 1972, Congress passed the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). Congress established "the national goal that the discharge of pollutants into navigable waters be eliminated." *Id.* § 1251(a)(1). To achieve these objectives, the CWA prohibits the discharge of "any pollutant" from a point source to "waters of the United States," *id.* §§ 1311(a), 1362(7), (12), except in compliance with, among other conditions, a National Pollution Discharge Elimination System (NPDES) permit issued under Section 402 of the Act, *id.* § 1342.

Section 402 of the CWA, 33 U.S.C. § 1342, created the NPDES program, under which EPA may issue NPDES permits for point source discharges to waters of the United States. Section 402(b) of the CWA, 33 U.S.C. § 1342(b), authorizes the EPA Administrator to delegate to states the authority to issue NPDES permits. The State of Texas, through the Texas Commission on Environmental Quality (TCEQ), is authorized to administer the CWA's NPDES permitting program in Texas.[2] The CWA requires that NPDES permits include effluent limits and other conditions on discharges. 33 U.S. Code § 1312, 1342.

If a person discharges a pollutant not authorized by an NPDES permit, discharges an authorized pollutant in greater amounts or concentration than allowed by an NPDES permit, or violates other NPDES permit conditions, the CWA empowers citizens to sue for appropriate relief. 33 U.S.C. §§ 1365(a)(1), (f). Each such violation is subject to injunctive relief and daily civil penalties.[3] 33 U.S.C. §§ 1365(a), 1319(d).

II. The Facility

UCC, Dow Hydrocarbons, and Braskem co-operate an industrial plant located at or near 7762 Highway 185, Seadrift, TX, 77983 (the Facility) that is engaged in plastics manufacturing for various products and applications. The Facility, which has been in operation since about 1954, sits on a roughly 4,700-acre site located in Seadrift, Calhoun County, Texas, which is approximately eight miles north of the City of Seadrift.[4]

The Facility includes nine production plants. A number of plants produce polypropylene and/or polyethylene, including one which is and at all times relevant hereto has been operated by

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[2] *See* Memorandum of Agreement Between the Texas Natural Resource Conservation Commission (predecessor to TCEQ) and the U.S. Environmental Protection Agency, Region 6 Concerning the National Pollutant Discharge Elimination System (Sept. 14, 1998) (attached as Exhibit A) *see also* Memorandum of Agreement Between the Texas Natural Resource Conservation Commission and the U.S. Environmental Protection Agency, Region 6 Concerning the National Pollutant Discharge Elimination System (June 12, 2020), (attached as Exhibit B) (noting that the 2020 Memorandum of Agreement is the most recent revision); *see also* Tex. Water Code § 26.027 (authorizing TCEQ to issue permits for discharges of pollutants into waters of the state).

[3] Statutory Civil Monetary Penalties, as Adjusted for Inflation, and Tables, 40 C.F.R. § 19.4; *Sackett v. EPA*, 566 U.S. 120, 121 (2012).

[4] *See* TEX. COMM'N ON ENV'T QUALITY, *Fact Sheet and Executive Director's Preliminary Decision*, 57 (Dec. 10, 2019) [hereinafter Fact Sheet] (attached as Exhibit C). The Fact Sheet incorporates UCC's Application for Major Amendment with Renewal from October 1, 2019; the Fact Sheet was revised March 8, 2021.

Braskem.[5] UCC has owned and operated the other eight production plants at the Facility at all times relevant to this notice letter; Dow Hydrocarbons became a co-owner and operator of those eight plants on February 7, 2024.[6] Both UCC and Dow Hydrocarbons are wholly-owned subsidiaries of The Dow Chemical Company.

In addition to producing polyethylene and polypropylene, the Facility produces glycols, ethylene oxide derivatives, and catalysts.[7] Products manufactured at the Facility include polyethylene plastics for wire and cable applications, drip irrigation tubing, food and beverage containers, automotive parts, toys, and diapers; glycols for antifreeze, polyester fabrics and bottles, and oxide derivatives for use in medicines, shampoos, soaps, detergents, window cleaners, brake fluids, and paint.[8] In 2025, a new plant began production of alkoxylates, a chemical class that is used in consumer products such as cosmetics and laundry detergents.[9] As a result of these manufacturing activities, the Facility generates and discharges pollutants, including benzene, acrylonitrile, toluene, and vinyl chloride via its wastewater system. The production of polypropylene and polyethylene by the Applicable Parties results in the production of plastic pellets (nurdles), a portion of which are directed or channeled to the wastewater system described below, or via other means, and then discharged. Thus, SABEW asserts that both Braskem and UCC/Dow Hydrocarbons manufacture and discharge nurdles.

Wastewater generated throughout the Facility is managed onsite by three separate sewer systems: the Low Strength Sewer (LSS) System, the High Strength Sewer (HSS) System, and the Sanitary Sewer System.[10] A diagram depicting the Facility's wastewater flow is included at Figure 1 below. The Sanitary Sewer System collects and treats sanitary wastewater and sends it into the HSS System. The HSS System collects and treats stormwater and wastewater from various units, including the Sanitary Sewer System and conveys it into the LSS System. The LSS System collects and treats stormwater and wastewater from the main plant area as well as from the HSS system and conveys it to Outfall 001, which discharges the combined stormwater and wastewater into the Victoria Barge Canal. All Facility process wastewater is conveyed through these systems.

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[5] *Seadrift Operations*, DOW, https://corporate.dow.com/en-us/locations/seadrift.html [https://perma.cc/M2VD-E3ND] (last visited Dec. 13, 2025) [hereinafter Seadrift Operations].
[6] *See* TEX. COMM'N ON ENV'T QUALITY, *Transfer of TCEQ Permit No. WQ0000447000/EPA I.D. No. TX0002844/FROM: Union Carbide Corporation/TO: Dow Hydrocarbons and Resources LLC and Union Carbide Corporation* (Feb. 7, 2024) [hereinafter Transfer of Ownership] (attached as Exhibit D). Per Calhoun County records, Dow Hydrocarbons and Resources LLC became the property owner of the property on which the Facility is located on November 1, 2023. Prior to November 2023, the property owner was Union Carbide Corporation.
[7] Union Carbide Corporation*, TCEQ Industrial Wastewater Permit Application for Major Amendment Without Renewal*, 62 (Dec. 2022) [hereinafter Permit Application] (attached as Exhibit E).
[8] Seadrift Operations, *supra* note 5.
[9] Leo Bertucci, *Dow Facility to Make Base Materials for Everyday Products*, THE VICTORIA ADVOCATE (July 24, 2023), https://victoriaadvocate.com/2023/07/24/dow-facility-to-make-base-materials-for-everyday-products/ [https://perma.cc/9B34-N5TQ].
[10] Fact Sheet, *supra* note 4, at 151.

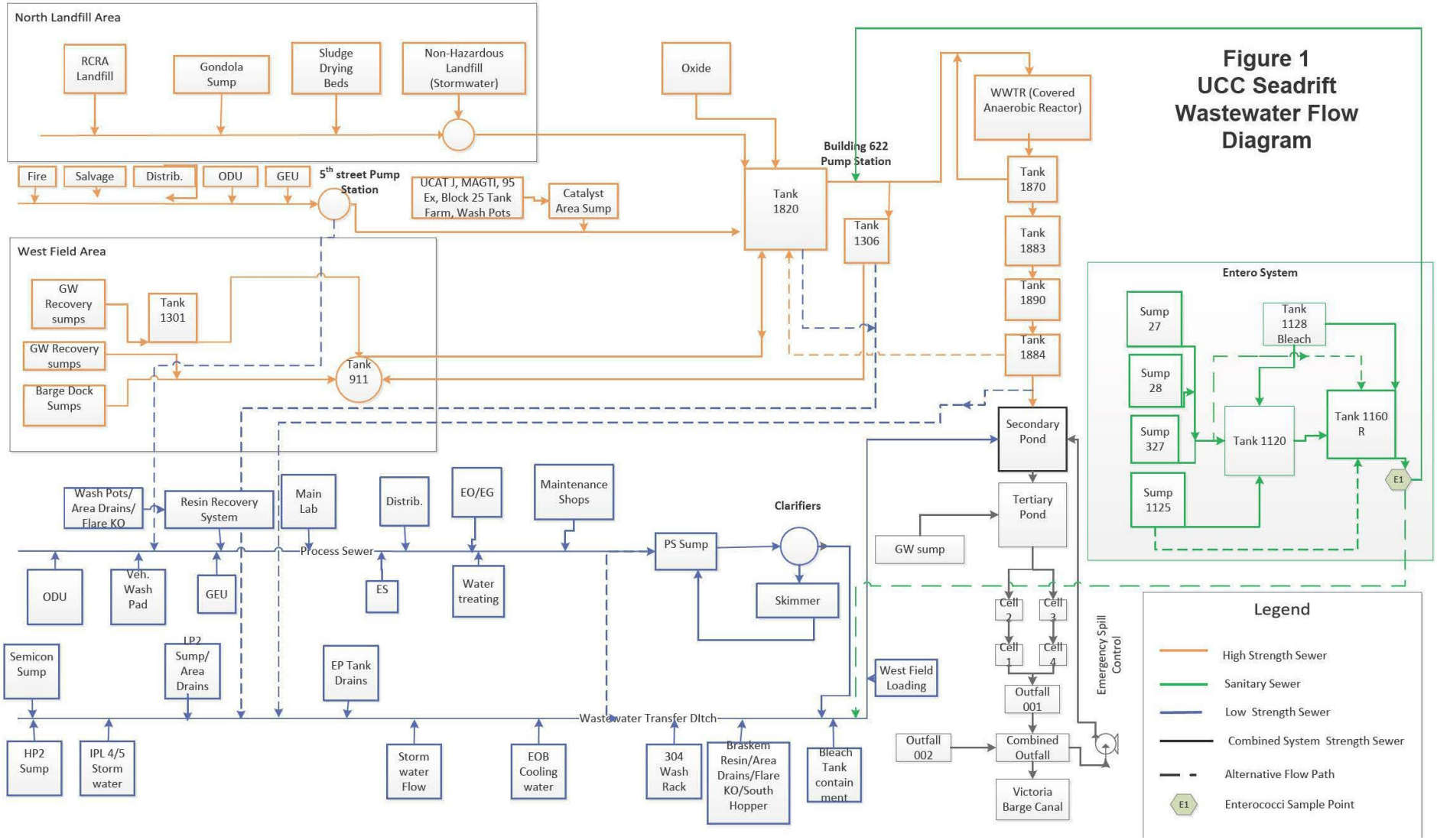

Figure 1: *Facility Wastewater Flow Diagram*

Stormwater, boiler water blowdown, cooling water blowdown, polyolefin resin pad wash water, polyolefin resin container rinse water, steam condensate, non-contact cooling water, certain drinking water treatment rinse water, de minimis amounts of process water, hydrostatic test water, and fire water are discharged untreated from Outfall 002. Outfall 002 is equipped with screens and filters which are intended to collect solids from the wastewater before being discharged into the Victoria Barge Canal.[11] Stormwater also is discharged untreated at Outfalls 003, 004, 005, 006, 007, 008, 009, 010, 012, 014, 015, and 016.

III. The NPDES Permit and Receiving Waters

The discharge of pollutants from the Facility is controlled and limited by an NPDES Permit; specifically, NPDES Permit No. TX0002844, also known as Texas Pollutant Discharge Elimination System Permit No. WQ0000447000 ("the NPDES Permit"), issued to UCC on December 3, 2014, pursuant to Section 402 of the CWA.[12] The NPDES Permit was reissued to UCC on July 8, 2021.[13] Through a Transfer on February 7, 2024, the NPDES Permit was amended to include both UCC and Dow Hydrocarbons as permittees.[14] The NPDES Permit authorizes the discharge of wastewater that is similar in character, classification, and origin to wastewaters otherwise generated on-site, including Braskem's.[15] The current NPDES Permit expires on July 8, 2026.

Under the NPDES Permit, the Facility is permitted to discharge a total daily average of 17.8 million gallons per day (MGD) under dry weather conditions and a daily maximum dry-weather flow of 22.8 MGD.[16] The NPDES Permit covers discharges of 66 pollutants contained in industrial wastewater and sanitary and industrial stormwater from over a dozen permitted outfalls, which are depicted in Figure 2, below.[17] The NPDES Permit prohibits discharges of "floating solids or visible foam in other than trace amounts" from all covered outfalls.[18] Each discharge from an outfall is a discharge from a "point source," as that term is defined in 33 U.S.C. § 1362(14).

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[11] *Id.* at 70.
[12] 33 U.S.C. § 1342(b).
[13] TEX. COMM'N ON ENV'T QUALITY, *Permit to Discharge Wastes (TPDES Permit No. WQ0000447000)*, 13 (July 8, 2021) [hereinafter NPDES Permit] (attached as Exhibit F).
[14] *See generally* Transfer of Ownership, *supra* note 6. Prior to the transfer, the Facility was owned and operated by UCC.
[15] NPDES Permit, *supra* note 13, at 20.
[16] *Id.* at 2, 2d, 2g. The Facility's permitted flow is the sum of limits at Outfall 001 (5.80 MGD) and Outfall 002 (12.0 MGD daily average dry-weather flow; 17.0 MGD daily maximum dry-weather flow). The remaining outfalls have a flow volume that is "[i]ntermittent and flow-variable" and have a report-only flow requirement.
[17] *Id.* at 2-2g; *see also* Permit Application, *supra* note 7, at 3-15 (providing a description of the Facility's wastewater system and outfalls in "Attachment T-1" to the Permit Application).
[18] NPDES Permit, *supra* note 13, at 2c, 2f, 2g.

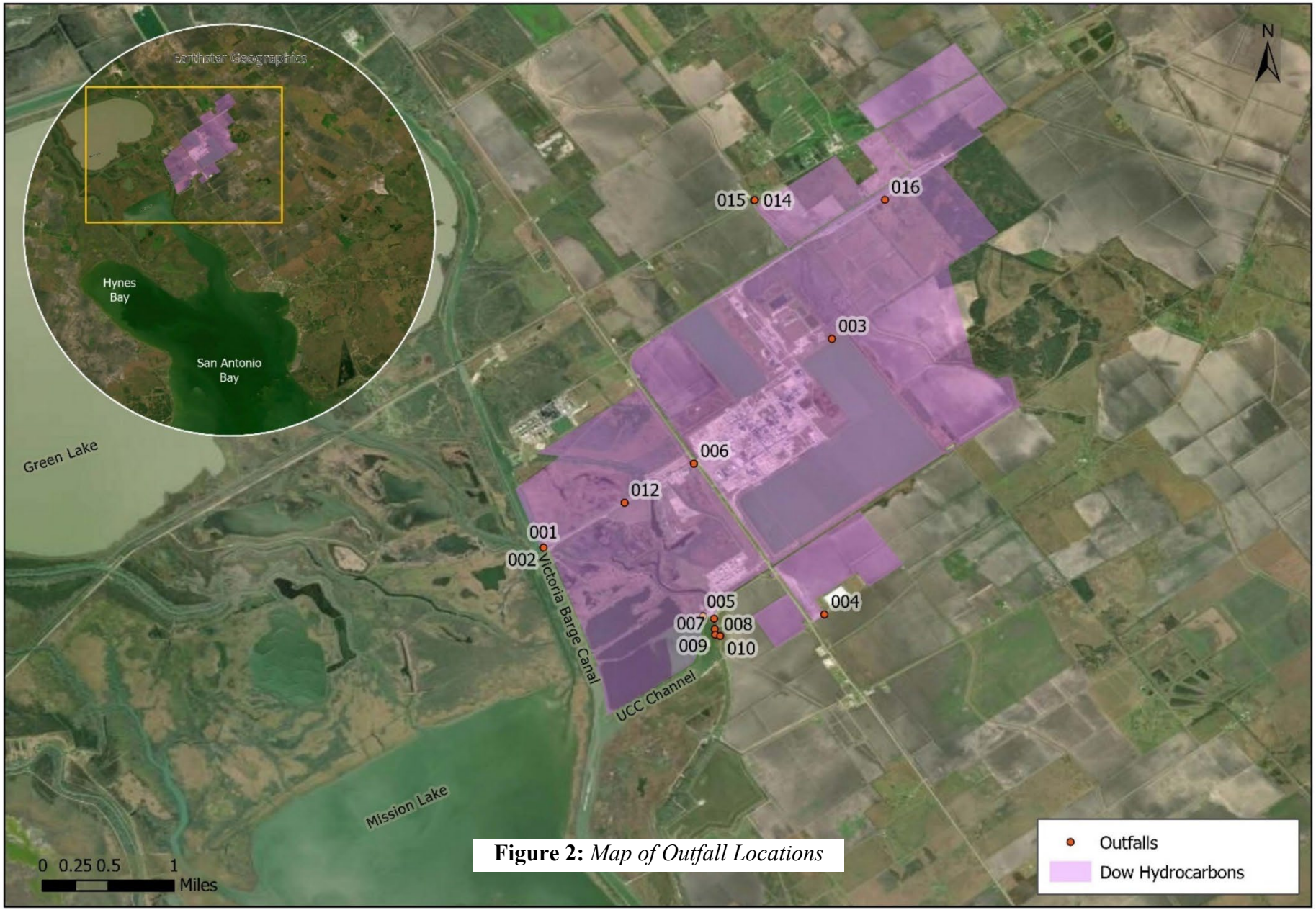

Figure 2: *Map of Outfall Locations*

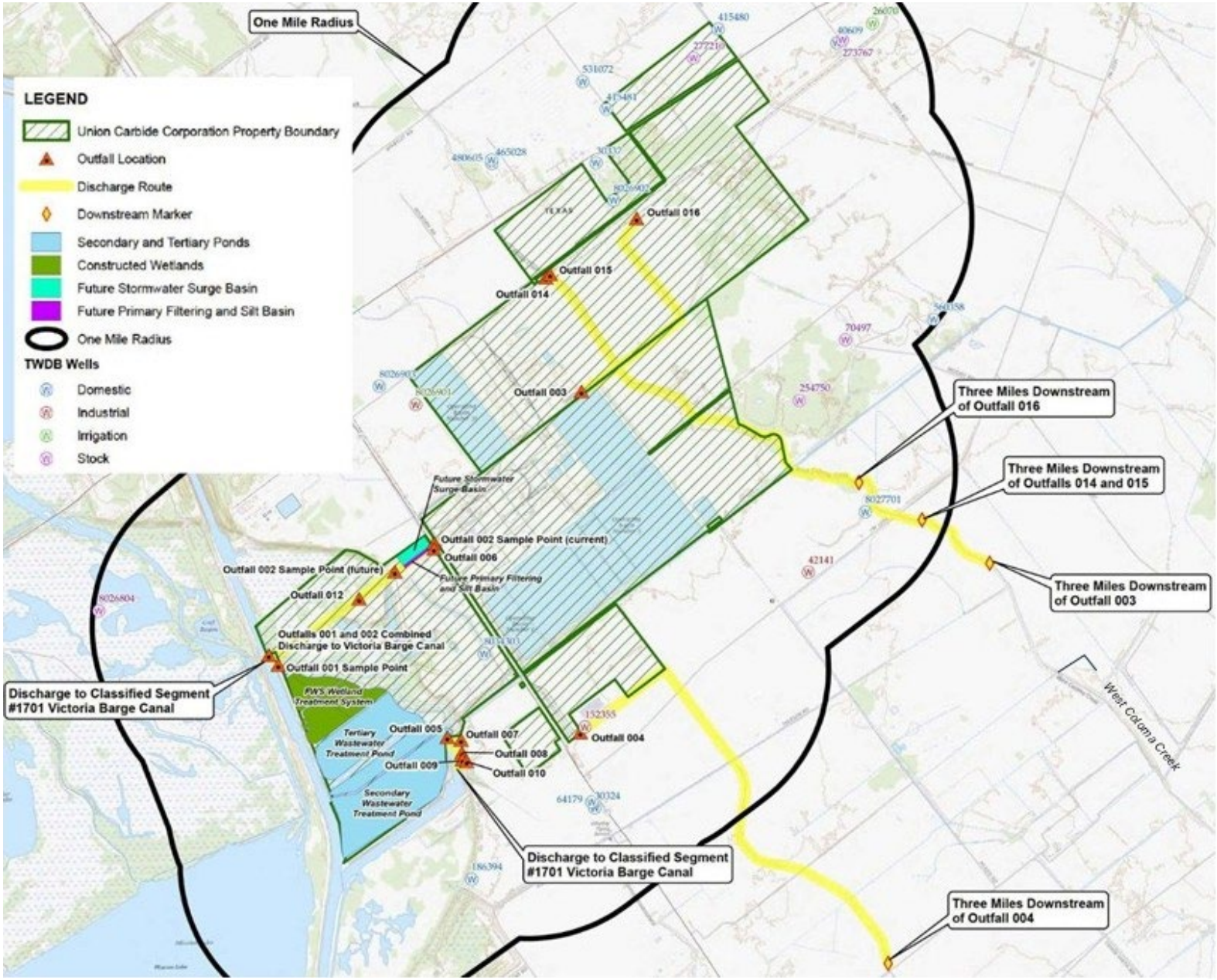

Figure 3: *Map of Discharge Routes from Outfalls*

The Facility discharges its wastewater and stormwater flow to two tidal streams as depicted in Figure 3, above: the Victoria Barge Canal and West Coloma Creek.

The largest proportion of wastewater and stormwater discharges from the Facility is to the Victoria Barge Canal. Specifically, Outfalls 001, 002, 005, 006, 007, 008, 009, 010, and 012 discharge directly to Victoria Barge Canal Tidal in Segment No. 1701 of the Lavaca-Guadalupe Coastal Basin. Outfalls 001 and 002 are commingled into a single "combined" outfall at the point of discharge into the Victoria Barge Canal. Downstream from the Facility outfalls, the Victoria Barge Canal flows into San Antonio Bay/Hynes Bay/Guadalupe Bay in Segment No. 2462 of the Bays and Estuaries. Outfall 004 discharges into a ditch that leads into San Antonio Bay/Hynes Bay/Guadalupe Bay.

Stormwater from the east side of the Facility discharges to West Coloma Creek and flows east to Matagorda Bay/Powderhorn Lake.[19] Outfalls 003, 014, 015 and 016 all flow either directly or indirectly via ditches into the West Coloma Creek, and then into Matagorda Bay/Powderhorn Lake.

Water and pollutants discharged from all of the Facility's outfalls reach waters of the United States. The Victoria Barge Canal and Matagorda Bay are waters of the United States for purposes of the Clean Water Act.[20] The designated use of Segment No. 1701 (the Victoria Barge Canal) is non-contact recreation and high aquatic life use.[21] The 2024 Texas Integrated Report of Surface Water Quality assigns support code "CS" to indicate concern related to exceedances of nutrient screening levels.[22]

Approximately 3.3 miles downstream from the northernmost outfalls, the Victoria Barge Canal flows into San Antonio Bay/Hynes Bay/Guadalupe Bay in Segment No. 2462 of the Bays and Estuaries. The designated use of Segment No. 2462 is primary contact recreation, exceptional aquatic life use, and oyster waters.[23] This segment is impaired for bacteria in oyster waters.[24] Notably the U.S. Fish and Wildlife Service has designated much of San Antonio Bay as

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[19] Fact Sheet, *supra* note 4, at 1; *see also Exploring Powderhorn Lake: A Hidden Gem in Calhoun County*, TEX. STATE HISTORICAL ASS'N., https://www.tshaonline.org/handbook/entries/powderhorn-lake [https://perma.cc/B29N-4PHY] (last visited Dec. 13, 2025) (illustrating that Powderhorn Lake is connected to Matagorda Bay as a western extension of the Bay itself, and the two bodies share a shoreline).

[20] *See generally Maps*, PORT OF VICTORIA, https://www.portofvictoria.com/ [https://perma.cc/3SLF-57DY] (last visited Dec. 13, 2025); *History of MBP,* MATAGORDA BAY PILOTS, https://mbpilots.com/ [https://perma.cc/CPE9-WQCU] (last visited Dec. 13, 2025).

[21] Fact Sheet, *supra* note 4, at 2.

[22] TEX. COMM'N ON ENV'T QUALITY, *2024 Texas Integrated Report - Assessment Results for Basin 17 - Lavaca-Guadalupe Coastal* (Nov. 13, 2024), https://www.tceq.texas.gov/downloads/water-quality/assessment/integrated-report-2024/2024-basin17/@@download/file/2024_Basin17.pdf [https://perma.cc/7ULT-MR2Z] [hereinafter Integrated Report].

[23] Fact Sheet, *supra* note 4, at 2.

[24] Integrated Report, *supra* note 22, at 3.

critical habitat for the endangered whooping crane.[25] The only self-sustaining wild population of whopping cranes nests overwinter at the Aransas National Wildlife Refuge along San Antonio Bay.[26]

The designated use of Segment No. 2451 (Matagorda Bay/Powderhorn Lake) is primary contact recreation, exceptional aquatic life use, and oyster waters.[27] Powderhorn Lake is the northern border of the Powderhorn Wildlife Management Area. The 2024 Integrated Report lists Matagorda Bay as newly impaired for bacteria in oyster waters.[28] TCEQ has not listed a project to develop a total maximum daily load (TMDL) in response to this impairment.[29]

IV. Persons Responsible for Violations

Union Carbide Corporation. UCC has been a New York corporation since 1917.[30] The Facility has been owned and operated by UCC since it began operations in 1954. UCC has been the permittee on the NPDES Permit since at least 2014. On or about July 8, 2021, TCEQ issued UCC a Major Amendment with Renewal, which replaced the 2014 NPDES Permit.[31]

Dow Hydrocarbons. Dow Hydrocarbons has been a Delaware corporation since 1991.[32] On or about February 7, 2024, TCEQ executed a document entitled "Transfer of Texas Commission on Environmental Quality" which indicated that ownership of the Facility and responsibility for compliance with the NPDES Permit had changed from UCC to "Dow Hydrocarbons and Resources LLC and Union Carbide Corporation."[33] The Transfer document further provides that "[t]he transferee is financially responsible for the proper maintenance and operation of the facility so as to comply with the terms and conditions of the permit."[34] Thus, since the date of the transfer, February 7, 2024, UCC and Dow Hydrocarbons have been co-permittees on the NPDES Permit.[35]

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[25] "*Whooping Crane (Grus americana)*," US FISH & WILDLIFE SERV., https://ecos.fws.gov/ecp/species/758#crithab [https://perma.cc/6N77-RW77] (last visited Dec. 13, 2025).
[26] *Id*.
[27] Fact Sheet, *supra* note 4, at 2.
[28] Integrated Report, *supra* note 22, at 2.
[29] TEX. COMM'N ON ENV'T QUALITY, *TMDLs or I-Plans in Development*, https://www.tceq.texas.gov/waterquality/tmdl/nav/tmdl-plan-indevelopment [https://perma.cc/UZD2-R7PN] (last visited Dec. 13, 2025); TEX. COMM'N ON ENV'T QUALITY, *TMDL Summary Table* (Aug. 2025), https://www.tceq.texas.gov/downloads/water-quality/tmdl/tmdl_summary_table.xlsx [https://perma.cc/EW2X-7K7L].
[30] *Entity Search: Union Carbide Corporation,* STATE OF NEW YORK, https://apps.dos.ny.gov/publicInquiry/EntityDisplay (last visited Dec. 15, 2025).
[31] *See generally* NPDES Permit, *supra* note 13.
[32] *Entity Search: Dow Hydrocarbons and Resources LLC,* STATE OF DELAWARE, https://icis.corp.delaware.gov/Ecorp/EntitySearch/NameSearch.aspx [https://perma.cc/MM4Y-FJB9] (last visited Dec. 10, 2025).
[33] *See* Transfer of Ownership, *supra* note 6.
[34] *Id.*
[35] Dow Hydrocarbons also holds a Stormwater Construction General Permit (No. TXR.1517UL), which became effective on April 30, 2025. This permit authorizes discharges associated with construction activities to the stormwater system but does not impact the restrictions and limitations on discharges in the operating NPDES permit.

Braskem. Braskem operates a production plant at the Facility, where it manufactures polypropylene in the form of nurdles.[36] At all times relevant to this NOI, Braskem has utilized the Facility water and stormwater systems to dispose of its wastewater and stormwater. This process results in the manufacturing of – and spilling or other discharge of – nurdles into the wastewater and stormwater systems. Braskem's use of the water and stormwater systems at the Facility is intertwined with and cannot be separated from the other Applicable Parties' use of these systems and therefore all discharges of nurdles, powder, flakes, and foam from the Facility into the Victoria Barge Canal can be jointly attributed to Braskem and UCC/Dow Hydrocarbons.[37]

Braskem produces and discharges nurdles, powder, flakes, and/or foam from the Facility into surrounding waterways without a permit in violation of the CWA. 33 U.S.C. §§ 1311(a), 1342. A citizen may bring an action under the CWA against any person who is allegedly discharging a pollutant without a NPDES permit.[38] To the extent that the NPDES Permit controls Braskem's discharges, the same limitations applicable to UCC and/or Dow Hydrocarbons apply to Braskem.

UCC, Dow Hydrocarbons, and Braskem are all "person(s)" that "discharge" "pollutants" from a "point source" into "waters of the United States" as those terms are defined in 33 U.S.C. § 1362.

V. Violations

Each of the failures described below is a violation of the NPDES Permit and/or the CWA. The violations alleged herein are all believed to be ongoing, and SABEW gives notice of its intent to enforce unpermitted discharges and violations of the NPDES Permit requirements, as described in Claims 1 through 4 below, which may have occurred or will occur as of the date of this NOI and continuing on into the future. Each of the violations is subject to a civil penalty pursuant to Section 309(d) of the CWA of up to $68,445 per day per violation. 33 U.S.C. § 1319(d); 40 C.F.R. § 19.4. In addition to penalties, SABEW is entitled to appropriate injunctive relief, recovery of fees and costs, and all other appropriate and due relief, should suit be filed in the U.S. District Court for the Southern District of Texas. *See* 33 U.S.C. § 1365(a).

A. Claim 1: Nurdles Violations

1. The Facility's Nurdles and Other Unpermitted Discharges

All facts and information set forth above are incorporated herein for Claim 1. On information and belief, the Facility has been discharging substantial quantities of nurdles as well

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[36] Seadrift Operations, *supra* note 5; Permit Application, *supra* note 7, at 1 (providing information about the Facility's operations in the "Technical Report 1.0 Industrial" attached to the Permit Application).
[37] *See, e.g., United States v. Luca*s, 516 F.3d 316, 323 (5th Cir. 2008) (holding multiple defendants with roles in causing pollution liable under CWA); *United States v. Brink*, 795 F. Supp. 2d 565, 569 (S.D. Tex. 2011) (holding that neighboring landowners who jointly polluted were liable under the CWA).
[38] *Sierra Club, Lone Star Chapter v. Cedar Point Oil Co. Inc.,* 73 F.3d 546, 559 (5th Cir. 1996).

as powder, flakes, and thick white foam ("nurdles and other pollutants") since at least 2020, and almost certainly before then. On information and belief, SABEW asserts and notifies the Applicable Parties that discharge of nurdles and other pollutants beyond trace amounts occurs daily, or at a minimum, every day that the production plants that produce nurdles are operational.

SABEW observed nurdles in December of 2020, and the group began visiting and collecting nurdles from the environment surrounding the Facility beginning on or around August 23, 2024, and continuing periodically through the date of this NOI. Nurdles and other pollutants have been observed and documented on every visit by SABEW volunteers to the area. SABEW has observed nurdles and other pollutants floating in the tidally-influenced water both hundreds of yards upstream and up to 7 miles downstream of the outfalls. Nurdles have been observed lining the banks of the Victoria Barge Canal and littering the shoreline. Layers of nurdles in soils and embankments have been observed and photographed throughout the SABEW visits, indicative of a long-standing, ongoing issue.

As depicted in Figure 4 and described below, SABEW has collected and/or observed significant numbers of nurdles, and observed other pollutants (foam, powder and flakes) at Combined Outfalls 001 and 002 (Combined Outfalls), and Outfall 005, as well in the waters downstream of the Facility in the tidally-influenced Victoria Barge Canal, at varying distances from the Outfalls. Nurdles have traveled from the Barge Canal into San Antonio Bay/Hynes Bay/Guadalupe Bay, signaling their larger impact on the entire area ecosystem.

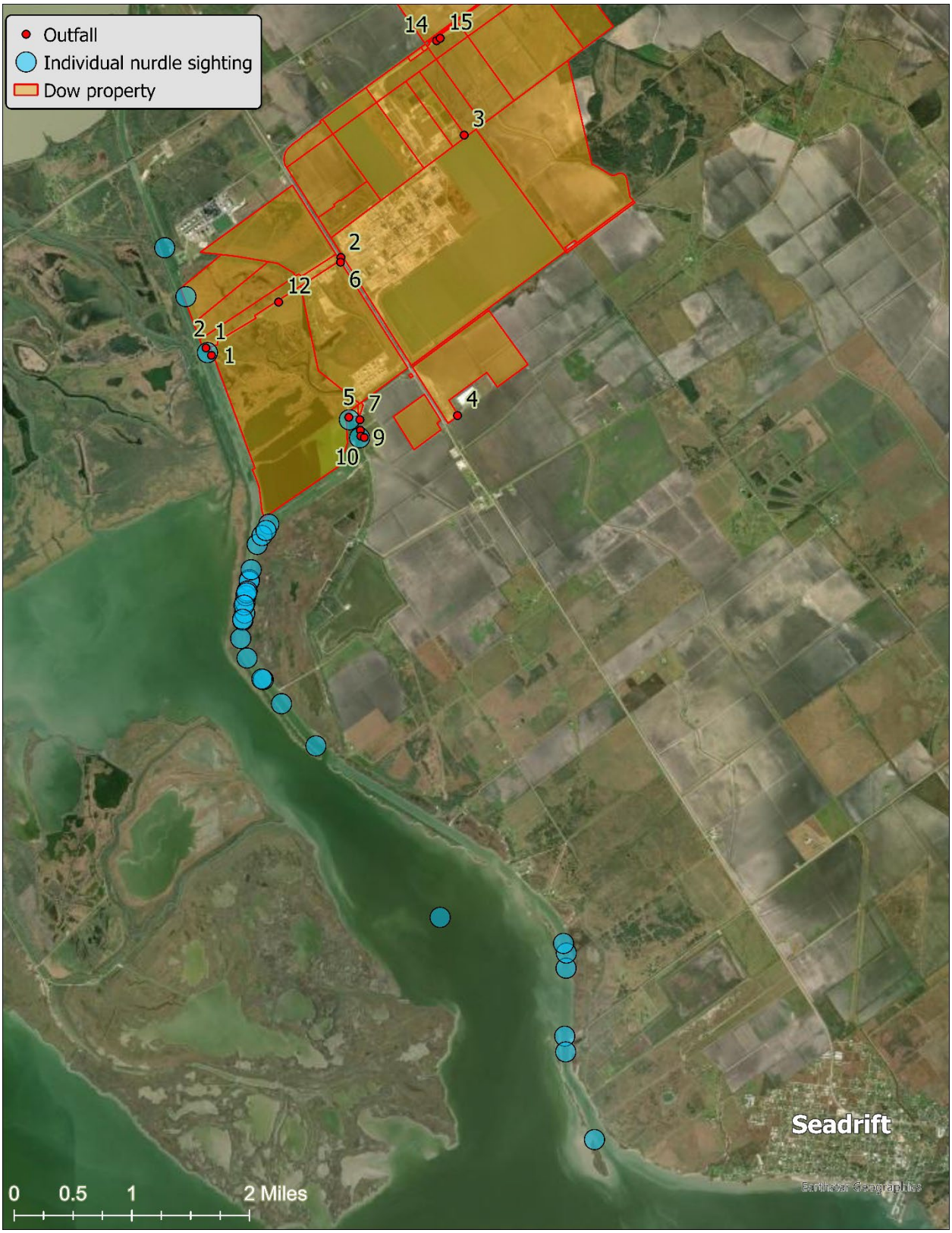

Figure 4: *Location of Nurdle Sightings in Relation to Outfalls*

Combined Outfalls 001 and 002

The Facility's process wastewater is discharged through the Combined Outfalls directly into the Victoria Barge Canal Tidal in Segment 1701 of the Lavaca-Guadalupe Coastal Basin. The outfalls are often submerged, depending on tides and wet weather events.

Nurdles and other pollutants have been observed by SABEW either flowing out of the Combined Outfalls or in the water and embankment in the immediate vicinity around the Combined Outfalls on at least the following dates: August 31, 2024, April 13, 2025, April 22, 2025, June 10, 2025, August 25, 2025, August 26, 2025, August 27, 20205, August 28, 2025, September 2, 2025, September 3, 2025, September 4, 2025, September 8, 2025, September 9, 2025, September 10, 2025, September 11, 2025, September 15, 2025, September 16, 2025, September 17, 2025, September 18, 2025, September 22, 2025, September 23, 2025, September 25, 2025, September 30, 2025, October 1, 2025, October 2, 2025, October 5, 2025, October 6, 2025, October 7, 2025, October 8, 2025, October 11, 2025, October 12, 2025, November 4, 2025, November 5, 2025, November 6, 2025, November 7, 2025, November 10, 2025, November 11, 2025, November 13, 2025, November 15, 2025, November 18, 2025, November 19, 2025, and November 20, 2025. Each of these observations involved a discharge of greater than a trace amount of floating solids or foam. *See, e.g.,* Figures 5 and 6 below. SABEW members and volunteers also have observed accumulations of nurdles and other pollutants along embankment areas adjacent to and directly across from the Combined Outfalls.

Figure 5: *Nurdles Floating Near Outfalls 001 & 002 during high tide (Oct. 6, 2025)*

Figure 6: *Nurdles Floating Near Outfalls 001 & 002 during high tide (Oct. 12, 2025)*

Outfall 005

Outfall 005 is an intermittent stormwater discharge outfall that discharges directly into the Victoria Barge Canal. SABEW has observed nurdles, powder, flakes, and foam either flowing out of Outfall 005 or in the water and embankment in the immediate vicinity around Outfall 005 on at least the following dates: April 22, 2025, June 10, 2025, August 25, 2025, August 26, 2025, August 27, 2025, August 28, 2025, September 2, 2025, September 3, 2025, September 4, 2025, September 8, 2025, September 9, 2025, September 10, 2025, September 11, 2025, September 15, 2025, September 16, 2025, September 17, 2025, September 18, 2025, September 22, 2025, September 23, 2025, September 25, 2025, October 1, 2025, October 2, 2025, October 5, 2025, October 6, 2025, October 7, 2025, October 11, 2025, October 12, 2025, November 4, 2025, November 5, 2025, November 6, 2025, November 7, 2025, November 10, 2025, November 11, 2025, November 13, 2025, November 15, 2025, November 18, 2025, November 19, 2025, and November 20, 2025. Each of these observations involved a discharge of greater than a trace amount of floating solids or foam. Large mats of foam and collections of nurdles, powder, and flakes have been observed along the embankment of Victoria Canal Barge near Outfall 005, as pictured in, *e.g.*, Figures 7, 8, and 9 below, which is typical of such mats of foam and collections of nurdles.

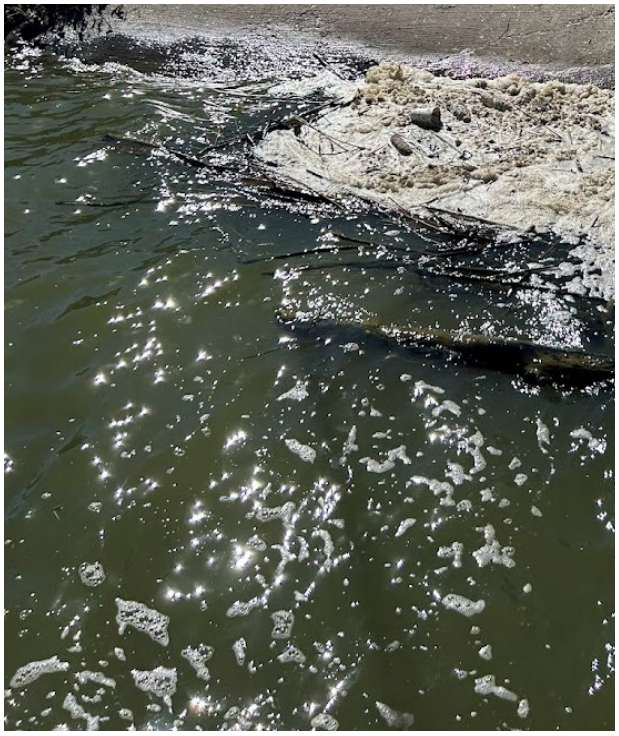

Figure 7: *Foam and Nurdles Near Outfall 005 (Sept. 23, 2025)*

Figure 8: *Foam and Nurdles Near Outfall 005 (Sept. 3, 2025)*

Figure 9: *Approximately 290,000 nurdles collected Sept. 26, 2025, at 5:13 pm approximately 1.9 miles south of Outfall 005 from a large floating nurdle mass*

Additional Outfalls

Additional outfalls also are believed to be sources of nurdles and other pollutants in the waterway but could not be accessed or observed from publicly accessible property. The absence of recorded and reported pollution sightings from any outfall in this Notice should be attributed to lack of access rather than compliance with permit limitations. Based on ongoing observations throughout the year, SABEW asserts that nurdles and other pollutants are discharged through the Facility's outfalls in violation of the NPDES Permit and the CWA regularly, possibly during every day of operation and likely on every day during which water is discharged through any outfall.

2. The Environmental Impacts of Nurdle Pollution

The introduction of plastic pellets into the Victoria Barge Canal and San Antonio Bay is more than a mere eyesore: these pollutants pose significant danger to the aquatic environment. In fact, the Texas Parks and Wildlife Department ("TPWD") shared that concern in a May 10, 2024, letter to TCEQ regarding a proposed amendment to the NPDES Permit.

> TPWD is also concerned about the potential for increased polyethylene (plastic) pellets (also known as "nurdles") into the San Antonio Bay system and the Gulf of Mexico from the discharges at Victoria Barge Canal. . . . Since the 1970's, nurdles have been discovered washed up on beaches through various industrial waste mechanisms. Studies have found numerous turtle, fish, and bird species have ingested nurdles, which can lead to adverse effects on behavior, reproduction, and metabolism (Tunnel *et al.*, 2020).[39]

Moreover, as reflected in the scientific literature, plastic pellet pollution poses significant threats to aquatic life and communities. Plastic pellets accumulate in the marine environment, and the dangers from this accumulation have been well-known and documented for decades. A peer-reviewed scientific paper published nearly 40 years ago explained, "plastics present a problem in the environment because they float, are non-biodegradable, and only slowly degrade upon exposure to ultraviolet radiation."[40]

A primary threat to wildlife from plastic pellet pollution is through ingestion of nurdles or their microplastic remnants. Studies have extensively documented plastics inside mammals, birds, and fish. One hundred and eighty seabird species and six of seven marine turtle species have been found with ingested plastics.[41] Mussels were found to retain plastics for 48 days.[42]

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[39] Letter from Marty Kelly, Tex. Parks & Wildlife, to Laurie Gharis, Tex. Comm'n on Env't Quality (May 10, 2024) (on file with Tex. Comm'n on Env't Quality) (attached as Exhibit G).
[40] Marie Y. Azarello & Edward S. Van Vleet, *Marine Birds and Plastic Pollution*, 37 MARINE ECOLOGY PROGRESS SERIES 295, 295–96 (May 6, 1987) (attached as Exhibit H).
[41] Susanne Kühn & Jan Andries van Franeker, *Quantitative Overview of Marine Debris Ingested by Marine Megafauna*, 151 MAR. POLLUT. BULL. 1, 3 (Jan. 29, 2020) (attached as Exhibit I).
[42] Mark A. Browne et al., *Ingested Microscopic Plastic Translocates to the Circulatory System of the Mussel, Mytilus Edulis (L.)*, 42 ENVIRON. SCI. TECHNOL. 5026, 5028 (May 30, 2008) (attached as Exhibit J).

Plastic pellets have been recovered from the digestive tracts of flounders, lobsters, white perch, and silversides.[43] Plastic ingestion was detected in 323 (65%) of 494 examined wild marine fish species, and in 262 (67%) of 391 examined commercial fish species.[44] Ingested plastic pellets have also been found in numerous species of marine mammals, crustaceans, and mollusks,[45] including shrimp.[46]

Nurdle pollution can also have serious impacts on human health. For example, eating fish contaminated with microplastics poses similar chemical and physical risks to people as it does to the fish themselves, particularly due to biomagnification up the food chain.[47] "Plastic never goes away—it just breaks down into finer and finer particles," with exposure in humans "suspected to harm reproductive, digestive and respiratory health" and potentially also causing "colon and lung cancer."[48] In addition to the myriad of health risks, plastic pellet pollution also creates observable litter in the environment, harming the aesthetic and recreational enjoyment of recreators.

SABEW's sampling reveals that untold quantities of plastic nurdles and other pollutants are being discharged to receiving waters and lands surrounding the Facility, with nurdles collected during time-limited sampling events reflecting only a tiny fraction of the actual pollution. The danger to the environment and human health posed by this pollution will persist until these nurdles and other pollutant are remediated and the Facility implements sufficient control measures to ensure that no additional discharges of nurdles occur.

3. Violations

The Clean Water Act prohibits the addition of a pollutant from a point source to a navigable water except in compliance with a NPDES permit. 33 U.S.C. §§ 1311(a), 1342.

Each of the discharges of nurdles and foam described above constitutes a violation of the NPDES Permit. The NPDES Permit provides that, at Outfalls 001, 002, and 005 (as well as at all

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[43] Edward J. Carpenter et al., *Polystyrene Spherules in Coastal Waters*, 178 SCIENCE 749, 750 (Nov. 17, 1972) (attached as Exhibit K).
[44] Ana Markic et al., *Plastic Ingestion by Marine Fish in the Wild*, 50 CRIT. REV. ENVIRON. SCI. & TECHNOL. 657, 686 (July 8, 2019) (attached as Exhibit L).
[45] Kühn & van Franeker, *supra* note 41, at 5, 8-9; Leonardo Alberghini et al., *Microplastics in Fish and Fishery Products and Risks for Human Health: A Review*, 20 INT. J. ENVIRON. RES. PUBLIC. HEALTH 1, 6 (Dec. 31, 2022) (attached as Exhibit M).
[46] Lisa I. Devriese et al., *Microplastic Contamination in Brown Shrimp (*Crangon Crangon*, Linnaeus 1758) from Coastal Waters of the Southern North Sea and Channel Area*, 98 MAR. POLLUT. BULL. 179, 182-86 (July 2, 2015) (attached as Exhibit N). Sajjad Abbasi et al., *Microplastics in Different Tissues of Fish and Prawn from the Musa Estuary, Persian Gulf*, 205 CHEMOSPHERE 80, 84 (Apr. 13, 2018) (attached as Exhibit O).
[47] *See, e.g.*, Maddison Carbery et al., *Trophic Transfer of Microplastics and Mixed Contaminants in the Marine Food Web and Implications for Human Health*. 115 ENV'T INT'L 400, 405-06 (Apr. 10, 2018) (attached as Exhibit P); Ebuka Chizitere Emenike et al., *From oceans to dinner plates: The impact of microplastics on human health*, 9 HELIYON 1, 6-7 (Sept. 26, 2023) (attached as Exhibit Q).
[48] Katia Savchuk, *Microplastics and Our Health: What the Science Says*, STANFORD MEDICINE (Jan. 29, 2025), https://med.stanford.edu/news/insights/2025/01/microplastics-in-body-polluted-tiny-plastic-fragments.html [https://perma.cc/ZPL2-VEEN].

other Outfalls covered by the NPDES Permit), "[t]here shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil."[49] As described above, nurdles and foam have been discharged from the Facility, and upon information and belief, continue to be discharged, from Facility Outfalls in significantly greater than "trace amounts," in violation of the NPDES Permit. Each violation of the NDPES Permit is concomitantly a violation of Section 301 of the CWA. The frequency, duration, and consistency of these effluent violations indicates that they are substantially likely to recur and constitute continuing violations for CWA purposes.

Because the NPDES Permit does not authorize floating solids (such as nurdles, powder, or flakes) or visible foam in quantities larger than "trace amounts," the discharge of these pollutants also constitutes a violation of the Clean Water Act each and every day they occur. The CWA prohibits the addition of a pollutant from a point source to a navigable water except in compliance with a NPDES permit. 33 U.S.C. §§ 1311(a), 1342. The uncontrolled nurdle discharges also violate the Texas environmental code. *See* 30 TAC § 307.4(b)(2 – 4).

UCC and Braskem both discharge nurdles and other pollutants from the Outfalls and are jointly liable for the unpermitted discharges and/or NPDES Permit violations that occurred before February 7, 2024. Dow Hydrocarbons is jointly liable with UCC and Braskem for the unpermitted discharges and/or NPDES Permit violations that occur from February 7, 2024, onward.[50]

Every time and every day any Applicable Party discharges nurdles and other pollutants in violation of the NPDES Permit and/or the CWA to the Victoria Barge Canal constitutes a separate violation, subjecting each violator to a civil penalty pursuant to Section 309(d) of the CWA of up to $68,445 per day per violation. 33 U.S.C. § 1319(d); 40 C.F.R. § 19.4.

The unlawful discharge of nurdles and other pollutants has harmed and will continue to harm the waters used by SABEW members and lead to other potential increased risk of harm to members' health. SABEW is prepared to file a citizen suit with regard to these discharges under 33 U.S.C. § 1365(a)(1) based on these continuing violations by the Facility.

B. Claim 2: Numeric Effluent Violations of the NPDES Permit

All facts and information set forth above are incorporated herein for Claim 2. The Facility has violated its NPDES Permit limits for Total Organic Carbon, Total Residual Chlorine, temperature, and pH for years, including on the occasions identified in Tables R1 and R2 (attached as Exhibit R). Between February 2021 and March 31, 2025, there have been at least 13 effluent exceedances. These violations are based on Discharge Monitoring Reports (DMRs) (attached to Exhibit R) and Noncompliance Notifications submitted to TCEQ by either UCC or Dow Hydrocarbons.

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[49] NPDES Permit, *supra* note 13, at 2c, 2f, 2g.
[50] *See Lucas*, 516 F.3d at 323; *Brink*, 795 F. Supp. 2d at 569.

Discharges in excess of permitted limits and concentrations are harmful to water quality, aquatic species, and human health. Total Organic Carbon limits protect aquatic ecosystems by controlling the organic load to receiving waters. Microorganisms consume dissolved oxygen as they degrade organic matter, so excess carbon loading can lead to oxygen depletion. Excessive chlorine discharges can be harmful because chlorine is acutely toxic to fish and other aquatic organisms, even at very low concentrations.[51]

Exceeding limits for temperature and pH also is harmful. Compliance with temperature limits is important to protect aquatic life; each biological species has a specific temperature range within which it can survive and a narrower temperature range within which it does not suffer thermal stress.[52] Compliance with pH limits protects aquatic organisms, most of which are adapted to a narrow, near-neutral pH range.[53]

The frequency, duration, and consistency of these effluent violations for a period of at least five years indicates that they are substantially likely to recur and thus constitute continuing violations for CWA purposes that have and will continue to harm the waters used by SABEW members. SABEW is prepared to file a citizen suit with regard to these ongoing effluent violations under 33 U.S.C. § 1365(a)(1) based on these continuing violations by UCC and Dow Hydrocarbons at the Facility.

C. Claim 3: Reporting and Monitoring Violations

All facts and information set forth above are incorporated herein for Claim 3. UCC and Dow Hydrocarbons also have violated reporting and monitoring provisions of the NPDES Permit, which are indicative of repeated disregard for the NPDES Permit requirements. The NPDES Permit contains a number of reporting and monitoring requirements, including the requirement to report composite daily average and daily maximum values "1/year" (once per year) for substances discharged through Outfalls 001 and 002.[54] The NPDES Permit also contains additional provisions under "Monitoring and Reporting Requirements," including:

> 1. Self-Reporting
> Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each

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[51] ENV'T PROT. AGENCY, *Ambient Water Quality Criteria for Chlorine - 1984*, 3-11, 13 (Jan. 1985), https://www.epa.gov/sites/default/files/2019-03/documents/ambient-wqc-chlorine-1984.pdf [https://perma.cc/8LQ8-P9BM].
[52] Claude E. Boyd, WATER QUALITY: AN INTRODUCTION, at 21-22 (3rd ed. 2020) (attached as Exhibit S).
[53] *Id*. at 177.
[54] NPDES Permit, *supra* note 13, at 2-2b, 2d-2f.

discharge that is described by this permit whether or not a discharge is made for that month.[55]

. . .

7. Noncompliance Notification

a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance...The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.[56]

The noncompliance reporting requirement in NPDES Permit paragraph No. 7.a, referenced above, includes the obligation to submit a report to TCEQ for each day that discharges in greater than trace amounts of floating solids (such as nurdles and other pollutants) or visible foam occur, since such discharges endanger human health or safety, or the environment and constitute noncompliance.[57] Each day of violation of each reporting and monitoring requirement constitutes a separate and distinct violation under the NPDES Permit and the CWA. *See* Table T4 (attached as Exhibit T); DMRs (attached to Exhibit R) (for the list of violations related to noncompliance reporting).

UCC and/or Dow Hydrocarbons, depending on date, failed to report, as per NPDES Permit paragraph No. 1, referenced above, composite daily average and daily maximum values "1/year" (once per year) for over 50 regulated substances discharged through Outfalls 001 and 002 for which the reporting deadline was August 31, 2021, as indicated in Table T1 (attached as Exhibit T).

Second, these Applicable Parties also failed to submit self-reported effluent monitoring data for four monitoring parameters at two outfalls by the 20th of the following month for discharges during the August 2022 monitoring period. *See* Table T2 (attached as Exhibit T); DMRs (attached to Exhibit R) and failed to submit self-reported effluent monitoring data for more than 30 monitoring parameters at 12 outfalls by the 20th of the following month for discharges during the January 2025 monitoring period. *See* Table T3 (attached as Exhibit T); DMRs (attached to Exhibit R).

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[55] *Id.* at 4.
[56] *Id.* at 6.
[57] *Id.*; 30 Tex. Admin. Code § 305.125(9); 40 C.F.R. § 122.41(a), (l).

Timely and complete noncompliance reporting ensures that information related to violations that endanger human health, safety, or the environment can be timely addressed by regulators and is made publicly available upon request. SABEW members are harmed by lack of such information.

D. Claim 4: Operation & Maintenance Violations

All facts and information set forth above are incorporated herein for Claim 4. Throughout the Facility's lifetime, its operative NPDES Permits have generally required that the permittee "at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained."[58] The dozens of Water Quality Noncompliance Notification Forms (Forms) and letters submitted by agents of the Facility's owners and operators to TCEQ over the last decade, however, demonstrate a pattern of chronic noncompliance with its operation and maintenance (O&M)-related requirements, as indicated in Table V1 (attached as Exhibit V). Based on the above violations in this section, and additional information submitted to TCEQ, UCC has routinely violated NPDES Permit conditions that control operation and maintenance (O&M) activities at the Facility since at least 2016.[59] And, since February 7, 2024, both UCC and Dow Hydrocarbons have violated the O&M requirements of the NPDES Permit. The Facility's self-reported incidents documented in these Forms and letters provide proof of systemic violations of the O&M requirements within the Facility's NPDES Permits.

The chronic O&M violations reported to TCEQ have led to discharges of floating nurdles and other pollutants, sewer water overflows, and failed bacterial tests. These violations directly impact SABEW's members' safe use of the waters around and downstream of the Facility and constitute violations of the NPDES Permit and the CWA.

VI. Location of the Alleged Violations

All of the violations alleged herein occurred, or are continuing to occur, at the Seadrift Operations Facility, located at 7762 Highway 185, Seadrift, TX, 77983.

VII. Persons Giving Notice and Legal Counsel

SABEW provides the name, address, and telephone number of the persons giving notice:

San Antonio Bay Estuarine Waterkeeper
600 Ramona Road

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[58] *See* TEX. COMM'N ON ENV'T QUALITY, *Permit to Discharge Wastes (TPDES Permit No. WQ0000447000)*, 9 (Dec. 13, 2014) (attached as Exhibit U); *see also* NPDES Permit, *supra* note 13, at 10.

[59] This NOI includes a small number of violations (and supporting attachments) that are outside the five-year statute of limitations period, but which are included here for purposes of establishing the chronic, serious and longstanding nature of the violations.

Seadrift, Texas 77983
Phone: (361) 218-2353
Email: wilsonalamobay@aol.com.

Members of SABEW include sport and commercial fishermen. They are concerned about the effects of plastic, pollutants, and dangerous discharges on fish, birds, and marine wildlife. SABEW is well aware of the fragile balance of life in San Antonio Bay and that harm to aquatic species can harm not just those species and the ecosystem but, also, the livelihoods of commercial fishermen, shrimpers, oystermen and the passions of those people and of recreational fishers. Members of SABEW walk the beaches of San Antonio Bay and swim and boat in its waters. They both fish and consume fish and shellfish from these waters. They are offended by the littering of the Bay and its shores with plastics. They are concerned about the aesthetic damage and environmental health impacts to the beaches, wetlands, shores and bays and the wildlife that depend on those resources. They are aware of water quality concerns that limit or impact their use of the Bay waters.

The Environmental Integrity Project and Earthjustice are legal counsel for San Antonio Bay Estuarine Waterkeeper in this matter and can be contacted at the mailing and email addresses listed below.

VIII. Conclusion

As set forth in this letter, UCC, Dow Hydrocarbons, and Braskem have violated and continue to violate the CWA: UCC and Braskem have illegally discharged nurdles and other pollutants since at least 2020; Dow Hydrocarbons has illegally discharged nurdles and other pollutants since at least February 7, 2024. In addition, UCC has violated the NPDES Permit's limits, reporting and O&M requirements since at least 2020, and both UCC and Dow Hydrocarbons have violated the NPDES Permit's limits, reporting and O&M requirements since at least February 7, 2024. Given the longstanding nature of illegal discharges from the Facility, it is reasonable to believe that these violations will continue until UCC, Dow Hydrocarbons, and Braskem make significant changes to their operations. This notice letter incorporates all similar violations that occur after the date of this notice letter.

Though prepared to initiate a civil action, SABEW would welcome the opportunity to work collaboratively with you to address the violations described in this letter through negotiation of a federally-enforceable judicial consent decree. If you wish to discuss such remedies in lieu of litigation, please contact the undersigned counsel within 30 days of this Notice. Please also feel encouraged to reach out to SABEW's counsel if you believe that any of the facts described above are in error or if you have any information indicating that any of the named dischargers are not violating or have not violated the CWA.

We thank you for your prompt attention to this matter.

Respectfully submitted,

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