

Response to Public Comment on the Proposed Removal of Lynchburg Ferry from the Air Pollutant Watch List

Texas Commission on Environmental Quality Air Permits Division

May 27, 2014

The Texas Commission on Environmental Quality (TCEQ) accepted public comment on its [proposal to remove the Lynchburg Ferry area from its Air Pollutant Watch List](#) (APWL). Lynchburg Ferry was on the APWL for the air toxic styrene. The TCEQ accepted written comments from July 8, 2013, through August 23, 2013. Additionally, the TCEQ conducted a public meeting in Houston to receive oral and written comments on its proposal on August 19, 2013. The TCEQ received comments from Ms. Michelle Munsch, the Texas Chemical Council (TCC), and Air Alliance Houston (AAH).

Comment 1: Ms. Munsch commented about a change in location of the Lynchburg Ferry monitor. She stated that the monitor was moved approximately a year ago from the north side of the ship channel to the south side of the ship channel and asked if the monitor's location and position relative to the prevailing southerly or southeasterly winds might not significantly impact the air pollution findings over the past year. AAH similarly commented that citizens were concerned there might be some kind of correlation between a change in location for the monitor and a concurrent reduction in levels. AAH also indicated that citizens reached out to them regarding the proposed delisting. AAH noted that the area did see reductions in styrene and commented that a lot of that is due to the voluntary improvements from the shipyards and all the other sources. AAH also commented that that people like to see individual monitors stay in one place throughout the process and commented that "it is always good when things are in doubt to gather more data and not necessarily to proceed with

the delisting if there is an opportunity or a need to gather more data or to do further evaluation.”

TCC fully supports the delisting of this pollutant from the Lynchburg Ferry area. It commented that it agrees with the TCEQ that all appropriate measures are in place to ensure that the level of styrene in the Lynchburg Ferry APWL will remain below the level deemed to be protective of public health and the environment. TCC also commented that additional assurances for the continued level of ambient air concentrations of styrene are in place in the Lynchburg Ferry APWL, such as companies in the area that have put into place controls and operational changes that have and will continue to mitigate styrene emissions. TCC commented that, in certain cases, these changes have been incorporated into site-specific TCEQ air permits. Additionally, TCC commented that several area industries formed the Lynchburg Area Styrene Reduction (LASR) Committee in 2012, which reported that many of the APWL area companies have implemented operational changes to mitigate emissions, indicating a wide commitment to the reduction in styrene emissions.

Response 1: The TCEQ acknowledges that the location of the Lynchburg Ferry monitor changed. The federal Department of Homeland Security gave notice that the site must be vacated. In lieu of discontinuing monitoring of the area completely, the TCEQ and the monitor’s operator decided to move the monitor to available land south of the ship channel and continue to take ambient air toxic measurements in the area. The new location is very close to its original location on Lynchburg Road—only just over a quarter mile.

The TCEQ acknowledges that changing the location of an air monitor from one location to another nearby location may cause the monitor to measure slightly different amounts of air toxics in the ambient air. Although the monitor was moved from the north side of the ship channel to the south side, and the prevailing winds in the area are from the south and southeast, moving the monitor does not impair the TCEQ’s ability to measure ambient styrene concentrations in the area. The monitor is located at 4407 Independence Parkway South, which is upwind of the shipyards in the APWL area. The monitor’s previous location, at 1001 B Lynchburg Road, was also upwind of the neighboring shipyards. Wind direction is dynamic and capable of shifting over time. Stationary monitors capture readings of the ambient air concentrations and also capture the direction the wind is blowing. The following figure is a wind rose diagram, which shows the many directions the wind took near the APWL area for the year of 2010.

Figure 1: Lynchburg Ferry Wind Rose, 2010

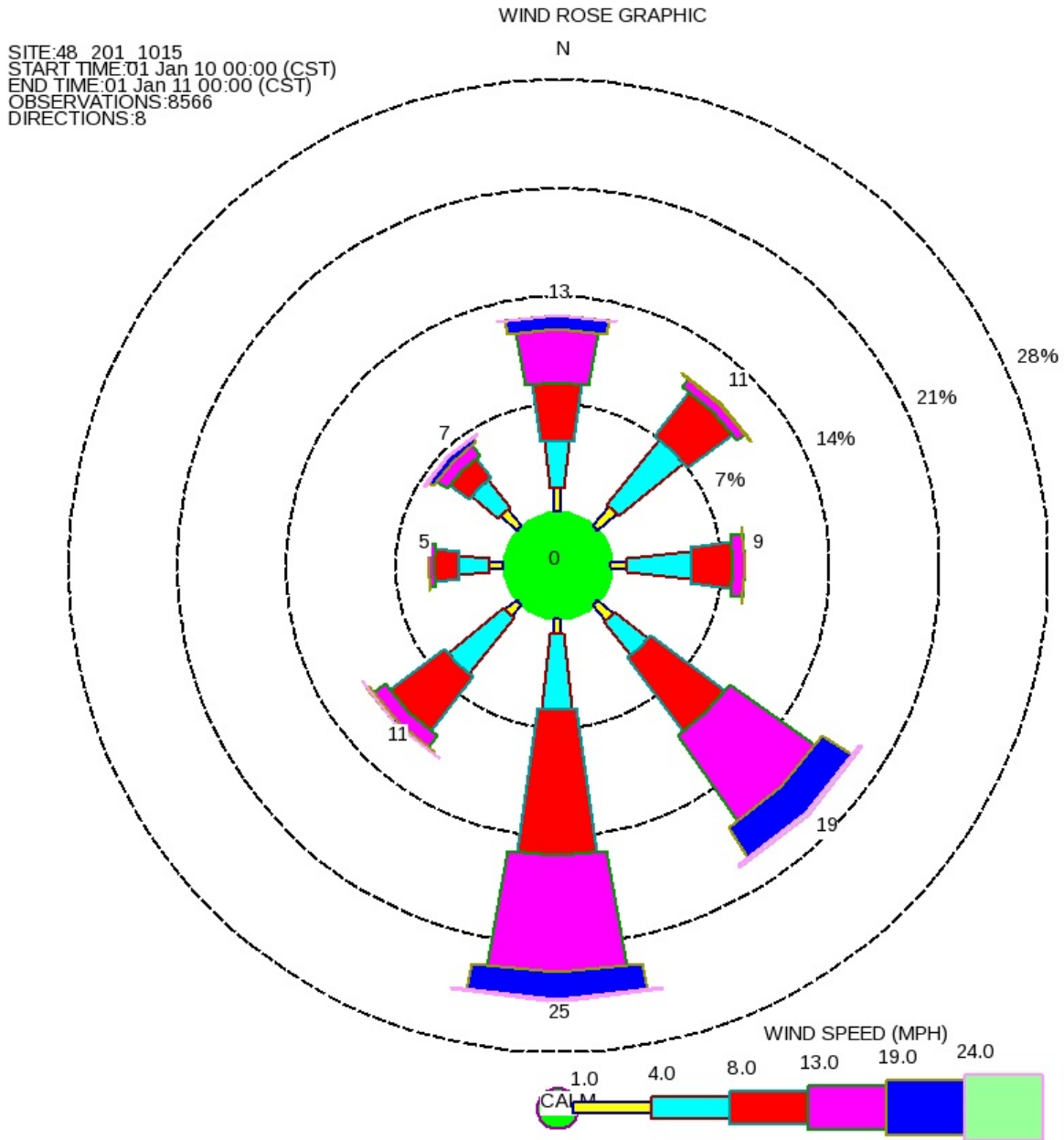
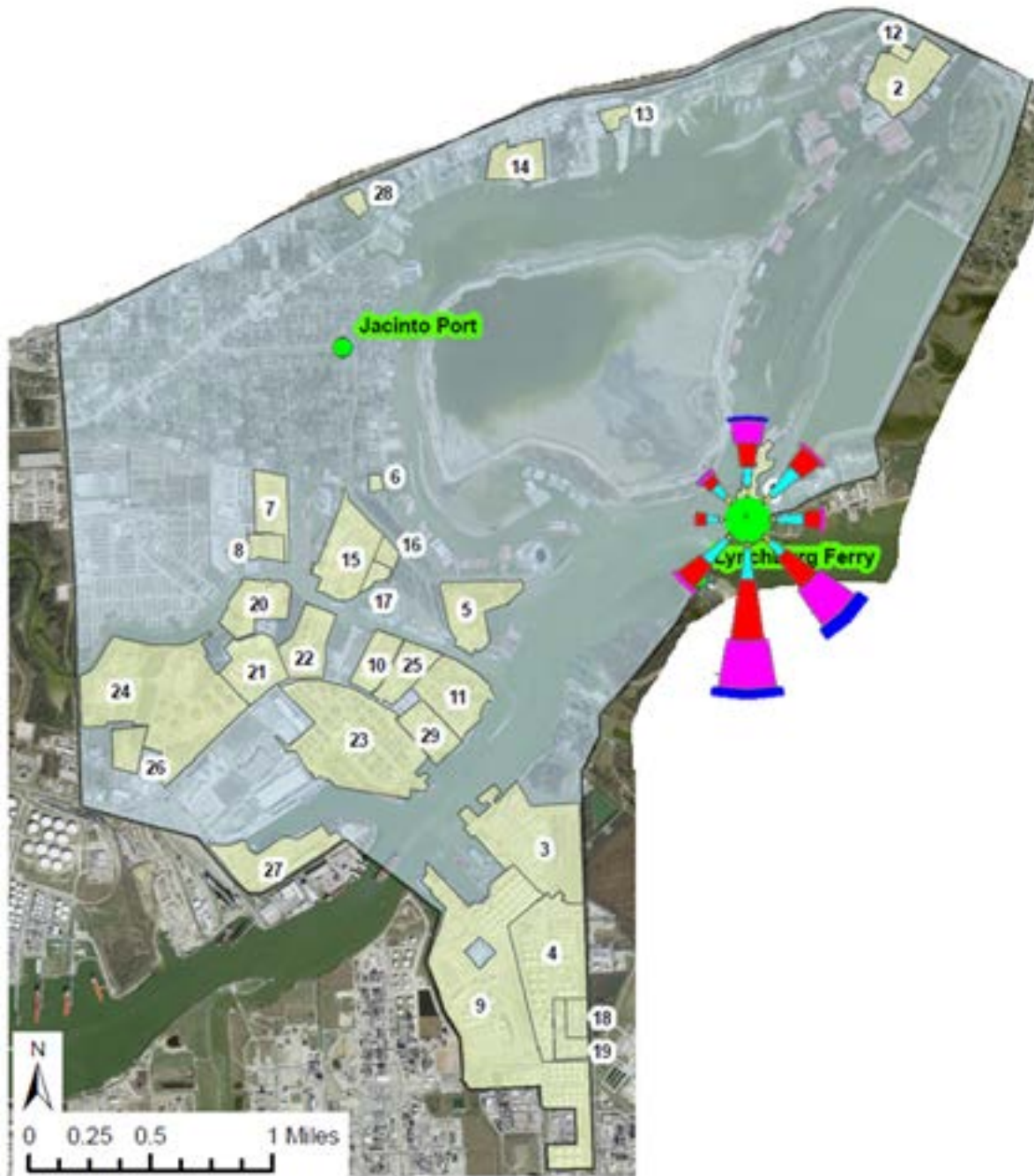


Figure 1 shows that the wind most frequently blew from the south and southeast. The figure also shows that winds originating from this direction accounted for 44 percent of 2010 (25 percent from the south and 19 percent from the southeast); thereby showing the nature of changing wind directions. The original location of the Lynchburg Ferry monitor at 1001 B Lynchburg Road was generally upwind of several companies in the defined APWL area considering the predominant wind direction, not downwind, as shown in Figure 2, yet the monitor was able to measure the ambient concentrations due to the varying winds.

Figure 2: Wind Rose and Lynchburg Ferry APWL Area



Moving the monitor was required. The TCEQ determined that the monitor will continue to provide data that are representative of potential public exposure to styrene, although the monitor is now located closer to large styrene emitters in the area, like the terminals.

Moreover, the decline in magnitude and frequency of elevated ambient styrene concentrations began in 2005. The monitor was moved in 2011. Therefore, the moving

of the monitor cannot be the reason for these years of measured improvements. The TCEQ determined that implementation of control strategies in the area had a direct effect on the number of exceedances of styrene over the TCEQ's short-term, odor-based air monitoring comparison value (AMCV). At the previous monitoring location, exceedances of the odor-based AMCV significantly decreased from 92 in 2005 to 3 in 2011. Most recently, Channel Shipyard completely discontinued uncontrolled styrene barge handling operations, beginning in March 2011. The TCEQ found that this recent control measure had an immediate improvement, significantly impacting the number of exceedances measured in 2011. Yet, the TCEQ did not immediately propose delisting of the area from the APWL to allow for more data collection and analysis at the monitor's new location. The monitor has resided at its current location at 4407 Independence Parkway South since December 2011. Data continues to show the improvement in the area. Six hours were measured above the odor-based AMCV in 2012, and one exceedance was measured in 2013 (one hourly concentration was measured at 43 parts per billion by volume (ppb_v) on November 18, 2013, at midnight). The measured ambient concentration data show no persistent styrene concentrations above the level of potential concern, thus indicating that the control measures in place are effective, and the TCEQ can reasonably expect the improvement to be sustained. Thus, the TCEQ sees no reason to postpone delisting of this APWL area. Therefore, the TCEQ is proceeding with the removal of Lynchburg Ferry from the APWL.

Comment 2: TCC expressed its appreciation of the continual work by the TCEQ and industry to reduce the level of styrene in the Lynchburg Ferry APWL area and credited the TCEQ's continued use of monitoring, investigations, enforcement, and air permitting efforts for the companies located in the APWL area. AAH expressed appreciation for the APWL system. AAH further commented that the APWL goes well in excess of what is federally required and has been a very effective system here in Texas. AAH commented that it hopes for the continued effectiveness of the APWL program and that the TCEQ will continue to willingly work with AAH and with other citizens that are engaged on these issues. AAH further commented that, with a good partnership between the TCEQ and the public, the APWL can continue to be a really effective system.

Response 2: The TCEQ appreciates the support for the APWL program.

Comment 3: AAH commented that it likes the public participation process for the APWL, stating that it seems like the TCEQ has good successes and expressed the desire to continue working with the TCEQ in the public process. AAH also commented that it hopes the TCEQ will continue to publicize the program and make people realize that public input really is an important part of the process and that we can start to see more people at public meetings in the future.

Response 3: The TCEQ acknowledges these comments.

Comment 4: AAH commented about the delisting process from the APWL. AAH commented that it heard from staff at the TCEQ that "the delisting process is essentially something that is triggered by certain monitored values." AAH further commented that there is a "perception" among TCEQ staff that if there is monitored data below the AMCV, then a delisting proposal "has to occur," which to AAH is "essentially an

inflexible process.” AAH also commented that, from what was expressed by the TCEQ at the August 19, 2013, public meeting for the delisting of Lynchburg Ferry from the APWL, that is not necessarily true; that it is a flexible process and it is a process that will take into account public comments and working with stakeholders as the TCEQ has done in the past. AAH commented that it wanted to “make sure that this is clear with everyone in the commission and that there is not a mistaken perception about how delisting proposals occur and how they proceed.” AAH commented that “as long as there is not that perception in the agency and it is not communicated to the public, we may eventually see a little more public participation in the process.”

Response 4: The TCEQ always appreciates the level of public participation at public meetings and acknowledges these comments. The TCEQ does not propose delisting an area from the APWL without ambient air monitoring data demonstrating that pollutant concentrations are below a level of concern. Before proposing a delisting, the TCEQ conducts a comprehensive evaluation, which includes a determination that the improvement in air quality will be reasonably sustained. The TCEQ forms its determination from all information that it has available on the APWL area, but if there are relevant data or information that must be considered for a complete evaluation, the TCEQ depends on stakeholders sharing the information with the TCEQ. Public participation in the APWL program is of utmost importance to the TCEQ, and this is why stakeholder involvement is one of the four primary objectives outlined in the [APWL protocol](#). To facilitate public participation, the protocol requires the development of a Communications Plan to identify and engage interested stakeholders in decisions regarding an APWL area. The Communications Plan for the APWL program is a comprehensive and inclusive TCEQ notification procedure. Because APWL areas are geographically smaller than an area than may be affected by other TCEQ programs (like the State Implementation Plan, for example, which generally affects entire counties), the APWL coordinator is often able to directly contact most individual companies, and may be able to identify and contact interested individuals and local groups. The TCEQ also uses an email list to notify interested individuals that subscribe to it, contacts legislators and local public officials, publishes newspaper notices, and may issue press releases to facilitate public involvement regarding proposed changes to the APWL. The TCEQ has taken these extra measures to engage the public and obtain information. The TCEQ is committed to conduct a complete evaluation of an area prior to delisting it from the APWL and is committed to investigate and evaluate all concerns raised through the public comment process.

Comment 5: TCC noted that the TCEQ’s Toxicology Division established the short-term, odor-based AMCV for styrene at 25 ppb_v, averaged over a one-hour period as a concentration below which nuisance conditions and odor-related health effects would not be expected and commented that the Lynchburg Ferry monitor has collected continuous hourly ambient concentration data since the listing of styrene in 2003. TCC commented that the data trend illustrates a consistent and significant reduction in the number and severity of annual occurrences when styrene conditions exceed the AMCV in the area.

TCC commented that styrene exposure becomes a cause for concern when it is persistent and strong. TCC commented that, for the Lynchburg Ferry monitoring site,

2005 had the highest number of exceedances, during which 92 hours were monitored over the 25 ppb_v AMCV for styrene (with the highest concentration reaching 433 ppb_v); however, in 2011, only 3 hours exceeded the AMCV at the Lynchburg Ferry monitor (with the highest concentration reaching 38 ppb_v), and in 2012, only 6 hours exceeded the AMCV (with the highest concentration reaching 57 ppb_v). TCC noted the TCEQ pointed out that these exceedances occur very infrequently and are isolated to individual non-consecutive hours; they were merely solitary spikes. TCC further noted that the severity of the exceedances from the most recent years is below those monitored in previous years, illustrating a decreasing trend.

TCC commented that both the annual frequency and magnitude of styrene AMCV exceedances measured at the Lynchburg Ferry monitor have continuously diminished since 2005, indicating significant achievements in reducing ambient air concentrations such that the reported levels are no longer of concern for persistent, strong odors. TCC further commented that these changes have been effected directly through the implementation of operational controls at industrial sources in the area that produce or handle styrene, and because many of these controls have been permanently incorporated into TCEQ air permits, the potential for experiencing future styrene AMCV exceedances in the area has been significantly and permanently reduced, thus warranting the de-listing of styrene in the Lynchburg Ferry APWL.

Response 5: The TCEQ agrees that data support delisting of Lynchburg Ferry from the APWL. As highlighted in its proposal, several companies have implemented permanent actions to reduce styrene emissions and ensure that ambient styrene concentrations are below levels of concern. The TCEQ also noted that nuisance and odor-related health effects may result from sufficiently high and persistent concentrations of styrene, and that data show that hourly styrene concentrations are consistently below the TCEQ's conservative odor-based AMCV, with just a few hours measured over 25 ppb_v over the last few years. With three hours measured over 25 ppb_v in 2011, six hours in 2012, and one hour in 2013, the TCEQ would not expect any adverse effects to occur. The TCEQ agrees that monitoring data show a downward trend in ambient styrene concentrations and that recent monitoring data show a maintained, significant improvement in air quality.

Comment 6: TCC commented that it strongly supports the continued use of the APWL protocol for listing and delisting pollutants, and supports the de-listing of styrene in the Lynchburg Ferry area as an example of following the protocol. AAH commented that what is going on in this particular area pretty well bears out the effectiveness of the APWL program, with good reductions in benzene over the years for which the area was previously removed from the APWL. AAH also expressed appreciation that the TCEQ accepted input regarding the boundary reevaluation for Lynchburg Ferry that happened a couple years ago.

Response 6: The TCEQ appreciates the support for the procedures regarding the APWL program as specified in the protocol and for the continued participation of stakeholders throughout the process of remediating and ultimately delisting Lynchburg Ferry.