Heron Management Plan

Whitmarsh Landfill Remediation and Shoreline Habitat Restoration Project
Anacortes, Washington
Skagit County

Wood Project # PS21204410.03

Prepared for:

Skagit County
Mount Vernon, Washington

February 17, 2022

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Glossary

A-weighting: A method of processing measured sound to reflect how audible that sound is to people. The measured sound pressure in each frequency composing the sound is adjusted by a weighting factor to approximate human hearing sensitivity to that frequency.

A-weighted decibels (dBA): The most-commonly used measure of noise exposure among people, which uses a logarithmic scale (the decibel) to represent a wide range of sound pressure levels.

ambient noise levels: The level of noise arising from all sources, as measured at a location.

amplitude: The range representing the height (from peak to valley) of the waves that comprise sound at a given frequency (distance between peaks).

average (equivalent) sound level (L_{eq}): The constant sound level in a given time period that conveys the same sound energy as the actual time-varying sound.

background level: The constant equivalent A-weighted sound level that corresponds to the level which 90 percent of the sound levels exceed in the noise period measured.

decibels (dB): The sound level measured in decibels; a logarithmic scale that conveniently represents a wide range of pressure variation.

hertz (Hz): The frequency from peak to peak of sound waves (in cycles per second).

noise: The intensity, duration and character of sounds from any or all sources.

maximum sound level (L_{max}): The maximum sound level over a measurement interval determined by using a sound level meter set to "fast" response time.

octave band: An interval of the sound frequency spectrum, such that the center frequency of the octave band is at the logarithmic center of the frequency range for that band; the frequency spectrum is divided so that the upper limit of each band is twice the preceding center frequency. The commonly used center frequencies in octave band analysis are 63, 125, 250, 500, 1000, 2000, 4000 and 8,000 Hz.

1/3 octave band: A further subdivision of the sound frequency spectrum, such that each octave band is divided into three logarithmically-centered bands, where the center frequency is defined by 100.1N, where N is a whole number from 10 to 50.

sound: A wave-form disturbance of pressure propagating through a medium, such as the air.

sound level meter (SLM): An instrument for measuring sound levels that measures rapid variations in air pressure with time, using a microphone and signal processing electronics.

95 percent upper tolerance limit: the worst-case noise levels that are not exceeded more than 5 percent of the time, with 95 percent certainty.

List of Acronyms

dB	decibels
dBA	A-weighted decibels
$L_{2.5}$	noise level 2.5 percent of the time (1.5 minutes) out of one hour
L_{25}	noise level 25 percent of the time (15 minutes) out of one hour
L_{eq}	logarithmically averaged sound level
L_{max}	maximum sound level
SLM	sound level meter
Skagit County	Skagit County Solid Waste Division
SR	State Route
UTL_{95}	95 percent upper tolerance limit
WDFW	Washington Department of Fish and Wildlife
Wood	Wood Environment & Infrastructure Solutions, Inc.

1.0 Introduction

The Skagit County Solid Waste Division (Skagit County) requested Wood Environment & Infrastructure Solutions, Inc. (Wood) to prepare this Heron Management Plan for the remedial activities that Skagit County plans to conduct at the former Whitmarsh Landfill (the site), located in Anacortes, Washington (Figure 1), from May through November 2023, once the appropriate permits are issued. The objective of this plan is to establish allowable noise limits and propose monitoring and mitigation measures, if needed, for construction such that the great blue herons do not abandon the heronry. The following information is included in support of plan objectives:

- Existing conditions (site and March Point Heronry), including results of noise and biological monitoring conducted from April through July 2021 (during the great blue heron breeding season);
- Data analysis and determination of allowable noise levels for construction activities; and
- Recommendations for noise and biological observation monitoring and mitigation measures to maintain noise levels below the established allowable limits and limit overall disturbance to the heronry.

In this document, biological monitoring refers to observations of herons' behavior with respect to noise. The site is located within the 984-foot year-round buffer associated with the March Point Heronry, as established by the Anacortes Municipal Code 19.70.335.D.2.c.iv, dated December 13, 2021. Because it is located within the year-round buffer, the City of Anacortes requires preparation of a Heron Management Plan that addresses noise levels and protection of the heronry, consistent with the Washington Department of Fish and Wildlife (WDFW) Management Recommendations for Washington's Priority Habitats and Species – Great Blue Heron (Azerrad, 2012), per Anacortes Municipal Code 19.70.335.C.2.b.

1.1 Description of Site and Heronry

Whitmarsh Landfill: The site (delineated by a red line on Figure 1) is bordered by South March Point Road to the south and southwest, an active BNSF railway and Padilla Bay to the north and northeast, and the Swinomish Indian Reservation to the east and southeast (Figure 1). State Route (SR) 20 runs generally east/west approximately 800 feet southwest of the site beyond South March Point Road. The site is zoned as "Heavy Manufacturing" (City of Anacortes, 2019) and designated as Urban Shoreline (City of Anacortes, 2010). Adjacent land uses include the railway and a commercial steel fabrication facility at the T. Bailey property, which lies west of South March Point Road and the site. The Swinomish Indian Tribal Community has developed the area to the southeast of the site into a light industrial/commercial complex that includes a casino, hotel, RV campground, and fueling station. Additionally, the nearby Swinomish Channel is frequented by recreational boaters and fishermen. Due to the surrounding development and human activities, noise disturbance is typical and expected, including elevated noise from all forms of traffic (airplanes/helicopters, vehicles, trains, and boats), as well as nearby industrial activity.

March Point Heronry: The heronry is located south of the site and is bounded by South March Point Road to the north, the T. Bailey facility to the west, SR 20 to the south, and a variety of Salish Trust-owned properties to the east (Figure 1). Most of the properties on which the March Point Heronry is located are owned by the Skagit Land Trust. The heronry is elevated well above the site, on a fairly steep slope adjacent to South March Point Road (Figure 1 and Photos 1 and 2 in Appendix A). The heronry continues south over the top of the hill and down a gentler slope toward SR 20.

1.2 Background

The site was used as an informal public dump for solid waste from the 1950s until 1961, when Skagit County leased the property from the State of Washington to operate the site as a landfill. The County operated the landfill as a burn dump until approximately 1969 and then as a sanitary landfill until the landfill closed in 1973. At the time of closure, the landfill was covered with a 2- to 3-foot-thick layer of soil, consistent with the closure regulations at that time. A sawmill operated at the site from the late 1980s until approximately August 2011 on land partially owned by the sawmill and partially leased from Washington State Department of Natural Resources. At that time, wood waste up to 10 feet thick had accumulated over large portions of the landfill. In 2014, the Washington State Department of Natural Resources transported approximately 44,000 cubic yards of wood waste off site to a composting facility. Subsequently, Skagit County purchased the parcel of land near March Point Road previously owned by the sawmill operator.

Washington State Department of Ecology identified the site as a source that was releasing pollutants into Padilla Bay adjacent to the landfill via seeps on the shoreline. In 2007, the site was selected for remedial activities to minimize release of pollutants into Padilla Bay. A remedial investigation/ feasibility study was conducted on the site between 2008 and 2016. The proposed remediation measure selected for the site consisted of regrading and re-capping the landfill to meet the current standards for municipal landfills, in compliance with Washington Administrative Code 173-340.

The earliest known reporting of presence of herons within the wooded area across March Point Road to the south was in the mid-1950s. Since that time, herons have been present continuously and have increased in numbers to become the largest heronry in Washington. The State of Washington and the City of Anacortes have identified this heronry as a conservation area, requiring preparation of a Heron Management Plan for activities within the 984-foot buffer.

1.3 Proposed Activities and Construction Schedule

1.3.1 Proposed Activities

The proposed remedial activities will consist of:

- Clearing the vegetation on site, removing trees growing above the waste, and demolishing the structures and concrete slabs on site.
- Excavating the waste at the edges of the landfill and stockpiling the excavated soil near the middle of the landfill, to minimize the final landfill footprint and create a mound in the middle to promote future stormwater runoff away from the landfill. Along the Padilla Bay shoreline, the work will include removing the waste and flattening the shoreline slope so that the landfill footprint will be the same and the final slopes exposed to the bay will be stable in the long run, without the use of riprap.
- Grading and compacting the material moved toward the center of the site to create a stable base and a gradual, positive slope away from the landfill toward the perimeter.
- Constructing a multi-layer landfill cap system, consisting of sand to collect and vent landfill gas, a geosynthetic clay liner to minimize stormwater infiltration into the waste, a layer of sand and layer of crushed rock to drain the stormwater, and a cover of topsoil and sand on the shoreline up to the ordinary high tide line.
- Planting shrubs on the shoreline to create 1.6 acres of new habitat for wildlife and hydroseeding the entire landfill.

- Installing monitoring wells for groundwater and landfill gas monitoring, a perimeter access road of crushed rock around the landfill, and a perimeter security fence to control access.

During construction, groundwater collection and treatment will be necessary to control discharges into Padilla Bay. The earthwork specifically requires working during the dry months to minimize discharge of construction stormwater into Padilla Bay and to allow the excavation and capping on the shoreline to be conducted during low tides that occur in the mornings during the dry months (approximately late May through early September).

1.3.2 Construction Schedule

Table 1 and Figure 2 present the anticipated construction earthwork schedule in 2023 and the typical stages of the breeding season.

The proposed construction period partially coincides with the heron breeding season, which in general starts in mid-February and ends in late August (Azerrad, 2012). While this suggests that the fledging period ends at the end of August, the time frame can be variable and has commonly been recorded around the end of July for the March Point Heronry, according to Skagit County Land Trust observations.

The tasks generating the highest noise levels, as listed in the first bullet in Section 1.3.1, will include the use of chainsaws to cut trees and breakers to demolish concrete slabs. These tasks have been scheduled for late summer and early fall, outside of the heron breeding season. Site clearing and tree cutting were mostly completed in fall of 2021 and demolition is scheduled for later in 2022, after the end of the heron breeding season.

To minimize potential disturbance to the herons, construction sequencing is proposed in relation to the heron breeding season (Table 1 and Figure 2). Earthwork along the landfill edge at the northwest corner near the site entrance is planned to start in May (during earlier stages of the breeding season but after the courtship period); this is the part of the site furthest from the heronry. Earthwork will then proceed in a clockwise direction to the east, south, and west. Earthwork along the shoreline will begin during the low tides starting in June and be complete in late July, when work will be closest to the heronry but the breeding season will be furthest along. The majority of work activities on areas where taller vegetation was removed (across from the T. Bailey facility on the western portion of the site) will occur after the breeding season ends (Figure 2).

The work will be sequenced in a clockwise direction, according to the breeding season. This will keep the site work furthest from the heronry during the courtship and egg laying stages. As work gets closer to the heronry, the herons will be in the brooding and hatching stage, when adults are least likely to abandon their nests. Furthermore, as the earthwork along the shoreline approaches the south side of the site (and March Point Road), the existing trees will offer a visual barrier to the construction activities from the heronry, thus further minimizing possible impact to the herons.

1.3.3 2021 Vegetation Removal

Site clearing and tree cutting were largely completed during the fall of 2021 (outside the heron breeding season). Removed trees were all located within the site limits. Approximately 80 to 90 percent of the trees removed were estimated to be less than 4 inches diameter at breast height and under 6 feet tall (see Photos 2, 3, and 5 in Appendix A). The remainder of the removed trees ranged between 4 and 12 inches diameter at breast height and were located in the middle of the site, along the shoreline, and along the approximate extent of the solid waste adjacent to South March Point Road. Of these larger trees, most were located within the center of the site and along the shoreline, where they presented little visual screening from the heronry. However, a select number of trees along the southwestern side of the site

adjacent to South March Point Road were also removed (see Photos 5 and 6 in Appendix A). Given the relatively short stature and small diameter of most of the removed trees, they likely did not provide significant visual screening of the site from the heronry. Therefore, significant changes to line of sight from the heronry are not anticipated to have occurred from the vegetation removal completed to date.

2.0 Existing Conditions: Noise Monitoring

Wood measured and analyzed ambient noise levels at three monitoring locations in the vicinity of the March Point Heronry during the spring and summer of 2021, i.e., during the breeding season when herons occupy the site. The locations are shown in Figure 3 and represent the potential ambient noise levels at the nearest heronry perimeters southeast and southwest of the landfill along South March Point Road, and at one of the available local forage areas along Padilla Bay to the northeast. The focus of the measurements and analyses was to document the existing ambient noise environment during the breeding season. Ambient noise includes noise from all sources audible at a given location.

Monitoring was planned to measure noise levels during six rounds of noise level monitoring for seven consecutive days at all three locations, supplemented by an automatic short audio recording when clearly elevated noise levels occurred. The resulting noise data was analyzed to characterize the hourly-average noise levels at each location, including statistical noise level descriptors consistent with the Washington State noise standards for acceptable noise impacts on receiving properties. A statistical analysis of this data was used to establish the upper limits of normal ambient noise levels at the March Point Heronry. These limits represent the current level of noise that the herons are accustomed to and tolerate well, as can be deduced from their current breeding success at the heronry.

When possible, the gathered data was used to define how the herons responded to fluctuations in the noise environment. The objective of the existing conditions analysis was to establish criteria to be adhered to by Wood and others while performing site management activities for the Whitmarsh Landfill and surrounding properties.

2.1 Sound Measurement Units

Sound in a physical sense is a rapid fluctuation in ambient air pressure versus a reference level, transmitted through the air by spherical wave propagation. As the variations in air pressure become larger (the waves increase in amplitude), a sound increases in loudness. The loudness is measured in decibels (dB), a logarithmic scale that conveniently represents a wide range of pressure variation. Typical levels of some common sounds are shown in Table 2.

Ambient noise levels vary continuously with time. As various sources of noise occur, the ambient noise level is louder at some times, and quieter at others. Statistical descriptors have been developed to describe this variation. The maximum sound level (L_{max}) is the highest sound level recorded, including instantaneous sounds that last only milliseconds. The average (equivalent) sound level for any time interval (such as a minute or an hour) is the logarithmically averaged sound level (L_{eq}) over that time interval. Note that because perceived noise levels actually represent a very wide range of sound pressures, decibel mathematics are done in a logarithmic scale to correctly calculate and interpret noise data. The L_{eq} and other statistical values define the percentage of time that exceeds a specific sound level. For example, over the course of an hour, noise levels may be above a relatively quiet level 25 percent of the time (15 minutes) or may exceed a relatively loud level only 2.5 percent of the time (1.5 minutes), expressed as the L_{25} and $L_{2.5}$, respectively.

In general, the degree of a perceived noise impact depends, among other factors, on existing ambient sound levels versus the noise source in question, the frequency spectrum of the noise source, the timing and duration of the noise event, and the hearing abilities of the person (or wildlife) listening.

2.2 Noise Monitoring Methods

2.2.1 Noise Monitoring Periods

Continuous noise data was collected during six one-week noise monitoring periods that occurred over the six-month breeding season (Table 3). The monitoring weeks were divided between the two major heron nesting stages:

- Stage 1: courtship and pre-brooding (approximately February to May); and
- Stage 2: hatchling and young fledgling (approximately June through July).

Monitoring periods were randomized within each major nesting stage, except the week of the Fourth of July holiday was deliberately selected as one of the six monitoring periods, to take into consideration the associated annual celebratory and traffic sources of noise that might have otherwise been missed.

2.2.2 Noise Monitoring Locations

The heron population nesting area occupies several parcels in the wooded area southwest of Whitmarsh Landfill and north of SR 20. The critical nesting habitat for the herons includes portions of the following parcels (Figure 1):

- P104357 and P19765, owned by the Skagit Land Trust,
- P19763, owned by the Salish Trust,
- P19684, owned by the Charles Moon Credit Trust and M. Ellen Moon Trustee, and
- Portions of Parcels P19675, P19677, and P19675, owned by Quattro Properties LLC.

Wood installed sound level meters (SLMs) at the three noise monitoring sites shown on Figure 3. These sites were selected to represent varied sound exposure from local sound sources to which the March Point Heronry is exposed. The sites were approved by the Skagit Land Trust, Skagit County, and the Washington State Department of Ecology. During Monitoring Period 5, which included the Fourth of July holiday, the SE location was moved further east to a fourth location (Figure 3) to document the potentially higher noise levels over that weekend.

2.2.3 Sound Level Meter Deployment and Settings

Noise recordings were made using SLMs manufactured by Larson Davis, Model 831C. Each SLM was housed in an environmental case with a remote microphone positioned on a tripod at a height of approximately 5 feet above ground level. Each microphone was fitted with a manufacturer-approved wind screen with bird spikes. SLMs were calibrated before and after each monitoring period using a Larson Davis Cal 200. Equipment was left unattended for the entirety of the seven-day deployment except to change out batteries after three to four days.

For each monitoring week, each SLM was programmed to collect:

- L_{eq} and L_{max} (both A-weighted decibels [dBA] and fast response) in time intervals of one hour;
- L_{25}, $L_{8.3}$, and $L_{2.5}$ in time intervals of one hour, as per Washington Administrative Code Chapter 173-60-040;
- Spectral analysis in terms of 1/3 octave band analysis for the one-hour L_{eq} metric;
- Sound time histories for the all the above statistical metrics with a one-second resolution; and

- Audio recording of high sound level events that exceeded a trigger level of 10 dB above the background sound level at the time of the event.

2.2.4 Data Review and Processing

Sound level data collected were downloaded to a computer using processing software (LD G4 Utility) specific to the Larson Davis instruments. Once downloaded, the data was then exported to a spreadsheet format for further processing, tabulation, and review. During review, faulty data was identified and excluded. Methodology and justification for data selection and inclusion is discussed in Appendix B.

A primary objective of noise monitoring was to characterize the ambient noise environment to which the herons are accustomed. However, during Monitoring Periods 5 and 6 (in July) herons were no longer observed at the March Point Heronry. Possible reasons for the absence of the herons are discussed in Section 3.0. However, historically herons have remained in the area through the end of July. Due to the relocation of one SLM location for Monitoring Period 5, and absence of the herons during both Monitoring Periods 5 and 6, it was determined that only Monitoring Periods 1 through 4 would be valid as representative of the heronry during their occupancy. In addition to being most representative, these periods are also considered to be conservative because they do not include periods that typically have excessive noise such as the Fourth of July. Therefore, the sound levels only from the first four monitoring periods were used for evaluation. Further explanation of the statistical analysis and justification can be found in Appendix B. The L_{eq}, L_{max}, L_{25}, $L_{8.3}$, and $L_{2.5}$ were tabulated from the collected data for each monitoring location and the data are presented in Appendix C.

2.2.5 Sound Recordings

SLMs at monitoring locations were configured to capture audio recordings of sound level events that were at least 10 dB above background levels. On average, approximately 15 recordings were captured per hour of monitoring and typically lasted from five to 20 seconds in duration. Tables D-1 through D-9 in Appendix D summarize the distinguishable sound sources during the time the biological team was on site observing heron behavior.

2.3 Noise Monitoring Results and Discussion

Sections 2.3.1 through 2.3.3 discuss the observed trends, noise sources, and modeling for the noise monitoring. Where exceedance statistics are mentioned, these refer to sound levels that were above the allowable hourly exceedances of noise levels established under the Washington State environmental noise regulations found in the Washington Administrative Code Chapter 173-60. Those regulations aim to control noise impacts between properties, though most of the sound sources identified in this ambient monitoring are exempt from these regulations. Though WAC 173-60 does not apply to the majority of sound sources in the ambient environment and construction work at the March Point Landfill, Wood measured and tabulated the allowable exceedance data metrics (L_{25}, $L_{2.5}$, and $L_{8.3}$) to put the existing conditions and future noise impacts in context.

A qualitative review of the loudest captured sound recordings (L_{max} greater than 90 dBA) found that fireworks, particularly around the Fourth of July, were the loudest sources of noise. Other observable frequent sources of loud noises were motorcycles, loud vehicles, train horns (especially for the nearby foraging site) and aircraft.

Wood conducted a qualitative review of sound sources for times where there was a high L_{eq}. In general, the highest sound sources during these periods were a combination of multiple sources, which usually included loud motor vehicles or aircraft, bird chirping, and other wildlife activity. Secondary sources

observed included train horns, backup alarms, and metal clanking, which was believed to come from the T. Bailey operation and abandoned buildings on the landfill site during periods of high wind.

2.3.1 Observed Trends in Noise Level Metrics

The hourly average (L_{eq}) and the L_{25}, $L_{8.3}$, and $L_{2.5}$ for every hour throughout each monitoring period, as well as box plots of this data, can be found in Appendix C. The tables and box plots in Appendix C show that the highest L_{eq} and statistical exceedances occurred between 6:00 and 7:00 a.m. for Noise Monitoring Sites SE and SW, near the nesting area. Sound levels and exceedance statistics tended to drop afterward and slowly rise throughout the day until about 5:00 to 6:00 p.m. After 6:00 p.m. there was another gradual drop until 4:00 a.m., after which sound levels rose again until 7:00 a.m.

Replay of the sound recordings triggered by noise increases above background showed that the main sound sources from 6:00 to 7:00 a.m. were a combination of traffic sound and bird activity. Though not directly tallied, it was apparent that there is increased motor vehicle traffic on the nearby roads during the early morning and early evening hours, consistent with nearby commuter and industrial activity. The traffic, along with increased bird vocalization activity, are the key factors in the noticeable noise level increase between 6:00 and 7:00 a.m. Though louder noises were recorded throughout the day from trains and aircraft, the loudest average noise levels originated from the commuter motor vehicle traffic on South March Point Road.

Box plots of the L_{eq}, and noise statistics for Noise Monitoring Site NE in the foraging area (Appendix C) show lower overall noise levels and a more stable trend of sound throughout the day than those closer to the nesting areas. This confirms the traffic noise domination of the sound environment at the heronry.

2.3.2 Summary of Existing Noise Conditions

The loudest source of instantaneous noise events (L_{max}) was the discharge of fireworks near the Fourth of July weekend. The loudest L_{max} captured for the entirety of the noise monitoring was 121 dBA, which occurred on July 5 at 12:49 a.m. As discussed in Section 2.2.4, only sound recordings from the first four monitoring periods were used for evaluation and are discussed in this report. The available information for all six monitoring periods is presented in Appendix C.

The key objective of the baseline noise monitoring was to define the noise levels to which the herons are accustomed at this successful heronry location, particularly the levels they currently tolerate between 6:00 a.m. and 7:00 p.m., which generally defines the daily limit of proposed remedial construction activities on Whitmarsh Landfill. To that end, the large amount of hourly and daily data was narrowed down to the first four monitoring periods when the heronry was occupied, between 6:00 a.m. and 7:00 p.m.

2.3.2.1 Ambient Noise Conditions During Heron Occupancy

Table 4 presents the average L_{eq} and L_{max}. during the daily construction window during Monitoring Periods 1 through 4 (as defined in Table 3). Though these measurements do not account for the hourly variability and loudest peak (instantaneous) noises, the calculated averages provide an estimate of the ambient sound levels to which herons were accustomed in 2021.

2.3.2.2 Upper Noise Tolerance Limits

The 95 percent upper tolerance limit (UTL_{95}) is defined as the worst-case noise levels that are not exceeded more than 5 percent of the time, with 95 percent certainty. The UTL_{95} was calculated for two key noise metrics, the hourly L_{max} and hourly L_{eq}. The L_{max} measurement reported in Tables C-1 through C-3 in Appendix C is the highest one-second L_{max} over the entire one-hour period measured. The L_{eq} in these tables is the sound level averaged over the indicated hour. Wood's analysis presents the UTL_{95} as the

upper noise limits that the herons presently tolerate during construction hours when they are in residence at the heronry. Wood recommends that the UTL_{95} of the collected sound measurements be used as the defined allowable noise limits for remedial construction activities.

The calculated UTL_{95} values for the L_{eq} and L_{max} metrics represent our recommended limit for allowable hourly noise levels at the March Point Heronry (Table 5). Wood also recommends that the maximum L_{max} should be the maximum "do not exceed" limit at any time during the construction window when herons are present. However, although the 1-second maximum noise levels at the heronry sites on occasion exceeded it, Wood recommends adhering to the 92 dBA maximum noise level guideline adopted by WDFW for heronries, be used at the heronry boundary.

3.0 Existing Conditions: Biological Monitoring

The purpose of the existing conditions biological monitoring was to characterize great blue heron behavior in their ambient noise environment. The pre-project monitoring occurred during the same periods as the noise monitoring, from April to July 2021, in order to establish baseline conditions that could be used to determine whether increased response to disturbance would occur due to upcoming planned construction activities at the Whitmarsh Landfill. A detailed summary of the monitoring and results is provided in Appendix D.

3.1 Biological Monitoring Methods

Each period consisted of monitoring over a block of time during two different days of that week, producing a total of twelve monitoring periods completed over the full course of the biological monitoring. Observations occurred for a total of three hours each day, broken into two equal periods focused on both the heronry and lagoon foraging site.

Only Monitoring Periods 1 through 4 were analyzed for the apparent impact of surrounding noise and visual events on the herons, as they were not observed at the March Point Heronry after July 3. Possible reasons for the heron absence include:

- Aggressive eagle predation following hatching;
- A region-wide heat wave[1] stressing the chicks or adults;
- The region-wide heat wave coupled with minus tides in Padilla Bay affecting foraging;
- Human disturbance (people entering heronry during the nesting season; firework discharges, a drone flying low etc.); and/or
- Some combination of the above.

In response to this absence, a Wood biologist searched nearby areas and found juvenile and adult herons using Fidalgo Bay to the northwest (Figure 4). The other known foraging sites identified in the surrounding area could have been available to the herons as well. A Skagit Heron Foraging Study identified these sites based on feeding concentrations of great blue herons observed over multiple seasons (https://wildlifeconservationtrustpnw.org/herons/). Many of the sites are located near the March Point Heronry and within the ranges identified by WDFW (Azerrad, 2012) as those used by most great blue heron colonies for foraging: 3 kilometers for colonies with less than 100 nests and 10 kilometers for colonies with 100 nests or more. This includes what appears to be the largest concentration of herons

1. A record heat wave occurred across the region for approximately four days (June 25 through June 28) directly after the last day of Monitoring Period 4. Daily high temperatures recorded for this duration exceeded the average high temperature for the area. (https://www.accuweather.com/en/us/anacortes/98221/june-weather/2253970?year=2021).

observed during the foraging study, which is located within Padilla Bay a short distance north of the Whitmarsh Landfill.

3.2 Biological Monitoring Observations Summary

For this analysis, only perceived reactions involving flushing and/or circling were included, since those behaviors could be considered more indicative of a potential response to a disturbance than other observed behaviors (i.e., vocalizations of brief duration). Observers recorded a total of 272 unique noise or visual events and 67 total perceived reactions, although a unique event could not be specifically identified for 35 of those perceived reactions. For the events that could be identified, the herons exhibited perceived response behavior at a rate of 11.8 percent (32 total perceived reactions to 272 total events). A summary of perceived reactions and noise or visual events recorded is provided in Table D-1 of Appendix D.

Events that appeared to elicit the highest rate of reactions included unknown/unidentified events (52.2 percent) and avian predator presence (22.4 percent). The remaining events eliciting perceived reactions included avian predator vocalizations (7.5 percent), noise from the neighboring T Bailey facility (7.5 percent), people walking/talking (3 percent), aircraft (1.5 percent), boats (visual only) (1.5 percent), helicopters (1.5 percent), motorcycles (1.5 percent), and semi-trucks (1.5 percent). Many of these events can be classified as either a noise or visual event, or a combination of the two. Also, of the 272 events, there were 32 when no clear response behavior was observed; these instances occurred for seven event types; boat horns/engines, facility alarms/sirens (from area industry other than the T Bailey site), general traffic, vehicle horns, emergency vehicle sirens, trains/train horns, and wind.

Most heron behaviors were observed in and around the heronry itself, with few observations of flushing and/or circling at the foraging site. Observations recorded at the foraging site more frequently involved use of the lagoon area north of the railroad tracks and closer to the islands located within Padilla Bay than to the lagoon area south of the railroad tracks or even the Whitmarsh Landfill site itself. Overall, the herons appeared to react less frequently during recorded noise or visual events while using the foraging site than the heronry, apart from disturbances from avian predators like bald eagles. Herons flushing from the northern lagoon area generally flew towards the heronry or northwest towards Fidalgo Bay, where another known foraging area is located. For the lagoon area closest to the site, there was only one instance observed of a small group of herons taking flight. This instance may have been simply standard nesting behavior by the herons, as they flew towards the heronry carrying nesting material.

As shown by these results, the March Point Heronry experiences multiple types of sudden noise and visual events throughout the day and night, including from traffic (South March Point Road), Swinomish Channel, military jets, commercial and small airplanes, and helicopters), trains/train horns, and surrounding industrial facilities. The heronry also experiences continuous noise and visual activity from various sources such as SR 20, local roads, and surrounding industrial facilities, as well as seasonal events like the Fourth of July fireworks from the nearby Swinomish Reservation. Large-scale behavioral reactions to these events seemed limited to those loudest activities that also included movement near the heronry, such as air traffic in proximity to the heronry. The most recorded source of apparent disturbance from an identifiable event was from the presence of avian predators such as bald eagles and red-tailed hawks. There were also several behaviors observed where no noise or visual event was identified, as well as noise events recorded where no apparent response behavior was observed.

In an environment with events occurring simultaneously and/or repeating on a regular basis, combined with potential simultaneous reactions of various types by individuals or groups of herons, it can be difficult to record all information thoroughly at all times. For example, the number of events identified may be underrepresented for specific event types, such as industrial noise from the T. Bailey facility and traffic. These events tended to persist throughout the entire monitoring period, and therefore may not

have been recorded for all instances, depending on the circumstances of the monitoring period. Also, in the case of behaviors observed where no event was identified by the observer, it is reasonable to assume that the herons could have been reacting to something that was out of the viewpoint or hearing range of the observer or that what was observed was general behavior not in response to any particular event of interest, or possibly reactions to other herons. This is especially probable considering the elevated audible and line-of-sight vantage point of the herons, uphill from the observers and within the tree canopy.

While it's likely that not all noise or visual events were recorded, as possibly evidenced by the unknown/ unidentified events responsible for 52.2 percent of the perceived responses, 46 unique noise events were recorded from the T. Bailey facility (backup alarms and general industry noise) and only five perceived reactions (involving flushing and/or circling) to these noise events were observed. Given the similarities between the T. Bailey facility noise and the noise anticipated from construction activities at the Whitmarsh Landfill, a similar level and rate of reactions could be anticipated to occur during the remediation and associated construction noises on the landfill site. The construction will produce an increase in visible activity on the site. As described in Section 1.3, the proposed construction has been sequenced taking into account the heron breeding season and considering the visual screening capability of remaining vegetation to minimize potential disturbance. Based on the size, quantity, and location of most of the removed trees, visibility of the site from the heronry is anticipated to be similar to that which existed prior to the 2021 clearing activities. Based on these two considerations and the other data presented from the noise and biological monitoring completed in 2021, a monitoring and mitigation plan to be implemented during construction, including biological monitoring focused on noise and visual disturbance, is presented in Section 4.0.

4.0 Construction Monitoring and Mitigation Plan

4.1 Construction Noise Modeling

The proposed construction activity closest to the heronry during the breeding season would be the earthwork on the edge of the landfill at the south swale (Figure 5). The demolition activities were not included in the modeling, since that work is scheduled to be completed outside of the breeding season in December 2021. The anticipated activities and equipment and associated noise levels when the landfill remediation work is closest to the heronry during the breeding season were used to model the anticipated noise levels that would be expected to reach the monitoring points on the south side of South March Point Road. The modeling revealed the anticipated construction noise levels with all anticipated equipment operating at the same time, will be within the allowable noise limits as shown in Table 6. The complete modeling results are included in Appendix E.

4.2 Noise Monitoring

The noise levels and the herons' reaction will be monitored during construction activities while the heronry is occupied. Wood recommends the calculated allowable noise limits listed in Table 5 and summarized below should be used as a boundary limit for allowable noise levels at the March Point Heronry during the construction.

Nesting area (SE and SW monitoring sites) allowable noise levels from construction noise sources are as follows:

- Hourly L_{eq} should not exceed 63.6 dBA more than 5 percent of the time;
- Maximum hourly L_{max} should not exceed 85.8 dBA more than 5 percent of the time; and

- Maximum one-second fast response L_{max} measurement should not exceed 92 dBA (to be consistent with WDFW recommendations for nesting areas).

The details of the monitoring and reporting are discussed in this section. It should be noted that the foraging area has not been included, due to the proposed construction activities along the shoreline and because alternate foraging locations in the surrounding area are available to the herons.

The proposed construction activities are planned to begin as early as April and last through November. Wood recommends the following noise monitoring be conducted during the heronry occupancy (February through July):

- Periodic construction noise monitoring at multiple areas along accessible areas of the heronry boundary when construction equipment is operating for the remedial work at the landfill site. On-site noise monitoring should include the following sound level measurements:
  - Roving monitoring of the L_{max} (one-second duration) and L_{eq} noise measurements along the heronry boundary to capture instantaneous noises and average sound levels, respectively.
  - Construction-period noise monitoring at designated locations along the nesting area boundary to capture hourly metrics. To achieve this, a stationary SLM will be placed at a location near the heronry and a roving SLM will be utilized around the construction activities. The noise monitoring locations for hourly metrics should be the same as the baseline monitoring locations or should be based on the latest observed location of heron activity and planned construction activity. They also should be selected to represent the impacts on the observed location(s) of heron activity relative to the planned construction activity each day.
  - Construction-period noise monitoring using SLMs from Monday to Friday at the SE and SW baseline monitoring locations at the heronry boundary, with subsequent evaluation of data to characterize noise metrics at the site for comparison with the results from the 2021 existing conditions monitoring.
- Supplemental noise monitoring should be conducted if a change in site conditions or utilized equipment could lead to levels above the recommended allowable noise limit at the heronry boundary, or if levels at the heronry boundary are found to be above the recommended allowable noise limits.

4.3 Equipment Noise Mitigation

The project goal is to avoid noise impacts at the heronry that exceed the upper tolerance limits of noise for the herons summarized in Table 5.

Table 7 lists equipment expected to be used at the Whitmarsh Landfill and their average maximum noise levels at 50 feet.

These are standard data representing noise emissions from actual in-use construction equipment prior to the cited report. Actual construction equipment noise levels are frequently lower than these data, but these values and the associated numbers of equipment and expected positioning were used in a noise modeling effort (Figure 5) to predict the potential worst-case impacts on the heronry. The results of the noise modeling are included in Appendix E.

The modeling found that the maximum noise levels at Noise Monitoring Sites SE and SW along the heronry boundary would not exceed an L_{max} of 69 dBA at the SE site, and 62 dBA at the SW site. Because these levels are well below the UTL_{95} for the heronry, it is expected that the remedial construction activities will not adversely affect the heron's success in continued utilization of the heronry. However, the

following mitigation measures may be utilized if the noise generated reaches the maximum allowable levels:

- Conduct the perimeter construction activities in clockwise direction starting at the site entrance, so that the majority of the perimeter work closest to the heronry will be conducted later in or after the breeding season;
- Stage heavy equipment at points furthest from heron nesting areas.
- Implement a no-idling policy.
- Operate at a steady rate to minimize equipment power demands and reduce the associated engine revving, when possible.
- Install more efficient engine exhaust silencers.
- Apply sound dampening material and sound absorption layers to vibrating panels and covers.
- Limit run times to reduce hourly sound level averages.
- Limit the number of trips across the site and the number of pieces of equipment running at the same time.
- Avoid tracked equipment. If tracked equipment must be used, avoid driving over surfaces that may create higher noise levels, such as concrete, pavement, and packed gravel.
- Install modified/ambient sensitive backup warning devices or use backup observers on all vehicles/heavy equipment.
- Require well-maintained bed liners for all trucks performing import/export haul. Bed liners dampen noise from materials that are loaded and unloaded from the truck bed.
- Ensure truck loading methods involve careful placement of material in the beds versus dropping the material from higher distances.
- Prohibit truck tailgate banging. All truck tailgates shall be secured to prevent excessive noise from banging.

Some of these mitigation measures could also be used to address concerns regarding potential visual disturbance due to construction activities.

Noise mitigation techniques for generators/pumps/other small equipment are as follows:

- Locate equipment within a sound dampening enclosure;
- Install more efficient engine exhaust silencers; and
- Apply sound dampening material and sound absorption layers to vibrating panels and covers.

4.4 Other Mitigation Measures

Other mitigation measures to eliminate, reduce, and/or avoid significant disturbance and adverse impacts to the herons could include:

- Locate on-site activities as far away from the heronry and heron activity (including the lagoon) as practical by scheduling activities to accommodate their breeding season patterns.
- Exclude/limit the portion of South March Point Road next to the heronry as a site access/haul route to the extent practicable. Direct haul routes and site traffic (workers, vendors, etc.) to/from the north and northwest, away from the portion of South March Point Road adjacent to the heronry.

- Avoid louder work activities on windy, cool, or rainy days to the extent practical.
- Prevent loud noises and refrain from large equipment moves during large vocalizations (chortles/clucks) by the herons and/or observed disturbances to the colony by predator activity (bald eagles, red-tailed hawks, etc.).
- If lighting is needed, use covered and down-shielded lights and direct away from the heronry, foraging areas, and existing trees on the project site.
- Produce a schedule for periodic monitoring, and a contingency plan with corrective actions if conservation or mitigation actions do not lead to a desired outcome as recommended by Azerrad (2012).

4.5 Biological Monitoring

Biological monitoring is proposed following the recommendations in Azerrad (2012), as part of the Heronry Management Plan requirements (Anacortes Municipal Code 19.70.335.C.2.b). The purpose of biological monitoring is to detect any significant behavioral changes in the herons that result from noise or visual disturbances from construction activities and confirm that the recommended allowable construction noise does not adversely affect the herons during their nesting period. Biological monitoring during construction will be limited to heron behavior and implemented concurrent with the noise monitoring. Observers will be present on site during mutually agreed-upon designated portions of the noise monitoring efforts to detect behavioral changes in the herons resulting from specific disturbance. Disturbance is a human activity that changes the contemporaneous behavior or physiology of one or more individuals within a breeding colony and can include visitor activities surrounding the nesting area and vehicle activities (road, boat, and air traffic) through, near, and over the heronry (Nisbet, 2000).

Biological monitoring will be performed during staging and site setup activities and throughout the entirety of the first week of earth-moving construction. Biological monitors will be on site to observe the herons and ensure there are no adverse behaviors observed. Afterwards, biological monitoring will be reduced to once per week during construction. The once-a-week biological monitoring will be scheduled to coincide with planned noise measurements and changes occurring on the site, such as changes in construction activities, when new equipment or multiple pieces of equipment will be in use (generating a potential change in noise level and/or general activity level), or when there is a change in the proximity of work to the heronry. Frequency of biological monitoring can be reevaluated if there are indications that the herons are responding negatively to work activities.

4.5.1 Methods and Documentation

Each biological observation monitoring period will begin at the start of the work day (e.g., 6:00 a.m.) before construction activity occurs, yet late enough for heron reactions to disturbances to be readily observable. The biological monitor will be positioned at a location where several occupied heron nests are visible without changing vantage location or positioning. Observation locations will be maintained unless work activities require relocation. For monitoring during construction, the contractor will provide information regarding the types of activities and equipment that will be operating that day (this information can be transmitted for a week at a time). The monitor can use this information to determine the best day and vantage point for monitoring.

Activities on the site that could potentially disturb the herons will be monitored. Throughout the observation period, the biological monitor will make note of any behaviors that could indicate disturbance, which could include:

- Audible chortles or clucks, which could indicate early stage or low level of disturbance;

- Audible screams/sharp cries, which could indicate late stage or high level of disturbance;
- Adults flushing from nests (with duration of time from flush to nest return recorded); and
- Herons circling nests from above.

Using a standard data form (Appendix F), the biological monitor will record observations at a minimum of every 10 minutes. This ensures monitoring continues without long periods of interruption. Herons will be observed using a spotting scope or binoculars.

As shown in Figure 4 and described in Section 3.1, other forage areas in proximity to the March Point Heronry besides the tidal flats adjacent to the Whitmarsh Landfill are available. Therefore, while the main focus of the biological monitoring is reaction activity from the heronry, data also will be recorded periodically for the foraging monitoring site.

Data also will be recorded for events that occur without a perceived reaction from the herons. For example, if an excavator is operating at the construction site and the herons do not appear to react to the activity (both sound and visual), this shall be recorded as shown in the chart below:

Time	Activity	Response Code	Number of Herons
1210	LF/E/S/V	N/N	0

Abbreviations:
E = equipment
LF = landfill
N = none
S = sound
V = visual

If there is a response to equipment, for example, an excavator on the construction site drops the bucket onto the ground making a loud noise and two herons flush from their nest to adjacent trees, but then return within one minute, a new entry line would read:

Time	Activity	Response Code	Number of Herons
1215	LF/E/S/V/IN	FL/RE (1)	2

Abbreviations:
E = equipment
FL = flush
IN = instantaneous noise
LF = landfill
RE = return
S = sound
V = visual

This indicates that the instantaneous noise flushed two herons, but both returned to the heronry within one minute.

Further information can be provided in the notes section of the data form to identify the equipment, activity being performed, location on the project site, and proximity to the heronry; to clarify recorded data; to record changes in conditions; and/or to note other species within the monitoring area.

4.5.2 Significant Heron Disturbance

Certain behavioral responses to disturbance are of concern because they have potential to cause reproductive failure (nest abandonment and loss of eggs and/or young). The effects of brief flushes from the nest may not be adverse unless prolonged enough to result in loss of eggs or chicks (e.g., through reduced egg incubation and opportunistic predation) or metabolic costs to a parent.

For the Whitmarsh Landfill project, the following shall be considered a significant heron disturbance:

- Multiple herons exhibiting distress and/or abnormal nesting behaviors, including:
  - Excessive vocalization (distress calls);
  - Excessive agitation; or
  - Excessive circling.
- A large-scale flush event (e.g., more than 25 herons) with a prolonged absence from the nest (more than three minutes).

These are considered significant behavior changes and disturbance requiring notification and possible contingency actions.

4.6 Biological Mitigation

During construction, if monitoring or other verifiable observation reveals a significant heron disturbance, appropriate contingency actions to mitigate the disturbance shall be implemented immediately. If contingency actions cannot be implemented immediately, halt the disturbance-causing activity until the contingency actions can be implemented.

The aspect of construction suspected of causing the significant heron disturbance shall be suspended for the time recommended by the biological monitor (i.e., until behaviors normalize, etc.) or until contingency actions can be implemented to mitigate the disturbance.

If the significant heron disturbance appears to coincide with a noise or other disturbance event not related to site construction activities or there is evidence that behavior is in response to predator activity, then monitoring should continue and construction activities could proceed with caution, based on recommendations by the biological monitor. If heron behaviors do not normalize, then construction should be suspended, or other contingency actions should be implemented to mitigate site noise and disturbance in order to reduce these additional potential disturbances to the herons.

Additional contingency actions may include the following:

- Immediate suspension of activities suspected of causing disturbance until such time as mitigation has been implemented;
- Increased frequency of the monitoring events;
- Extension of the monitoring period;
- Alteration of construction activities or schedule;
- Change in use of equipment and/or schedules to minimize disturbance; and
- Modifications to construction equipment.

4.7 Notifications and Reporting

If noise or biological monitoring reveals significant disturbance to the herons from construction, including any significant cumulative effect on the herons (i.e., increased agitation in response to disturbance identified through data analysis), the information will be presented immediately to the site superintendent/foreman, the Project Manager, and the Skagit County Project Manager to immediately implement appropriate contingency actions in order to mitigate the disturbance. Notifications will include the time, disturbance, response, and the likelihood of repeated response to the same disturbance based on the monitor's judgement. The biological monitor should not abandon monitoring activities until the birds' behaviors have

normalized. All parties involved will agree on an immediate and near-term course of action to mitigate the disturbance and prevent repeated disturbance. Skagit County representatives or their designee will be responsible for reporting information to the Washington State Department of Ecology or other State and local agencies as needed.

The data will be reviewed regularly to help assess whether the monitoring protocol is effective and to elicit questions or suggestions for ongoing activities to help create an adaptive approach to the monitoring efforts.

Monitoring results will be discussed in the weekly progress calls/meetings. Monthly reports will be provided to Skagit County in memorandum format. Results will include summary noise data collected, frequency of disturbance and response patterns and compared to available sound data.

5.0 References

Azerrad, J. M. 2012. Management recommendations for Washington's priority species: Great Blue Heron. Washington Department of Fish and Wildlife, Olympia, Washington.

City of Anacortes. 2010. Official Shoreline Environments Designation Map, City of Anacortes, Washington. Shoreline Master Program.

City of Anacortes. 2019. City of Anacortes Zoning Map. Codified by Ordinance 3040.

Nisbet, Ian C. T. 2000. Disturbance, Habituation, and Management of Waterbird Colonies. *Waterbirds* 23(2): 312-332.

U.S. Environmental Protection Agency. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. 550/9-74-004. Office of Noise Abatement and Control.

Washington State Department of Transportation (WSDOT). 2020. *Biological Assessment Preparation Manual*.

Figures

EXPLANATION

- FORMER SNOW MOUNTAIN LOG MILL
- APPROXIMATE EXTENT OF SOLID WASTE
- PARCEL LINES FROM SKAGIT COUNTY

N

0 200 400

APPROXIMATE SCALE IN FEET

wsp

PROJECT LOCATION
Heron Management Plan
March Point (Whitmarsh) Landfill
Skagit County, Washington

By: APS	Date: 10/02/23	Project No. PS21204410
WSP USA Environment & Infrastructure Inc.		Figure 1

Plot Date: 10/02/23 - 12:04pm, Plotted by: USAS719374
Drawing Path: C:\Users\USAS719374\OneDrive - WSP O365\Wood\Whitmarsh\, Drawing Name: Whitmarsh-MarchPoint_Design-CoverSheet_092723.dwg

PADILLA BAY

BNSF RAILROAD

MAY 1-15, 2024

MAY 15-31, 2024

APPROXIMATE EXTENT OF SOLID WASTE

PADILLA BAY
INNER LAGOON

984-FT HABITAT BUFFER

656-FT HABITAT BUFFER

EXISTING ROADWAY

EXISTING ROADWAY

GATE

EXISTING CULVERT

REGRADING:
MAY THROUGH AUGUST
CAPPING:
AUGUST THROUGH SEPTEMBER

JUNE 1-15, 2024

JUNE 15-30, 2024

197-FT HABITAT BUFFER

WATER TREATMENT:
MAY THROUGH SEPTEMBER

AUGUST 1-15, 2024

JULY 15-31, 2024

JULY 1-15, 2024

SWINOMISH INDIAN
TRIBAL LANDS

NOISE MONITORING SITE: SW

EXISTING CULVERT

S MARCH POINT RD

NOISE MONITORING SITE: SE

EXISTING CULVERT

MONITORING POINTS ALONG PROPERTY LINE

HERONRY
NESTING
AREA

STATE ROUTE 20

EXPLANATION

- STORMWATER SWALE CENTERLINE
- EXISTING HIGH TIDE LINE (HTL) (EL. 10.27' MLLW)
- APPROXIMATE EXTENT OF SOLID WASTE (15.3 ACRES)
- GROUNDWATER INTERCEPTION AREA
- ELEVATION CONTOUR IN FEET ABOVE MEAN LOWER LOW WATER (MLLW) (2-FT INTERVALS) (LIDAR USGS CONTOURS IN 5-FT INTERVALS)
- EXISTING STRUCTURE
- EXISTING CONCRETE SLAB
- EXISTING CONCRETE PAD
- HERONS BREEDING SEASON
- OUTSIDE HERONS BREADING SEASON

0 75 150
APPROXIMATE SCALE IN FEET

CONSTRUCTION SEQUENCING
Heron Management Plan
March Point (Whitmarsh) Landfill
Skagit County, Washington

By: APS	Date: 10/02/23	Project No. PS21204410
WSP USA Environment & Infrastructure Inc.		Figure 2

Plot Date: 10/02/23 - 1:17pm Plotted by: USAS719374
Drawing Path: C:\Users\USAS719374\OneDrive - WSP O365\Wood\Whitmarsh\ Drawing Name: Whitmarsh-MarchPoint_DesignDRAFT_092623-MLLW.dwg

PADILLA BAY

BNSF RAILROAD

APPROXIMATE EXTENT OF SOLID WASTE

NOISE MONITORING SITE: N

EXISTING ROADWAY

PADILLA BAY
INNER LAGOON

P19687

GATE

P19713

EXISTING CULVERT

P19712

WASHINGTON
DEPARTMENT
OF NATURAL
RESOURCES

SWINOMISH INDIAN TRIBAL LANDS

MW-01

MW-02

PARCEL#:
P19677
QUATTRO
PROPERTIES
LLC

PARCEL#:
P19675
QUATTRO
PROPERTIES
LLC

P19676

P19761

P19684

NOISE MONITORING SITE: SW

EXISTING CULVERT

S MARCH POINT RD

NOISE MONITORING SITE: SE

EXISTING CULVERT

PARCEL#:
P104357
SKAGIT LAND
TRUST

MONITORING POINTS ALONG PROPERTY LINE

P19763

MW-04

NOISE MONITORING SITE: SE ALTERNATE

PARCEL#:
P135657
SKAGIT
LAND
TRUST

PARCEL#: P19763
SALISH TRUST

HERONRY
NESTING
AREA

PARCEL#:
P19763
SALISH
TRUST

PARCEL#:
P19765
SKAGIT
LAND
TRUST

PARCEL#:
P19675
QUATTRO
PROPERTIES
LLC

STATE ROUTE 20

EXPLANATION

- PARCEL LINE
- STORMWATER SWALE CENTERLINE
- EXISTING HIGH TIDE LINE (HTL) (EL. 10.27' MLLW)
- APPROXIMATE EXTENT OF SOLID WASTE (15.3 ACRES)
- 20 — ELEVATION CONTOUR IN FEET ABOVE MEAN LOWER LOW WATER (MLLW) (2-FT INTERVALS) (LIDAR USGS CONTOURS IN 5-FT INTERVALS)
- EXISTING STRUCTURE
- EXISTING CONCRETE SLAB
- EXISTING CONCRETE PAD

NOTE:

1. THE PROPOSED NOISE MONITORING POINTS ARE APPROXIMATE AND MAY CHANGE. ADDITIONAL LOCATIONS MAY ALSO BE CONSIDERED BY WOOD.

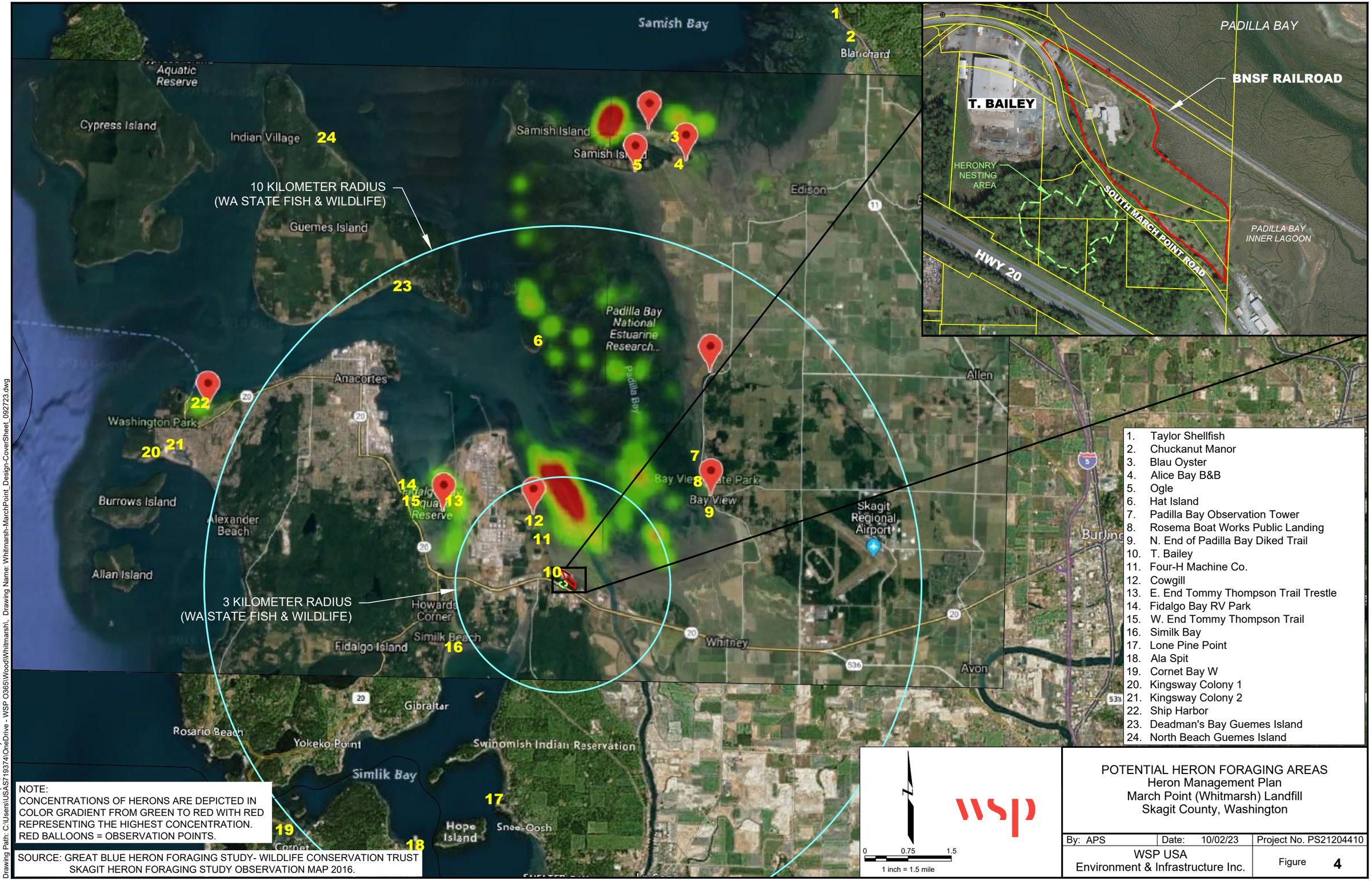
0 75 150
APPROXIMATE SCALE IN FEET

wsp

NOISE MONITORING LOCATIONS
Heron Management Plan
March Point (Whitmarsh) Landfill
Skagit County, Washington

By: APS	Date: 10/02/23	Project No. PS21204410
WSP USA Environment & Infrastructure Inc.		Figure 3

Plot Date: 10/02/23 - 12:10pm, Plotted by: USAS719374
Drawing Path: C:\Users\USAS719374\OneDrive - WSP O365\Wood\Whitmarsh_Drawing Name: Whitmarsh-MarchPoint_DesignDRAFT_092623-MLLW.dwg



1. Taylor Shellfish
2. Chuckanut Manor
3. Blau Oyster
4. Alice Bay B&B
5. Ogle
6. Hat Island
7. Padilla Bay Observation Tower
8. Rosema Boat Works Public Landing
9. N. End of Padilla Bay Diked Trail
10. T. Bailey
11. Four-H Machine Co.
12. Cowgill
13. E. End Tommy Thompson Trail Trestle
14. Fidalgo Bay RV Park
15. W. End Tommy Thompson Trail
16. Similk Bay
17. Lone Pine Point
18. Ala Spit
19. Cornet Bay W
20. Kingsway Colony 1
21. Kingsway Colony 2
22. Ship Harbor
23. Deadman's Bay Guemes Island
24. North Beach Guemes Island

NOTE:
CONCENTRATIONS OF HERONS ARE DEPICTED IN COLOR GRADIENT FROM GREEN TO RED WITH RED REPRESENTING THE HIGHEST CONCENTRATION. RED BALLOONS = OBSERVATION POINTS.

SOURCE: GREAT BLUE HERON FORAGING STUDY- WILDLIFE CONSERVATION TRUST
SKAGIT HERON FORAGING STUDY OBSERVATION MAP 2016.

0 0.75 1.5
1 inch = 1.5 mile

POTENTIAL HERON FORAGING AREAS
Heron Management Plan
March Point (Whitmarsh) Landfill
Skagit County, Washington

By: APS	Date: 10/02/23	Project No. PS21204410
WSP USA Environment & Infrastructure Inc.		Figure 4

Plot Date: 10/02/23 - 12:16pm, Plotted by: USAS7719374
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BNSF RAILROAD

PADILLA BAY

APPROXIMATE EXTENT OF SOLID WASTE

PADILLA BAY
INNER LAGOON

984-FT HABITAT BUFFER

656-FT HABITAT BUFFER

GATE

STAGING
AREA
GENERATOR
5kva

EXISTING CULVERT

DELIVERY TRUCK

DOZER

DUMP TRUCK

197-FT HABITAT BUFFER

TREATMENT
AREA WITH
PUMPS

EXCAVATOR

JULY 15-31, 2023

SWINOMISH INDIAN TRIBAL LANDS

NOISE MONITORING SITE: SW

NOISE MONITORING SITE: SE

EXISTING CULVERT

S MARCH POINT RD

EXISTING CULVERT

MONITORING POINTS ALONG PROPERTY LINE

HERONRY
NESTING
AREA

STATE ROUTE 20

NOTE:

FIGURE SHOWS CONSTRUCTION ZONE CLOSEST TO THE HERONRY DURING THE HERONS' BREEDING SEASON.

EXPLANATION

- STORMWATER SWALE CENTERLINE
- PROPOSED HIGH TIDE LINE (HTL) (EL. 10.27' MLLW)
- PROPOSED EXTENT OF SOLID WASTE (13.3 ACRES)
- GROUNDWATER INTERCEPTION AREA
- ELEVATION CONTOUR IN FEET ABOVE MEAN LOWER LOW WATER (MLLW) (2-FT INTERVALS) (LIDAR USGS CONTOURS IN 5-FT INTERVALS)
- PROPOSED FINAL GRADE CONTOURS (2-FT)
- PROPOSED GRAVEL SURFACING AREA
- RAILROAD BALLAST SURFACING AREA
- CONSTRUCTION ZONE

0 75 150
APPROXIMATE SCALE IN FEET

wsp

CONSTRUCTION NOISE MODELING LOCATIONS
Heron Management Plan
March Point (Whitmarsh) Landfill
Skagit County, Washington

By: APS	Date: 10/02/23	Project No. PS21204410
WSP USA Environment & Infrastructure Inc.		Figure 5

Plot Date: 10/02/23 - 1:19pm Plotted by: USAS719374
Drawing Path: C:\Users\USAS719374\OneDrive - WSP O365\Wood\Whitmarsh\ Drawing Name: Whitmarsh-MarchPoint_DesignDRAFT_092623-MLLW.dwg

Tables

Table 1: Approximate 2023 Construction Schedule

Whitmarsh Landfill Heron Management Plan, Anacortes, WA

No.	Task	March		April		May		June		July		August		September	
		1st	Mid	1st	Mid	1st	Mid	1st	Mid	1st	Mid	1st	Mid	1st	Mid
1	Mobilization														
2	Site Setup				X										
Refuse Excavation and Grading[1]															
3	Northwest (Site Entrance)					X	X								
4	North (along BNSF Tracks)						X								
5	Northeast							X	X						
6	East								X						
7	Southeast									X					
8	South (Swale)										X				
9	Southwest (Swale)											X	X		
10	Water Treatment					X	X	X	X	X	X	X	X		
11	Waste Grading						X	X	X	X	X	X	X		
12	Gas Venting System									X	X	X	X	X	
13	GCLL Capping							X	X	X	X	X			
14	GCL Capping								X	X	X	X	X	X	
15	Ditch Construction											X	X		
16	Placement and Grading Cover Soil								X	X	X	X	X		
17	Topsoil Import and Placement											X	X	X	
18	Hydroseeding													X	
19	Plants													X	
20	Perimeter road													X	
21	Security Fence													X	
22	Demobilization													X	X
Heronry Breeding Stage[2]		Pre-nesting, Courtship			Egg Laying, Incubation			Brooding		Large Active Young		Fledging		Non-Breeding	

Notes:

1. Intertidal zone, averging 50 to 60 linear feet per work day.
2. Approximate breeding stage schedule for heronry from Azerrad (2012). The end of the breeding season is variable, typically considered to occur between late July and mid August. Observations by the Skagit Land Trust for the March Point Heronry indicate fledgling period often ends around the end of July.

Table 2: Common Noise Environments
Whitmarsh Landfill Heron Management Plan, Anacortes, WA

Typical Noise Environment	Sound Pressure Level (dB)	Typical Noise Environment	Sound Pressure Level (dB)
Jet aircraft takeoff at 100 feet	120	Conversational speech	60
Motorcycle at 25 feet	90	Television at 10 feet	55
Heavy truck at 50 feet	85	Typical office	50
Garbage disposal	80	Living room	40
City street corner	70	Quiet bedroom at night	30
Large store	65	NA	NA

Source: U.S. Environmental Protection Agency (1974).

Abbreviations
dB = decibels
NA = not applicable

Table 3: Noise Monitoring Periods
Whitmarsh Landfill Heron Management Plan, Anacortes, WA

Monitoring Period	Nominal Start Date & Time	Nominal End Date & Time	Hours of Continuous Noise Data Collected per Site[1, 2]
1	4/9/2021 2:30 p.m.	4/15/2021 3:00 p.m.	145.5
2	4/29/2021 1:00 p.m.	5/7/2021 12:00 p.m.	190
3	5/28/2021 12:00 p.m.	6/4/2021 1:00 p.m.	171
4	6/18/2021 11:00 a.m.	6/25/2021 11:00 a.m.	169
5[3]	7/2/2021 11:00 a.m.	7/9/2021 1:00 p.m.	172
6	7/23/2021 10:00 a.m.	7/30/2021 11:00 a.m.	170

Notes
1. All three sound level meters ran out of battery power before the end of the first deployment period. Subsequent monitoring periods included a battery replacement visit after three to four days of deployment. Continuous monitoring was briefly interrupted by battery replacements.
2. The sound level meter at the southeast monitoring location failed to record any measurements past May 7, 2021, during Monitoring Period 2 or before May 28, 2021, during Monitoring Period 3.
3. The southeast sound level meter was deployed at a location further east on South March Point Road to the alternate location, for Monitoring Period 5, to represent worst-case noise impacts from traffic and nearby fireworks sales and discharges.

Table 4: Average and Maximum Noise Levels during Daily Heron Occupancy Construction Window
Whitmarsh Landfill Heron Management Plan, Anacortes, WA

Noise Monitoring Site	Average L_{eq} [1]	Average L_{max} [1]	Number of Hourly Measurements
SE (Nesting Area)	58.5	79.4	281
SW (Nesting Area)	59.9	80.2	364
NE (Foraging Area)	48.2	67.6	359

Note
1. Average (arithmetic mean) L_{max} and L_{eq} were calculated from data collected from Monitoring Periods 1 through 4 (see Table 3), between 6:00 a.m. and 7:00 p.m, reported in decibels.

Abbreviations
L_{eq} = average (equivalent) sound level
L_{max} = maximum sound level
NE = northeast
SE = southeast
SW = southwest

Table 5: Recommended Allowable Noise Limits L_{eq} and L_{max} – Monitoring Periods 1 through 4
Whitmarsh Landfill Heron Management Plan, Anacortes, WA

Results reported in dBA

Noise Monitoring Site	L_{eq}[1]		L_{max}[1]		Number of Hourly Measurements
	Allowable Limit	Max Recorded	Allowable Limit	Max Recorded	
SE (Nesting Area)	63.6	64.6	86.2	97.6[2]	281
SW (Nesting Area)	64.9	66.1	85.8	97.6[2]	364
NE (Foraging Area)	56.1	62.3	82.4	94.1	359

Notes
1. UTL and maximum L_{max} and L_{eq} were calculated from data collected from Monitoring Periods 1 through 4, between 6:00 a.m. and 7:00 p.m.
2. Although the 1-second maximum noise levels at the heronry sites exceeded it, Wood recommends adhering to the 92 dBA maximum noise guideline adopted by Washington Department of Fish and Wildlife for the heronry boundary.

Abbreviations
dBA = decibels
L_{eq} = average (equivalent) sound level
L_{max} = maximum sound level
NE = northeast
SE = southeast
SW = southwest

Table 6: Anticipated Construction Noise Levels
Whitmarsh Landfill Heron Management Plan, Anacortes, WA
Results reported in dBA

Noise Monitoring Site	Allowable Limit (L_{max} , UTL_{95})	Anticipated L_{max} Construction Noise
SE (Nesting Area)	86.2	69
SW (Nesting Area)	85.8	62
NE (Foraging Area)	82.4	56

Note:
1. The results are based on all equipment operating at the same time.

Abbreviations
L_{max} = maximum sound level
NE = northeast
SE = southeast
SW = southwest
UTL_{95} = 95 percent upper tolerance limit

Table 7: Construction Equipment List and Estimated L_{max} Values
Whitmarsh Landfill Heron Management Plan, Anacortes, WA
Results reported in dBA

Equipment Description	L_{max} at 50 feet
Backhoe	84
Backup/Movement Alarm	80
Dump Truck	91
Excavator	87
Flatbed Truck	81
Pick Up Truck	75
Generator (5KVA)	73
Trash Pumps	74

Source: Chapter 7.0, Construction Noise Impact Assessment, of the *Biological Assessment Preparation Manual* (WSDOT 2020).
Abbreviations
KVA = volt amps
Lmax = maximum sound level

Appendix A

Site Photographs

Appendix A. Site Photographs

Photo 1 View west from the Swinomish Casino & Lodge toward the approximate location of the March Point Heronry (in red) and the Whitmarsh Landfill (in yellow), showing the general elevated position of the trees/nests within the heronry compared to the landfill. Photo taken prior to vegetation removal.

Photo 2 View southeast from the Whitmarsh Landfill toward the March Point Heronry, showing the general elevated position of the trees/nests within the heronry compared to the landfill. Photo taken prior to vegetation removal.

Photo 3 Whitmarsh Landfill prior to vegetation and tree removal. View toward the northeastern half of the project site and the March Point Heronry. Note the short stature and small diameter of the vegetation present on the landfill.

Photo 4 Whitmarsh Landfill post-vegetation and tree removal. Photo taken near Photo 3 location, view toward the northeastern half of the project site and the March Point Heronry. Much of the tall vegetation along South March Point Road, between the landfill and the heronry, remains.

Photo 5 Whitmarsh Landfill prior to vegetation and tree removal. View toward T. Bailey facility (white building in background) and the western half of the project. Note the tall trees in front of the T. Bailey facility but behind the landfill, along South March Point Road.

Photo 6 Whitmarsh Landfill post-vegetation and tree removal. View toward the western half of the project site and the T. Bailey facility. Note the remaining tall trees in front of T. Bailey (compare to Photo 5).

Photo 7 Whitmarsh Landfill post-vegetation and tree removal. View toward the southwestern half of the project site. Note the remaining tall trees and vegetation (right side of photo) between the site and heronry.

Appendix B

Development of Recommended Allowable Noise Limits

Appendix B – Development of Recommended Allowable Noise Limits

B.1 Introduction

This appendix summarizes the Wood Environment & Infrastructure Solutions, Inc. (Wood) review of potentially applicable noise regulations and the use of noise monitoring data from the heronry area to establish existing conditions, and then summarizes those existing conditions to develop recommended allowable noise limits that the herons appear tolerant of during the nesting season.

B.2 Review of Existing Regulations

There are two sources of noise impact criteria in Washington State: one is established by the Washington State Department of Ecology to regulate the impacts of a noise source on receiving properties, and the other is a recommended guideline from the Washington Department of Fish and Wildlife (WDFW) to protect migratory bird species.

B.2.1 Washington State Department of Ecology Regulations

B.2.1.1 Washington Administrative Code 173-60 Criteria

Washington Administrative Code (WAC) Chapter 173-60 establishes maximum permissible environmental noise levels at receiving property boundaries. The established maximum permissible noise levels in WAC 173-60-040 depend on the environmental designation for noise abatement (EDNA) for both the property that produces the noise source and the receiving property. There are three EDNA designations:

- Class A EDNA – Residential zones, which also include such areas as campgrounds and parks;
- Class B EDNA – Commercial zones, typically including areas that contain community services, commercial dining, and retail services; and
- Class C EDNA – Industrial zones.

Wood has used the definitions found in WAC 173-60-030 to designate the March Point Heronry as a Class A EDNA and the March Point Landfill as a Class C EDNA. Table B-1, taken from WAC 173-60-040, presents the maximum permissible noise level for property limits.

Table B-1: Maximum Permissible Environmental Noise Levels
March Point Heronry Management Plan, Anacortes WA
Noise Levels in dBA

EDNA of Nosie Source	EDNA of Receiving Property		
	Class A	Class B	Class C
Class A	55	57	60
Class B	57	60	65
Class C	60	65	70

Source: U.S. Environmental Protection Agency (1974).

Abbreviation(s)
dBA = A-weighted decibels
EDNA = environmental designation for noise abatement

In addition, WAC 173-60-040 provides for the following:

- Between the hours of 10:00 p.m. and 7:00 a.m., the noise limitations shown in Table B-1 shall be reduced by 10 A-weighted decibels (dBA) for a receiving property within Class A EDNAs.
- At any hour of the day or night, the applicable noise limitations in Table B-1 or in the bullet above may be exceeded for any receiving property by no more than:
  - 5 dBA for a total of 15 minutes in any one-hour period; or
  - 10 dBA for a total of 5 minutes in any one-hour period; or
  - 15 dBA for a total of 1.5 minutes in any one-hour period.

B.2.1.2 Washington Administrative Code 173-60 Exemptions

The exemptions to WAC 173-60-040 listed in WAC 173-60-50 include the following;

- WAC 173-60-50 (3) - The following shall be exempt from the provisions of WAC 173-60-040, except insofar as such provisions relate to the reception of noise within Class A EDNAs between the hours of 10:00 p.m. and 7:00 a.m.:
  - Sounds originating from temporary construction sites as a result of construction activity; and
  - Sounds originating from forest harvesting and silvicultural activity.
- WAC 173-60-050 (4) - The following shall be exempt from all provisions of WAC 173-60-040:
  - Sounds created by motor vehicles when regulated by Chapter 173-62 WAC;
  - Sounds originating from aircraft in flight and sounds that originate at airports that are directly related to flight operations;
  - Sounds created by surface carriers engaged in interstate commerce by railroad;
  - Sounds created by warning devices not operating continuously for more than five minutes, or bells, chimes, and carillons;
  - Sounds created by safety and protective devices where noise suppression would defeat the intent of the device or is not economically feasible;
  - Sounds created by emergency equipment and work necessary in the interests of law enforcement or for health safety or welfare of the community;
  - Sounds originating from motor vehicle racing events at existing authorized facilities;
  - Sounds originating from officially sanctioned parades and other public events;
  - Sounds emitted from petroleum refinery boilers during startup of said boilers, provided that the startup operation is performed during daytime hours whenever possible;
  - Sounds created by the discharge of firearms in the course of hunting;
  - Sounds caused by natural phenomena and unamplified human voices; and
  - Sounds created by motor vehicles, licensed or unlicensed, when operated off public highways except when such sounds are received in Class A EDNAs.

B.2.1.3 Washington Administrative Code 173-60 Applicability

The noise sources for most of the sounds that dominate the existing ambient noise environment at the March Point Heronry are listed exemptions in WAC 173-60-050(4) and (5). Temporary construction is also

exempt from these regulations per 173-60-050(4)(a) during the hours of 7 a.m. to 10 p.m. With the main exception of six days of shoreline construction that must occur at extreme low tides which occur in the early morning hours in 2022, the noise-producing construction activities at the March Point Landfill are not expected to occur before 7 a.m. or after 10 p.m.

Though WAC 173-60 does not apply to the majority of sound sources in the ambient environment and construction work at the March Point Landfill, Wood measured and tabulated the allowable exceedance data metrics (L_{25}, $L_{2.5}$, and $L_{8.3}$) to put the existing conditions and future noise impacts in context.

B.2.2 Washington Department of Fish and Wildlife Recommendations and City of Anacortes Municipal Code

The federal Migratory Bird Treaty Act of 1918 protects certain migratory bird species, including great blue herons. In Washington State, great blue herons are classified as protected wildlife and as a Priority Species. Heron nesting habitat is considered Priority Habitat, with protection provided through local city and county wildlife habitat or critical area ordinances. WDFW can advise local governments how to best protect heron colonies through consultation and Priority Species Management recommendations (Azerrad, 2012).

The WDFW management recommendations for the great blue heron include year-round buffers of various distances based on the percent-built environment within a quarter mile of a nest colony, as well as a seasonal buffer zone of 656 feet from "unusually loud activities." Unusually loud activities are defined as sounds exceeding 92 decibels when the sound reaches the outer boundary of the nesting colony. The recommended buffer zone should be established during the breeding season from February to September. The 92-decibel recommendation is used in the Heron Management Plan as the "do-not exceed" maximum noise level for the nesting areas.

For the March Point Heronry, the Anacortes Municipal Code 19.70.335, dated December 13, 2021, requires the 656-foot seasonal buffer width mentioned above for unusually loud activities during the breeding season. The Anacortes Municipal Code also sets a year-round buffer width of 984 feet; this is equivalent to the WDFW-recommended buffer width for nesting colonies located in an undeveloped setting (0–2 percent built within a quarter mile of the nest colony). Proposed developments within 1,000 feet, or that are likely to affect the colony, require a habitat management plan that follows, at a minimum, the guidelines provided by WDFW's recommendations.

B.3 Development of Noise Impact Recommendations

As described in the report, data collection was performed six times for seven consecutive days of 24-hour noise measurements during randomly-selected weeks within the heron breeding period. During each round, ambient noise was measured, and sounds recorded with Type 1 sound level meters (SLMs) at three primary sites (two along the heronry boundary and one near Padilla Bay to represent the nearest heron foraging area). For the week that included the Fourth of July weekend, Noise Monitoring Site SE along the heronry boundary was moved east to a fourth site, representative of the forested area potentially suitable for heronry habitat but nearer to the Swinomish Casino, to assess the effect of potential holiday traffic and celebration noise. These data were reviewed, summarized, and analyzed to arrive at recommended noise limits that the herons appear to tolerate during the breeding season.

B.3.1 Data Completeness Review

An external battery pack containing eight D-cell batteries was used to power the SLM during the monitoring periods. Based on guidance from the SLM manufacturer, the external power was initially expected to last the duration of the monitoring period. The first monitoring period was planned to last seven continuous days from April 9 to16; however, after demobilizing the equipment, it was found that

the battery power failed for all three instruments between April 14 and 15, resulting in a sampling duration for each that ranged from five to six days, rather than all seven days. Consequently, Monitoring Periods 2 through 6 included a battery change-out on the fourth or fifth day to ensure a complete seven-day sampling period.

During Monitoring Periods 2 and 3 (April 29 to May 7 and May 28 to June 4, 2021), the SLM located at Noise Monitoring Site SE failed to capture seven consecutive days of data. The SLM did not record any measurements before May 3 during Monitoring Period 2 or before May 28 during Monitoring Period 3. When Wood staff performed battery change-outs, the SLM was found to be off and was turned back on and set to record the remainder of the monitoring period. The cause of this failure has not been determined. These issues resulted in a relatively minor reduction in the number of hours of data collection for some of the sites.

B.3.2 Corrupt Data

A review of the data for Monitoring Period 2 (April 29 to May 7, 2021) showed that some of the periods had been affected by instrument setting or electrical faults (as indicated by momentary static and octave band overloads or impossible results for key data markers). Thus, a review and filtering of the data was necessary to identify and exclude the affected data. The review process was implemented based on three methods of detection of potentially affected data:

- The first method used was to filter out data recorded during calibration activities and any data below the SLM noise floor (which was lowered to eliminate this problem);
- The second method used was to filter out any missing data likely caused by a data buffer overload situation, represented in the data files by values of -99 dB or blank entries; and
- The third method used was to filter any data that has a significant difference between LAS_{max} and LAF_{max}, which corresponds with a possible data buffer overload that was characterized by momentary static in the noise recordings.

The review process identified data that were clearly unrepresentative. Aside from an hour each for two SLMs that were inadvertently left in calibration mode, the data affected typically consisted of a few to a few dozen seconds of an hour during this week of data. These periods of time were therefore removed from the 1-second time history and the hourly metrics were re-calculated. Review of subsequent monitoring periods found occasional rare occurrences of static noise recordings and octave band overloads. The data were removed from the 1-second time history and the metrics re-calculated as needed.

The Wood noise staff worked with Larson Davis support team to find the cause of the faulty data and octave band overloads. The SLMs were adjusted to automatically save the data locally to the SLM, in order to reduce the amount of data that was being stored in the data buffer of the SLM before it was saved at the end of the seven-day monitoring periods. This change eliminated further recurrence of the faulty data and octave band overload issues for subsequent monitoring periods.

B.3.3 Monitoring Periods Representing Existing Conditions

With the validated data, further analysis was conducted to determine whether the ambient noise conditions when herons had finished their occupancy were different than the prior periods when they were mating and raising their young. A statistical difference in the measured sound metrics between the periods with and without herons present would indicate the latter noise environment may not be representative of the environment herons are accustomed to. Hourly data was used to individually compare Monitoring Periods 5 (July 2 to July 9) and 6 (July 23 to July 30), when herons had dispersed

from the heronry versus Monitoring Periods 1 through 4, when they were occupying it and raising their young.

A nonparametric statistical test was utilized to compare the two sets of data, because the overall data did not follow a particular distribution (additional non-measured factors such as diurnal traffic and human activity clearly influence the overall noise levels). The nonparametric statistical test is appropriate for such conditions (USEPA, 2013).

Results of this test showed that the noise metrics for both Monitoring Periods 5 and 6 were statistically different (i.e. louder) from Monitoring Periods 1 through 4. Therefore, it is appropriate and conservative to exclude the noise levels during non-occupancy periods from the data used to establish the herons' upper tolerance limit for noise.

Overall review of the data showed that average Monitoring Period 5 sound measurements were louder than those for Monitoring Periods 1 through 4. This is likely due to fireworks and Fourth of July traffic and activities. Monitoring Period 6 sound metrics were found to be on average lower than the Monitoring Period 1 through 4 metrics, which may be due to decreased wildlife and bird activity, and could also reflect changes in weather patterns (less rain and wind).

Monitoring Period 6 data was therefore not included in the data to calculate the heron's upper tolerance limit for noise and the associated maximum values. Monitoring Period 5 data, representing the Fourth of July holiday week, was used to separately calculate statistical descriptors for a presumed worst-case sound exposure scenario.

B.3.4 Time Periods Selected

Remediation construction activities at the March Point Landfill are expected to be performed on only six days any earlier than 6:00 a.m., and none are expected after 7:00 p.m. in the evening. Therefore, only hourly metrics (L_{eq} and L_{max}) during expected work time hours were used to calculate statistical descriptors of tolerated noise during remedial construction time frames.

B.3.5 Wind Speed Data

WAC 173-58 establishes standardized procedures for the measurement of environmental noise. WAC 173-58 states that ambient environmental noise should not be collected when wind speeds exceed 12 miles per hour. Wind speed data was collected from a nearby weather station owned and maintained by the National Estuarine Research Reserve System. The weather station is located near the coast on the Padilla Bay Farm at the Padilla Bay Reserve. Wind speed data from the station is reported every 15 minutes. The four measurements taken every hour were averaged to calculate the average windspeed for a given hour during monitoring periods. The calculated hourly wind speed is presented in Appendix C.

Though there were several instances where the wind speed did exceed the 12 miles per hour limit, the data for these times was still retained, since it was representative of the ambient environment that herons are commonly exposed to at the heronry.

B.4 Calculation of the Upper Tolerance Limit of L_{eq} and L_{max}

The 95 percent upper tolerance limit (UTL_{95}) is a statistical estimate of an upper bound on the reasonably worst-case noise levels (95th percentile value), with a certain level of confidence (95 percent confidence). The UTL_{95} accounts for the inherent variability in sound levels throughout the monitoring periods. In this instance the UTL_{95} for L_{max} estimates the L_{max} noise level that one would not expect to be exceeded more than 5 percent of the time in a given hour. Similarly, the UTL_{95} for the L_{eq} estimates the upper bound for the hourly average sound level that would not be expected to be exceeded more than 5 percent of the

time by any future hourly average L_{eq}. The UTL is commonly used in many applications, including determining an upper confidence limit for background environmental data values (USEPA, 2013).

The most common way to estimate the UTL_{95} is to use a distributional model for the collected data. Data distribution models can be tested for a goodness of fit in a multitude of methods. The Wood noise staff utilized statistical computing software that follows U.S. Environmental Protection Agency guidance in finding appropriate distribution models for calculating statistical descriptors for environmental data. Based on the guidance, Wood determined that the distributions for all L_{eq} and L_{max} data sets did not follow a parametric distribution model; therefore, the UTL_{95} was estimated assuming a nonparametric distribution for the data.

The UTL_{95} was calculated for two key noise metrics, the hourly L_{max} and hourly L_{eq}, as shown in Table B-2. The L_{max} measurements reported in Appendix C were the highest 1-second L_{max} over each 1-hour period measured. The L_{eq} in the same tables is the sound level averaged over the indicated hour. The UTLs for these values, and the maximum values observed are presented below.

Table B-2: Maximum and Upper Tolerance Limit of L_{eq} and L_{max}
March Point Heronry Management Plan, Anacortes, WA

Results reported in dBA

Noise Monitoring Site	L_{eq}		L_{max}		Number of Hourly Measurements
	UTL	Maximum Recorded	UTL	Maximum Recorded	
SE (Nesting Area)	63.3	64.6	86.7	98.4	347
SW (Nesting Area)	63.5	66.1	86.1	97.6	448
NE (Foraging Area)	56.4	62.9	83.9	94.7	443

Note(s)
1. UTL and Maximum L_{max} and L_{eq} were calculated from data collected during Monitoring Periods 1 through 4, between 6:00 a.m. and 10:00 p.m.

Abbreviation(s)
L_{eq} = average (equivalent) sound level measured over a one-hour period
L_{max} = maximum sound level measured on fast response for 1-second duration
NE = northeast
SE = southeast
SW = southwest
UTL = upper tolerance limit

B.5 Instantaneous Maximum Noise Levels

The loudest source of instantaneous maximum noise events (L_{max}) was the discharge of fireworks near the Fourth of July holiday weekend. The loudest L_{max} captured for the entirety of the monitoring period was 121 dBA, which occurred on July 5 at 12:49 a.m. Sound data from this monitoring period was not included in the UTL calculations due to the absence of herons during this period. However, historically herons have remained in the area through the end of July. To characterize the upper conditions of the ambient environment that the herons may experience on an annual basis, the statistical descriptors of sound measurements from the Fourth of July weekend were calculated separately from the other monitoring periods and are presented in Table B-3.

Table B-3: Fourth of July Weekend Maximum and Upper Tolerance Limit of L_{eq} and L_{max}
March Point Heronry Management Plan, Anacortes, WA

Results reported in dBA

Noise Monitoring Site	L_{eq}		L_{max}		Number of Hourly Measurements
	UTL	Maximum Recorded	UTL	Maximum Recorded	
SE (Nesting Area)	60.8	62.8	86.6	98.6	172
SW (Nesting Area)	63.3	78.7	94.2	121.5	171
NE (Foraging Area)	58.6	71.7	89.3	101.9	171

Note(s)
1. UTL and Maximum L_{max} and L_{eq} were calculated from data collected between 7/2/2021 and 7/9/2021.
2. All hours were included in the data set to include the loudest instances of instantaneous noises.

Abbreviation(s)
L_{eq} = average (equivalent) sound level measured over a one-hour period
L_{max} = maximum sound level measured on fast response for 1-second duration
NE = northeast
SE = southeast
SW = southwest
UTL = upper tolerance limit

B.6 Monitoring Period Six Noise Levels

Sound data from this monitoring period was not included in the UTL calculations due to the absence of herons during this period. The statistical descriptors of sound measurements from monitoring period six were calculated separately from the other monitoring periods and are presented in Table B-4.

Table B-4: Period Six Maximum and Upper Tolerance Limit of L_{eq} and L_{max}
March Point Heronry Management Plan, Anacortes, WA

Results reported in dBA

Noise Monitoring Site	L_{eq}		L_{max}		Number of Hourly Measurements
	UTL	Maximum Recorded	UTL	Maximum Recorded	
SE (Nesting Area)	60.6	61.2	81.7	83.0	93
SW (Nesting Area)	65.3	65.8	85.6	90.7	93
NE (Foraging Area)	50.1	50.4	74.3	76.7	93

Note(s)
1. UTL and Maximum L_{max} and L_{eq} were calculated from data collected between 7/23/2021 and 7/30/2021, between 6:00 a.m. and 7:00 p.m.

Abbreviation(s)
L_{eq} = average (equivalent) sound level measured over a one-hour period
L_{max} = maximum sound level measured on fast response for 1-second duration
NE = northeast
SE = southeast
SW = southwest
UTL = upper tolerance limit

B.7 References

Azerrad, J. M. 2012. Management recommendations for Washington's Priority Species: Great Blue Heron. Washington Department of Fish and Wildlife, Olympia, Washington. March.

U.S. Environmental Protection Agency (USEPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. 550/9-74-004. Office of Noise Abatement and Control.

USEPA. 2013. ProUCL Version 5.1 User Guide: Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations. Office of Research and Development.

Appendix C

Noise Monitoring Data Metrics

Appendix C – Noise Monitoring Data Metrics

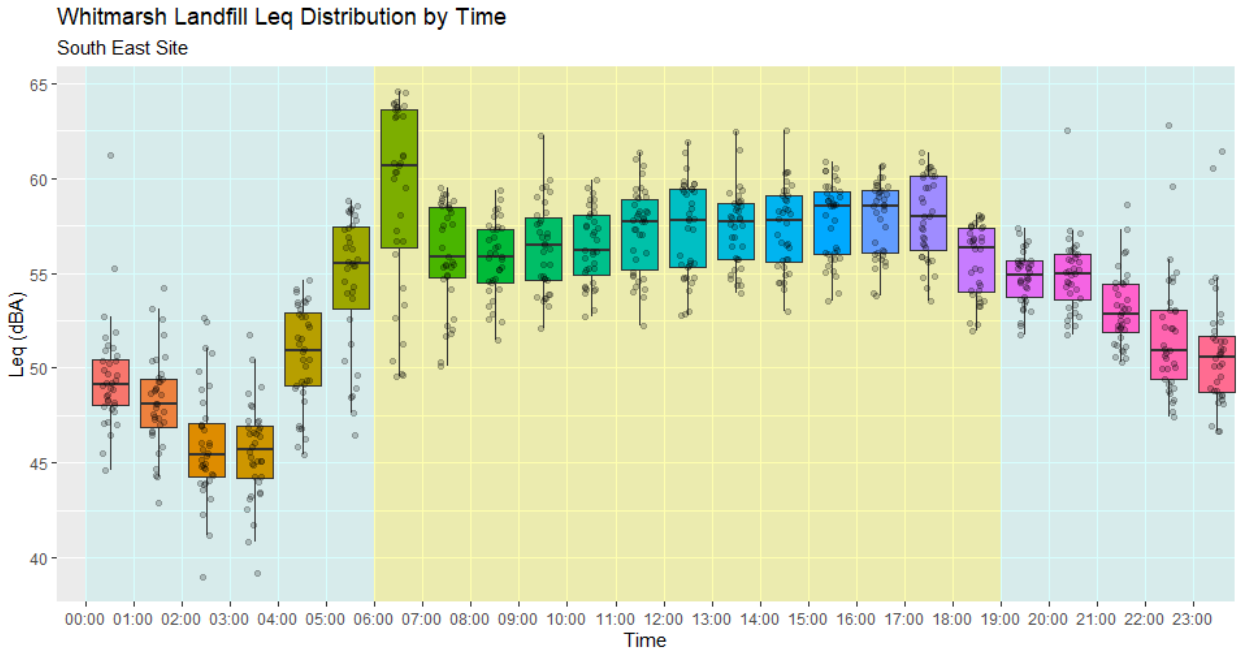
C.1 Hourly Noise Level Data Box and Whisker Plots

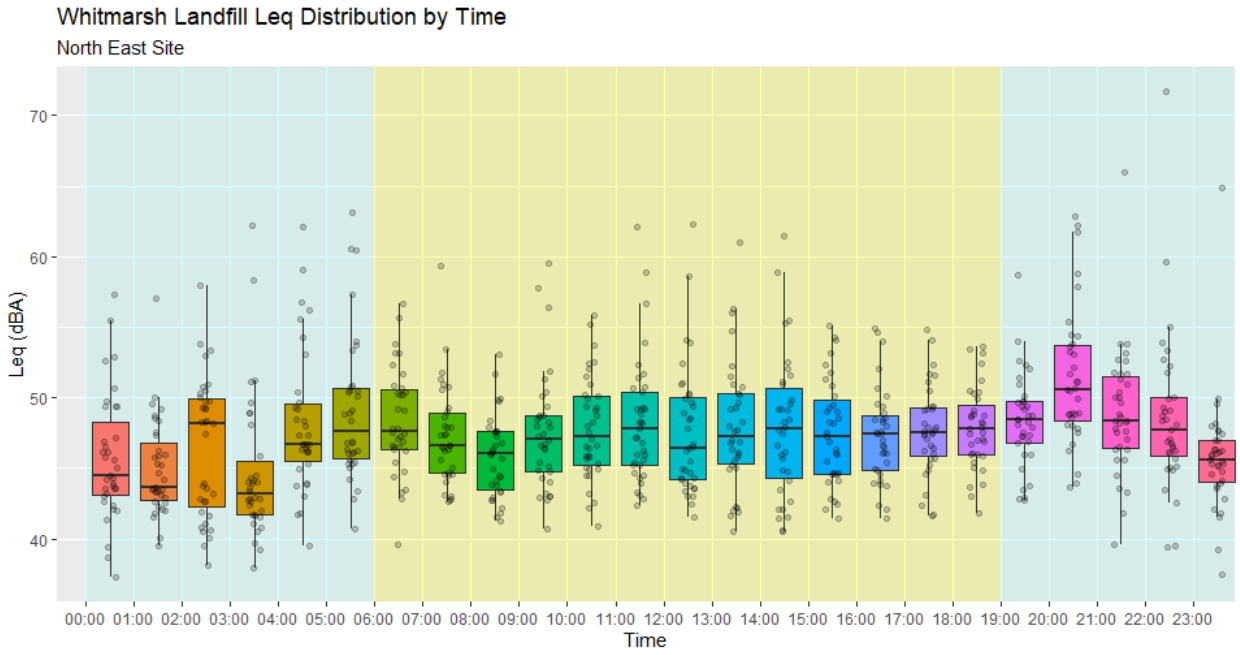
The box and whisker plots presented in this appendix show the L_{eq}, L_{25}, $L_{8.3}$, and $L_{2.5}$ metrics for each of the noise monitoring sites. These metrics are comparable to the Washington State Administrative Code (WAC) 173-60 maximum permissible sound levels and allowable exceedances (i.e., L_{25}, $L_{8.3}$, and $L_{2.5}$ are comparable to the maximum permissible sound levels and allowable exceedances for 15 minutes, 5 minutes, and 1.5 minute, respectively). Each individual transparent dot on the box plot figures represents an individual hourly observation for the metric (such as L_{eq}). The horizontal line in each box represents the median of the data set. The upper and lower boundaries of the box define the middle 50 percent of the data (between the 25th and 75th percentiles). The upper and lower "whisker" lines extending from the box represent the upper and lower extremes. The upper and lower extremes are the largest or smallest measured values no further than 1.5 times the inter-quartile range (the difference between the top and bottom of the box). Measurements outside these extremes are candidates for consideration as outliers.

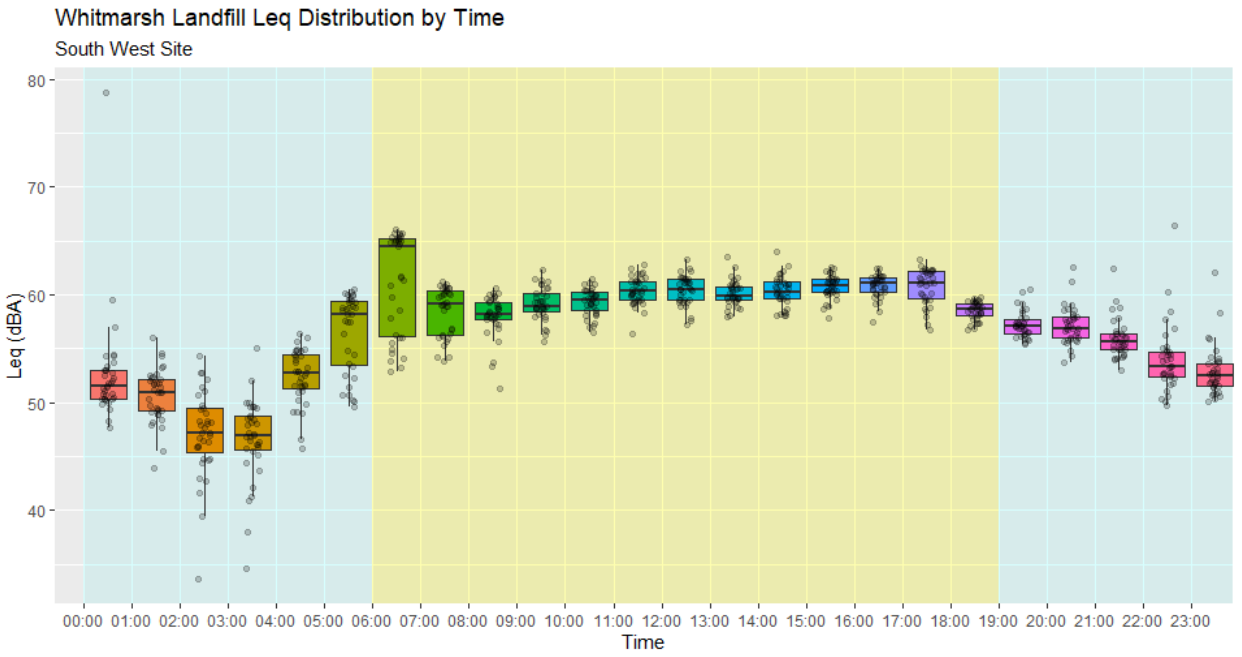
Daytime and nighttime hours are depicted by the change in background color at 6:00 a.m. and 7:00 p.m. No monitoring period or selected time periods were excluded in the plotting of the box plots. The representation of L_{eq}, L_{25}, $L_{8.3}$, and $L_{2.5}$ metrics was reviewed for qualitative understanding of the ambient environment. Qualitative findings are discussed further in Heron Management Plan.

C.1.1 Box Plots of Hourly Average Sound Level (L_{eq})

The box plots below present a graphical representation of the hourly average sound level (L_{eq}) at each noise monitoring location.

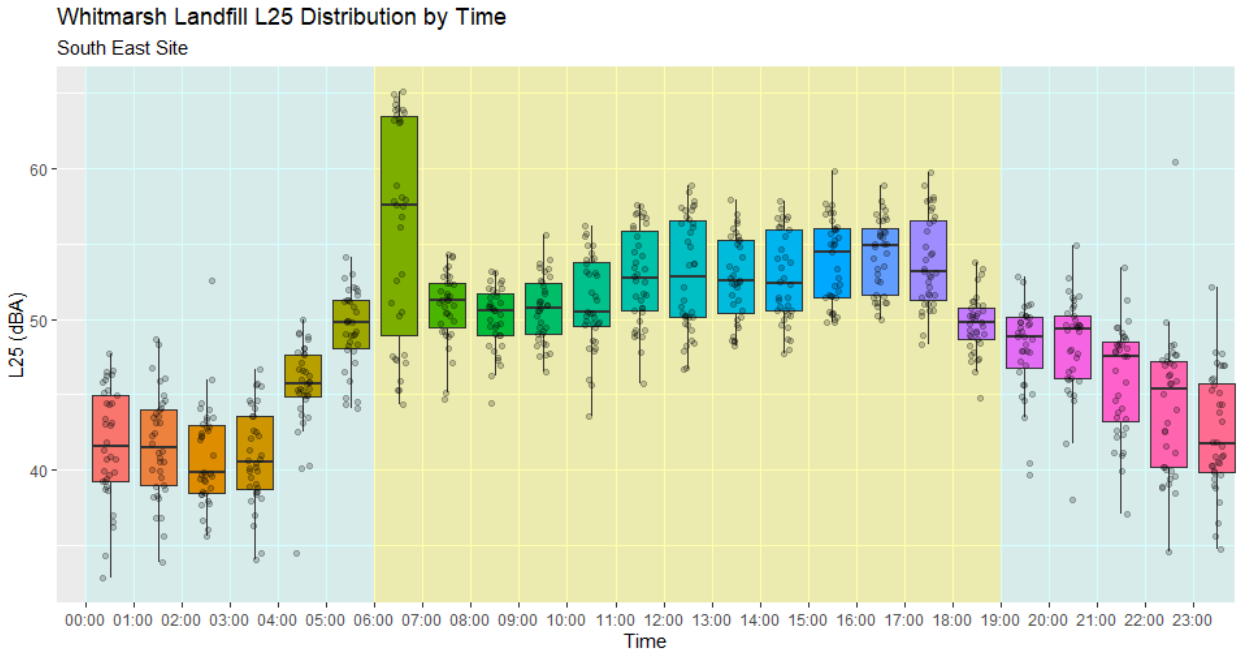


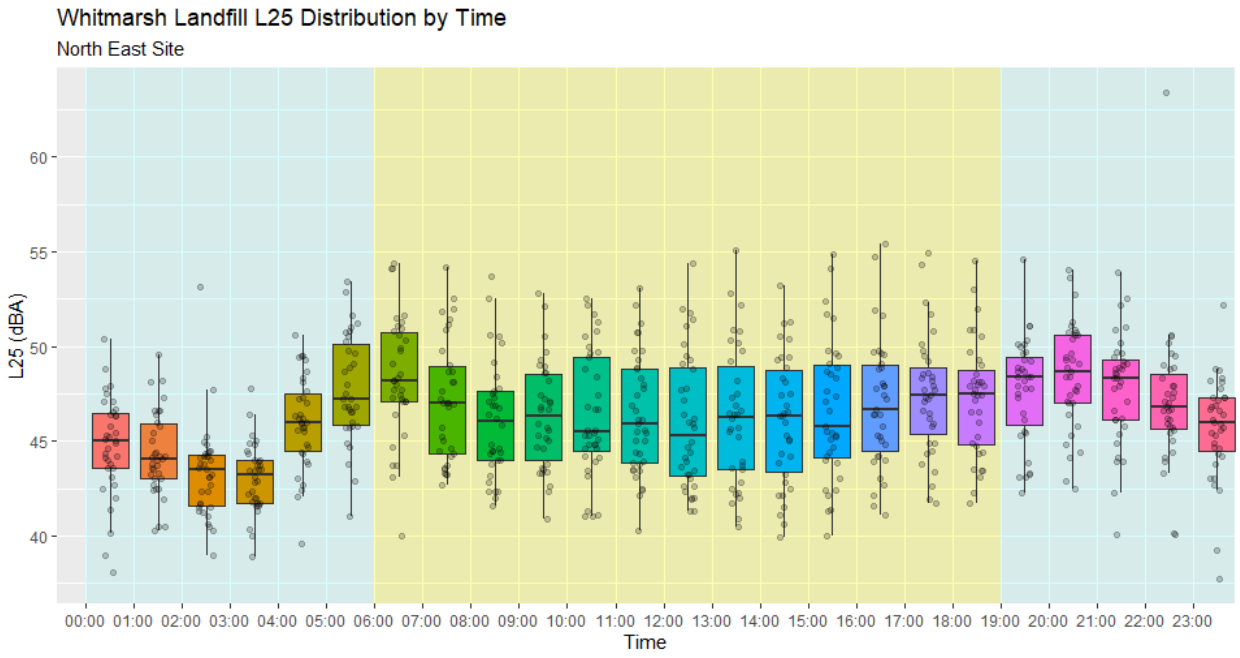


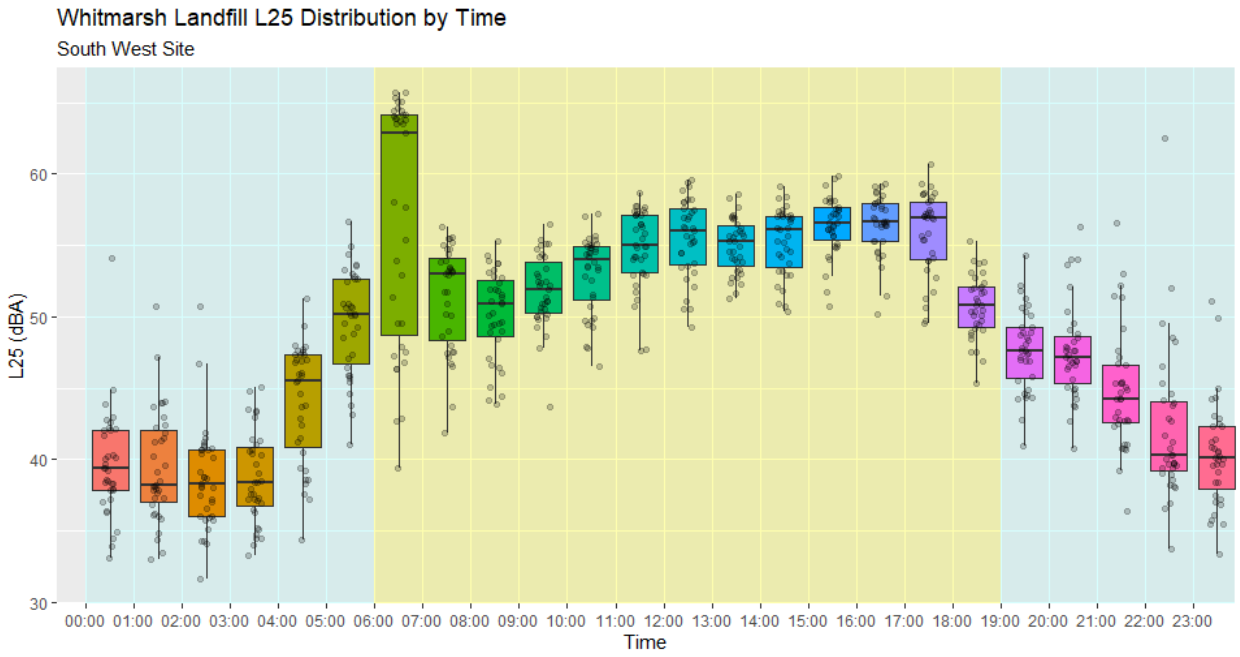

Whitmarsh Landfill Leq Distribution by Time
South West Site
Leq (dBA)
80
70
60
50
40
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
Time

C.1.2 Box Plots of Hourly L_{25}

The box plots below present a graphical representation of the statistical descriptor of the sound level exceeded 25 percent of the time in an hour (L_{25}) at each noise monitoring location.

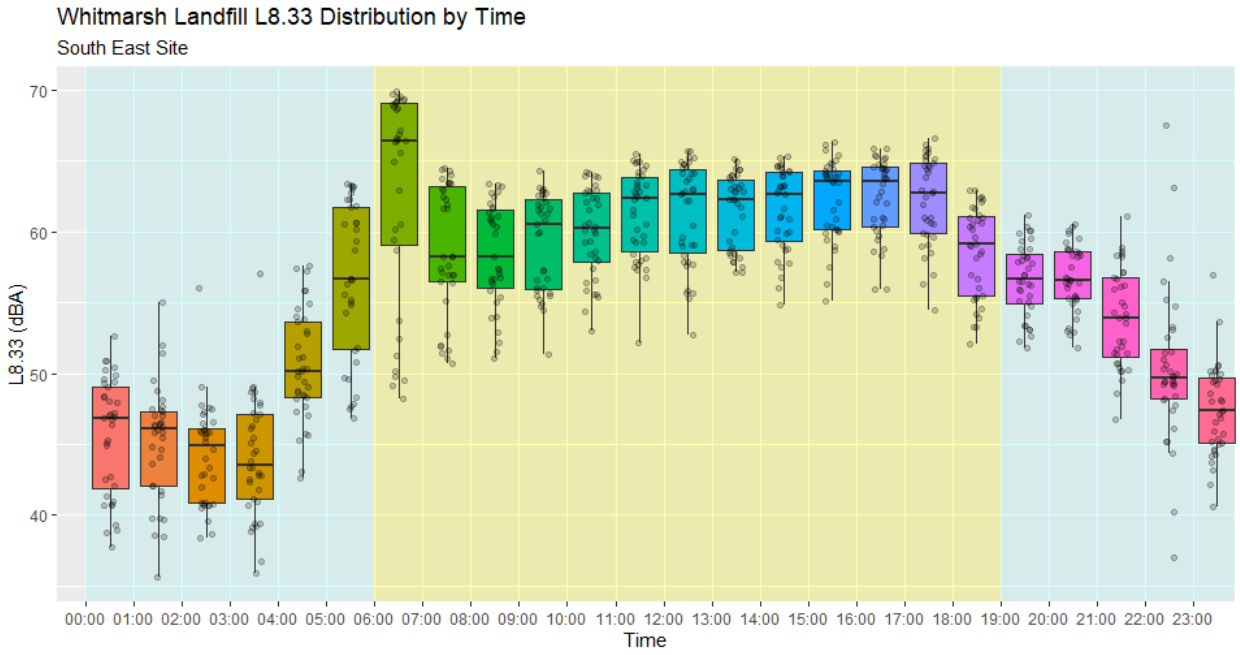


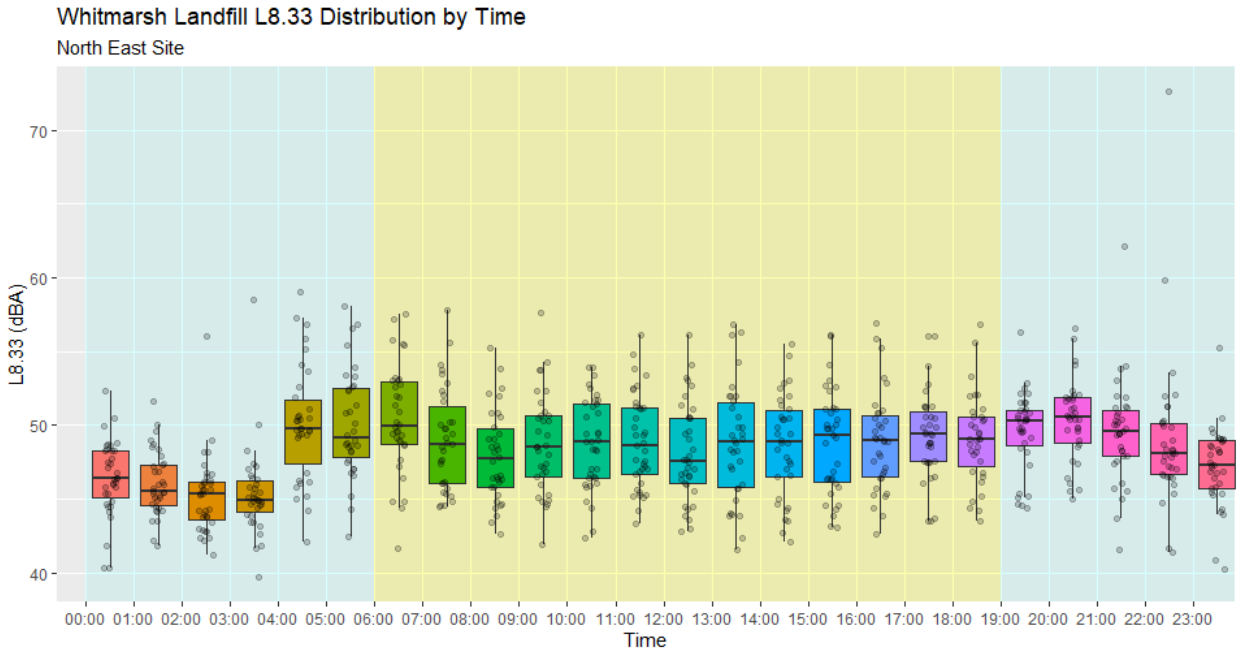


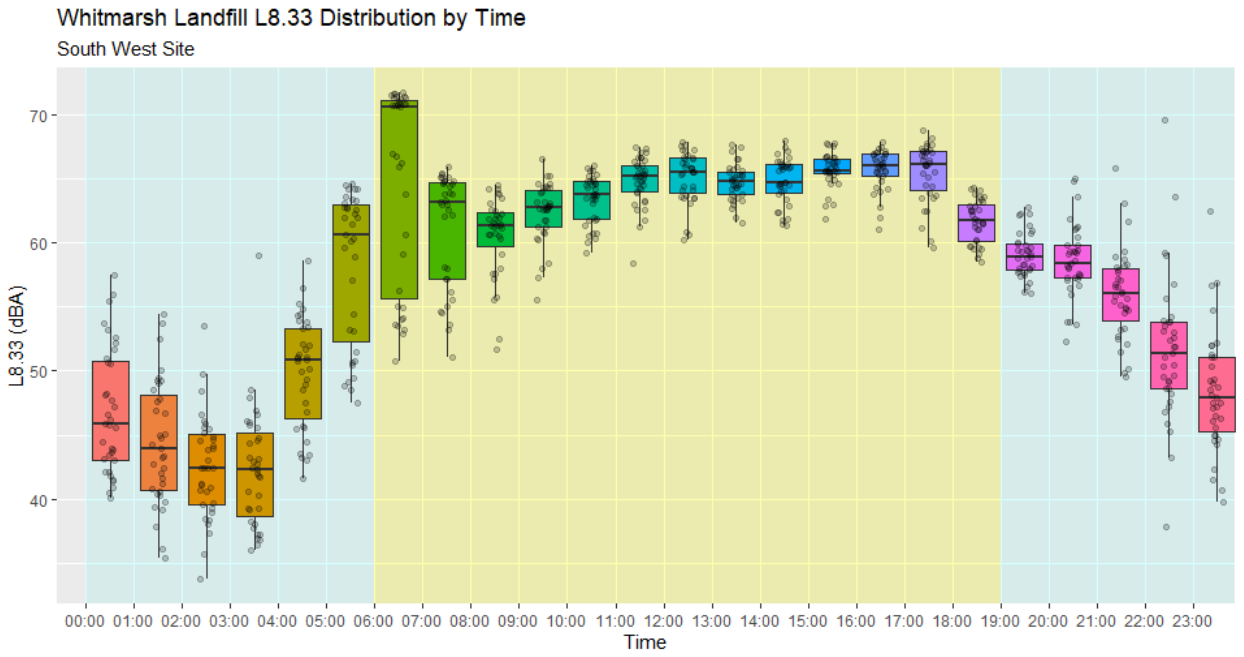

Whitmarsh Landfill L25 Distribution by Time
South West Site
L25 (dBA)
60
50
40
30
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
Time

C.1.3 Box Plots of Hourly $L_{8.33}$

The box plots below present a graphical representation of the statistical descriptor of the sound level exceeded 8.33 percent (equivalent to 5 minutes per hour) of the time in an hour ($L_{8.33}$) at each noise monitoring location.

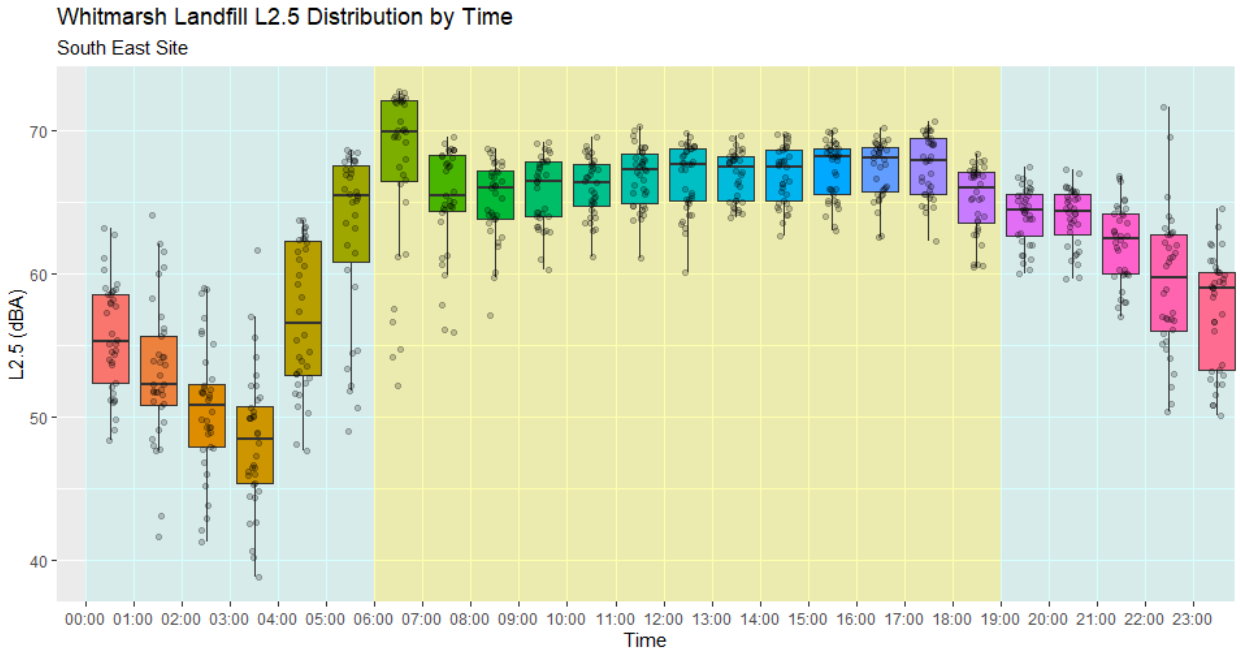


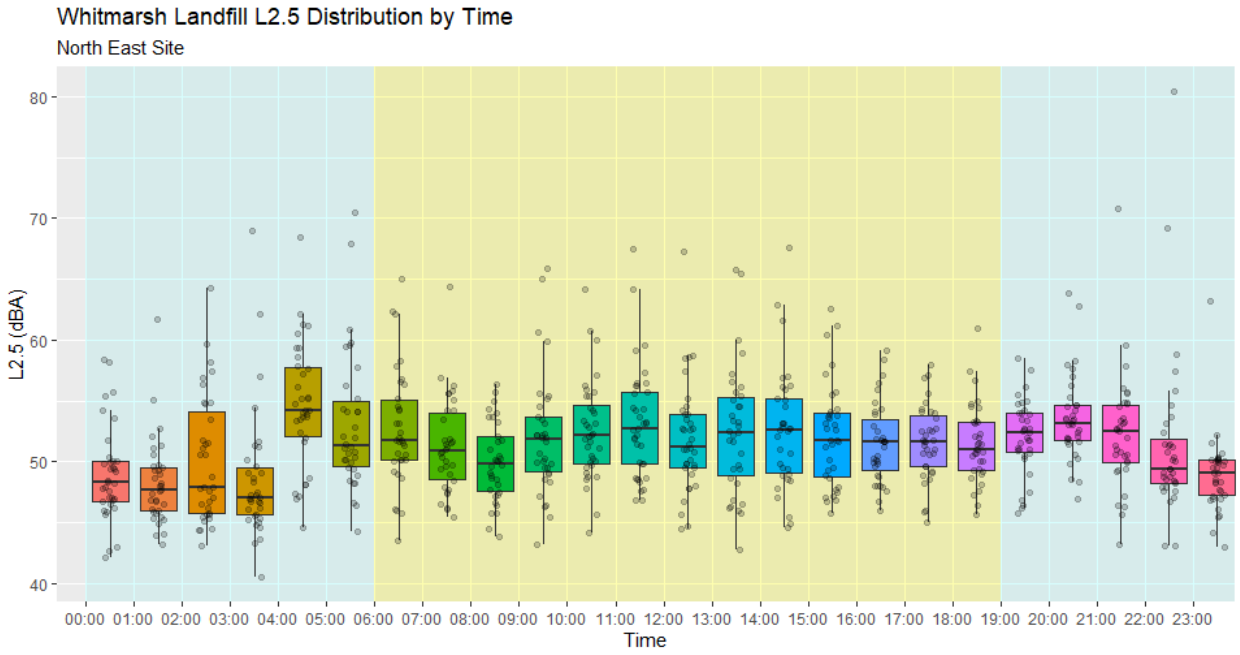


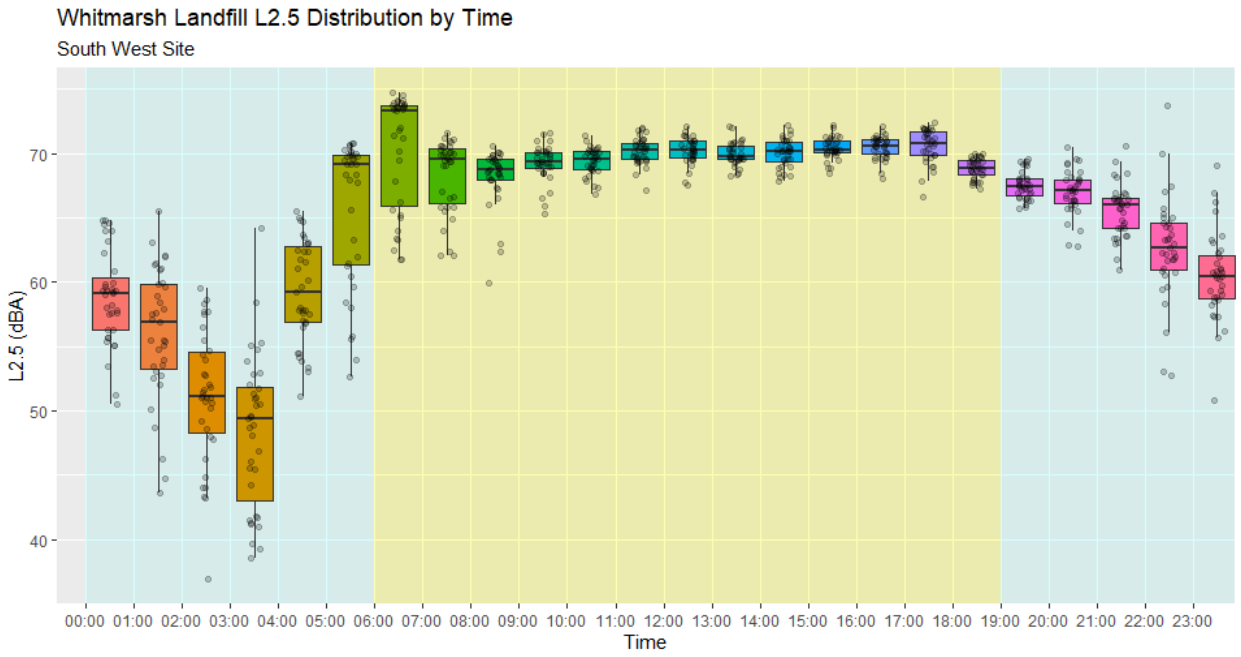

Whitmarsh Landfill L8.33 Distribution by Time
South West Site
L8.33 (dBA)
70
60
50
40
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
Time

C.1.4 Box Plots of Hourly $L_{2.5}$

The box plots below present a graphical representation of the statistical descriptor of the sound level exceeded 2.5 percent (equivalent to 1.5 minutes per hour) of the time in an hour ($L_{2.5}$) at each noise monitoring location.







C.2 Hourly Noise Level Data Tables

The hourly L_{eq}, L_{max}, L_{25}, $L_{8.3}$, and $L_{2.5}$ values were tabulated from the collected data for each monitoring location, and are presented in Tables C-1 through C-3. These metrics are comparable to the WAC 173-60 maximum permissible sound levels and allowable exceedances (i.e., L_{25}, $L_{8.3}$, and $L_{2.5}$ are comparable to the maximum permissible sound levels and allowable exceedances for 15 minutes, 5 minutes, and 1.5 minute, respectively).

If the sound level exceeds the maximum permissible sound levels in WAC 173-60, they were highlighted in red. Although the WAC does not apply to many of the sources of sound that are contributing to the ambient noise level, the metrics can be used for comparison with future measurements when construction activities begin. Applicability of WAC 173-60 is discussed in Appendix B.

Wind speed data is also presented in the last column of the tables. WAC 173-58 states that ambient environmental noise should not be collected when wind speeds exceed 12 miles per hour. Though there were several instances where the wind speed did exceed the 12 miles per hour limit, the data for these times was still retained because it was representative of the ambient environment that herons are commonly exposed to at the heronry. Values above the 12 miles per hour limit are highlighted in the table.

TABLE C-1: Hourly Noise Level Data, SE Site

Whitmarsh Heronry, Anacortes, WA

Date	Time	Hourly Ambient Noise Levels (dBA)					
		L_{eq}	L_{25}	$L_{8.33}$	$L_{2.5}$	L_{max}	Wind Speed
4/9/2021	2:32 PM	60.2	56.7	65.3	69.7	77.0	6.9
4/9/2021	3:00 PM	60.5	57.7	66.1	70.0	77.8	5.8
4/9/2021	4:00 PM	60.6	58.9	65.8	69.4	79.2	7.2
4/9/2021	5:00 PM	59.6	55.8	64.8	69.1	79.4	8.9
4/9/2021	6:00 PM	57.4	52.6	61.2	66.9	76.4	9.5
4/9/2021	7:00 PM	55.1	52.5	57.4	64.3	75.4	11.5
4/9/2021	8:00 PM	56.2	52.7	59.5	65.7	74.7	12.0
4/9/2021	9:00 PM	54.5	49.1	56.8	64.8	75.0	11.8
4/9/2021	10:00 PM	55.7	45.7	56.5	65.3	82.3	14.7
4/9/2021	11:00 PM	52.8	40.5	46.8	62.1	76.4	13.9
4/10/2021	12:00 AM	55.2	43.0	52.6	63.1	82.0	14.7
4/10/2021	1:00 AM	54.2	48.7	55.0	64.1	76.9	14.7
4/10/2021	2:00 AM	52.4	52.5	56.0	59.0	71.9	19.0
4/10/2021	3:00 AM	47.2	45.6	49.0	52.2	71.2	22.2
4/10/2021	4:00 AM	45.8	43.6	48.7	54.2	69.9	19.4
4/10/2021	5:00 AM	51.3	44.4	47.9	59.0	77.1	11.8
4/10/2021	6:00 AM	54.2	44.4	53.8	64.9	76.8	7.8
4/10/2021	7:00 AM	54.7	49.2	57.6	64.5	74.8	5.5
4/10/2021	8:00 AM	54.6	44.4	57.1	65.6	74.8	16.1
4/10/2021	9:00 AM	56.5	48.3	61.3	66.8	75.8	20.7
4/10/2021	10:00 AM	56.2	48.0	60.4	66.3	76.4	20.5
4/10/2021	11:00 AM	57.7	51.6	62.9	67.8	77.6	15.5
4/10/2021	12:00 PM	58.1	51.3	63.0	67.8	82.9	15.3
4/10/2021	1:00 PM	58.5	52.4	63.6	68.7	78.5	12.6
4/10/2021	2:00 PM	57.6	51.2	63.2	67.8	75.9	10.3
4/10/2021	3:00 PM	59.0	53.3	64.3	69.1	79.3	11.7
4/10/2021	4:00 PM	59.2	55.8	64.8	69.1	78.2	11.1
4/10/2021	5:00 PM	57.7	50.5	62.8	67.9	77.4	9.2
4/10/2021	6:00 PM	57.4	47.3	61.7	68.3	77.0	6.9
4/10/2021	7:00 PM	55.5	39.7	56.9	66.3	78.0	8.1
4/10/2021	8:00 PM	56.5	41.7	56.8	65.3	83.7	11.5
4/10/2021	9:00 PM	57.3	41.1	58.4	66.5	82.3	6.4
4/10/2021	10:00 PM	51.2	38.8	49.2	61.8	73.3	9.7
4/10/2021	11:00 PM	51.0	41.9	45.4	59.9	75.6	7.5
4/11/2021	12:00 AM	48.5	43.1	50.4	54.3	73.4	5.8
4/11/2021	1:00 AM	52.6	41.7	47.6	62.1	75.8	5.3
4/11/2021	2:00 AM	47.4	39.8	41.9	51.9	75.0	6.9
4/11/2021	3:00 AM	51.7	40.0	57.1	61.6	77.6	2.3
4/11/2021	4:00 AM	48.3	40.1	42.6	52.8	75.1	2.2
4/11/2021	5:00 AM	48.9	44.5	47.7	54.5	74.6	1.7
4/11/2021	6:00 AM	53.3	45.9	51.2	61.4	81.7	2.0
4/11/2021	7:00 AM	52.6	47.1	50.7	61.1	75.9	2.0
4/11/2021	8:00 AM	55.8	46.2	58.2	66.4	76.9	1.7
4/11/2021	9:00 AM	56.5	47.7	61.3	66.4	80.8	1.7
4/11/2021	10:00 AM	56.1	45.6	59.9	66.4	83.1	3.2
4/11/2021	11:00 AM	57.3	45.7	61.2	67.3	79.2	8.6
4/11/2021	12:00 PM	57.3	50.1	63.0	67.3	76.6	4.3
4/11/2021	1:00 PM	57.5	50.5	63.0	67.7	78.0	2.0
4/11/2021	2:00 PM	58.2	52.7	62.9	67.9	78.1	2.0
4/11/2021	3:00 PM	58.0	52.2	63.4	68.3	76.9	2.0
4/11/2021	4:00 PM	59.4	54.4	64.5	68.8	79.8	1.7
4/11/2021	5:00 PM	56.9	48.3	61.9	67.0	75.9	1.7
4/11/2021	6:00 PM	57.1	44.7	59.1	66.2	84.9	5.5
4/11/2021	7:00 PM	55.4	40.4	56.9	65.9	77.6	10.0
4/11/2021	8:00 PM	54.4	38.0	52.7	63.6	82.3	11.5

4/11/2021	9:00 PM	53.2	37.1	46.8	62.3	77.3	13.0
4/11/2021	10:00 PM	48.8	34.6	37.0	50.9	75.6	13.3
4/11/2021	11:00 PM	51.6	35.6	44.5	60.9	78.4	13.9
4/12/2021	12:00 AM	49.2	34.3	38.8	58.0	74.1	13.0
4/12/2021	1:00 AM	53.1	39.9	51.4	60.4	82.7	12.8
4/12/2021	2:00 AM	42.3	36.7	38.7	41.3	72.6	11.7
4/12/2021	3:00 AM	45.3	39.0	40.7	42.6	73.5	9.7
4/12/2021	4:00 AM	52.1	42.5	45.3	61.0	77.1	10.3
4/12/2021	5:00 AM	56.4	47.9	60.7	67.0	77.1	7.8
4/12/2021	6:00 AM	64.0	63.9	69.9	72.6	78.9	5.5
4/12/2021	7:00 AM	58.7	51.5	63.4	68.7	78.4	3.1
4/12/2021	8:00 AM	56.7	47.5	61.1	66.8	77.4	1.4
4/12/2021	9:00 AM	57.1	49.0	61.7	67.8	75.3	3.5
4/12/2021	10:00 AM	58.9	54.9	64.2	68.9	76.9	0.3
4/12/2021	11:00 AM	58.0	51.5	63.1	68.0	76.4	3.4
4/12/2021	12:00 PM	59.3	55.2	64.6	69.0	79.0	0.6
4/12/2021	1:00 PM	62.5	55.5	64.9	69.5	90.0	2.6
4/12/2021	2:00 PM	60.3	55.5	65.2	69.7	81.6	2.5
4/12/2021	3:00 PM	60.4	57.4	65.7	69.9	79.1	3.7
4/12/2021	4:00 PM	59.6	55.5	65.2	69.1	77.7	4.9
4/12/2021	5:00 PM	60.4	54.4	64.5	69.7	87.5	10.0
4/12/2021	6:00 PM	56.5	48.7	60.3	66.7	75.6	9.2
4/12/2021	7:00 PM	54.5	48.8	55.1	64.0	78.3	15.3
4/12/2021	8:00 PM	53.4	47.5	51.8	61.4	77.3	19.6
4/12/2021	9:00 PM	52.5	42.3	49.5	62.7	75.4	20.2
4/12/2021	10:00 PM	47.7	38.4	40.2	50.4	75.0	17.8
4/12/2021	11:00 PM	50.7	34.8	42.1	59.5	76.1	15.3
4/13/2021	12:00 AM	47.8	36.6	38.9	53.6	75.5	13.6
4/13/2021	1:00 AM	49.5	39.5	45.8	56.2	76.0	12.8
4/13/2021	2:00 AM	47.0	38.4	40.5	45.2	75.7	9.7
4/13/2021	3:00 AM	42.6	39.5	41.2	42.6	72.8	6.1
4/13/2021	4:00 AM	53.5	40.2	43.0	62.2	77.6	6.9
4/13/2021	5:00 AM	56.6	52.7	60.6	66.7	75.0	6.4
4/13/2021	6:00 AM	63.8	64.3	69.5	72.2	78.6	6.4
4/13/2021	7:00 AM	58.6	51.9	63.5	68.6	81.1	8.1
4/13/2021	8:00 AM	58.4	52.0	63.2	68.4	79.2	10.3
4/13/2021	9:00 AM	59.9	51.7	62.7	68.7	86.2	9.5
4/13/2021	10:00 AM	55.3	50.4	60.3	65.4	74.4	7.2
4/13/2021	11:00 AM	59.4	57.0	65.0	68.8	76.3	4.3
4/13/2021	12:00 PM	59.4	56.6	65.2	68.9	76.0	4.4
4/13/2021	1:00 PM	59.2	54.8	64.5	68.5	84.7	4.6
4/13/2021	2:00 PM	59.4	54.1	63.9	68.8	81.4	3.1
4/13/2021	3:00 PM	59.9	57.5	65.4	69.4	79.5	4.0
4/13/2021	4:00 PM	59.7	56.5	65.4	69.2	77.8	6.7
4/13/2021	5:00 PM	59.0	53.9	64.2	69.0	76.6	9.2
4/13/2021	6:00 PM	56.7	47.4	60.6	66.9	80.0	10.0
4/13/2021	7:00 PM	54.2	43.5	56.2	64.7	75.6	12.6
4/13/2021	8:00 PM	54.5	44.6	56.6	64.2	79.9	16.7
4/13/2021	9:00 PM	52.0	42.7	50.2	62.6	74.0	17.5
4/13/2021	10:00 PM	51.0	39.6	45.1	60.5	74.6	18.1
4/13/2021	11:00 PM	54.5	37.8	45.1	59.0	87.7	17.2
4/14/2021	12:00 AM	49.9	36.2	49.4	57.7	72.8	16.7
4/14/2021	1:00 AM	49.3	44.6	46.3	48.5	78.2	15.3
4/14/2021	2:00 AM	48.9	39.8	42.9	52.0	76.7	17.8
4/14/2021	3:00 AM	39.2	38.8	41.0	44.4	64.0	17.8
4/14/2021	4:00 AM	53.1	45.4	53.0	62.3	76.4	14.1
4/14/2021	5:00 AM	58.2	51.9	63.3	67.9	77.9	11.8
4/14/2021	6:00 AM	63.6	63.3	69.3	72.1	78.9	9.2
4/14/2021	7:00 AM	59.2	54.2	64.3	68.6	81.0	6.1
4/14/2021	8:00 AM	57.5	50.5	62.7	67.7	77.0	6.7
4/14/2021	9:00 AM	59.6	49.0	62.6	69.2	82.9	5.8
4/14/2021	10:00 AM	57.0	50.2	62.1	67.2	76.6	4.3
4/14/2021	11:00 AM	59.0	56.7	64.3	68.5	77.7	3.2

4/14/2021	12:00 PM	59.2	56.8	64.9	68.7	79.4	0.3
4/14/2021	1:00 PM	58.8	55.7	64.4	68.2	77.3	1.7
4/14/2021	2:00 PM	58.8	54.7	64.3	68.5	79.7	1.7
4/14/2021	3:00 PM	59.3	57.0	64.8	68.8	75.7	0.3
4/14/2021	4:00 PM	60.7	57.8	65.8	70.1	79.2	4.6
4/14/2021	5:00 PM	60.1	54.8	65.4	70.0	80.3	6.1
4/14/2021	6:00 PM	57.5	49.2	62.2	67.8	79.9	9.2
4/14/2021	7:00 PM	54.6	44.9	57.9	65.5	75.6	16.9
4/14/2021	8:00 PM	55.8	46.1	58.3	65.0	80.4	16.4
4/14/2021	9:00 PM	51.3	39.9	48.6	59.8	78.6	16.7
4/14/2021	10:00 PM	53.0	41.2	50.3	63.7	75.5	17.5
4/14/2021	11:00 PM	51.4	41.0	45.0	60.1	77.0	16.7
4/15/2021	12:00 AM	50.3	39.9	50.9	58.2	73.0	16.1
4/15/2021	1:00 AM	44.3	36.8	38.6	43.1	73.0	12.4
4/15/2021	2:00 AM	43.6	38.5	40.9	43.8	70.1	11.5
4/15/2021	3:00 AM	44.0	40.6	42.5	45.2	71.2	6.1
4/15/2021	4:00 AM	54.6	47.8	57.4	63.7	79.2	4.9
4/15/2021	5:00 AM	58.1	51.2	63.2	68.0	80.2	2.5
4/15/2021	6:00 AM	63.6	63.6	69.4	72.3	78.2	0.3
4/15/2021	7:00 AM	59.2	53.5	64.5	69.1	78.7	1.7
4/15/2021	8:00 AM	58.0	52.4	62.4	67.8	79.7	2.5
4/15/2021	9:00 AM	56.9	49.2	60.8	67.3	76.5	1.1
4/15/2021	10:00 AM	57.1	43.6	60.0	67.3	82.7	1.4
4/15/2021	11:00 AM	59.3	57.1	64.8	68.8	76.6	1.7
4/15/2021	12:00 PM	59.3	57.4	64.7	68.6	78.6	2.5
4/15/2021	1:00 PM	59.3	56.0	65.1	69.0	76.4	1.5
4/15/2021	2:00 PM	59.6	56.6	64.6	69.2	80.3	0.6
4/15/2021	3:00 PM	58.8	54.9	64.1	68.6	77.3	1.4
5/3/2021	3:14 PM	60.9	59.8	66.3	69.8	77.1	6.6
5/3/2021	4:00 PM	58.6	55.5	63.7	68.0	75.8	8.9
5/3/2021	5:00 PM	60.6	57.8	65.6	70.0	81.3	8.6
5/3/2021	6:00 PM	56.9	48.4	61.0	67.1	77.2	8.9
5/3/2021	7:00 PM	54.3	45.6	56.5	64.3	77.0	9.7
5/3/2021	8:00 PM	53.7	44.9	56.0	63.7	74.1	9.7
5/3/2021	9:00 PM	52.5	41.1	53.9	62.0	75.2	7.8
5/3/2021	10:00 PM	50.2	40.0	45.2	58.9	77.5	9.2
5/3/2021	11:00 PM	49.5	36.5	40.6	59.1	75.1	8.9
5/4/2021	12:00 AM	49.3	32.8	37.7	58.9	72.6	8.9
5/4/2021	1:00 AM	47.0	33.9	35.6	54.4	72.4	8.9
5/4/2021	2:00 AM	45.7	35.6	38.4	55.1	71.9	7.5
5/4/2021	3:00 AM	41.7	34.5	36.7	44.8	67.9	6.7
5/4/2021	4:00 AM	53.5	34.5	49.8	63.2	79.2	5.3
5/4/2021	5:00 AM	58.3	51.2	62.3	68.2	82.7	3.4
5/4/2021	6:00 AM	63.9	64.9	69.2	71.9	78.1	4.0
5/4/2021	7:00 AM	58.4	52.9	63.4	68.2	78.0	2.8
5/4/2021	8:00 AM	57.3	49.5	61.7	67.5	79.0	4.3
5/4/2021	9:00 AM	57.8	53.4	62.4	67.6	77.1	4.7
5/4/2021	10:00 AM	57.4	51.5	62.7	67.6	76.4	3.7
5/4/2021	11:00 AM	58.3	54.5	63.5	67.9	76.8	1.7
5/4/2021	12:00 PM	59.9	57.2	64.9	69.2	78.8	2.0
5/4/2021	1:00 PM	57.9	52.7	62.3	67.8	78.5	4.1
5/4/2021	2:00 PM	59.1	56.1	64.2	68.6	77.7	5.3
5/4/2021	3:00 PM	58.6	55.0	63.9	68.3	76.0	2.5
5/4/2021	4:00 PM	59.2	55.4	64.4	68.8	78.6	3.1
5/4/2021	5:00 PM	60.9	58.9	66.1	70.2	77.7	3.1
5/4/2021	6:00 PM	56.7	48.2	60.6	67.1	77.5	3.4
5/4/2021	7:00 PM	55.3	45.0	58.8	65.4	77.3	5.3
5/4/2021	8:00 PM	55.7	46.0	57.5	65.5	79.2	4.9
5/4/2021	9:00 PM	52.8	41.0	54.3	62.9	75.3	6.9
5/4/2021	10:00 PM	48.9	38.9	46.1	57.3	73.1	7.8
5/4/2021	11:00 PM	54.2	41.6	53.6	64.5	78.1	8.6
5/5/2021	12:00 AM	50.7	39.9	42.1	58.7	74.6	9.2
5/5/2021	1:00 AM	50.5	39.0	45.8	55.9	77.6	8.6
5/5/2021	2:00 AM	49.8	39.3	44.0	58.9	77.0	6.7
5/5/2021	3:00 AM	50.5	38.5	44.4	57.0	79.1	4.9
5/5/2021	4:00 AM	54.0	44.7	52.8	63.7	79.2	2.2
5/5/2021	5:00 AM	58.6	52.1	63.2	68.4	77.4	2.8
5/5/2021	6:00 AM	64.5	65.1	69.7	72.7	81.2	1.4
5/5/2021	7:00 AM	59.5	52.8	64.4	69.5	78.0	0.6
5/5/2021	8:00 AM	58.9	53.2	63.3	68.6	79.3	1.1
5/5/2021	9:00 AM	58.0	51.2	62.1	67.8	78.5	0.6

5/5/2021	10:00 AM	58.9	53.9	63.9	68.5	79.6	1.1
5/5/2021	11:00 AM	61.0	56.0	64.9	70.0	85.2	2.0
5/5/2021	12:00 PM	59.6	57.2	65.2	69.1	75.5	1.4
5/5/2021	1:00 PM	58.3	54.1	63.3	68.2	76.4	2.6
5/5/2021	2:00 PM	57.9	53.4	62.7	67.5	78.6	2.0
5/5/2021	3:00 PM	60.4	56.5	64.8	68.8	87.6	5.5
5/5/2021	4:00 PM	60.0	57.2	65.3	69.3	77.7	5.5
5/5/2021	5:00 PM	60.2	57.9	65.3	69.4	79.1	8.9
5/5/2021	6:00 PM	57.9	51.4	62.9	67.8	77.5	10.0
5/5/2021	7:00 PM	55.3	45.6	57.8	65.0	78.4	9.2
5/5/2021	8:00 PM	54.1	45.3	56.4	64.5	74.5	8.3
5/5/2021	9:00 PM	52.2	43.5	50.1	61.6	77.2	10.3
5/5/2021	10:00 PM	50.0	43.1	48.4	58.6	74.7	15.0
5/5/2021	11:00 PM	61.5	41.8	45.2	56.6	100.8	12.1
5/6/2021	12:00 AM	51.2	41.8	45.1	55.4	90.8	13.0
5/6/2021	1:00 AM	45.5	40.5	43.6	47.7	72.1	11.5
5/6/2021	2:00 AM	46.7	41.0	45.5	51.6	70.8	9.2
5/6/2021	3:00 AM	46.4	40.2	42.8	45.9	75.2	8.1
5/6/2021	4:00 AM	52.7	45.8	54.6	61.5	78.8	6.7
5/6/2021	5:00 AM	55.7	48.3	59.3	65.9	77.1	8.6
5/6/2021	6:00 AM	64.6	64.6	69.3	72.3	88.9	9.2
5/6/2021	7:00 AM	58.8	54.1	63.7	68.3	81.4	6.9
5/6/2021	8:00 AM	57.5	52.0	61.4	67.2	79.0	4.0
5/6/2021	9:00 AM	56.9	50.6	59.9	66.4	80.2	2.9
5/6/2021	10:00 AM	56.8	50.5	60.6	66.7	78.0	1.7
5/6/2021	11:00 AM	58.1	53.8	62.5	67.6	77.8	2.2
5/6/2021	12:00 PM	59.7	57.8	64.8	68.7	76.5	2.8
5/6/2021	1:00 PM	58.7	55.2	63.2	67.9	82.4	4.9
5/6/2021	2:00 PM	58.9	56.1	63.9	68.2	75.8	5.5
5/6/2021	3:00 PM	59.4	56.0	64.4	69.0	77.1	6.3
5/6/2021	4:00 PM	60.1	57.5	65.1	69.6	80.3	12.1
5/6/2021	5:00 PM	61.4	59.7	66.6	70.6	78.9	16.4
5/6/2021	6:00 PM	56.3	47.8	58.4	66.7	78.5	17.8
5/6/2021	7:00 PM	56.7	47.9	60.3	66.6	79.6	22.5
5/6/2021	8:00 PM	56.0	54.9	58.2	64.7	78.0	24.4
5/6/2021	9:00 PM	53.1	51.3	54.2	60.3	75.6	23.0
5/6/2021	10:00 PM	52.7	49.8	52.5	60.8	75.8	21.6
5/6/2021	11:00 PM	60.5	47.7	49.9	56.0	100.7	17.3
5/7/2021	12:00 AM	50.4	47.7	49.9	55.1	75.4	16.9
5/7/2021	1:00 AM	49.7	48.3	52.0	53.9	72.2	17.3
5/7/2021	2:00 AM	45.9	44.1	47.8	49.3	73.1	11.5
5/7/2021	3:00 AM	45.8	40.4	42.8	44.5	74.3	6.4
5/7/2021	4:00 AM	52.7	49.1	53.8	61.7	74.9	3.1
5/7/2021	5:00 AM	55.5	49.2	58.7	65.4	76.5	3.7
5/7/2021	6:00 AM	59.5	53.0	64.9	69.5	77.8	5.0
5/7/2021	7:00 AM	57.3	49.7	61.6	67.7	77.9	4.4
5/7/2021	8:00 AM	57.4	51.8	60.7	67.1	78.7	6.4
5/7/2021	9:00 AM	59.3	55.6	64.3	69.1	76.6	5.8
5/7/2021	10:00 AM	58.2	53.0	62.8	67.9	77.8	4.4
5/7/2021	11:00 AM	59.1	55.5	64.2	68.8	76.3	4.0
5/28/2021	12:00 PM	57.8	53.7	62.7	67.7	75.5	9.5
5/28/2021	1:00 PM	58.5	55.5	63.1	68.0	76.8	6.9
5/28/2021	2:00 PM	59.1	56.4	64.5	68.7	75.4	9.5
5/28/2021	3:00 PM	59.6	56.1	64.1	68.7	82.4	10.6
5/28/2021	4:00 PM	58.6	54.8	63.8	68.4	75.5	10.9
5/28/2021	5:00 PM	58.0	52.9	62.5	67.8	77.5	6.7
5/28/2021	6:00 PM	57.9	53.8	62.5	67.4	78.2	5.2
5/28/2021	7:00 PM	56.5	51.0	60.1	66.3	75.7	6.1
5/28/2021	8:00 PM	57.3	51.3	59.2	66.0	83.6	8.9
5/28/2021	9:00 PM	54.9	48.4	58.2	65.1	75.7	8.6
5/28/2021	10:00 PM	53.1	44.0	53.3	62.9	74.9	9.7
5/28/2021	11:00 PM	50.1	40.3	43.2	58.6	73.4	10.3
5/29/2021	12:00 AM	48.8	40.7	44.9	57.3	73.2	10.8
5/29/2021	1:00 AM	46.6	38.7	42.1	51.1	73.0	9.7
5/29/2021	2:00 AM	49.1	38.5	40.7	49.3	77.9	6.4
5/29/2021	3:00 AM	49.0	42.5	47.8	54.2	77.9	3.7
5/29/2021	4:00 AM	53.3	50.0	57.6	62.4	72.7	1.1
5/29/2021	5:00 AM	53.9	49.8	54.8	61.4	77.2	2.2
5/29/2021	6:00 AM	56.7	51.1	59.4	66.5	77.4	2.2
5/29/2021	7:00 AM	54.9	49.9	58.2	64.5	75.6	3.4
5/29/2021	8:00 AM	55.8	49.7	57.4	65.3	81.3	1.1
5/29/2021	9:00 AM	56.3	50.9	60.5	66.0	75.0	0.8
5/29/2021	10:00 AM	57.7	52.9	62.4	67.5	76.2	0.8

5/29/2021	11:00 AM	57.9	52.8	62.3	67.6	79.4	1.4
5/29/2021	12:00 PM	57.8	53.7	62.2	67.3	81.5	2.2
5/29/2021	1:00 PM	57.4	53.3	62.0	66.9	81.4	4.9
5/29/2021	2:00 PM	56.6	50.8	61.0	66.4	77.0	4.9
5/29/2021	3:00 PM	57.8	51.5	61.5	66.9	82.6	4.0
5/29/2021	4:00 PM	58.2	53.3	62.5	67.6	84.7	6.4
5/29/2021	5:00 PM	58.7	54.3	63.8	67.9	84.5	8.1
5/29/2021	6:00 PM	56.3	49.7	58.6	65.7	82.7	8.6
5/29/2021	7:00 PM	55.5	50.2	59.5	65.4	74.8	9.7
5/29/2021	8:00 PM	54.9	50.9	58.8	64.5	74.8	12.8
5/29/2021	9:00 PM	53.6	47.5	56.7	63.0	75.0	12.4
5/29/2021	10:00 PM	59.6	46.3	63.1	69.5	82.5	11.4
5/29/2021	11:00 PM	52.4	39.9	49.5	62.0	77.6	11.5
5/30/2021	12:00 AM	51.9	40.7	46.8	61.1	76.7	12.1
5/30/2021	1:00 AM	50.4	41.1	44.6	58.3	74.2	9.7
5/30/2021	2:00 AM	48.2	39.7	47.6	55.8	75.0	8.1
5/30/2021	3:00 AM	45.1	38.5	41.8	49.9	74.9	5.3
5/30/2021	4:00 AM	51.6	47.6	55.8	60.5	71.5	3.4
6/1/2021	12:00 PM	58.4	56.1	63.7	67.7	80.3	2.0
6/1/2021	1:00 PM	58.0	52.9	62.8	67.9	78.2	1.4
6/1/2021	2:00 PM	57.0	51.4	61.6	66.7	79.1	2.0
6/1/2021	3:00 PM	58.8	57.1	64.0	67.9	77.3	7.2
6/1/2021	4:00 PM	59.6	57.0	64.6	68.6	84.9	7.2
6/1/2021	5:00 PM	60.1	56.8	64.7	69.2	81.1	7.8
6/1/2021	6:00 PM	56.8	47.6	60.2	66.8	80.7	9.2
6/1/2021	7:00 PM	54.5	47.9	56.5	63.8	79.0	8.6
6/1/2021	8:00 PM	55.6	47.7	58.5	65.7	77.7	10.6
6/1/2021	9:00 PM	52.3	44.6	53.5	61.8	76.1	11.4
6/1/2021	10:00 PM	52.0	42.5	53.1	61.4	75.8	10.6
6/1/2021	11:00 PM	48.9	40.4	44.6	57.2	74.3	11.1
6/2/2021	12:00 AM	46.4	40.9	42.5	49.1	72.4	10.6
6/2/2021	1:00 AM	42.9	38.3	39.8	41.6	69.4	9.2
6/2/2021	2:00 AM	52.7	39.6	42.8	58.6	78.5	6.4
6/2/2021	3:00 AM	44.3	42.6	46.7	50.0	70.1	5.8
6/2/2021	4:00 AM	51.6	46.6	51.1	58.4	76.1	4.6
6/2/2021	5:00 AM	58.8	53.0	63.4	68.6	83.5	2.9
6/2/2021	6:00 AM	64.0	64.0	69.0	72.1	88.0	2.2
6/2/2021	7:00 AM	57.5	52.3	61.6	67.4	79.3	2.0
6/2/2021	8:00 AM	56.3	51.1	60.5	66.2	78.1	1.4
6/2/2021	9:00 AM	58.2	53.9	63.0	67.8	79.6	0.6
6/2/2021	10:00 AM	58.0	54.9	62.9	67.3	75.7	3.7
6/2/2021	11:00 AM	57.8	54.2	62.8	67.1	80.2	4.4
6/2/2021	12:00 PM	59.4	56.4	64.1	68.8	83.5	4.4
6/2/2021	1:00 PM	59.1	56.4	64.0	68.2	82.2	3.1
6/2/2021	2:00 PM	58.4	56.8	63.3	67.6	77.0	3.4
6/2/2021	3:00 PM	59.0	55.9	64.0	68.4	78.6	5.5
6/2/2021	4:00 PM	58.3	55.0	63.4	67.7	77.6	6.1
6/2/2021	5:00 PM	59.5	56.5	64.4	69.1	80.2	6.7
6/2/2021	6:00 PM	57.7	51.2	62.4	67.4	83.0	8.9
6/2/2021	7:00 PM	55.7	50.9	59.9	65.2	76.5	9.2
6/2/2021	8:00 PM	62.5	51.4	60.3	67.3	92.2	9.2
6/2/2021	9:00 PM	53.9	44.1	56.2	64.2	75.5	8.1
6/2/2021	10:00 PM	48.6	40.0	44.4	56.7	73.2	9.2
6/2/2021	11:00 PM	50.7	39.0	47.1	59.0	77.1	10.3
6/3/2021	12:00 AM	49.6	39.2	42.7	58.5	73.4	8.3
6/3/2021	1:00 AM	48.1	38.9	41.4	51.9	77.8	7.2
6/3/2021	2:00 AM	51.0	38.4	43.3	56.9	76.8	6.9
6/3/2021	3:00 AM	46.8	38.9	43.0	48.9	76.8	6.1
6/3/2021	4:00 AM	53.5	45.7	54.0	62.6	77.0	6.1
6/3/2021	5:00 AM	58.3	54.1	63.0	67.9	79.2	7.8
6/3/2021	6:00 AM	63.7	63.7	69.2	72.3	81.6	7.8
6/3/2021	7:00 AM	57.9	52.4	61.9	67.5	79.9	7.5
6/3/2021	8:00 AM	56.9	50.8	61.0	66.7	81.5	6.7
6/3/2021	9:00 AM	57.6	52.2	61.9	67.1	86.1	5.8
6/3/2021	10:00 AM	57.5	54.0	61.9	66.9	77.3	5.8
6/3/2021	11:00 AM	59.0	56.4	63.9	68.4	77.7	7.5
6/3/2021	12:00 PM	59.7	57.6	64.1	68.3	80.9	7.2

6/3/2021	1:00 PM	58.0	55.2	62.8	67.1	79.3	6.9
6/3/2021	2:00 PM	62.6	55.9	64.2	69.6	91.9	6.4
6/3/2021	3:00 PM	58.6	54.5	63.6	68.2	77.6	7.2
6/3/2021	4:00 PM	58.9	55.8	64.1	68.4	79.6	6.1
6/3/2021	5:00 PM	59.5	56.4	64.7	69.0	79.2	6.9
6/3/2021	6:00 PM	58.1	53.3	62.9	67.3	78.8	7.2
6/3/2021	7:00 PM	56.4	47.2	59.3	66.0	78.6	8.1
6/3/2021	8:00 PM	55.2	47.9	55.4	64.2	78.6	9.7
6/3/2021	9:00 PM	53.4	48.3	55.0	62.2	78.2	7.8
6/3/2021	10:00 PM	52.1	45.9	50.0	61.1	77.2	6.1
6/3/2021	11:00 PM	50.5	44.3	48.0	58.4	75.6	6.9
6/4/2021	12:00 AM	49.1	39.7	40.8	54.5	76.5	8.6
6/4/2021	1:00 AM	47.1	40.0	41.7	50.9	72.0	9.5
6/4/2021	2:00 AM	50.8	38.8	46.0	56.0	77.2	6.7
6/4/2021	3:00 AM	46.7	41.0	43.8	49.9	72.4	6.7
6/4/2021	4:00 AM	51.2	44.1	50.1	59.3	77.2	7.5
6/4/2021	5:00 AM	56.9	51.6	60.5	66.9	76.8	8.3
6/4/2021	6:00 AM	60.0	56.8	65.6	69.2	78.3	8.7
6/4/2021	7:00 AM	58.9	54.3	63.4	68.6	79.6	5.8
6/4/2021	8:00 AM	59.4	53.1	63.4	68.7	81.1	7.2
6/4/2021	9:00 AM	59.0	53.3	62.9	68.2	85.5	10.0
6/4/2021	10:00 AM	59.5	55.7	63.8	68.4	81.3	8.6
6/4/2021	11:00 AM	59.5	57.1	63.9	68.4	80.0	10.3
6/4/2021	12:00 PM	59.4	56.4	64.5	68.9	79.0	7.5
6/18/2021	11:00 AM	57.7	53.0	62.4	67.2	77.4	5.3
6/18/2021	12:00 PM	57.9	53.6	62.6	67.6	76.5	4.7
6/18/2021	1:00 PM	57.6	53.5	62.3	67.2	76.2	5.3
6/18/2021	2:00 PM	58.4	54.0	63.2	67.8	79.3	5.8
6/18/2021	3:00 PM	58.7	55.2	63.7	68.3	77.9	7.5
6/18/2021	4:00 PM	59.3	55.8	64.5	68.7	78.3	7.2
6/18/2021	5:00 PM	58.3	53.3	62.9	68.2	78.6	6.1
6/18/2021	6:00 PM	58.0	50.2	62.1	67.9	79.9	5.8
6/18/2021	7:00 PM	57.4	48.3	60.1	67.4	78.9	8.1
6/18/2021	8:00 PM	55.1	45.9	56.4	65.2	77.0	7.8
6/18/2021	9:00 PM	56.2	44.9	58.3	66.6	78.2	6.9
6/18/2021	10:00 PM	53.1	41.6	51.4	62.7	77.8	9.2
6/18/2021	11:00 PM	50.9	38.8	44.3	59.6	75.3	9.5
6/19/2021	12:00 AM	49.2	39.2	47.1	57.9	72.5	9.2
6/19/2021	1:00 AM	51.8	35.6	46.2	61.5	75.6	10.0
6/19/2021	2:00 AM	44.3	36.0	40.7	46.8	71.5	7.5
6/19/2021	3:00 AM	48.1	36.3	39.4	46.2	78.1	4.0
6/19/2021	4:00 AM	49.1	44.9	47.3	53.0	76.1	3.8
6/19/2021	5:00 AM	52.6	45.9	51.6	62.0	75.5	5.2
6/19/2021	6:00 AM	56.7	47.6	60.5	66.9	76.4	4.3
6/19/2021	7:00 AM	54.2	44.7	55.1	63.6	75.9	5.0
6/19/2021	8:00 AM	56.1	47.9	60.3	66.1	76.7	4.4
6/19/2021	9:00 AM	56.2	47.6	60.0	66.6	75.5	4.0
6/19/2021	10:00 AM	58.5	53.9	62.9	68.2	79.7	4.4
6/19/2021	11:00 AM	57.9	53.4	62.6	67.4	79.3	5.3
6/19/2021	12:00 PM	57.4	50.5	62.2	67.6	78.3	5.3
6/19/2021	1:00 PM	57.8	52.5	62.8	67.9	76.9	5.8
6/19/2021	2:00 PM	56.5	50.6	61.1	66.3	78.0	5.8
6/19/2021	3:00 PM	58.6	55.4	63.8	68.0	79.1	8.3
6/19/2021	4:00 PM	58.5	53.5	62.8	68.4	80.1	9.2
6/19/2021	5:00 PM	58.0	52.1	62.7	68.2	78.2	6.7
6/19/2021	6:00 PM	57.4	48.9	61.0	67.2	78.6	7.5
6/19/2021	7:00 PM	54.6	47.8	58.0	64.4	76.6	4.4
6/19/2021	8:00 PM	54.9	46.1	58.3	65.2	80.0	4.6
6/19/2021	9:00 PM	54.2	43.8	57.1	64.2	77.0	7.5
6/19/2021	10:00 PM	52.1	42.6	49.3	62.2	74.0	8.9
6/19/2021	11:00 PM	48.6	40.3	43.7	56.6	73.2	9.2
6/20/2021	12:00 AM	52.7	41.3	49.3	62.7	75.9	7.8
6/20/2021	1:00 AM	50.6	40.8	47.4	60.0	75.1	6.7
6/20/2021	2:00 AM	45.5	39.4	40.7	46.0	70.7	6.4
6/20/2021	3:00 AM	47.2	39.9	42.3	50.4	73.7	5.0
6/20/2021	4:00 AM	49.1	44.9	48.4	55.7	73.4	3.4
6/20/2021	5:00 AM	48.5	44.1	47.5	51.8	74.5	1.1

6/20/2021	6:00 AM	52.6	45.3	52.4	61.2	76.1	2.0
6/20/2021	7:00 AM	52.3	45.1	52.0	61.3	75.9	0.3
6/20/2021	8:00 AM	54.2	47.3	56.7	64.3	74.7	1.1
6/20/2021	9:00 AM	54.6	47.5	55.7	64.2	80.3	2.0
6/20/2021	10:00 AM	55.2	48.1	59.2	65.3	75.7	2.0
6/20/2021	11:00 AM	57.3	50.7	61.5	66.9	84.3	1.4
6/20/2021	12:00 PM	55.3	48.4	59.1	65.2	75.5	0.0
6/20/2021	1:00 PM	56.9	51.3	61.7	66.3	80.5	1.1
6/20/2021	2:00 PM	58.3	52.5	62.6	67.4	85.7	3.4
6/20/2021	3:00 PM	57.4	51.5	62.1	67.1	76.7	5.0
6/20/2021	4:00 PM	57.9	55.0	62.1	67.4	76.4	6.9
6/20/2021	5:00 PM	55.6	48.9	59.8	65.5	75.2	10.6
6/20/2021	6:00 PM	55.2	48.8	59.1	65.2	76.0	12.4
6/20/2021	7:00 PM	55.6	46.5	58.1	65.8	80.8	11.4
6/20/2021	8:00 PM	55.7	45.0	58.8	65.7	77.4	11.7
6/20/2021	9:00 PM	54.5	42.6	56.1	64.1	77.5	12.4
6/20/2021	10:00 PM	55.0	40.2	48.1	62.8	84.2	13.6
6/20/2021	11:00 PM	52.3	40.9	50.5	62.1	74.0	13.3
6/21/2021	12:00 AM	49.7	37.0	39.3	53.8	77.6	13.6
6/21/2021	1:00 AM	48.1	36.8	38.5	51.8	76.5	13.9
6/21/2021	2:00 AM	45.4	37.9	42.6	52.6	74.2	12.4
6/21/2021	3:00 AM	45.1	38.1	39.2	40.6	76.1	9.7
6/21/2021	4:00 AM	52.3	48.1	54.9	59.9	75.6	9.5
6/21/2021	5:00 AM	57.4	49.9	62.3	67.3	76.6	6.9
6/21/2021	6:00 AM	63.2	63.2	68.6	71.8	80.3	2.2
6/21/2021	7:00 AM	57.6	51.3	62.3	67.2	80.0	1.7
6/21/2021	8:00 AM	56.0	49.4	59.9	66.0	76.6	0.8
6/21/2021	9:00 AM	57.2	52.8	61.5	66.9	79.5	0.6
6/21/2021	10:00 AM	57.5	53.2	61.5	66.7	83.3	0.3
6/21/2021	11:00 AM	58.6	53.3	63.3	68.1	77.9	1.1
6/21/2021	12:00 PM	58.7	54.8	63.6	68.2	79.8	1.1
6/21/2021	1:00 PM	58.8	56.5	63.9	68.2	76.1	1.4
6/21/2021	2:00 PM	58.1	53.8	63.2	67.8	76.7	2.0
6/21/2021	3:00 PM	58.6	55.0	63.5	68.2	79.0	8.9
6/21/2021	4:00 PM	58.8	55.0	63.7	68.1	80.6	10.0
6/21/2021	5:00 PM	60.3	57.2	65.0	69.7	80.8	12.1
6/21/2021	6:00 PM	56.8	49.8	59.6	65.3	91.7	12.1
6/21/2021	7:00 PM	55.3	47.9	58.3	64.7	79.6	12.8
6/21/2021	8:00 PM	56.4	49.3	60.1	66.1	79.2	13.6
6/21/2021	9:00 PM	53.2	42.2	53.9	63.5	74.6	12.7
6/21/2021	10:00 PM	50.9	40.2	49.2	61.2	73.1	11.7
6/21/2021	11:00 PM	50.1	39.8	47.3	59.4	73.3	11.7
6/22/2021	12:00 AM	48.9	38.7	41.0	55.8	73.7	11.1
6/22/2021	1:00 AM	49.4	42.3	47.3	57.0	74.0	10.6
6/22/2021	2:00 AM	41.1	39.2	40.9	42.9	69.5	10.1
6/22/2021	3:00 AM	47.9	37.9	39.4	46.0	75.9	5.3
6/22/2021	4:00 AM	54.1	48.8	57.2	63.3	76.2	3.2
6/22/2021	5:00 AM	58.4	49.0	62.7	68.4	81.0	3.1
6/22/2021	6:00 AM	63.3	63.0	68.7	72.0	81.4	3.1
6/22/2021	7:00 AM	58.4	51.1	62.5	68.5	82.8	2.5
6/22/2021	8:00 AM	58.4	50.6	62.0	67.8	84.1	2.2
6/22/2021	9:00 AM	62.3	52.6	62.6	67.9	97.6	3.1
6/22/2021	10:00 AM	58.6	54.4	63.3	68.2	77.5	2.0
6/22/2021	11:00 AM	60.2	56.8	65.0	69.6	78.8	2.8
6/22/2021	12:00 PM	59.7	55.8	64.1	68.5	85.1	2.2
6/22/2021	1:00 PM	58.3	52.6	62.3	67.7	82.6	0.0
6/22/2021	2:00 PM	59.4	56.8	64.6	68.8	79.2	0.3
6/22/2021	3:00 PM	59.2	55.7	63.8	68.6	81.5	3.2
6/22/2021	4:00 PM	59.0	56.6	64.3	68.3	77.1	8.9
6/22/2021	5:00 PM	60.6	57.9	65.8	70.0	79.7	7.5
6/22/2021	6:00 PM	55.2	46.5	59.0	65.2	76.9	5.8
6/22/2021	7:00 PM	55.4	46.9	58.8	65.7	75.0	5.8
6/22/2021	8:00 PM	56.0	48.0	59.9	65.8	77.7	7.8
6/22/2021	9:00 PM	55.4	45.8	58.9	65.2	78.2	6.9
6/22/2021	10:00 PM	54.7	47.3	58.1	64.0	76.7	6.1
6/22/2021	11:00 PM	50.2	40.9	44.2	59.4	72.9	6.9
6/23/2021	12:00 AM	51.1	38.6	40.7	58.8	76.5	7.2

6/23/2021	1:00 AM	49.3	38.1	39.7	55.6	75.6	6.1
6/23/2021	2:00 AM	46.0	37.8	40.8	49.7	75.1	6.7
6/23/2021	3:00 AM	44.9	34.0	35.9	38.8	74.2	9.2
6/23/2021	4:00 AM	53.7	45.8	55.8	62.9	76.4	8.3
6/23/2021	5:00 AM	57.8	49.9	61.7	67.8	81.4	6.4
6/23/2021	6:00 AM	63.3	63.1	68.8	72.0	81.1	4.3
6/23/2021	7:00 AM	58.8	53.3	64.0	68.7	81.3	2.8
6/23/2021	8:00 AM	58.1	51.4	62.8	68.1	78.9	3.1
6/23/2021	9:00 AM	57.6	50.9	61.6	67.4	77.3	5.3
6/23/2021	10:00 AM	58.1	53.1	62.4	67.7	82.2	7.2
6/23/2021	11:00 AM	58.2	56.2	63.3	67.6	76.2	6.1
6/23/2021	12:00 PM	60.5	58.4	65.7	69.8	78.6	4.3
6/23/2021	1:00 PM	58.8	55.0	64.0	68.4	76.2	3.7
6/23/2021	2:00 PM	59.9	57.8	64.7	68.9	81.7	2.5
6/23/2021	3:00 PM	59.6	55.9	64.6	69.1	79.7	3.4
6/23/2021	4:00 PM	59.4	56.5	64.5	68.8	78.6	5.3
6/23/2021	5:00 PM	60.6	58.1	65.9	70.0	78.8	3.4
6/23/2021	6:00 PM	57.5	50.3	61.7	67.0	84.2	4.0
6/23/2021	7:00 PM	57.1	49.8	61.2	66.7	78.9	6.4
6/23/2021	8:00 PM	56.9	46.7	58.7	66.0	82.4	5.8
6/23/2021	9:00 PM	56.1	46.6	58.6	64.5	85.2	4.4
6/23/2021	10:00 PM	53.5	39.4	55.2	63.2	80.2	8.9
6/23/2021	11:00 PM	51.0	39.4	50.2	60.9	75.2	8.9
6/24/2021	12:00 AM	50.4	38.9	40.7	59.0	74.8	6.9
6/24/2021	1:00 AM	47.7	38.2	39.8	54.2	73.0	5.5
6/24/2021	2:00 AM	46.9	37.7	39.6	53.8	73.4	6.7
6/24/2021	3:00 AM	44.3	38.4	39.1	40.2	73.8	4.4
6/24/2021	4:00 AM	52.9	45.3	53.6	62.4	75.5	3.1
6/24/2021	5:00 AM	57.5	49.8	61.8	67.8	77.3	2.5
6/24/2021	6:00 AM	63.8	63.9	69.1	72.2	84.2	2.5
6/24/2021	7:00 AM	58.2	50.2	63.0	68.1	80.7	3.4
6/24/2021	8:00 AM	57.3	50.3	61.6	67.1	79.5	4.4
6/24/2021	9:00 AM	58.7	53.7	63.1	68.4	79.7	4.6
6/24/2021	10:00 AM	59.9	55.5	64.1	69.5	79.8	3.1
6/24/2021	11:00 AM	61.3	57.6	65.5	70.3	81.3	2.0
6/24/2021	12:00 PM	61.9	58.9	65.7	69.5	92.5	3.1
6/24/2021	1:00 PM	59.6	57.0	64.4	68.6	84.1	3.5
6/24/2021	2:00 PM	60.3	57.3	64.8	69.4	81.2	3.4
6/24/2021	3:00 PM	60.1	57.1	65.0	69.3	81.8	2.5
6/24/2021	4:00 PM	59.8	56.8	64.8	69.1	83.4	3.7
6/24/2021	5:00 PM	60.2	57.4	65.1	69.4	81.2	3.1
6/24/2021	6:00 PM	56.7	47.2	60.8	66.8	77.3	4.6
6/24/2021	7:00 PM	55.7	44.6	58.2	65.1	80.5	6.7
6/24/2021	8:00 PM	57.1	46.5	60.5	67.0	81.3	9.5
6/24/2021	9:00 PM	54.4	43.4	57.1	64.5	76.9	11.1
6/24/2021	10:00 PM	52.1	39.1	51.5	62.0	76.0	11.5
6/24/2021	11:00 PM	51.4	39.7	50.1	60.1	75.9	8.6
6/25/2021	12:00 AM	48.2	39.4	41.3	54.6	72.8	6.7
6/25/2021	1:00 AM	48.9	40.5	42.1	51.7	74.9	6.4
6/25/2021	2:00 AM	39.0	39.7	40.8	42.1	55.3	4.9
6/25/2021	3:00 AM	46.5	37.0	38.8	46.5	74.6	2.2
6/25/2021	4:00 AM	51.0	45.4	51.9	57.4	74.7	1.1
6/25/2021	5:00 AM	57.3	48.2	60.2	67.3	80.8	0.8
6/25/2021	6:00 AM	58.1	50.2	62.9	68.0	78.1	0.6
6/25/2021	7:00 AM	58.5	50.4	62.9	67.6	81.1	1.1
6/25/2021	8:00 AM	56.4	49.6	60.9	66.3	76.2	1.1
6/25/2021	9:00 AM	59.5	53.2	62.8	68.6	84.0	0.8
6/25/2021	10:00 AM	59.2	56.2	63.9	68.6	79.2	2.2
6/25/2021	11:00 AM	60.7	57.5	64.7	69.3	83.9	0.6
7/2/2021	11:00 AM	56.2	50.7	60.5	66.2	75.2	2.8
7/2/2021	12:00 PM	55.4	50.2	59.1	65.2	74.5	4.4
7/2/2021	1:00 PM	56.4	51.0	61.1	66.1	77.5	1.1
7/2/2021	2:00 PM	56.6	51.4	60.9	66.3	77.0	2.0
7/2/2021	3:00 PM	56.3	51.4	60.9	65.9	74.6	0.0
7/2/2021	4:00 PM	56.1	51.5	61.0	65.8	73.3	0.6
7/2/2021	5:00 PM	56.8	51.6	60.5	66.4	80.7	4.0
7/2/2021	6:00 PM	55.0	50.6	58.1	65.3	72.5	7.8

7/2/2021	7:00 PM	55.7	50.1	55.5	63.8	82.3	7.2
7/2/2021	8:00 PM	55.0	49.5	55.3	64.2	79.9	7.5
7/2/2021	9:00 PM	52.9	48.7	54.7	62.6	76.7	6.7
7/2/2021	10:00 PM	54.6	46.9	49.1	56.8	87.9	8.3
7/2/2021	11:00 PM	52.0	46.0	50.0	60.4	75.7	8.1
7/3/2021	12:00 AM	51.6	45.3	50.9	58.5	75.4	4.9
7/3/2021	1:00 AM	48.6	43.5	46.4	54.2	71.9	7.2
7/3/2021	2:00 AM	43.8	42.2	45.2	47.7	68.7	3.7
7/3/2021	3:00 AM	43.1	40.7	43.3	45.4	69.8	3.7
7/3/2021	4:00 AM	46.8	44.9	47.0	50.3	72.4	1.7
7/3/2021	5:00 AM	50.4	47.9	49.6	54.6	74.4	0.6
7/3/2021	6:00 AM	51.3	47.3	50.1	57.5	73.8	2.8
7/3/2021	7:00 AM	52.0	48.1	51.9	60.6	76.0	1.7
7/3/2021	8:00 AM	52.8	46.9	54.0	62.5	78.6	3.4
7/3/2021	9:00 AM	53.3	46.5	54.9	63.3	76.3	2.2
7/3/2021	10:00 AM	54.0	47.9	56.6	64.3	73.2	0.0
7/3/2021	11:00 AM	54.7	49.1	57.9	64.7	77.5	1.1
7/3/2021	12:00 PM	54.8	48.6	57.9	65.0	74.6	1.1
7/3/2021	1:00 PM	54.4	48.5	57.9	64.6	73.7	1.1
7/3/2021	2:00 PM	55.4	48.7	59.1	65.1	78.5	2.8
7/3/2021	3:00 PM	55.7	50.4	60.2	65.9	73.2	2.5
7/3/2021	4:00 PM	56.0	51.1	60.9	66.0	71.8	4.9
7/3/2021	5:00 PM	56.6	50.6	59.6	65.2	85.9	9.2
7/3/2021	6:00 PM	54.1	49.3	56.9	64.2	72.6	12.1
7/3/2021	7:00 PM	54.7	48.8	55.8	64.4	80.3	11.5
7/3/2021	8:00 PM	54.3	50.4	56.7	63.8	78.8	12.1
7/3/2021	9:00 PM	54.6	49.9	55.9	63.7	79.1	10.0
7/3/2021	10:00 PM	54.5	48.2	54.7	62.7	86.1	9.2
7/3/2021	11:00 PM	51.5	46.9	50.6	60.1	74.7	8.9
7/4/2021	12:00 AM	50.9	45.1	48.3	59.3	75.5	9.2
7/4/2021	1:00 AM	47.6	43.1	45.5	52.9	72.1	8.3
7/4/2021	2:00 AM	44.0	43.0	46.5	49.8	69.5	6.4
7/4/2021	3:00 AM	43.4	40.1	43.3	46.5	70.7	3.5
7/4/2021	4:00 AM	46.2	43.1	45.6	48.1	71.4	2.0
7/4/2021	5:00 AM	46.5	44.8	46.8	49.0	71.8	3.1
7/4/2021	6:00 AM	49.6	45.3	48.2	56.6	73.4	3.4
7/4/2021	7:00 AM	51.8	49.0	52.7	59.9	72.5	3.4
7/4/2021	8:00 AM	52.6	48.2	52.2	61.9	75.6	3.4
7/4/2021	9:00 AM	53.6	51.0	55.2	62.9	71.4	3.7
7/4/2021	10:00 AM	54.5	50.1	55.6	63.9	81.2	3.4
7/4/2021	11:00 AM	54.3	49.3	58.0	64.2	76.6	2.3
7/4/2021	12:00 PM	56.0	50.2	60.4	65.9	74.7	2.5
7/4/2021	1:00 PM	54.9	48.6	58.9	65.0	75.2	2.6
7/4/2021	2:00 PM	55.7	49.6	60.0	65.5	81.4	5.5
7/4/2021	3:00 PM	55.4	50.3	60.2	65.0	75.2	6.1
7/4/2021	4:00 PM	55.2	50.0	58.8	65.1	77.2	5.8
7/4/2021	5:00 PM	55.7	51.0	59.1	65.5	77.1	6.9
7/4/2021	6:00 PM	54.1	50.9	56.7	63.7	72.1	6.4
7/4/2021	7:00 PM	54.8	50.3	56.3	63.8	89.5	5.5
7/4/2021	8:00 PM	56.2	51.9	58.6	65.3	83.4	7.5
7/4/2021	9:00 PM	58.6	53.4	61.1	66.8	90.4	8.1
7/4/2021	10:00 PM	62.8	60.4	67.5	71.6	86.6	7.5
7/4/2021	11:00 PM	54.8	52.1	56.9	63.3	82.6	7.8
7/5/2021	12:00 AM	61.2	46.6	50.2	60.3	98.6	6.9
7/5/2021	1:00 AM	48.8	44.1	46.6	53.6	72.8	11.0
7/5/2021	2:00 AM	44.7	42.6	46.6	51.7	72.6	9.2
7/5/2021	3:00 AM	46.9	44.6	48.2	52.9	71.1	6.3
7/5/2021	4:00 AM	45.4	45.1	47.7	50.7	69.6	5.8
7/5/2021	5:00 AM	47.6	47.1	49.7	52.2	70.0	4.3
7/5/2021	6:00 AM	49.6	47.5	49.8	54.7	72.0	6.7
7/5/2021	7:00 AM	51.6	48.9	51.4	57.8	75.4	3.7
7/5/2021	8:00 AM	53.3	48.9	51.5	60.1	78.5	3.1
7/5/2021	9:00 AM	52.1	48.4	51.3	60.3	72.8	3.1
7/5/2021	10:00 AM	54.3	51.3	55.4	63.5	74.1	4.4
7/5/2021	11:00 AM	55.0	50.6	57.5	64.7	74.8	5.8
7/5/2021	12:00 PM	54.1	50.1	55.7	62.8	76.6	5.3
7/5/2021	12:32 PM	52.8	49.6	52.7	60.1	86.2	5.3

7/5/2021	1:00 PM	55.2	52.3	57.1	64.3	76.2	3.4
7/5/2021	2:00 PM	54.5	50.6	56.8	64.1	75.7	4.4
7/5/2021	3:00 PM	55.1	50.4	58.7	64.8	76.6	2.2
7/5/2021	4:00 PM	55.4	51.1	58.6	65.0	74.4	3.4
7/5/2021	5:00 PM	54.8	51.6	56.9	64.6	79.1	5.3
7/5/2021	6:00 PM	53.7	51.2	54.2	62.7	72.7	6.1
7/5/2021	7:00 PM	53.0	50.2	53.4	62.0	72.3	5.5
7/5/2021	8:00 PM	55.3	51.5	55.2	62.9	84.9	7.2
7/5/2021	9:00 PM	52.1	49.4	52.3	58.7	72.8	8.6
7/5/2021	10:00 PM	49.4	47.1	49.4	55.8	70.8	6.9
7/5/2021	11:00 PM	46.7	43.8	45.9	52.3	68.1	8.9
7/6/2021	12:00 AM	48.3	44.3	46.9	52.4	74.3	7.2
7/6/2021	1:00 AM	48.6	43.6	46.0	51.5	75.8	9.2
7/6/2021	2:00 AM	43.9	42.9	45.8	52.2	62.8	9.5
7/6/2021	3:00 AM	46.5	43.6	46.3	48.8	71.4	4.6
7/6/2021	4:00 AM	49.3	47.1	49.4	52.4	72.5	3.4
7/6/2021	5:00 AM	55.6	50.5	56.6	65.5	76.1	2.5
7/6/2021	6:00 AM	60.3	56.1	66.4	70.0	74.9	3.5
7/6/2021	7:00 AM	56.4	52.8	58.2	65.7	78.5	2.5
7/6/2021	8:00 AM	55.3	52.6	55.4	63.5	81.4	1.7
7/6/2021	9:00 AM	55.4	50.7	55.8	64.3	78.5	0.8
7/6/2021	10:00 AM	55.1	49.9	58.1	64.8	75.5	0.8
7/6/2021	11:00 AM	57.0	52.6	59.2	65.6	86.0	2.9
7/6/2021	12:00 PM	55.7	52.1	59.2	65.4	75.3	2.5
7/6/2021	1:00 PM	55.7	52.4	58.5	65.1	77.2	2.2
7/6/2021	2:00 PM	55.7	50.2	60.1	65.7	77.5	2.0
7/6/2021	3:00 PM	55.8	50.5	60.3	65.8	74.1	3.7
7/6/2021	4:00 PM	56.0	51.4	60.9	66.1	74.8	2.9
7/6/2021	5:00 PM	56.3	51.0	60.8	65.8	75.7	2.2
7/6/2021	6:00 PM	53.3	49.1	53.9	62.0	74.8	3.4
7/6/2021	7:00 PM	52.2	49.2	53.1	61.0	72.2	4.0
7/6/2021	8:00 PM	52.8	49.5	54.4	61.5	72.7	7.8
7/6/2021	9:00 PM	52.1	48.1	51.9	60.3	77.1	8.1
7/6/2021	10:00 PM	50.7	47.6	49.8	55.3	84.1	7.2
7/6/2021	11:00 PM	48.1	45.6	48.1	52.3	71.7	8.1
7/7/2021	12:00 AM	48.0	46.0	48.0	52.1	69.2	7.2
7/7/2021	1:00 AM	47.9	45.9	48.1	51.7	73.7	6.7
7/7/2021	2:00 AM	44.9	43.5	46.0	48.8	70.6	4.9
7/7/2021	3:00 AM	45.0	44.6	47.2	50.1	69.4	3.1
7/7/2021	4:00 AM	50.1	47.7	50.1	53.9	73.3	2.8
7/7/2021	5:00 AM	55.4	52.0	56.7	65.1	73.0	4.6
7/7/2021	6:00 AM	60.8	57.5	66.6	70.1	79.8	4.4
7/7/2021	7:00 AM	55.9	52.4	58.2	65.4	74.7	4.4
7/7/2021	8:00 AM	55.7	52.6	57.3	63.8	81.3	5.0
7/7/2021	9:00 AM	55.4	52.5	57.2	64.3	77.6	2.5
7/7/2021	10:00 AM	56.2	53.7	59.3	65.6	72.2	2.9
7/7/2021	11:00 AM	57.0	54.9	60.2	65.7	74.9	6.4
7/7/2021	12:00 PM	61.3	57.5	62.8	68.9	84.7	4.4
7/7/2021	1:00 PM	61.5	57.9	63.8	69.6	83.0	5.0
7/7/2021	2:00 PM	56.4	52.3	59.9	66.0	74.9	5.5
7/7/2021	3:00 PM	56.1	52.7	60.1	65.5	74.1	4.6
7/7/2021	4:00 PM	57.4	54.0	62.0	66.6	74.3	4.9
7/7/2021	5:00 PM	57.4	53.2	61.0	66.7	78.5	10.1
7/7/2021	6:00 PM	53.9	50.7	55.5	63.6	72.0	13.0
7/7/2021	7:00 PM	53.1	49.8	52.6	61.3	76.5	13.0
7/7/2021	8:00 PM	52.7	50.0	54.9	61.3	70.7	13.3
7/7/2021	9:00 PM	52.0	49.4	52.3	59.9	72.0	13.0
7/7/2021	10:00 PM	49.9	46.9	49.4	56.1	73.7	12.4
7/7/2021	11:00 PM	48.3	44.3	46.6	50.8	73.7	10.0
7/8/2021	12:00 AM	47.0	44.4	47.0	51.2	70.2	10.0
7/8/2021	1:00 AM	46.6	43.7	47.0	50.7	69.7	10.0
7/8/2021	2:00 AM	43.9	42.8	45.8	48.9	69.2	8.9
7/8/2021	3:00 AM	48.7	45.6	48.7	55.5	74.1	4.6
7/8/2021	4:00 AM	48.7	46.0	48.3	51.6	73.8	3.7
7/8/2021	5:00 AM	55.4	50.8	55.6	65.7	73.4	4.0
7/8/2021	6:00 AM	61.1	57.9	66.9	70.6	83.6	3.1
7/8/2021	7:00 AM	55.3	50.8	57.1	65.1	75.0	3.4

7/8/2021	8:00 AM	54.5	49.0	55.0	63.8	76.9	3.4
7/8/2021	9:00 AM	54.7	49.8	56.6	64.0	75.2	2.8
7/8/2021	10:00 AM	55.2	49.7	58.0	65.1	76.8	3.4
7/8/2021	11:00 AM	58.2	51.7	59.7	66.5	90.0	2.8
7/8/2021	12:00 PM	55.4	50.4	58.3	64.9	76.9	2.0
7/8/2021	1:00 PM	56.4	50.1	57.9	65.4	83.1	2.2
7/8/2021	2:00 PM	55.3	50.6	59.4	64.9	74.4	1.1
7/8/2021	3:00 PM	56.2	51.6	60.0	65.9	79.2	1.1
7/8/2021	4:00 PM	56.2	52.5	60.4	65.5	77.2	1.7
7/8/2021	5:00 PM	57.3	52.8	61.0	66.3	79.4	4.0
7/8/2021	6:00 PM	54.4	50.9	56.0	64.0	75.8	5.2
7/8/2021	7:00 PM	53.0	49.7	53.4	61.3	73.9	7.2
7/8/2021	8:00 PM	54.0	50.2	56.6	63.4	73.2	5.8
7/8/2021	9:00 PM	51.6	47.8	51.4	60.0	77.4	2.8
7/8/2021	10:00 PM	48.3	45.0	47.4	54.7	70.5	7.5
7/8/2021	11:00 PM	46.9	43.2	45.7	50.8	69.3	8.3
7/9/2021	12:00 AM	48.3	43.1	46.4	54.0	71.5	5.8
7/9/2021	1:00 AM	44.3	41.2	44.1	48.0	68.3	7.8
7/9/2021	2:00 AM	44.7	42.0	45.8	51.5	73.0	8.3
7/9/2021	3:00 AM	47.2	42.1	45.5	52.2	74.4	5.2
7/9/2021	4:00 AM	48.9	46.5	48.8	52.3	74.9	2.5
7/9/2021	5:00 AM	54.0	49.0	55.2	63.2	74.4	3.4
7/9/2021	6:00 AM	57.3	52.6	60.2	67.4	76.5	4.3
7/9/2021	7:00 AM	55.3	51.3	56.4	64.6	76.8	4.4
7/9/2021	8:00 AM	54.1	50.7	55.8	63.0	75.0	6.4
7/9/2021	9:00 AM	54.7	49.4	56.0	64.0	77.5	2.5
7/9/2021	10:00 AM	56.0	51.8	60.1	65.8	75.2	2.6
7/9/2021	11:00 AM	56.1	51.3	59.4	65.9	79.4	2.8
7/9/2021	12:00 PM	55.5	50.1	59.0	65.6	74.2	4.9
7/9/2021	1:00 PM	56.9	52.1	60.0	66.4	76.7	3.1
7/23/2021	10:28 AM	55.8	50.4	58.4	64.9	77.1	N/A
7/23/2021	11:00 AM	54.9	49.3	57.3	64.4	77.3	N/A
7/23/2021	12:00 PM	55.5	49.7	59.6	65.3	74.2	N/A
7/23/2021	1:00 PM	54.7	49.4	58.7	64.5	74.6	N/A
7/23/2021	2:00 PM	54.5	50.0	57.8	64.1	75.5	N/A
7/23/2021	3:00 PM	56.0	52.3	59.4	64.5	80.4	4.4
7/23/2021	4:00 PM	56.6	52.6	60.3	65.9	77.4	5.2
7/23/2021	5:00 PM	55.8	52.5	59.0	65.3	75.7	4.0
7/23/2021	6:00 PM	52.3	49.5	53.3	60.6	83.0	3.4
7/23/2021	7:00 PM	51.7	48.7	52.3	60.0	73.5	5.1
7/23/2021	8:00 PM	51.8	49.2	53.0	59.7	73.8	7.8
7/23/2021	9:00 PM	50.9	47.5	50.4	59.9	70.1	9.5
7/23/2021	10:00 PM	50.5	48.3	51.0	57.0	74.4	9.2
7/23/2021	11:00 PM	49.3	46.9	49.4	53.2	75.5	6.9
7/24/2021	12:00 AM	48.6	46.3	49.6	55.1	72.7	6.7
7/24/2021	1:00 AM	48.8	44.4	47.0	53.8	77.1	7.5
7/24/2021	2:00 AM	46.9	43.3	45.7	47.9	75.1	4.0
7/24/2021	3:00 AM	46.1	42.3	45.1	47.3	76.0	2.8
7/24/2021	4:00 AM	46.8	43.5	45.7	47.6	75.6	0.8
7/24/2021	5:00 AM	48.5	46.5	48.3	50.6	73.6	0.8
7/24/2021	6:00 AM	49.7	47.1	49.1	54.2	73.7	2.0
7/24/2021	7:00 AM	50.3	49.2	51.1	55.9	73.3	2.0
7/24/2021	8:00 AM	52.4	48.2	51.1	59.7	81.1	3.1
7/24/2021	9:00 AM	53.7	48.2	56.0	63.1	76.3	2.5
7/24/2021	10:00 AM	52.7	46.0	54.4	63.0	73.4	2.2
7/24/2021	11:00 AM	53.7	47.8	56.8	63.7	72.8	2.5
7/24/2021	12:00 PM	53.0	46.7	55.7	63.4	75.9	3.1
7/24/2021	1:00 PM	54.0	48.2	57.1	63.9	72.0	3.4
7/24/2021	2:00 PM	53.0	48.6	54.8	62.6	74.6	4.0
7/24/2021	3:00 PM	54.0	50.0	56.3	63.3	74.1	4.0
7/24/2021	4:00 PM	53.8	50.8	55.9	62.6	74.3	1.7
7/24/2021	5:00 PM	54.2	50.2	56.3	64.3	72.6	3.4
7/24/2021	6:00 PM	52.4	50.2	53.3	60.5	71.9	6.4
7/24/2021	7:00 PM	53.5	50.8	54.7	62.3	72.0	7.2
7/24/2021	8:00 PM	52.9	49.6	55.3	61.9	72.1	10.8
7/24/2021	9:00 PM	51.1	48.2	50.1	58.2	74.9	9.7
7/24/2021	10:00 PM	50.0	47.5	49.8	56.9	71.1	10.0
7/24/2021	11:00 PM	48.8	46.9	49.2	52.9	71.8	6.7
7/25/2021	12:00 AM	47.1	45.8	47.9	51.2	67.1	9.7
7/25/2021	1:00 AM	47.4	44.9	47.5	51.7	69.9	8.3
7/25/2021	2:00 AM	45.2	44.0	47.3	51.4	70.3	4.3

7/25/2021	3:00 AM	40.9	41.3	44.5	46.6	61.9	3.1
7/25/2021	4:00 AM	46.9	45.3	48.2	51.5	69.4	2.8
7/25/2021	5:00 AM	49.6	48.5	50.8	53.4	75.7	3.4
7/25/2021	6:00 AM	50.4	47.4	49.5	52.2	81.0	4.9
7/25/2021	7:00 AM	50.1	48.8	51.6	56.1	72.4	4.7
7/25/2021	8:00 AM	51.4	50.8	52.9	57.1	70.6	6.4
7/25/2021	9:00 AM	53.5	51.9	54.5	61.0	73.6	5.8
7/25/2021	10:00 AM	53.1	49.6	53.0	61.2	79.0	6.1
7/25/2021	11:00 AM	52.3	48.8	52.2	61.1	72.5	5.8
7/25/2021	12:00 PM	54.8	50.8	55.3	63.6	79.0	5.3
7/25/2021	1:00 PM	55.1	51.6	57.5	64.2	77.5	5.0
7/25/2021	2:00 PM	54.5	50.9	56.0	63.5	77.8	6.1
7/25/2021	3:00 PM	53.5	50.1	55.1	63.0	74.2	7.2
7/25/2021	4:00 PM	54.0	51.1	55.9	62.5	79.3	6.1
7/25/2021	5:00 PM	53.5	50.6	54.5	62.3	74.0	9.5
7/25/2021	6:00 PM	53.5	53.0	55.4	60.4	71.6	8.9
7/25/2021	7:00 PM	53.6	52.8	55.1	60.7	71.4	8.1
7/25/2021	8:00 PM	52.5	49.4	53.8	60.9	72.1	6.7
7/25/2021	9:00 PM	50.3	48.8	51.3	57.6	68.4	7.2
7/25/2021	10:00 PM	49.2	47.8	50.6	55.1	69.9	9.5
7/25/2021	11:00 PM	48.8	47.8	50.1	53.3	69.7	8.1
7/26/2021	12:00 AM	45.5	44.9	47.2	49.8	67.3	6.1
7/26/2021	1:00 AM	44.7	43.1	46.4	49.1	68.7	8.3
7/26/2021	2:00 AM	45.0	43.5	47.5	50.4	70.8	7.5
7/26/2021	3:00 AM	43.2	44.1	47.1	49.9	57.4	8.9
7/26/2021	4:00 AM	49.3	48.1	50.3	53.0	73.0	8.9
7/26/2021	5:00 AM	54.6	51.3	55.0	64.1	74.7	5.8
7/26/2021	6:00 AM	60.8	58.1	66.4	69.9	81.7	5.8
7/26/2021	7:00 AM	55.6	51.3	56.9	65.0	78.1	7.2
7/26/2021	8:00 AM	54.5	51.0	56.8	64.1	74.7	6.9
7/26/2021	9:00 AM	53.9	50.6	55.5	62.9	73.8	6.4
7/26/2021	10:00 AM	54.2	49.7	55.6	63.1	79.6	5.8
7/26/2021	11:00 AM	54.0	50.5	57.3	63.8	69.8	5.8
7/26/2021	12:00 PM	54.7	49.3	57.9	64.6	74.7	6.1
7/26/2021	1:00 PM	55.7	50.0	58.3	65.0	80.5	6.1
7/26/2021	2:00 PM	55.0	50.3	57.5	64.4	76.1	5.8
7/26/2021	3:00 PM	54.8	51.4	57.5	64.0	75.2	6.9
7/26/2021	4:00 PM	55.7	53.0	58.3	64.3	78.9	6.7
7/26/2021	5:00 PM	55.7	53.1	58.5	64.6	77.6	6.1
7/26/2021	6:00 PM	53.5	50.0	55.3	63.0	73.8	5.5
7/26/2021	7:00 PM	52.4	49.1	51.8	60.3	76.4	4.7
7/26/2021	8:00 PM	54.6	49.5	56.3	63.3	77.0	6.1
7/26/2021	9:00 PM	50.5	48.0	50.7	58.0	70.9	5.5
7/26/2021	10:00 PM	49.3	45.7	47.8	53.0	78.2	6.9
7/26/2021	11:00 PM	48.5	45.1	48.0	51.5	77.3	7.5
7/27/2021	12:00 AM	44.6	43.4	45.3	48.4	67.8	8.9
7/27/2021	1:00 AM	45.9	42.4	44.8	47.6	76.1	4.9
7/27/2021	2:00 AM	44.8	42.3	45.9	51.2	70.4	4.6
7/27/2021	3:00 AM	43.4	43.6	46.1	48.2	69.2	6.9
7/27/2021	4:00 AM	49.3	46.2	48.5	53.2	75.2	4.4
7/27/2021	5:00 AM	53.7	48.9	54.3	63.5	75.0	5.5
7/27/2021	6:00 AM	60.3	57.6	66.3	69.5	76.3	4.9
7/27/2021	7:00 AM	55.4	50.9	57.4	64.8	76.1	5.0
7/27/2021	8:00 AM	55.2	51.5	56.5	64.1	77.6	4.9
7/27/2021	9:00 AM	54.8	51.2	56.7	63.9	77.2	5.3
7/27/2021	10:00 AM	54.1	48.5	55.8	63.5	78.3	6.4
7/27/2021	11:00 AM	55.7	52.5	59.2	65.5	75.5	4.7
7/27/2021	12:00 PM	52.9	46.8	55.8	63.2	71.3	3.7
7/27/2021	1:00 PM	55.8	49.6	59.3	65.1	79.9	3.1
7/27/2021	2:00 PM	55.7	49.4	58.7	64.9	80.0	3.1
7/27/2021	3:00 PM	56.0	51.9	60.4	65.1	79.6	1.7
7/27/2021	4:00 PM	55.7	51.6	59.4	65.2	77.5	5.5
7/27/2021	5:00 PM	55.9	51.4	59.9	65.5	74.1	3.7
7/27/2021	6:00 PM	52.0	49.0	52.1	60.6	72.6	6.3
7/27/2021	7:00 PM	53.7	50.1	53.1	62.0	79.1	8.6
7/27/2021	8:00 PM	52.3	50.7	53.2	59.6	71.7	9.2
7/27/2021	9:00 PM	50.5	48.8	51.7	58.0	72.1	8.3
7/27/2021	10:00 PM	48.2	47.6	49.5	52.1	69.0	8.9
7/27/2021	11:00 PM	48.2	46.1	48.6	52.6	73.1	8.6
7/28/2021	12:00 AM	47.7	46.5	49.0	51.6	71.9	6.7
7/28/2021	1:00 AM	47.3	46.8	49.5	52.3	69.1	6.4
7/28/2021	2:00 AM	46.0	46.0	49.0	51.7	68.6	5.8
7/28/2021	3:00 AM	45.5	45.7	48.7	51.2	68.7	4.4

7/28/2021	4:00 AM	50.9	49.0	51.2	54.5	75.7	3.7
7/28/2021	5:00 AM	55.3	51.9	56.3	65.0	74.4	4.0
7/28/2021	6:00 AM	61.2	58.9	67.1	70.0	78.6	5.5
7/28/2021	7:00 AM	55.5	51.5	56.9	64.7	77.4	4.7
7/28/2021	8:00 AM	53.6	50.0	53.9	62.2	75.5	4.4
7/28/2021	9:00 AM	53.9	49.4	55.5	63.3	74.6	3.7
7/28/2021	10:00 AM	55.5	49.8	58.6	65.0	79.8	4.0
7/28/2021	11:00 AM	54.1	48.9	57.7	64.1	72.6	4.0
7/28/2021	12:00 PM	54.5	47.9	57.6	64.1	81.0	2.8
7/28/2021	1:00 PM	54.6	48.6	58.1	64.3	77.4	1.4
7/28/2021	2:00 PM	54.2	47.7	57.9	64.5	73.0	2.5
7/28/2021	3:00 PM	55.8	49.8	59.9	65.1	76.7	2.5
7/28/2021	4:00 PM	55.6	50.2	59.7	65.4	74.1	3.7
7/28/2021	5:00 PM	56.5	51.7	60.6	66.1	77.5	4.0
7/28/2021	6:00 PM	54.5	50.4	54.6	63.2	78.6	7.2
7/28/2021	7:00 PM	56.1	49.6	54.1	62.7	88.6	7.2
7/28/2021	8:00 PM	52.2	49.6	52.9	60.6	74.3	10.0
7/28/2021	9:00 PM	50.9	48.3	50.7	57.0	75.2	9.5
7/28/2021	10:00 PM	50.8	47.2	50.1	56.8	77.7	8.6
7/28/2021	11:00 PM	46.7	45.3	47.4	50.1	70.1	7.5
7/29/2021	12:00 AM	47.1	44.4	46.7	51.1	73.7	7.5
7/29/2021	1:00 AM	47.3	46.1	48.8	52.3	68.7	8.1
7/29/2021	2:00 AM	44.4	44.4	47.1	49.3	67.9	6.7
7/29/2021	3:00 AM	46.6	46.7	49.0	51.4	70.3	3.7
7/29/2021	4:00 AM	50.4	48.7	50.3	53.5	74.6	4.6
7/29/2021	5:00 AM	56.3	51.2	56.7	65.3	79.7	4.7
7/29/2021	6:00 AM	60.6	57.8	66.5	69.6	82.0	5.5
7/29/2021	7:00 AM	55.4	51.7	56.9	64.7	76.0	5.0
7/29/2021	8:00 AM	55.2	52.0	56.7	64.1	75.9	5.0
7/29/2021	9:00 AM	53.7	50.2	54.7	63.0	73.2	3.7
7/29/2021	10:00 AM	54.2	49.4	56.4	63.9	75.9	5.0
7/29/2021	11:00 AM	54.9	49.9	58.1	64.5	75.1	3.7
7/29/2021	12:00 PM	54.8	48.2	57.7	64.1	78.8	2.2
7/29/2021	1:00 PM	54.4	48.8	58.4	64.4	77.0	0.0
7/29/2021	2:00 PM	54.9	48.0	58.8	64.6	75.5	0.6
7/29/2021	3:00 PM	55.1	49.8	59.0	64.9	75.9	3.4
7/29/2021	4:00 PM	56.1	51.1	60.1	65.5	78.2	4.0
7/29/2021	5:00 PM	54.8	51.0	58.1	64.7	74.1	4.3
7/29/2021	6:00 PM	53.3	50.1	55.2	62.7	72.6	6.1
7/29/2021	7:00 PM	53.4	49.4	55.9	62.8	72.0	7.8
7/29/2021	8:00 PM	53.2	49.6	55.5	62.2	74.4	9.2
7/29/2021	9:00 PM	51.2	47.9	51.4	60.0	72.3	10.0
7/29/2021	10:00 PM	47.4	46.2	48.2	54.1	67.5	10.0
7/29/2021	11:00 PM	48.5	47.1	49.6	53.6	70.4	9.5
7/30/2021	12:00 AM	48.0	46.2	48.4	51.0	75.7	7.8
7/30/2021	1:00 AM	46.5	44.0	46.5	49.6	73.3	7.2
7/30/2021	2:00 AM	43.1	42.4	44.6	47.8	67.8	4.0
7/30/2021	3:00 AM	45.1	44.4	47.9	50.6	69.3	3.1
7/30/2021	4:00 AM	50.4	46.7	49.0	55.4	74.4	3.4
7/30/2021	5:00 AM	54.3	48.9	51.8	60.3	82.0	3.4
7/30/2021	6:00 AM	56.0	50.5	58.7	66.3	74.3	4.0
7/30/2021	7:00 AM	54.8	50.4	56.5	64.3	75.3	3.4
7/30/2021	8:00 AM	54.7	48.9	56.3	64.4	77.3	3.1
7/30/2021	9:00 AM	54.9	48.7	57.3	64.5	77.1	3.7
7/30/2021	10:00 AM	54.2	48.6	57.4	64.4	77.1	3.4
7/30/2021	11:00 AM	54.5	48.8	58.4	64.7	76.3	3.4

Notes

1. $L_{2.5}$ = Level exceeded 2.5% (1.5 minutes) per hour
   $L_{8.3}$ = Level exceeded 8.3% (5 minutes) per hour
   L_{25} = Level exceeded 25% (15 minutes) per hour
   L_{max} = Maximum noise level measured (including impulsive noise)

TABLE C-2: Hourly Noise Level Data, NE Site

Whitmarsh Heronry, Anacortes, WA

Date	Time	Hourly Ambient Noise Levels (dBA)					
		L_{eq}	L_{25}	$L_{8.33}$	$L_{2.5}$	L_{max}	Wind Speed (mph)
4/9/2021	3:00 PM	54.1	54.9	56.1	57.2	67.1	5.8
4/9/2021	4:00 PM	54.0	54.7	55.9	57.1	66.3	7.2
4/9/2021	5:00 PM	54.1	54.9	56.1	56.9	66.6	8.9
4/9/2021	6:00 PM	53.6	54.5	55.6	56.7	66.1	9.5
4/9/2021	7:00 PM	54.0	54.6	56.3	58.5	70.1	11.5
4/9/2021	8:00 PM	53.6	54.0	55.8	57.6	74.0	12.0
4/9/2021	9:00 PM	51.7	52.5	54.0	55.6	63.9	11.8
4/9/2021	10:00 PM	55.0	50.2	51.3	53.2	82.7	14.7
4/9/2021	11:00 PM	48.2	48.7	49.7	50.7	58.8	13.9
4/10/2021	12:00 AM	55.5	48.8	50.5	53.6	84.7	14.7
4/10/2021	1:00 AM	49.6	49.5	51.6	55.1	73.5	14.7
4/10/2021	2:00 AM	53.3	53.2	56.0	59.7	72.0	19.0
4/10/2021	3:00 AM	51.2	47.7	50.0	54.4	78.8	22.2
4/10/2021	4:00 AM	56.2	48.3	53.6	58.6	78.9	19.4
4/10/2021	5:00 AM	49.1	49.1	50.8	54.1	68.4	11.8
4/10/2021	6:00 AM	49.2	49.9	51.3	52.4	61.6	7.8
4/10/2021	7:00 AM	59.4	51.1	57.8	64.4	81.0	5.5
4/10/2021	8:00 AM	48.4	49.1	50.6	51.6	67.1	16.1
4/10/2021	9:00 AM	48.3	49.0	50.7	52.2	66.4	20.7
4/10/2021	10:00 AM	46.5	46.8	48.3	50.3	66.4	20.5
4/10/2021	11:00 AM	45.3	45.9	47.6	49.9	58.6	15.5
4/10/2021	12:00 PM	46.5	47.1	49.1	51.0	63.2	15.3
4/10/2021	1:00 PM	46.2	46.2	49.1	52.2	66.3	12.6
4/10/2021	2:00 PM	44.1	45.1	47.4	49.4	60.3	10.3
4/10/2021	3:00 PM	44.1	43.9	46.1	48.7	66.9	11.7
4/10/2021	4:00 PM	46.6	47.4	48.9	50.2	65.2	11.1
4/10/2021	5:00 PM	43.1	43.4	46.1	48.5	70.1	9.2
4/10/2021	6:00 PM	43.8	44.9	46.8	48.1	62.0	6.9
4/10/2021	7:00 PM	43.8	43.1	45.1	47.5	70.3	8.1
4/10/2021	8:00 PM	57.8	47.6	49.7	57.0	87.6	11.5
4/10/2021	9:00 PM	47.8	48.3	49.7	51.3	62.5	6.4
4/10/2021	10:00 PM	47.1	47.5	48.3	49.0	55.7	9.7
4/10/2021	11:00 PM	46.3	47.2	48.9	50.3	58.6	7.5
4/11/2021	12:00 AM	49.4	46.5	50.0	58.2	70.7	5.8
4/11/2021	1:00 AM	43.1	44.0	46.2	48.0	53.9	5.3
4/11/2021	2:00 AM	40.6	41.7	43.8	45.7	53.8	6.9
4/11/2021	3:00 AM	62.2	41.7	58.5	69.0	85.4	2.3
4/11/2021	4:00 AM	41.8	42.7	45.0	47.0	55.3	2.2
4/11/2021	5:00 AM	45.6	46.8	48.9	50.3	60.2	1.7
4/11/2021	6:00 AM	47.5	48.2	50.1	51.8	64.8	2.0
4/11/2021	7:00 AM	47.9	48.7	50.2	51.5	65.6	2.0
4/11/2021	8:00 AM	46.0	45.9	47.8	49.6	75.4	1.7
4/11/2021	9:00 AM	46.9	45.2	50.9	55.6	68.5	1.7
4/11/2021	10:00 AM	44.5	43.1	46.5	52.1	65.4	3.2
4/11/2021	11:00 AM	42.4	40.3	43.4	48.6	73.2	8.6
4/11/2021	12:00 PM	43.4	41.3	43.6	48.0	64.9	4.3
4/11/2021	1:00 PM	42.3	42.2	44.1	46.2	68.3	2.0
4/11/2021	2:00 PM	46.2	43.8	46.6	53.2	65.7	2.0
4/11/2021	3:00 PM	46.4	46.6	49.3	51.7	72.9	2.0
4/11/2021	4:00 PM	54.6	49.6	55.2	59.2	83.9	1.7
4/11/2021	5:00 PM	42.4	42.6	43.7	45.0	67.9	1.7
4/11/2021	6:00 PM	43.0	42.3	44.2	47.2	63.3	5.5
4/11/2021	7:00 PM	44.9	42.3	45.3	52.7	69.0	10.0
4/11/2021	8:00 PM	58.8	42.9	45.5	52.6	91.1	11.5
4/11/2021	9:00 PM	41.8	42.3	43.7	45.7	49.7	13.0
4/11/2021	10:00 PM	39.4	40.1	41.4	43.1	51.8	13.3
4/11/2021	11:00 PM	39.2	39.2	40.9	44.2	54.6	13.9

4/12/2021	12:00 AM	38.6	39.0	40.4	42.7	50.0	13.0
4/12/2021	1:00 AM	57.0	43.0	46.0	61.7	82.4	12.8
4/12/2021	2:00 AM	38.1	39.0	41.2	43.1	52.2	11.7
4/12/2021	3:00 AM	40.5	41.7	43.4	45.0	51.5	9.7
4/12/2021	4:00 AM	44.0	44.7	46.3	48.1	58.1	10.3
4/12/2021	5:00 AM	48.4	48.0	49.6	51.4	71.2	7.8
4/12/2021	6:00 AM	55.6	51.3	57.5	62.1	79.4	5.5
4/12/2021	7:00 AM	46.4	47.0	49.7	51.8	70.2	3.1
4/12/2021	8:00 AM	42.8	43.1	44.7	46.7	70.4	1.4
4/12/2021	9:00 AM	50.4	43.3	47.2	59.9	75.9	3.5
4/12/2021	10:00 AM	55.2	44.6	52.5	64.1	81.1	0.3
4/12/2021	11:00 AM	43.1	43.4	45.3	47.6	66.0	3.4
4/12/2021	12:00 PM	45.0	44.9	46.7	50.2	64.1	0.6
4/12/2021	1:00 PM	61.0	46.5	56.1	65.7	89.1	2.6
4/12/2021	2:00 PM	55.3	46.5	51.4	61.6	82.7	2.5
4/12/2021	3:00 PM	54.2	47.3	52.4	62.5	81.5	3.7
4/12/2021	4:00 PM	47.4	47.2	48.9	52.9	67.3	4.9
4/12/2021	5:00 PM	52.3	47.7	50.6	57.1	77.1	10.0
4/12/2021	6:00 PM	45.1	44.3	46.5	50.5	67.6	9.2
4/12/2021	7:00 PM	43.5	43.8	45.2	46.8	63.3	15.3
4/12/2021	8:00 PM	50.5	42.5	45.0	49.8	83.6	19.6
4/12/2021	9:00 PM	39.6	40.0	41.6	43.2	53.5	20.2
4/12/2021	10:00 PM	39.5	40.1	41.7	43.1	55.4	17.8
4/12/2021	11:00 PM	37.5	37.7	40.3	43.0	50.2	15.3
4/13/2021	12:00 AM	37.3	38.1	40.3	42.1	49.3	13.6
4/13/2021	1:00 AM	49.2	40.5	44.1	49.6	72.8	12.8
4/13/2021	2:00 AM	39.5	40.3	42.4	44.3	51.9	9.7
4/13/2021	3:00 AM	39.2	40.0	41.8	43.7	56.9	6.1
4/13/2021	4:00 AM	41.7	42.0	44.3	47.1	53.8	6.9
4/13/2021	5:00 AM	60.4	50.3	58.0	68.0	82.0	6.4
4/13/2021	6:00 AM	50.2	51.0	52.7	54.2	65.1	6.4
4/13/2021	7:00 AM	49.1	49.8	52.1	54.2	66.4	8.1
4/13/2021	8:00 AM	47.6	46.7	50.9	53.2	69.5	10.3
4/13/2021	9:00 AM	59.5	45.9	52.3	65.0	88.0	9.5
4/13/2021	10:00 AM	48.0	45.6	51.4	56.0	68.1	7.2
4/13/2021	11:00 AM	46.2	44.4	47.1	51.9	69.2	4.3
4/13/2021	12:00 PM	43.6	43.7	45.5	47.8	63.2	4.4
4/13/2021	1:00 PM	48.3	45.6	48.4	54.6	70.9	4.6
4/13/2021	2:00 PM	46.6	46.3	48.8	52.8	64.8	3.1
4/13/2021	3:00 PM	52.4	47.6	52.7	61.1	73.7	4.0
4/13/2021	4:00 PM	48.0	48.1	50.1	51.7	72.5	6.7
4/13/2021	5:00 PM	47.5	47.7	49.4	51.7	69.7	9.2
4/13/2021	6:00 PM	53.2	47.1	49.1	57.4	76.4	10.0
4/13/2021	7:00 PM	45.9	46.1	48.5	50.7	64.0	12.6
4/13/2021	8:00 PM	62.9	46.4	51.1	62.8	94.7	16.7
4/13/2021	9:00 PM	44.5	44.9	45.6	46.3	57.9	17.5
4/13/2021	10:00 PM	49.0	43.9	44.7	46.8	77.4	18.1
4/13/2021	11:00 PM	44.1	42.7	44.1	47.0	68.8	17.2
4/14/2021	12:00 AM	52.6	41.4	43.8	55.3	81.5	16.7
4/14/2021	1:00 AM	39.5	40.3	42.2	43.9	52.9	15.3
4/14/2021	2:00 AM	43.2	44.9	46.2	47.6	57.6	17.8
4/14/2021	3:00 AM	42.0	42.9	45.0	46.6	54.0	17.8
4/14/2021	4:00 AM	55.5	50.6	55.1	60.5	85.5	14.1
4/14/2021	5:00 AM	60.5	50.7	53.3	59.4	86.1	11.8
4/14/2021	6:00 AM	56.7	54.4	57.2	65.0	76.4	9.2
4/14/2021	7:00 AM	51.0	51.8	53.5	55.0	67.9	6.1
4/14/2021	8:00 AM	47.5	47.7	50.9	53.7	62.7	6.7
4/14/2021	9:00 AM	56.4	47.1	53.7	60.7	85.3	5.8
4/14/2021	10:00 AM	50.1	45.4	49.4	55.7	81.8	4.3
4/14/2021	11:00 AM	47.1	43.8	47.6	56.3	68.0	3.2
4/14/2021	12:00 PM	49.6	43.9	46.5	50.8	78.9	0.3
4/14/2021	1:00 PM	46.8	46.9	49.0	51.6	67.7	1.7
4/14/2021	2:00 PM	47.4	46.9	49.9	53.1	71.5	1.7

4/14/2021	3:00 PM	47.5	45.3	49.2	55.7	67.8	0.3
4/14/2021	4:00 PM	44.9	45.3	47.2	49.7	71.3	4.6
4/14/2021	5:00 PM	46.3	46.5	48.8	51.7	65.4	6.1
4/14/2021	6:00 PM	44.9	44.8	46.1	49.0	65.0	9.2
4/14/2021	7:00 PM	49.7	46.4	50.9	55.5	83.7	16.9
4/14/2021	8:00 PM	53.9	47.9	49.6	53.5	84.6	16.4
4/14/2021	9:00 PM	45.6	45.4	47.4	50.0	67.3	16.7
4/14/2021	10:00 PM	46.8	47.9	49.9	51.4	57.2	17.5
4/14/2021	11:00 PM	46.9	47.7	49.5	51.6	59.9	16.7
4/15/2021	12:00 AM	57.3	45.4	47.7	55.8	89.4	16.1
4/15/2021	1:00 AM	43.4	44.0	45.5	46.9	53.9	12.4
4/15/2021	2:00 AM	41.0	41.6	43.8	45.6	63.0	11.5
4/29/2021	12:00 PM	43.7	41.3	42.8	44.7	76.7	2.3
4/29/2021	1:00 PM	56.1	41.7	45.7	55.1	85.4	1.7
4/29/2021	2:00 PM	42.1	41.5	43.6	48.6	60.6	0.3
4/29/2021	3:00 PM	44.6	44.0	45.8	47.9	69.4	3.8
4/29/2021	4:00 PM	45.4	45.0	46.7	48.8	70.2	4.0
4/29/2021	5:00 PM	47.3	47.4	48.8	51.7	65.1	5.5
4/29/2021	6:00 PM	47.8	47.5	49.0	51.0	78.3	7.5
4/29/2021	7:00 PM	49.4	50.3	51.5	52.7	61.9	6.7
4/29/2021	8:00 PM	54.4	50.9	52.1	56.3	81.4	6.7
4/29/2021	9:00 PM	48.4	49.0	50.0	50.8	55.3	6.9
4/29/2021	10:00 PM	49.3	49.0	50.1	51.2	73.3	8.3
4/29/2021	11:00 PM	45.5	46.7	48.6	49.7	56.1	9.5
4/30/2021	12:00 AM	44.2	45.0	47.4	49.4	65.7	6.4
4/30/2021	1:00 AM	44.2	45.0	47.3	49.5	61.0	3.7
4/30/2021	2:00 AM	49.3	43.8	46.2	50.6	73.0	5.8
4/30/2021	3:00 AM	44.1	45.0	46.6	48.7	53.5	4.3
4/30/2021	4:00 AM	46.3	47.3	49.8	51.7	64.7	5.2
4/30/2021	5:00 AM	54.0	52.9	55.4	59.6	80.2	5.3
4/30/2021	6:00 AM	53.1	54.1	55.4	56.6	72.9	6.1
4/30/2021	7:00 AM	53.4	54.2	55.6	56.9	71.3	6.1
4/30/2021	8:00 AM	53.1	53.7	55.2	56.4	72.9	5.3
4/30/2021	9:00 AM	51.9	52.8	54.3	55.4	66.2	1.1
4/30/2021	10:00 AM	52.4	52.5	53.9	55.4	74.0	1.7
4/30/2021	11:00 AM	51.7	52.2	53.8	55.6	68.5	4.0
4/30/2021	12:00 PM	53.9	51.8	53.2	55.2	81.2	6.7
4/30/2021	1:00 PM	50.7	50.8	52.6	55.7	68.7	10.0
4/30/2021	2:00 PM	49.6	50.4	52.0	53.1	62.5	9.7
4/30/2021	3:00 PM	49.2	48.3	50.0	52.6	71.1	10.8
4/30/2021	4:00 PM	47.0	47.8	49.0	49.9	59.2	11.5
4/30/2021	5:00 PM	48.2	48.6	50.5	52.6	67.5	10.6
4/30/2021	6:00 PM	49.9	50.5	52.1	54.4	70.6	8.9
4/30/2021	7:00 PM	52.6	51.1	52.2	54.0	78.0	9.7
4/30/2021	8:00 PM	50.6	51.1	52.1	53.2	66.2	11.7
4/30/2021	9:00 PM	50.4	51.0	52.0	52.8	62.8	9.5
4/30/2021	10:00 PM	48.4	48.9	50.2	51.3	55.6	8.3
4/30/2021	11:00 PM	47.4	48.1	49.1	50.3	59.1	7.8
5/1/2021	12:00 AM	42.4	42.7	44.5	46.7	63.9	7.8
5/1/2021	1:00 AM	41.6	42.5	44.5	45.8	56.6	8.6
5/1/2021	2:00 AM	53.8	43.5	45.3	51.1	78.6	5.8
5/1/2021	3:00 AM	42.7	43.4	44.8	46.1	53.6	3.1
5/1/2021	4:00 AM	62.1	45.7	59.0	68.4	85.1	4.0
5/1/2021	5:00 AM	63.1	48.9	56.8	70.5	88.1	2.8
5/1/2021	6:00 AM	44.4	44.7	46.4	49.2	59.9	5.8
5/1/2021	7:00 AM	44.6	44.3	46.1	47.9	69.9	5.7
5/1/2021	8:00 AM	45.0	44.5	46.3	48.7	64.0	7.5
5/1/2021	9:00 AM	49.3	49.7	51.5	53.5	78.4	2.9
5/1/2021	10:00 AM	49.9	50.5	51.7	52.8	72.9	5.5
5/1/2021	11:00 AM	49.2	49.8	51.1	52.6	61.2	2.3
5/1/2021	12:00 PM	49.4	50.1	51.4	52.6	63.6	3.1
5/1/2021	1:00 PM	50.2	50.9	52.0	52.9	64.7	3.1
5/1/2021	2:00 PM	49.8	50.5	51.7	52.7	63.3	3.1

5/1/2021	3:00 PM	49.0	49.5	51.2	53.0	66.5	4.4
5/1/2021	4:00 PM	48.5	48.9	50.3	52.0	66.7	5.5
5/1/2021	5:00 PM	49.4	49.2	50.6	52.5	72.7	7.2
5/1/2021	6:00 PM	50.4	47.9	49.5	52.1	75.9	9.2
5/1/2021	7:00 PM	48.5	48.9	50.5	52.6	66.3	12.8
5/1/2021	8:00 PM	53.1	48.4	49.9	53.0	83.5	14.1
5/1/2021	9:00 PM	46.4	47.1	48.3	49.4	55.6	13.6
5/1/2021	10:00 PM	45.0	45.7	47.0	48.3	66.8	13.3
5/1/2021	11:00 PM	43.9	44.6	46.1	47.6	58.2	10.3
5/2/2021	12:00 AM	43.0	43.6	44.8	46.0	53.0	9.5
5/2/2021	1:00 AM	42.9	43.5	44.9	46.1	52.4	8.3
5/2/2021	2:00 AM	40.8	41.5	42.8	44.4	53.3	8.9
5/2/2021	3:00 AM	51.1	42.0	44.7	57.0	75.0	6.7
5/2/2021	4:00 AM	56.7	44.3	55.9	61.2	82.2	3.7
5/2/2021	5:00 AM	50.5	46.5	50.1	56.2	83.9	4.4
5/2/2021	6:00 AM	53.8	49.1	53.1	58.3	78.5	3.7
5/2/2021	7:00 AM	48.7	47.0	51.6	56.3	68.1	3.7
5/2/2021	8:00 AM	43.9	44.5	46.2	48.1	60.5	6.1
5/2/2021	9:00 AM	46.3	46.8	48.3	49.8	66.0	4.0
5/2/2021	10:00 AM	47.1	46.7	48.9	51.9	65.7	5.0
5/2/2021	11:00 AM	49.2	48.8	51.3	56.5	65.8	4.0
5/2/2021	12:00 PM	44.3	43.4	46.7	51.1	67.4	5.3
5/2/2021	1:00 PM	51.0	45.5	52.0	60.0	72.5	4.4
5/2/2021	2:00 PM	41.5	39.9	44.7	49.8	61.7	5.0
5/2/2021	3:00 PM	46.0	40.0	44.3	53.1	71.8	5.2
5/2/2021	4:00 PM	44.6	43.0	45.2	48.9	66.5	4.0
5/2/2021	5:00 PM	47.1	47.1	48.8	51.7	64.9	4.6
5/2/2021	6:00 PM	45.9	46.5	48.2	50.1	64.8	5.3
5/2/2021	7:00 PM	47.3	47.5	48.8	50.5	65.5	3.4
5/2/2021	8:00 PM	47.9	47.4	49.0	52.1	66.4	5.8
5/2/2021	9:00 PM	46.3	46.6	47.9	49.3	63.4	6.7
5/2/2021	10:00 PM	52.7	46.8	48.3	51.4	76.2	5.8
5/2/2021	11:00 PM	45.9	46.6	48.0	49.5	57.1	5.8
5/3/2021	12:00 AM	44.3	45.2	46.8	48.4	57.6	6.4
5/3/2021	1:00 AM	43.3	43.7	45.7	47.6	60.3	6.9
5/3/2021	2:00 AM	41.6	42.3	43.4	44.5	50.2	6.7
5/3/2021	3:00 AM	48.9	43.4	45.5	51.3	72.4	4.0
5/3/2021	4:00 AM	53.1	49.5	56.8	59.3	77.7	2.2
5/3/2021	5:00 AM	53.8	53.4	56.6	60.8	76.9	4.4
5/3/2021	6:00 AM	53.2	54.1	55.5	56.8	64.2	3.5
5/3/2021	7:00 AM	50.5	51.4	52.9	54.2	60.0	3.1
5/3/2021	8:00 AM	49.8	50.6	52.5	54.3	67.4	2.8
5/3/2021	9:00 AM	50.1	50.5	52.3	54.5	65.0	3.1
5/3/2021	10:00 AM	52.1	51.3	53.4	56.3	73.5	4.0
5/3/2021	11:00 AM	50.4	51.2	52.7	54.2	61.0	4.7
5/3/2021	12:00 PM	51.0	51.4	53.0	54.5	80.5	5.0
5/3/2021	1:00 PM	52.2	52.2	54.3	57.2	70.6	3.1
5/3/2021	2:00 PM	51.0	51.2	52.9	55.1	77.3	3.1
5/3/2021	3:00 PM	51.7	52.4	54.1	55.5	65.0	6.6
5/3/2021	4:00 PM	50.7	51.6	52.9	54.1	65.1	8.9
5/3/2021	5:00 PM	51.6	52.3	54.0	55.6	69.5	8.6
5/3/2021	6:00 PM	53.4	53.0	56.8	60.9	68.2	8.9
5/3/2021	7:00 PM	50.1	49.6	52.9	57.5	67.1	9.7
5/3/2021	8:00 PM	48.0	48.4	50.7	53.8	63.2	9.7
5/3/2021	9:00 PM	50.0	45.8	47.9	52.7	72.9	7.8
5/3/2021	10:00 PM	43.5	44.1	46.4	48.2	58.2	9.2
5/3/2021	11:00 PM	42.1	43.0	45.4	47.2	53.0	8.9
5/4/2021	12:00 AM	39.5	40.1	41.8	43.0	50.3	8.9
5/4/2021	1:00 AM	42.2	43.0	44.2	44.9	51.0	8.9
5/4/2021	2:00 AM	51.0	43.6	45.4	51.5	75.0	7.5
5/4/2021	3:00 AM	41.7	42.2	43.4	44.8	57.3	6.7
5/4/2021	4:00 AM	39.5	39.6	42.1	44.6	53.6	5.3
5/4/2021	5:00 AM	50.5	48.7	53.9	59.8	67.0	3.4

5/4/2021	6:00 AM	47.8	48.5	50.2	51.6	63.4	4.0
5/4/2021	7:00 AM	47.3	48.1	50.0	51.7	65.0	2.8
5/4/2021	8:00 AM	47.2	47.5	49.1	51.0	64.7	4.3
5/4/2021	9:00 AM	48.0	47.0	48.6	51.7	68.2	4.7
5/4/2021	10:00 AM	46.6	47.4	48.9	50.1	59.7	3.7
5/4/2021	11:00 AM	49.3	48.0	49.3	51.4	71.7	1.7
5/4/2021	12:00 PM	47.8	47.8	49.4	51.0	68.2	2.0
5/4/2021	1:00 PM	47.7	47.3	49.4	53.8	65.6	4.1
5/4/2021	2:00 PM	47.7	48.1	49.4	50.7	63.8	5.3
5/4/2021	3:00 PM	48.6	48.9	50.0	51.6	67.6	2.5
5/4/2021	4:00 PM	50.1	47.9	49.2	51.6	73.0	3.1
5/4/2021	5:00 PM	47.9	48.4	49.9	51.3	65.7	3.1
5/4/2021	6:00 PM	48.7	48.1	50.6	55.0	67.7	3.4
5/4/2021	7:00 PM	47.3	47.8	49.2	50.9	63.0	5.3
5/4/2021	8:00 PM	48.8	49.3	50.6	52.0	69.2	4.9
5/4/2021	9:00 PM	51.7	49.2	50.3	53.6	80.9	6.9
5/4/2021	10:00 PM	46.6	46.1	48.1	50.2	69.6	7.8
5/4/2021	11:00 PM	45.3	45.9	48.2	50.2	59.2	8.6
5/5/2021	12:00 AM	43.5	44.2	46.1	47.6	54.8	9.2
5/5/2021	1:00 AM	47.5	43.6	46.9	50.6	68.0	8.6
5/5/2021	2:00 AM	58.0	44.5	48.2	64.3	84.4	6.7
5/5/2021	3:00 AM	58.4	41.7	46.3	62.1	86.4	4.9
5/5/2021	4:00 AM	48.5	47.0	49.7	53.7	69.2	2.2
5/5/2021	5:00 AM	50.4	50.8	52.3	54.1	69.2	2.8
5/5/2021	6:00 AM	50.4	50.3	52.0	55.2	68.6	1.4
5/5/2021	7:00 AM	46.3	47.0	48.8	50.4	65.4	0.6
5/5/2021	8:00 AM	46.3	46.9	48.6	50.2	61.0	1.1
5/5/2021	9:00 AM	46.6	46.7	48.5	50.0	77.3	0.6
5/5/2021	10:00 AM	45.9	44.1	45.9	48.8	72.9	1.1
5/5/2021	11:00 AM	56.6	43.5	46.9	59.1	83.7	2.0
5/5/2021	12:00 PM	50.9	45.9	50.5	57.4	77.9	1.4
5/5/2021	1:00 PM	46.0	46.6	48.2	49.7	66.1	2.6
5/5/2021	2:00 PM	45.7	45.3	47.0	48.9	68.6	2.0
5/5/2021	3:00 PM	45.5	45.1	46.3	48.9	65.3	5.5
5/5/2021	4:00 PM	46.0	45.2	46.9	51.6	63.5	5.5
5/5/2021	5:00 PM	47.4	45.8	47.5	50.7	82.4	8.9
5/5/2021	6:00 PM	46.7	46.0	47.6	51.4	69.8	10.0
5/5/2021	7:00 PM	45.9	45.5	47.3	50.3	68.2	9.2
5/5/2021	8:00 PM	44.6	44.8	46.4	48.5	62.9	8.3
5/5/2021	9:00 PM	43.6	44.1	45.7	47.2	59.2	10.3
5/5/2021	10:00 PM	50.0	44.4	46.0	48.4	73.0	15.0
5/5/2021	11:00 PM	42.9	43.8	45.5	47.3	53.7	12.1
5/6/2021	12:00 AM	41.3	42.0	44.5	46.5	55.7	13.0
5/6/2021	1:00 AM	48.5	42.5	45.5	49.0	75.7	11.5
5/6/2021	2:00 AM	40.6	41.2	44.2	46.7	54.1	9.2
5/6/2021	3:00 AM	42.8	44.0	46.4	48.3	57.8	8.1
5/6/2021	4:00 AM	54.3	49.5	57.3	62.1	82.7	6.7
5/6/2021	5:00 AM	50.9	51.2	52.6	54.3	68.5	8.6
5/6/2021	6:00 AM	51.7	51.5	53.0	56.4	68.7	9.2
5/6/2021	7:00 AM	51.8	52.5	54.1	55.6	73.1	6.9
5/6/2021	8:00 AM	51.7	52.5	53.8	55.0	63.6	4.0
5/6/2021	9:00 AM	51.4	52.1	53.7	55.2	66.4	2.9
5/6/2021	10:00 AM	51.5	52.2	53.9	55.4	62.4	1.7
5/6/2021	11:00 AM	52.4	53.1	54.8	56.3	63.7	2.2
5/6/2021	12:00 PM	54.1	54.4	56.1	58.7	74.3	2.8
5/6/2021	1:00 PM	54.7	55.1	56.8	58.9	72.8	4.9
5/6/2021	2:00 PM	52.5	53.2	54.7	56.1	65.0	5.5
5/6/2021	3:00 PM	55.1	54.1	56.0	58.0	78.2	6.3
5/6/2021	4:00 PM	54.9	55.4	56.9	58.4	75.3	12.1
5/6/2021	5:00 PM	54.8	54.3	56.0	58.0	75.3	16.4
5/6/2021	6:00 PM	51.2	52.0	53.3	54.8	69.4	17.8
5/6/2021	7:00 PM	49.4	48.4	50.3	53.5	75.4	22.5
5/6/2021	8:00 PM	55.4	53.6	56.6	58.0	82.9	24.4
5/6/2021	9:00 PM	48.8	50.2	51.9	53.1	65.2	23.0

5/6/2021	10:00 PM	48.8	49.6	51.3	52.4	60.4	21.6
5/6/2021	11:00 PM	46.1	47.3	49.1	50.4	61.5	17.3
5/7/2021	12:00 AM	49.4	50.4	52.3	54.2	62.3	16.9
5/7/2021	1:00 AM	45.8	46.6	50.0	52.1	57.0	17.3
5/7/2021	2:00 AM	47.5	43.8	47.3	54.8	68.9	11.5
5/7/2021	3:00 AM	43.9	44.8	47.4	49.6	59.6	6.4
5/7/2021	4:00 AM	59.0	49.3	54.1	61.3	85.2	3.1
5/7/2021	5:00 AM	57.3	50.5	52.4	57.7	81.4	3.7
5/7/2021	6:00 AM	50.9	50.6	53.0	57.8	71.7	5.0
5/7/2021	7:00 AM	51.4	52.0	53.7	55.8	66.9	4.4
5/7/2021	8:00 AM	49.7	50.2	52.2	54.0	69.3	6.4
5/7/2021	9:00 AM	48.7	49.0	50.5	52.0	70.7	5.8
5/7/2021	10:00 AM	50.3	50.8	52.1	53.4	66.3	4.4
5/28/2021	11:00 AM	50.8	48.9	50.5	54.3	76.5	8.1
5/28/2021	12:00 PM	48.9	49.3	50.6	52.6	66.1	9.5
5/28/2021	1:00 PM	49.3	49.2	50.6	53.3	65.3	6.9
5/28/2021	2:00 PM	52.1	48.9	50.4	54.5	81.0	9.5
5/28/2021	3:00 PM	49.5	49.6	51.1	53.6	66.3	10.6
5/28/2021	4:00 PM	49.6	49.7	51.4	54.3	69.3	10.9
5/28/2021	5:00 PM	49.4	49.5	51.3	54.0	64.3	6.7
5/28/2021	6:00 PM	48.1	48.2	50.6	53.3	62.6	5.2
5/28/2021	7:00 PM	48.4	47.9	50.7	54.9	63.8	6.1
5/28/2021	8:00 PM	48.1	47.0	48.7	51.4	74.3	8.9
5/28/2021	9:00 PM	45.6	46.2	47.6	49.2	61.0	8.6
5/28/2021	10:00 PM	49.1	46.6	48.7	54.6	69.6	9.7
5/28/2021	11:00 PM	46.2	46.8	48.4	50.2	58.3	10.3
5/29/2021	12:00 AM	46.5	47.1	48.6	50.1	54.8	10.8
5/29/2021	1:00 AM	43.7	44.2	45.4	46.5	59.7	9.7
5/29/2021	2:00 AM	42.6	43.1	45.6	47.9	56.6	6.4
5/29/2021	3:00 AM	49.7	44.3	47.0	51.6	71.7	3.7
5/29/2021	4:00 AM	46.4	46.0	49.8	54.0	63.1	1.1
5/29/2021	5:00 AM	46.1	46.8	48.6	50.2	57.8	2.2
5/29/2021	6:00 AM	47.8	48.2	49.9	53.1	68.0	2.2
5/29/2021	7:00 AM	44.7	43.5	45.5	49.4	66.5	3.4
5/29/2021	8:00 AM	42.8	42.3	44.4	47.5	65.5	1.1
5/29/2021	9:00 AM	42.9	42.3	44.9	49.9	62.4	0.8
5/29/2021	10:00 AM	43.2	41.3	44.4	49.5	66.1	0.8
5/29/2021	11:00 AM	42.9	42.5	45.3	48.7	61.7	1.4
5/29/2021	12:00 PM	44.8	42.6	46.1	49.5	71.2	2.2
5/29/2021	1:00 PM	46.9	43.9	49.9	55.4	67.8	4.9
5/29/2021	2:00 PM	44.8	43.2	47.8	52.7	65.3	4.9
5/29/2021	3:00 PM	44.6	42.4	46.3	51.4	66.8	4.0
5/29/2021	4:00 PM	47.6	42.7	49.6	53.9	81.9	6.4
5/29/2021	5:00 PM	45.7	43.8	50.0	54.1	63.7	8.1
5/29/2021	6:00 PM	46.0	44.4	50.0	53.4	65.1	8.6
5/29/2021	7:00 PM	47.6	45.4	51.0	54.8	74.1	9.7
5/29/2021	8:00 PM	49.0	47.7	51.2	54.5	74.3	12.8
5/29/2021	9:00 PM	52.6	48.9	51.2	54.8	75.8	12.4
5/29/2021	10:00 PM	59.6	48.3	59.8	69.2	82.3	11.4
5/29/2021	11:00 PM	46.2	46.9	48.5	50.1	55.6	11.5
5/30/2021	12:00 AM	45.6	46.3	48.3	50.1	65.0	12.1
5/30/2021	1:00 AM	45.9	46.0	48.7	51.3	67.1	9.7
5/30/2021	2:00 AM	52.9	45.2	48.2	56.9	79.0	8.1
5/30/2021	3:00 AM	41.6	41.8	45.1	49.1	56.1	5.3
5/30/2021	4:00 AM	46.1	46.4	49.2	53.7	65.0	3.4
5/30/2021	5:00 AM	46.2	46.5	48.8	51.2	64.5	1.4
5/30/2021	6:00 AM	46.6	47.1	49.4	51.8	65.6	1.1
5/30/2021	7:00 AM	47.4	44.6	47.6	51.0	78.5	1.7
5/30/2021	8:00 AM	42.9	42.3	45.8	50.0	64.4	1.1
5/30/2021	9:00 AM	44.3	43.3	48.0	52.2	67.4	0.3
5/30/2021	10:00 AM	45.0	41.0	49.0	54.4	63.4	2.2
5/30/2021	11:00 AM	46.0	42.4	49.5	54.4	66.3	1.4
5/30/2021	12:00 PM	44.3	42.0	47.7	53.1	63.0	1.4
5/30/2021	1:00 PM	45.2	43.7	48.8	53.4	63.6	2.5
5/30/2021	2:00 PM	55.4	44.3	53.0	62.9	82.4	2.5
5/30/2021	3:00 PM	47.2	47.1	50.8	53.9	63.0	2.5
5/30/2021	4:00 PM	47.4	46.4	50.8	54.9	72.8	3.4

5/30/2021	5:00 PM	46.6	44.3	51.3	54.9	63.7	3.7
5/30/2021	6:00 PM	46.0	43.4	51.1	54.5	63.8	6.1
5/30/2021	7:00 PM	47.3	45.3	51.5	56.1	69.9	9.2
5/30/2021	8:00 PM	47.5	47.1	51.6	54.6	72.1	10.6
5/30/2021	9:00 PM	51.7	46.1	48.5	55.7	77.2	11.2
5/30/2021	10:00 PM	45.7	46.2	47.1	47.9	70.2	9.5
5/30/2021	11:00 PM	41.5	43.0	44.3	45.4	51.9	8.9
5/31/2021	12:00 AM	42.1	43.1	45.8	47.1	50.2	7.8
5/31/2021	1:00 AM	42.0	42.7	43.5	44.1	49.2	6.9
5/31/2021	2:00 AM	50.5	41.0	42.4	54.9	75.3	7.8
5/31/2021	3:00 AM	38.0	38.9	39.7	40.5	49.8	8.3
5/31/2021	4:00 AM	47.4	45.7	51.9	56.1	64.3	4.3
5/31/2021	5:00 AM	46.9	47.2	49.3	52.0	71.6	3.7
5/31/2021	6:00 AM	46.3	47.1	49.3	51.3	63.7	3.5
5/31/2021	7:00 AM	45.6	45.2	47.7	51.9	65.4	0.0
5/31/2021	8:00 AM	43.4	44.0	46.5	48.9	60.7	0.3
5/31/2021	9:00 AM	47.9	44.7	46.5	49.1	76.3	0.8
5/31/2021	10:00 AM	46.4	45.6	48.3	53.2	64.1	1.7
5/31/2021	11:00 AM	44.7	45.0	46.7	48.6	59.3	0.8
5/31/2021	12:00 PM	43.5	43.2	46.0	49.8	59.0	0.6
5/31/2021	1:00 PM	42.0	42.0	44.0	46.8	61.5	0.3
5/31/2021	2:00 PM	40.5	40.6	42.1	44.6	58.6	0.6
5/31/2021	3:00 PM	42.5	41.3	43.2	46.8	70.1	3.1
5/31/2021	4:00 PM	42.1	41.6	43.9	46.7	65.7	4.3
5/31/2021	5:00 PM	41.7	41.7	43.5	46.0	62.3	6.4
5/31/2021	6:00 PM	48.8	43.5	45.2	48.7	75.6	7.8
5/31/2021	7:00 PM	42.8	43.2	44.6	46.4	57.7	9.2
5/31/2021	8:00 PM	43.7	44.1	46.1	48.3	59.0	9.5
5/31/2021	9:00 PM	48.7	43.9	46.1	49.9	76.7	10.3
5/31/2021	10:00 PM	42.5	43.3	45.4	47.1	52.9	9.5
5/31/2021	11:00 PM	41.8	42.4	44.0	45.6	56.3	9.5
6/1/2021	12:00 AM	43.9	44.9	46.4	47.8	56.2	9.5
6/1/2021	1:00 AM	46.0	46.6	47.9	49.3	59.9	12.1
6/1/2021	2:00 AM	50.0	44.8	46.5	54.9	74.7	8.1
6/1/2021	3:00 AM	40.8	42.0	43.2	44.6	56.3	5.3
6/1/2021	4:00 AM	46.7	46.2	50.6	53.9	65.0	8.1
6/1/2021	5:00 AM	44.2	44.7	46.6	48.2	59.6	5.5
6/1/2021	6:00 AM	46.3	47.2	48.9	50.2	59.5	4.0
6/1/2021	7:00 AM	44.5	45.0	46.1	47.5	62.5	2.2
6/1/2021	8:00 AM	43.3	43.8	44.6	45.8	59.2	0.8
6/1/2021	9:00 AM	43.0	43.5	44.5	45.5	60.9	0.6
6/1/2021	10:00 AM	44.9	43.9	46.4	51.6	62.9	0.8
6/1/2021	11:00 AM	43.3	43.9	45.1	46.8	56.6	1.4
6/1/2021	12:00 PM	41.6	42.0	43.0	44.5	52.6	2.0
6/1/2021	1:00 PM	42.2	42.2	43.9	46.3	61.3	1.4
6/1/2021	2:00 PM	42.1	42.1	44.2	47.8	58.3	2.0
6/1/2021	3:00 PM	42.7	42.1	43.9	46.7	60.9	7.2
6/1/2021	4:00 PM	41.4	41.1	42.6	46.0	56.6	7.2
6/1/2021	5:00 PM	41.7	41.9	43.5	45.9	58.1	7.8
6/1/2021	6:00 PM	41.8	41.7	43.5	45.7	62.5	9.2
6/1/2021	7:00 PM	42.7	43.1	44.7	46.2	61.5	8.6
6/1/2021	8:00 PM	46.7	47.0	48.5	50.3	63.4	10.6
6/1/2021	9:00 PM	48.4	48.8	50.7	52.5	65.1	11.4
6/1/2021	10:00 PM	53.9	47.3	50.3	57.4	77.8	10.6
6/1/2021	11:00 PM	44.8	45.3	46.4	48.6	60.3	11.1
6/2/2021	12:00 AM	45.8	46.3	48.3	50.4	60.2	10.6
6/2/2021	1:00 AM	44.7	45.4	46.9	48.2	55.1	9.2
6/2/2021	2:00 AM	49.2	44.2	46.7	51.8	73.0	6.4
6/2/2021	3:00 AM	44.5	45.3	47.2	49.1	62.2	5.8
6/2/2021	4:00 AM	49.2	49.4	52.6	55.3	64.7	4.6
6/2/2021	5:00 AM	50.2	51.0	52.7	54.1	59.6	2.9
6/2/2021	6:00 AM	50.3	51.1	52.6	54.3	62.5	2.2
6/2/2021	7:00 AM	46.6	47.2	49.2	51.2	64.3	2.0
6/2/2021	8:00 AM	46.2	46.9	48.4	50.1	60.1	1.4
6/2/2021	9:00 AM	47.3	47.2	49.6	52.0	64.6	0.6
6/2/2021	10:00 AM	51.0	51.7	52.8	54.2	66.1	3.7
6/2/2021	11:00 AM	51.4	50.7	52.4	57.3	70.3	4.4

6/2/2021	12:00 PM	50.3	49.5	51.1	53.5	74.7	4.4
6/2/2021	1:00 PM	51.5	49.8	51.6	56.1	72.0	3.1
6/2/2021	2:00 PM	51.1	49.4	51.1	56.2	74.6	3.4
6/2/2021	3:00 PM	51.3	51.7	53.0	54.3	68.4	5.5
6/2/2021	4:00 PM	52.0	51.9	53.2	55.9	73.1	6.1
6/2/2021	5:00 PM	50.4	50.8	52.3	54.3	61.8	6.7
6/2/2021	6:00 PM	50.3	50.9	52.0	53.2	59.0	8.9
6/2/2021	7:00 PM	51.0	51.1	52.5	54.2	68.7	9.2
6/2/2021	8:00 PM	61.7	51.3	54.4	63.8	88.9	9.2
6/2/2021	9:00 PM	47.6	48.1	49.4	50.6	56.7	8.1
6/2/2021	10:00 PM	46.9	47.5	48.4	49.1	60.6	9.2
6/2/2021	11:00 PM	45.3	46.0	47.1	48.2	60.8	10.3
6/3/2021	12:00 AM	43.2	43.8	45.4	46.8	55.4	8.3
6/3/2021	1:00 AM	43.6	44.1	45.1	46.8	55.3	7.2
6/3/2021	2:00 AM	48.4	44.1	46.1	56.4	76.8	6.9
6/3/2021	3:00 AM	42.8	42.8	44.9	47.5	59.8	6.1
6/3/2021	4:00 AM	47.3	47.6	50.3	53.4	66.4	6.1
6/3/2021	5:00 AM	48.9	49.8	51.4	52.8	62.6	7.8
6/3/2021	6:00 AM	47.4	48.3	49.6	50.7	60.9	7.8
6/3/2021	7:00 AM	48.0	49.0	50.2	51.4	58.8	7.5
6/3/2021	8:00 AM	47.9	48.4	49.9	51.8	60.4	6.7
6/3/2021	9:00 AM	48.4	48.6	50.3	53.1	65.6	5.8
6/3/2021	10:00 AM	49.1	49.6	50.6	52.2	63.9	5.8
6/3/2021	11:00 AM	49.2	49.8	51.5	53.7	65.2	7.5
6/3/2021	12:00 PM	50.2	51.1	52.7	54.2	64.6	7.2
6/3/2021	1:00 PM	50.3	50.3	52.0	54.5	69.0	6.9
6/3/2021	2:00 PM	61.5	51.3	52.5	55.9	90.2	6.4
6/3/2021	3:00 PM	50.9	51.5	52.6	53.8	60.6	7.2
6/3/2021	4:00 PM	48.9	49.6	50.8	51.6	57.4	6.1
6/3/2021	5:00 PM	51.2	51.7	52.8	54.1	64.3	6.9
6/3/2021	6:00 PM	50.4	50.9	52.1	53.3	60.6	7.2
6/3/2021	7:00 PM	49.7	50.1	51.1	52.5	61.8	8.1
6/3/2021	8:00 PM	51.7	52.7	54.1	55.3	63.5	9.7
6/3/2021	9:00 PM	52.7	52.2	53.8	56.0	77.1	7.8
6/3/2021	10:00 PM	50.0	50.6	52.1	53.7	67.1	6.1
6/3/2021	11:00 PM	48.0	48.8	50.5	52.2	62.7	6.9
6/4/2021	12:00 AM	43.8	44.6	46.0	46.9	52.3	8.6
6/4/2021	1:00 AM	43.4	44.2	45.5	46.7	53.0	9.5
6/4/2021	2:00 AM	49.2	44.4	46.8	57.4	74.9	6.7
6/4/2021	3:00 AM	45.9	46.4	48.3	50.2	63.8	6.7
6/4/2021	4:00 AM	46.7	47.2	49.7	52.4	60.3	7.5
6/4/2021	5:00 AM	50.8	51.6	53.4	55.2	63.0	8.3
6/4/2021	6:00 AM	50.6	51.6	53.2	54.5	60.3	8.7
6/4/2021	7:00 AM	50.7	50.9	52.3	53.5	76.7	5.8
6/4/2021	8:00 AM	50.0	50.5	52.0	53.7	63.1	7.2
6/4/2021	9:00 AM	48.8	49.3	50.7	52.3	63.2	10.0
6/4/2021	10:00 AM	49.3	49.7	51.3	53.0	65.2	8.6
6/4/2021	11:00 AM	48.8	49.3	51.2	53.3	62.8	10.3
6/4/2021	12:00 PM	62.3	48.8	52.0	67.3	91.5	7.5
6/18/2021	10:21 AM	48.2	48.4	49.5	51.2	75.2	5.3
6/18/2021	11:00 AM	48.2	48.3	49.9	53.2	63.5	5.3
6/18/2021	12:00 PM	48.5	49.1	50.5	51.9	61.5	4.7
6/18/2021	1:00 PM	49.7	50.2	51.2	52.4	64.5	5.3
6/18/2021	2:00 PM	49.1	49.3	50.5	52.1	65.8	5.8
6/18/2021	3:00 PM	49.0	49.1	50.4	52.7	66.9	7.5
6/18/2021	4:00 PM	47.6	47.9	49.1	50.3	74.7	7.2
6/18/2021	5:00 PM	47.9	47.9	49.4	52.7	65.6	6.1
6/18/2021	6:00 PM	47.4	48.0	49.4	50.7	60.8	5.8
6/18/2021	7:00 PM	52.3	50.0	51.5	55.0	78.0	8.1
6/18/2021	8:00 PM	48.9	49.3	50.4	51.6	66.4	7.8
6/18/2021	9:00 PM	49.7	49.1	50.4	52.6	71.3	6.9
6/18/2021	10:00 PM	48.1	48.8	49.9	50.8	57.1	9.2
6/18/2021	11:00 PM	45.2	45.6	47.5	49.1	66.6	9.5
6/19/2021	12:00 AM	50.7	44.1	45.8	58.4	75.1	9.2
6/19/2021	1:00 AM	42.1	41.9	43.5	45.2	68.5	10.0
6/19/2021	2:00 AM	40.0	40.5	43.0	45.5	54.1	7.5
6/19/2021	3:00 AM	41.1	41.6	44.8	47.3	58.4	4.0

6/19/2021	4:00 AM	46.2	46.3	49.3	54.2	59.3	3.8
6/19/2021	5:00 AM	45.4	46.0	48.2	50.2	63.4	5.2
6/19/2021	6:00 AM	44.8	45.3	47.2	49.0	66.6	4.3
6/19/2021	7:00 AM	45.0	45.7	47.4	49.0	59.0	5.0
6/19/2021	8:00 AM	47.6	47.1	49.1	52.1	69.0	4.4
6/19/2021	9:00 AM	47.4	48.2	49.3	50.3	63.7	4.0
6/19/2021	10:00 AM	48.8	49.4	50.8	52.3	60.3	4.4
6/19/2021	11:00 AM	47.2	47.8	49.3	51.3	65.5	5.3
6/19/2021	12:00 PM	46.2	46.2	47.7	49.8	63.3	5.3
6/19/2021	1:00 PM	45.8	46.4	47.6	48.7	59.2	5.8
6/19/2021	2:00 PM	49.2	47.5	49.0	52.5	74.5	5.8
6/19/2021	3:00 PM	50.1	49.8	51.1	53.7	75.5	8.3
6/19/2021	4:00 PM	49.3	49.8	51.0	52.5	61.5	9.2
6/19/2021	5:00 PM	49.2	50.1	51.3	52.5	61.6	6.7
6/19/2021	6:00 PM	48.3	49.0	50.3	51.5	60.1	7.5
6/19/2021	7:00 PM	46.9	47.8	49.8	51.8	67.8	4.4
6/19/2021	8:00 PM	46.3	45.8	47.4	50.6	63.0	4.6
6/19/2021	9:00 PM	51.0	47.9	49.3	54.9	75.8	7.5
6/19/2021	10:00 PM	46.2	47.0	48.1	49.4	57.8	8.9
6/19/2021	11:00 PM	45.6	46.1	46.9	47.7	57.0	9.2
6/20/2021	12:00 AM	46.9	47.5	48.7	49.9	57.4	7.8
6/20/2021	1:00 AM	45.2	45.8	47.2	48.7	57.8	6.7
6/20/2021	2:00 AM	43.9	44.2	45.6	47.1	66.1	6.4
6/20/2021	3:00 AM	48.9	43.5	44.9	47.0	75.3	5.0
6/20/2021	4:00 AM	48.0	45.9	50.5	57.6	64.3	3.4
6/20/2021	5:00 AM	45.3	45.8	47.0	48.4	62.0	1.1
6/20/2021	6:00 AM	43.4	43.7	44.8	46.0	64.0	2.0
6/20/2021	7:00 AM	49.3	42.7	44.8	55.6	77.7	0.3
6/20/2021	8:00 AM	41.6	41.6	42.6	43.9	62.0	1.1
6/20/2021	9:00 AM	44.0	42.6	44.7	49.5	64.5	2.0
6/20/2021	10:00 AM	40.9	41.1	42.4	44.2	60.4	2.0
6/20/2021	11:00 AM	45.6	43.1	47.0	53.2	66.5	1.4
6/20/2021	12:00 PM	44.7	42.6	44.5	51.4	64.0	0.0
6/20/2021	1:00 PM	45.0	43.6	45.7	49.4	65.9	1.1
6/20/2021	2:00 PM	44.8	45.0	46.5	49.5	55.6	3.4
6/20/2021	3:00 PM	44.6	44.7	46.9	49.5	57.0	5.0
6/20/2021	4:00 PM	43.8	44.0	45.7	48.0	56.5	6.9
6/20/2021	5:00 PM	44.8	44.5	46.5	49.6	62.4	10.6
6/20/2021	6:00 PM	43.7	43.4	44.8	47.6	62.1	12.4
6/20/2021	7:00 PM	42.9	43.3	44.4	45.8	54.6	11.4
6/20/2021	8:00 PM	43.9	44.4	45.6	47.0	54.8	11.7
6/20/2021	9:00 PM	43.3	43.9	45.0	46.4	56.1	12.4
6/20/2021	10:00 PM	53.4	45.0	46.5	50.4	81.8	13.6
6/20/2021	11:00 PM	49.9	44.7	46.9	49.5	78.0	13.3
6/21/2021	12:00 AM	42.0	42.5	44.1	45.9	57.2	13.6
6/21/2021	1:00 AM	41.8	42.4	45.3	47.7	52.8	13.9
6/21/2021	2:00 AM	49.8	44.0	45.6	51.4	73.6	12.4
6/21/2021	3:00 AM	41.7	42.3	44.0	45.6	52.1	9.7
6/21/2021	4:00 AM	49.3	48.1	51.1	57.8	63.6	9.5
6/21/2021	5:00 AM	46.8	47.5	48.5	49.4	58.3	6.9
6/21/2021	6:00 AM	45.4	46.4	47.7	48.7	54.7	2.2
6/21/2021	7:00 AM	42.8	43.2	44.5	46.1	61.5	1.7
6/21/2021	8:00 AM	47.7	44.0	46.4	55.7	67.3	0.8
6/21/2021	9:00 AM	45.2	44.6	46.0	48.5	68.5	0.6
6/21/2021	10:00 AM	45.7	45.3	47.0	50.5	62.6	0.3
6/21/2021	11:00 AM	45.4	45.4	47.2	49.8	63.0	1.1
6/21/2021	11:41 AM	46.0	44.3	45.6	46.8	79.3	1.1
6/21/2021	12:00 PM	43.0	43.2	44.5	46.7	54.9	1.1
6/21/2021	1:00 PM	45.5	45.2	47.2	49.4	63.9	1.4
6/21/2021	2:00 PM	47.9	47.4	50.4	55.2	63.5	2.0
6/21/2021	3:00 PM	46.9	45.5	48.8	54.1	66.6	8.9
6/21/2021	4:00 PM	43.8	43.9	45.3	47.9	57.4	10.0
6/21/2021	5:00 PM	51.7	44.9	47.6	53.6	77.7	12.1
6/21/2021	6:00 PM	52.4	43.1	44.4	46.4	94.1	12.1
6/21/2021	7:00 PM	49.2	50.1	52.2	53.9	66.9	12.8
6/21/2021	8:00 PM	52.1	45.3	47.6	53.0	76.0	13.6
6/21/2021	9:00 PM	46.5	46.1	48.3	53.3	63.5	12.7

6/21/2021	10:00 PM	45.2	45.8	46.6	47.6	56.8	11.7
6/21/2021	11:00 PM	44.5	44.9	45.8	46.8	68.3	11.7
6/22/2021	12:00 AM	43.6	44.0	46.4	47.9	54.1	11.1
6/22/2021	1:00 AM	48.7	46.4	48.4	52.7	69.3	10.6
6/22/2021	2:00 AM	43.5	44.2	46.1	47.9	53.2	10.1
6/22/2021	3:00 AM	42.8	43.7	45.4	46.7	59.3	5.3
6/22/2021	4:00 AM	48.4	48.7	50.7	54.2	61.2	3.2
6/22/2021	5:00 AM	48.8	49.6	50.9	52.1	60.2	3.1
6/22/2021	6:00 AM	50.2	50.8	51.9	53.2	63.2	3.1
6/22/2021	7:00 AM	46.6	47.6	48.7	49.7	62.2	2.5
6/22/2021	8:00 AM	46.1	46.4	48.2	50.3	60.5	2.2
6/22/2021	9:00 AM	48.6	48.6	50.3	53.7	66.1	3.1
6/22/2021	10:00 AM	53.8	48.8	51.5	60.0	75.1	2.0
6/22/2021	11:00 AM	53.9	47.4	51.2	59.6	79.0	2.8
6/22/2021	12:00 PM	48.5	47.7	49.6	53.9	67.6	2.2
6/22/2021	1:00 PM	48.0	47.5	49.3	52.5	67.1	0.0
6/22/2021	2:00 PM	49.2	49.4	50.6	52.6	63.2	0.3
6/22/2021	3:00 PM	48.2	48.7	49.8	51.2	61.9	3.2
6/22/2021	4:00 PM	48.6	49.1	50.5	51.9	63.8	8.9
6/22/2021	5:00 PM	49.2	49.8	51.2	52.2	59.7	7.5
6/22/2021	6:00 PM	49.1	49.7	50.9	52.0	60.0	5.8
6/22/2021	7:00 PM	51.4	49.7	50.8	52.0	86.2	5.8
6/22/2021	8:00 PM	51.1	50.7	51.8	54.6	71.6	7.8
6/22/2021	9:00 PM	53.8	49.4	50.8	59.6	81.9	6.9
6/22/2021	10:00 PM	51.8	50.5	53.6	58.8	75.9	6.1
6/22/2021	11:00 PM	46.4	47.3	49.0	50.2	54.6	6.9
6/23/2021	12:00 AM	44.5	45.1	46.2	47.1	51.6	7.2
6/23/2021	1:00 AM	42.7	43.2	44.2	45.4	53.2	6.1
6/23/2021	2:00 AM	48.3	42.3	44.0	47.8	71.0	6.7
6/23/2021	3:00 AM	39.7	40.3	41.7	43.3	58.5	9.2
6/23/2021	4:00 AM	43.0	43.8	45.8	47.4	58.1	8.3
6/23/2021	5:00 AM	53.3	44.9	46.8	48.9	85.1	6.4
6/23/2021	6:00 AM	46.6	47.4	49.0	50.2	58.0	4.3
6/23/2021	7:00 AM	44.0	44.5	46.2	47.7	66.9	2.8
6/23/2021	8:00 AM	44.5	44.8	46.3	47.7	61.9	3.1
6/23/2021	9:00 AM	46.5	45.6	47.2	52.2	65.6	5.3
6/23/2021	10:00 AM	45.3	44.8	46.4	51.1	62.4	7.2
6/23/2021	11:00 AM	45.3	45.0	46.1	47.7	63.4	6.1
6/23/2021	12:00 PM	49.9	46.4	48.4	53.9	74.7	4.3
6/23/2021	1:00 PM	45.1	45.7	47.0	48.2	65.3	3.7
6/23/2021	2:00 PM	51.6	46.0	48.8	57.0	78.6	2.5
6/23/2021	3:00 PM	42.8	43.0	44.6	47.1	58.6	3.4
6/23/2021	4:00 PM	46.1	45.8	47.6	51.6	64.6	5.3
6/23/2021	5:00 PM	47.7	48.3	49.5	50.7	62.3	3.4
6/23/2021	6:00 PM	46.8	47.4	48.3	49.2	57.7	4.0
6/23/2021	7:00 PM	47.9	48.4	49.6	51.0	60.0	6.4
6/23/2021	8:00 PM	48.8	49.4	50.7	51.9	61.8	5.8
6/23/2021	9:00 PM	51.3	48.6	50.0	54.5	76.8	4.4
6/23/2021	10:00 PM	46.5	47.1	47.9	48.6	52.8	8.9
6/23/2021	11:00 PM	47.7	48.3	49.2	50.0	52.8	8.9
6/24/2021	12:00 AM	47.2	47.8	48.6	49.4	53.4	6.9
6/24/2021	1:00 AM	46.2	47.3	48.5	49.3	51.8	5.5
6/24/2021	2:00 AM	48.2	41.5	42.8	46.2	72.7	6.7
6/24/2021	3:00 AM	42.9	43.5	44.7	45.7	58.3	4.4
6/24/2021	4:00 AM	44.9	45.5	46.8	48.1	56.7	3.1
6/24/2021	5:00 AM	45.0	45.7	47.0	48.2	53.6	2.5
6/24/2021	6:00 AM	47.3	48.0	49.6	51.5	60.3	2.5
6/24/2021	7:00 AM	47.9	48.7	49.8	50.7	56.6	3.4
6/24/2021	8:00 AM	46.7	47.3	48.5	49.7	60.2	4.4
6/24/2021	9:00 AM	45.4	45.0	46.7	50.7	61.8	4.6
6/24/2021	10:00 AM	55.8	44.8	46.7	57.1	81.2	3.1
6/24/2021	11:00 AM	58.9	45.5	56.1	67.5	82.2	2.0
6/24/2021	12:00 PM	52.4	42.3	47.0	58.5	78.6	3.1
6/24/2021	1:00 PM	49.2	42.8	46.0	56.6	74.1	3.5
6/24/2021	2:00 PM	58.9	44.2	55.5	67.6	80.4	3.4
6/24/2021	3:00 PM	53.2	45.4	49.8	60.4	78.2	2.5
6/24/2021	4:00 PM	48.5	46.4	49.2	56.5	67.4	3.7

6/24/2021	5:00 PM	44.6	44.9	46.4	48.2	59.3	3.1
6/24/2021	6:00 PM	45.4	45.2	46.9	50.7	62.6	4.6
6/24/2021	7:00 PM	48.1	48.4	49.5	51.0	63.5	6.7
6/24/2021	8:00 PM	49.0	49.6	50.8	51.9	60.5	9.5
6/24/2021	9:00 PM	47.1	47.8	49.4	51.0	62.2	11.1
6/24/2021	10:00 PM	44.9	45.4	46.5	47.6	57.7	11.5
6/24/2021	11:00 PM	49.5	45.4	47.3	49.9	76.6	8.6
6/25/2021	12:00 AM	45.0	45.8	47.1	48.3	55.5	6.7
6/25/2021	1:00 AM	43.5	44.4	46.0	47.4	52.7	6.4
6/25/2021	2:00 AM	41.9	42.7	44.3	45.8	52.8	4.9
6/25/2021	3:00 AM	42.4	43.7	45.1	46.2	54.6	2.2
6/25/2021	4:00 AM	49.7	44.8	50.3	57.2	69.3	1.1
6/25/2021	5:00 AM	42.8	42.9	44.3	46.4	58.2	0.8
6/25/2021	6:00 AM	43.3	43.7	44.8	46.1	63.2	0.6
6/25/2021	7:00 AM	43.1	43.3	44.6	46.2	58.9	1.1
6/25/2021	8:00 AM	44.4	44.3	45.3	47.2	61.7	1.1
6/25/2021	9:00 AM	57.8	46.7	57.6	65.9	84.0	0.8
6/25/2021	10:00 AM	52.5	45.1	49.4	60.7	79.5	2.2
6/25/2021	11:00 AM	62.1	46.1	53.4	64.2	90.4	0.6
7/2/2021	10:00 AM	42.5	43.4	44.8	45.7	64.9	3.1
7/2/2021	11:00 AM	44.0	43.8	45.2	48.3	71.8	2.8
7/2/2021	12:00 PM	46.5	44.4	46.6	52.7	68.4	4.4
7/2/2021	1:00 PM	47.0	43.5	44.9	46.5	77.3	1.1
7/2/2021	2:00 PM	43.4	42.8	45.0	48.4	65.7	2.0
7/2/2021	3:00 PM	44.0	44.4	45.4	47.2	60.6	0.0
7/2/2021	4:00 PM	44.8	44.2	45.4	47.6	67.1	0.6
7/2/2021	5:00 PM	45.7	46.2	47.5	49.2	62.0	4.0
7/2/2021	6:00 PM	47.1	47.7	48.5	49.3	58.8	7.8
7/2/2021	7:00 PM	52.0	48.8	50.4	53.4	78.3	7.2
7/2/2021	8:00 PM	48.6	49.1	50.4	51.7	58.4	7.5
7/2/2021	9:00 PM	50.0	49.6	51.3	53.4	85.1	6.7
7/2/2021	10:00 PM	48.5	45.9	47.2	49.4	83.6	8.3
7/2/2021	11:00 PM	45.2	45.7	46.8	48.3	66.8	8.1
7/3/2021	12:00 AM	49.4	46.4	48.4	51.8	71.5	4.9
7/3/2021	1:00 AM	45.3	44.3	45.1	46.0	81.8	7.2
7/3/2021	2:00 AM	42.8	43.1	43.9	45.3	53.2	3.7
7/3/2021	3:00 AM	43.4	44.0	44.6	45.2	48.7	3.7
7/3/2021	4:00 AM	50.4	46.0	50.4	59.3	70.8	1.7
7/3/2021	5:00 AM	46.2	46.7	48.3	49.9	56.2	0.6
7/3/2021	6:00 AM	52.3	47.7	55.8	62.3	71.3	2.8
7/3/2021	7:00 AM	42.8	43.6	44.6	45.4	56.4	1.7
7/3/2021	8:00 AM	41.3	42.0	43.4	44.5	63.4	3.4
7/3/2021	9:00 AM	40.7	40.9	41.9	43.2	57.1	2.2
7/3/2021	10:00 AM	42.2	41.0	42.8	49.1	62.8	0.0
7/3/2021	11:00 AM	44.3	42.1	44.2	48.7	65.6	1.1
7/3/2021	12:00 PM	43.0	41.9	43.9	49.5	60.2	1.1
7/3/2021	1:00 PM	42.0	42.5	43.9	45.8	54.6	1.1
7/3/2021	2:00 PM	41.5	42.1	43.5	45.5	58.3	2.8
7/3/2021	3:00 PM	44.6	44.2	46.4	49.3	64.9	2.5
7/3/2021	4:00 PM	44.0	44.8	46.4	48.0	58.5	4.9
7/3/2021	5:00 PM	45.3	45.9	47.5	49.1	61.5	9.2
7/3/2021	6:00 PM	47.0	47.4	48.7	50.1	62.7	12.1
7/3/2021	7:00 PM	48.3	48.7	49.8	51.1	66.6	11.5
7/3/2021	8:00 PM	49.9	50.4	51.7	53.5	64.9	12.1
7/3/2021	9:00 PM	53.8	50.9	53.0	57.9	88.1	10.0
7/3/2021	10:00 PM	52.3	49.5	52.0	55.8	80.1	9.2
7/3/2021	11:00 PM	47.8	48.2	49.1	50.0	59.6	8.9
7/4/2021	12:00 AM	49.7	47.9	48.8	49.8	82.4	9.2
7/4/2021	1:00 AM	48.4	46.6	47.4	48.0	87.6	8.3
7/4/2021	2:00 AM	50.8	44.5	45.9	53.5	79.4	6.4
7/4/2021	3:00 AM	41.8	43.1	44.4	45.3	52.0	3.5
7/4/2021	4:00 AM	43.7	43.0	46.1	52.0	58.5	2.0
7/4/2021	5:00 AM	40.7	41.0	42.5	44.3	55.0	3.1
7/4/2021	6:00 AM	39.6	40.0	41.7	43.5	53.4	3.4
7/4/2021	7:00 AM	42.6	43.2	45.4	48.4	57.8	3.4
7/4/2021	8:00 AM	42.2	42.8	44.8	46.4	66.6	3.4
7/4/2021	9:00 AM	44.9	45.7	47.4	49.0	55.7	3.7

7/4/2021	10:00 AM	47.5	45.3	47.0	49.9	70.2	3.4
7/4/2021	11:00 AM	44.4	43.4	45.5	49.8	64.0	2.3
7/4/2021	12:00 PM	42.5	43.0	44.3	45.7	56.9	2.5
7/4/2021	1:00 PM	40.5	40.5	41.6	42.8	70.1	2.6
7/4/2021	2:00 PM	40.6	41.1	42.7	44.9	57.0	5.5
7/4/2021	3:00 PM	41.5	41.4	43.1	45.8	59.5	6.1
7/4/2021	4:00 PM	44.2	44.2	46.4	49.8	66.9	5.8
7/4/2021	5:00 PM	46.5	47.3	48.5	49.6	54.9	6.9
7/4/2021	6:00 PM	48.9	48.5	49.9	52.3	72.7	6.4
7/4/2021	7:00 PM	58.7	48.7	50.2	54.0	100.1	5.5
7/4/2021	8:00 PM	62.2	50.6	52.3	58.3	97.7	7.5
7/4/2021	9:00 PM	66.0	53.9	62.1	70.8	101.9	8.1
7/4/2021	10:00 PM	71.7	63.4	72.6	80.4	98.9	7.5
7/4/2021	11:00 PM	64.9	52.2	55.2	63.2	96.0	7.8
7/5/2021	12:00 AM	52.8	45.3	46.3	49.5	89.3	6.9
7/5/2021	1:00 AM	42.6	43.3	44.4	45.3	60.7	11.0
7/5/2021	2:00 AM	49.7	41.3	42.9	50.6	73.6	9.2
7/5/2021	3:00 AM	44.0	41.6	43.9	46.7	72.2	6.3
7/5/2021	4:00 AM	45.3	42.4	45.2	55.2	61.3	5.8
7/5/2021	5:00 AM	43.4	43.8	45.2	46.6	58.2	4.3
7/5/2021	6:00 AM	42.9	43.1	44.4	45.8	61.5	6.7
7/5/2021	7:00 AM	43.0	43.7	45.2	46.5	54.0	3.7
7/5/2021	8:00 AM	44.1	44.6	46.6	48.6	57.3	3.1
7/5/2021	9:00 AM	42.7	43.3	44.8	46.3	57.9	3.1
7/5/2021	10:00 AM	45.8	46.7	48.4	49.7	57.9	4.4
7/5/2021	11:00 AM	48.3	45.6	47.4	52.7	72.0	5.8
7/5/2021	12:00 PM	46.7	45.7	47.9	52.7	67.7	5.3
7/5/2021	1:00 PM	47.6	48.2	49.9	51.8	65.5	3.4
7/5/2021	2:00 PM	46.0	46.3	47.6	49.0	63.2	4.4
7/5/2021	3:00 PM	44.6	45.2	46.4	47.5	57.4	2.2
7/5/2021	4:00 PM	46.2	46.7	48.1	50.0	61.6	3.4
7/5/2021	5:00 PM	49.1	48.5	49.9	51.0	84.0	5.3
7/5/2021	6:00 PM	48.7	49.3	50.4	51.4	60.2	6.1
7/5/2021	7:00 PM	49.8	49.2	50.4	52.4	70.8	5.5
7/5/2021	8:00 PM	50.7	50.6	51.9	54.2	70.2	7.2
7/5/2021	9:00 PM	53.1	49.7	51.2	54.9	78.3	8.6
7/5/2021	10:00 PM	46.1	46.6	47.6	48.8	63.8	6.9
7/5/2021	11:00 PM	45.9	46.4	47.3	48.3	57.0	8.9
7/6/2021	12:00 AM	46.1	47.1	48.3	49.2	52.5	7.2
7/6/2021	1:00 AM	47.4	48.1	49.0	49.7	53.1	9.2
7/6/2021	2:00 AM	50.3	47.7	49.0	58.2	72.8	9.5
7/6/2021	3:00 AM	44.4	44.9	46.0	47.1	72.3	4.6
7/6/2021	4:00 AM	46.7	46.2	49.3	53.5	60.5	3.4
7/6/2021	5:00 AM	46.8	47.2	48.7	50.8	60.6	2.5
7/6/2021	6:00 AM	47.1	47.3	48.6	50.0	74.5	3.5
7/6/2021	7:00 AM	46.5	47.0	48.5	50.1	64.5	2.5
7/6/2021	8:00 AM	45.6	46.2	47.6	49.1	60.5	1.7
7/6/2021	9:00 AM	44.8	45.3	46.9	48.3	56.8	0.8
7/6/2021	10:00 AM	44.5	44.2	45.8	48.8	65.3	0.8
7/6/2021	11:00 AM	46.8	46.9	48.8	52.2	61.6	2.9
7/6/2021	12:00 PM	43.9	44.1	47.1	49.7	64.8	2.5
7/6/2021	1:00 PM	41.7	40.9	42.4	46.0	60.3	2.2
7/6/2021	2:00 PM	42.6	42.5	44.4	47.1	64.4	2.0
7/6/2021	3:00 PM	42.1	42.4	44.6	47.7	55.0	3.7
7/6/2021	4:00 PM	42.3	42.1	44.4	48.0	59.4	2.9
7/6/2021	5:00 PM	46.1	46.6	47.6	48.9	56.0	2.2
7/6/2021	6:00 PM	47.9	48.1	49.1	50.8	62.1	3.4
7/6/2021	7:00 PM	48.8	49.3	50.5	51.8	58.8	4.0
7/6/2021	8:00 PM	51.2	50.7	51.9	53.4	71.7	7.8
7/6/2021	9:00 PM	48.3	48.8	50.2	52.0	60.2	8.1
7/6/2021	10:00 PM	47.7	47.9	49.0	50.0	75.8	7.2
7/6/2021	11:00 PM	47.0	47.3	48.2	49.1	71.1	8.1
7/7/2021	12:00 AM	46.1	46.7	47.5	48.2	55.3	7.2
7/7/2021	1:00 AM	50.0	48.2	49.6	51.1	74.9	6.7
7/7/2021	2:00 AM	43.7	44.3	45.4	46.5	54.8	4.9
7/7/2021	3:00 AM	44.0	44.5	45.7	47.0	60.4	3.1
7/7/2021	4:00 AM	46.7	45.6	49.4	54.7	60.4	2.8

7/7/2021	5:00 AM	45.3	45.8	47.5	49.5	58.4	4.6
7/7/2021	6:00 AM	46.9	47.7	49.2	50.6	61.0	4.4
7/7/2021	7:00 AM	46.2	46.8	48.3	49.6	68.5	4.4
7/7/2021	8:00 AM	46.8	47.8	49.4	50.5	58.3	5.0
7/7/2021	9:00 AM	46.7	47.4	48.5	49.5	61.8	2.5
7/7/2021	10:00 AM	49.4	50.0	51.7	54.0	63.7	2.9
7/7/2021	11:00 AM	50.7	50.7	52.5	55.7	68.0	6.4
7/7/2021	12:00 PM	58.6	52.0	54.1	58.6	86.1	4.4
7/7/2021	1:00 PM	56.3	52.8	56.3	65.4	80.7	5.0
7/7/2021	2:00 PM	48.3	48.3	49.4	51.0	66.5	5.5
7/7/2021	3:00 PM	48.2	48.5	49.8	51.8	65.1	4.6
7/7/2021	4:00 PM	48.3	48.8	49.9	51.2	63.0	4.9
7/7/2021	5:00 PM	47.7	48.2	49.3	50.6	59.2	10.1
7/7/2021	6:00 PM	47.6	47.9	49.1	51.0	65.0	13.0
7/7/2021	7:00 PM	48.7	48.2	49.6	51.5	85.0	13.0
7/7/2021	8:00 PM	54.5	48.9	50.4	53.6	83.0	13.3
7/7/2021	9:00 PM	47.7	48.3	49.4	50.5	58.9	13.0
7/7/2021	10:00 PM	45.0	45.6	46.7	47.9	59.5	12.4
7/7/2021	11:00 PM	43.8	44.2	45.7	46.9	52.6	10.0
7/8/2021	12:00 AM	43.6	44.3	45.4	46.2	53.5	10.0
7/8/2021	1:00 AM	43.4	43.8	44.7	45.9	52.7	10.0
7/8/2021	2:00 AM	42.6	43.2	44.2	45.1	52.8	8.9
7/8/2021	3:00 AM	48.1	43.9	45.8	51.2	68.7	4.6
7/8/2021	4:00 AM	43.8	43.9	46.2	48.7	54.8	3.7
7/8/2021	5:00 AM	46.4	46.8	48.6	50.7	60.0	4.0
7/8/2021	6:00 AM	46.5	47.1	48.7	50.2	69.8	3.1
7/8/2021	7:00 AM	44.6	44.2	45.7	47.4	64.5	3.4
7/8/2021	8:00 AM	41.8	42.3	43.9	45.8	59.7	3.4
7/8/2021	9:00 AM	43.0	43.6	45.3	47.2	57.7	2.8
7/8/2021	10:00 AM	45.1	44.8	46.0	47.8	66.7	3.4
7/8/2021	11:00 AM	47.8	46.6	48.3	51.9	70.9	2.8
7/8/2021	12:00 PM	45.6	46.0	47.5	49.0	61.2	2.0
7/8/2021	1:00 PM	46.4	46.4	48.3	50.7	63.7	2.2
7/8/2021	2:00 PM	48.5	46.5	48.4	56.9	69.1	1.1
7/8/2021	3:00 PM	46.1	45.8	47.4	50.2	65.2	1.1
7/8/2021	4:00 PM	46.5	46.4	47.9	50.5	71.5	1.7
7/8/2021	5:00 PM	47.5	47.2	48.6	51.0	65.2	4.0
7/8/2021	6:00 PM	46.1	46.5	48.0	49.4	61.6	5.2
7/8/2021	7:00 PM	46.8	47.3	48.2	49.0	57.3	7.2
7/8/2021	8:00 PM	53.3	48.7	49.8	52.4	80.3	5.8
7/8/2021	9:00 PM	48.2	48.5	49.6	50.6	80.9	2.8
7/8/2021	10:00 PM	46.3	46.7	47.8	48.8	57.2	7.5
7/8/2021	11:00 PM	43.6	44.3	45.3	46.1	50.5	8.3
7/9/2021	12:00 AM	42.7	43.6	44.7	45.7	48.7	5.8
7/9/2021	1:00 AM	40.1	40.5	41.8	43.2	48.7	7.8
7/9/2021	2:00 AM	48.2	40.6	42.2	48.8	73.3	8.3
7/9/2021	3:00 AM	43.6	41.3	42.6	47.3	63.9	5.2
7/9/2021	4:00 AM	46.4	44.4	49.6	55.2	60.1	2.5
7/9/2021	5:00 AM	46.0	45.7	47.7	51.1	65.4	3.4
7/9/2021	6:00 AM	49.1	49.8	50.9	52.0	57.6	4.3
7/9/2021	7:00 AM	47.4	48.1	49.4	50.8	62.0	4.4
7/9/2021	8:00 AM	43.8	44.4	45.8	47.3	59.3	6.4
7/9/2021	9:00 AM	43.2	43.8	45.1	46.4	58.3	2.5
7/9/2021	10:00 AM	45.8	44.6	46.1	48.6	70.2	2.6
7/9/2021	11:00 AM	48.3	46.1	48.6	56.5	71.1	2.8
7/9/2021	12:00 PM	44.3	44.7	46.3	47.8	63.6	4.9
7/23/2021	10:00 AM	42.8	42.6	44.4	47.3	60.4	N/A
7/23/2021	11:00 AM	43.3	43.5	45.2	47.0	62.0	N/A
7/23/2021	12:00 PM	44.4	41.6	43.9	49.3	70.9	N/A
7/23/2021	1:00 PM	42.7	39.0	42.0	48.9	67.9	N/A
7/23/2021	2:00 PM	45.2	43.4	45.8	50.6	69.2	N/A
7/23/2021	3:00 PM	46.3	45.7	47.5	51.2	67.5	4.4
7/23/2021	4:00 PM	45.9	46.7	48.1	49.5	57.2	5.2
7/23/2021	5:00 PM	47.4	47.6	48.8	50.0	67.4	4.0
7/23/2021	6:00 PM	47.2	47.9	49.3	50.7	63.2	3.4
7/23/2021	7:00 PM	45.6	45.9	47.2	48.8	63.4	5.1
7/23/2021	8:00 PM	51.0	48.1	49.5	52.2	75.8	7.8

7/23/2021	9:00 PM	47.2	47.8	49.5	50.9	62.3	9.5
7/23/2021	10:00 PM	44.5	45.2	46.8	48.1	55.5	9.2
7/23/2021	11:00 PM	43.8	44.7	46.3	47.3	56.8	6.9
7/24/2021	12:00 AM	49.8	45.5	47.0	55.8	73.0	6.7
7/24/2021	1:00 AM	43.0	43.4	44.6	46.3	58.2	7.5
7/24/2021	2:00 AM	42.4	43.3	45.0	46.9	57.3	4.0
7/24/2021	3:00 AM	40.6	41.5	42.5	43.7	48.8	2.8
7/24/2021	4:00 AM	42.3	43.0	43.8	44.6	50.0	0.8
7/24/2021	5:00 AM	45.0	45.9	47.9	49.8	60.1	0.8
7/24/2021	6:00 AM	42.1	42.7	44.0	45.4	55.8	2.0
7/24/2021	7:00 AM	42.7	43.1	44.4	46.2	57.5	2.0
7/24/2021	8:00 AM	41.1	41.8	43.6	45.0	60.7	3.1
7/24/2021	9:00 AM	43.9	41.0	45.4	52.3	63.0	2.5
7/24/2021	10:00 AM	38.4	38.4	40.1	43.8	51.6	2.2
7/24/2021	11:00 AM	42.4	39.2	43.0	49.4	63.5	2.5
7/24/2021	12:00 PM	40.4	39.2	42.1	47.9	59.5	3.1
7/24/2021	1:00 PM	43.0	41.6	43.4	48.6	65.0	3.4
7/24/2021	2:00 PM	43.4	43.7	45.1	47.1	60.8	4.0
7/24/2021	3:00 PM	46.6	47.3	48.3	49.2	55.9	4.0
7/24/2021	4:00 PM	48.3	48.8	49.9	51.3	63.4	1.7
7/24/2021	5:00 PM	48.0	48.5	49.4	50.3	57.7	3.4
7/24/2021	6:00 PM	49.5	50.0	51.0	52.2	61.4	6.4
7/24/2021	7:00 PM	50.5	50.8	51.9	53.2	64.2	7.2
7/24/2021	8:00 PM	54.3	50.7	52.7	57.0	82.1	10.8
7/24/2021	9:00 PM	49.1	49.7	50.8	51.9	59.5	9.7
7/24/2021	10:00 PM	48.7	49.1	50.3	51.4	63.2	10.0
7/24/2021	11:00 PM	47.7	48.4	49.2	50.0	58.4	6.7
7/25/2021	12:00 AM	47.2	47.9	48.8	49.7	54.8	9.7
7/25/2021	1:00 AM	43.5	44.3	45.5	46.8	57.9	8.3
7/25/2021	2:00 AM	49.4	40.9	43.1	53.4	73.7	4.3
7/25/2021	3:00 AM	38.3	38.9	40.1	41.6	55.0	3.1
7/25/2021	4:00 AM	41.2	41.7	44.6	47.0	54.5	2.8
7/25/2021	5:00 AM	44.6	45.2	47.5	49.6	61.1	3.4
7/25/2021	6:00 AM	41.8	42.6	44.4	46.3	55.2	4.9
7/25/2021	7:00 AM	42.3	43.0	44.9	46.7	54.3	4.7
7/25/2021	8:00 AM	44.5	45.2	46.4	47.5	53.4	6.4
7/25/2021	9:00 AM	46.8	47.2	48.6	50.4	71.0	5.8
7/25/2021	10:00 AM	45.3	46.1	47.5	48.8	57.6	6.1
7/25/2021	11:00 AM	44.2	44.9	46.5	48.0	60.0	5.8
7/25/2021	12:00 PM	46.1	46.4	47.8	49.5	63.6	5.3
7/25/2021	1:00 PM	46.2	46.8	47.8	48.9	54.9	5.0
7/25/2021	2:00 PM	47.5	48.2	49.1	50.0	54.6	6.1
7/25/2021	3:00 PM	49.3	49.8	51.0	52.1	58.1	7.2
7/25/2021	4:00 PM	50.5	50.7	51.8	53.5	68.1	6.1
7/25/2021	5:00 PM	49.4	50.0	50.9	51.7	70.3	9.5
7/25/2021	6:00 PM	50.2	50.7	52.0	53.5	67.6	8.9
7/25/2021	7:00 PM	50.7	51.5	52.5	53.4	58.7	8.1
7/25/2021	8:00 PM	52.1	48.8	49.8	51.0	72.3	6.7
7/25/2021	9:00 PM	47.2	47.7	48.8	49.9	55.1	7.2
7/25/2021	10:00 PM	44.6	45.4	46.6	47.8	56.9	9.5
7/25/2021	11:00 PM	44.3	44.8	47.0	49.0	55.9	8.1
7/26/2021	12:00 AM	42.1	42.8	44.3	45.8	51.2	6.1
7/26/2021	1:00 AM	39.7	40.2	42.0	43.5	49.1	8.3
7/26/2021	2:00 AM	48.9	39.8	42.7	53.1	80.2	7.5
7/26/2021	3:00 AM	39.9	40.5	43.0	45.2	53.0	8.9
7/26/2021	4:00 AM	43.4	44.2	46.4	48.1	58.0	8.9
7/26/2021	5:00 AM	46.2	46.5	48.6	50.9	63.8	5.8
7/26/2021	6:00 AM	47.5	48.5	50.1	51.4	60.5	5.8
7/26/2021	7:00 AM	45.2	46.0	47.3	48.6	59.4	7.2
7/26/2021	8:00 AM	45.3	46.0	47.7	49.3	59.1	6.9
7/26/2021	9:00 AM	45.4	46.1	47.5	49.0	60.5	6.4
7/26/2021	10:00 AM	46.3	46.7	48.8	51.1	58.2	5.8
7/26/2021	11:00 AM	45.6	46.1	47.7	49.5	62.6	5.8
7/26/2021	12:22 PM	46.5	45.0	47.4	52.4	76.2	6.1
7/26/2021	1:00 PM	45.5	45.7	47.1	49.8	61.4	6.1
7/26/2021	2:00 PM	46.5	46.8	48.2	50.1	67.3	5.8
7/26/2021	3:00 PM	48.1	48.8	49.7	50.6	59.4	6.9

7/26/2021	4:00 PM	49.5	50.0	50.9	51.9	62.6	6.7
7/26/2021	5:00 PM	51.0	51.4	52.3	53.2	67.4	6.1
7/26/2021	6:00 PM	50.1	50.7	51.7	52.4	59.3	5.5
7/26/2021	7:00 PM	49.3	50.0	51.1	52.3	63.7	4.7
7/26/2021	8:00 PM	55.4	48.8	50.1	61.6	80.7	6.1
7/26/2021	9:00 PM	48.5	49.1	49.8	50.5	53.9	5.5
7/26/2021	10:00 PM	46.7	47.3	48.2	49.1	56.1	6.9
7/26/2021	11:00 PM	47.0	47.0	48.4	50.5	67.8	7.5
7/27/2021	12:00 AM	45.0	45.7	46.6	47.3	51.8	8.9
7/27/2021	1:00 AM	43.2	43.9	45.1	46.2	55.4	4.9
7/27/2021	2:00 AM	48.3	41.2	43.3	53.9	73.1	4.6
7/27/2021	3:00 AM	39.3	39.9	41.9	44.0	50.2	6.9
7/27/2021	4:00 AM	40.5	41.3	43.4	44.9	50.1	4.4
7/27/2021	5:00 AM	42.6	43.6	45.2	46.6	54.1	5.5
7/27/2021	6:00 AM	46.2	47.0	48.8	50.2	62.0	4.9
7/27/2021	7:00 AM	44.0	44.8	46.3	47.8	60.0	5.0
7/27/2021	8:00 AM	45.8	46.5	47.8	49.4	58.2	4.9
7/27/2021	9:00 AM	45.9	46.3	48.0	49.9	60.2	5.3
7/27/2021	10:00 AM	41.9	41.6	43.6	46.5	60.1	6.4
7/27/2021	11:00 AM	40.6	40.8	41.9	44.2	52.1	4.7
7/27/2021	12:00 PM	39.9	39.7	41.2	45.3	56.6	3.7
7/27/2021	1:00 PM	42.4	41.0	42.6	46.0	66.1	3.1
7/27/2021	2:00 PM	41.3	42.0	44.4	46.4	55.3	3.1
7/27/2021	3:00 PM	44.9	45.3	46.9	48.6	61.8	1.7
7/27/2021	4:00 PM	47.1	47.8	49.1	50.4	58.6	5.5
7/27/2021	5:00 PM	47.8	48.4	49.6	50.8	56.4	3.7
7/27/2021	6:00 PM	47.5	48.0	49.0	50.2	56.1	6.3
7/27/2021	7:00 PM	49.3	49.8	50.8	51.9	60.6	8.6
7/27/2021	8:00 PM	49.9	50.3	51.3	52.3	66.5	9.2
7/27/2021	9:00 PM	52.0	48.4	49.3	50.6	79.7	8.3
7/27/2021	10:00 PM	47.9	48.3	49.0	49.7	55.5	8.9
7/27/2021	11:00 PM	45.8	46.4	47.5	48.6	55.6	8.6
7/28/2021	12:00 AM	45.8	46.7	47.7	48.7	54.7	6.7
7/28/2021	1:00 AM	44.0	44.6	46.6	48.5	56.2	6.4
7/28/2021	2:00 AM	47.1	42.9	45.0	49.7	68.6	5.8
7/28/2021	3:00 AM	42.8	43.8	45.6	47.3	52.8	4.4
7/28/2021	4:00 AM	46.1	46.8	48.2	49.6	53.6	3.7
7/28/2021	5:00 AM	48.4	49.4	50.5	51.5	65.3	4.0
7/28/2021	6:00 AM	50.7	51.6	53.4	54.7	65.9	5.5
7/28/2021	7:00 AM	46.3	46.7	48.0	49.5	61.7	4.7
7/28/2021	8:00 AM	44.3	45.0	46.3	47.4	62.9	4.4
7/28/2021	9:00 AM	43.0	43.8	45.3	47.2	57.0	3.7
7/28/2021	10:00 AM	45.0	44.8	46.5	49.4	68.5	4.0
7/28/2021	11:00 AM	42.2	42.6	44.2	46.8	54.7	4.0
7/28/2021	12:00 PM	43.3	42.9	45.1	47.6	64.0	2.8
7/28/2021	1:00 PM	42.9	42.9	45.1	47.7	59.1	1.4
7/28/2021	2:00 PM	46.1	39.8	41.7	47.0	71.5	2.5
7/28/2021	3:00 PM	41.1	41.3	43.9	46.6	57.7	2.5
7/28/2021	4:00 PM	44.4	45.6	47.0	48.9	61.2	3.7
7/28/2021	5:00 PM	50.4	48.4	49.8	53.2	76.7	4.0
7/28/2021	6:00 PM	49.5	50.1	51.3	52.5	63.7	7.2
7/28/2021	7:00 PM	50.5	50.8	52.0	53.4	70.2	7.2
7/28/2021	8:00 PM	49.9	50.6	51.7	52.8	61.6	10.0
7/28/2021	9:00 PM	48.6	49.1	50.3	51.3	55.5	9.5
7/28/2021	10:00 PM	52.5	48.1	49.8	53.6	80.0	8.6
7/28/2021	11:00 PM	46.8	47.3	48.3	49.3	58.4	7.5
7/29/2021	12:00 AM	45.7	46.2	47.2	48.4	61.5	7.5
7/29/2021	1:00 AM	45.8	46.6	47.7	48.8	58.3	8.1
7/29/2021	2:00 AM	41.5	41.9	44.4	46.6	57.2	6.7
7/29/2021	3:00 AM	49.3	45.3	48.4	56.1	71.8	3.7
7/29/2021	4:00 AM	46.8	47.7	49.3	50.4	57.1	4.6
7/29/2021	5:00 AM	50.2	50.2	51.8	53.0	75.8	4.7
7/29/2021	6:00 AM	48.4	49.1	50.8	52.0	68.7	5.5
7/29/2021	7:00 AM	46.8	47.5	48.5	49.4	55.9	5.0
7/29/2021	8:00 AM	47.9	48.0	49.3	51.5	62.8	5.0
7/29/2021	9:00 AM	46.2	46.8	47.8	48.9	55.3	3.7
7/29/2021	10:00 AM	45.1	45.4	47.8	49.9	64.0	5.0

7/29/2021	11:00 AM	49.2	49.3	51.9	55.3	66.0	3.7
7/29/2021	12:00 PM	42.3	42.5	44.7	47.0	58.9	2.2
7/29/2021	1:00 PM	42.6	42.2	44.7	49.4	63.7	0.0
7/29/2021	2:00 PM	48.6	40.9	43.5	53.7	74.3	0.6
7/29/2021	3:00 PM	41.9	41.1	43.0	47.9	59.1	3.4
7/29/2021	4:00 PM	46.0	46.5	49.2	51.3	58.0	4.0
7/29/2021	5:00 PM	48.1	48.9	50.2	51.4	58.2	4.3
7/29/2021	6:00 PM	50.3	50.8	52.2	53.5	63.1	6.1
7/29/2021	7:00 PM	50.0	50.5	52.2	53.8	62.8	7.8
7/29/2021	8:00 PM	53.3	49.1	50.8	56.2	81.2	9.2
7/29/2021	9:00 PM	46.9	47.4	48.4	49.5	57.9	10.0
7/29/2021	10:00 PM	46.3	46.6	47.6	48.4	59.9	10.0
7/29/2021	11:00 PM	46.4	47.1	48.0	49.3	59.4	9.5
7/30/2021	12:00 AM	44.8	45.1	46.5	48.2	54.6	7.8
7/30/2021	1:00 AM	44.2	44.9	45.9	47.0	53.3	7.2
7/30/2021	2:00 AM	44.6	45.1	45.9	46.7	56.9	4.0
7/30/2021	3:00 AM	51.9	44.6	46.3	53.8	76.8	3.1
7/30/2021	4:00 AM	45.6	46.9	48.4	49.5	54.4	3.4
7/30/2021	5:00 AM	46.7	47.2	48.3	49.8	58.4	3.4
7/30/2021	6:00 AM	46.2	46.4	47.5	48.6	65.7	4.0
7/30/2021	7:00 AM	45.1	45.6	46.5	48.1	56.2	3.4
7/30/2021	8:00 AM	43.1	43.8	44.8	45.7	54.5	3.1
7/30/2021	9:00 AM	44.1	44.7	46.5	47.9	59.4	3.7
7/30/2021	10:00 AM	47.5	47.0	49.2	52.0	66.6	3.4
7/30/2021	11:00 AM	46.3	46.7	47.5	48.5	65.9	3.4

Notes

1. $L_{2.5}$ = Level exceeded 2.5% (1.5 minutes) per hour
   $L_{8.3}$ = Level exceeded 8.3% (5 minutes) per hour
   L_{25} = Level exceeded 25% (15 minutes) per hour
   L_{max} = Maximum noise level measured (including impulsive noise)

Abbreviations

dBA = A-weighted decibels

mph = milse per hour

TABLE C-3: Hourly Noise Level Data, SW Site

Whitmarsh Heronry, Anacortes, WA

Date	Time	Hourly Ambient Noise Levels (dBA)					
		L_{eq}	L_{25}	$L_{8.33}$	$L_{2.5}$	L_{max}	Wind Speed
4/9/2021	2:06 PM	62.7	59.1	68.0	72.2	83.4	6.9
4/9/2021	3:00 PM	62.4	58.2	67.7	72.0	80.8	5.8
4/9/2021	4:00 PM	62.4	59.1	67.5	71.7	79.6	7.2
4/9/2021	5:00 PM	61.5	57.0	66.1	71.3	80.1	8.9
4/9/2021	6:00 PM	59.4	55.3	61.6	69.3	79.1	9.5
4/9/2021	7:00 PM	56.8	54.2	58.0	65.8	76.5	11.5
4/9/2021	8:00 PM	57.9	53.7	59.9	67.9	76.2	12.0
4/9/2021	9:00 PM	56.6	51.4	57.2	66.4	76.1	11.8
4/9/2021	10:00 PM	57.7	49.5	56.7	67.0	83.0	14.7
4/9/2021	11:00 PM	54.8	42.5	49.0	61.9	78.7	13.9
4/10/2021	12:00 AM	57.0	42.3	53.2	64.5	83.9	14.7
4/10/2021	1:00 AM	56.0	47.2	54.4	65.5	80.3	14.7
4/10/2021	2:00 AM	51.5	50.7	53.5	56.5	74.1	19.0
4/10/2021	3:00 AM	47.1	45.1	47.9	51.3	72.5	22.2
4/10/2021	4:00 AM	46.6	42.5	47.5	54.4	70.6	19.4
4/10/2021	5:00 AM	53.6	44.6	49.1	61.9	79.7	11.8
4/10/2021	6:00 AM	56.2	47.3	54.1	66.2	77.7	7.8
4/10/2021	7:00 AM	56.3	48.6	57.2	65.8	77.6	5.5
4/10/2021	8:00 AM	56.6	44.4	57.6	67.2	77.5	16.1
4/10/2021	9:00 AM	58.6	50.9	62.5	69.3	76.9	20.7
4/10/2021	10:00 AM	58.2	49.7	62.0	68.7	78.0	20.5
4/10/2021	11:00 AM	59.8	52.9	64.2	70.5	78.7	15.5
4/10/2021	12:00 PM	60.3	52.7	64.1	70.4	83.5	15.3
4/10/2021	1:00 PM	60.7	54.2	65.4	70.9	78.6	12.6
4/10/2021	2:00 PM	59.7	53.0	64.1	70.2	78.1	10.3
4/10/2021	3:00 PM	60.9	54.2	65.7	71.2	80.4	11.7
4/10/2021	4:00 PM	61.1	56.3	66.3	71.1	80.3	11.1
4/10/2021	5:00 PM	59.5	53.3	63.8	70.0	79.0	9.2
4/10/2021	6:00 PM	59.1	49.7	62.6	69.8	78.4	6.9
4/10/2021	7:00 PM	57.2	42.7	57.3	67.4	79.2	8.1
4/10/2021	8:00 PM	58.5	44.3	57.1	67.0	86.9	11.5
4/10/2021	9:00 PM	58.8	42.5	58.9	68.4	84.8	6.4
4/10/2021	10:00 PM	53.4	38.9	51.1	63.3	77.1	9.7
4/10/2021	11:00 PM	52.7	45.0	48.7	60.5	77.1	7.5
4/11/2021	12:00 AM	50.3	44.9	50.9	55.1	74.4	5.8
4/11/2021	1:00 AM	54.3	44.0	49.3	63.0	76.2	5.3
4/11/2021	2:00 AM	49.5	41.5	44.8	52.9	76.9	6.9
4/11/2021	3:00 AM	55.0	41.4	59.0	64.2	82.6	2.3
4/11/2021	4:00 AM	50.2	42.9	45.6	53.0	76.9	2.2
4/11/2021	5:00 AM	50.6	47.0	49.5	52.6	76.2	1.7
4/11/2021	6:00 AM	54.9	46.3	50.7	62.4	81.7	2.0
4/11/2021	7:00 AM	54.1	47.4	51.1	62.0	78.5	2.0
4/11/2021	8:00 AM	57.4	46.4	58.1	68.0	78.1	1.7
4/11/2021	9:00 AM	58.0	50.0	61.3	68.4	79.3	1.7
4/11/2021	10:00 AM	58.0	47.8	60.6	68.7	79.9	3.2
4/11/2021	11:00 AM	59.4	47.6	61.8	69.7	83.5	8.6
4/11/2021	12:00 PM	59.3	50.6	63.6	69.9	77.7	4.3
4/11/2021	1:00 PM	59.6	51.3	64.5	70.0	77.8	2.0
4/11/2021	2:00 PM	60.3	54.2	64.8	70.1	80.3	2.0
4/11/2021	3:00 PM	60.0	54.9	65.4	70.2	78.3	2.0
4/11/2021	4:00 PM	61.4	56.5	66.2	71.1	83.3	1.7
4/11/2021	5:00 PM	58.7	50.7	62.5	69.3	77.4	1.7
4/11/2021	6:00 PM	58.1	45.3	59.7	68.1	84.0	5.5
4/11/2021	7:00 PM	57.4	40.9	57.4	68.0	82.3	10.0
4/11/2021	8:00 PM	56.7	40.8	53.8	64.0	86.8	11.5
4/11/2021	9:00 PM	55.0	36.4	49.5	64.4	78.6	13.0
4/11/2021	10:00 PM	50.3	33.7	37.9	53.0	76.7	13.3

4/11/2021	11:00 PM	53.6	33.4	47.5	61.4	79.4	13.9
4/12/2021	12:00 AM	51.4	33.9	41.5	58.2	75.3	13.0
4/12/2021	1:00 AM	54.6	41.8	52.5	61.0	83.5	12.8
4/12/2021	2:00 AM	44.3	38.0	40.6	43.2	73.4	11.7
4/12/2021	3:00 AM	46.9	40.7	42.7	45.5	72.1	9.7
4/12/2021	4:00 AM	53.9	43.7	46.8	61.1	78.1	10.3
4/12/2021	5:00 AM	58.2	50.0	60.6	69.1	76.0	7.8
4/12/2021	6:00 AM	65.7	64.2	71.8	74.7	80.4	5.5
4/12/2021	7:00 AM	60.7	53.3	64.6	71.0	80.1	3.1
4/12/2021	8:00 AM	58.7	49.3	62.6	69.7	78.3	1.4
4/12/2021	9:00 AM	59.4	49.8	63.1	70.1	78.5	3.5
4/12/2021	10:00 AM	61.0	55.4	66.1	70.9	81.2	0.3
4/12/2021	11:00 AM	60.1	52.9	64.9	70.7	77.2	3.4
4/12/2021	12:00 PM	61.4	56.9	66.7	71.3	80.2	0.6
4/12/2021	1:00 PM	63.5	57.1	67.2	72.0	87.7	2.6
4/12/2021	2:00 PM	62.1	57.0	67.1	71.8	81.3	2.5
4/12/2021	3:00 PM	62.6	59.2	67.8	72.2	83.5	3.7
4/12/2021	4:00 PM	61.7	57.6	67.0	71.5	78.3	4.9
4/12/2021	5:00 PM	62.1	56.8	66.5	71.7	84.4	10.0
4/12/2021	6:00 PM	58.3	50.5	61.3	68.8	77.8	9.2
4/12/2021	7:00 PM	56.4	47.6	56.1	66.4	82.2	15.3
4/12/2021	8:00 PM	54.8	46.4	53.7	62.7	78.3	19.6
4/12/2021	9:00 PM	54.3	42.8	52.1	63.6	76.3	20.2
4/12/2021	10:00 PM	49.7	40.3	43.2	52.7	75.4	17.8
4/12/2021	11:00 PM	52.8	35.5	44.5	59.8	76.1	15.3
4/13/2021	12:00 AM	49.4	38.5	42.1	53.5	78.2	13.6
4/13/2021	1:00 AM	51.6	41.4	46.6	57.9	78.0	12.8
4/13/2021	2:00 AM	49.0	40.4	43.0	47.7	78.3	9.7
4/13/2021	3:00 AM	44.4	40.4	42.3	44.2	74.3	6.1
4/13/2021	4:00 AM	54.8	41.2	45.4	62.4	77.8	6.9
4/13/2021	5:00 AM	58.6	53.7	61.5	69.1	78.4	6.4
4/13/2021	6:00 AM	65.4	64.6	71.5	73.9	79.5	6.4
4/13/2021	7:00 AM	60.2	53.2	64.8	70.5	79.2	8.1
4/13/2021	8:00 AM	60.0	53.1	63.9	70.1	80.3	10.3
4/13/2021	9:00 AM	61.3	52.8	64.6	71.6	84.6	9.5
4/13/2021	10:00 AM	57.6	51.5	61.9	67.8	77.1	7.2
4/13/2021	11:00 AM	61.6	57.1	67.3	71.4	78.9	4.3
4/13/2021	12:00 PM	61.5	57.5	67.1	71.4	77.4	4.4
4/13/2021	1:00 PM	60.9	56.0	66.6	70.9	79.6	4.6
4/13/2021	2:00 PM	61.3	56.2	66.0	71.4	81.5	3.1
4/13/2021	3:00 PM	62.1	59.7	67.6	71.3	79.3	4.0
4/13/2021	4:00 PM	61.7	58.5	67.1	71.1	82.2	6.7
4/13/2021	5:00 PM	61.1	57.3	66.2	71.2	78.1	9.2
4/13/2021	6:00 PM	58.4	50.3	61.6	68.6	81.1	10.0
4/13/2021	7:00 PM	56.2	45.8	57.7	66.5	76.6	12.6
4/13/2021	8:00 PM	56.0	44.9	57.2	66.0	82.9	16.7
4/13/2021	9:00 PM	54.0	42.8	52.5	64.2	74.0	17.5
4/13/2021	10:00 PM	52.6	39.4	47.2	61.0	77.2	18.1
4/13/2021	11:00 PM	53.7	37.2	47.5	61.0	83.6	17.2
4/14/2021	12:00 AM	51.6	36.4	50.5	59.2	73.7	16.7
4/14/2021	1:00 AM	50.9	43.7	45.1	48.7	81.9	15.3
4/14/2021	2:00 AM	50.7	41.0	44.5	52.8	77.5	17.8
4/14/2021	3:00 AM	41.2	41.3	44.3	46.1	64.2	17.8
4/14/2021	4:00 AM	54.9	46.9	54.3	63.5	76.6	14.1
4/14/2021	5:00 AM	60.3	52.8	64.6	70.1	84.3	11.8
4/14/2021	6:00 AM	65.3	63.8	71.3	74.1	83.9	9.2
4/14/2021	7:00 AM	60.9	55.2	65.2	71.1	81.7	6.1
4/14/2021	8:00 AM	59.2	52.0	63.5	69.6	77.6	6.7
4/14/2021	9:00 AM	61.2	51.0	64.0	71.0	86.2	5.8
4/14/2021	10:00 AM	58.9	50.7	63.7	69.4	77.0	4.3
4/14/2021	11:00 AM	61.1	57.2	66.5	71.0	80.3	3.2
4/14/2021	12:00 PM	61.2	57.3	66.9	71.0	78.4	0.3
4/14/2021	1:00 PM	61.0	57.6	66.6	70.5	80.2	1.7

4/14/2021	2:00 PM	61.4	56.7	66.1	70.9	86.5	1.7
4/14/2021	3:00 PM	61.3	58.3	66.8	71.4	78.1	0.3
4/14/2021	4:00 PM	62.5	58.8	67.9	72.1	81.3	4.6
4/14/2021	5:00 PM	62.1	56.9	67.1	71.9	84.4	6.1
4/14/2021	6:00 PM	59.2	50.8	63.2	69.8	79.3	9.2
4/14/2021	7:00 PM	56.5	47.0	58.0	67.2	76.5	16.9
4/14/2021	8:00 PM	57.5	46.9	59.3	67.2	83.3	16.4
4/14/2021	9:00 PM	52.9	40.7	49.8	61.8	79.6	16.7
4/14/2021	10:00 PM	54.7	43.9	51.9	65.0	76.8	17.5
4/14/2021	11:00 PM	53.1	43.0	47.9	60.7	77.2	16.7
4/15/2021	12:00 AM	52.0	41.7	50.7	59.4	74.8	16.1
4/15/2021	1:00 AM	45.4	38.2	40.3	43.7	72.7	12.4
4/15/2021	2:00 AM	45.8	41.0	44.1	48.0	72.4	11.5
4/15/2021	3:00 AM	46.3	43.5	46.1	48.8	71.9	6.1
4/15/2021	4:00 AM	56.4	49.3	58.6	65.0	77.8	4.9
4/15/2021	5:00 AM	60.1	53.5	64.2	70.7	79.8	2.5
4/15/2021	6:00 AM	65.2	64.2	71.3	74.1	79.8	0.3
4/15/2021	7:00 AM	60.8	54.8	65.4	70.8	79.4	1.7
4/15/2021	8:00 AM	59.7	53.3	63.1	69.8	80.2	2.5
4/15/2021	9:00 AM	58.8	50.9	61.8	68.9	80.2	1.1
4/15/2021	10:00 AM	59.1	46.6	60.4	69.1	83.6	1.4
4/15/2021	11:00 AM	61.4	57.4	66.7	71.1	79.1	1.7
4/29/2021	1:00 PM	61.5	55.3	65.5	70.8	85.3	1.7
4/29/2021	2:00 PM	60.0	54.4	64.5	70.3	80.1	0.3
4/29/2021	3:00 PM	61.0	57.5	66.3	70.5	79.6	3.8
4/29/2021	4:00 PM	61.7	58.7	67.2	71.0	80.3	4.0
4/29/2021	5:00 PM	62.3	58.0	67.2	72.0	86.0	5.5
4/29/2021	6:00 PM	59.2	51.7	63.4	69.6	81.7	7.5
4/29/2021	7:00 PM	57.4	44.3	59.4	67.8	78.5	6.7
4/29/2021	8:00 PM	55.8	45.6	64.9	66.3	75.0	6.7
4/29/2021	9:00 PM	58.7	42.3	50.2	63.1	96.5	6.9
4/29/2021	10:00 PM	54.4	39.8	53.5	64.6	77.3	8.3
4/29/2021	11:00 PM	51.5	41.4	45.0	57.4	75.4	9.5
4/30/2021	12:00 AM	49.8	42.0	46.2	55.7	72.7	6.4
4/30/2021	1:00 AM	52.3	43.0	47.6	59.9	75.8	3.7
4/30/2021	2:00 AM	48.2	39.1	46.1	55.5	73.7	5.8
4/30/2021	3:00 AM	38.0	37.9	40.6	46.9	53.4	4.3
4/30/2021	4:00 AM	53.3	46.1	50.8	61.5	76.0	5.2
4/30/2021	5:00 AM	56.4	52.6	57.1	65.6	77.2	5.3
4/30/2021	6:00 AM	61.7	57.7	66.8	71.8	78.8	6.1
4/30/2021	7:00 AM	60.1	55.6	63.9	69.9	76.4	6.1
4/30/2021	8:00 AM	60.1	55.3	64.2	70.0	81.0	5.3
4/30/2021	9:00 AM	61.0	55.4	65.2	71.0	82.5	1.1
4/30/2021	10:00 AM	59.5	54.8	63.8	69.7	76.8	1.7
4/30/2021	11:00 AM	61.0	57.1	66.0	70.8	78.0	4.0
4/30/2021	12:00 PM	61.1	56.8	66.3	70.6	83.5	6.7
4/30/2021	1:00 PM	60.8	56.9	65.7	70.4	81.0	10.0
4/30/2021	2:00 PM	61.3	56.2	66.2	71.0	80.4	9.7
4/30/2021	3:00 PM	61.2	55.7	65.9	70.8	84.9	10.8
4/30/2021	4:00 PM	61.1	56.7	66.4	71.0	78.4	11.5
4/30/2021	5:00 PM	60.1	55.4	65.1	70.2	80.2	10.6
4/30/2021	6:00 PM	59.4	52.4	63.6	69.8	78.7	8.9
4/30/2021	7:00 PM	59.2	50.4	61.4	69.3	81.0	9.7
4/30/2021	8:00 PM	53.8	42.7	52.3	62.9	79.5	11.7
4/30/2021	9:00 PM	55.9	41.0	55.5	66.0	77.5	9.5
4/30/2021	10:00 PM	53.9	39.6	45.9	61.7	80.5	8.3
4/30/2021	11:00 PM	53.6	39.9	52.0	62.3	78.0	7.8
5/1/2021	12:00 AM	54.3	37.8	53.7	64.0	77.3	7.8
5/1/2021	1:00 AM	51.7	34.8	43.2	59.8	75.4	8.6
5/1/2021	2:00 AM	49.4	34.3	40.6	57.7	75.9	5.8
5/1/2021	3:00 AM	34.6	35.2	37.7	39.7	45.7	3.1
5/1/2021	4:00 AM	52.8	37.6	56.5	63.0	78.2	4.0
5/1/2021	5:00 AM	52.2	45.9	50.5	59.7	75.1	2.8
5/1/2021	6:00 AM	56.0	42.9	54.0	65.2	79.0	5.8
5/1/2021	7:00 AM	56.7	43.7	56.2	66.6	80.2	5.7

5/1/2021	8:00 AM	57.7	48.9	61.4	67.9	77.9	7.5
5/1/2021	9:00 AM	58.3	50.4	60.3	68.9	76.9	2.9
5/1/2021	10:00 AM	60.4	53.5	64.5	70.3	82.7	5.5
5/1/2021	11:00 AM	58.8	50.7	62.6	69.4	77.4	2.3
5/1/2021	12:00 PM	58.9	53.1	63.5	69.0	76.5	3.1
5/1/2021	1:00 PM	58.7	52.7	63.0	69.2	76.2	3.1
5/1/2021	2:00 PM	59.7	53.2	63.4	69.4	85.2	3.1
5/1/2021	3:00 PM	60.2	54.9	64.6	70.3	79.0	4.4
5/1/2021	4:00 PM	59.3	51.4	63.8	69.5	80.0	5.5
5/1/2021	5:00 PM	61.1	55.4	66.1	70.8	86.2	7.2
5/1/2021	6:00 PM	59.5	53.1	64.1	69.8	80.2	9.2
5/1/2021	7:00 PM	57.1	45.5	59.8	68.0	76.8	12.8
5/1/2021	8:00 PM	55.7	43.8	56.7	65.7	79.5	14.1
5/1/2021	9:00 PM	56.3	41.0	56.8	66.8	77.8	13.6
5/1/2021	10:00 PM	55.1	38.0	54.2	65.0	78.2	13.3
5/1/2021	11:00 PM	53.9	37.5	51.1	63.1	77.2	10.3
5/2/2021	12:00 AM	51.8	34.5	43.8	59.8	75.4	9.5
5/2/2021	1:00 AM	48.8	34.4	39.3	52.5	74.7	8.3
5/2/2021	2:00 AM	47.7	31.6	33.7	51.6	74.5	8.9
5/2/2021	3:00 AM	46.1	34.5	43.1	52.8	74.5	6.7
5/2/2021	4:00 AM	51.5	38.6	49.3	58.0	77.3	3.7
5/2/2021	5:00 AM	50.7	45.7	51.5	58.0	74.1	4.4
5/2/2021	6:00 AM	53.2	46.8	53.6	61.7	75.1	3.7
5/2/2021	7:00 AM	55.7	47.5	55.0	65.8	76.8	3.7
5/2/2021	8:00 AM	51.3	43.9	51.7	59.9	74.4	6.1
5/2/2021	9:00 AM	58.7	52.2	62.8	69.1	77.7	4.0
5/2/2021	10:00 AM	57.4	49.7	61.4	68.0	75.7	5.0
5/2/2021	11:00 AM	59.4	52.2	63.2	69.3	82.1	4.0
5/2/2021	12:00 PM	58.9	52.1	63.1	69.4	78.8	5.3
5/2/2021	1:00 PM	58.8	53.0	63.5	69.3	76.4	4.4
5/2/2021	2:00 PM	58.3	50.7	61.9	68.9	76.9	5.0
5/2/2021	3:00 PM	60.0	54.8	64.6	70.1	79.3	5.2
5/2/2021	4:00 PM	60.2	53.5	64.2	69.7	85.0	4.0
5/2/2021	5:00 PM	57.9	49.7	61.2	68.5	78.7	4.6
5/2/2021	6:00 PM	58.3	47.5	60.1	68.3	81.6	5.3
5/2/2021	7:00 PM	55.8	44.3	56.6	66.3	79.1	3.4
5/2/2021	8:00 PM	54.3	43.7	53.8	64.5	75.5	5.8
5/2/2021	9:00 PM	55.3	39.2	52.7	64.2	82.0	6.7
5/2/2021	10:00 PM	52.4	38.6	48.6	60.7	77.8	5.8
5/2/2021	11:00 PM	52.1	41.2	49.2	60.7	74.4	5.8
5/3/2021	12:00 AM	50.2	40.1	43.4	55.3	75.9	6.4
5/3/2021	1:00 AM	51.0	37.8	42.7	58.4	75.6	6.9
5/3/2021	2:00 AM	33.6	34.3	35.7	36.9	52.3	6.7
5/3/2021	3:00 AM	46.8	37.6	41.7	52.9	72.6	4.0
5/3/2021	4:00 AM	54.9	46.9	53.8	64.7	77.3	2.2
5/3/2021	5:00 AM	59.5	53.3	62.3	69.7	80.3	4.4
5/3/2021	6:00 AM	65.6	65.3	71.5	73.9	79.7	3.5
5/3/2021	7:00 AM	60.9	55.5	66.0	71.2	77.0	3.1
5/3/2021	8:00 AM	58.8	51.1	61.6	68.8	79.7	2.8
5/3/2021	9:00 AM	59.2	52.5	62.6	69.2	80.2	3.1
5/3/2021	10:00 AM	60.0	55.0	64.8	69.8	79.1	4.0
5/3/2021	11:00 AM	60.4	54.9	65.0	70.3	79.4	4.7
5/3/2021	12:00 PM	62.2	59.1	67.3	71.4	82.0	5.0
5/3/2021	1:00 PM	61.1	56.5	65.3	70.8	82.7	3.1
5/3/2021	2:00 PM	60.2	55.2	64.5	69.9	81.2	3.1
5/3/2021	3:00 PM	62.2	59.9	67.8	71.4	81.9	6.6
5/3/2021	4:00 PM	60.6	56.5	65.5	70.5	80.0	8.9
5/3/2021	5:00 PM	62.3	58.7	67.4	71.9	80.1	8.6
5/3/2021	6:00 PM	58.7	52.0	62.5	69.2	78.3	8.9
5/3/2021	7:00 PM	55.9	48.4	57.7	66.3	77.6	9.7
5/3/2021	8:00 PM	55.7	47.2	56.0	65.5	75.6	9.7
5/3/2021	9:00 PM	54.4	44.7	54.9	63.4	77.3	7.8
5/3/2021	10:00 PM	51.8	42.7	48.2	59.4	77.1	9.2
5/3/2021	11:00 PM	51.9	39.7	45.6	59.3	76.8	8.9
5/4/2021	12:00 AM	51.8	33.1	40.1	59.3	74.6	8.9
5/4/2021	1:00 AM	49.2	33.5	35.4	55.1	75.1	8.9
5/4/2021	2:00 AM	47.2	35.1	38.3	54.4	73.2	7.5

5/4/2021	3:00 AM	43.7	34.5	36.9	45.5	70.8	6.7
5/4/2021	4:00 AM	55.6	34.3	52.0	64.8	82.3	5.3
5/4/2021	5:00 AM	58.7	50.3	62.0	69.4	81.3	3.4
5/4/2021	6:00 AM	65.6	65.7	71.7	73.8	79.7	4.0
5/4/2021	7:00 AM	60.6	56.3	64.8	70.3	79.8	2.8
5/4/2021	8:00 AM	59.2	52.4	62.0	69.5	80.5	4.3
5/4/2021	9:00 AM	59.7	55.1	64.3	70.1	77.9	4.7
5/4/2021	10:00 AM	59.5	54.4	63.6	69.7	80.5	3.7
5/4/2021	11:00 AM	60.1	56.5	65.3	70.1	77.8	1.7
5/4/2021	12:00 PM	61.5	58.2	66.6	70.8	80.7	2.0
5/4/2021	1:00 PM	59.7	54.6	63.8	69.8	81.9	4.1
5/4/2021	2:00 PM	60.9	57.4	66.1	70.3	79.1	5.3
5/4/2021	3:00 PM	60.4	56.4	65.6	70.2	78.7	2.5
5/4/2021	4:00 PM	61.6	56.5	65.7	70.7	96.6	3.1
5/4/2021	5:00 PM	62.7	59.3	68.2	72.0	78.9	3.1
5/4/2021	6:00 PM	58.4	48.4	61.8	69.1	78.2	3.4
5/4/2021	7:00 PM	56.9	47.2	59.6	67.4	77.5	5.3
5/4/2021	8:00 PM	57.1	46.5	58.2	67.4	80.3	4.9
5/4/2021	9:00 PM	54.9	42.7	54.6	64.7	76.9	6.9
5/4/2021	10:00 PM	50.6	39.4	47.6	58.3	74.4	7.8
5/4/2021	11:00 PM	55.9	44.2	54.7	65.5	79.2	8.6
5/5/2021	12:00 AM	52.5	40.1	45.6	59.6	76.9	9.2
5/5/2021	1:00 AM	52.1	41.2	48.5	56.9	76.6	8.6
5/5/2021	2:00 AM	52.8	40.7	45.5	58.6	84.3	6.7
5/5/2021	3:00 AM	52.1	41.0	45.6	58.4	81.9	4.9
5/5/2021	4:00 AM	56.1	47.3	54.8	65.5	79.8	2.2
5/5/2021	5:00 AM	60.5	54.9	64.6	70.7	79.0	2.8
5/5/2021	6:00 AM	66.1	65.7	71.7	74.5	82.5	1.4
5/5/2021	7:00 AM	61.2	54.4	65.2	71.5	81.7	0.6
5/5/2021	8:00 AM	60.6	54.3	64.5	70.6	79.7	1.1
5/5/2021	9:00 AM	59.9	52.2	63.2	70.1	80.0	0.6
5/5/2021	10:00 AM	60.6	55.1	65.6	70.6	79.7	1.1
5/5/2021	11:00 AM	62.5	57.1	66.7	71.8	84.6	2.0
5/5/2021	12:00 PM	61.5	58.2	67.3	71.0	82.5	1.4
5/5/2021	1:00 PM	60.3	54.9	65.3	70.3	79.5	2.6
5/5/2021	2:00 PM	59.8	55.3	64.1	69.5	79.0	2.0
5/5/2021	3:00 PM	62.1	57.2	66.7	71.3	85.8	5.5
5/5/2021	4:00 PM	61.7	57.8	67.0	71.2	80.0	5.5
5/5/2021	5:00 PM	62.1	58.6	67.3	71.5	83.8	8.9
5/5/2021	6:00 PM	59.8	53.9	64.2	70.0	81.8	10.0
5/5/2021	7:00 PM	57.1	47.8	58.8	67.5	79.4	9.2
5/5/2021	8:00 PM	56.1	47.8	57.3	66.3	77.2	8.3
5/5/2021	9:00 PM	54.1	44.9	51.5	63.4	77.5	10.3
5/5/2021	10:00 PM	51.1	45.3	49.5	59.6	74.9	15.0
5/5/2021	11:00 PM	50.9	44.3	47.1	55.7	76.3	12.1
5/6/2021	12:00 AM	47.7	43.9	47.2	50.5	73.5	13.0
5/6/2021	1:00 AM	48.9	43.9	47.8	53.0	73.3	11.5
5/6/2021	2:00 AM	47.0	41.9	45.2	50.7	73.2	9.2
5/6/2021	3:00 AM	48.6	43.3	46.6	49.6	76.1	8.1
5/6/2021	4:00 AM	54.4	47.7	55.3	62.5	80.2	6.7
5/6/2021	5:00 AM	57.5	50.1	59.6	67.9	77.9	8.6
5/6/2021	6:00 AM	65.6	65.1	71.5	74.0	83.4	9.2
5/6/2021	7:00 AM	60.6	55.5	65.1	70.5	81.3	6.9
5/6/2021	8:00 AM	59.4	52.8	62.5	69.3	80.0	4.0
5/6/2021	9:00 AM	58.8	52.4	60.9	68.4	82.9	2.9
5/6/2021	10:00 AM	58.6	52.5	61.8	68.9	81.2	1.7
5/6/2021	11:00 AM	60.0	54.9	64.6	69.8	80.2	2.2
5/6/2021	12:00 PM	61.5	58.0	66.7	71.0	79.2	2.8
5/6/2021	1:00 PM	60.5	56.2	64.8	70.1	81.8	4.9
5/6/2021	2:00 PM	60.8	57.0	65.8	70.2	79.5	5.5
5/6/2021	3:00 PM	61.4	57.5	66.1	71.1	80.4	6.3
5/6/2021	4:00 PM	62.0	59.1	67.1	71.4	78.4	12.1
5/6/2021	5:00 PM	63.3	60.7	68.8	72.4	79.7	16.4
5/6/2021	6:00 PM	57.8	50.4	58.8	68.6	77.3	17.8
5/6/2021	7:00 PM	58.3	48.5	60.8	68.5	80.2	22.5
5/6/2021	8:00 PM	58.0	56.3	59.1	66.7	79.3	24.4
5/6/2021	9:00 PM	55.0	53.0	55.7	60.9	76.5	23.0

5/6/2021	10:00 PM	54.8	52.0	53.9	62.2	77.9	21.6
5/6/2021	11:00 PM	52.7	49.9	52.0	56.2	76.8	17.3
5/7/2021	12:00 AM	53.4	54.1	56.0	57.6	71.7	16.9
5/7/2021	1:00 AM	51.8	50.7	53.7	55.5	74.1	17.3
5/7/2021	2:00 AM	48.0	46.7	49.7	51.8	73.4	11.5
5/7/2021	3:00 AM	48.0	43.4	46.0	48.7	76.1	6.4
5/7/2021	4:00 AM	54.8	51.3	54.4	63.1	79.4	3.1
5/7/2021	5:00 AM	57.5	50.2	60.3	67.7	77.6	3.7
5/7/2021	6:00 AM	61.4	53.9	66.3	72.0	79.6	5.0
5/7/2021	7:00 AM	59.3	50.9	62.6	69.7	77.6	4.4
5/7/2021	8:00 AM	59.6	53.7	61.9	69.5	81.6	6.4
5/7/2021	9:00 AM	61.4	56.5	66.6	71.5	78.6	5.8
5/7/2021	10:00 AM	60.1	54.5	64.3	70.1	80.5	4.4
5/7/2021	11:00 AM	61.9	57.8	67.1	71.8	79.8	4.0
5/28/2021	12:00 PM	59.6	55.1	64.4	69.5	80.8	9.5
5/28/2021	1:00 PM	59.8	55.8	64.5	69.6	79.0	6.9
5/28/2021	2:00 PM	60.6	57.0	66.0	70.2	77.5	9.5
5/28/2021	3:00 PM	61.1	56.6	65.6	70.4	85.6	10.6
5/28/2021	4:00 PM	60.2	56.6	65.3	70.1	76.1	10.9
5/28/2021	5:00 PM	59.5	53.9	63.9	69.7	77.6	6.7
5/28/2021	6:00 PM	59.1	53.7	63.6	68.9	78.7	5.2
5/28/2021	7:00 PM	57.2	49.3	59.4	67.6	77.5	6.1
5/28/2021	8:00 PM	58.2	49.5	59.4	67.6	86.1	8.9
5/28/2021	9:00 PM	56.3	49.2	58.7	66.5	77.2	8.6
5/28/2021	10:00 PM	54.3	44.1	53.8	64.2	75.5	9.7
5/28/2021	11:00 PM	51.8	42.3	46.5	58.5	75.1	10.3
5/29/2021	12:00 AM	50.4	42.8	46.6	57.8	74.1	10.8
5/29/2021	1:00 AM	48.4	37.7	41.2	50.1	75.1	9.7
5/29/2021	2:00 AM	51.1	40.7	44.6	51.0	81.2	6.4
5/29/2021	3:00 AM	50.0	43.0	46.9	54.8	78.2	3.7
5/29/2021	4:00 AM	51.1	48.0	51.3	57.8	73.5	1.1
5/29/2021	5:00 AM	54.4	49.3	53.1	61.2	80.5	2.2
5/29/2021	6:00 AM	57.8	51.4	59.1	67.8	79.8	2.2
5/29/2021	7:00 AM	56.0	50.2	58.0	65.8	76.9	3.4
5/29/2021	8:00 AM	56.8	49.0	57.6	66.5	82.0	1.1
5/29/2021	9:00 AM	57.7	51.1	60.8	68.1	76.5	0.8
5/29/2021	10:00 AM	59.2	53.3	63.7	69.5	78.4	0.8
5/29/2021	11:00 AM	59.2	53.0	63.0	69.3	78.9	1.4
5/29/2021	12:00 PM	59.3	54.5	63.5	69.4	79.3	2.2
5/29/2021	1:00 PM	58.9	53.8	63.3	68.7	81.4	4.9
5/29/2021	2:00 PM	58.1	50.9	61.8	68.2	82.7	4.9
5/29/2021	3:00 PM	59.1	52.8	62.9	68.8	85.7	4.0
5/29/2021	4:00 PM	59.8	54.6	64.0	69.4	86.5	6.4
5/29/2021	5:00 PM	59.7	54.5	64.5	69.9	78.8	8.1
5/29/2021	6:00 PM	57.4	49.2	58.5	67.7	83.6	8.6
5/29/2021	7:00 PM	56.7	50.6	60.0	67.2	75.4	9.7
5/29/2021	8:00 PM	55.6	49.1	58.0	66.0	74.8	12.8
5/29/2021	9:00 PM	54.9	47.6	57.9	64.6	75.3	12.4
5/29/2021	10:00 PM	60.2	48.5	63.6	70.0	83.2	11.4
5/29/2021	11:00 PM	54.2	40.2	51.3	63.3	80.9	11.5
5/30/2021	12:00 AM	52.8	42.6	47.7	60.8	77.2	12.1
5/30/2021	1:00 AM	51.7	42.4	46.9	58.9	75.5	9.7
5/30/2021	2:00 AM	49.8	41.2	48.4	57.7	76.4	8.1
5/30/2021	3:00 AM	46.5	40.3	44.7	50.4	74.2	5.3
5/30/2021	4:00 AM	50.9	47.3	52.1	57.8	72.7	3.4
5/30/2021	5:00 AM	52.5	48.8	53.2	60.4	74.4	1.4
5/30/2021	6:00 AM	56.0	49.5	56.3	65.6	77.5	1.1
5/30/2021	7:00 AM	53.8	47.5	53.2	62.1	76.5	1.7
5/30/2021	8:00 AM	53.7	48.4	55.6	63.0	74.1	1.1
5/30/2021	9:00 AM	55.7	47.8	55.6	65.3	78.8	0.3
5/30/2021	10:00 AM	56.5	49.3	59.2	66.8	76.4	2.2
5/30/2021	11:00 AM	56.4	47.7	58.4	67.1	77.2	1.4
5/30/2021	12:00 PM	57.9	50.5	60.9	68.4	78.2	1.4
5/30/2021	1:00 PM	58.0	52.3	62.0	68.2	77.3	2.5
5/30/2021	2:00 PM	58.2	53.2	62.4	68.3	77.0	2.5
5/30/2021	3:00 PM	58.6	54.0	63.4	68.8	75.9	2.5

5/30/2021	4:00 PM	58.4	54.1	62.0	68.4	77.3	3.4
5/30/2021	5:00 PM	58.9	54.1	63.5	68.9	77.3	3.7
5/30/2021	6:00 PM	57.4	48.7	59.7	67.9	77.0	6.1
5/30/2021	7:00 PM	55.3	46.9	56.1	65.7	75.6	9.2
5/30/2021	8:00 PM	56.9	48.3	58.1	66.4	79.1	10.6
5/30/2021	9:00 PM	55.6	44.2	55.1	65.4	83.0	11.2
5/30/2021	10:00 PM	52.3	40.8	49.2	61.7	73.3	9.5
5/30/2021	11:00 PM	50.3	36.8	40.7	50.8	77.8	8.9
5/31/2021	12:00 AM	53.0	40.2	52.2	63.2	73.5	7.8
5/31/2021	1:00 AM	47.6	35.8	37.8	46.2	72.9	6.9
5/31/2021	2:00 AM	41.6	36.0	40.9	51.0	65.4	7.8
5/31/2021	3:00 AM	42.1	33.3	36.0	41.7	71.0	8.3
5/31/2021	4:00 AM	49.1	45.5	48.5	53.3	73.7	4.3
5/31/2021	5:00 AM	51.5	46.4	50.7	58.4	73.8	3.7
5/31/2021	6:00 AM	54.1	47.5	53.2	63.3	75.6	3.5
5/31/2021	7:00 AM	55.3	46.7	53.6	64.0	79.7	0.0
5/31/2021	8:00 AM	53.4	45.1	52.5	62.4	75.3	0.3
5/31/2021	9:00 AM	56.3	49.9	58.4	66.5	77.1	0.8
5/31/2021	10:00 AM	57.0	51.4	60.8	67.4	76.0	1.7
5/31/2021	11:00 AM	58.3	51.2	61.3	68.3	81.1	0.8
5/31/2021	12:00 PM	59.5	53.5	63.7	70.0	80.4	0.6
5/31/2021	1:00 PM	58.1	51.6	61.6	68.3	80.8	0.3
5/31/2021	2:00 PM	58.1	50.4	61.4	67.8	84.7	0.6
5/31/2021	3:00 PM	57.8	50.7	61.9	68.4	75.5	3.1
5/31/2021	4:00 PM	57.4	50.2	61.1	68.0	75.6	4.3
5/31/2021	5:00 PM	56.8	49.5	60.1	66.6	81.2	6.4
5/31/2021	6:00 PM	58.2	51.3	61.6	68.5	79.8	7.8
5/31/2021	7:00 PM	56.0	47.4	58.2	66.5	76.3	9.2
5/31/2021	8:00 PM	56.5	47.3	57.4	66.9	79.0	9.5
5/31/2021	9:00 PM	56.4	43.3	53.2	63.6	88.8	10.3
5/31/2021	10:00 PM	52.5	36.6	46.8	60.5	74.4	9.5
5/31/2021	11:00 PM	50.7	37.0	46.1	59.3	73.9	9.5
6/1/2021	12:00 AM	50.8	39.4	43.9	58.0	73.2	9.5
6/1/2021	1:00 AM	47.9	39.6	42.4	52.7	71.1	12.1
6/1/2021	2:00 AM	44.6	38.1	42.4	54.0	71.6	8.1
6/1/2021	3:00 AM	40.9	37.2	39.2	41.8	70.2	5.3
6/1/2021	4:00 AM	51.9	46.8	49.9	57.8	74.9	8.1
6/1/2021	5:00 AM	58.8	50.9	62.8	69.5	78.2	5.5
6/1/2021	6:00 AM	65.3	65.1	71.1	73.6	82.4	4.0
6/1/2021	7:00 AM	59.0	53.1	63.2	69.0	78.5	2.2
6/1/2021	8:00 AM	57.9	51.0	60.7	68.3	79.8	0.8
6/1/2021	9:00 AM	60.1	54.4	64.6	70.2	79.4	0.6
6/1/2021	10:00 AM	59.0	54.5	63.4	69.0	77.3	0.8
6/1/2021	11:00 AM	59.7	52.7	63.5	69.7	80.6	1.4
6/1/2021	11:28 AM	60.4	55.0	65.1	69.9	82.5	2.0
6/1/2021	12:00 PM	60.0	56.0	65.5	69.9	77.5	1.4
6/1/2021	1:00 PM	59.4	53.3	63.8	69.5	79.6	1.4
6/1/2021	2:00 PM	58.4	51.8	62.4	68.4	82.9	2.0
6/1/2021	3:00 PM	60.3	57.2	65.5	69.9	78.6	7.2
6/1/2021	4:00 PM	61.1	57.6	66.1	70.5	81.5	7.2
6/1/2021	5:00 PM	61.5	57.1	66.5	70.8	81.8	7.8
6/1/2021	6:00 PM	58.7	50.1	61.1	68.7	83.7	9.2
6/1/2021	7:00 PM	55.6	46.9	56.9	66.0	78.7	8.6
6/1/2021	8:00 PM	56.9	47.6	58.4	67.3	78.7	10.6
6/1/2021	9:00 PM	54.1	45.3	54.8	64.2	78.3	11.4
6/1/2021	10:00 PM	53.4	42.9	53.8	62.7	75.1	10.6
6/1/2021	11:00 PM	50.5	42.3	47.2	58.6	75.4	11.1
6/2/2021	12:00 AM	48.3	42.1	44.4	51.2	73.7	10.6
6/2/2021	1:00 AM	43.9	39.1	41.6	44.7	71.5	9.2
6/2/2021	2:00 AM	54.4	40.8	45.6	59.5	79.9	6.4
6/2/2021	3:00 AM	45.8	44.8	48.5	50.9	70.6	5.8
6/2/2021	4:00 AM	52.9	47.9	51.1	59.2	75.8	4.6
6/2/2021	5:00 AM	60.0	52.6	64.2	70.8	77.8	2.9
6/2/2021	6:00 AM	64.9	64.4	70.8	73.4	81.0	2.2
6/2/2021	7:00 AM	58.6	51.7	62.1	69.0	79.2	2.0
6/2/2021	8:00 AM	57.8	51.9	61.3	68.1	78.2	1.4
6/2/2021	9:00 AM	60.1	55.0	64.4	70.0	81.0	0.6

6/2/2021	10:00 AM	59.6	55.2	64.6	69.4	78.5	3.7
6/2/2021	11:00 AM	59.2	54.0	64.0	69.2	78.0	4.4
6/2/2021	12:00 PM	60.4	55.3	65.6	70.0	80.8	4.4
6/2/2021	1:00 PM	60.6	56.9	65.8	69.8	79.6	3.1
6/2/2021	2:00 PM	59.3	55.7	64.4	68.9	77.9	3.4
6/2/2021	3:00 PM	60.4	56.6	65.5	70.0	79.6	5.5
6/2/2021	4:00 PM	59.8	55.3	64.8	69.7	79.3	6.1
6/2/2021	5:00 PM	61.1	57.2	66.1	70.6	81.4	6.7
6/2/2021	6:00 PM	58.9	52.7	63.2	69.4	77.3	8.9
6/2/2021	7:00 PM	57.1	52.2	60.8	67.2	77.4	9.2
6/2/2021	8:00 PM	62.5	52.1	61.1	69.2	88.0	9.2
6/2/2021	9:00 PM	55.5	45.1	56.1	66.3	76.3	8.1
6/2/2021	10:00 PM	50.1	41.2	45.3	56.1	74.9	9.2
6/2/2021	11:00 PM	52.2	39.6	48.5	60.5	79.0	10.3
6/3/2021	12:00 AM	51.1	39.4	45.8	59.3	74.6	8.3
6/3/2021	1:00 AM	49.5	37.8	43.3	53.4	78.8	7.2
6/3/2021	2:00 AM	52.7	37.5	45.9	58.3	77.0	6.9
6/3/2021	3:00 AM	48.3	40.6	45.8	50.5	76.8	6.1
6/3/2021	4:00 AM	54.8	47.5	53.3	63.7	77.1	6.1
6/3/2021	5:00 AM	60.0	56.7	64.2	70.1	79.6	7.8
6/3/2021	6:00 AM	65.1	63.9	70.9	73.6	82.3	7.8
6/3/2021	7:00 AM	59.0	53.0	63.0	69.3	78.8	7.5
6/3/2021	8:00 AM	58.2	51.4	61.4	68.6	80.6	6.7
6/3/2021	9:00 AM	58.8	53.4	62.7	69.2	79.3	5.8
6/3/2021	10:00 AM	59.1	54.2	63.4	68.7	84.3	5.8
6/3/2021	11:00 AM	60.3	55.8	65.4	70.2	78.7	7.5
6/3/2021	12:00 PM	61.1	58.0	65.9	70.0	83.4	7.2
6/3/2021	1:00 PM	59.3	55.7	64.3	68.9	80.2	6.9
6/3/2021	2:00 PM	64.0	57.1	66.0	71.0	92.6	6.4
6/3/2021	3:00 PM	60.1	55.7	65.0	70.1	77.8	7.2
6/3/2021	4:00 PM	60.5	56.7	65.9	70.1	79.7	6.1
6/3/2021	5:00 PM	60.9	57.0	66.2	70.7	80.1	6.9
6/3/2021	6:00 PM	58.9	52.1	62.6	68.8	81.3	7.2
6/3/2021	7:00 PM	57.8	50.1	59.9	67.9	81.9	8.1
6/3/2021	8:00 PM	56.9	47.9	56.5	65.7	81.9	9.7
6/3/2021	9:00 PM	54.2	45.3	53.3	63.0	79.6	7.8
6/3/2021	10:00 PM	53.3	44.6	51.4	62.2	76.6	6.1
6/3/2021	11:00 PM	51.4	42.9	48.1	58.2	76.5	6.9
6/4/2021	12:00 AM	50.5	38.4	40.9	55.1	78.7	8.6
6/4/2021	1:00 AM	48.2	38.1	40.6	52.0	72.6	9.5
6/4/2021	2:00 AM	52.2	38.0	46.6	57.5	78.1	6.7
6/4/2021	3:00 AM	48.0	39.7	42.4	52.0	72.9	6.7
6/4/2021	4:00 AM	52.5	46.0	51.0	59.6	77.4	7.5
6/4/2021	5:00 AM	58.8	54.4	62.0	69.1	78.0	8.3
6/4/2021	6:00 AM	61.6	58.0	67.0	71.4	79.2	8.7
6/4/2021	7:00 AM	60.4	55.0	64.8	70.5	81.6	5.8
6/4/2021	8:00 AM	60.1	53.9	64.2	69.7	81.0	7.2
6/4/2021	9:00 AM	60.7	54.7	64.3	70.1	89.4	10.0
6/4/2021	10:00 AM	60.9	57.0	64.8	69.8	82.7	8.6
6/4/2021	11:00 AM	61.5	57.4	65.7	70.4	82.1	10.3
6/4/2021	12:00 PM	61.1	57.0	66.2	70.7	81.3	7.5
6/4/2021	1:00 PM	59.8	55.8	64.5	69.7	78.0	6.4
6/18/2021	11:18 AM	60.2	54.8	64.8	69.8	79.9	5.3
6/18/2021	12:00 PM	59.5	54.5	64.4	69.5	77.2	4.7
6/18/2021	1:00 PM	59.3	53.8	63.4	69.5	77.7	5.3
6/18/2021	2:00 PM	60.1	54.7	64.6	70.0	82.2	5.8
6/18/2021	3:00 PM	60.3	56.1	65.5	70.1	78.5	7.5
6/18/2021	4:00 PM	61.1	56.4	65.9	71.0	80.3	7.2
6/18/2021	5:00 PM	60.0	53.9	64.4	70.2	81.2	6.1
6/18/2021	6:00 PM	59.4	52.0	62.9	69.4	80.6	5.8
6/18/2021	7:00 PM	59.3	50.8	62.3	69.5	83.4	8.1
6/18/2021	8:00 PM	56.6	46.9	57.5	67.1	78.6	7.8
6/18/2021	9:00 PM	57.8	46.7	59.3	68.3	82.1	6.9
6/18/2021	10:00 PM	54.7	41.7	53.0	64.3	77.1	9.2
6/18/2021	11:00 PM	52.5	38.4	46.3	60.3	78.3	9.5
6/19/2021	12:00 AM	50.3	37.0	48.2	57.6	73.8	9.2

6/19/2021	1:00 AM	53.4	36.2	49.2	62.1	77.4	10.0
6/19/2021	2:00 AM	45.9	38.3	43.9	49.2	71.7	7.5
6/19/2021	3:00 AM	50.0	38.5	43.2	49.4	78.3	4.0
6/19/2021	4:00 AM	51.5	47.3	51.1	56.5	76.8	3.8
6/19/2021	5:00 AM	54.8	49.5	54.4	63.3	78.5	5.2
6/19/2021	6:00 AM	58.5	49.5	60.7	69.4	78.7	4.3
6/19/2021	7:00 AM	56.1	48.0	55.6	65.5	79.7	5.0
6/19/2021	8:00 AM	57.8	50.3	60.8	68.1	78.1	4.4
6/19/2021	9:00 AM	58.0	50.2	60.2	68.5	78.4	4.0
6/19/2021	10:00 AM	60.1	54.7	64.5	70.2	79.7	4.4
6/19/2021	11:00 AM	59.5	54.2	63.9	69.4	79.5	5.3
6/19/2021	12:00 PM	59.3	53.6	63.5	69.5	79.6	5.3
6/19/2021	1:00 PM	59.6	54.1	64.3	69.7	78.3	5.8
6/19/2021	2:00 PM	58.0	52.1	61.5	68.1	80.3	5.8
6/19/2021	3:00 PM	60.3	56.1	65.6	69.9	80.7	8.3
6/19/2021	4:00 PM	60.2	54.3	64.3	70.0	81.3	9.2
6/19/2021	5:00 PM	59.4	52.7	63.5	69.9	76.3	6.7
6/19/2021	6:00 PM	58.9	48.9	61.1	68.6	82.1	7.5
6/19/2021	7:00 PM	56.4	48.7	58.8	66.8	78.2	4.4
6/19/2021	8:00 PM	56.3	46.6	58.6	67.1	76.8	4.6
6/19/2021	9:00 PM	55.8	47.2	57.7	66.0	77.6	7.5
6/19/2021	10:00 PM	53.9	43.8	52.4	63.4	75.7	8.9
6/19/2021	11:00 PM	50.1	40.8	44.2	57.3	73.7	9.2
6/20/2021	12:00 AM	54.4	42.0	51.7	64.0	78.1	7.8
6/20/2021	1:00 AM	52.2	42.2	50.0	61.4	74.0	6.7
6/20/2021	2:00 AM	46.7	38.8	41.2	48.6	72.5	6.4
6/20/2021	3:00 AM	48.5	39.0	42.9	51.7	74.8	5.0
6/20/2021	4:00 AM	49.9	45.4	48.9	53.8	74.3	3.4
6/20/2021	5:00 AM	50.2	45.4	48.5	53.9	75.5	1.1
6/20/2021	6:00 AM	54.6	47.9	55.0	63.4	75.6	2.0
6/20/2021	7:00 AM	54.1	49.0	54.5	62.4	76.1	0.3
6/20/2021	8:00 AM	55.6	46.6	55.8	66.0	75.7	1.1
6/20/2021	9:00 AM	56.6	48.6	57.3	65.9	80.9	2.0
6/20/2021	10:00 AM	57.1	49.9	60.0	67.3	76.7	2.0
6/20/2021	11:00 AM	59.2	51.7	62.6	68.8	83.8	1.4
6/20/2021	12:00 PM	57.2	51.1	60.7	67.7	74.8	0.0
6/20/2021	1:00 PM	58.4	52.4	62.7	68.4	80.1	1.1
6/20/2021	2:00 PM	59.6	53.7	63.8	69.2	84.9	3.4
6/20/2021	3:00 PM	58.9	51.7	63.0	69.2	78.4	5.0
6/20/2021	4:00 PM	59.2	54.5	62.8	69.3	79.0	6.9
6/20/2021	5:00 PM	57.3	51.3	59.6	67.8	76.6	10.6
6/20/2021	6:00 PM	56.7	49.4	59.6	67.2	77.9	12.4
6/20/2021	7:00 PM	57.4	47.6	59.1	68.0	82.9	11.4
6/20/2021	8:00 PM	57.2	44.6	59.2	67.9	77.9	11.7
6/20/2021	9:00 PM	56.1	44.2	56.2	66.6	81.3	12.4
6/20/2021	10:00 PM	58.5	39.7	49.1	64.6	86.1	13.6
6/20/2021	11:00 PM	54.0	40.9	52.2	63.6	75.8	13.3
6/21/2021	12:00 AM	51.3	37.2	41.8	56.3	78.5	13.6
6/21/2021	1:00 AM	49.2	37.3	40.8	53.5	76.6	13.9
6/21/2021	2:00 AM	46.4	38.8	42.4	51.0	72.2	12.4
6/21/2021	3:00 AM	46.1	37.3	39.2	41.3	75.3	9.7
6/21/2021	4:00 AM	52.9	47.6	50.9	57.5	77.5	9.5
6/21/2021	5:00 AM	59.2	53.0	63.4	69.8	78.2	6.9
6/21/2021	6:00 AM	64.8	63.7	70.9	73.3	80.2	2.2
6/21/2021	7:00 AM	59.2	53.3	63.0	69.4	79.3	1.7
6/21/2021	8:00 AM	57.8	50.9	60.3	68.4	77.5	0.8
6/21/2021	9:00 AM	58.9	53.0	62.9	69.1	79.0	0.6
6/21/2021	10:00 AM	59.3	53.6	63.1	69.0	80.3	0.3
6/21/2021	11:00 AM	60.6	54.3	65.2	70.6	79.2	1.1
6/21/2021	12:00 PM	61.9	59.0	66.9	70.7	81.4	1.1
6/21/2021	12:17 PM	59.5	53.7	64.1	69.8	78.1	1.1
6/21/2021	1:00 PM	60.6	56.8	66.0	70.2	78.2	1.4
6/21/2021	2:00 PM	59.9	54.6	64.6	69.6	78.0	2.0
6/21/2021	3:00 PM	60.3	55.9	65.7	70.3	78.3	8.9
6/21/2021	4:00 PM	60.4	56.4	65.6	69.7	82.2	10.0
6/21/2021	5:00 PM	61.9	57.0	67.2	71.6	82.6	12.1
6/21/2021	6:00 PM	58.0	50.8	60.2	67.7	91.2	12.1

6/21/2021	7:00 PM	57.3	48.9	59.3	67.1	82.5	12.8
6/21/2021	8:00 PM	57.7	47.6	59.3	68.0	80.3	13.6
6/21/2021	9:00 PM	54.9	42.7	54.7	65.7	76.0	12.7
6/21/2021	10:00 PM	52.6	39.8	50.5	62.3	74.6	11.7
6/21/2021	11:00 PM	51.9	40.0	49.3	60.8	74.0	11.7
6/22/2021	12:00 AM	50.7	39.2	43.1	56.3	75.5	11.1
6/22/2021	1:00 AM	50.9	44.0	49.0	57.6	74.8	10.6
6/22/2021	2:00 AM	42.9	40.7	43.8	46.2	70.5	10.1
6/22/2021	3:00 AM	49.4	38.4	42.0	49.5	78.1	5.3
6/22/2021	4:00 AM	54.4	47.0	53.9	62.4	76.4	3.2
6/22/2021	5:00 AM	59.9	50.9	63.6	70.6	81.4	3.1
6/22/2021	6:00 AM	64.9	63.5	70.9	73.7	81.8	3.1
6/22/2021	7:00 AM	60.0	52.9	63.8	70.0	79.5	2.5
6/22/2021	8:00 AM	59.8	51.8	62.2	69.9	84.5	2.2
6/22/2021	9:00 AM	62.3	54.2	63.9	70.0	97.6	3.1
6/22/2021	10:00 AM	60.3	55.5	65.2	70.2	78.9	2.0
6/22/2021	11:00 AM	61.9	57.8	67.1	71.7	80.4	2.8
6/22/2021	12:00 PM	61.6	56.2	65.9	70.4	85.8	2.2
6/22/2021	1:00 PM	60.1	53.2	64.2	69.6	84.2	0.0
6/22/2021	2:00 PM	61.0	57.8	66.4	70.5	80.9	0.3
6/22/2021	3:00 PM	61.0	57.0	65.7	70.3	82.6	3.2
6/22/2021	4:00 PM	60.7	56.9	66.1	70.3	78.5	8.9
6/22/2021	5:00 PM	62.3	58.6	67.6	71.8	80.3	7.5
6/22/2021	6:00 PM	57.2	49.1	59.1	67.7	79.9	5.8
6/22/2021	7:00 PM	57.9	48.1	59.3	67.9	82.0	5.8
6/22/2021	8:00 PM	57.6	47.6	60.4	68.1	78.4	7.8
6/22/2021	9:00 PM	56.9	45.4	58.3	66.9	80.4	6.9
6/22/2021	10:00 PM	56.3	48.3	59.2	65.7	78.2	6.1
6/22/2021	11:00 PM	51.7	40.1	44.6	60.2	74.1	6.9
6/23/2021	12:00 AM	53.0	37.8	41.4	59.0	79.4	7.2
6/23/2021	1:00 AM	51.1	36.8	39.7	57.1	75.9	6.1
6/23/2021	2:00 AM	48.2	36.6	39.5	51.4	77.5	6.7
6/23/2021	3:00 AM	46.9	34.7	37.2	41.5	74.7	9.2
6/23/2021	4:00 AM	54.5	44.6	53.4	63.0	77.5	8.3
6/23/2021	5:00 AM	59.5	50.6	62.6	70.0	82.9	6.4
6/23/2021	6:00 AM	64.9	63.5	70.9	73.6	80.4	4.3
6/23/2021	7:00 AM	60.6	54.7	65.3	70.6	81.1	2.8
6/23/2021	8:00 AM	59.7	53.7	63.8	70.1	80.1	3.1
6/23/2021	9:00 AM	59.4	52.5	62.8	69.5	80.1	5.3
6/23/2021	10:00 AM	59.7	52.8	63.8	69.8	82.9	7.2
6/23/2021	11:00 AM	60.0	56.3	65.2	69.6	78.0	6.1
6/23/2021	12:00 PM	62.2	59.6	67.7	71.7	78.7	4.3
6/23/2021	1:00 PM	60.5	55.6	65.1	70.7	77.2	3.7
6/23/2021	2:00 PM	61.6	58.3	67.0	71.0	83.5	2.5
6/23/2021	3:00 PM	61.4	57.0	66.7	70.9	82.8	3.4
6/23/2021	4:00 PM	61.3	58.0	66.6	70.8	81.7	5.3
6/23/2021	5:00 PM	62.1	58.1	67.8	71.9	79.4	3.4
6/23/2021	6:00 PM	59.4	51.9	62.9	69.3	85.7	4.0
6/23/2021	7:00 PM	58.7	51.8	62.2	69.1	80.5	6.4
6/23/2021	8:00 PM	58.6	46.9	59.3	67.9	84.5	5.8
6/23/2021	9:00 PM	56.0	46.6	58.1	66.4	76.5	4.4
6/23/2021	10:00 PM	55.0	39.7	55.7	65.3	79.0	8.9
6/23/2021	11:00 PM	52.8	39.1	51.1	62.5	76.2	8.9
6/24/2021	12:00 AM	52.2	38.3	42.1	59.3	79.6	6.9
6/24/2021	1:00 AM	49.2	38.1	40.4	55.4	73.0	5.5
6/24/2021	2:00 AM	47.9	35.7	39.2	54.7	73.2	6.7
6/24/2021	3:00 AM	45.8	36.9	38.2	41.0	74.6	4.4
6/24/2021	4:00 AM	53.7	43.8	50.1	61.8	76.4	3.1
6/24/2021	5:00 AM	59.2	52.5	62.7	70.3	78.8	2.5
6/24/2021	6:00 AM	65.1	64.4	71.3	73.7	79.6	2.5
6/24/2021	7:00 AM	59.8	53.2	63.8	70.1	80.6	3.4
6/24/2021	8:00 AM	58.9	52.7	62.3	69.2	79.0	4.4
6/24/2021	9:00 AM	60.6	55.1	65.2	70.4	78.9	4.6
6/24/2021	10:00 AM	61.5	55.7	65.9	71.4	81.7	3.1
6/24/2021	11:00 AM	62.7	58.7	67.5	72.0	81.5	2.0
6/24/2021	12:00 PM	62.4	59.4	67.9	71.3	82.4	3.1
6/24/2021	1:00 PM	61.3	57.0	65.9	70.8	83.4	3.5

6/24/2021	2:00 PM	61.9	57.5	66.7	71.5	80.2	3.4
6/24/2021	3:00 PM	61.6	58.1	66.7	70.9	81.2	2.5
6/24/2021	4:00 PM	61.6	57.9	66.7	71.1	83.4	3.7
6/24/2021	5:00 PM	61.8	58.4	67.1	71.2	81.3	3.1
6/24/2021	6:00 PM	58.8	49.5	61.9	69.0	81.6	4.6
6/24/2021	7:00 PM	57.4	47.3	58.9	67.5	79.5	6.7
6/24/2021	8:00 PM	58.7	48.5	61.3	69.1	80.7	9.5
6/24/2021	9:00 PM	56.2	45.3	58.2	66.9	78.2	11.1
6/24/2021	10:00 PM	54.1	40.3	53.1	63.7	77.5	11.5
6/24/2021	11:00 PM	52.9	40.6	50.4	60.9	76.4	8.6
6/25/2021	12:00 AM	49.9	40.3	43.6	55.7	73.5	6.7
6/25/2021	1:00 AM	50.3	41.5	44.2	54.0	76.0	6.4
6/25/2021	2:00 AM	39.5	40.1	42.4	44.8	62.6	4.9
6/25/2021	3:00 AM	48.2	37.2	40.3	48.1	74.2	2.2
6/25/2021	4:00 AM	52.2	45.9	51.7	57.6	74.6	1.1
6/25/2021	5:00 AM	58.2	47.3	58.9	68.3	81.5	0.8
6/25/2021	6:00 AM	59.8	52.9	63.8	70.2	79.8	0.6
6/25/2021	7:00 AM	60.4	53.8	64.7	70.1	81.5	1.1
6/25/2021	8:00 AM	58.2	51.5	61.5	69.0	76.1	1.1
6/25/2021	9:00 AM	61.0	54.2	64.3	70.4	83.5	0.8
6/25/2021	10:00 AM	61.1	57.2	65.7	70.4	81.2	2.2
6/25/2021	11:00 AM	62.0	56.5	66.1	70.8	86.4	0.6
7/2/2021	10:17 AM	58.6	54.8	63.5	68.2	83.4	3.1
7/2/2021	11:00 AM	61.2	57.7	66.7	71.0	78.0	2.8
7/2/2021	12:00 PM	60.5	56.3	65.6	70.2	78.6	4.4
7/2/2021	1:00 PM	61.7	58.3	67.5	71.1	79.8	1.1
7/2/2021	2:00 PM	61.9	58.4	67.5	71.2	80.7	2.0
7/2/2021	3:00 PM	61.4	58.0	66.8	70.8	80.7	0.0
7/2/2021	4:00 PM	61.0	57.5	66.9	70.6	77.3	0.6
7/2/2021	5:00 PM	61.2	57.5	66.8	71.0	80.4	4.0
7/2/2021	6:00 PM	59.7	53.8	64.3	70.0	77.9	7.8
7/2/2021	7:00 PM	58.5	49.3	61.0	69.0	83.0	7.2
7/2/2021	8:00 PM	59.1	48.8	61.9	69.5	82.0	7.5
7/2/2021	9:00 PM	57.5	51.4	61.7	68.1	79.8	6.7
7/2/2021	10:00 PM	52.8	39.0	49.6	61.6	81.3	8.3
7/2/2021	11:00 PM	58.3	40.5	56.7	66.9	87.6	8.1
7/3/2021	12:00 AM	59.5	43.0	55.5	64.8	100.5	4.9
7/3/2021	1:00 AM	53.2	37.9	49.4	62.0	75.9	7.2
7/3/2021	2:00 AM	46.5	37.2	38.9	43.3	73.2	3.7
7/3/2021	3:00 AM	45.5	36.3	37.2	39.3	72.3	3.7
7/3/2021	4:00 AM	49.1	41.5	44.4	54.5	73.4	1.7
7/3/2021	5:00 AM	53.3	45.9	50.8	61.4	77.6	0.6
7/3/2021	6:00 AM	55.6	46.3	54.9	65.0	77.7	2.8
7/3/2021	7:00 AM	56.8	46.5	58.1	67.0	81.1	1.7
7/3/2021	8:00 AM	58.1	50.1	61.4	68.7	76.6	3.4
7/3/2021	9:00 AM	58.9	50.5	62.7	69.7	78.8	2.2
7/3/2021	10:00 AM	59.7	53.5	64.2	70.1	78.3	0.0
7/3/2021	11:00 AM	59.8	54.0	64.5	69.8	80.1	1.1
7/3/2021	12:00 PM	60.5	55.2	65.4	70.2	81.4	1.1
7/3/2021	1:00 PM	59.6	55.3	64.9	69.5	76.7	1.1
7/3/2021	2:00 PM	60.7	56.1	65.9	70.5	81.9	2.8
7/3/2021	3:00 PM	60.8	57.7	66.4	70.4	76.9	2.5
7/3/2021	4:00 PM	61.4	58.2	67.0	71.0	80.0	4.9
7/3/2021	5:00 PM	60.2	55.8	65.4	69.7	81.4	9.2
7/3/2021	6:00 PM	59.2	53.1	63.8	69.7	79.9	12.1
7/3/2021	7:00 PM	60.3	48.9	62.3	69.1	91.4	11.5
7/3/2021	8:00 PM	59.1	54.0	63.6	69.4	78.0	12.1
7/3/2021	9:00 PM	59.4	52.2	63.1	69.3	82.3	10.0
7/3/2021	10:00 PM	56.9	46.5	59.0	67.4	81.6	9.2
7/3/2021	11:00 PM	56.0	39.7	56.9	66.2	77.4	8.9
7/4/2021	12:00 AM	54.3	38.3	52.6	64.5	79.5	9.2
7/4/2021	1:00 AM	52.6	37.3	44.7	60.9	88.3	8.3
7/4/2021	2:00 AM	44.7	37.0	39.6	50.6	72.1	6.4
7/4/2021	3:00 AM	47.2	35.1	36.4	38.6	75.1	3.5
7/4/2021	4:00 AM	49.0	38.6	43.2	54.2	73.9	2.0
7/4/2021	5:00 AM	50.1	41.0	47.5	55.8	75.8	3.1
7/4/2021	6:00 AM	53.8	39.4	52.9	64.0	75.9	3.4

7/4/2021	7:00 AM	56.4	47.2	57.2	66.5	76.7	3.4
7/4/2021	8:00 AM	57.2	46.1	59.1	67.9	77.6	3.4
7/4/2021	9:00 AM	58.2	50.0	61.3	68.9	77.4	3.7
7/4/2021	10:00 AM	58.4	49.4	61.8	69.0	78.5	3.4
7/4/2021	11:00 AM	59.5	54.2	64.3	69.6	78.4	2.3
7/4/2021	12:00 PM	61.1	57.6	66.6	70.9	77.7	2.5
7/4/2021	1:00 PM	59.9	55.7	65.3	69.6	78.5	2.6
7/4/2021	2:00 PM	61.1	57.1	66.4	70.7	83.0	5.5
7/4/2021	3:00 PM	61.9	56.1	65.9	70.2	91.5	6.1
7/4/2021	4:00 PM	60.7	55.3	65.5	70.6	82.8	5.8
7/4/2021	5:00 PM	60.9	55.7	65.6	70.4	84.7	6.9
7/4/2021	6:00 PM	58.2	51.6	62.5	68.6	77.3	6.4
7/4/2021	7:00 PM	60.5	51.3	62.8	69.3	98.6	5.5
7/4/2021	8:00 PM	61.3	54.0	65.0	70.5	94.2	7.5
7/4/2021	9:00 PM	62.4	56.6	65.9	70.6	95.1	8.1
7/4/2021	10:00 PM	66.4	62.5	69.6	73.7	94.7	7.5
7/4/2021	11:00 PM	62.1	51.1	62.5	69.0	93.3	7.8
7/5/2021	12:00 AM	78.7	39.7	57.5	64.8	121.5	6.9
7/5/2021	1:00 AM	52.2	36.0	44.9	61.3	76.0	11.0
7/5/2021	2:00 AM	44.8	35.7	42.4	52.0	70.6	9.2
7/5/2021	3:00 AM	49.6	37.1	41.8	53.8	76.6	6.3
7/5/2021	4:00 AM	45.7	39.4	43.4	51.1	72.1	5.8
7/5/2021	5:00 AM	49.6	43.1	48.8	55.6	75.0	4.3
7/5/2021	6:00 AM	52.9	42.7	53.5	61.8	75.1	6.7
7/5/2021	7:00 AM	55.9	41.9	54.6	64.9	78.7	3.7
7/5/2021	8:00 AM	58.2	44.1	57.2	67.3	84.3	3.1
7/5/2021	9:00 AM	56.8	43.7	58.0	66.9	79.6	3.1
7/5/2021	10:00 AM	58.0	47.9	60.8	68.6	80.9	4.4
7/5/2021	11:00 AM	59.1	53.1	63.3	69.3	79.1	5.8
7/5/2021	12:00 PM	57.5	49.3	60.2	67.5	85.1	5.3
7/5/2021	1:03 PM	59.6	52.7	63.3	69.4	82.4	3.4
7/5/2021	2:00 PM	58.6	52.9	62.9	68.8	78.5	4.4
7/5/2021	3:00 PM	59.6	55.1	64.9	69.4	79.3	2.2
7/5/2021	4:00 PM	60.0	55.3	65.2	70.0	79.1	3.4
7/5/2021	5:00 PM	58.4	51.7	62.5	68.9	84.6	5.3
7/5/2021	6:00 PM	56.8	47.5	59.5	67.5	79.4	6.1
7/5/2021	7:00 PM	56.2	44.5	58.3	66.9	78.3	5.5
7/5/2021	8:00 PM	57.7	46.8	59.8	68.5	81.4	7.2
7/5/2021	9:00 PM	55.4	44.2	55.9	65.7	75.6	8.6
7/5/2021	10:00 PM	52.7	38.2	51.9	63.0	73.6	6.9
7/5/2021	11:00 PM	50.9	36.1	44.9	58.8	74.5	8.9
7/6/2021	12:00 AM	53.0	37.9	45.9	59.9	80.8	7.2
7/6/2021	1:00 AM	52.6	38.5	42.0	59.6	80.6	9.2
7/6/2021	2:00 AM	42.7	38.7	41.1	50.2	66.8	9.5
7/6/2021	3:00 AM	48.8	36.5	38.0	51.0	74.1	4.6
7/6/2021	4:00 AM	51.5	39.2	43.5	56.9	75.8	3.4
7/6/2021	5:00 AM	59.6	50.7	63.3	69.9	83.5	2.5
7/6/2021	6:00 AM	64.4	62.9	70.6	73.5	78.3	3.5
7/6/2021	7:00 AM	59.9	53.5	64.6	69.9	80.3	2.5
7/6/2021	8:00 AM	58.4	49.4	61.9	68.8	78.9	1.7
7/6/2021	9:00 AM	59.4	50.6	63.2	69.8	79.0	0.8
7/6/2021	10:00 AM	59.9	54.6	64.8	70.1	78.9	0.8
7/6/2021	11:00 AM	62.1	55.5	65.5	70.5	90.7	2.9
7/6/2021	12:00 PM	60.6	56.2	65.9	70.4	80.4	2.5
7/6/2021	1:00 PM	59.7	54.0	64.6	69.6	79.5	2.2
7/6/2021	2:00 PM	60.6	57.0	65.7	70.2	79.9	2.0
7/6/2021	3:00 PM	61.1	57.6	66.4	70.6	79.7	3.7
7/6/2021	4:00 PM	61.3	57.9	66.6	70.9	79.8	2.9
7/6/2021	5:00 PM	61.5	57.3	66.9	71.2	79.9	2.2
7/6/2021	6:00 PM	57.4	46.9	59.5	67.7	78.2	3.4
7/6/2021	7:00 PM	55.9	44.9	57.9	66.6	76.1	4.0
7/6/2021	8:00 PM	55.7	45.0	57.3	66.3	78.3	7.8
7/6/2021	9:00 PM	56.2	43.0	57.1	66.4	79.3	8.1
7/6/2021	10:00 PM	51.7	40.0	48.6	60.8	77.6	7.2
7/6/2021	11:00 PM	50.8	38.4	41.5	57.3	75.2	8.1
7/7/2021	12:00 AM	50.8	38.6	43.0	59.1	73.8	7.2
7/7/2021	1:00 AM	51.4	40.2	43.9	57.5	76.2	6.7

7/7/2021	2:00 AM	47.1	36.0	37.3	44.0	74.3	4.9
7/7/2021	3:00 AM	45.1	37.6	39.1	41.2	74.2	3.1
7/7/2021	4:00 AM	52.7	40.5	45.7	60.1	76.7	2.8
7/7/2021	5:00 AM	58.9	50.6	63.1	69.6	77.2	4.6
7/7/2021	6:00 AM	64.9	64.1	70.8	73.4	83.6	4.4
7/7/2021	7:00 AM	59.9	53.9	64.4	70.1	79.2	4.4
7/7/2021	8:00 AM	58.3	49.6	60.7	68.4	81.8	5.0
7/7/2021	9:00 AM	58.7	51.9	62.6	69.2	77.9	2.5
7/7/2021	10:00 AM	60.4	54.9	65.0	70.3	79.7	2.9
7/7/2021	11:00 AM	61.2	57.5	66.4	71.0	80.3	6.4
7/7/2021	12:00 PM	63.3	58.9	67.6	72.1	83.2	4.4
7/7/2021	1:00 PM	62.5	58.6	67.7	72.1	80.7	5.0
7/7/2021	2:00 PM	60.8	57.2	66.0	70.4	80.1	5.5
7/7/2021	3:00 PM	61.3	58.1	66.5	71.0	79.7	4.6
7/7/2021	4:00 PM	61.8	59.3	67.4	71.2	79.9	4.9
7/7/2021	5:00 PM	62.4	59.1	67.7	71.9	81.7	10.1
7/7/2021	6:00 PM	57.7	50.1	61.5	68.3	77.4	13.0
7/7/2021	7:00 PM	56.8	44.2	57.8	67.5	79.6	13.0
7/7/2021	8:00 PM	55.9	45.1	57.6	66.5	76.5	13.3
7/7/2021	9:00 PM	55.3	40.8	56.6	66.1	77.2	13.0
7/7/2021	10:00 PM	54.4	38.1	52.6	63.3	81.0	12.4
7/7/2021	11:00 PM	51.5	35.7	42.3	58.8	76.3	10.0
7/8/2021	12:00 AM	50.3	36.3	40.5	57.5	73.6	10.0
7/8/2021	1:00 AM	49.7	36.1	39.1	55.5	75.2	10.0
7/8/2021	2:00 AM	45.9	35.9	38.4	44.0	72.8	8.9
7/8/2021	3:00 AM	49.6	38.4	44.5	55.1	74.8	4.6
7/8/2021	4:00 AM	51.6	38.3	43.0	56.8	76.2	3.7
7/8/2021	5:00 AM	58.8	48.5	62.8	69.9	77.1	4.0
7/8/2021	6:00 AM	64.9	63.9	70.8	73.6	85.5	3.1
7/8/2021	7:00 AM	59.1	51.7	63.3	69.5	79.7	3.4
7/8/2021	8:00 AM	58.6	49.5	61.2	69.0	79.1	3.4
7/8/2021	9:00 AM	59.3	51.4	62.9	69.5	80.5	2.8
7/8/2021	10:00 AM	59.9	53.8	64.6	70.1	79.0	3.4
7/8/2021	11:00 AM	61.2	57.3	66.1	70.6	80.2	2.8
7/8/2021	12:00 PM	60.4	55.6	65.3	70.3	82.3	2.0
7/8/2021	1:00 PM	60.7	54.6	65.0	70.3	82.3	2.2
7/8/2021	2:00 PM	60.3	56.8	64.7	69.6	80.3	1.1
7/8/2021	3:00 PM	60.5	56.3	66.2	70.2	79.3	1.1
7/8/2021	4:00 PM	60.9	56.8	66.0	70.6	80.4	1.7
7/8/2021	5:00 PM	62.1	58.7	67.2	71.6	81.5	4.0
7/8/2021	6:00 PM	58.6	51.1	62.2	69.2	77.7	5.2
7/8/2021	7:00 PM	56.7	44.6	58.3	66.9	78.1	7.2
7/8/2021	8:00 PM	57.8	50.4	61.2	68.5	76.7	5.8
7/8/2021	9:00 PM	55.5	40.8	56.6	66.4	75.8	2.8
7/8/2021	10:00 PM	52.3	36.9	50.4	62.0	73.4	7.5
7/8/2021	11:00 PM	51.6	35.5	39.7	59.0	75.3	8.3
7/9/2021	12:00 AM	53.7	34.9	48.1	62.3	75.9	5.8
7/9/2021	1:00 AM	49.3	33.0	36.1	54.8	75.9	7.8
7/9/2021	2:00 AM	48.2	34.1	38.0	51.1	79.7	8.3
7/9/2021	3:00 AM	49.6	34.0	36.8	55.3	77.4	5.2
7/9/2021	4:00 AM	51.6	37.2	41.6	57.0	78.2	2.5
7/9/2021	5:00 AM	57.5	43.8	60.1	68.3	77.2	3.4
7/9/2021	6:00 AM	60.8	55.4	66.0	71.2	78.2	4.3
7/9/2021	7:00 AM	59.0	50.1	62.2	69.3	79.4	4.4
7/9/2021	8:00 AM	58.1	47.1	60.6	68.5	80.0	6.4
7/9/2021	9:00 AM	58.7	49.3	61.8	69.2	77.9	2.5
7/9/2021	10:00 AM	60.4	55.0	65.3	70.5	78.0	2.6
7/9/2021	11:00 AM	60.4	56.1	65.3	70.4	82.6	2.8
7/9/2021	12:00 PM	60.9	55.7	66.0	70.7	79.8	4.9
7/23/2021	10:05 AM	60.1	55.2	64.9	69.9	81.6	N/A
7/23/2021	11:00 AM	59.9	53.6	64.4	70.1	80.1	N/A
7/23/2021	12:00 PM	60.7	56.9	66.0	70.5	79.4	N/A
7/23/2021	1:00 PM	60.0	55.5	65.2	70.1	77.9	N/A
7/23/2021	2:00 PM	59.9	54.4	64.2	69.8	84.3	N/A
7/23/2021	3:00 PM	60.8	57.3	66.1	70.3	83.0	4.4
7/23/2021	4:00 PM	61.3	56.5	66.3	71.2	80.3	5.2

7/23/2021	5:00 PM	60.2	55.1	65.2	70.5	78.3	4.0
7/23/2021	6:00 PM	56.1	46.4	58.6	66.4	77.7	3.4
7/23/2021	7:00 PM	56.1	44.0	57.7	66.5	76.7	5.1
7/23/2021	8:00 PM	55.5	46.2	57.1	66.3	75.5	7.8
7/23/2021	9:00 PM	56.9	42.0	56.9	66.8	82.0	9.5
7/23/2021	10:00 PM	54.0	41.5	53.2	64.2	76.3	9.2
7/23/2021	11:00 PM	52.1	40.8	45.0	59.6	76.7	6.9
7/24/2021	12:00 AM	52.5	39.9	51.5	60.3	76.3	6.7
7/24/2021	1:00 AM	52.5	39.9	44.7	59.6	79.4	7.5
7/24/2021	2:00 AM	51.7	37.1	40.2	53.0	80.9	4.0
7/24/2021	3:00 AM	47.8	35.4	36.8	39.9	77.3	2.8
7/24/2021	4:00 AM	50.9	37.4	40.0	52.3	79.0	0.8
7/24/2021	5:00 AM	51.7	44.7	48.0	56.4	77.4	0.8
7/24/2021	6:00 AM	54.0	42.8	48.7	62.3	76.2	2.0
7/24/2021	7:00 AM	53.4	43.2	52.2	63.0	75.7	2.0
7/24/2021	8:00 AM	57.5	43.4	56.8	66.2	90.7	3.1
7/24/2021	9:00 AM	59.1	53.9	63.4	69.0	78.4	2.5
7/24/2021	10:00 AM	58.7	51.2	62.8	69.2	78.6	2.2
7/24/2021	11:00 AM	59.4	54.2	64.1	69.7	76.8	2.5
7/24/2021	12:00 PM	58.3	52.3	62.9	68.4	78.7	3.1
7/24/2021	1:00 PM	58.4	53.6	63.2	68.7	75.0	3.4
7/24/2021	2:00 PM	58.1	49.3	61.7	68.7	78.8	4.0
7/24/2021	3:00 PM	58.7	52.7	63.0	69.0	77.9	4.0
7/24/2021	4:00 PM	58.4	50.3	61.9	68.5	80.0	1.7
7/24/2021	5:00 PM	58.8	53.6	63.2	69.3	76.0	3.4
7/24/2021	6:00 PM	56.6	44.2	58.3	67.2	76.2	6.4
7/24/2021	7:00 PM	57.5	47.2	60.6	67.9	77.4	7.2
7/24/2021	8:00 PM	57.3	47.8	60.5	68.1	76.5	10.8
7/24/2021	9:00 PM	55.1	41.6	55.8	65.4	76.2	9.7
7/24/2021	10:00 PM	53.6	39.3	50.6	63.6	76.6	10.0
7/24/2021	11:00 PM	52.3	39.0	43.0	59.9	75.3	6.7
7/25/2021	12:00 AM	50.2	38.8	41.9	57.4	75.5	9.7
7/25/2021	1:00 AM	51.0	37.3	41.4	58.5	74.0	8.3
7/25/2021	2:00 AM	46.9	36.4	41.5	54.8	72.8	4.3
7/25/2021	3:00 AM	39.1	34.3	36.1	39.2	67.1	3.1
7/25/2021	4:00 AM	50.8	39.8	44.4	56.8	75.1	2.8
7/25/2021	5:00 AM	52.7	42.0	46.3	59.5	81.0	3.4
7/25/2021	6:00 AM	48.1	40.7	43.7	50.8	74.0	4.9
7/25/2021	7:00 AM	53.8	40.5	53.0	63.3	75.6	4.7
7/25/2021	8:00 AM	52.5	41.1	50.4	62.1	75.3	6.4
7/25/2021	9:00 AM	57.0	45.8	59.5	67.6	76.9	5.8
7/25/2021	10:00 AM	57.6	44.2	59.5	68.0	83.5	6.1
7/25/2021	11:00 AM	56.8	44.1	59.0	67.4	77.1	5.8
7/25/2021	12:00 PM	59.5	50.2	62.3	70.0	80.7	5.3
7/25/2021	1:00 PM	58.6	53.1	63.6	68.9	76.1	5.0
7/25/2021	2:00 PM	59.1	51.5	63.0	69.1	82.9	6.1
7/25/2021	3:00 PM	58.0	51.7	62.2	68.5	77.4	7.2
7/25/2021	4:00 PM	57.8	50.8	61.7	68.2	79.5	6.1
7/25/2021	5:00 PM	57.8	49.3	60.7	68.1	76.1	9.5
7/25/2021	6:00 PM	55.2	44.1	56.6	65.5	75.5	8.9
7/25/2021	7:00 PM	56.4	44.2	57.9	67.1	76.0	8.1
7/25/2021	8:00 PM	56.7	45.0	58.7	67.4	77.7	6.7
7/25/2021	9:00 PM	53.8	42.1	54.5	64.4	74.6	7.2
7/25/2021	10:00 PM	53.2	39.6	49.9	62.4	75.5	9.5
7/25/2021	11:00 PM	51.1	39.4	42.8	58.0	76.3	8.1
7/26/2021	12:00 AM	47.2	37.3	39.4	50.9	72.5	6.1
7/26/2021	1:00 AM	48.5	35.6	39.0	54.4	72.5	8.3
7/26/2021	2:00 AM	47.0	35.9	41.2	50.9	74.6	7.5
7/26/2021	3:00 AM	36.3	36.8	39.7	42.2	52.7	8.9
7/26/2021	4:00 AM	51.4	41.3	45.0	58.5	75.7	8.9
7/26/2021	5:00 AM	58.7	46.0	61.3	69.3	84.1	5.8
7/26/2021	6:00 AM	65.3	64.5	71.2	73.9	81.6	5.8
7/26/2021	7:00 AM	59.9	51.7	63.8	70.2	81.0	7.2
7/26/2021	8:00 AM	59.2	53.6	63.6	69.5	78.4	6.9
7/26/2021	9:00 AM	58.5	52.1	62.5	68.9	77.2	6.4
7/26/2021	10:00 AM	60.0	52.1	62.8	69.5	85.3	5.8
7/26/2021	11:00 AM	59.3	53.5	64.1	69.6	76.6	5.8

7/26/2021	12:00 PM	60.3	55.6	65.4	69.7	82.8	6.1
7/26/2021	12:37 PM	59.4	51.2	63.5	69.8	84.1	6.1
7/26/2021	1:00 PM	60.6	55.8	65.2	70.3	80.8	5.8
7/26/2021	2:00 PM	60.1	54.1	64.3	69.8	79.9	6.9
7/26/2021	3:00 PM	59.7	54.8	64.6	69.8	77.7	6.7
7/26/2021	4:00 PM	60.3	54.6	64.7	70.4	84.7	6.1
7/26/2021	5:00 PM	60.1	55.1	65.0	70.2	81.3	5.5
7/26/2021	6:00 PM	57.8	50.2	61.7	68.2	79.4	4.7
7/26/2021	7:00 PM	56.3	42.1	56.9	66.7	77.6	6.1
7/26/2021	8:00 PM	58.6	44.9	60.0	68.9	80.3	5.5
7/26/2021	9:00 PM	54.6	40.5	55.2	64.9	75.2	6.9
7/26/2021	10:00 PM	52.9	37.8	44.9	60.6	81.4	7.5
7/26/2021	11:00 PM	51.6	37.8	40.4	53.1	80.4	8.9
7/27/2021	12:00 AM	48.0	36.6	37.8	50.9	73.3	4.9
7/27/2021	1:00 AM	48.1	35.2	37.4	51.9	77.2	4.6
7/27/2021	2:00 AM	48.0	36.0	43.1	51.9	76.1	6.9
7/27/2021	3:00 AM	42.2	36.1	38.9	42.0	71.8	4.4
7/27/2021	4:00 AM	53.5	37.1	41.9	61.5	78.0	5.5
7/27/2021	5:00 AM	58.1	46.6	61.6	68.8	80.9	4.9
7/27/2021	6:00 AM	65.2	64.7	71.1	73.5	85.5	5.0
7/27/2021	7:00 AM	60.3	54.1	64.6	70.3	80.3	4.9
7/27/2021	8:00 AM	59.5	52.8	63.4	69.8	80.7	5.3
7/27/2021	9:00 AM	59.6	53.4	63.8	69.8	81.6	6.4
7/27/2021	10:00 AM	59.3	51.9	63.0	69.2	82.0	4.7
7/27/2021	11:00 AM	60.9	56.3	66.4	71.1	77.9	3.7
7/27/2021	12:00 PM	58.5	53.2	63.1	68.9	77.1	3.1
7/27/2021	1:00 PM	61.2	56.5	65.7	70.2	84.3	3.1
7/27/2021	2:00 PM	60.7	55.3	65.7	70.3	80.3	1.7
7/27/2021	3:00 PM	61.8	58.4	67.0	70.7	84.3	5.5
7/27/2021	4:00 PM	60.6	56.4	65.6	70.2	82.9	3.7
7/27/2021	5:00 PM	61.1	57.3	66.4	70.8	78.8	6.3
7/27/2021	6:00 PM	56.2	42.5	57.7	67.1	76.3	8.6
7/27/2021	7:00 PM	57.1	43.1	58.9	67.3	80.4	9.2
7/27/2021	8:00 PM	55.8	45.1	57.8	66.5	76.8	8.3
7/27/2021	9:00 PM	54.8	43.5	56.3	65.2	77.3	8.9
7/27/2021	10:00 PM	50.3	40.6	44.6	56.8	77.0	8.6
7/27/2021	11:00 PM	51.6	38.5	41.9	58.0	77.7	6.7
7/28/2021	12:00 AM	50.4	39.4	41.9	55.0	76.5	6.4
7/28/2021	1:00 AM	49.8	39.4	42.4	50.8	77.5	5.8
7/28/2021	2:00 AM	47.3	38.9	43.0	52.5	73.6	4.4
7/28/2021	3:00 AM	44.7	40.4	42.9	45.5	71.0	3.7
7/28/2021	4:00 AM	53.0	43.0	46.5	60.6	79.1	4.0
7/28/2021	5:00 AM	58.8	49.4	62.5	69.8	76.6	5.5
7/28/2021	6:00 AM	65.8	65.5	71.6	74.1	81.1	4.7
7/28/2021	7:00 AM	59.7	51.6	63.2	70.0	81.2	4.4
7/28/2021	8:00 AM	57.6	48.5	60.5	68.0	79.3	3.7
7/28/2021	9:00 AM	58.7	52.6	62.7	68.9	78.0	4.0
7/28/2021	10:00 AM	61.0	56.5	65.7	70.3	83.7	4.0
7/28/2021	11:00 AM	59.8	54.8	64.9	69.9	78.0	2.8
7/28/2021	12:00 PM	60.1	54.2	64.8	69.6	84.5	1.4
7/28/2021	1:00 PM	59.9	54.9	65.1	69.7	79.8	2.5
7/28/2021	2:00 PM	59.6	54.4	64.9	69.8	76.1	2.5
7/28/2021	3:00 PM	61.6	57.5	66.7	70.8	86.2	3.7
7/28/2021	4:00 PM	61.3	57.1	66.4	70.8	82.3	4.0
7/28/2021	5:00 PM	62.0	56.7	66.9	71.5	84.8	7.2
7/28/2021	6:00 PM	58.6	47.1	60.4	68.4	80.3	7.2
7/28/2021	7:00 PM	61.0	47.6	60.3	68.4	90.1	10.0
7/28/2021	8:00 PM	56.5	43.5	58.5	67.1	77.8	9.5
7/28/2021	9:00 PM	54.9	40.3	53.3	64.9	78.1	8.6
7/28/2021	10:00 PM	55.4	40.3	54.4	64.4	83.2	7.5
7/28/2021	11:00 PM	48.0	37.8	39.5	53.3	73.0	7.5
7/29/2021	12:00 AM	50.7	37.5	40.6	57.1	76.3	8.1
7/29/2021	1:00 AM	50.3	39.7	43.0	56.2	77.5	6.7
7/29/2021	2:00 AM	44.0	38.6	42.2	46.3	71.1	3.7
7/29/2021	3:00 AM	47.1	41.8	45.3	50.1	73.7	4.6
7/29/2021	4:00 AM	52.7	45.1	48.3	58.7	77.3	4.7
7/29/2021	5:00 AM	67.1	51.0	62.7	69.9	101.1	5.5

7/29/2021	6:00 AM	65.4	64.7	71.4	73.7	85.6	5.0
7/29/2021	7:00 AM	59.8	53.5	64.0	70.0	79.0	5.0
7/29/2021	8:00 AM	59.1	52.5	62.5	69.5	81.7	3.7
7/29/2021	9:00 AM	58.5	49.2	62.1	69.1	76.9	5.0
7/29/2021	10:00 AM	59.4	52.9	63.5	69.4	79.0	3.7
7/29/2021	11:00 AM	60.0	54.4	64.5	70.1	79.9	2.2
7/29/2021	12:00 PM	60.8	54.6	65.5	70.0	83.2	0.0
7/29/2021	1:00 PM	59.8	54.6	64.8	69.7	79.9	0.6
7/29/2021	2:00 PM	60.2	54.8	64.9	70.3	78.4	3.4
7/29/2021	3:00 PM	61.1	57.1	66.3	70.7	82.8	4.0
7/29/2021	4:00 PM	61.9	57.6	66.8	71.2	84.9	4.3
7/29/2021	5:00 PM	59.7	54.1	63.9	70.0	80.1	6.1
7/29/2021	6:00 PM	57.6	49.4	60.6	68.2	77.1	7.8
7/29/2021	7:00 PM	58.5	50.0	61.4	69.0	78.2	9.2
7/29/2021	8:00 PM	56.8	48.5	59.7	67.3	77.0	10.0
7/29/2021	9:00 PM	56.1	43.5	58.6	66.8	77.2	10.0
7/29/2021	10:00 PM	49.6	40.3	48.0	58.2	72.3	9.5
7/29/2021	11:00 PM	51.5	40.5	45.3	59.8	75.2	7.8
7/30/2021	12:00 AM	50.4	39.1	41.0	51.9	78.5	7.2
7/30/2021	1:00 AM	50.0	38.4	41.9	53.6	75.0	4.0
7/30/2021	2:00 AM	43.6	37.1	38.4	43.0	71.2	3.1
7/30/2021	3:00 AM	46.0	38.3	41.7	54.0	73.2	3.4
7/30/2021	4:00 AM	54.3	44.2	50.8	62.9	77.4	3.4
7/30/2021	5:00 AM	56.1	45.1	55.3	65.8	78.8	4.0
7/30/2021	6:00 AM	60.4	55.3	65.3	70.7	76.7	3.4
7/30/2021	7:00 AM	59.4	52.7	63.6	69.5	78.9	3.1
7/30/2021	8:00 AM	59.6	53.3	63.8	69.7	81.1	3.7
7/30/2021	9:00 AM	59.9	53.8	64.3	69.9	79.0	3.4
7/30/2021	10:00 AM	59.6	54.2	64.3	69.4	82.9	3.4
7/30/2021	11:00 AM	60.4	56.6	66.0	70.2	80.1	1.7

Notes

1. $L_{2.5}$ = Level exceeded 2.5% (1.5 minutes) per hour
   $L_{8.3}$ = Level exceeded 8.3% (5 minutes) per hour
   L_{25} = Level exceeded 25% (15 minutes) per hour
   L_{max} = Maximum noise level measured (including impulsive noise)

Abbreviations

dBA = A-weighted decibels

mph = miles per hour

Appendix D

2021 Great Blue Heron Existing Conditions Biological Monitoring Summary and Data Tables

Appendix D – 2021 Great Blue Heron Existing Conditions Biological Monitoring Summary and Data Tables

D.1 Biological Monitoring Summary

The purpose of the great blue heron (*Ardea herodias*) existing conditions biological monitoring was to characterize heron behavior in their ambient noise environment. The pre-project monitoring occurred between April and July 2021 to establish baseline conditions that could be used to determine whether increased response to disturbance would occur due to upcoming planned construction activities at the Whitmarsh Landfill.

Biological monitoring consisted of recording observations of noise and visual events and heron behavior over six monitoring periods:

- Monitoring Period 1: April 9 to April 15
- Monitoring Period 2: April 29 to May 7
- Monitoring Period 3: May 28 to June 4
- Monitoring Period 4: June 18 to June 25
- Monitoring Period 5: July 2 to July 9
- Monitoring Period 6: July 23 to July 30

Each monitoring period occurred over a block of time during two different days. Observed behaviors were noted, along with the time of day and correlating noise or activity assumed to have elicited the observed behavior. The correlation of observed behavior to a particular noise event or activity was primarily assumed, as birds may vocalize, flush, or circle the heronry for a variety of reasons, including as a response to predators, other herons, weather, or to noises or activities that were not heard, seen, or noted by the observers on-site. Definitive causation is difficult to prove in an uncontrolled environment, so apparent relationships based on first-hand observations were provided.

Based on the observations to date, it appears there were three discernable categories of noise/activity types and potential correlating behaviors:

- Noise or activity with no behavior;
- Noise or activity with small-scale behavior (by individuals, pairs, or small groups of herons); or
- Noise or activity with large-scale behavior (simultaneous behavior by a larger group of birds).

In addition, behaviors were noted during times with no observable noise or activity (no noise or activity with behavior).

Occurrences of observed behavior appear to have been most variable during noises or activities from:

- South March Point Road;
- Airplanes and boats; and
- T. Bailey operations.

However, behaviors were observed only some of the time during noise from these events.

Occurrences of observed behavior appear to have been most consistent when avian predators (bald eagles or red-tailed hawks) were in the vicinity of the heronry or lagoon. While a few instances of predator behavior (including circling, vocalizations, and perching) did not correlate with heron behavior, generally

these events appeared to disturb the group, as evidenced by observed large-scale behavior, such as simultaneous flushing and circling or vocalizations by multiple herons. This simultaneous behavior by multiple herons also occurred when at least one helicopter flew directly over the heronry.

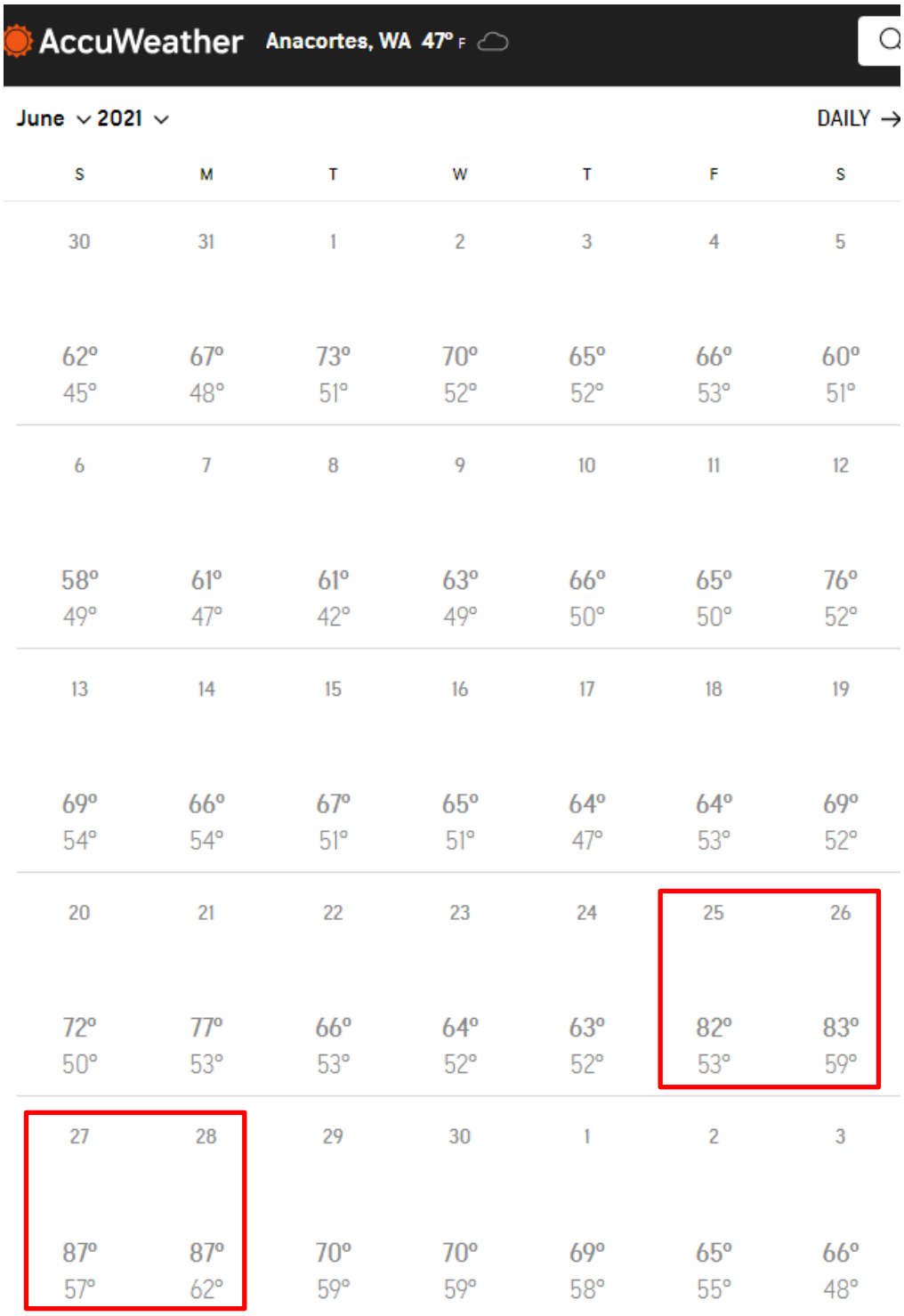
Results from Monitoring Periods 1 through 6 are summarized in this appendix. Unless otherwise noted, the behaviors listed are from the observer viewpoint focused on the heronry. Additionally, throughout the six monitoring period, many of the noises and/or activities occurred every day that observers were on-site.

Data tables are provided at the end of this appendix, with cumulative results from Monitoring Periods 1 through 4 provided in Table D-1. In addition, results from Monitoring Periods 1 through 4 are separated for each day of monitoring and provided in Tables D-2 through D-9. Data tables for Monitoring Periods 5 and 6 are not included because the herons were not observed using the March Point Heronry after July 3. Observations from this field effort were compared with observations provided by Skagit Land Trust to identify possible reasons for the absence of the herons during these two periods, which include the following:

- Aggressive eagle predation following hatching;
- The region-wide heat wave[1] (Figures D-1 and D-2) stressing the chicks or adults;
- The region-wide heat wave coupled with minus tides in Padilla Bay affecting foraging;
- Human disturbance (people entering heronry during the nesting season; a drone flying low etc.); and/or
- Some combination of the above.

[1] A record heat wave occurred across the region for approximately four days (June 25 through June 28) directly after the last day of Monitoring Period 4. Daily high temperatures recorded for this duration exceeded the average high temperature for the area (https://www.accuweather.com/en/us/anacortes/98221/june-weather/2253970?year=2021).

Figure D-1. June 2021 Temperatures in Anacortes, Washington



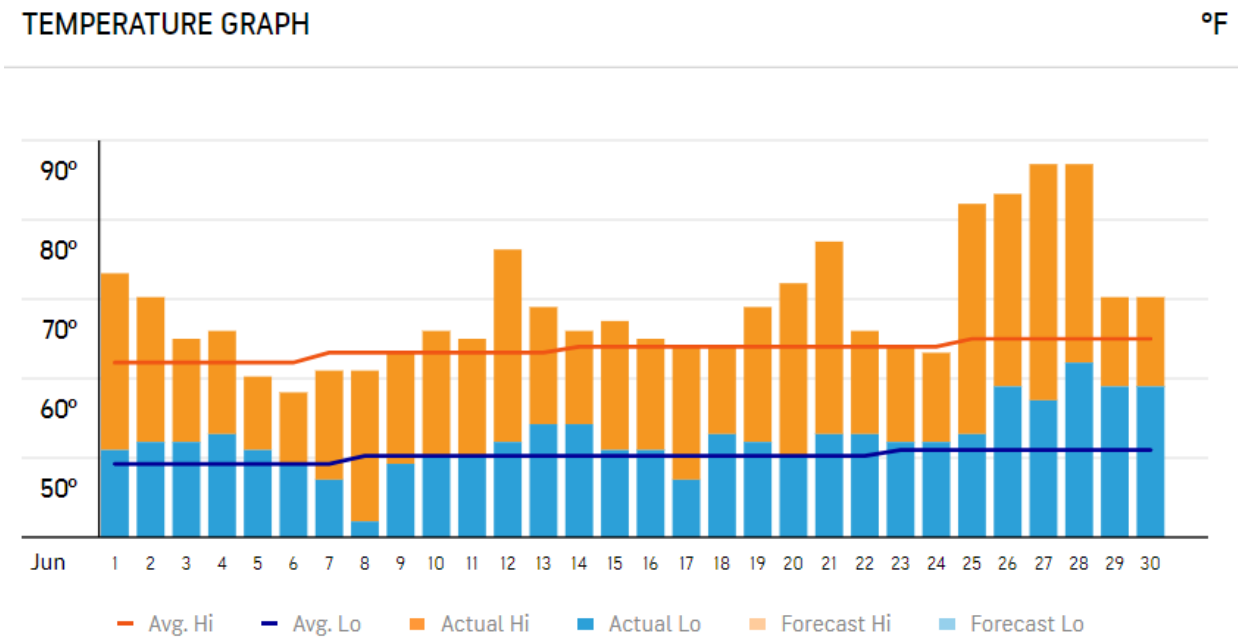
AccuWeather Anacortes, WA 47° F

June 2021 DAILY →

S	M	T	W	T	F	S
30	31	1	2	3	4	5
62° 45°	67° 48°	73° 51°	70° 52°	65° 52°	66° 53°	60° 51°
6	7	8	9	10	11	12
58° 49°	61° 47°	61° 42°	63° 49°	66° 50°	65° 50°	76° 52°
13	14	15	16	17	18	19
69° 54°	66° 54°	67° 51°	65° 51°	64° 47°	64° 53°	69° 52°
20	21	22	23	24	25	26
72° 50°	77° 53°	66° 53°	64° 52°	63° 52°	82° 53°	83° 59°
27	28	29	30	1	2	3
87° 57°	87° 62°	70° 59°	70° 59°	69° 58°	65° 55°	66° 48°

The area heatwave occurred between June 25 and June 28.
Data available at: https://www.accuweather.com/en/us/anacortes/98221/june-weather/2253970?year=2021.

Figure D-2. June 2021 Temperature Graph for Anacortes, Washington



As the graph indicates, there were 21 days above the average high temperature for the area.
The area heatwave occurred between June 25 and June 28.
Data available at: https://www.accuweather.com/en/us/anacortes/98221/june-weather/2253970?year=2021.

D.1.1 Monitoring Period 1

Heron behavior was observed during noise or activities from the T. Bailey facility operations and South March Point Road, during the presence of biologists and bald eagles, and possibly due to weather conditions (Tables D-2 and D-3). Other noises or activities that occurred when no apparent behaviors were observed included airplane and boat traffic, people and dogs walking in the inner lagoon and along South March Point Road, biologists and noise monitoring team presence on the landfill site, and a train horn.

Day 1: April 13 (12 p.m. to 4 p.m.)

- 12 p.m.–1 p.m.: Two herons flushed during operational noise from the T. Bailey facility.
- 12 p.m.–1p.m.: Three herons flushed for no observable reason.
- 1 p.m.–2 p.m.: Two herons flushed when a motorcycle passed on South March Point Road; the two herons may have returned after approximately eight minutes.
- 2 p.m.–3 p.m.: One heron flushed from the inner lagoon and flew towards the heronry when the biologist was walking on the landfill site.
- 2 p.m.–3 p.m.: Group vocalizations (chortles and screams) during nearby bald eagle activity (circling over the heronry, vocalizing, and perching near the heronry).
- 3 p.m.–4 p.m.: Ten herons circled the nest area for approximately one minute for an unknown reason; there were increased gusty winds at the time, and an equipment backup alarm from the T. Bailey site was audible just before the circling behavior began. Vocalizations (chortles) followed the circling behavior but could have been attributed to continued bald eagle presence.

Day 2: April 16 (9 a.m. to 1 p.m.)

- 9 a.m.–10 a.m.: One heron flushed when a semi-truck passed on South March Point Road.
- 9 a.m.–10 a.m.: Three herons flushed and six circled the nest area for no observable reason. Vocalizations (chortles) followed, and heron movement in the canopy was observed.
- 10 a.m.–11 a.m.: Four herons flushed during operational noise from the T. Bailey facility, followed by an additional flush of five herons that headed towards the inner lagoon during an equipment backup alarm from the facility.
- 10 a.m.–11 a.m.: Six herons flushed when a semi-truck passed on South March Point Road.
- 10 a.m.–11 a.m.: Six herons flushed, and three herons vocalized (chortles) for no observable reason.
- 11 a.m.–12 p.m.: Four herons flushed for no observable reason.
- 12 p.m.–1 p.m.: Three herons flushed during operational noise from the T. Bailey facility. Vocalizations (chortles and screams) followed, appearing to be more prevalent after cessation of the operational noise, and continued for approximately thirty minutes after the facility noises ended.
- 12 p.m.–1 p.m.: Vocalizations (chortles and screams) preceded a small flush of herons for no observable reason but could have been due to nearby red-tailed hawk/bald eagle presence (red-tailed hawk flying out of the heronry and bald eagle soaring overhead).

D.1.2 Monitoring Period 2

Heron behaviors were observed during red-tailed hawk/bald eagle presence, biologists' presence on the landfill site, traffic (South March Point Road, boat, and helicopters and planes over the heronry), during noise from T. Bailey operations, and possibly due to weather conditions (Tables D-4 and D-5). Other noises or activities that occurred when no apparent behaviors were observed included airplane and boat traffic, a train horn and alarm/siren from the T. Bailey facility.

Day 1: May 3 (2 p.m. to 6 p.m.)

- 2 p.m.–3 p.m.: Group vocalizations (screams) during red-tailed hawk activity (two circling the inner lagoon and one circling the outer lagoon).
- 3 p.m.–4 p.m.: Group vocalizations (chortles and screams) for no observable reason. A bald eagle then soared within the vicinity before landing near the heronry and two red-tailed hawks left the heronry.
- 4 p.m.–5 p.m.: Group vocalizations (chortles) by herons flying toward the lagoon.
- 5 p.m.–6 p.m.: Group vocalization (screams) during red-tailed hawk activity (flying within the vicinity of the heronry).

Day 2: May 5 (8 a.m. to 1 p.m.)

- 8 a.m.–9 a.m.: Five herons flushed from the landfill site and flew towards the heronry (with nesting material) due to biologists arriving on site.
- 8 a.m.–9 a.m.: Group vocalizations (chortles and screams) with no observable reason.
- 9 a.m.–10 a.m.: One heron flushed from the inner lagoon while a speed boat was in the Swinomish Channel.
- 9 a.m.–10 a.m.: Group vocalizations (chortles and screams) when a semi-truck passed on South March Point Road. Soon afterward, five herons flushed during noise from T. Bailey operations. Group vocalizations (chortles and screams) continued through most of the hour, and herons were observed circling the nest area for no observable reason.

- 10 a.m.–11 a.m.: Group vocalizations (chortles and screams) for no observable reason. Three herons were observed bringing nesting material or food back to the heronry.
- 11 a.m.–12 p.m.: Group vocalizations (chortles and screams) during bald eagle activity. A small flush of herons was observed during bald eagle activity (vocalizations and flying within the vicinity of the heronry).
- 11 a.m.–12 p.m.: Six herons flushed when a helicopter passed directly overhead; the herons returned after three minutes.
- 12 p.m.–1 p.m.: Vocalization (screams) during red-tailed hawk flying within the vicinity of the heronry. Bald eagle vocalization was also heard nearby.
- 12 p.m.–1 p.m.: An estimated 110 herons flushed from the outer lagoon for no apparent reason; the activity may have been caused by a nearby raptor activity.
- 12 p.m.–1 p.m.: One heron flushed as a plane flew overhead.

D.1.3 Monitoring Period 3

Heron behavior was observed during red-tailed hawk/bald eagle presence and the alarm/siren from the T. Bailey facility (Tables D-6 and D-7). Other noises or activities that occurred when no discernable behaviors were observed included traffic on South March Point Road, boat traffic, planes, helicopters, and noise from T. Bailey operations.

Day 1: June 1 (11 a.m. to 3p.m.)

- 11 a.m.–12 p.m.: Group vocalizations (screams and chortles) throughout most of the hour. Two herons circled the nest area during bald eagle activity (roosting nearby, vocalizing, and circling the heronry).
- 12 p.m.–1 p.m.: Group vocalizations (screams and chortles) prior to an estimated 23 herons flushing with most of the herons eventually returning back to the heronry—some headed toward the inner lagoon. Five herons circled the nest area during bald eagle activity (vocalizing, soaring overhead, and roosting nearby). Another 14 herons flushed and flew toward the inner lagoon during continued bald eagle activity.
- 1 p.m.–2 p.m.: An estimated 23 herons flew in from the inner lagoon and landed together in the heronry.
- 2 p.m.–3 p.m.: Group vocalizations (screams and chortles) prior to ten herons flushing during bald eagle and red-tailed hawk presence (bald eagles vocalizing, soaring overhead, and occasionally perching near roosting herons, as well as red-tailed hawks flying in and out of the heronry or within the vicinity).

Day 2: June 2 (11 a.m. to 3 p.m.)

- 11 a.m.–12 p.m.: Group vocalization (screams and chortles) were heard throughout most of the hour; 13 herons flushed, and five circled the nest area for approximately 1 minute before returning during bald eagle activity (included vocalizing).
- 11 a.m.–12 p.m.: An estimated 25 herons flushed and two circled the nest area during bald eagle activity (perching nearby, vocalizing, and soaring overhead). Most of the herons returned to the heronry following the flush event though some went toward the inner lagoon.
- 12 p.m.–1 p.m.: An estimated 67 herons flushed from the inner lagoon when a bald eagle landed on a piling; most herons returned to the lagoon immediately afterward.
- 12 p.m.–1 p.m.: A small group flushed during the alarm/siren from the T. Bailey operations.

- 12 p.m.–1 p.m.: Group vocalization (screams and chortles) prior to eight herons flushing during bald eagle and red-tailed hawk activity (bald eagle perched within the heronry with two vocalizing and soaring overhead; red-tailed hawks soaring nearby).
- 12 p.m.–1 p.m.: Vocalizations (screams and chortles) prior to a flush of three herons for no observable reason.
- 1 p.m.–2 p.m.: Vocalizations (screaming) prior to flush of ten herons (returned after one minute), and prior to one or two herons circling nest site (returned after one minute), during bald eagle activity (one perched within the heronry and others soaring from the heronry towards the inner lagoon).
- 2 p.m.–3 p.m.: Vocalization (screaming) prior to several small flushes (ranging between three to ten herons) over a two-minute period. Another 30 herons flushed with some moving to the inner lagoon but most returning to the heronry after one minute. These behaviors were observed during bald eagle presence.

D.1.4 Monitoring Period 4

Heron behavior was observed during noise or activities from the T. Bailey facility operations and people walking in the inner lagoon, and during the presence of bald eagles (Tables D-8 and D-9). Other noises or activities that occurred when no apparent behaviors were observed included traffic (South March Point Road, boat, helicopter, and planes), and biologists and noise monitoring team presence on the landfill site.

Day 1: June 21 (11 a.m. to 4 p.m.)

- 11 a.m.–12 p.m.: Group vocalizations (chortles and screams) during nearby bald eagle activity (circling over the heronry and vocalizing).
- 11 a.m.–12 p.m.: Two herons flushed from the inner lagoon as people were walking on a nearby island. Herons returned to the inner lagoon ten minutes later.
- 12 p.m.–1 p.m.: Group vocalizations (chortles) throughout the hour for no observable reason.
- 2 p.m.–3 p.m.: Group vocalizations (chortles) during nearby bald eagle activity (circling over the heronry and vocalizing).
- 3 p.m.–4 p.m.: One heron flushed from and then returned to the nest after approximately one minute during T. Bailey facility operational noise.
- 3 p.m.–4 p.m.: One heron flushed during nearby bald eagle activity (circling over the heronry).

Day 2: June 25 (7 a.m. to 11 a.m.)

- 7 a.m.–8 a.m.: Three herons flushed during nearby bald eagle activity (circling over the heronry and vocalizing). All three herons circled the nest area for approximately one minute before two flew toward the inner lagoon and one returned to the heronry.
- 8 a.m.–9 a.m.: Two herons circled the nest area for approximately one minute and an additional seven herons proceeded to leave nest area all at once headed west toward a nearby foraging sites for no observable reason.
- 8 a.m.–9 a.m.: Six herons flushed and flew west toward nearby foraging sites during nearby bald eagle activity (vocalizing).
- 9 a.m.–10 a.m.: One heron was observed flying along South March Point Road.

- 10 a.m.–11 a.m.: Two herons circled the nest area during bald eagle activity (vocalizing, circling the heronry, and perching nearby heronry). Group vocalizations (chortles) also occurred during bald eagle activity.

D.1.5 Monitoring Period 5

Few to no herons were observed during the period. Noise or activities that occurred when no apparent behaviors were observed included traffic (South March Point Road, boat, helicopters, and planes), bald eagle and red-tailed hawk presence, T. Bailey facility operations, and biologists and noise monitoring team presence on the landfill site. A record heat wave occurred across the region for approximately four days directly after the last day of Monitoring Period 4.

Day 1: July 3 (3 p.m. to 7 p.m.)

- Only six herons were observed from 3 p.m. to 4 p.m. at the start of the monitoring period in the inner lagoon prior to taking off toward the north where additional foraging sites are found. No additional herons were observed at either of the monitoring points throughout the entire period.

Day 2: July 6 (11 a.m. to 3 p.m.)

- No herons were observed at either of the monitoring points throughout the entire period.

D.1.6 Monitoring Period 6

No herons were observed throughout the monitoring period. For this reason, combined with the lack of herons observed during Monitoring Period 5, it was assumed that dispersal from the heronry was complete. Noise or activities that occurred included traffic (South March Point Road, boat, and planes), bald eagle presence, T. Bailey facility operations, and biologists and noise monitoring team presence on the landfill site. Due to the absence of herons at the monitoring sites after Day 1 of Monitoring Period 6, a Wood biologist searched nearby areas and found juvenile and adult herons using Fidalgo Bay to the northwest.

Day 1: July 27 (10 a.m. to 2 p.m.)

- No herons were observed at either of the monitoring points throughout the entire period.

Day 2: July 30 (7 a.m. to 11 a.m.)

- No herons were observed at either of the monitoring points throughout the entire period.

D.2 Biological Monitoring Data Tables

Cumulative results from Monitoring Periods 1 through 4 are provided in Table D-1 and discussed below. In addition, results from Monitoring Periods 1 through 4 are separated by day and provided in Tables D-2 through D-9. Data tables for Monitoring Periods 5 and 6 are not included because the herons were not observed using the March Point Heronry after July 3. For this analysis, only perceived reactions involving flushing and/or circling are included in the tables since those behaviors could be considered more indicative of a potential response to a disturbance than other observed behaviors (i.e., vocalizations of brief duration).

As shown in Table D-1, observers recorded a total of 272 unique events and 67 total perceived reactions, although a unique event could not be specifically identified for 35 of those perceived reactions. For the events that could be identified, the herons exhibited perceived response behavior at a rate of 11.8 percent (32 total perceived reactions to 272 total events).

Events that appeared to elicit the highest number of reactions (number of perceived reactions to the unique event per 67 total reactions) included unknown/unidentified events (52.2 percent) and avian predator presence (22.4 percent). The remaining events with perceived reactions included avian predator

vocalizations (7.5 percent), noise from the neighboring T Bailey facility (7.5 percent), people walking/talking (3 percent), aircraft (1.5 percent), boats (visual only) (1.5 percent), helicopters (1.5 percent), motorcycles (1.5 percent), and semi-trucks (1.5 percent). Also, of the 272 events, there were 32 where no clear response behavior was observed; these are represented by the seven event types shown at the end of Table D-1.

Most behaviors were observed in and around the heronry itself, with few observations of flushing and/or circling at the lagoon foraging sites. The observations recorded at the foraging site more frequently involved use of the lagoon north of the railroad tracks and closer to the islands located within Padilla Bay than the Whitmarsh Landfill site. There were only a few recorded observations of herons using the inner lagoon on the south side of the railroad tracks closest to the landfill site. This area often drains quite low during summer low tides, and it may not support extensive food sources. Overall, the herons appeared to react less frequently during noise events while using the foraging site than the heronry, apart from apparent disturbances from avian predators like bald eagles.

It should be noted that in an environment with events occurring simultaneously and/or repeating on a regular basis, combined with potential simultaneous reactions of various types by individuals or groups of herons, it can be difficult to record all information thoroughly at all times. For example, the number of events identified may be underrepresented for specific event types such as those from the T. Bailey facility and traffic. These events tended to be persistent throughout the entire monitoring period, and therefore may have only been recorded once instead of multiple times, depending on the circumstances of the period. Also, in the case of behaviors observed where no event was identified by the observer, it's reasonable to assume that the herons could have been reacting to something that was out of the viewpoint or hearing range of the observer or that what was observed was general heron behavior not in response to any particular event of interest, or possibly reactions to other herons.

While it's likely that not all noise events were recorded, as possibly evidenced by the unknown/unidentified events responsible for 52.2 percent of the perceived responses, 46 unique noise events were recorded from the T. Bailey facility (backup alarms and general industry noise) and only five perceived reactions (involving flushing and/or circling) to these noise events were observed. Given the similarities between the T. Bailey facility noise and the noise anticipated from construction activities at the Whitmarsh Landfill, a similar level and rate of reactions could be anticipated to occur during construction on the landfill site.

Table D-1. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Periods 1 through 4

March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Unknown/Unidentified	0	35	NA	NA	52.2
Avian Predator (Visual Only)	72	15	20.8	5.5	22.4
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	46	5	10.9	1.8	7.5
Avian Predator Vocalizations	30	5	16.7	1.8	7.5
Person Walking/Talking	15	2	13.3	0.7	3.0
Helicopter	7	1	14.3	0.4	1.5
Aircraft	34	1	2.9	0.4	1.5
Motorcycle	7	1	14.3	0.4	1.5
Semi-truck Passing/Braking	5	1	20	0.4	1.5
Passing Boat (Visual Only)	24	1	4.2	0.4	1.5
Boat Horn/Engine	3	0	0	0	0
Facility Alarm/Siren	4	0	0	0	0
Traffic (General)	13	0	0	0	0
Vehicle Horn	3	0	0	0	0
Emergency Vehicle Sirens	2	0	0	0	0
Train Horn/Passing	4	0	0	0	0
Wind	3	0	0	0	0
Total	**272**	**67**	**NA**	**11.8**	**NA**

Abbreviations:
NA = not applicable

Table D-2. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 1, Day 1 (4/13/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Unknown/Unidentified	NA	5	NA	NA	50
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	11	3	27.3	10.3	30
Motorcycle	2	1	50	3.5	10
Person Walking/Talking	2	1	50	3.5	10
Boat Horn/Engine	2	0	0	0	0
Facility Alarm/Siren	0	0	0	0	0
Helicopter	0	0	0	0	0
Aircraft	5	0	0	0	0
Traffic (General)	0	0	0	0	0
Vehicle Horn	0	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Semi-truck Passing/Braking	0	0	0	0	0
Train Horn/Passing	0	0	0	0	0
Wind	2	0	0	0	0
Avian Predator Vocalizations	1	0	0	0	0
Passing Boat (Visual Only)	0	0	0	0	0
Avian Predator (Visual Only)	4	0	0	0	0
Total	**29**	**10**	**NA**	**17.3**	**NA**

Abbreviations:
NA = not applicable

Table D-3. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 1, Day 2 (4/16/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Unknown/Unidentified	NA	7	NA	NA	77.8
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	10	1	10	2.3	11.1
Semi-truck Passing/Braking	2	1	50	2.3	11.1
Boat Horn/Engine	0	0	0	0	0
Facility Alarm/Siren	0	0	0	0	0
Helicopter	0	0	0	0	0
Aircraft	5	0	0	0	0
Motorcycle	4	0	0	0	0
Traffic (General)	4	0	0	0	0
Vehicle Horn	0	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Train Horn/Passing	2	0	0	0	0
Wind	0	0	0	0	0
Avian Predator Vocalizations	1	0	0	0	0
Person Walking/Talking	5	0	0	0	0
Passing Boat (Visual Only)	4	0	0	0	0
Avian Predator (Visual Only)	6	0	0	0	0
Total	**43**	**9**	**NA**	**4.6**	**NA**

Abbreviations:
NA = not applicable

Table D-4. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 2, Day 1 (5/3/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Unknown/Unidentified	NA	1	NA	NA	100
Avian Predator (Visual Only)	6	0	0	0	0
Aircraft	4	0	0	0	0
Traffic (General)	4	0	0	0	0
Person Walking/Talking	2	0	0	0	0
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	1	0	0	0	0
Motorcycle	1	0	0	0	0
Vehicle Horn	1	0	0	0	0
Semi-truck Passing/Braking	1	0	0	0	0
Wind	1	0	0	0	0
Boat Horn/Engine	0	0	0	0	0
Facility Alarm/Siren	0	0	0	0	0
Helicopter	0	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Train Horn/Passing	0	0	0	0	0
Avian Predator Vocalizations	0	0	0	0	0
Passing Boat (Visual Only)	0	0	0	0	0
Total	**21**	**1**	**NA**	**0**	**NA**

Abbreviations:
NA = not applicable

Table D-5. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 2, Day 2 (5/5/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Unknown/Unidentified	NA	15	NA	NA	60.0
Avian Predators (Visual Only)	3	3	100	6.5	12.0
Avian Predators Vocalizations	3	2	66.7	4.3	8.0
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	4	1	25	2.2	4.0
Helicopter	3	1	33.3	2.2	4.0
Aircraft	8	1	12.5	2.2	4.0
Person Walking/Talking	2	1	50	2.2	4.0
Boat Passing (Visual Only)	11	1	9.1	2.2	4.0
Boat Horn/Engine	1	0	0	0	0
Facility Alarm/Siren	3	0	0	0	0
Motorcycle	0	0	0	0	0
Traffic (General)	3	0	0	0	0
Vehicle Horn	1	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Semi-truck Passing/Braking	2	0	0	0	0
Train Horn/Passing	2	0	0	0	0
Wind	0	0	0	0	0
Total	**46**	**25**	**NA**	**21.8**	**NA**

Abbreviations:
NA = not applicable

Table D-6. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 3, Day 1 (6/1/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Avian Predators (Visual Only)	17	5	29.4	14.7	100
Unknown/Unidentified	NA	0	NA	NA	0
Boat Horn/Engine	0	0	0	0	0
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	0	0	0	0	0
Facility Alarm/Siren	0	0	0	0	0
Helicopter	2	0	0	0	0
Aircraft	2	0	0	0	0
Motorcycle	0	0	0	0	0
Traffic (General)	0	0	0	0	0
Vehicle Horn	0	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Semi-truck Passing/Braking	0	0	0	0	0
Train Horn/Passing	0	0	0	0	0
Wind	0	0	0	0	0
Predator Avian Vocalizations	6	0	0	0	0
Person Walking/Talking	0	0	0	0	0
Boat Passing (Visual Only)	7	0	0	0	0
Total	**34**	**5**	**NA**	**14.7**	**NA**

Abbreviations:
NA = not applicable

Table D-7. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 3, Day 2 (6/2/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Avian Predator (Visual Only)	17	5	29.4	19.2	50
Unknown/Unidentified	NA	3	NA	NA	30
Avian Predator Vocalizations	6	2	33.3	7.7	20
Boat Horn/Engine	0	0	0	0	0
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	0	0	0	0	0
Facility Alarm/Siren	1	0	0	0	0
Helicopter	0	0	0	0	0
Aircraft	0	0	0	0	0
Motorcycle	0	0	0	0	0
Traffic (General)	0	0	0	0	0
Vehicle Horn	0	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Semi-truck Passing/Braking	0	0	0	0	0
Train Horn/Passing	0	0	0	0	0
Wind	0	0	0	0	0
Person Walking/Talking	0	0	0	0	0
Boat Passing (Visual Only)	2	0	0	0	0
Total	**26**	**10**	**NA**	**26.9**	**NA**

Abbreviations:
NA = not applicable

Table D-8. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 4, Day 1 (6/21/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Avian Predator (Visual Only)	6	1	16.7	3.7	100
Unknown/Unidentified	NA	0	0	NA	0
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	10	0	0	0	0
Avian Predator Vocalizations	4	0	0	0	0
Person Walking/Talking	4	0	0	0	0
Facility Alarm/Siren	0	0	0	0	0
Aircraft	1	0	0	0	0
Traffic (General)	1	0	0	0	0
Vehicle Horn	1	0	0	0	0
Boat Horn/Engine	0	0	0	0	0
Helicopter	0	0	0	0	0
Motorcycle	0	0	0	0	0
Emergency Vehicle Sirens	0	0	0	0	0
Semi-truck Passing/Braking	0	0	0	0	0
Train Horn/Passing	0	0	0	0	0
Wind	0	0	0	0	0
Boat Passing (Visual Only)	0	0	0	0	0
Total	**27**	**1**	**NA**	**3.7**	**NA**

Abbreviations:
NA = not applicable

Table D-9. Events and Perceived Heron Reactions (Flushing & Circling) – Monitoring Period 4, Day 2 (6/25/21)
March Point Heronry, Anacortes, WA

Event Type	Events (#)	Perceived Reactions (#)	Perceived Reactions/ # Unique Event (%)	Perceived Reactions/ Total # Events (%)	Perceived Reactions/ Total # Reactions (%)
Unknown/Unidentified	NA	4	NA	NA	66.7
Avian Predator (Visual Only)	13	1	7.7	2.2	16.7
Avian Predator Vocalizations	9	1	11.1	2.2	16.7
T Bailey Facility Noise (Backup Alarms, General Industry Noise, Other)	10	0	0	0	0
Person Walking/Talking	0	0	0	0	0
Facility Alarm/Siren	0	0	0	0	0
Aircraft	9	0	0	0	0
Traffic (General)	1	0	0	0	0
Vehicle Horn	0	0	0	0	0
Boat Horn/Engine	0	0	0	0	0
Helicopter	2	0	0	0	0
Motorcycle	0	0	0	0	0
Emergency Vehicle Sirens	2	0	0	0	0
Semi-truck Passing/Braking	0	0	0	0	0
Train Horn/Passing	0	0	0	0	0
Wind	0	0	0	0	0
Boat Passing (Visual Only)	0	0	0	0	0
Total	**46**	**6**	**NA**	**4.4**	**NA**

Abbreviations:
NA = not applicable

Appendix E

Construction Noise Modeling

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Oakville, Ontario L6H 6X7
Canada
T: 905-568-2929
www.woodplc.com

Technical Memo

To:	Tim Reinhardt, Wood	**Date:**	December 03, 2021
From:	Mohammad Abushanab, Wood		
CC:	Koorus Tahghighi, Wood		
	Buddy Ledger, Wood		
Ref:	PS21204410.03		
Re:	Whitmarsh Landfill PLP Group – Construction Noise Model Anacortes, Washington		

1.0 Introduction

This memorandum presents the results of noise modelling of the proposed construction operations at the Whitmarsh Landfill. The noise modelling was completed to predict the noise levels resulting from construction activities associated with the anticipated construction equipment operation at the March Point Heronry. The noise modelling was completed using the Cadna/A sound propagation and prediction software package, published by Datakustik GmbH. The Cadna/A noise modelling was configured to implement the ISO 9613-2 environmental sound propagation algorithms. Noise levels were predicted for two (2) locations at the boundary of the March Point Heronry and a third location to represent the intertidal foraging zones along the northern boundary of the site. The two locations (receptors) at the March Point Heronry were chosen such that they were at points on the heronry boundary which correspond to the closest locations with respect to the proposed construction. The intent of the noise model was to predict and compare the predicted noise levels with the measurements from the noise monitoring program during the spring and summer of 2021. The noise model receptors correspond to the same locations utilized for the noise monitoring program resulting in the ability to make direct comparisons.

2.0 Noise Impact Assessment

2.1. Methodology

To provide an accurate prediction of sound levels at the identified receptors, due to noise emissions from a specific source(s), the modelling considered the following factors:

- Source sound power level and directivity;
- Distance attenuation;
- Source-receptor geometry, including heights and elevations;
- Barrier effects of surrounding buildings and topography; and
- Ground and air (atmospheric) attenuation.

2.2. Noise Sources

Table 1 lists the assumed pieces of equipment to be used at the Whitmarsh Landfill site and their average maximum noise levels at 50 feet. The noise levels were obtained from the Washington State Biological Assessment Preparation Manual, specifically "Chapter 7.0 Construction Noise Impact Assessment"[1]. The resulting sound power level (PWL) corresponding to the average maximum sound pressure level (average L_{max} for an activity) at 50 feet was calculated for each source, assuming hemi-spherical divergence over a reflecting plane (ground) from a point source of sound. The resulting point source sound power levels are also provided in Table 1. Figure 1 illustrates the noise sources identified at the site.

Table 1: Construction Equipment List and Noise Emission Levels

Equipment	Quantity	L_{max} at 50 feet (dBA)	Sound Power Level (PWL, dBA)
Dump Truck	2	91	123
Excavator	1	87	119
Flatbed Truck	2	81	113
Dozer	1	86	118
Generator-5KVA	1	73	105
Trash Pumps	3	74	106

For the purposes of the noise modelling and to predict a worst-case scenario, it was assumed that all pieces of equipment would be operating simultaneously. Should the equipment used during construction differ from the above assumptions, exceed the reference maximum noise level or the corresponding equivalent sound level, an update to the noise assessment or further detailed study may be required.

2.3. Receptors

Noise levels were predicted at three (3) receptors, which correspond to the locations of the following noise monitoring sites:

- Noise monitoring site SW, near the western extent of the heronry, south of March Point Road;
- Noise monitoring site SE, near the eastern extent of the heronry, south of March Point Road;
- Noise monitoring site N, near the northern boundary of the Whitmarsh Landfill site, to represent the intertidal foraging zones along the boundary with the Swinomish Tribal lands to the east.

3.0 Modeling Results

The predicted noise level at each receptor is presented in Table 2. The noise metric used to assess the off-site exposure is the A-weighted one-hour equivalent sound level (L_{eq}-1h), assuming 100% equipment utilization, which corresponds to the average maximum noise level (L_{max}) for the same period. The predicted values are compared to the L_{max} values measured during the noise monitoring program as the equipment average maximum noise level (L_{max}) was used to predict the noise impact at the receptors.

Table 2: Summary of Noise Modeling Results

Receptors	Predicted Noise Level L_{max} (dBA)
SE (Nesting Area)	69
SW (Nesting Area)	62
N (Foraging Area)	56

Note: The predicted noise level is based on 100% equipment utilization

According to the results, the predicted noise levels do not exceed the upper tolerance limit (UTL) of the recorded L_{max}. Therefore, the activities from the landfill are not expected to negatively impact the Heronry or exceed the existing maximum levels.

4.0 Conclusion

Noise modeling was conducted for construction activities and the anticipated equipment at the Whitmarsh Landfill site to predict the noise impact at the March Point Heronry.

This document is intended for the purpose of documenting environmental monitoring programs and supporting environment management of the Whitmarsh Landfill Project, specifically noise control. The findings and interpretations as outlined herein are based on the expertise of Wood and their representative specialists based on information available at the time of document preparation.

Should you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Wood Environment & Infrastructure Solutions, a Division of Wood Canada Limited

Prepared by:

Mohammad Abushanab, M. Eng.
Specialist, Acoustics & Vibration

Reviewed by:

Buddy Ledger, M.A.Sc., P.Eng., INCE
Discipline Lead, Acoustics & Vibration

Attachments

Figure 1: Aerial Map with Noise Source & Receptor Locations

5.0 References

1. Biological Assessment Preparation Manual. Chapter 7.0 Construction Noise Impact Assessment. Washington State Department of Transportation 2020.

PADILLA BAY

STAGING AREA GENERATOR 5kva

NOISE MONITORING SITE: N

APPROXIMATE EXTENT OF SOLID WASTE

BNSF RAILROAD

PADILLA BAY INNER LAGOON

EXISTING ROADWAY

GATE

P19687

EXISTING CULVERT

P19712

APPROXIMATE EXTENT OF SOLID WASTE

DELIVERY TRUCK

DOZER

DUMP TRUCK

TREATMENT AREA WITH PUMPS

GROUNDWATER EXTRACTION TRENCH

SWINOMISH INDIAN TRIBAL LANDS

EXCAVATOR

PARCEL#: P19677 QUATTRO PROPERTIES LLC

PARCEL#: P19675 QUATTRO PROPERTIES LLC

NOISE MONITORING SITE: SW

EXISTING CULVERT

PARCEL#: P104357 SKAGIT LAND TRUST

S MARCH POINT RD

NOISE MONITORING SITE: SE

EXISTING CULVERT

MONITORING POINTS ALONG PROPERTY LINE

PARCEL#: P19684 MOON CHARLES CREDIT TRUST & MOON M ELLEN TRUSTEE

HERONRY NESTING AREA

PARCEL#: P19763 SALISH TRUST

PARCEL#: P19763 SALISH TRUST

PARCEL#: P19675 QUATTRO PROPERTIES LLC

PARCEL#: P19765 SKAGIT LAND TRUST

STATE ROUTE 20

EXPLANATION

- PARCEL LINE
- STORMWATER SWALE CENTERLINE
- APPROXIMATE EXTENT OF SOLID WASTE (15.3 ACRES)
- GROUNDWATER EXTRACTION TRENCH
- 25 — ELEVATION CONTOUR IN FEET (5FT INTERVALS) (MLLW) (OFFSITE CONTOURS APPROXIMATED FROM USGS TOPOGRAPHIC MAP)
- EXISTING STRUCTURE
- EXISTING CONCRETE SLAB
- EXISTING CONCRETE PAD

0 75 150

APPROXIMATE SCALE IN FEET

NOISE SOURCES AND RECEPTORS
Heron Management Plan
March Point (Whitmarsh) Landfill
Skagit County, Washington

By: APS	Date: 02/11/22	Project No. PS21204410
wood.		Figure 1

Plot Date: 02/11/22 - 2:56pm, Plotted by: adam.stenberg
Drawing Path: C:\Users\adam.stenberg\OneDrive - Wood PLC\Wood\Whitmarsh\, Drawing Name: Whitmarsh-MarchPoint_Design_012822.dwg

Appendix F

March Point Heronry Behavioral Monitoring Log

Figure x

March Point Heronry Behavioral Monitoring Log

Monitor:		**Location (GPS Coords):**		
Weather:				
Time	**Activity**	**Response**	**Number of Herons**	**Notes**

Activity Code: LF = Landfill Site, RR = Railroad, MP= March Point Rd, E = Equipment, S = Sound, V = Visual, T= Trespass, IN = Sudden Loud Noise

Response Codes: NN = None, V/C = Chortle, V/S = Scream, FH = Flush, CI = Circling, AW = Away, RE ( ) = Return (in minutes), NR = No Return