

# MACKENZIE.

February 28, 2023

Columbia County Land Development Services  
Attention: Hayden Richardson, Planning Division Manager  
445 Port Avenue  
St. Helens, OR 97051

Re: **NEXT Renewable Fuels**  
*Traffic Analysis Update*  
Project Number 2200315.03

Dear Hayden:

Mackenzie has prepared this letter to demonstrate that the conclusions of the January 14, 2021, Transportation Impact Analysis (TIA) prepared for the NEXT Renewable Fuels facility at Port Westward Industrial Park (Port Westward) continue to apply, and no further transportation analysis is warranted to support the applicant's proposed site modifications.

## INTRODUCTION

In March 2022, the County Board of Commissioners (Board) approved applications for Design Review and Variance (DR 21-03 and V 21-05) for a renewable diesel production facility in the RIPD zone at Port Westward proposed by NEXT Renewable Fuels. The Board also approved a Conditional Use Permit (CU 21-04) for a rail branchline within the PA-80 zone, south of the driveway to Hermo Road. As a result of an appeal to the Oregon Land Use Board of Appeals (LUBA) for CU 21-04, NEXT Renewable Fuels is now proposing modifications to the approved Design Review application. The modifications would relocate the rail tracks, tree buffer, and storm facilities northward from the PA-80 zone into the RIPD zone. The modifications would not alter the remainder of the facility.

Since the approved TIA is approximately two years old, this letter analyzes whether any updates to the report are needed to support the proposed site modifications.

## TRIP GENERATION

Trip generation estimates for the approved NEXT Renewable Fuels renewable diesel production facility were summarized from Mackenzie's January 14, 2021 TIA prepared for the subject site. Table 1 summarizes the trip generation from the TIA, which were prepared using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition and applying the "Manufacturing" (ITE LUC 140) facility analysis on a "per employee" basis for 223 employees.



TABLE 1 – TRIP GENERATION ESTIMATES FROM ITE TRIP GENERATION MANUAL, 10TH EDITION									
Land Use	ITE LUC	Size	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	140	223 employees	67	24	91	33	51	84	667

The Trip Generation Manual, 11th Edition, is the most current source of trip rates and was therefore utilized to estimate updated trip counts for comparison purposes. Consistent with the TIA, the updated trip generation estimates were prepared based on the estimated staff count of 223 employees. The results of this analysis are presented in Table 2.

TABLE 2 – TRIP GENERATION ESTIMATES FROM ITE TRIP GENERATION MANUAL, 11TH EDITION									
Land Use	ITE LUC	Size	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	140	223 employees	61	22	83	30	50	80	660

The updated trip generation estimates reflect a nine percent reduction of AM Peak Hour trips (eight fewer trips), a five percent reduction of PM Peak Hour trips (four fewer trips), and a one percent reduction of average daily trips (seven fewer trips). Based on this comparison, the trip generation in the January 14, 2021, TIA is slightly higher and thus is more conservative than if the trip generation were performed using the latest Trip Generation Manual. Consequently, off-site impacts are projected to be less significant than originally presented in the January 14, 2021, TIA.

The proposed site modifications are not anticipated to affect total vehicle trips since the modifications do not alter staffing levels.

**Truck Trips**

The trip generation figures provided above include truck trip estimates. NEXT Renewable Fuels expects up to 20 trucks to access the site daily. Most of the 20 trucks are expected to be single-unit trucks making deliveries. Up to five semi-trucks will carry clay to the site per day, and one additional semi-truck will account for an additional delivery per day, for a total of six semi-trucks per day.

The proposed site modifications are not anticipated to affect truck trips since the modifications do not alter staffing levels.

**OPERATIONAL ANALYSIS**

The 2021 TIA performed intersection operation analysis for six intersections, concluding that “all intersections currently meet, and are projected to continue to meet County and ODOT mobility standards with the proposed project trips.” The TIA also performed queuing analysis for the same six intersections, concluding that “existing queues are currently accommodated within the available storage. Future queues are also projected to be accommodated within existing storage areas.”



Traffic volumes were conducted in November 2020 for the 2021 TIA, with a COVID adjustment of 1.08 to reflect anticipated 2020 volumes and a seasonal adjustment of 1.32 to reflect peak summer traffic conditions. The latest ODOT volumes for the same location used to calculate the COVID adjustment show 2021 volumes are only up one percent from 2019 volumes. This change in volumes, coupled with the slight reduction in trip generation based on the latest Trip Generation Manual, would result in little, if any, change in the capacity and queuing results. Therefore, these conclusions are still valid even with the proposed site modifications, and no additional mitigation is merited.

## CONCLUSION

The proposed NEXT Renewable Fuels facility was approved by Columbia County in March 2022, with the supporting Transportation Impact Analysis based on the ITE Trip Generation Manual, 10th Edition. Updated trip generation estimates for the proposed facility were prepared using updated trip generation rates presented in ITE's Trip Generation Manual, 11th Edition, resulting in eight fewer AM peak hour, four fewer PM peak hour, and seven fewer daily trips. Due to the decreased site trips and slight increase in existing traffic volumes, off-site impacts are projected to be similar to those originally presented in the January 2021 TIA. Furthermore, the proposed site modifications are not anticipated to affect vehicle trips since the modifications do not alter staffing levels. Therefore, the conclusions of the 2021 TIA continue to apply, and no further transportation analysis is necessary to support the applicant's proposed site modifications.

No changes are proposed to the Transportation related conditions of approval from DR 21-03:

- #6 limits the facility to 20 truck trips per day for feedstock and/or fuel products.
- #7 limits the number of railcars and size of trains.
- #14 requires improvements to Hermo Road.
- #15 requires streetlights at three locations.

Please contact me at [bahrend@mcknze.com](mailto:bahrend@mcknze.com) or 971-346-3781 if you have any questions or comments regarding the information presented in this letter.

Sincerely,

Brent T. Ahrend, PE  
Associate Principal | Traffic Engineer

- c: Christopher Efird, Gene Cotten – NEXT Renewable Fuels  
Garrett Stephenson – Schwabe, Williamson & Wyatt  
Brian Varricchione – Mackenzie

