



The North DuSable Lake Shore Drive (NDLSD) Phase I Study is currently evaluating the five remaining NDLSD Build Alternatives (“Level 3 Screening”). As part of this evaluation, nearly 30 different criteria are being considered, including Performance, Social, Economic and Environmental factors. The project team has separated criteria into two categories: 1) distinguishing criteria that contain results that vary amongst alternatives, and 2) non-distinguishing criteria that contain results that are the same or similar amongst alternatives. This Study Spotlight addresses Environmental Justice and Equity, non-distinguishing Level 3 Screening criterion. For additional details regarding the overall Phase I Study, please visit the project website at [northdusablelakeshoredrive.org](http://northdusablelakeshoredrive.org).

## WHAT IS ENVIRONMENTAL JUSTICE AND EQUITY?

Environmental Justice (EJ) and Equity are related concepts in that they both seek to protect minority and low income populations. EJ includes identifying and addressing disproportionate impacts to these communities, while Equity includes ensuring that the distribution of benefits or impacts is fair. Both assessments have been developed through the lens of the NDLSD transportation project.

The Environmental Justice/Equity criteria were presented at [Task Force Meeting #12](#) (Spring 2021) and was further discussed at the [Small Group Task Force Workshop Meetings](#) (Summer 2022). The project team presented proposed evaluation criteria, including travel costs and net changes in community green space. Stakeholders were supportive of the criteria presented, while also suggesting additional criteria, including east-west access, tree impacts, the effects of the lane drop north of Irving Park Road, and considering a broader study area.



### Environmental Justice Assessment

The principles of Environmental Justice are broadly embodied in many federal laws and policies, dating back to the Civil Rights Act of 1964. However, Executive Order 12898 (1994) was the first step toward a focused Environmental Justice policy and directed all federal agencies to include achieving Environmental Justice in its mission. IDOT and CDOT have adopted the same approach with respect to addressing Environmental Justice.

For transportation projects, Environmental Justice concerns historically have been related to direct impacts, such as residential and commercial displacements, loss of access to public facilities, or reducing community connectivity. Indirect effects, such as spill back congestion can also be an EJ concern. The NDLSD Alternatives do not result in any direct impacts or any measurable indirect impacts. However, given the high level of stakeholder interest in this issue, the project team has assessed potential indirect effects through an Environmental Justice lens in more depth.

#### What is considered a disproportionate impact?

If impacts to an Environmental Justice population are more severe or greater in magnitude as compared to other populations, the impact would be considered to be disproportionate.

#### How were Environmental Justice Communities identified?

Maps developed by State and Federal Agencies were used as an initial screening tool to identify potential EJ communities, followed by a review of US Census data and stakeholder outreach. EJ communities were identified at the census tract scale using the following thresholds:

- Minority or low income populations are two times greater than the statewide averages.
- Minority or low income populations are 50% or greater.
- Minority or low income population is 25% greater than the City of Chicago averages.

Multiple census tracts in the Edgewater and Uptown community areas near the NDLS D study area were consistently identified as EJ communities across all of the data sources used. Stakeholder outreach to these communities has included numerous overall project meetings as well as a series of community specific meetings in both Uptown and Edgewater. Summaries of those meetings and improvement concepts can be found [here](#). Given the limitations of the available data, the EJ assessment focused on the Edgewater and Uptown communities as a whole, rather than attempting to assess effects at an individual census tract scale. Based on the assessment, which is summarized below, no disproportionate impacts were identified.



Criterion	Environmental Justice Assessment Summary
Safety	<ul style="list-style-type: none"> <li>• Under existing conditions, the most severe vehicular safety problems occurred south of the Edgewater and Uptown communities.</li> <li>• For non-motorized travel, some of the most severe crashes were in the Uptown community. The potential for these types of crashes have been reduced by the Chicago Park District’s Lakefront Trail improvements in 2018 and will be further reduced as part of additional Lakefront Trail improvements included in the NDLS D project.</li> <li>• All NDLS D Alternatives include a common set of improvements that will reduce the potential for fatal and severe crashes for all modes of travel throughout the NDLS D corridor (for more information, please see the <a href="#">Safety Study Spotlight</a> on the project website).</li> </ul>
Mobility	<ul style="list-style-type: none"> <li>• All NDLS D Alternatives will improve transit mobility and reliability as well as non-motorized mobility throughout the corridor.</li> <li>• For more information, please see the <a href="#">Transit Spotlight</a> and <a href="#">Park Access Study Spotlight</a> on the project website.</li> <li>• A lane reduction on the Outer Drive north of Irving Park Road, which is associated with the Essential and Addition Alternatives, would not impact mobility for vehicles using the general purpose lanes.</li> </ul>
Access	<ul style="list-style-type: none"> <li>• All NDLS D Alternatives maintain or improve vehicular, transit and non-motorized access (for more information, please see the <a href="#">Access Study Spotlight</a> on the project website).</li> </ul>
Economic Effects	<ul style="list-style-type: none"> <li>• All NDLS D Alternatives avoid direct impacts to commercial and residential properties.</li> <li>• All NDLS D Alternatives would maintain or improve travel for transit and non-motorized work trips.</li> <li>• The available data was not sufficient to correlate poverty status, minority status, and individual trip origins and destinations. As such, a quantitative evaluation of travel costs (e.g., tolling, congestion) within or beyond the study area was not feasible.</li> </ul>
Green Space	<ul style="list-style-type: none"> <li>• All NDLS D Alternatives result in a net increase in green space in the Edgewater and Uptown communities. This is accomplished by reducing the number of lanes on NDLS D north of Irving Park Road (Essential and Addition Alternatives) and compressing junction footprints for all alternatives.</li> </ul>
Trees	<ul style="list-style-type: none"> <li>• For all NDLS D Alternatives the Edgewater and Uptown communities would have the relatively lowest percentage of trees removed and replaced as compared to the other study area communities.</li> <li>• Affected trees would be replaced on a minimum 1:1 basis.</li> </ul>
Air Quality and Traffic Noise	<ul style="list-style-type: none"> <li>• The NDLS D project concept conforms to National Ambient Air Quality Standards</li> <li>• All NDLS D Alternatives include design features that reduce traffic noise impacts compared to the No Build scenario.</li> <li>• For more information, please see the <a href="#">Air and Noise Study Spotlight</a> on the project website.</li> </ul>
Natural and Cultural Resources, Aesthetics	<ul style="list-style-type: none"> <li>• All NDLS D Alternatives avoid or minimize direct natural resource impacts.</li> <li>• All NDLS D Alternatives will be designed to respect the historic and cultural context of the park.</li> <li>• Visualizations will be prepared and shared with stakeholders to build a broad consensus regarding aesthetics and to meet the requirements of Section 106 of the National Historic Preservation Act.</li> </ul>

<sup>1</sup>Source: CMAP Community Snapshots (July 2022)

## Equity Assessment

The principle of Equity is also embodied in federal, state and City policies and requirements, and includes determining whether project benefits or impacts are distributed fairly. A summary of the project team’s equity assessment follows.

### City-Wide Perspective

From a city-wide perspective, many lakefront transportation improvement projects have been undertaken affecting other sections of the Outer Drive throughout the City of Chicago, including within the Museum Campus, along other parts of South Lake Shore Drive, South Lake Shore Drive pedestrian bridge improvements, the South Lake Shore Drive extension within and near the former US Steel property, and various shoreline protection projects along the lakefront. Through these projects, improvements to portions of DuSable Lake Shore Drive that are adjacent to relatively larger Environmental Justice populations have been made prior to the NDLSL project.

### NDLSL Study Area Perspective

Impacts are distributed throughout the corridor and would not necessarily affect one area disproportionately to another. The lane reduction north of Irving Park Road, which is associated with the Essential and Addition Alternatives, *would not* impact general purpose lane mobility because the remaining roadway capacity would continue to be adequate to serve forecasted demand. Based on the available data and considering stakeholder input, the distribution of benefits focused on non-motorized access to the lakefront, transit access to the lakefront, and green space have been assessed and are summarized as follows.



### Non-motorized Access to the Lakefront (East-West)

This criterion compares the number of existing and proposed east-west access points between the lakefront and adjacent neighborhoods. Key findings are summarized as follows:

- All NDLSL Alternatives improve the existing east-west access points as well as adding new access points.
- All communities have the same or increased access to the lakefront.
- Rebuilding existing access points will provide substantial benefits including ADA compliance, improved lighting, and more spacious and inviting passageways.
- Near North community has the highest volumes of people accessing the lakefront across NDLSL and will also have the greatest number of crossings.
- Through public engagement a consensus has been reached regarding the basic project features in the Edgewater and Uptown communities, including the number of crossings shown on the chart.

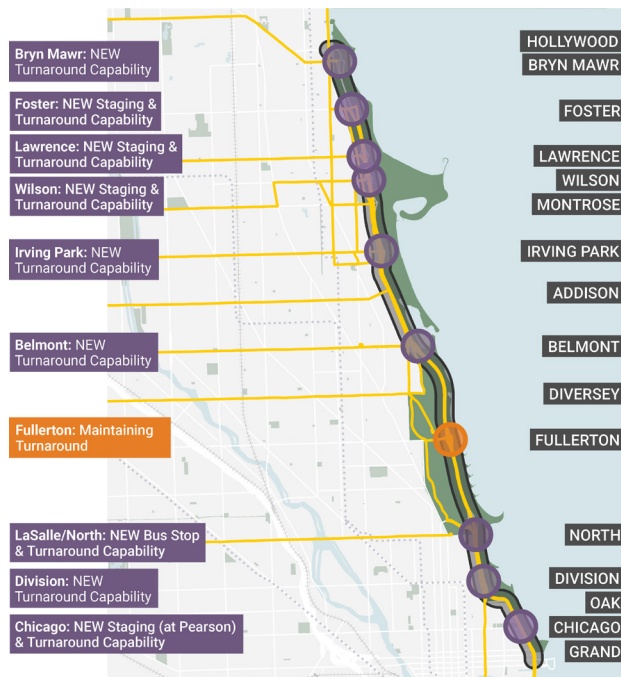
*Therefore, no equity impacts were identified.*

Community Area	Number of East-West Access Points	
	Existing Conditions	Proposed Conditions
Edgewater	3	4
Uptown	6	6
Lakeview	5	5
Lincoln Park	4	6
Near North	6	8

### Transit Access to the Lakefront (East-West)

As shown, there will be a total of 9 new or improved locations for bus turnaround operations to improve lakefront access for transit users. Five of these locations will be within the Edgewater and Uptown communities.

*Therefore, no equity impacts were identified.*



## Green Space

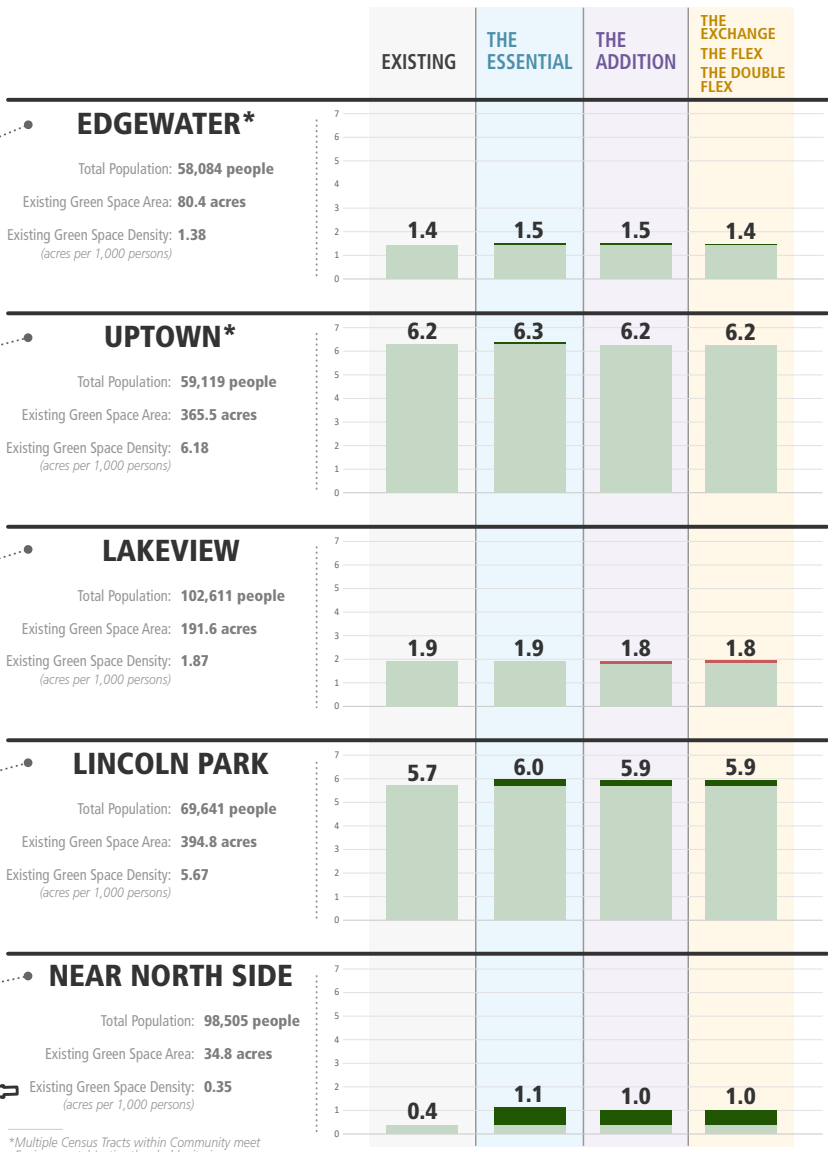
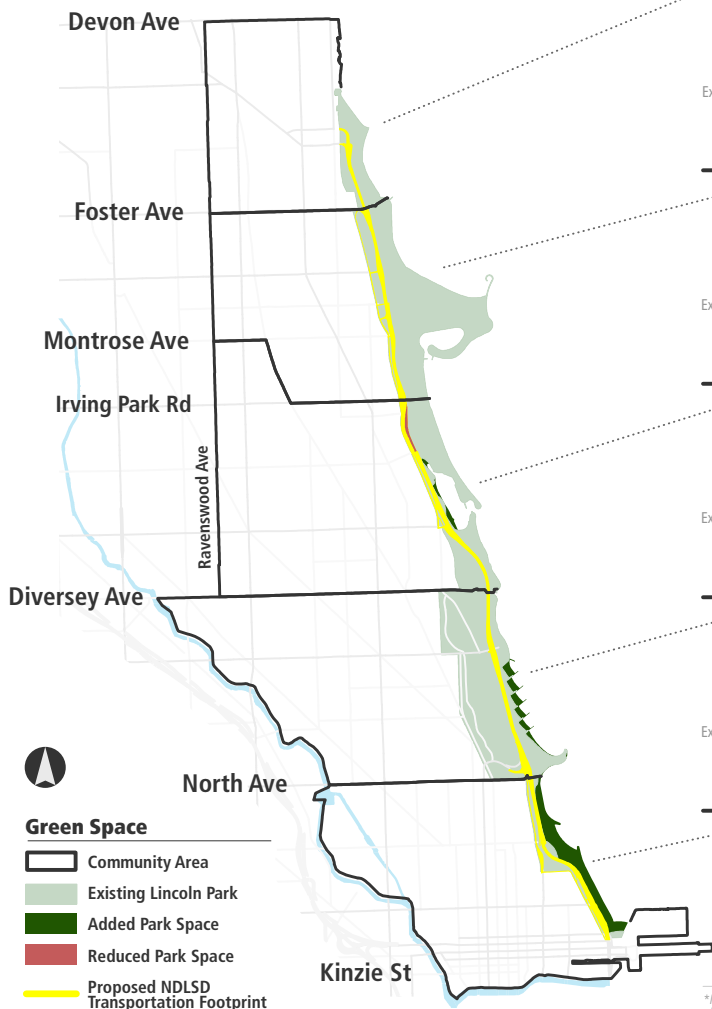
The green space assessment used a density metric, expressed in acres per 1,000 persons, rather than simply comparing acreages. The density metric allows for a direct comparison of effects between communities of differing sizes. Key findings are summarized as follows:

- The Edgewater and Uptown communities would have increased green space density for all Alternatives. This is accomplished by reducing the number of lanes on NDLS north of Irving Park Road (Essential and Addition Alternatives) and compressing junction footprints for all alternatives.
- The Near North community would have the relative greatest increase in lakefront green space density. However, it is important to note that (1) the lakefront green space density under both existing and proposed conditions in this community is the lowest in the study area, and, (2) the ability to significantly increase lakefront green space in the Near North community is driven by the need for shoreline protection improvements.
- Shoreline protection improvements will benefit all communities by eliminating or reducing weather related road closures, which create spill back congestion throughout the network along the lakefront.

Therefore, no equity impacts were identified.



## NDLSD Study Area Green Space By Community Area



\*Multiple Census Tracts within Community meet Environmental Justice threshold criteria.

## Environmental Justice, Equity, and Climate Change Considerations

Within the context of the NDLSL study limits, the communities south of Edgewater and Uptown are already directly experiencing the effects of climate change, with waves overtopping and closing adjacent parts of the Outer Drive. Therefore, the exposure of the Edgewater and Uptown communities and associated climate risk is relatively lower in comparison. The study team's assessment of potential climate risks along the NDLSL project corridor is summarized as follows.

Criterion	Assessment of Climate Risk
Air Quality	The NDLSL project is part of a group of regional projects that conform to National Ambient Air Quality Standards. An analysis of particulate matter ("soot") and Greenhouse Gases showed no distinguishing differences between the NDLSL Alternatives. Further analysis will be performed for the Preferred Alternative.
Urban Heat Island Effect	All Alternatives result in a net increase in overall green space. Trees impacted by the project will be replaced on a minimum 1:1 basis.
Water Quality	The drainage system for all Alternatives will be designed to capture and store the "first flush" of rainfall, which contains up to 90% of the pollutants deposited on the pavement between storms. The collected "first flush" stormwater would ultimately pass through MWRD treatment plants. Overflows would receive secondary treatment prior to discharge into Lake Michigan.
Flooding and Related Impacts	The Uptown and Edgewater communities do not experience wave overtopping that affects the NDLSL corridor. However, the wave overtopping that occurs at the south portion of the project causes traffic congestion to spill back into these communities. The proposed shoreline protection measures at the south portion of the project will reduce the potential for wave overtopping, road closures, and the resulting congestion that impacts all north lakefront communities.



If you have any comments on the information in this handout, or any other project materials, please email the project team at [info@ndlsd.org](mailto:info@ndlsd.org).