StreetLight Data Frequently Asked Questions

Background

Starting on October 1, 2018 MnDOT purchased a one year subscription to StreetLight Data's software platform *StreetLight InSight*. This cutting edge application allows users to analyze data gathered from multiple sources like GPS, Cuebiq, INRIX, commercial fleet management systems, and various collectors of mobile phone data, to determine how people and vehicles move throughout our state. MnDOT's previous 1-year trial with the software has allowed our transportation professionals to easily gain a more comprehensive knowledge of the transportation activities in the state and to use this knowledge to plan for future needs.

What is StreetLight Data?

S*treetLight InSight* is a web-based software product that allows planners, modelers and engineers in the US and Canada to dynamically and flexibly run core transportation analytics based on billions of bits of travel information gathered from multiple sources (referred to as Big Data). It allows transportation experts to design, generate, visualize, and download customized Travel Metrics such as origin-destination matrices, trip time, trip length, and more in minutes. These analytics are based on billions of trips derived from archival, anonymous, trace data generated by millions of mobile devices, such as smart phones, in-car navigation systems, and truck fleet management systems.

What is included in the Data?

	MULTI-MODE
Core Transportation Behavior Origin-Destination, O-D with Middle Filter, O-D with Pre-set Geography, Zone Activity, Visitor Home Work, Traveler Attributes (Demographics, Trip Purpose), Trip Attributes (Speed, Duration, Length and Circuity)	✓
Traffic Analysis Origin-Destination, Trip Attributes	✓
Traffic Count StreetLight AADT	✓
Project Time Period Settings Custom Day Types, Day Parts, Data Period	✓
Operations and Congestion Management Segment Analysis (Segment trip speed, duration, length and circuity)	✓
Special Events Custom Specific Dates (one or a combination of many days)	✓
Project Prioritization Traffic Diagnostics	✓
Commercial Vehicle Segmentation Break out of commercial medium and heavy duty trucks	✓
Multi-Mode of Travel Bike, Ped	

How does MnDOT use StreetLight Data?
Instead of sending out employees or consultants to do travel surveys or sit by the roadside collecting turning movements, StreetLight will allow MnDOT and partners to gather much of this information automatically. The data will be gathered throughout the day and night, regardless of the weather or holidays. Some of the many projects that we can do include:

Travel demand models	Origin/destination studies	Before and after studies
Detour Routing	Commute time measurement	Traffic speed studies
Freight (Truck) Analyses	Public transit design	Other projects staff create
Turning Movement Percentages	AADT Tool	

Who can use it, and How does it work?
MnDOT and Metropolitan Council employees, along with consultants working on MnDOT projects, will be able to set their own parameters within the software for the transportation behavior they want to measure. The software allows the ability to change the parameters and re-run the data collection as often as desired.

Users are able to specify things like origin/destination locations, time of day, date range, trip type (personal or commercial), general or specific routings, and other specifications by the way you enter the information into the program. Once the desired data and analysis settings are complete, a click of the button sends the requirements off to StreetLight's computers for analysis. The results are then reported back, often within minutes (depending on the complexity of the parameters and the quantity of the data being analyzed). The StreetLight subscription and software allows one to change the parameters and do additional analyses as often as desired. It is possible to run multiple scenarios in the length of time it used to take just to collect the data. The data goes back several years (2014 for some data), allowing for the ability to study trends and changes over time.

Additionally, consultants will be able to use the same data when they work on specific projects for MnDOT. For example, all transportation studies can save on expensive data collection by using the StreetLight subscription. StreetLight will help provide consistency by using the same data on all projects. Plus you'll be able to store the analyzed data and easily share it with colleagues, consultants, and MnDOT stakeholders.

How can I get more information, access or training?
Streetlight is fairly easy to use—but for most users it does take a little training to get started. StreetLight has excellent resources on their Support Center: Visit https://support.streetlightdata.com/hc/en-us/categories/360001039312-Product-How-to-Guides for more information (note: you will need a log-in for the software to see all the content)

StreetLight maintains Basic Training Videos on its Support Center. To access those, visit: https://support.streetlightdata.com/hc/en-us/articles/360018309071-Basic-Training-

There is also Minnesota specific training that is offered monthly either via a webinar or via in-person training. Please check the StreetLight Training Schedule on the previous page.

For account access, contact Hol Flor at Hol.Flor@state.mn.us or at (651) 366-3888. If you have any other questions or need any support, please feel free to check out StreetLight's online support center

(https://www.streetlightdata.com/support) or reach out and contact them at their special MnDOT account support email address (mndot-support@streetlightdata.com).

This uses mobile phone data, what about privacy?
StreetLight stated that the data is reviewed to ensure all personally identifying information (PII) has been removed by their data suppliers. StreetLight does this to ensure individual privacy from the beginning, and does NOT possess any PII.

How far back does this data go?
Under our current subscription, data is available all the way back to January 2014.

Can I get real-time data?
No. StreetLight provides historical data. The lag time from when they received data to processing to publishing takes about two months.

Is this data for all vehicles?
StreetLight provides data for personal vehicles, as well as commercial vehicles.

Can I analyze just personal vehicle travel or commercial vehicle travel?
Yes, the platform allows one to analyze and download sets for both types of travel.

What about Transit, Bicycle, and Pedestrian data?
Transit data is currently under development and it not available yet.
Currently four months of bicycle and pedestrian data is available for analysis (May and June of 2017 & 2018). More months will be added in the future.

What formats of data are available?
StreetLight data includes visualizations (on the platform), shapefiles, and downloadable .csv files.

Can I upload Shapefiles?
Yes! Uploading shapefiles can speed up the set-up process for analyses of larger study areas. Currently there are 10 standard GIS layers available for Minnesota users. Once you have logged in and get to the Manage Travel Projects page you can go to the Create Projects. In the Create Projects area, on the lower left side of the page there is the Available Zone Sets. The layers are available either by scrolling through them or doing a search and typing standard. In alphabetical order, the titles and definitions are:

1. standard_AIRPORT_INFLUENCE_AREAS: Aviation safety, and safety of people and property on the ground, can be affected by construction in the vicinity of an airport. The area influenced by airport rules and regulations can extend several miles from the airport boundary. These Airport Influence Areas are buffers of 10,000 feet off of the runways of the state's 135 public airports.

2. standard_ATP_DISTRICTS: MnDOT created area transportation partnerships (ATPs) to emphasize greater public involvement in the preparation of transportation plans and programs. There are eight ATPs in Minnesota (one for each MnDOT District area). The ATP Districts **follow county boundaries**.

3. standard_Construction_Districts: MnDOT divides the state into eight administrative zonal areas referred to as construction districts. The boundaries of these districts are used to determine which

district is responsible for construction activities on trunk highways, and for reporting purposes. The Construction Districts **do not necessarily follow county boundaries**.

4. standard_COUNTIES: This is the standard Minnesota State County Boundary dataset that is used by MNDNR and many other state agencies. It is maintained by the MNDNR Lands and Minerals Division.

5. standard_Fed_Adjust_Urban_Area: Urban and rural areas are explicitly defined by the Census Bureau according to specific population, density and related criteria. From these technical definitions, irregularities and boundaries that are separated from or inconsistent with transportation features may result. For transportation purposes, States have the option of using census-defined urban boundaries exclusively, or they may adjust the census-defined boundaries to be more consistent with transportation needs. States, in coordination with local planning partners, may adjust the urban area boundaries so fringe areas having "…residential, commercial, industrial,
and/or national defense significance" (as noted in the December 9, 1991 Federal-Aid Policy Guide), are included.

6. standard_Maintenance_SubDistrict: MnDOT divides the state into eight administrative zonal areas call construction districts. Within each construction district, there are a varying number of maintenance subareas. These subareas or SubDistricts represent which facility is responsible for maintenance activities on trunk highways, specifically winter maintenance. Note that summer maintenance activities may deviate substantially from these boundaries.

7. standard_Metro_Planning_Area: Metropolitan Planning Organizations (MPO) are entities designated by law with the lead responsibility for the development of a metropolitan area's transportation plans and to coordinate the transportation planning process. All urban areas over 50,000 in population are required to have an MPO if the agencies spend Federal funds on transportation improvements. There are eight Metropolitan Planning Organizations in Minnesota: 1) Metropolitan Interstate Council (Duluth/Superior), 2) Grand Forks/East Grand Forks MPO, 3) Fargo-Moorhead Metropolitan Council of Governments, 4) St. Cloud Area Planning Organization, 5) Twin Cities Metropolitan Council, 6) Rochester/Olmsted Council of Governments, 7) La Crosse Area Planning Committee, and 8) Mankato/North Mankato Area Planning Organization. This shapefile shows the boundaries for the 8 MPOs.

8. standard_Regional_Development_org: Minnesota's twelve (12) Regional Development Organizations (RDOs) are key partners in statewide transportation planning and programming. Each RDO works with MnDOT through an annual work program framework. This framework helps ensure statewide consistency while allowing for unique differences in regional transportation issues around Minnesota. The RDO boundaries **follow county boundaries**.

9. standard_State: This is the standard Minnesota State Boundary dataset that is used by MNDNR and many other state agencies. It is derived from the related dataset "County Boundaries, Minnesota" and is maintained by MNDNR's Lands and Minerals Division.

10. standard_State_Patrol_Boundaries: Minnesota State Patrol divides the state into thirteen administrative zonal areas referred to as districts. The boundaries of these districts are used to determine which district is responsible for enforcement activities and for reporting purposes. The State Patrol Districts **do not necessarily follow county boundaries**.