



EFFICIENT WAYS FOR SNOW REMOVING — CITY OF SYRACUSE

Qiyi Wu
Qi Long

Prasan Krishnan Karthikeyan
Mathey-Apoossan Akuete Giana

GOALS OF OUR GROUP

Allocate plowing areas to truck

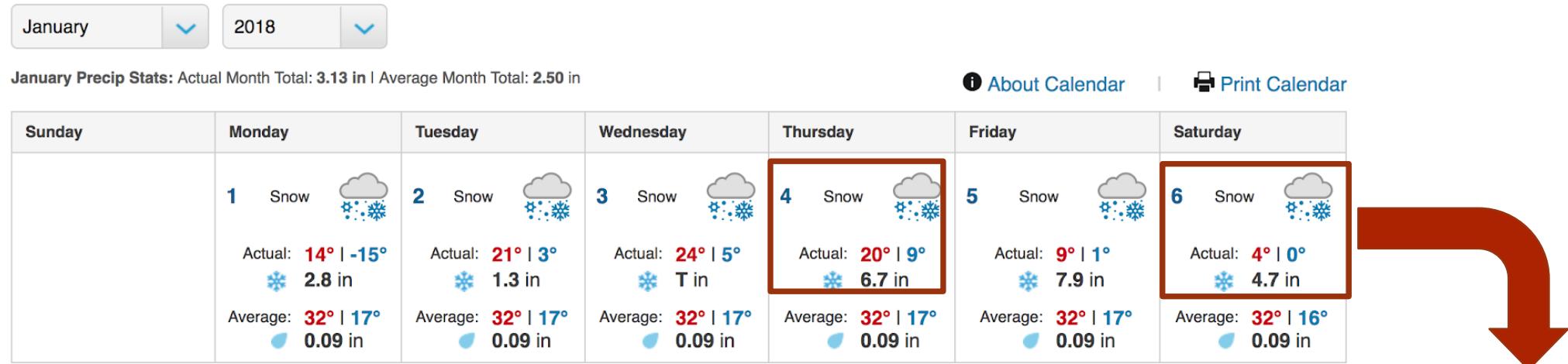
Increase plowing efficiency

Reduce fuel cost



DATASETS WE CHOOSE

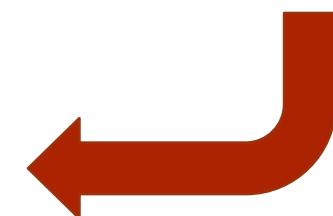
Weather of Syracuse – Jan, 2018



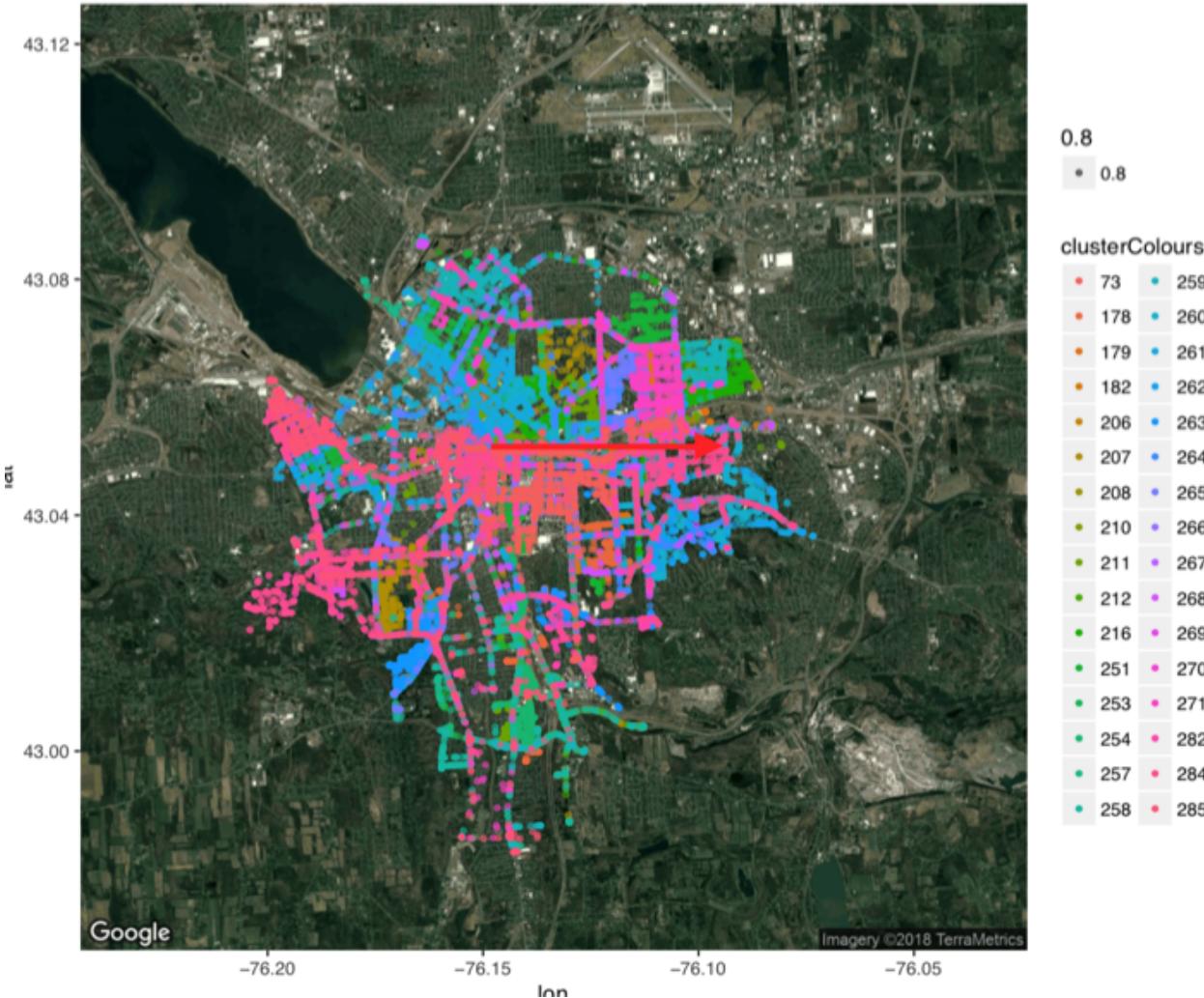
4th of January, 2018

6th of January, 2018

Higher snow
precipitation



PROBLEMS WE FOUND



- 1** Overlap on truck activity
- 2** Trucks wander

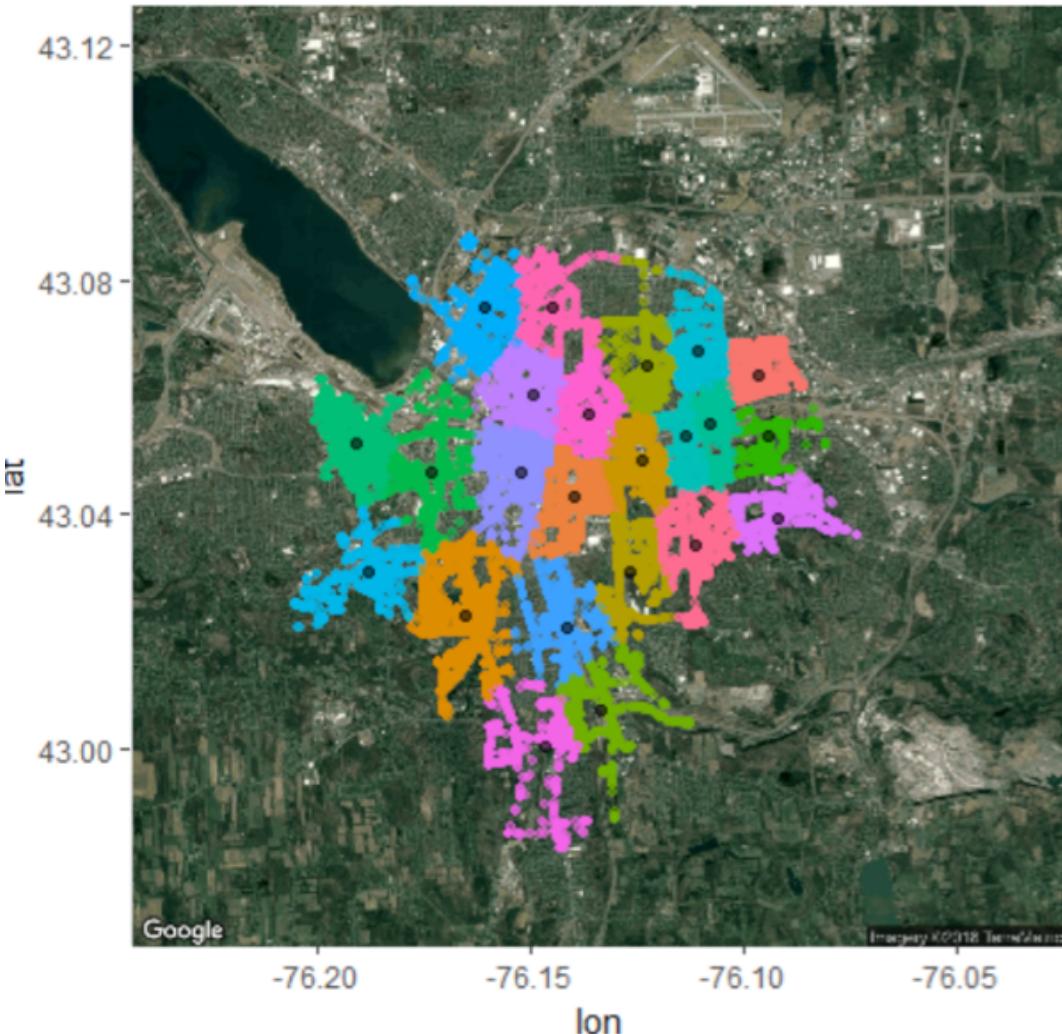


SOLUTIONS WE PROVIDE

- 1 Cluster the truck movement
- 2 Allocate each truck at a given cluster area
- 3 Increase plowing efficiency & reduce fuel consumption
- 4 Minimize the overlap of truck movement
- 5 Drivers take shifts based on timings for each truck



CLUSTERS WE PROPOSE



23 areas = 23 trucks

* Number of clusters can be adjusted depending on the snow precipitation

