

Southern San Fernando Valley Airplane Noise Task Force

Responses to Some of the Task Force Member Questions

November 6, 2019

Task Force Member Questions with Responses Prepared for November Meeting

- Is there a correlation between the climate and flight altitudes and flight patterns at BUR?
- What topographical considerations factor into increased airport/airplane noise and do the Santa Monica Mountains possess a topography that would account for increased decibel levels?
- Are maps available showing flight paths/routes for pre- and post-Metroplex implementation?
- Are departing aircraft starting their initial turn from Runway 15 at Hollywood Burbank Airport later than they did previously?
- Would we be able to get data from May 2018 to now? (Particularly data from July/August 2018 – July/August 2019 as many constituents report a dramatic shift in flights during this time period.)

Task Force Member Question – Climate

- Is there a correlation between the climate and flight altitudes and flight patterns at BUR?
- Response:
 - As temperature and altitude increase, air density decreases
 - On a hot and humid day, aircraft will:
 - Will accelerate slower
 - Will gain altitude slower
 - As a result, flight paths may be altered to allow additional time to gain altitude before turning to the next fix (navigational aid)
 - HMMH has yet to determine, from the data, whether there is a correlation between temperature, humidity and flight paths

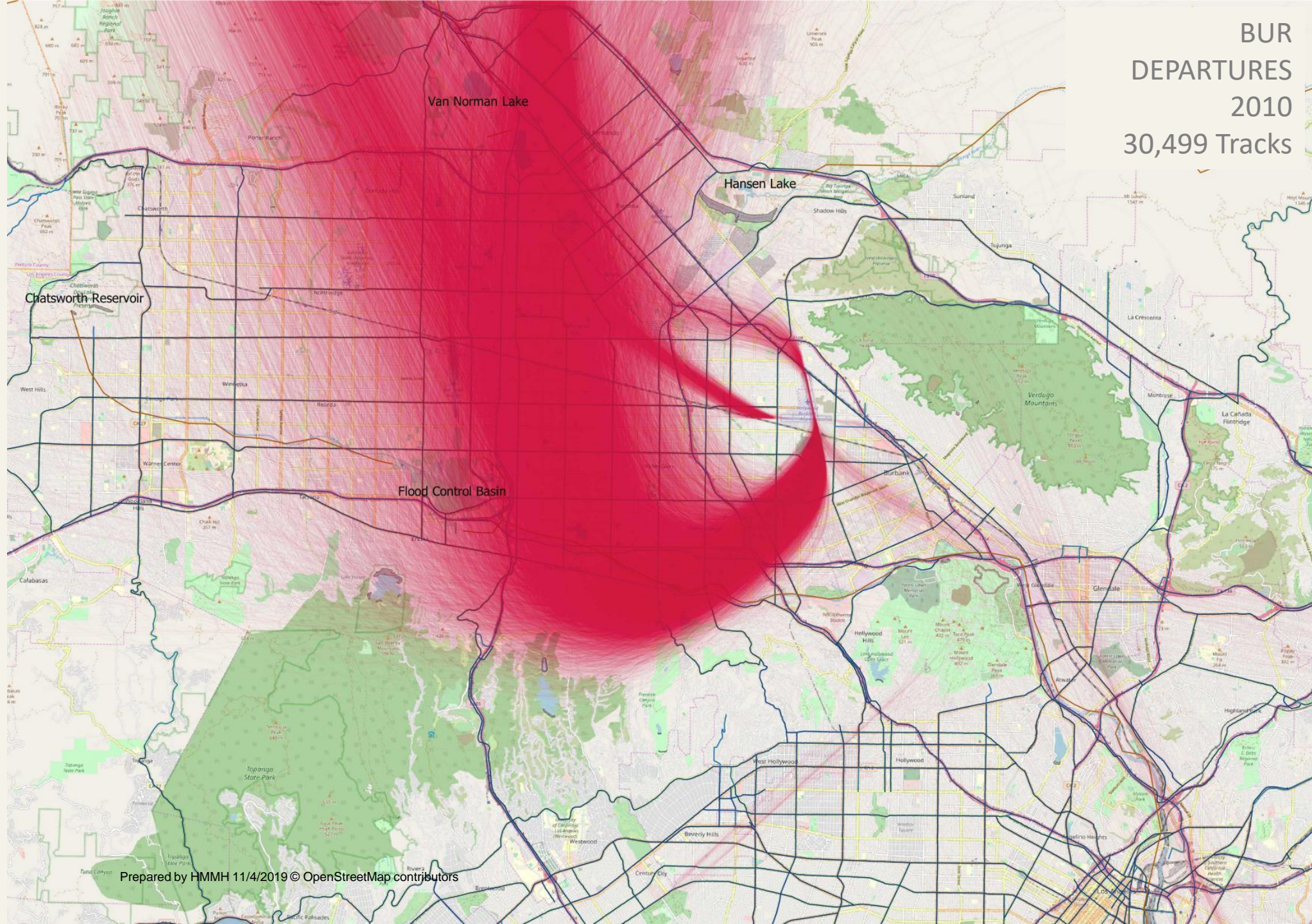
Task Force Member Question – Topography

- What topographical considerations factor into increased airport/airplane noise and do the Santa Monica Mountains possess a topography that would account for increased decibel levels?
- Response:
 - Overall, terrain will not result in a noticeable increase in noise level except for the decreased distance from the receiver on a hill to the flight path.
 - Terrain may have three effects on sound propagation. An observer on a hill is higher and closer to an aircraft than if on flat terrain. Terrain can also act as a sound barrier that can shield and/or reflect the noise.
 - When an aircraft is directly overhead, the sound experienced by an observer is largely only affected by weather conditions. However, when the aircraft is at lower elevation angles the sound experienced by an observer is the sum of the sound that travels in a straight line from the aircraft and the sound reflected off of the ground (including terrain).
 - You may experience an effect where you think you hear an aircraft in one direction but it is really coming from a different direction. Once you have line-of-sight to the aircraft, you will hear more direct noise than reflected noise. The reflected noise may produce longer durations of aircraft noise events. Direct noise will always be higher in level than reflected noise.

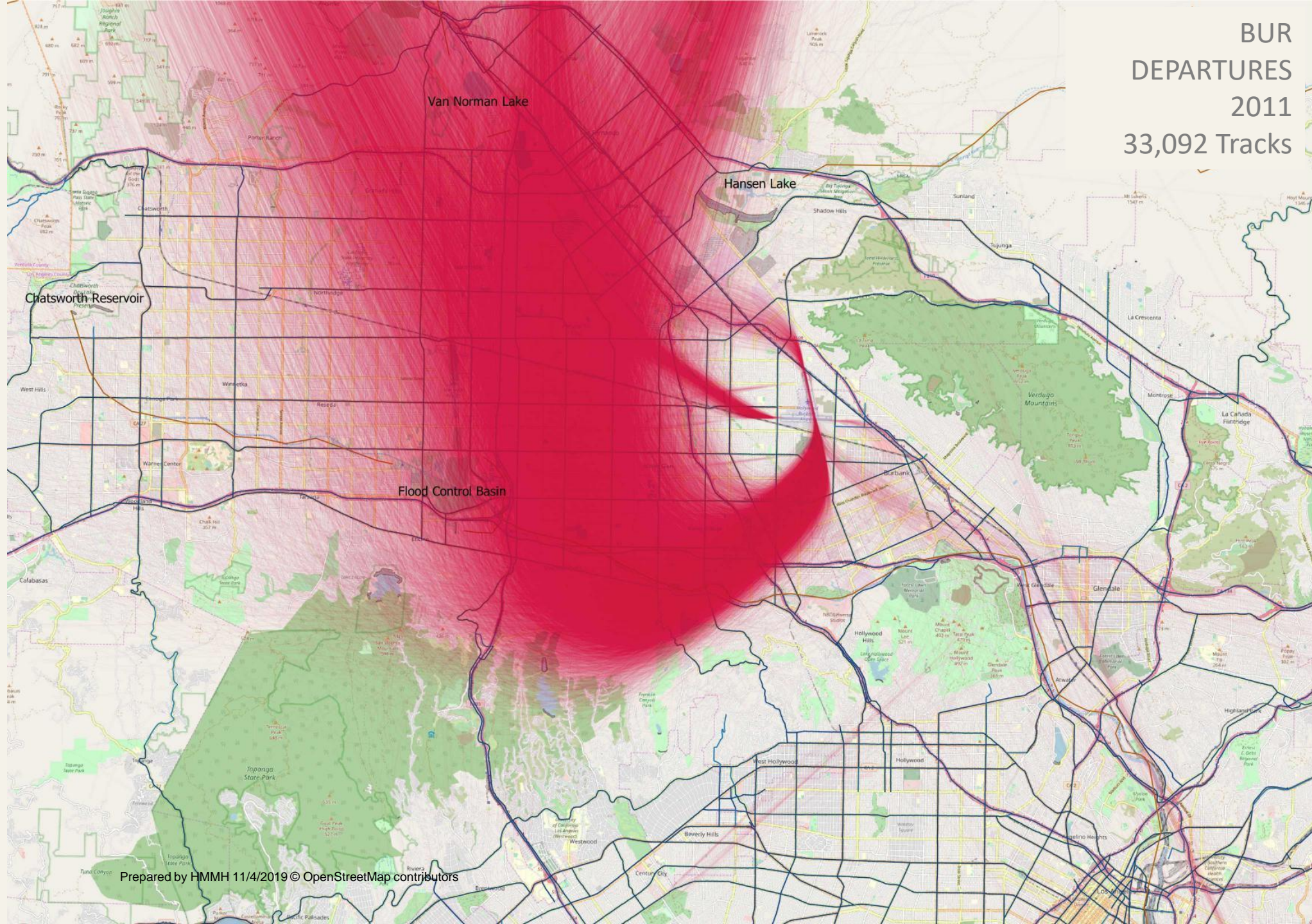
Task Force Member Questions – Flight Paths

- Are maps available showing flight paths/routes for pre- and post-Metroplex implementation?
- Are departing aircraft starting their initial turn from Runway 15 at Hollywood Burbank Airport later than they did previously?
- Would we be able to get data from May 2018 to now? (Particularly data from July/August 2018 – July/August 2019 as many constituents report a dramatic shift in flights during this time period.)
- Response:
 - Please see the following flight track plots that depict arrivals and departures out of Hollywood Burbank Airport using complete years of radar flight track data (data set from 2010 through 2018)

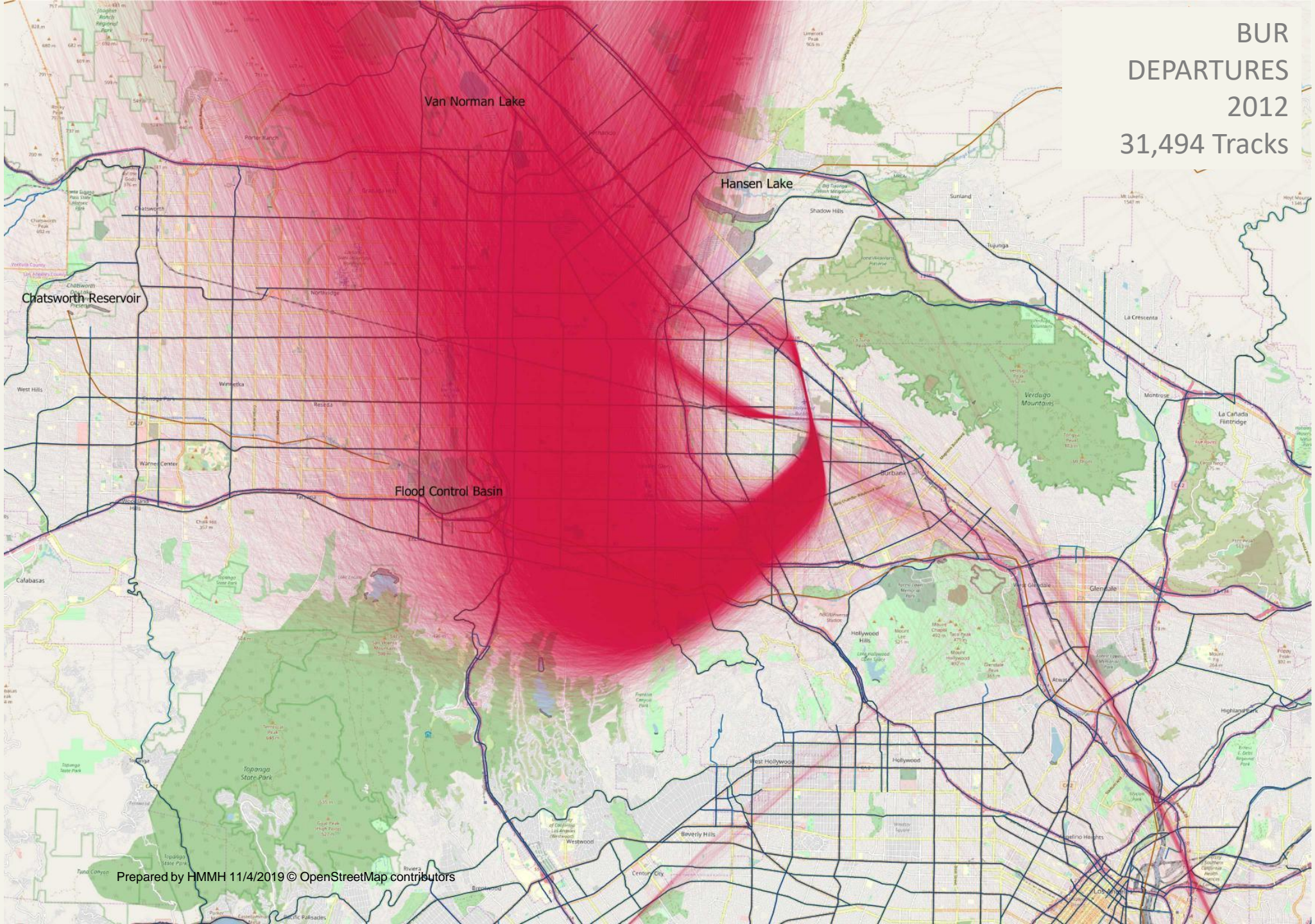
BUR
DEPARTURES
2010
30,499 Tracks



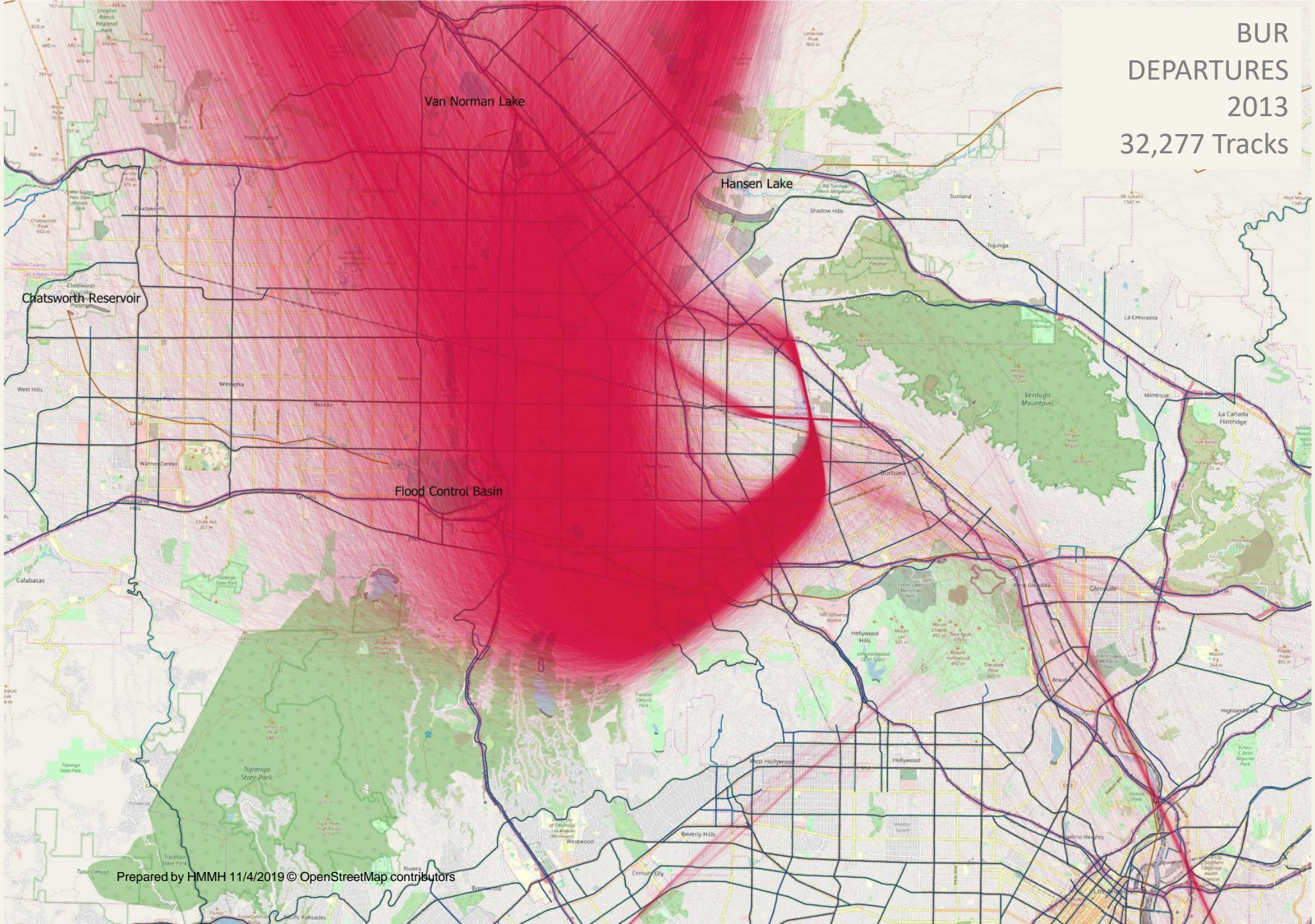
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2011
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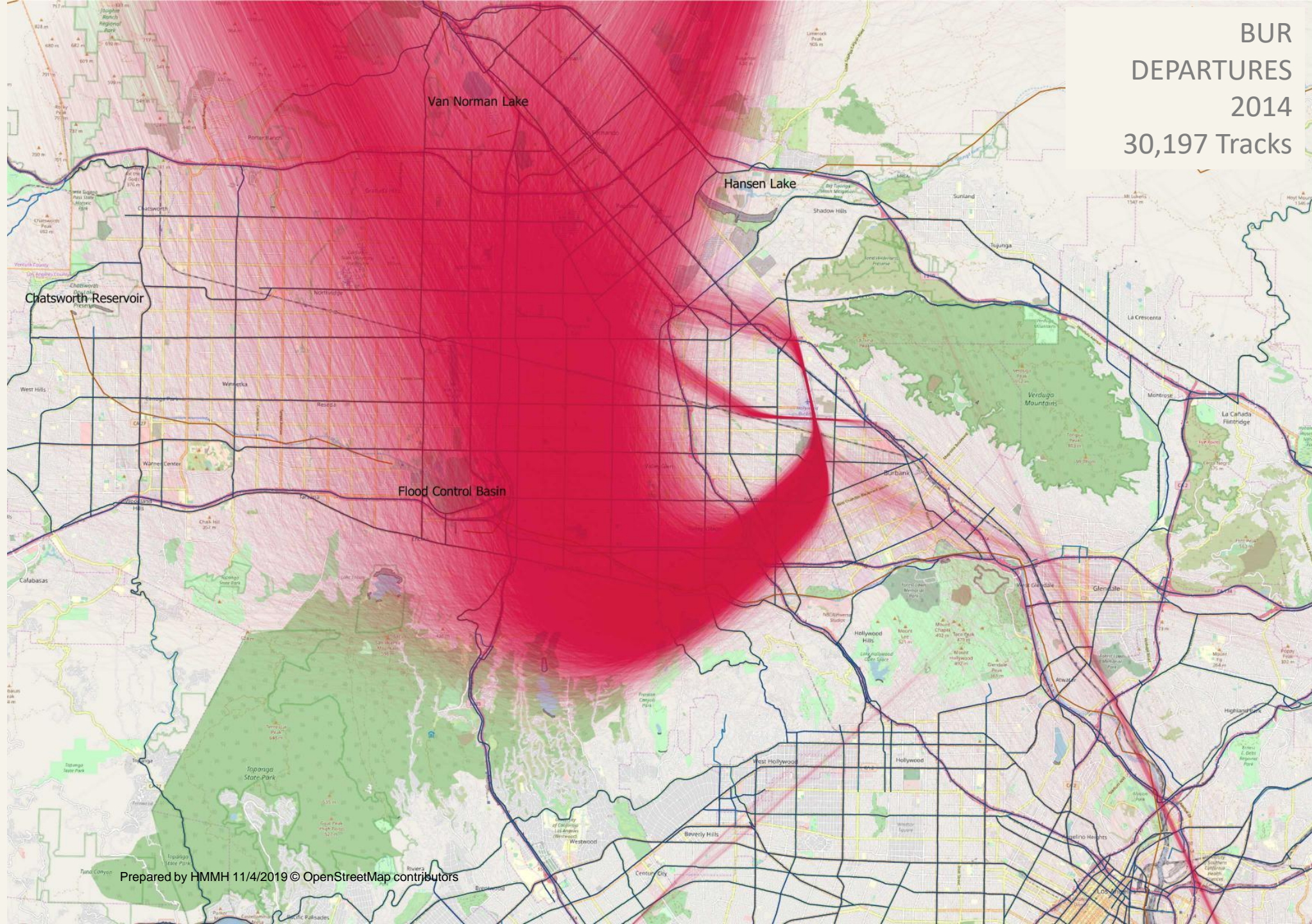
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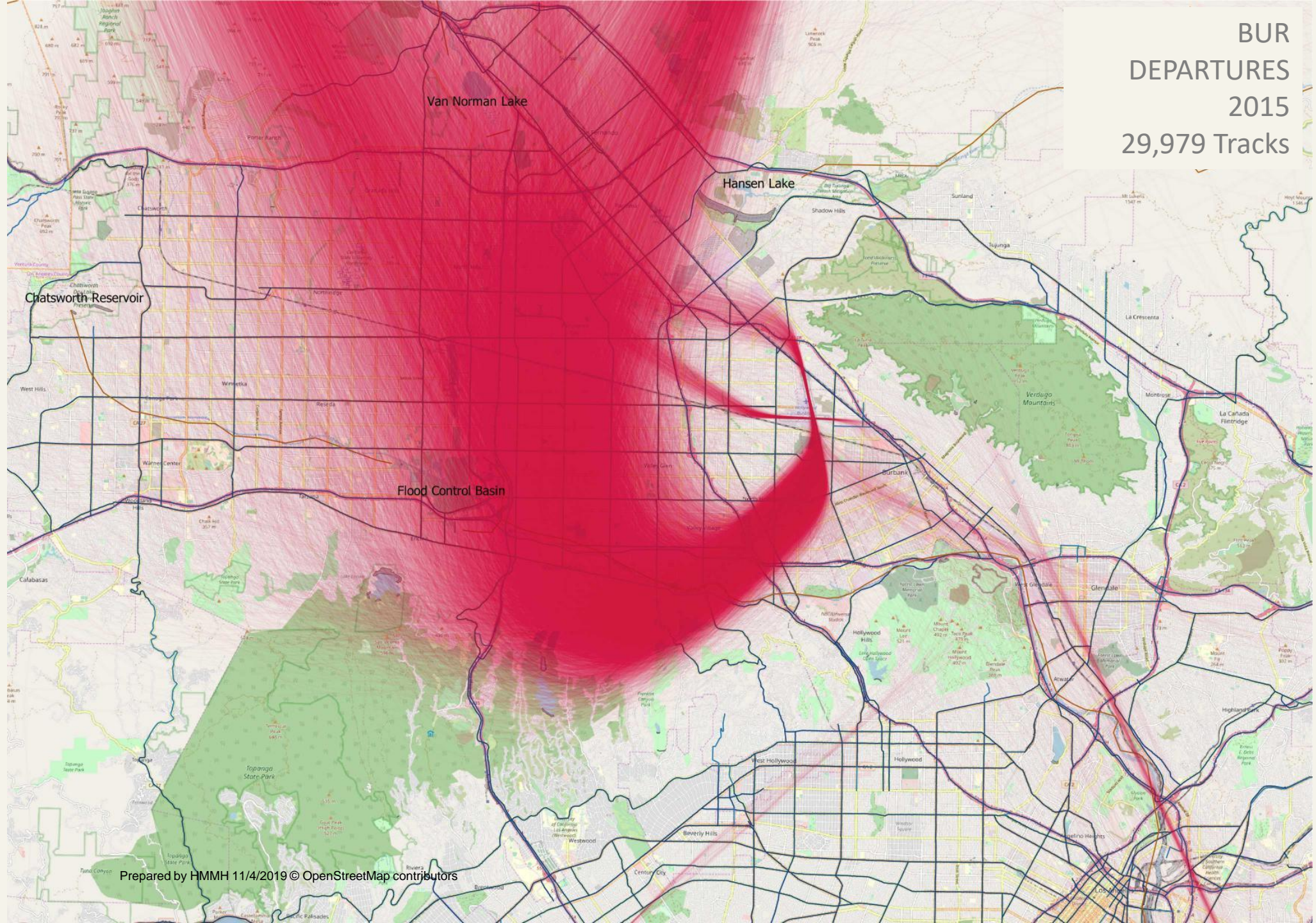
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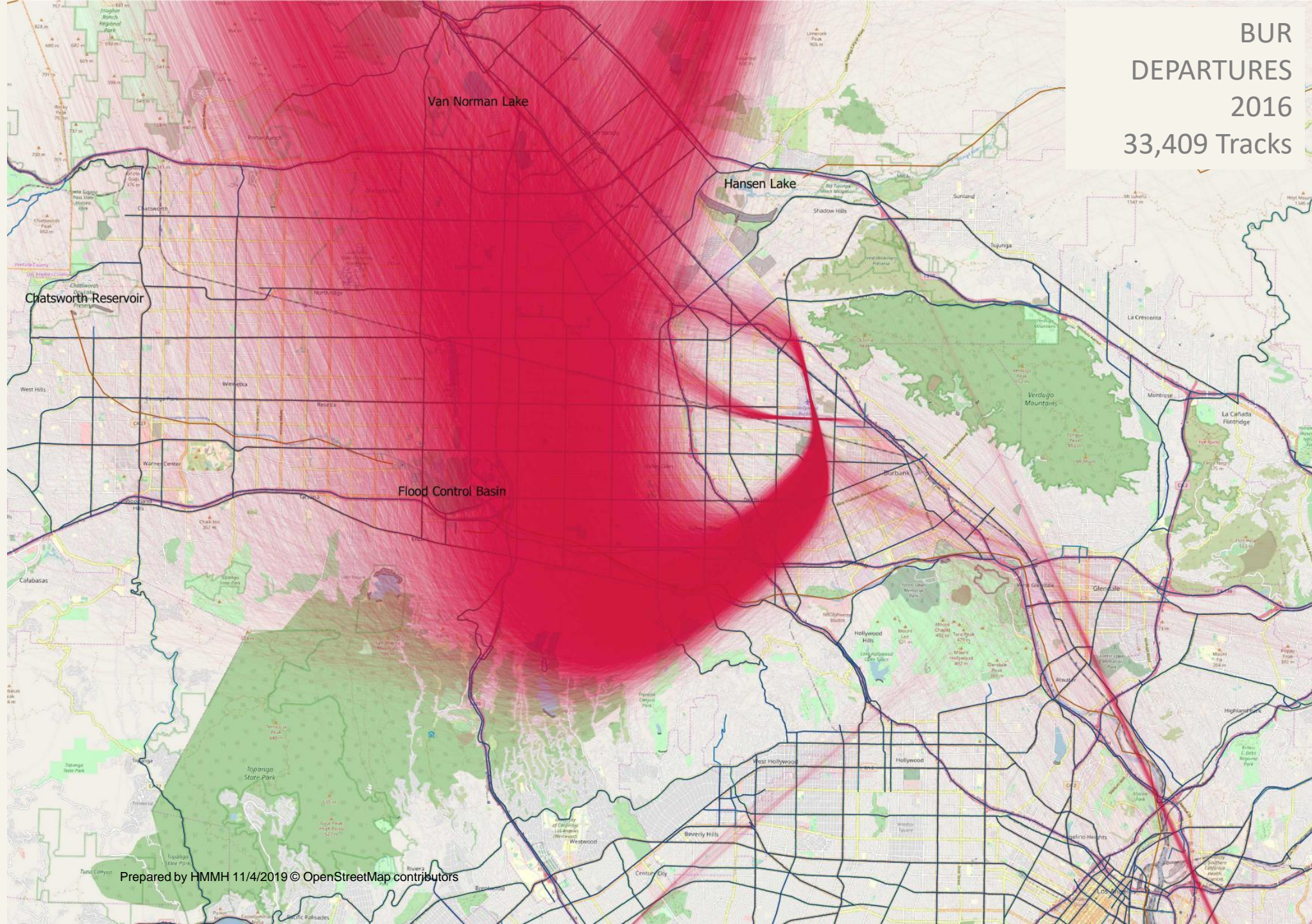
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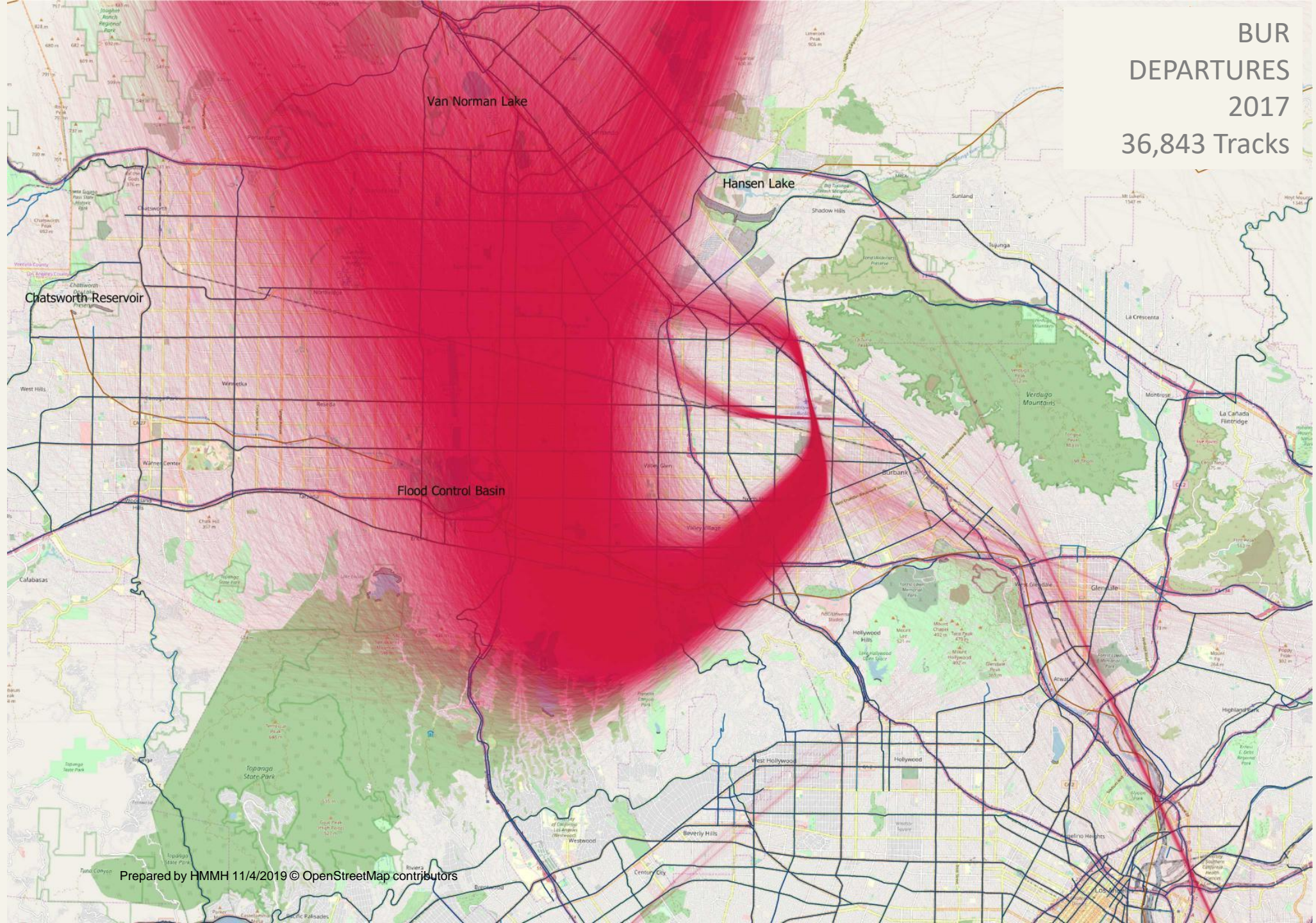
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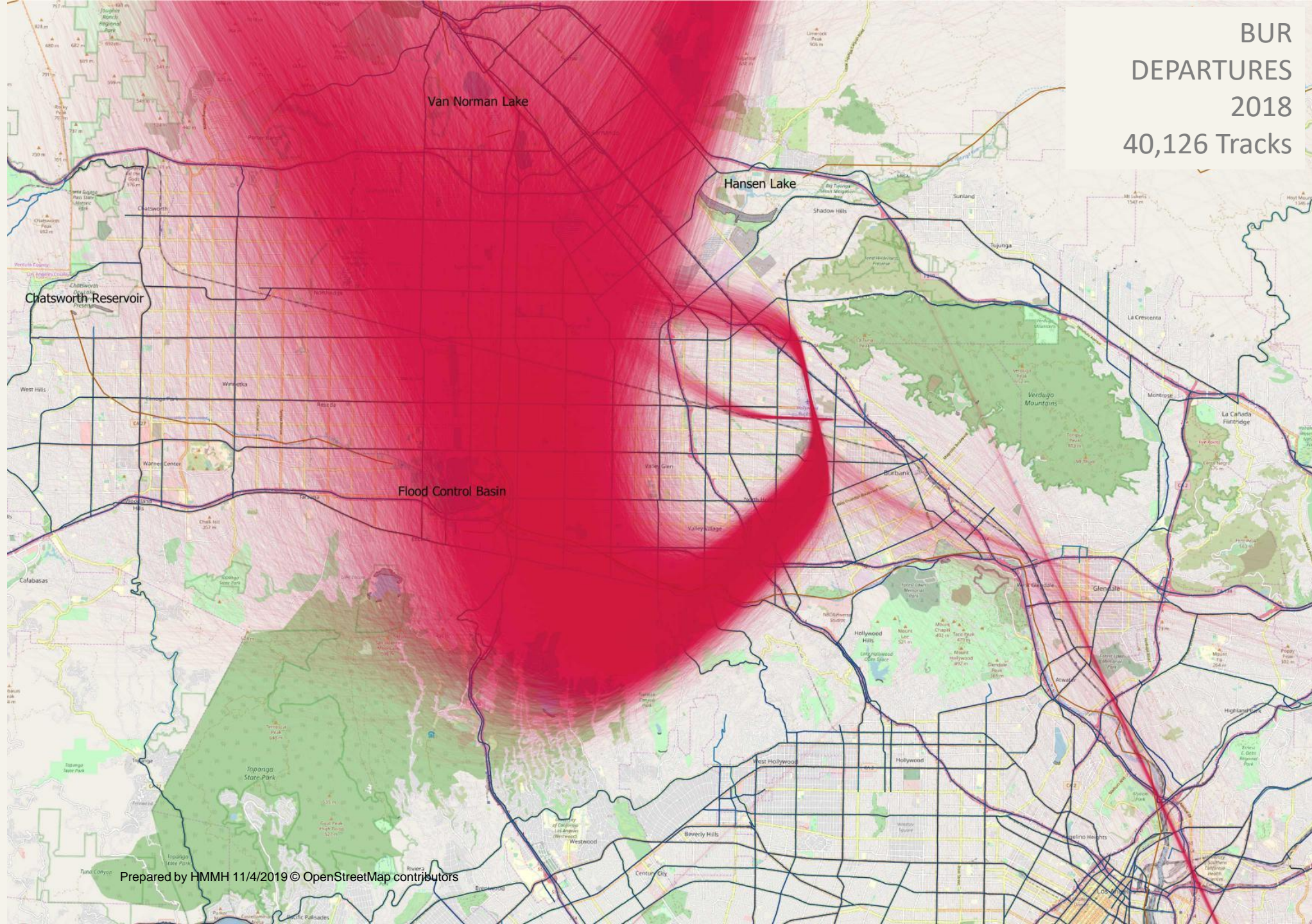
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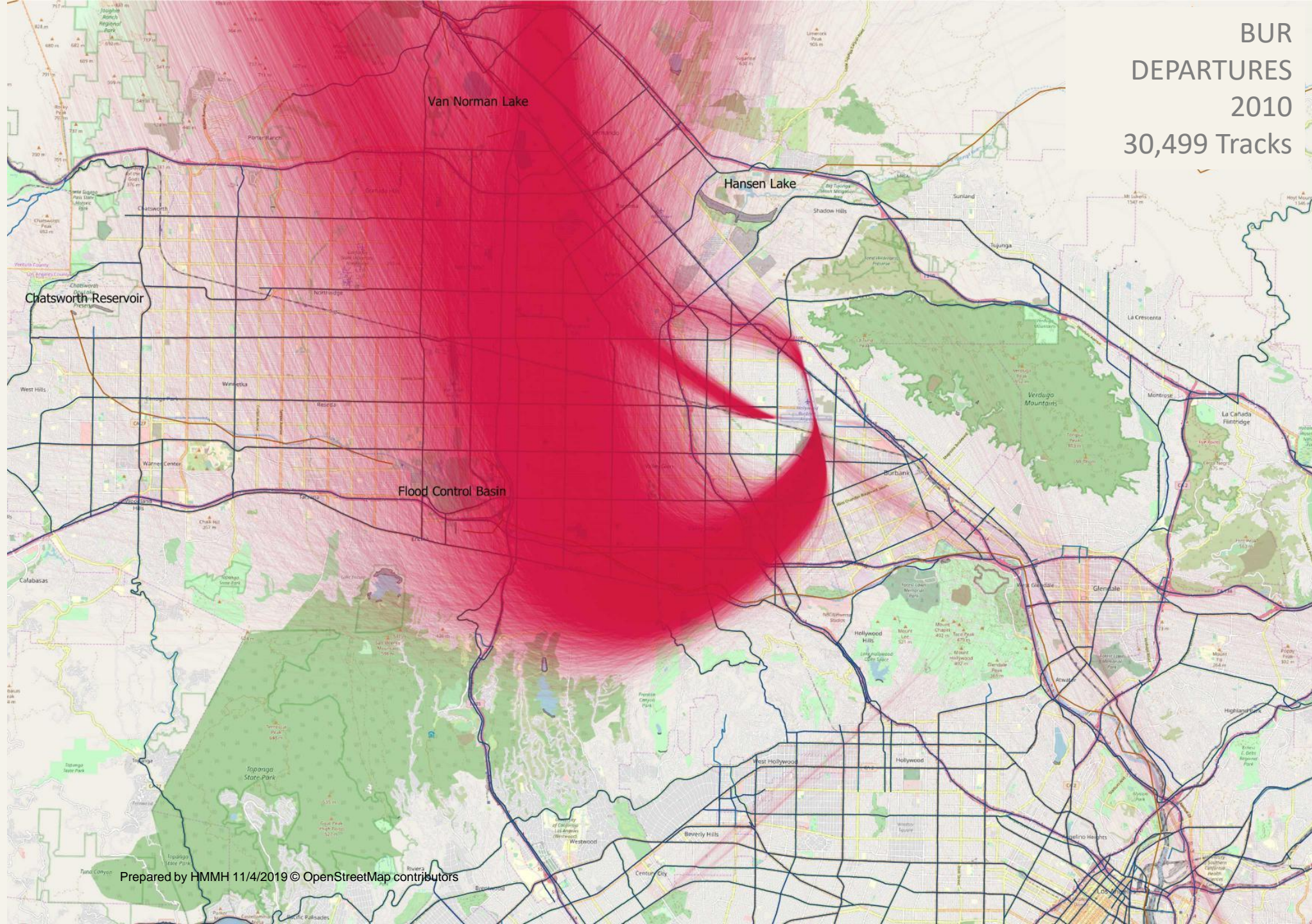
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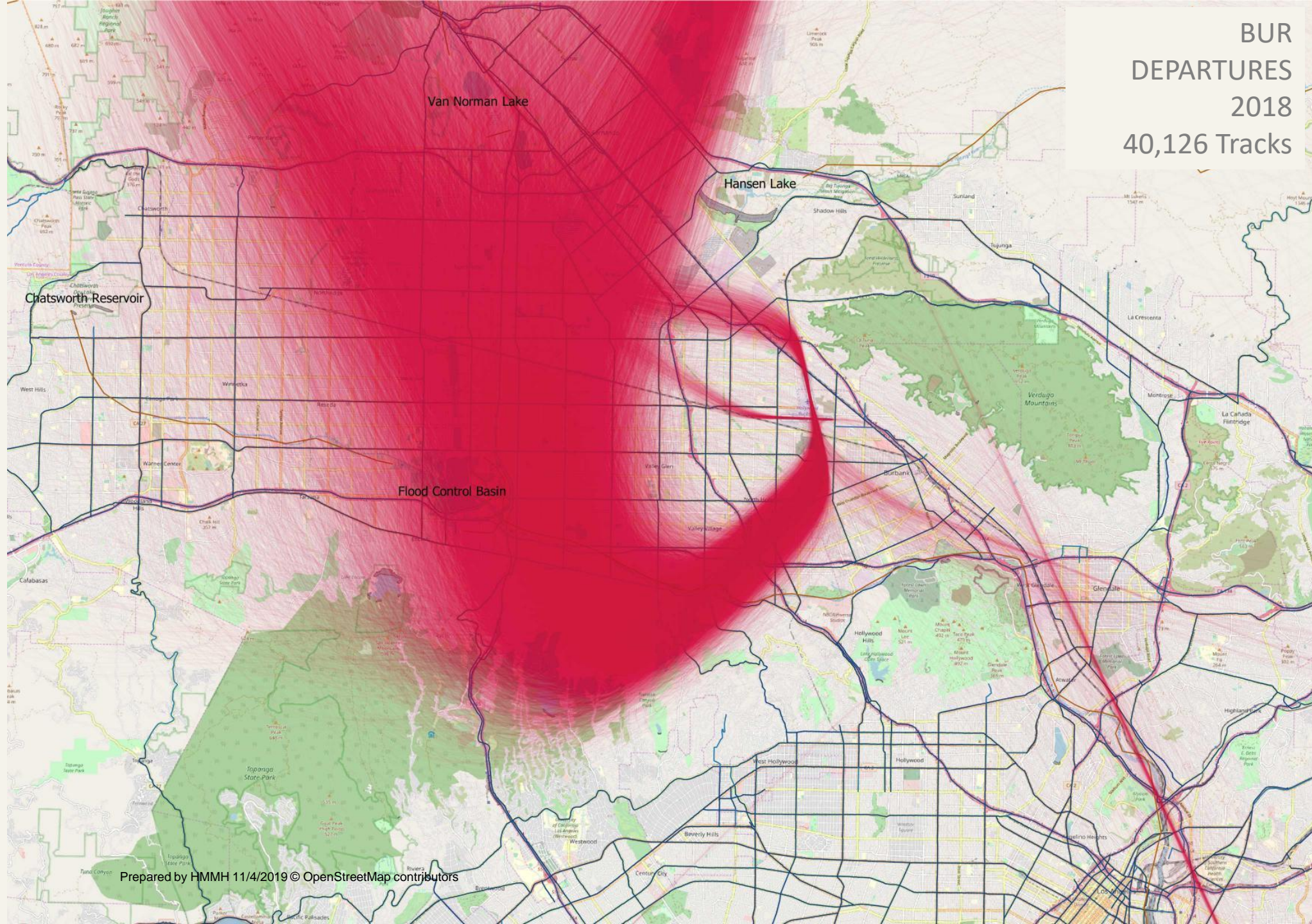
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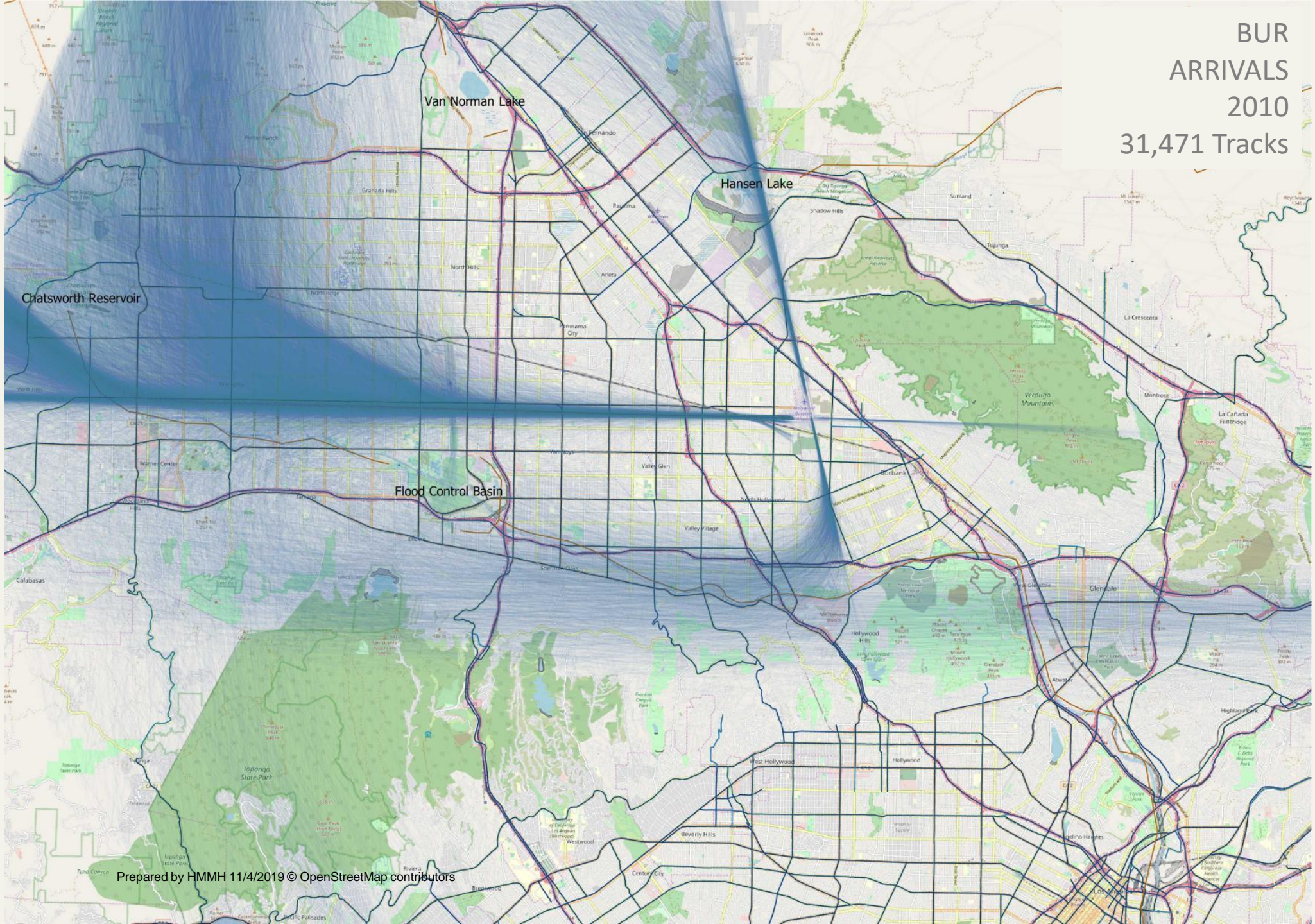
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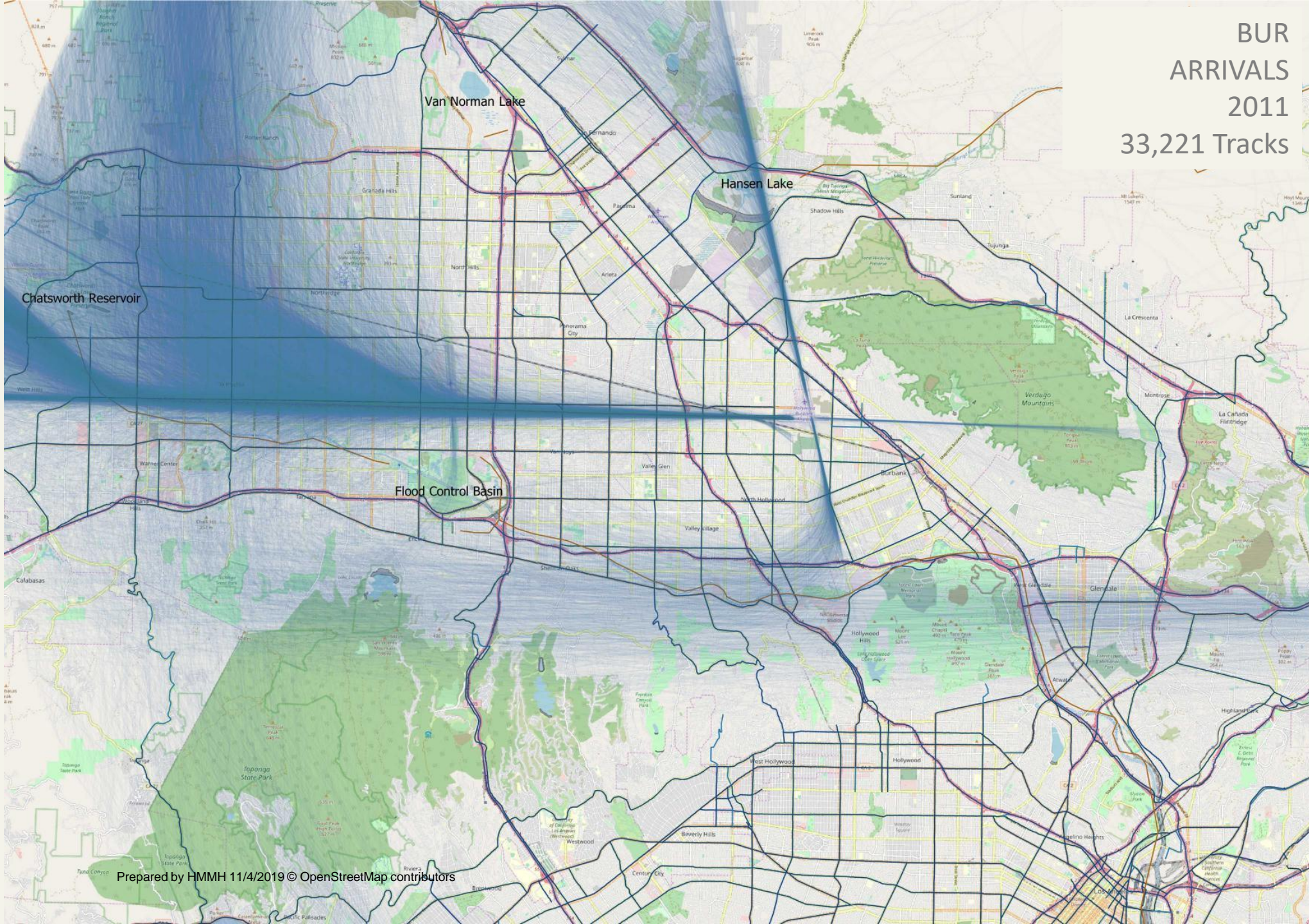
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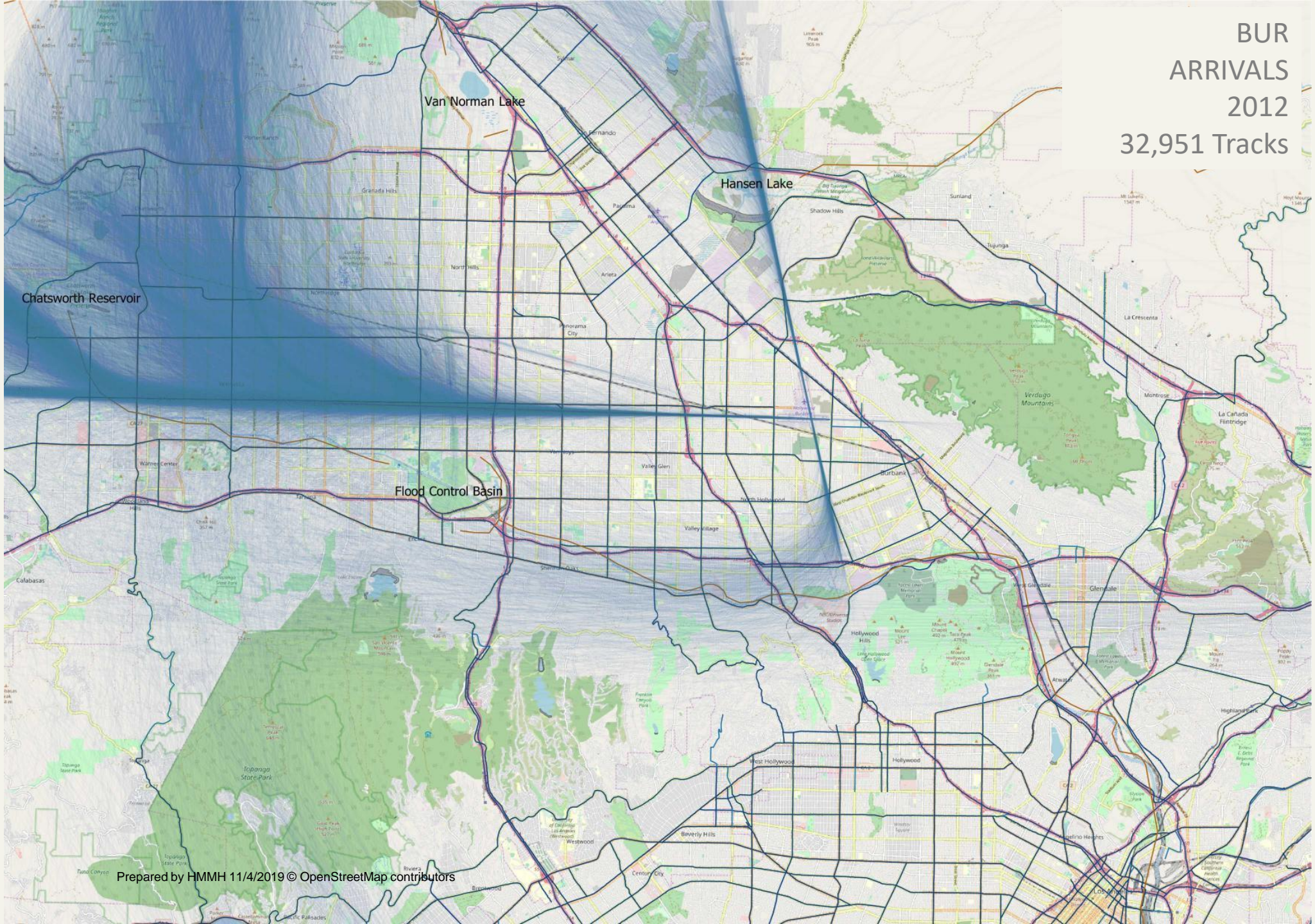
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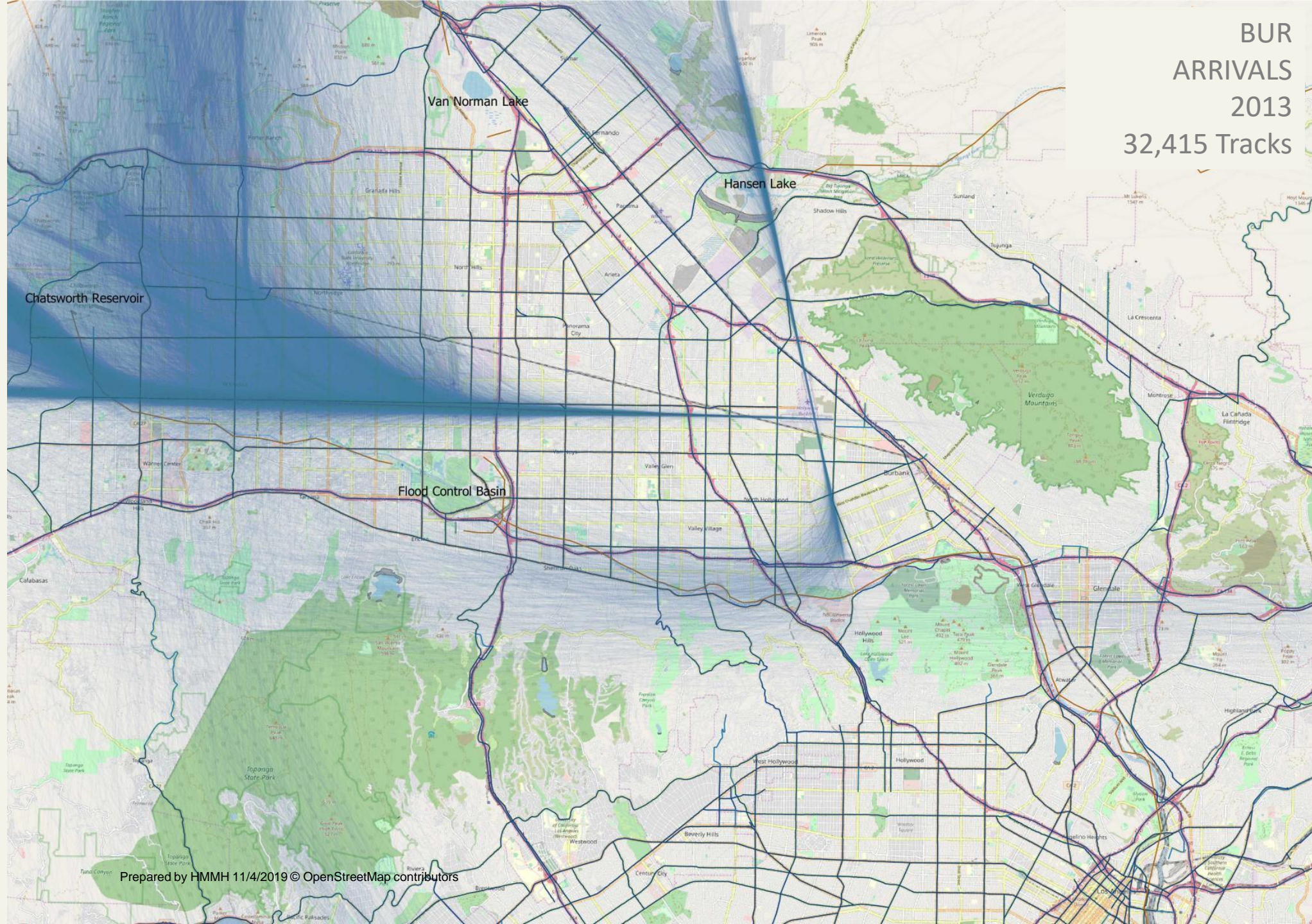
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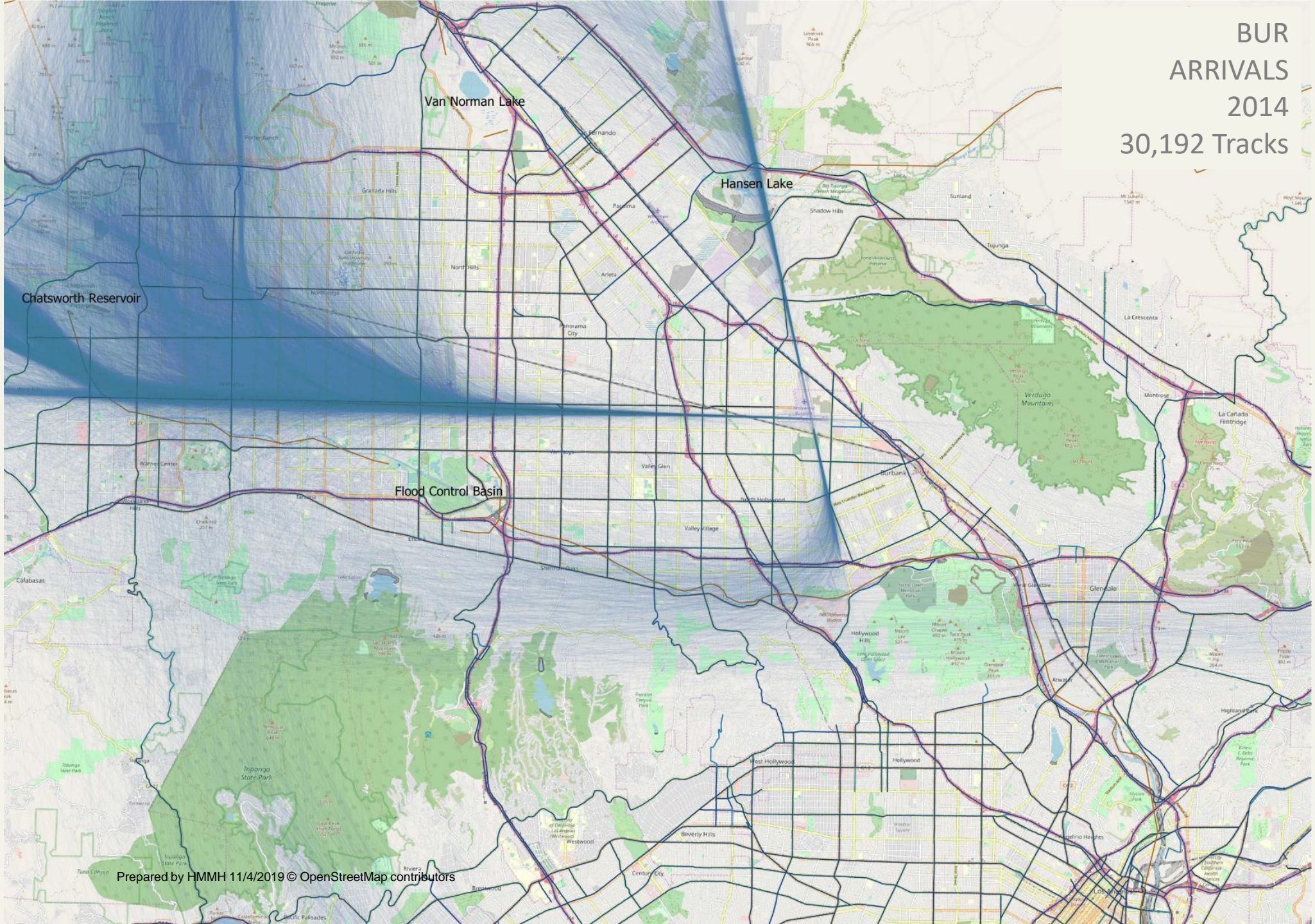
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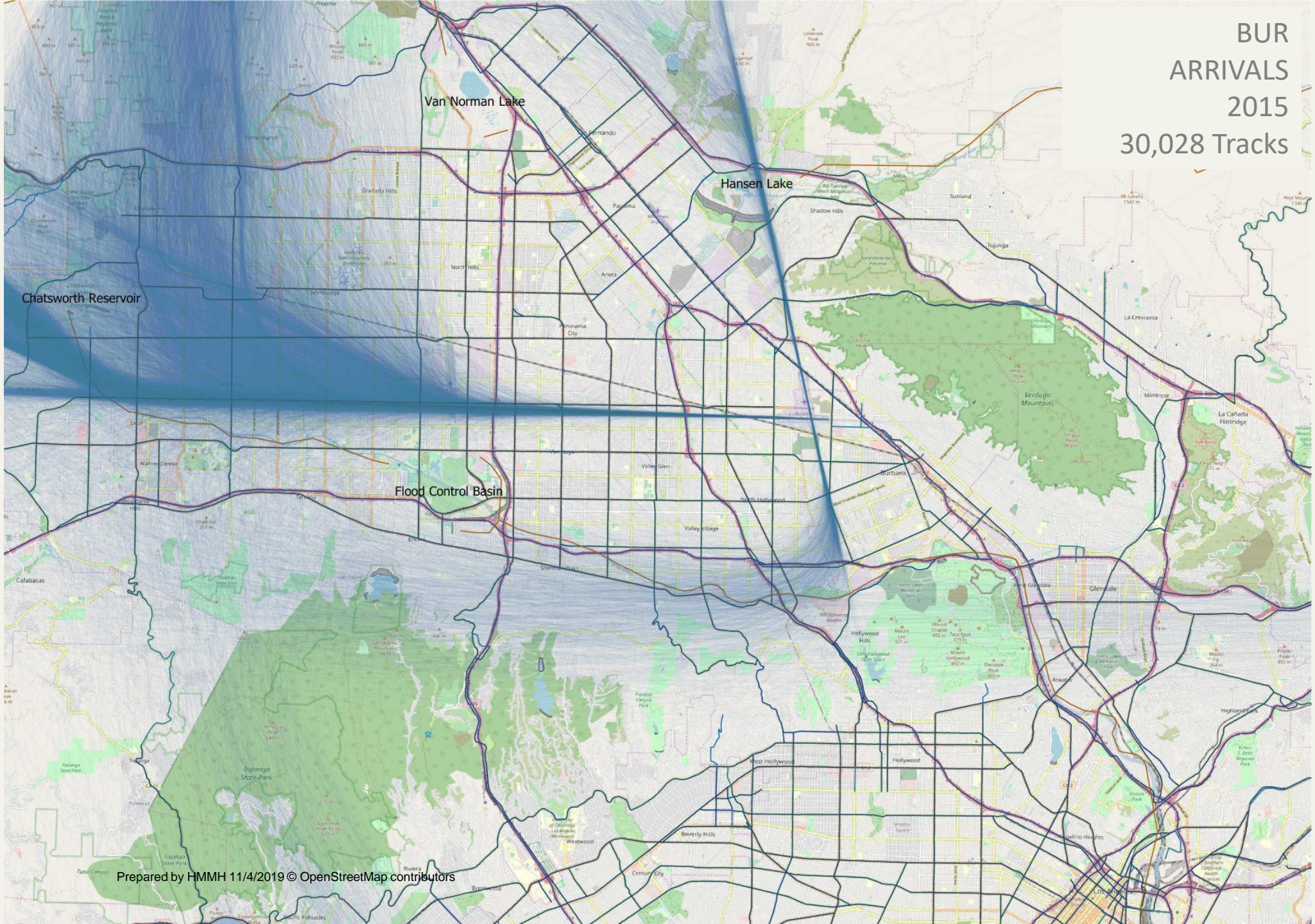
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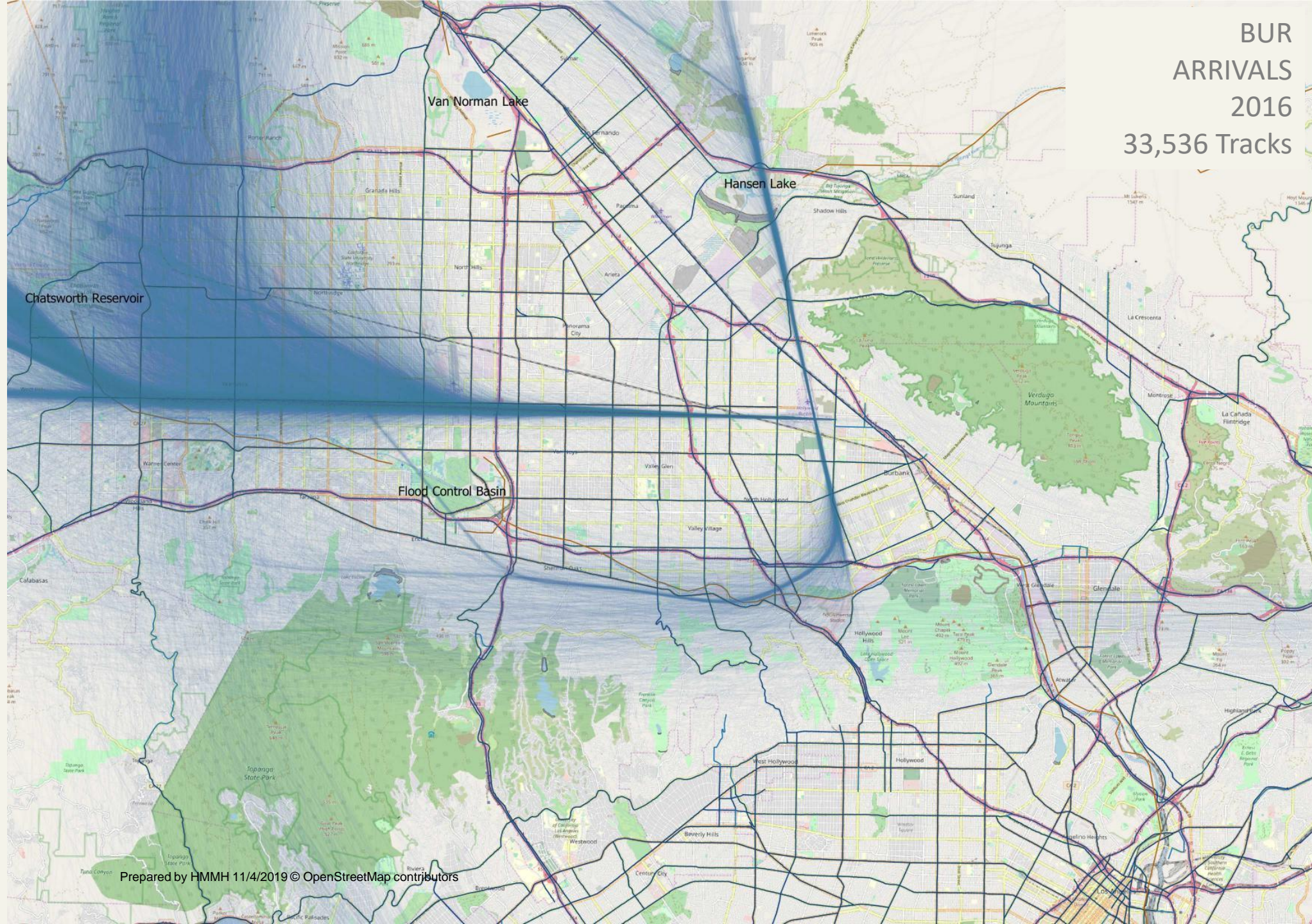
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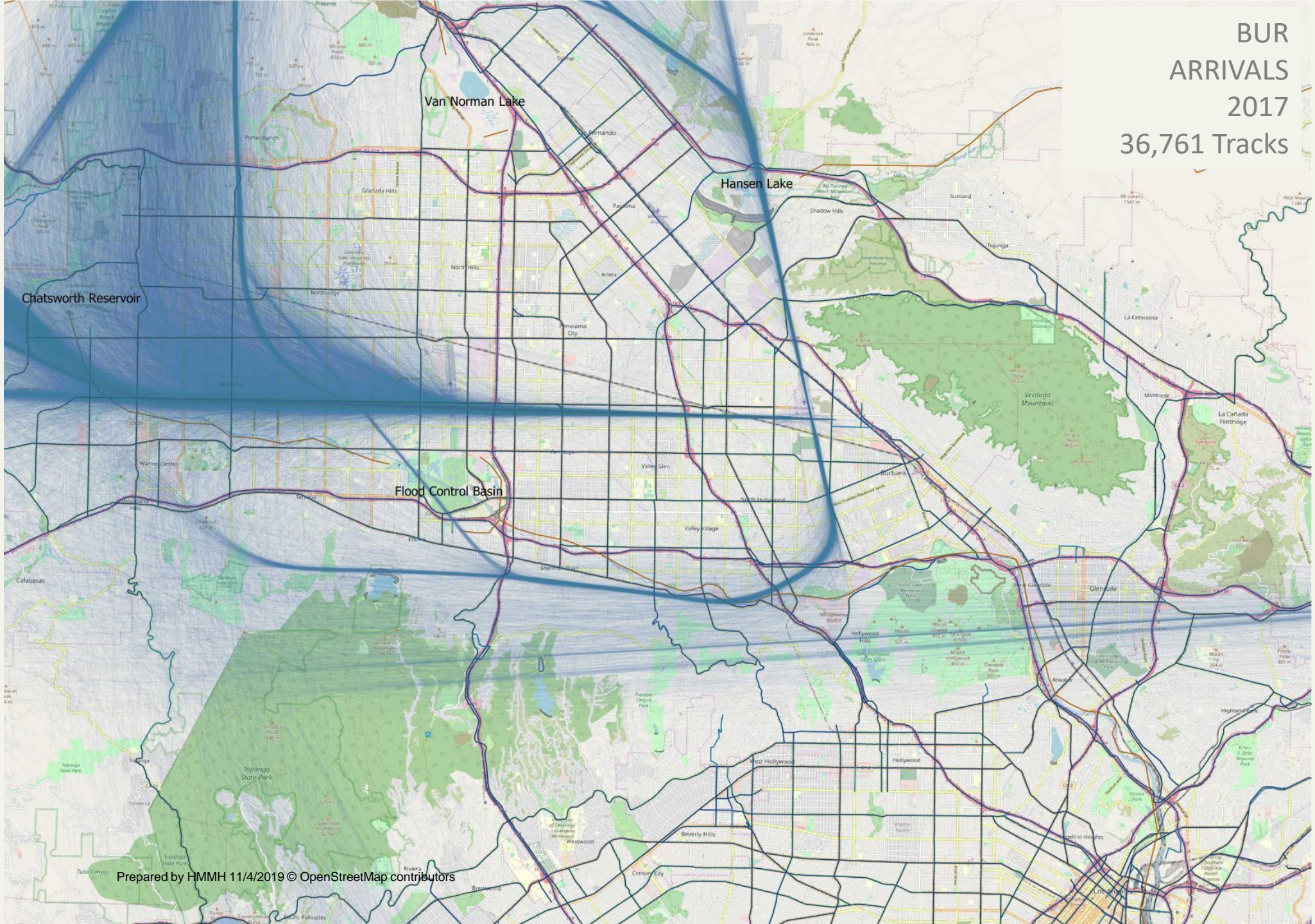
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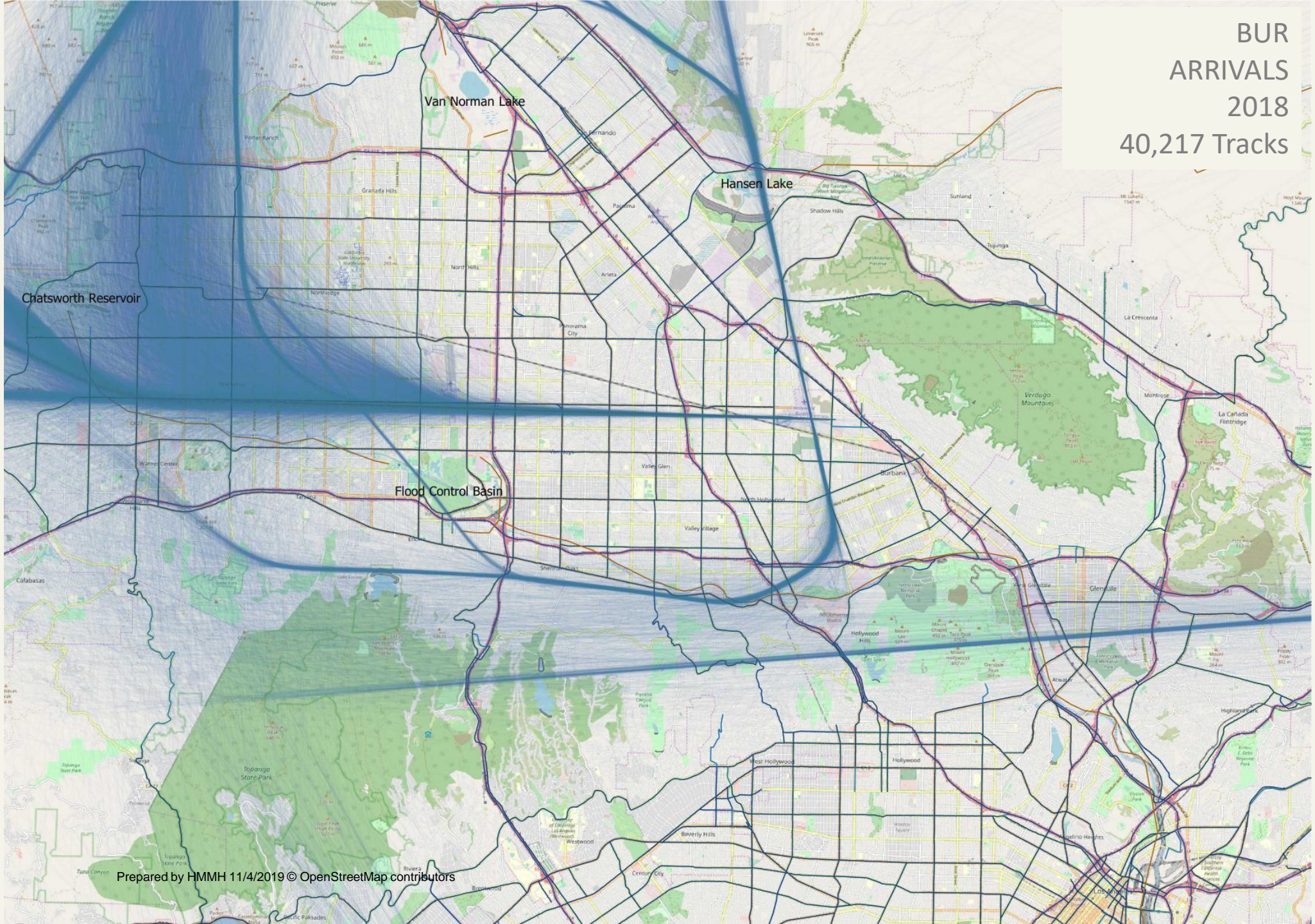
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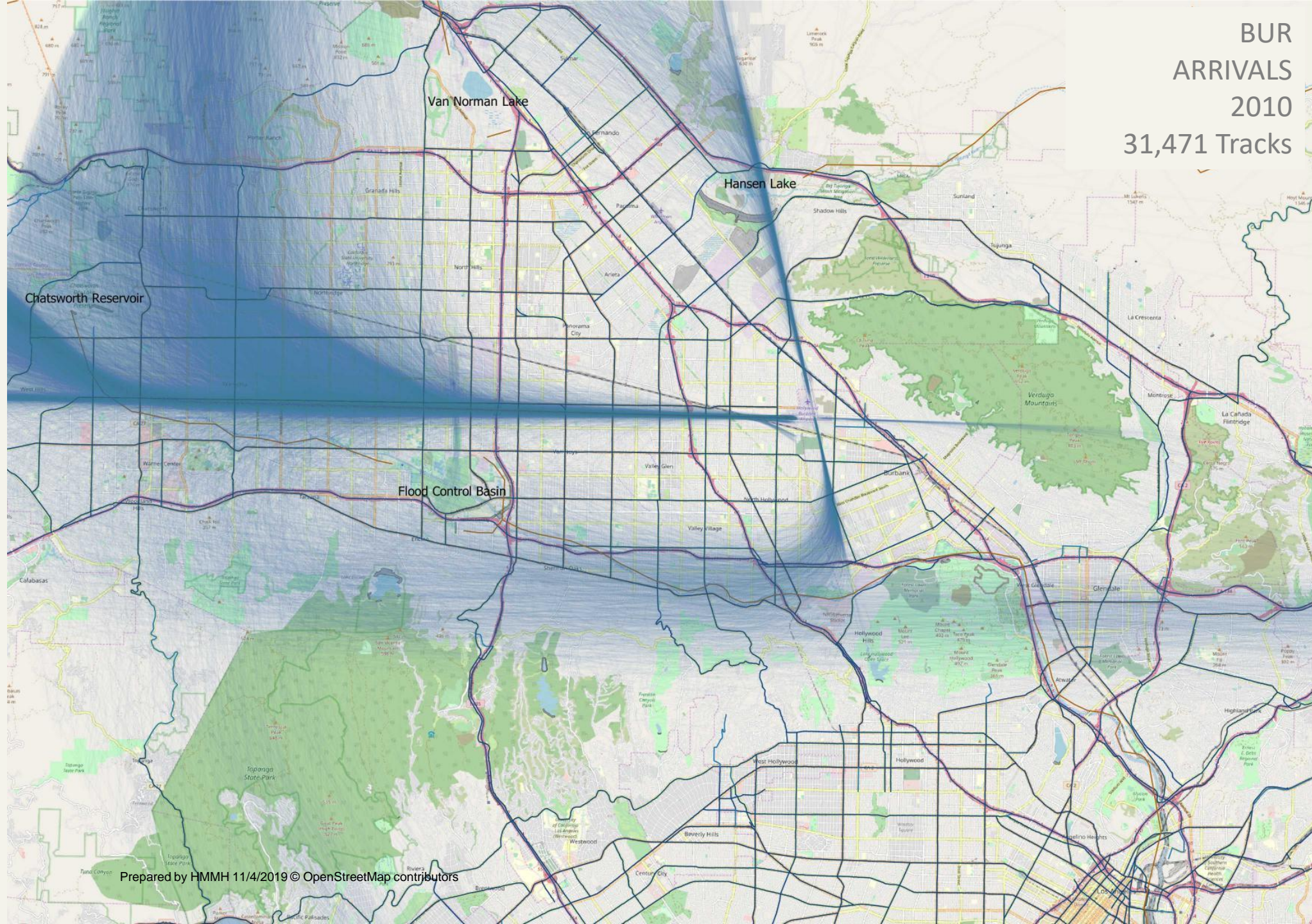
BUR
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2017
36,761 Tracks



BUR
ARRIVALS
2018
40,217 Tracks



BUR
ARRIVALS
2010
31,471 Tracks



BUR
ARRIVALS
2018
40,217 Tracks

