

The Evolving State of Transit Information



Edgar Monroe Dickens
Horsecar Conductor
Cablecar Gripman
Streetcar Motorman
1874 -1927

gettyimages®

856888180

**OLDEST STREET CAR
MOTORMAN RETIRES;
IN SERVICE 53 YEARS**

Edgar M. Dickens, 73 years old, 1914 South Larkin avenue, said to be the oldest street car motorman in point of service in the United States, yesterday retired. At the general offices of the Chicago Surface Lines, where he was congratulated on his record service by Vice President G. A. Richardson and C. H. Ryanson, superintendent of transportation, Mr. Dickens recalled the horse cars he drove in Chicago in 1874.

"I remember when they first put stoves in the street cars," said Mr. Dickens. "The seats used to catch fire if we weren't careful." He was assigned to operate the first cable car when it made its appearance on State street in 1881, and he was assigned to his first electric car in 1907.

"The first cars seated 14 people and had straw on the floor to keep the passengers' feet warm," he said. "The old horse cars ran on badly constructed flat rails, and if we weren't careful the horses would pull the car off the tracks. There wasn't any traffic in those days to worry about."

Mr. Dickens will go to California to live with his two daughters.



The Madison Metro Transit ITS system consists of multiple components

- Paratransit Scheduling and ADA Client Management
- Fixed Route Scheduling and Public Information
- Real Time Information Management
- Vehicle Maintenance Software
- Customer Feedback In House Developed DB
- On Bus and Fixed Site Video Surveillance
- Metro Transit Website
- Third Party smartphone APPs



The Madison Metro Transit ITS system has multiple beneficiaries

- Passengers and Potential Passengers
- Motorcoach Operators
- Operations and Maintenance Supervisors
- Route and Schedule Planners
- Contracting Partners and Policy Makers



CUSTOMER BENEFITS



Trip Planning

- Customers may get personalized trip itineraries on the Internet at
- mymetrobus.com or Google Transit
- Metro information now available 24/7



Customer Travels to Recommended Bus Stop Location



External Route Announcements

- External speakers are mounted near the front door of all buses – announcement is made when front door opens
- Waiting customer hears bus announce route number and destination where two or more routes serve the same bus stop, in compliance with the Americans with Disabilities Act (ADA)



External Route Announcements

Provide passengers with visual impairments the same information other customers have



Real Time Schedule Information for Passengers

- Available via Metro Website as well as a variety of third party apps
- Information signs at major bus stops.
- Accessed via SmartPhone , Internet, etc...



Customer Boards Bus and Pays Fare

Farebox equipment accepts:

- Cash
- Magnetically encoded fare media for Transfers and Passes – encoded with expiration time
- Smartcard fare media is available for some contracting partners

Fare Box equipment records Transaction Date / Time and limited Location Coordinates

Mobile Ticketing Being Studied



Internal Stop Announcements

- Both audio and visual internal stop announcements
- Over 1,000 bus stops are programmed for internal announcements, representing approximately 50% of all Metro bus stops
- These announcements keep assist in keeping Metro in compliance with Americans with Disabilities Act, as well as City policy
- Time and Date is Displayed as well as STOP REQUEST indicator



OnStreet
Time 3:14 PM
Route 47
Arbor Hills
Depart 3:29



New Real Time Departure Signs
Now Installed at Transfer
Points. Coming Soon to Major
Downtown Stops.

Click on Logo to Open
Example in Browser



TRANSIT OPERATOR

BENEFITS





Fare Box Benefits for Bus Drivers

Fare Box equipment:

- Issues and accepts valid transfers
- Transfers – magnetically encoded with expiration time
- Passes – magnetically and chip encoded with valid dates
- Multi Ride Cards – automatically deducts rides



Mobile Data Terminal (MDT)



Mobile Data Terminal (MDT)

- Controls the two-way radio
- Displays Metro Transit time & date
- Displays driver schedule information



Mobile Data Terminal (MDT)

- Allows driver to send emergency signal to Dispatch
- Enables Driver and Dispatcher to have voice contact in emergency situations
- 9-1-1 can then communicate directly with Metro Driver if Necessary



Mobile Data Terminal (MDT)

- Enables driver to make automated transfer requests
- Allows driver to receive text messages from Dispatch and then reply back to Dispatch
- Plays prerecorded informational messages



OPERATIONS SUPERVISOR BENEFITS



Mobile Data Terminal (MDT) Road Supervisor Functions

- Controls the two-way radio
- Displays Metro Transit time & date
- Displays driver schedule information
- Allows Road Supervisor to send and receive messages to/from Drivers & Dispatch



Mobile Data Terminal (MDT) Road Supervisor Functions



Operations Dispatch Supervisor Functions

- Controls the two-way radio
- Displays Metro Transit time & date
- Displays driver schedule information and on time performance
- Allows Dispatcher to send and receive messages to/from Drivers & Road Supervisors



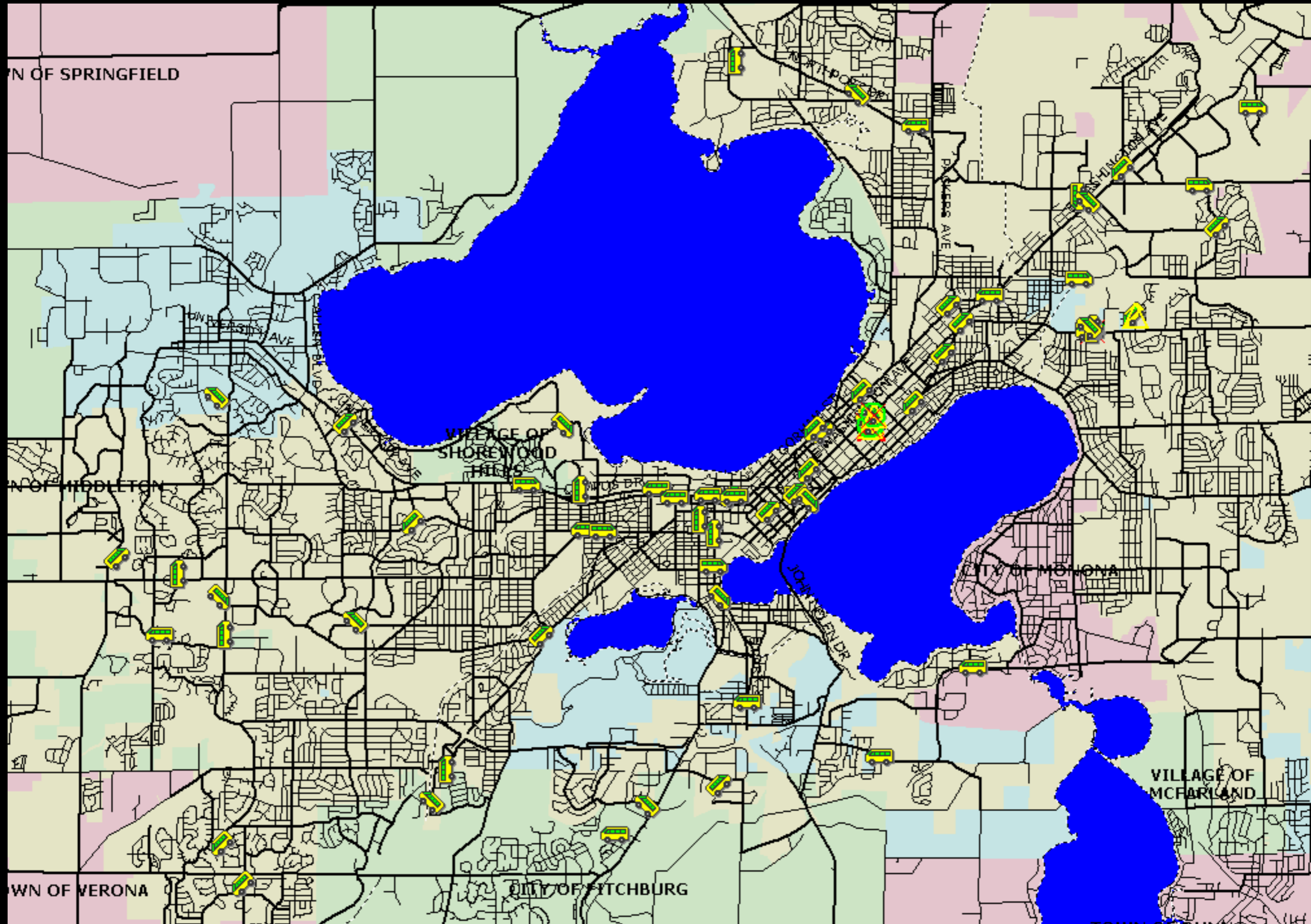
CAD/AVL

Computer Assisted Dispatch
/Automatic Vehicle
Location.

System was Purchased in 2003.

Upgraded Equipment is
programmed for replacement as
early as 2021.







5601



5602



CITY OF MADISON

TOKAY BLVD

S WHITNEY WAY

620

606

MAINTENANCE SUPERVISOR BENEFITS



ELECTRONIC TRANSMISSION OF ENGINE PROBLEMS

Maintenance Supervisors May Monitor

- Hot engines
- Low oil
- Transmission malfunctions



METRO'S SERVICE
DEVELOPMENT STAFF
TEAM BENEFITS
for
Route & Schedule
Recommendations



Automatic Passenger Counters (APC's)

Infra-red Beams Provide “Accurate” Boarding & Alighting Passenger Counts

- Beams are located in stairwell at front & rear doors
- 40 fixed-route buses equipped with APC's are rotated throughout the route system every four days
- Information may be tracked to the bus stop location level for route & schedule planning purposes
- Provides federally mandated ridership data



AVL Playback Feature

Used to evaluate the on-time performance of revenue service

- Provides Transit Scheduler with more accurate information to determine travel time between scheduled time points



Fare Box Planning Data

Used to evaluate passenger boardings
by fare media type

- Provides Service Development Team with information to determine passenger boardings by route and time of day
- Provides more accurate means of reporting monthly ridership data



TRANSIT PARTNER BENEFITS



Fare Box Data

Used to report unlimited-ride pass
customer boardings
for contracting partners

- Provides accurate pass usage data for program evaluation and billing purposes



POLICY MAKER BENEFITS



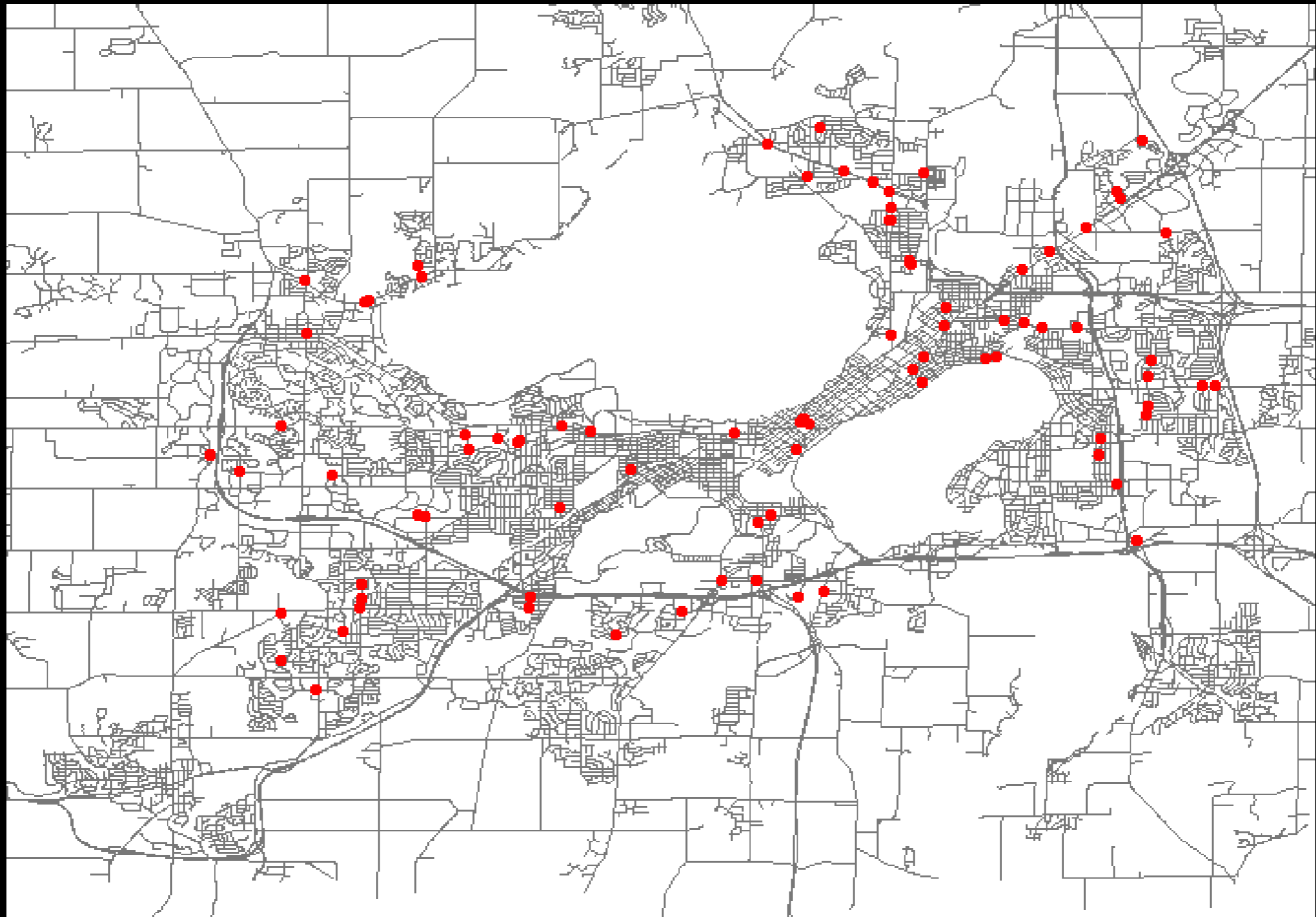
Improved Data for Decision Makers

Metro staff is able to provide policy makers with more accurate data for purposes of considering:

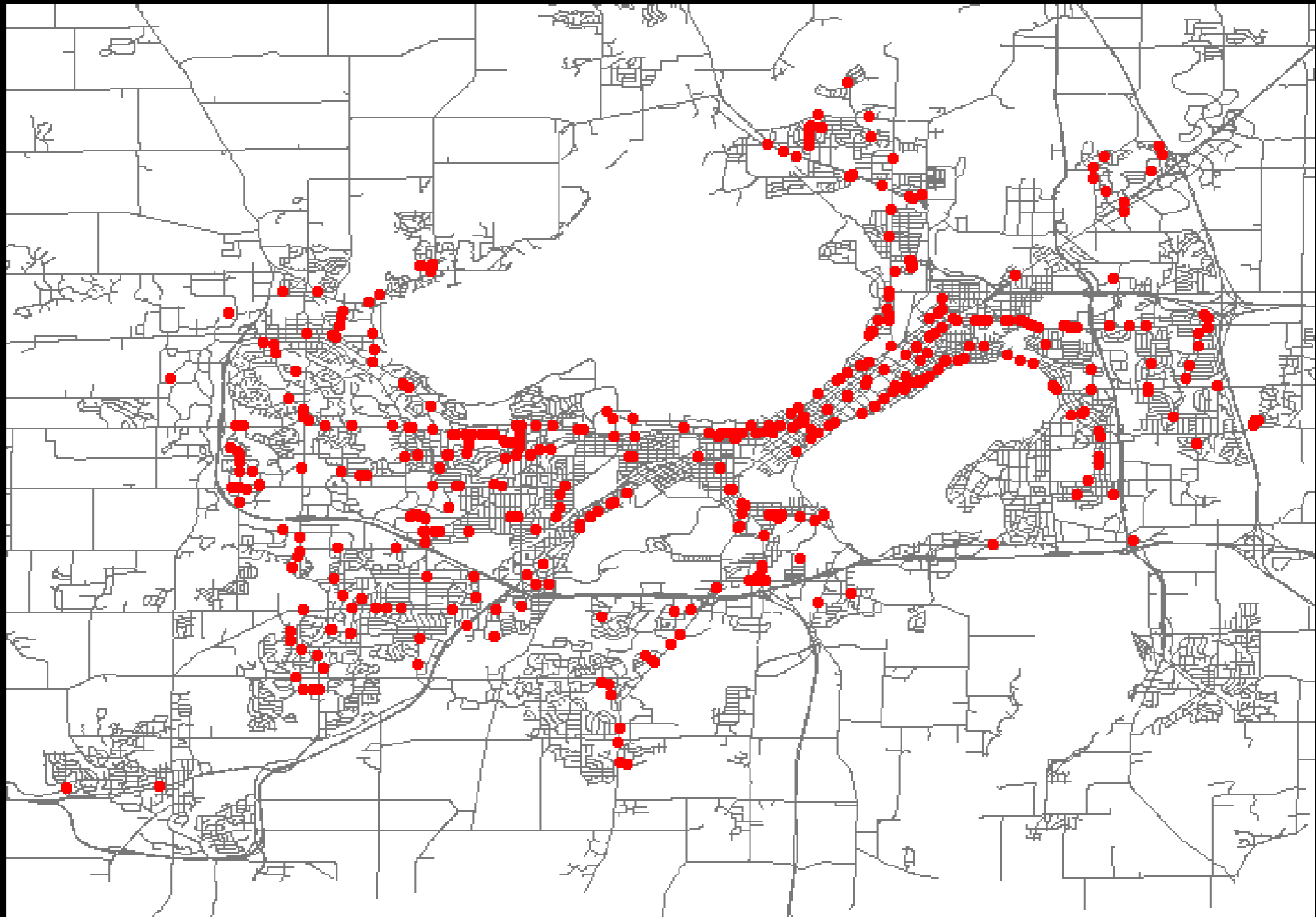
- Fare changes
- Route and schedule changes
- Transit unlimited-ride pass agreements



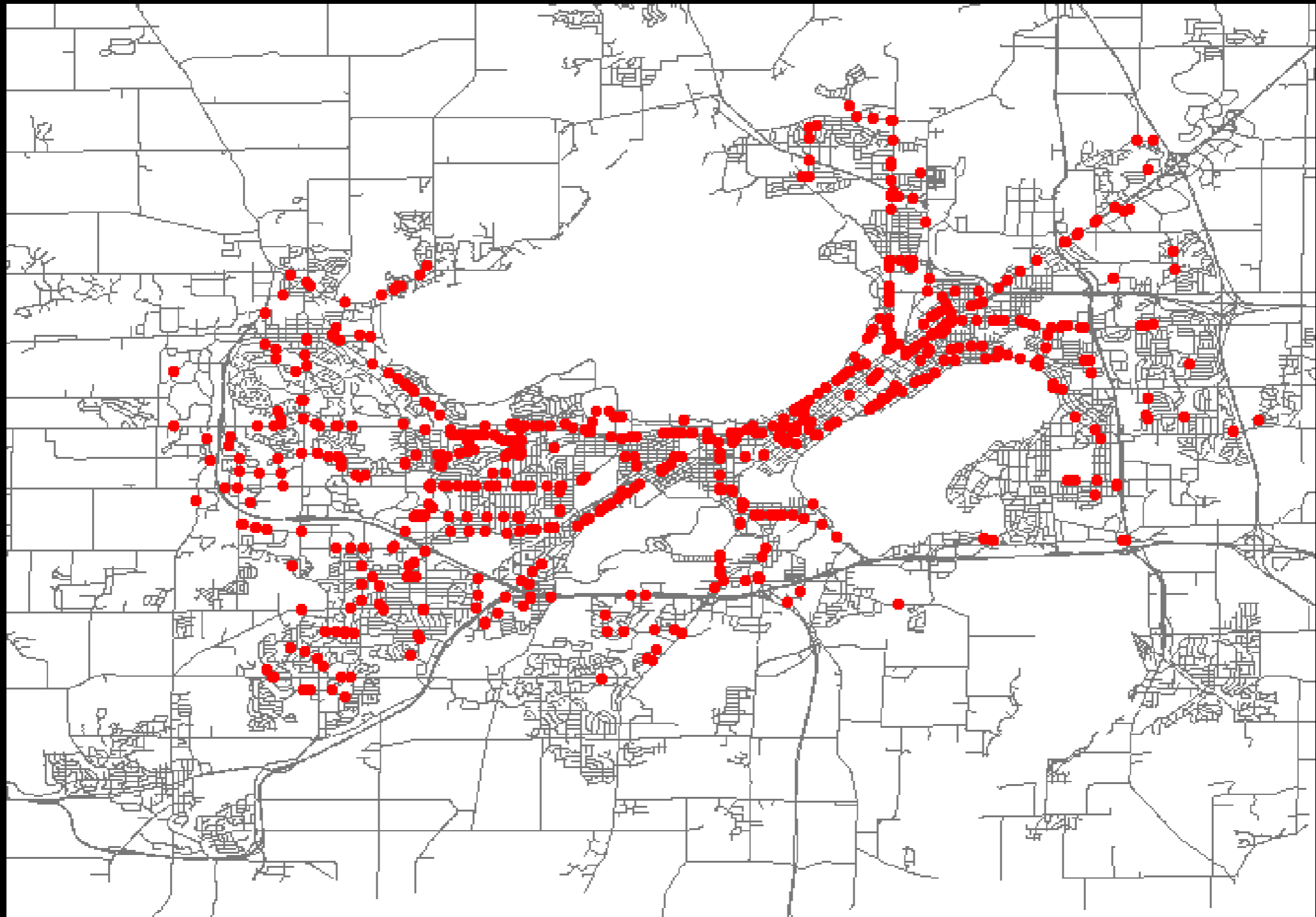
UW Employee Pass Boarding By Hour
February 9, 2010 -- 5:00 AM



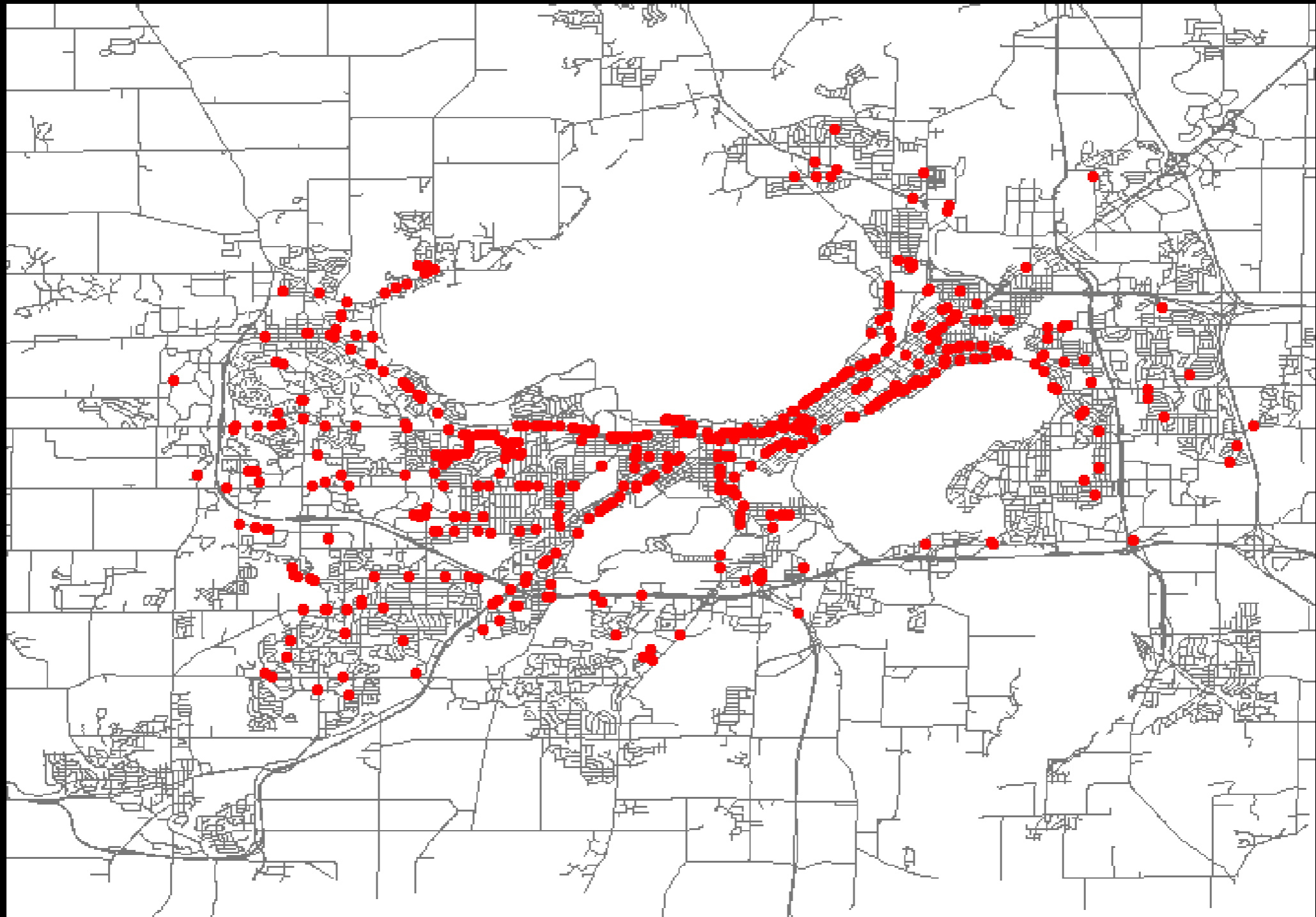
UW Employee Pass Boarding By Hour
February 9, 2010 -- 6:00 AM



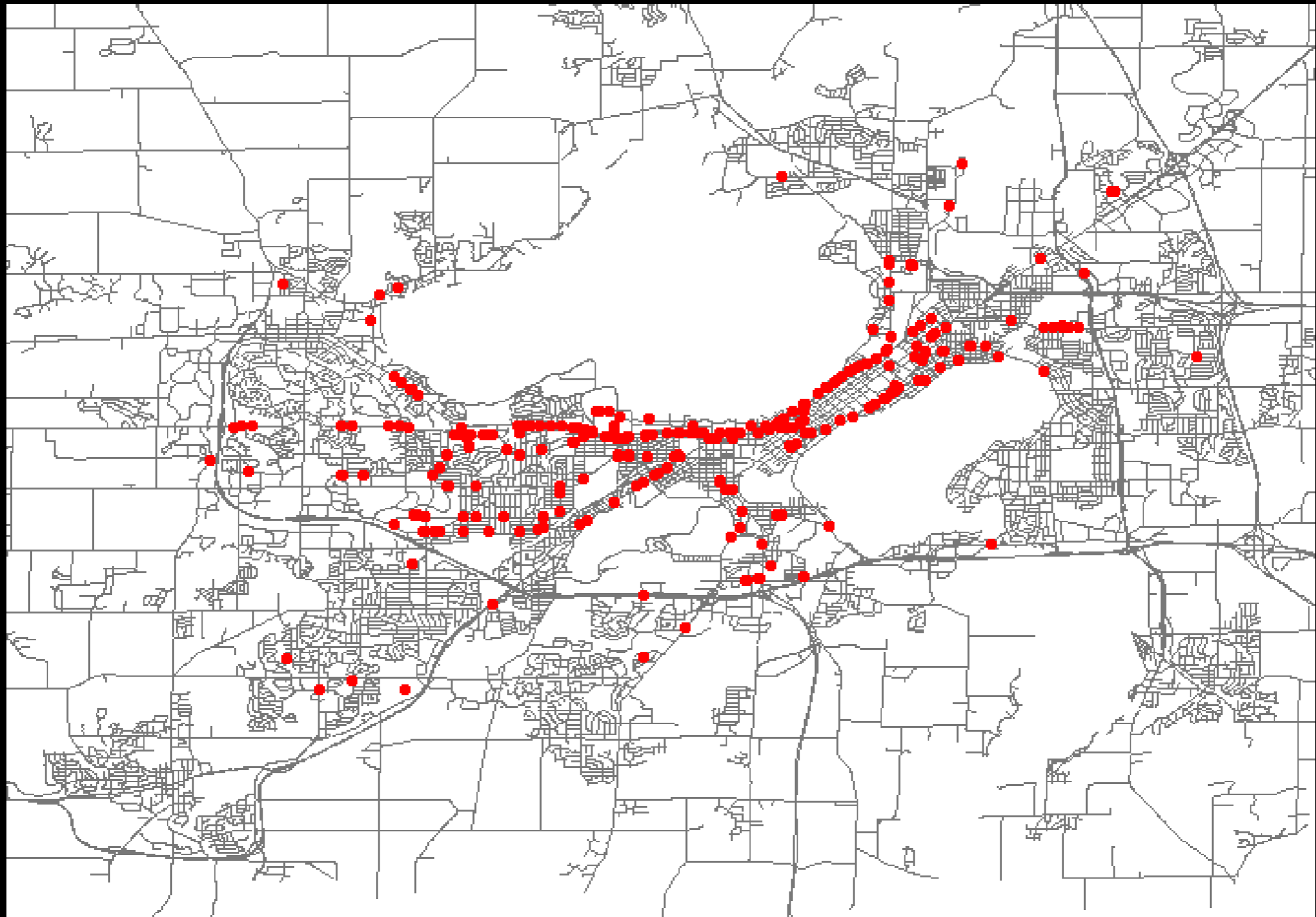
UW Employee Pass Boarding By Hour
February 9, 2010 -- 7:00 AM



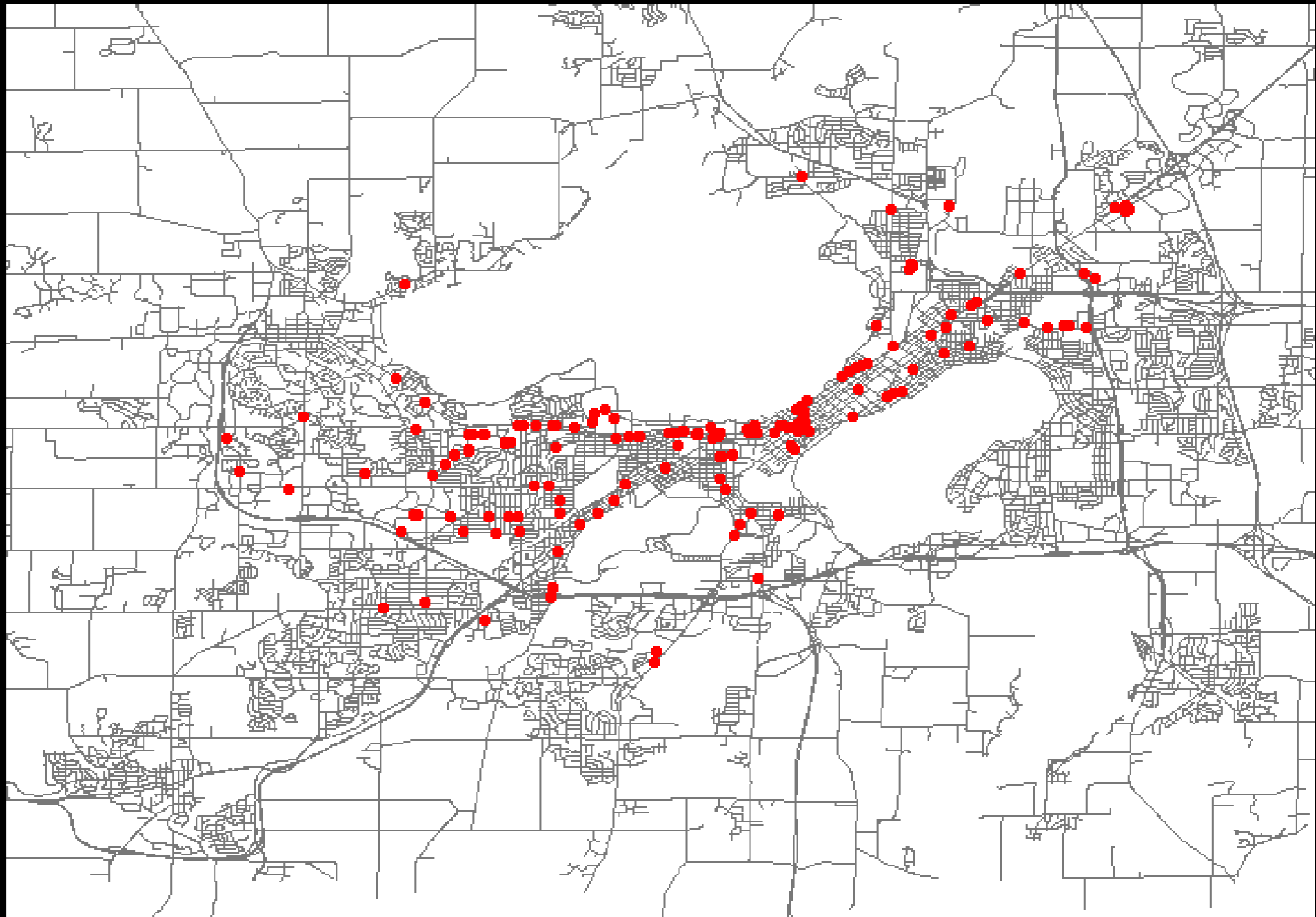
UW Employee Pass Boarding By Hour
February 9, 2010 -- 8:00 AM



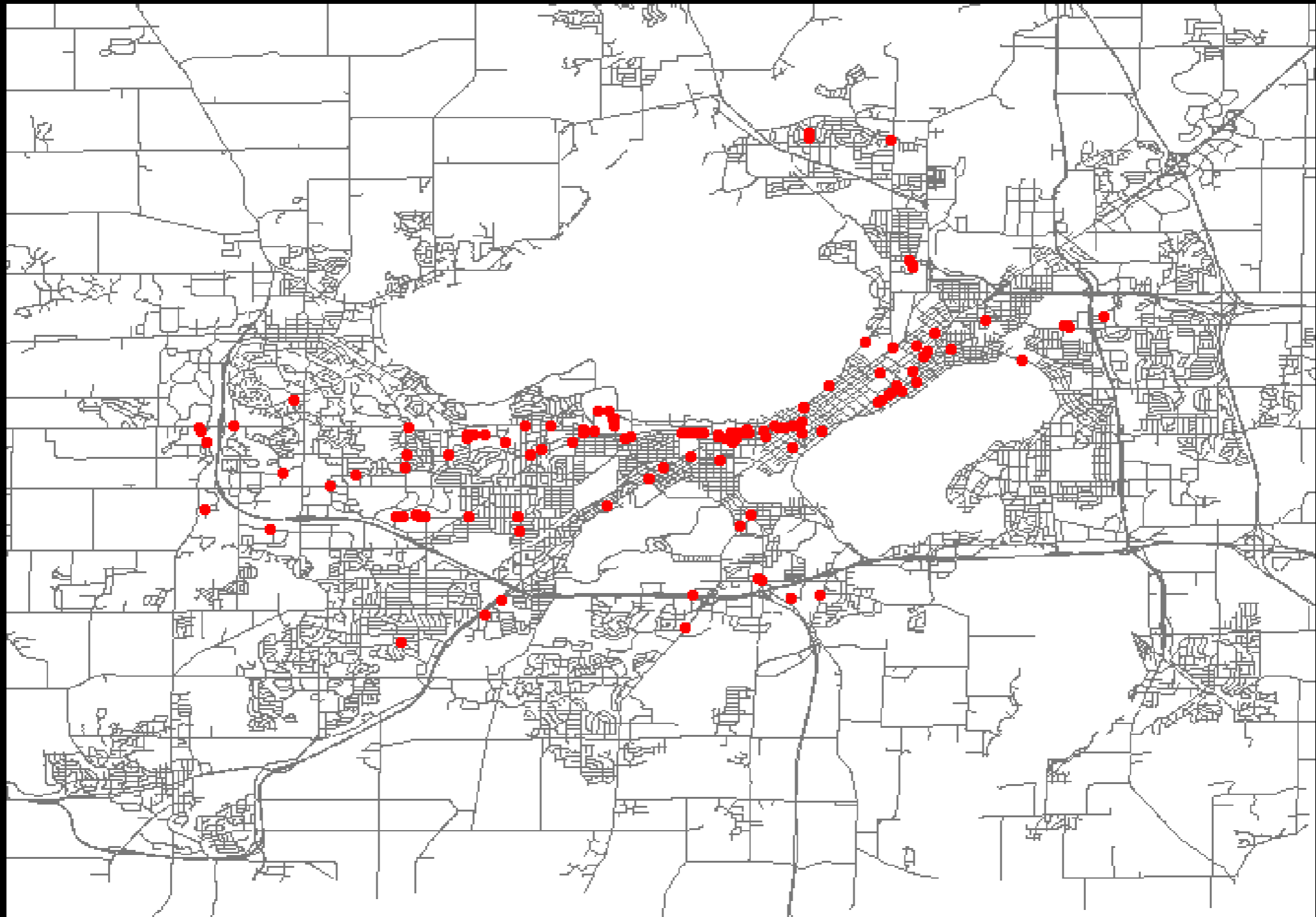
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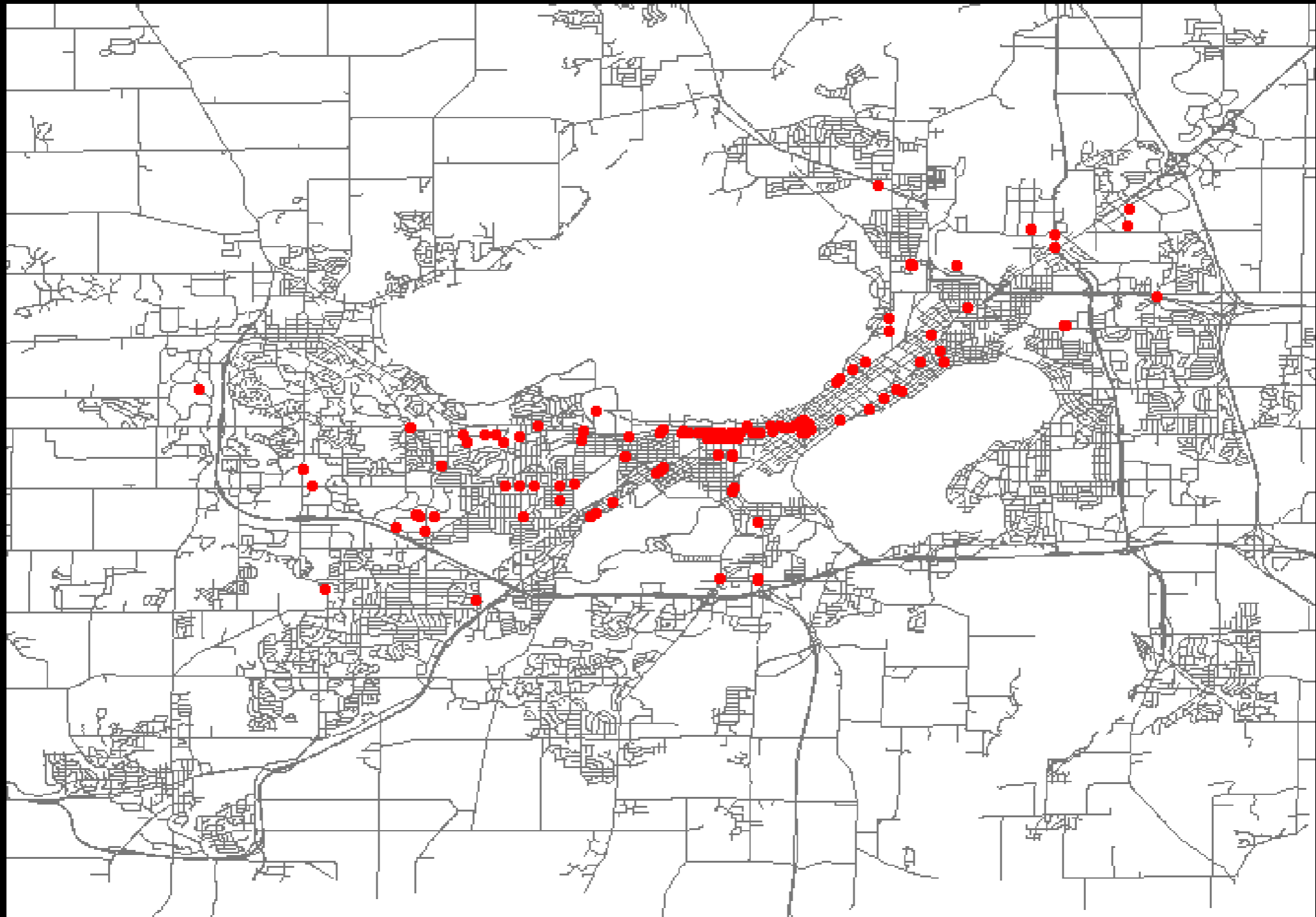
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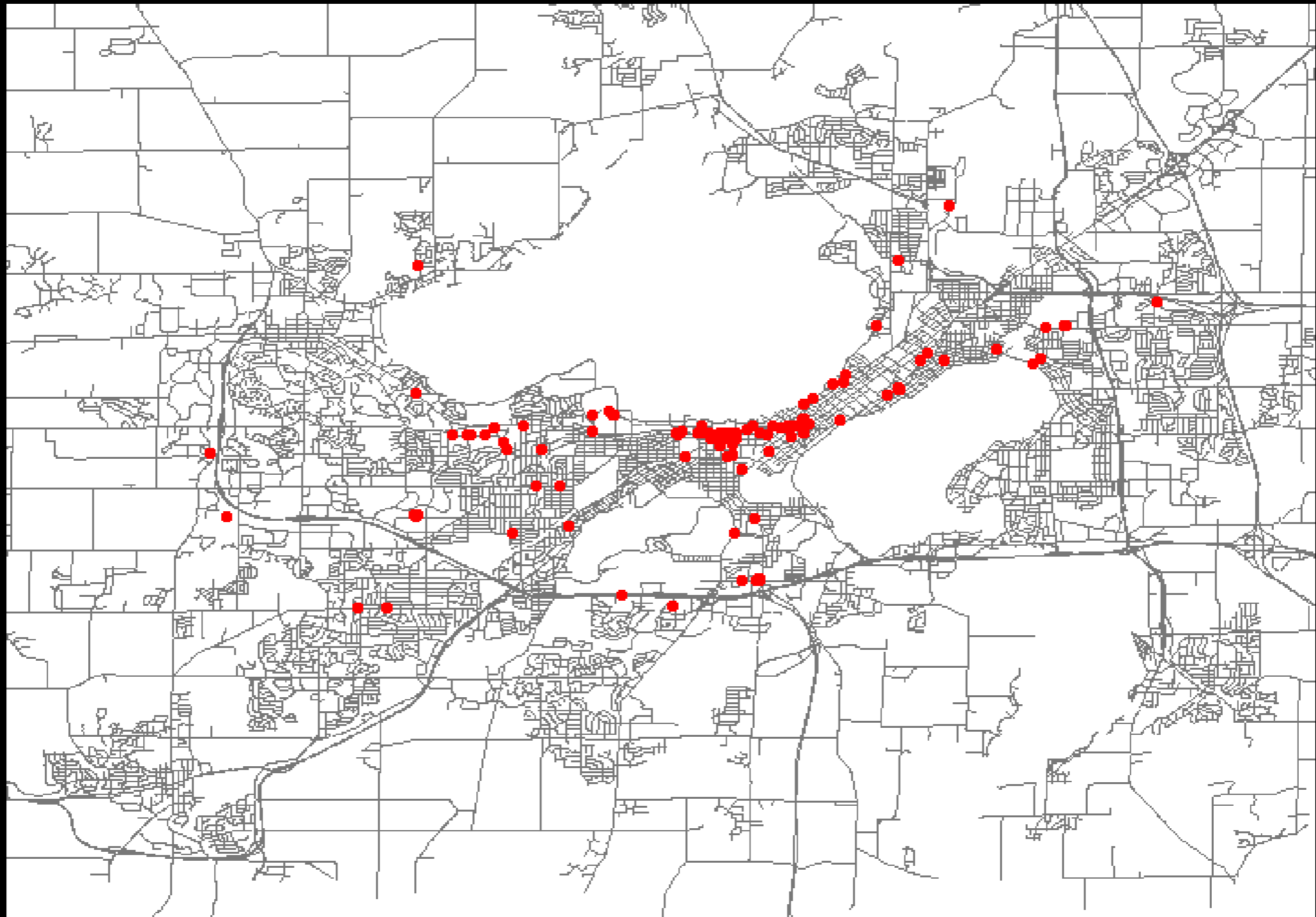
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February 9, 2010 -- 11:00 AM



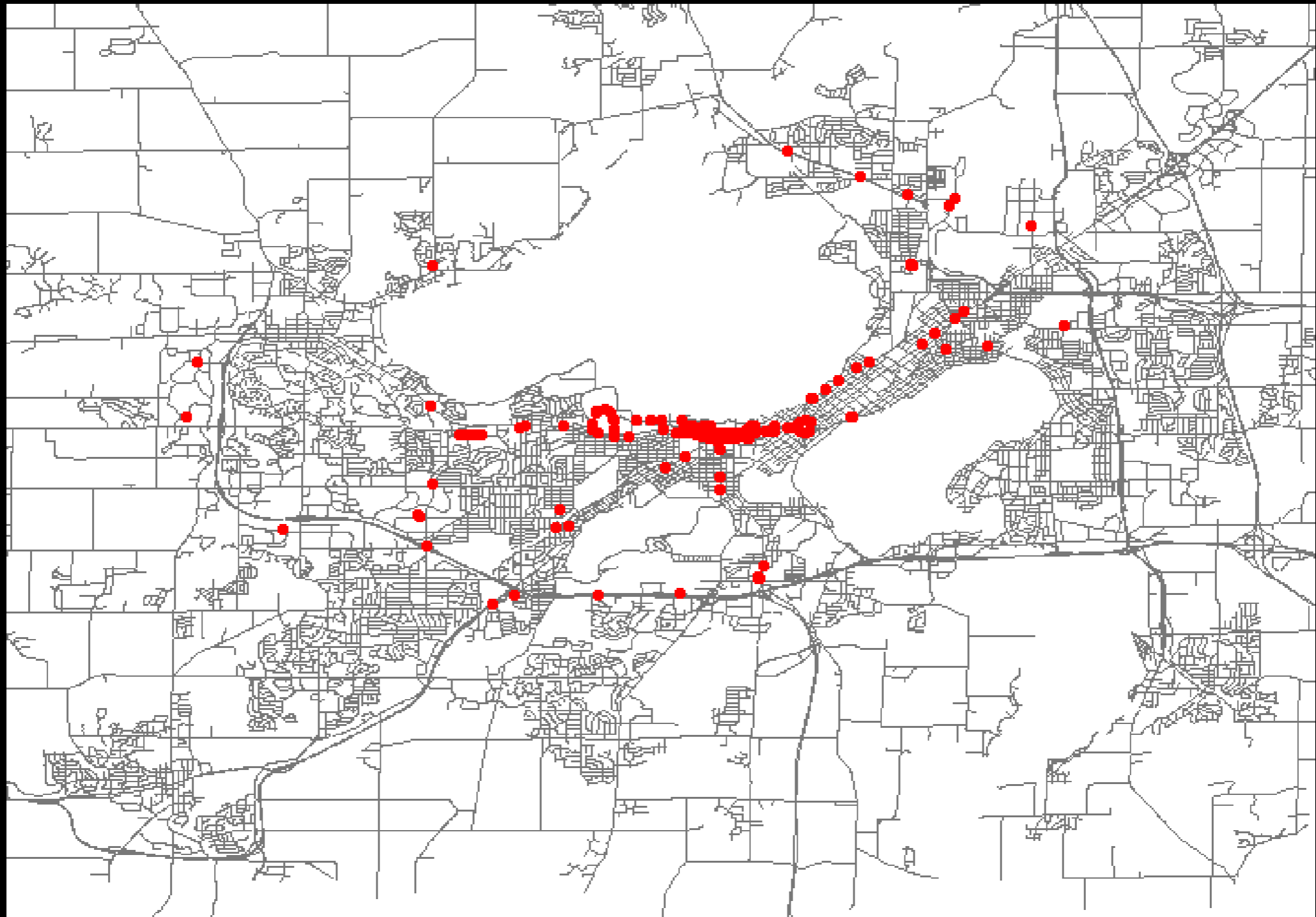
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February 9, 2010 -- 12:00 PM



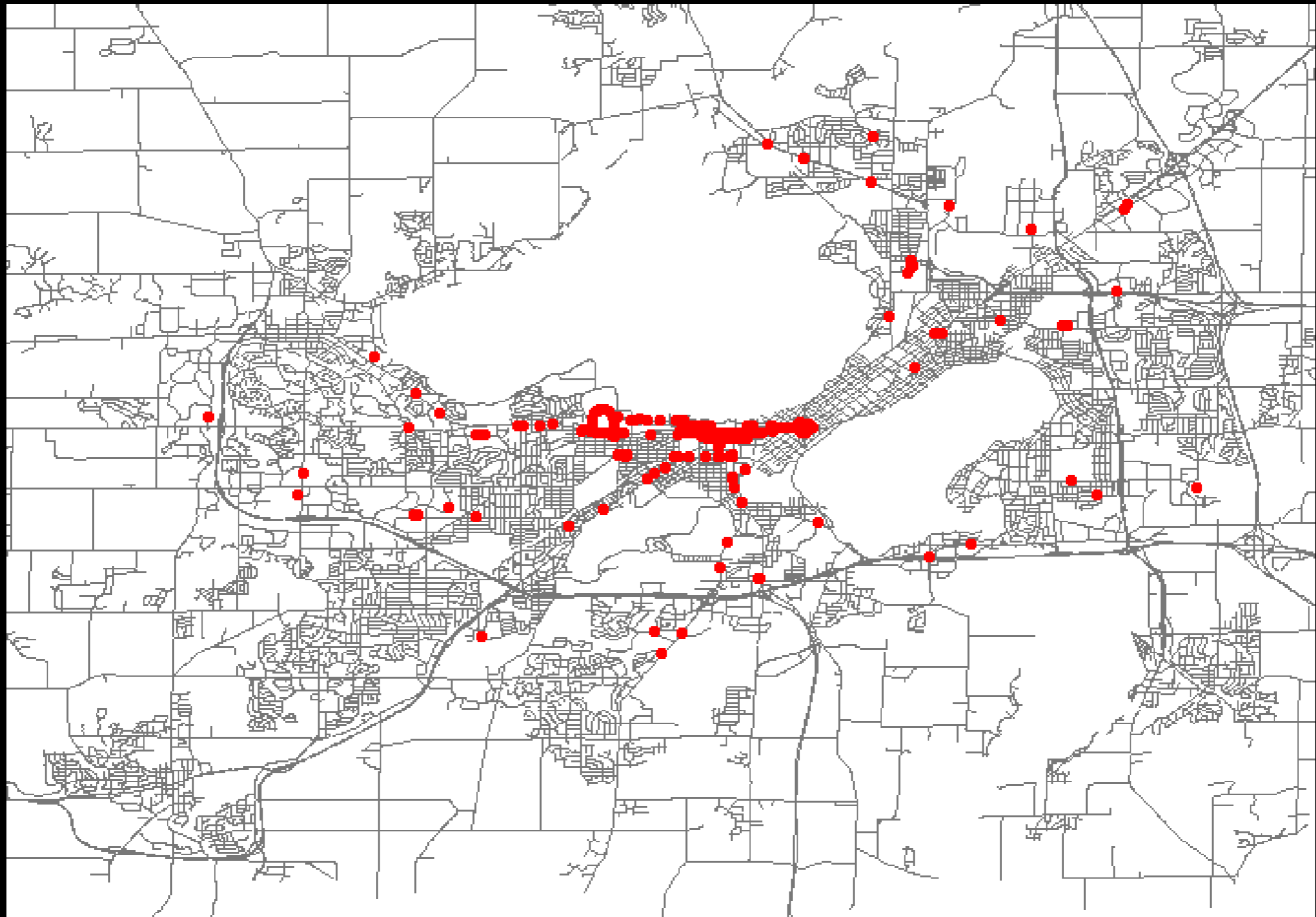
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February 9, 2010 -- 1:00 PM



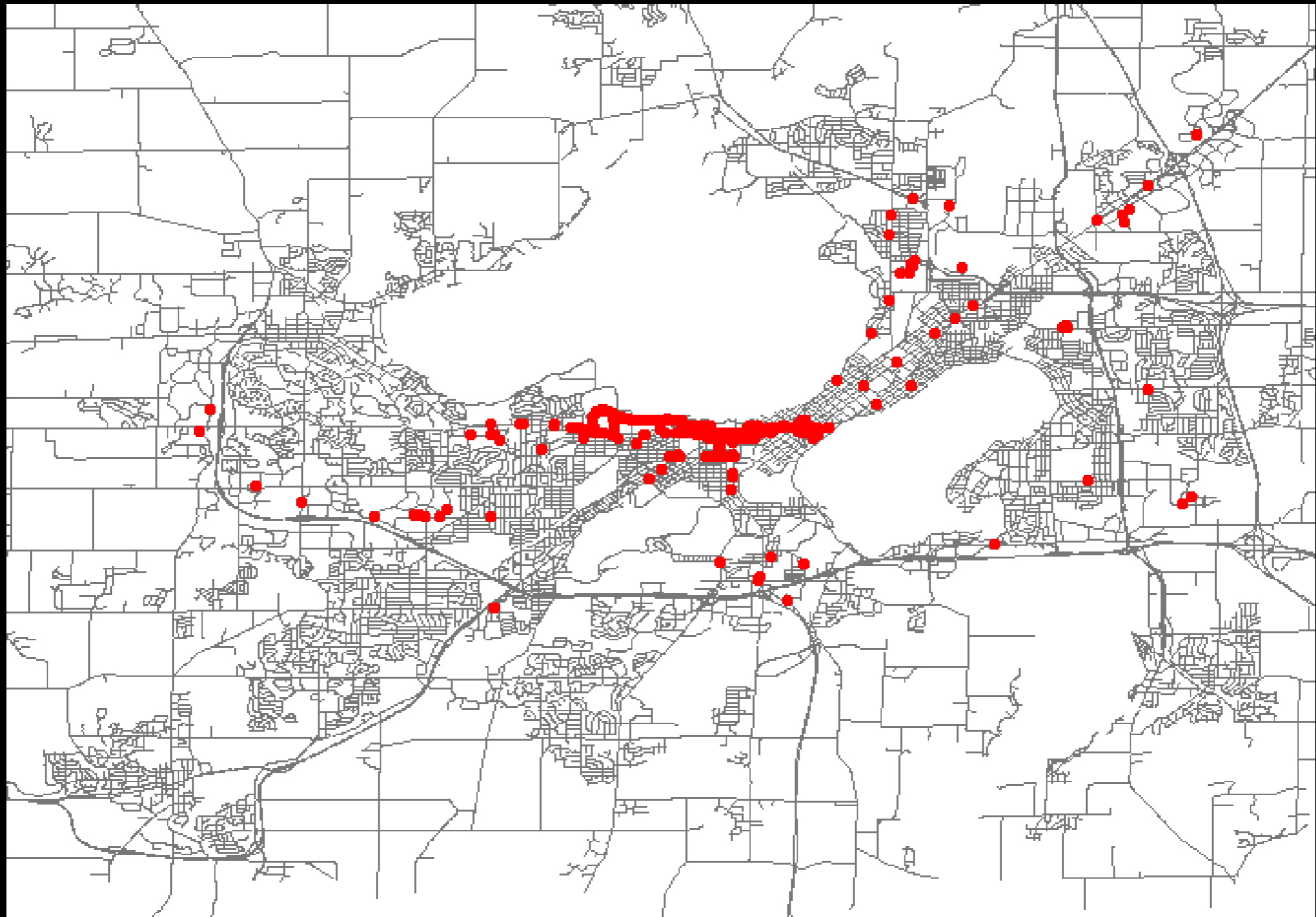
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February 9, 2010 -- 2:00 PM



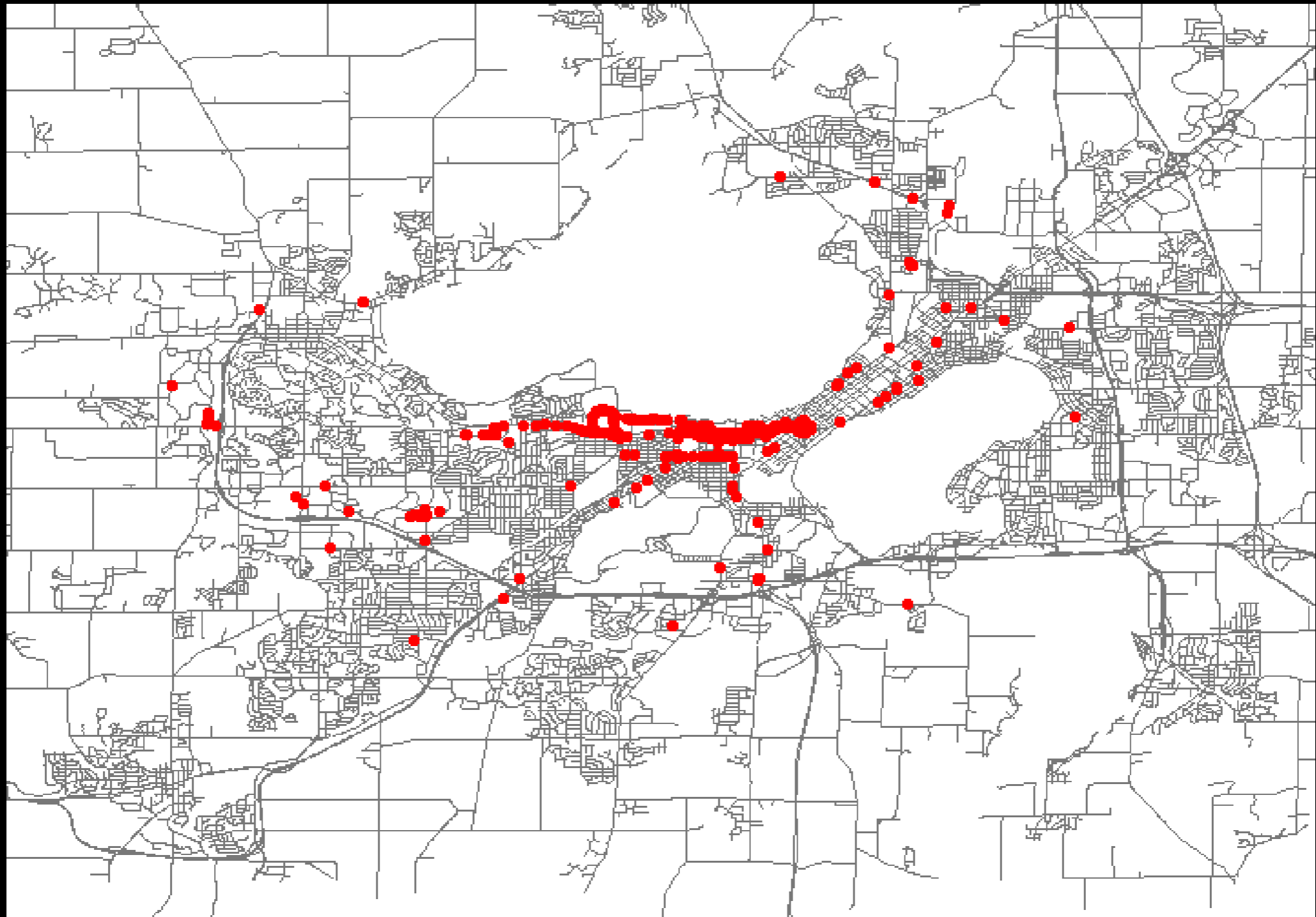
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February 9, 2010 -- 3:00 PM



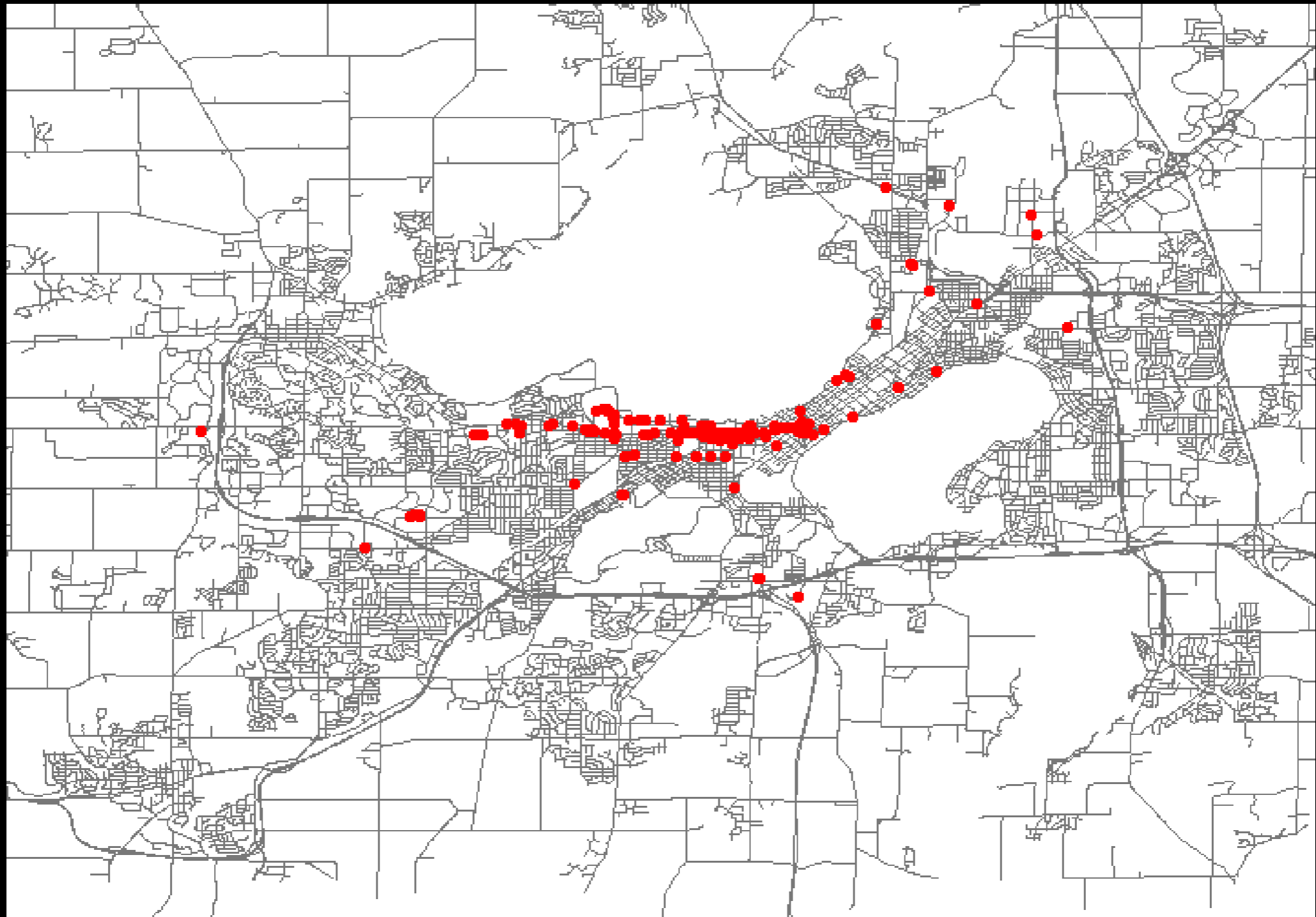
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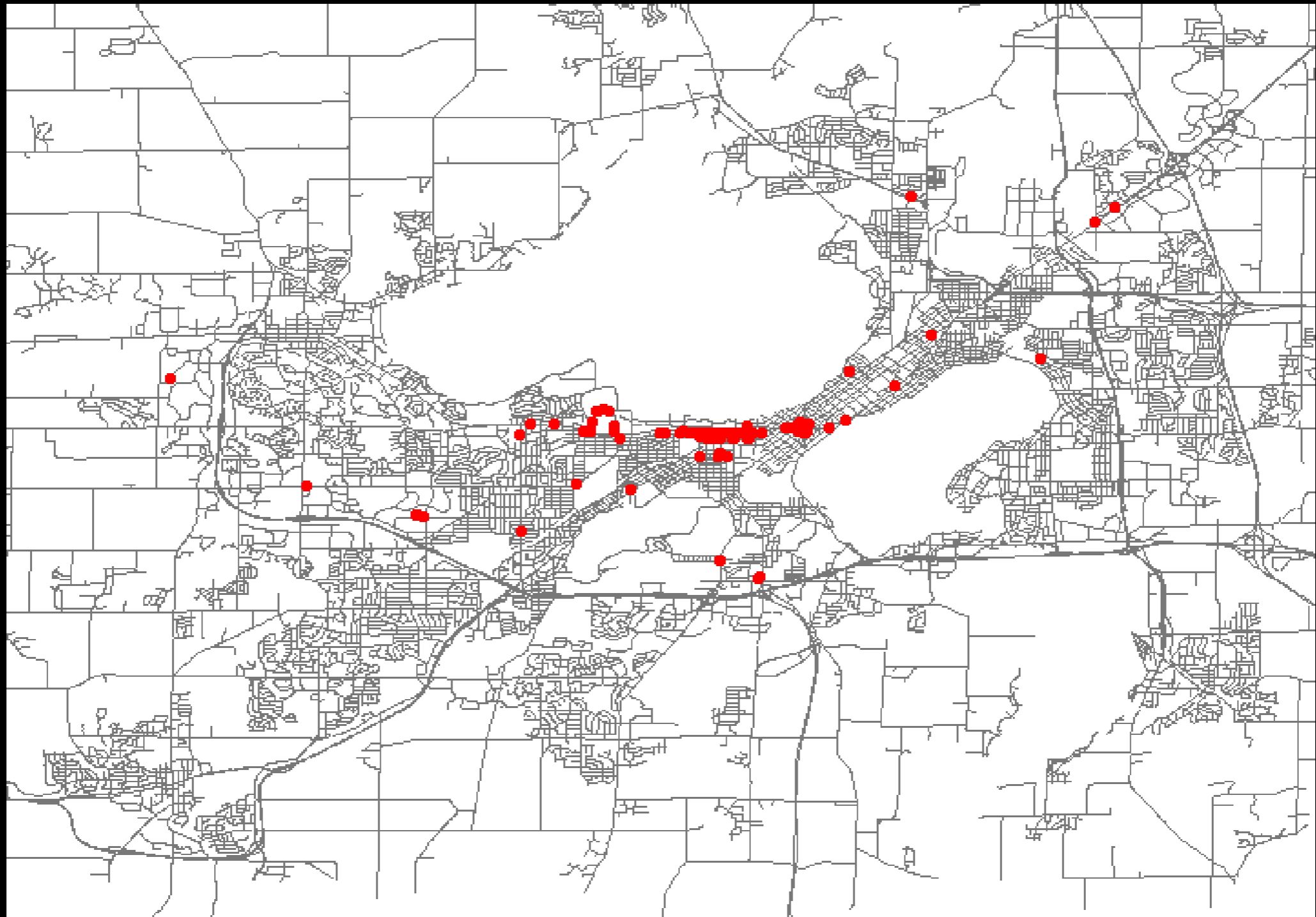
UW Employee Pass Boarding By Hour
February 9, 2010 -- 5:00 PM



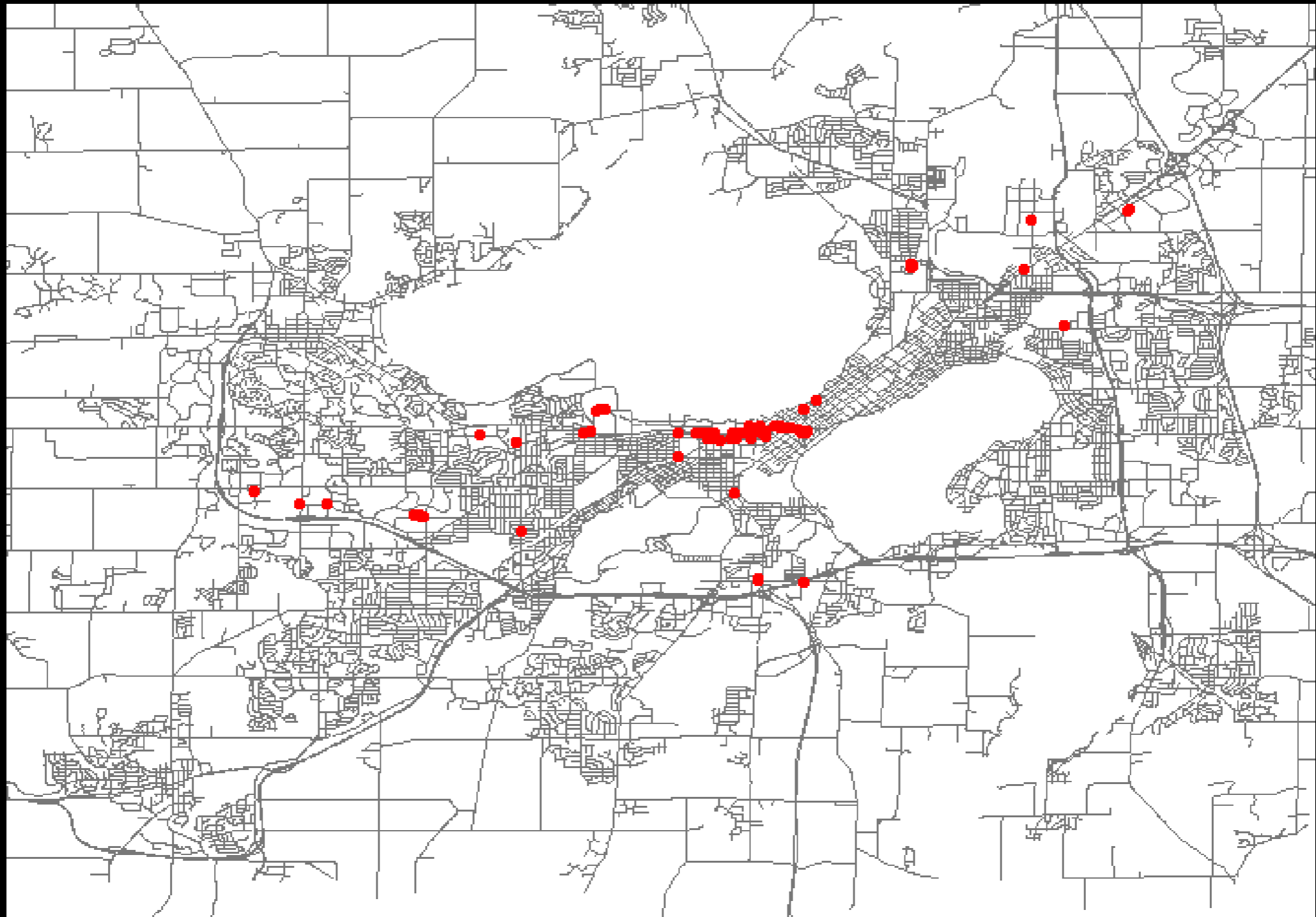
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February 9, 2010 -- 6:00 PM



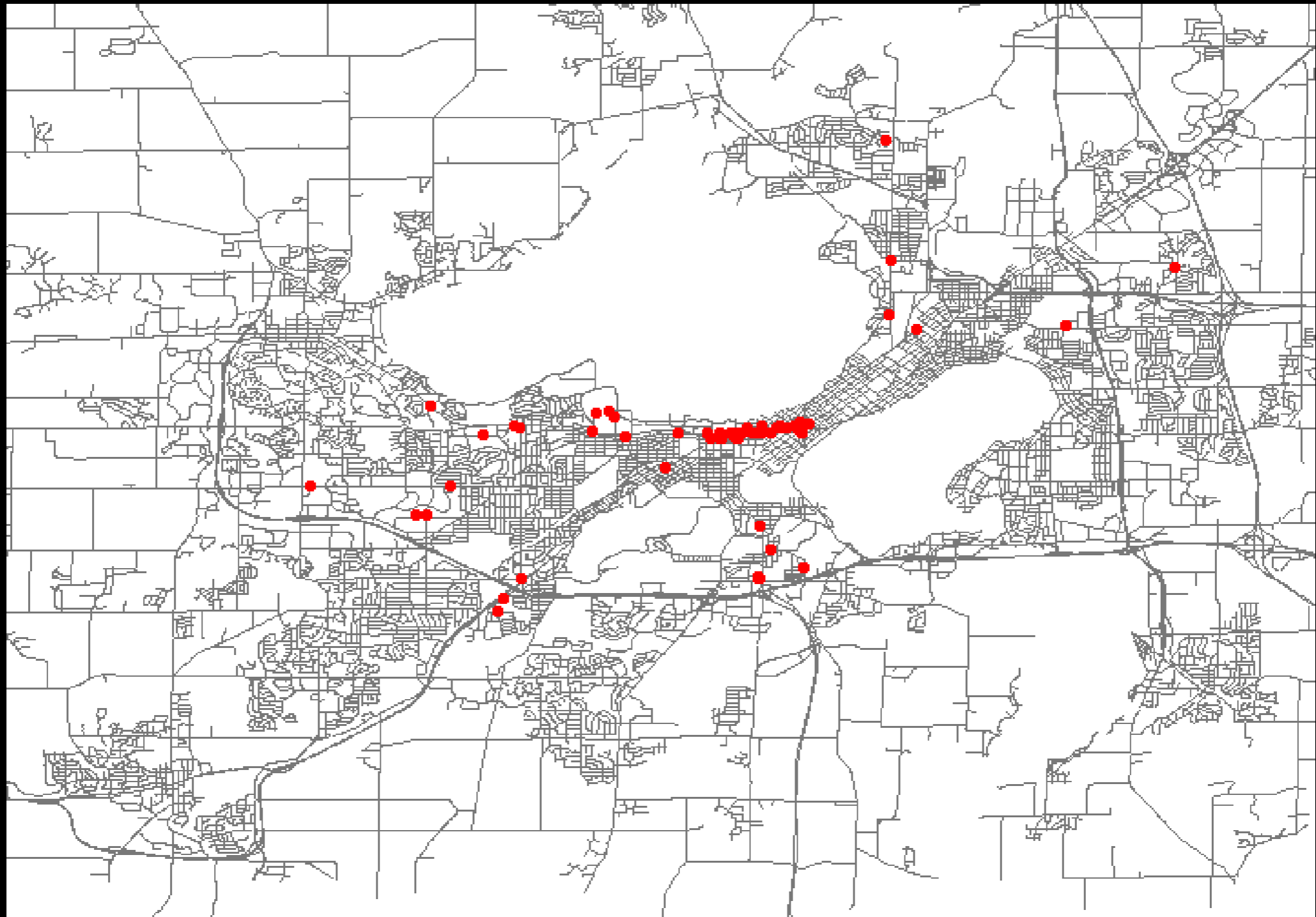
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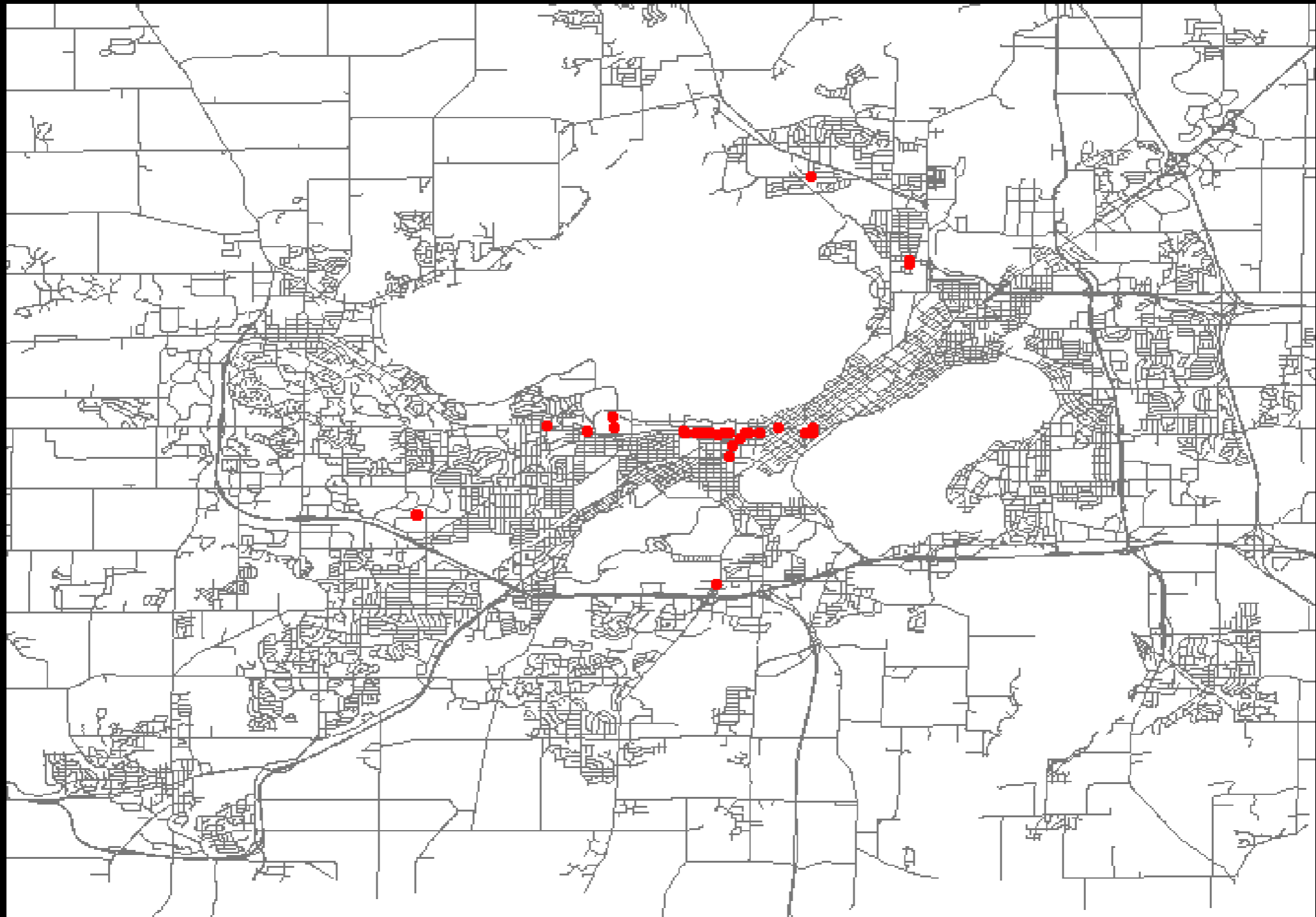
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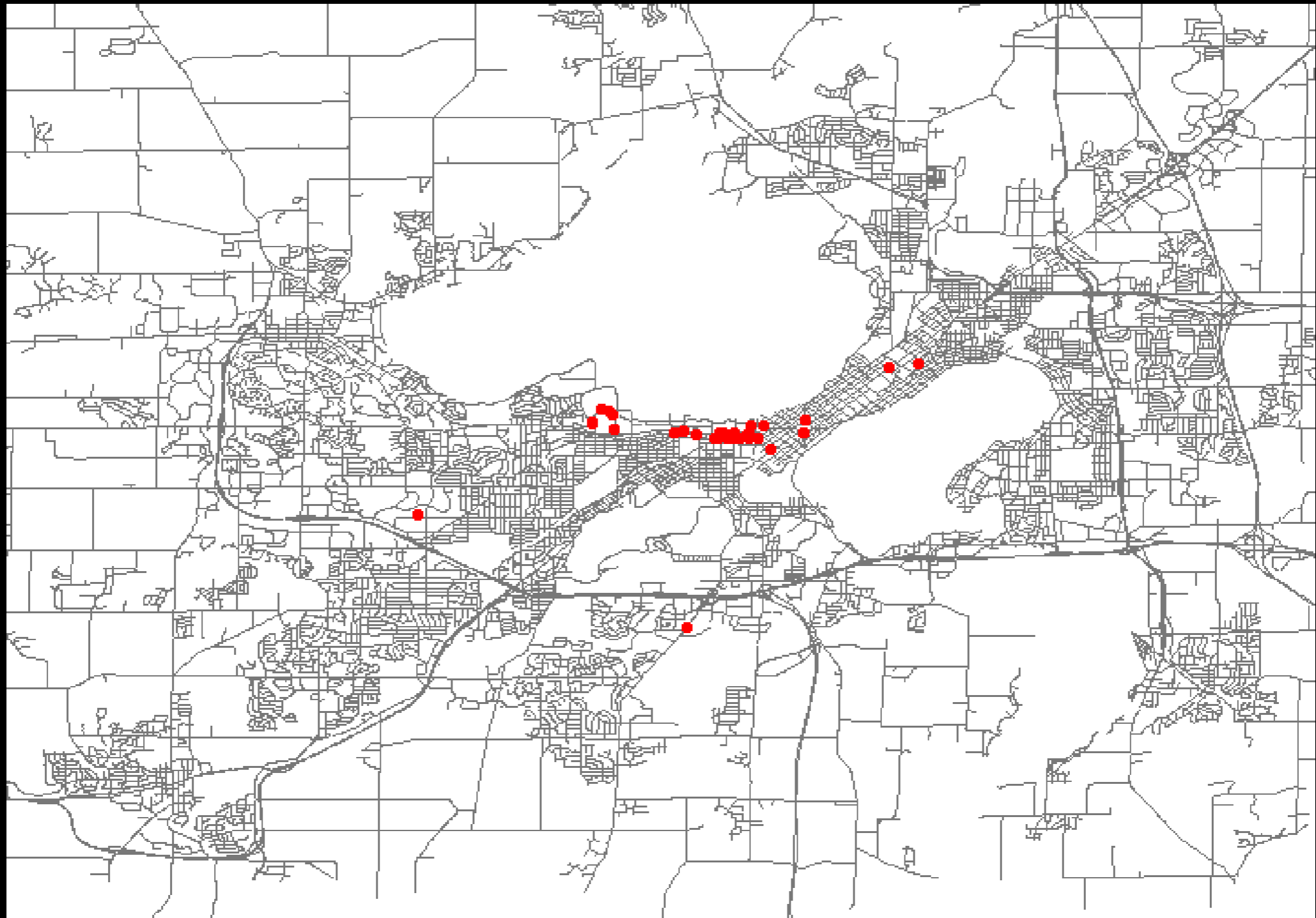
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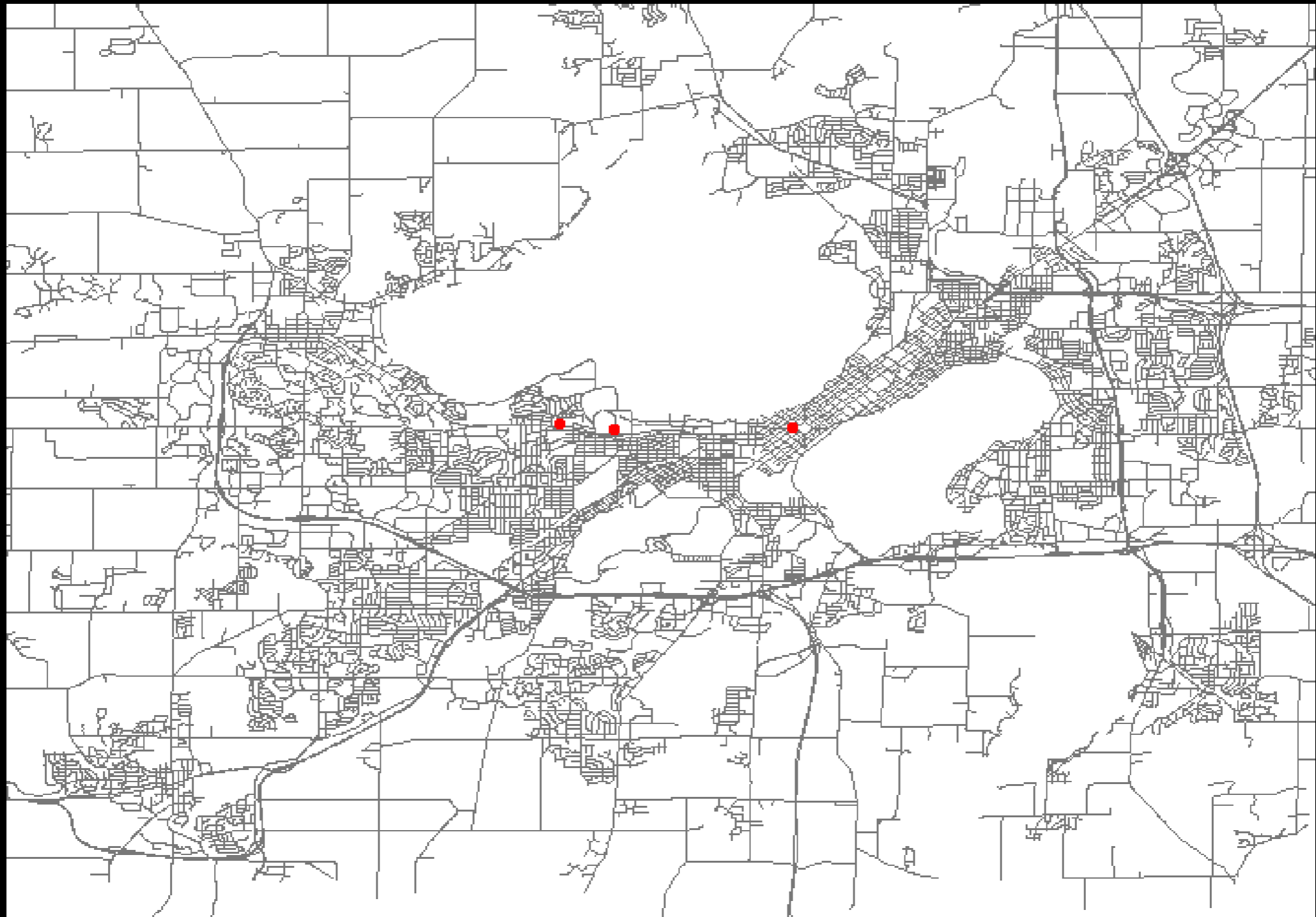
UW Employee Pass Boarding By Hour February 9, 2010 -- 10:00 PM



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February 9, 2010 -- 11:00 PM



UW Employee Pass Boarding By Hour
February 9, 2010 -- 12:00 AM





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Thanks
for taking the bus
and saving energy.

Jimmy Carter





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NOT IN SERVICE

NOT IN SERVICE

NOT IN SERVICE

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