

2013/2014 Snow Removal & Ice Control Preparedness



City of Lawrence
PUBLIC WORKS

Executive Summary

11/19/2012

Presented by

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Assistant Director Public Works

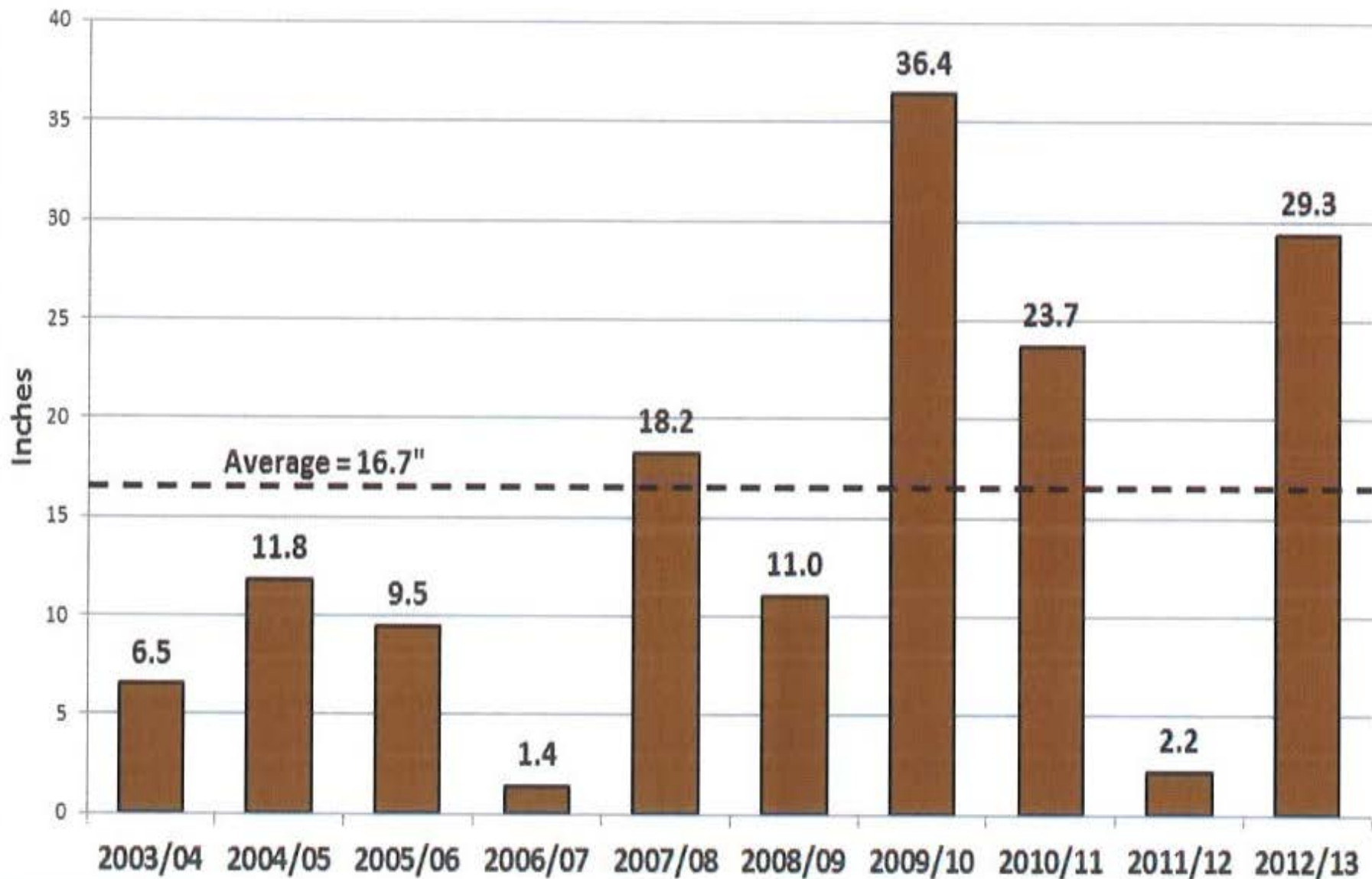
Typical Numbers for Lawrence

- Average Snowfall per year = 21”
- Average number of snow events = 7
- Record monthly snowfall = 21.9” in January 1985
- Record single event = March 23rd 1912 – 20”
- Typical snow months December thru March



Comparative Snowfall (Past 10 Years)

from Downtown Lawrence



Monthly Snowfall & Rankings (1894-2013)

Month	Snowfall	Average Snowfall	Ranking
November 2012	0.0"	0.9"	--
December 2012	2.4"	3.4"	58th snowiest
January 2013	2.7"	4.4"	Tied 63rd snowiest
February 2013	20.0"	4.5"	3rd snowiest
March 2013	4.2"	2.8"	27th snowiest

Records

This February was the 3rd snowiest February on the books.

Comparison Last Two Seasons

	<u>2011/12</u>	<u>2012/13</u>
● Snowfall	2.5"	29.6"
● Number of events	4	8
● Salt consumption	749 tons	3,462 tons
● Sand consumption	583 tons	1,886 tons
● Liquid Brine	not used	53,185 gal
● Man-hours	\$33,900	\$160,014
● Equipment	\$12,972	\$68,178
● Rented Equipment	not used	\$96,204
● Materials	<u>\$48,735</u>	<u>\$209,861</u>
● Total cost	\$95,608	\$534,257

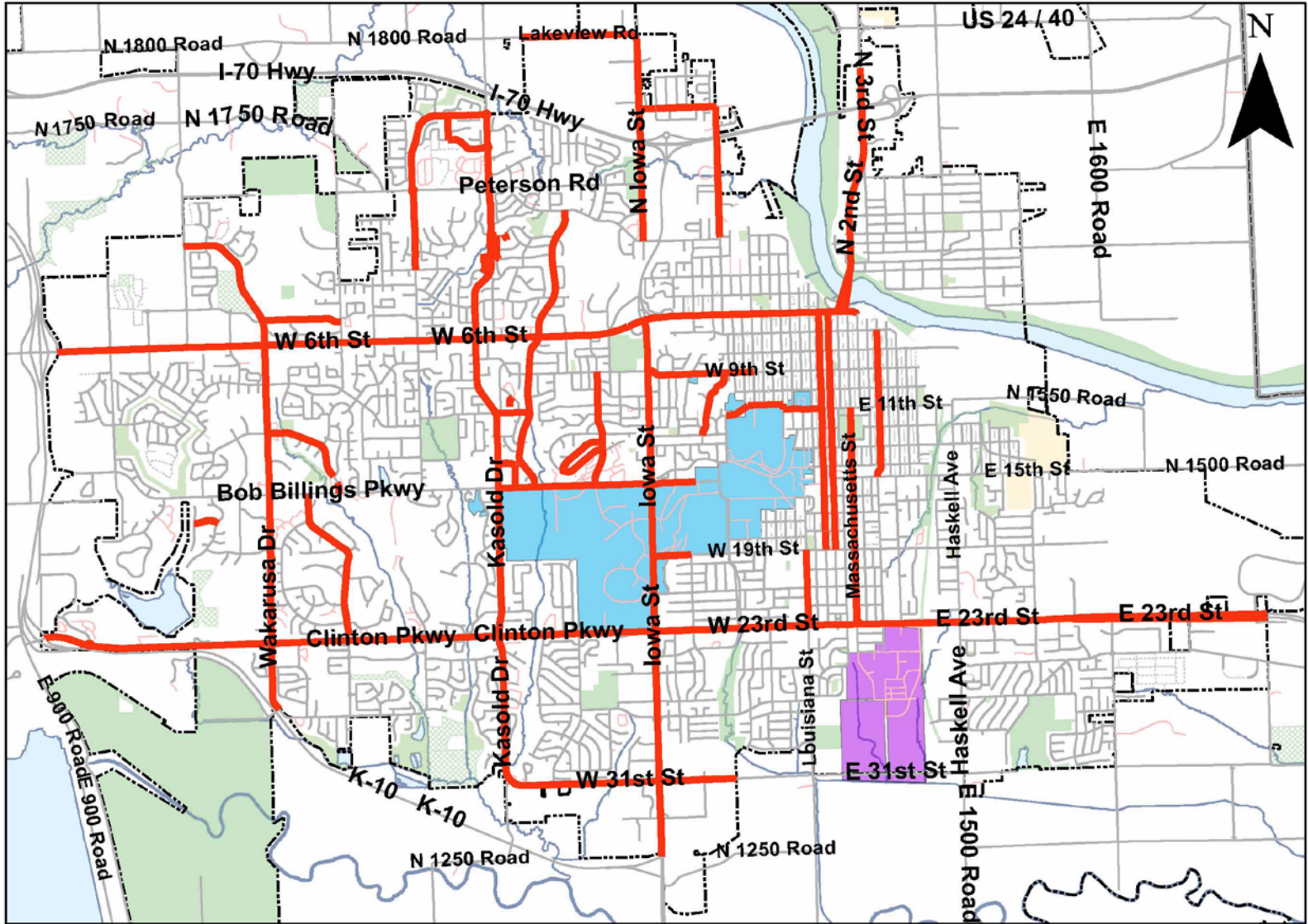
Snow / Ice Control Plan

- The city is divided into 5 areas
- Using Iowa St. & Bob Billings Pkwy. as the dividing line
- There are 17 specific routes
- Routes follow priority order from most traveled to least traveled
- Criteria
 - Traffic counts, bus routes, schools, major employment centers, and hospitals.
 - Plowing begins at a snow depth of 1”
 - Treatment begins prior to event

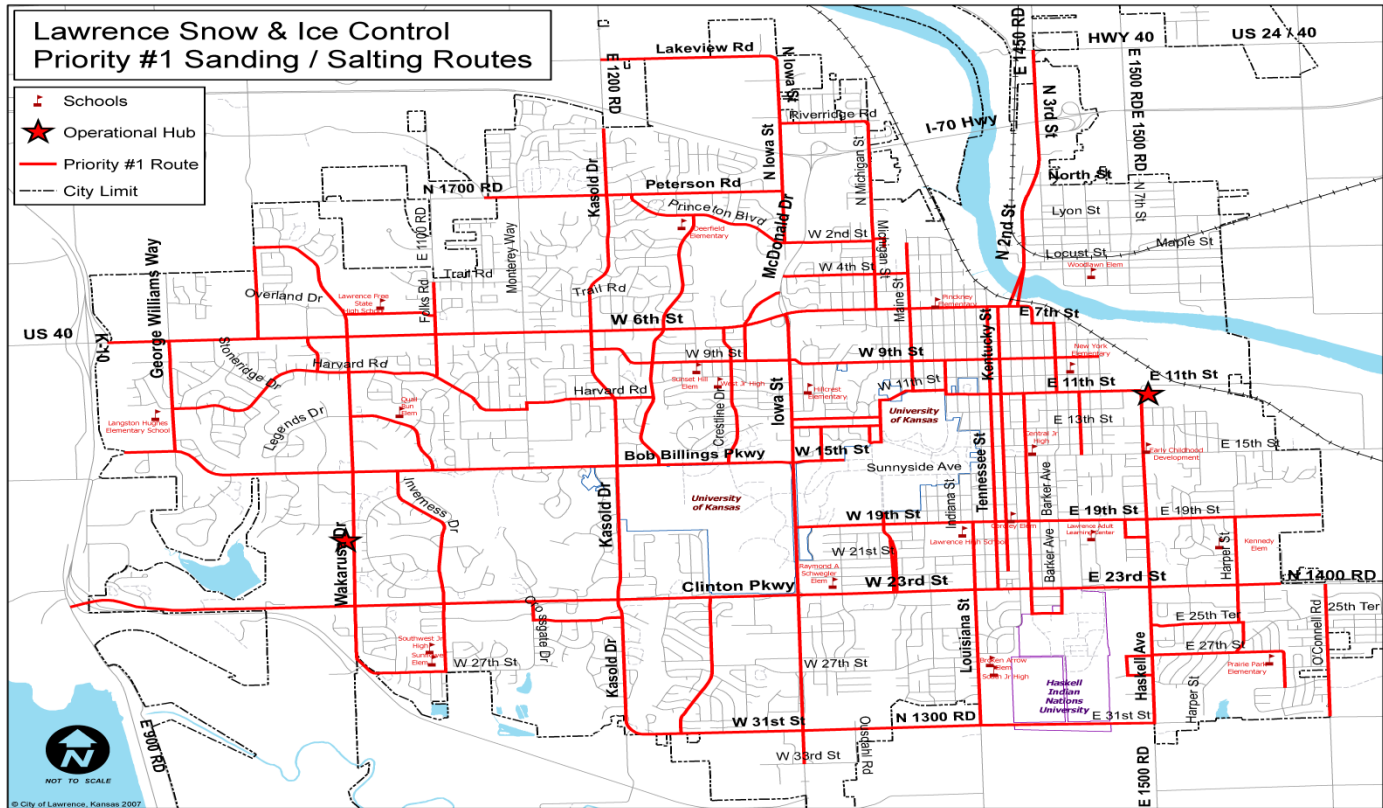
Pretreatment Plan

- Crews will go out ahead of the storm forecast during normal hours and pre-treat street / bridges.
 - Rain & extreme cold (15F) will eliminate the ability to do this.
- Start out in select areas
- Goals
 - Shorten the clean up time
 - Reduce cost
 - Quicker response times

Liquid Pre-Treatment



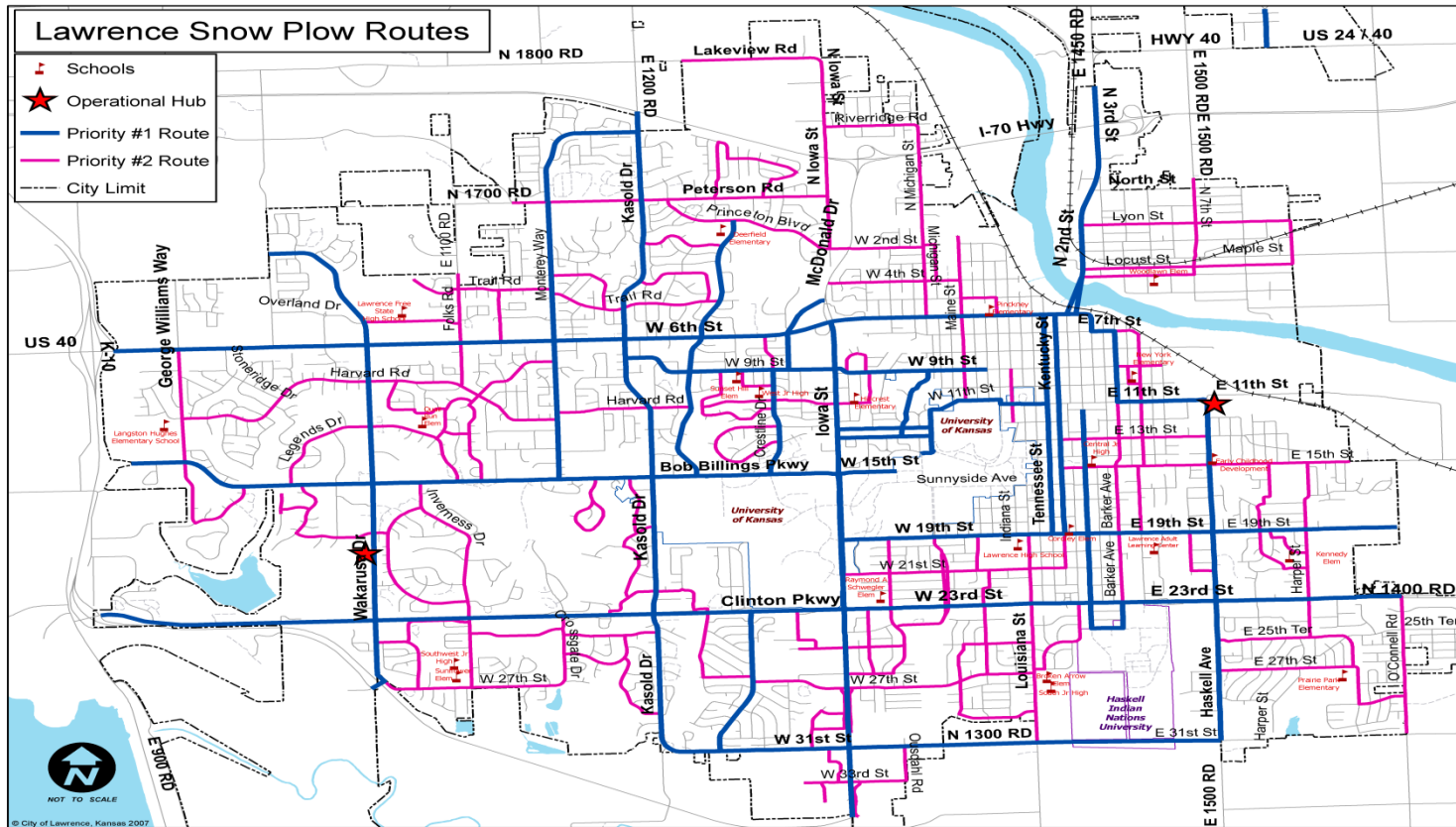
Snow & Ice Control Sanding / Salting Routes



Snow & Ice Control - Plowing Routes

Priority 1 = 201 lane miles

Priority 2 = 148 lane miles



Materials



- We will start this season
 - 4,000 tons of salt
 - 1,000 tons of sand
 - 2,500 tons of salt sand mix
 - 21,000 gallons Brine
 - 2,500 tons of salt on hold order



Equipment

- 6 - Tandem axle dump trucks
- 5 - Single axle dump trucks
- 9 – 1 ton 4x4 trucks
- 1 – Wheel loader
- 2 – Motor graders
- 3 – Back-hoe
- 2 – Farm tractors
- 2 – Liquid tank spreader



Personnel

- 35 equipment operators
- 4 supervisors
- Division manger
- Administrative support
- Other
 - Communications Manager
 - Asst. Public Works Dir.
 - Police & Fire
 - Utilities
 - Parks & Recreation
 - Contractors



Public Awareness

- Web site
 - www.lawrenceks.org
 - Links to safety and weather
- Media
 - Lawrence “in focus” video
 - Water bill inserts
 - Press releases
 - **“Snow plows hit the streets Tuesday”**
 - Live interviews before and during events

What Can the Public do to Help

- Be prepared
- Do not follow too close to plow trucks
- Allow plenty of time for traveling
- Stay home if possible
- Remove vehicles from the streets
- Wait until we clear your street to shovel driveways and sidewalks

Annual Snow Training Day

The First Tuesday In November Each Year

- The annual practice provides an opportunity to review the plan, incorporate new streets, give equipment one more check and train employees



APWA Snow Rodeo



Training

- Management team completed APWA
 - Winter Maintenance Supervisor Certification
- Safety training
- CDL training
- Spreader calibration
- Identify proper spreading rates
- Understanding the “buddy System”
- Verify routes



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Snow and Ice

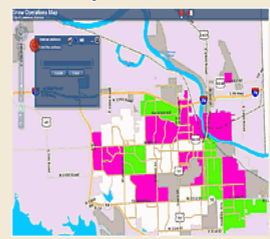
Winter 2011/2012

Use this guide as a resource for snow-related topics.

Latest Progress News Releases

- [Crews working round the clock to clear streets](#)
- [City workers a "salt" roads to prepare for in clement driving conditions](#)
- [Bikers urged not to ride in two feet of snow](#)
- [Temporary igloos being made to save electricity](#)
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Snow Map



[View Snow Map](#)



City News

- [Three local organizations come together to make a child's day special with the 'Birthday Bear'](#)
- [Carbon monoxide: a silent killer](#)
- [Take Charge Challenge results released: Lawrence loses to Manhattan](#)
- [Parks and Recreation facilities serve as a drop-off locations for coat drive](#)
- [Shelters and park restrooms closing for season](#)
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Reviewing the Plan

The [Street Maintenance Division](#) conducts a practice of the snow removal plan annually. For the 2011/2012 winter weather season, review of the plan was Nov. 1. Employees from the Street Maintenance Division inspect equipment, locate required gear, and travel assigned routes streets.

Ready for Snow and Ice Readying the Plan

Routes follow a priority order from most traveled to least traveled streets. In general, winter operations progress from:

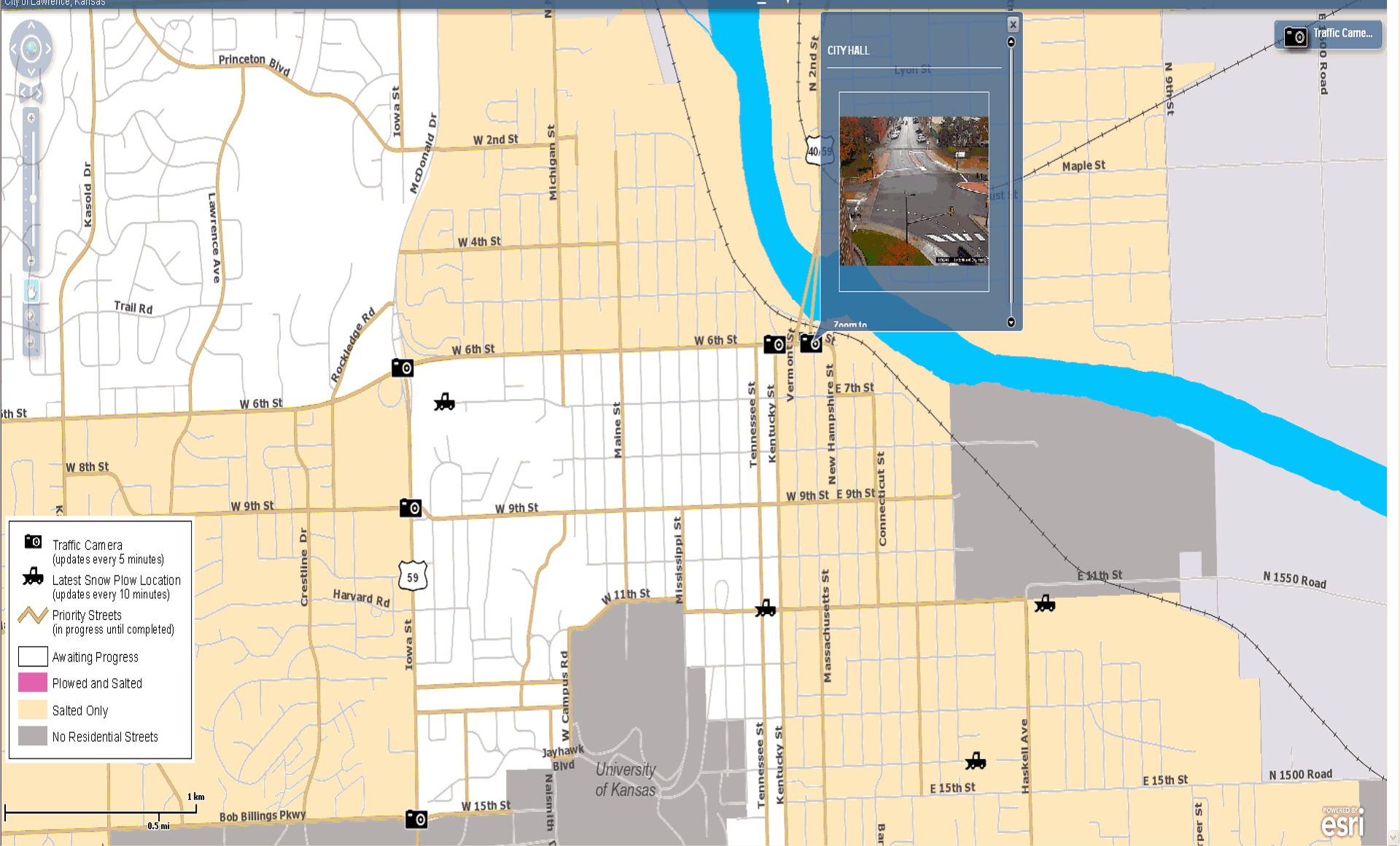
- Arterials**, high-capacity areas of travel such as Iowa Street or 6th Street
- Collectors**, low, to moderate-capacity streets that



[Spreading Routes Map \(PDF, 455 KB\)](#)

Snow Operations Map

City of Lawrence, Kansas





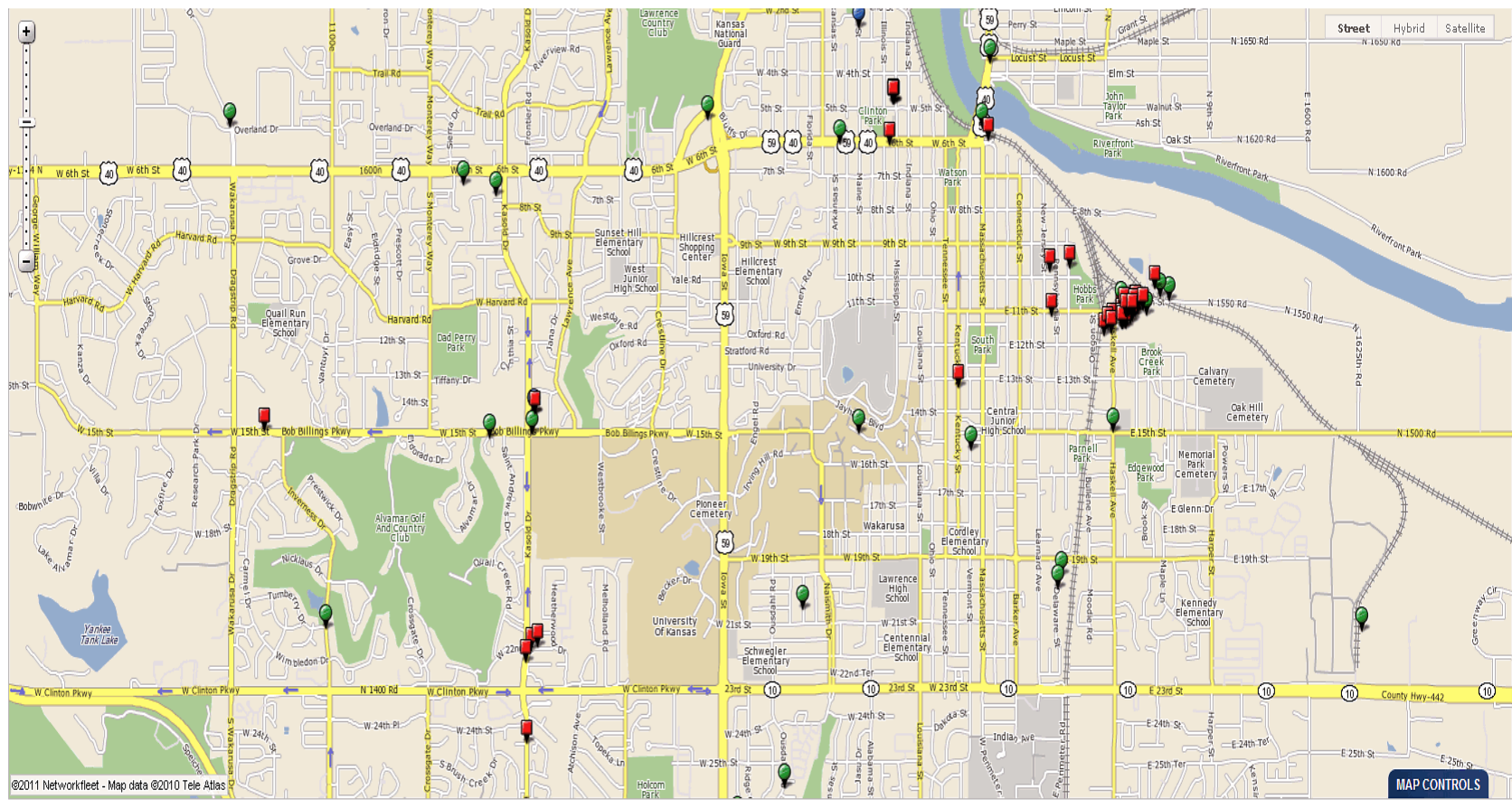
VEHICLE LIST

Group: - ALL GROUPS
Attribute: All Attributes
View by: Vehicle Label
Refine:

Select a Vehicle

- 302 - SUPERVISOR PICKUP (TC)
- 304 - SUPERVISOR PICKUP (BN)
- 320 - 1-TON PICKUP
- 323 - SUPERVISOR PICKUP (BC)
- 326 - DUMP TRUCK
- 327 - DUMP TRUCK
- 328 - DUMP TRUCK
- 329 - DUMP TRUCK
- 330 - DUMP TRUCK
- 331 - DUMP TRUCK
- 332 - DUMP TRUCK
- 334 - DUMP TRUCK
- 335 - DUMP TRUCK
- 336 - FLATBED
- 337 - FLATBED
- 343 - FLATBED
- 345 - FLATBED
- 361 - SWEEPER
- 364 - SWEEPER
- 366 - FLATBED
- 368 - SWEEPER
- 377 - PATCH TRUCK
- 396 - FLATBED
- 397 - FLATBED
- 401 C1500 PUSB
- 402 F150 PUSB
- 403 C1500 SB
- 405 F350 FLATBED
- 406 F150 AB
- 407 F150 CP
- 408 C1500 MA
- 409 F150 MG
- 424 SB RL
- 450 SB RL
- 453 SB RL
- 454 SB RL

Overview Map



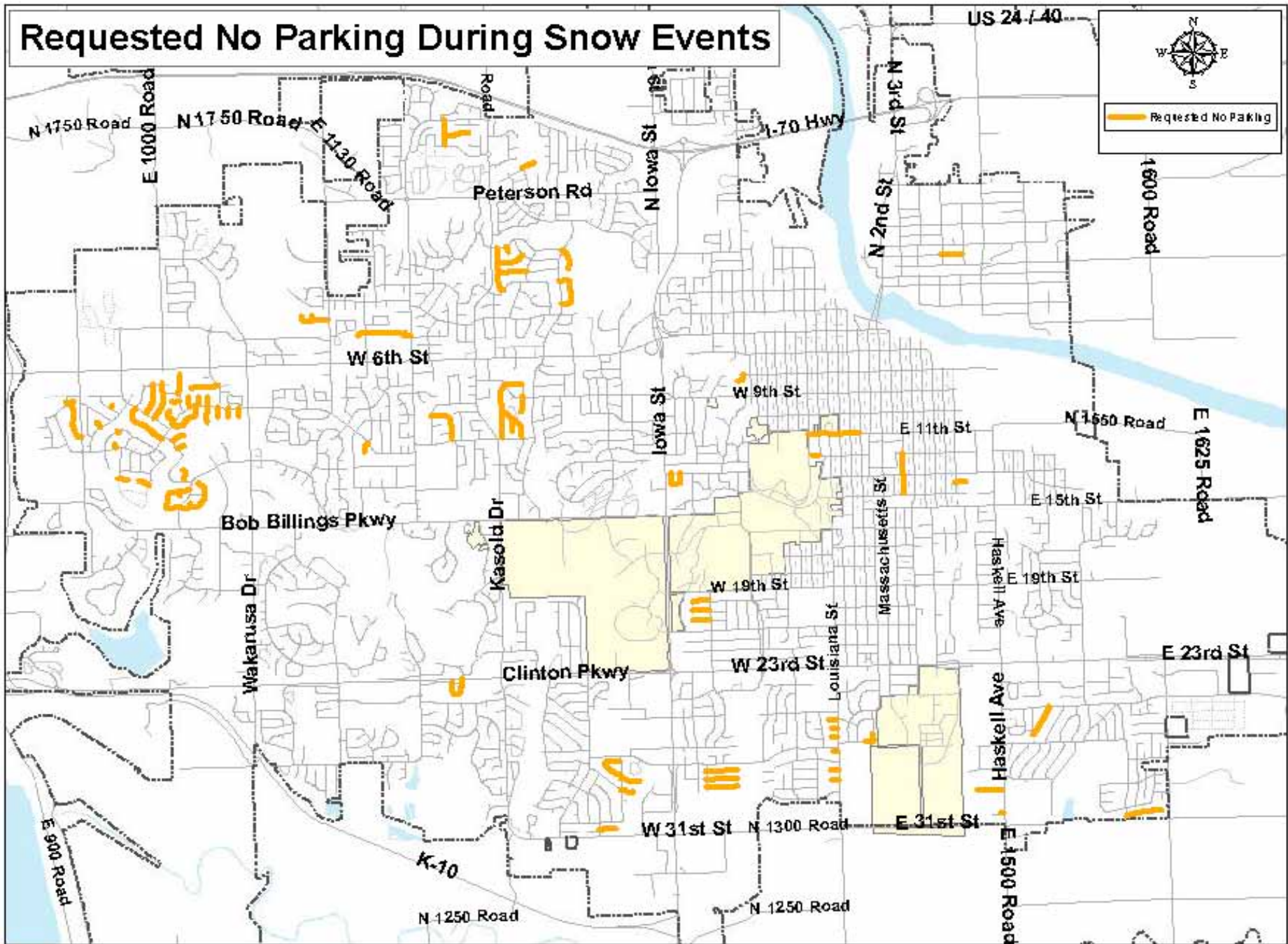
©2011 Networkfleet - Map data ©2010 Tele Atlas

MAP CONTROLS

Requested No Parking During Snow Events

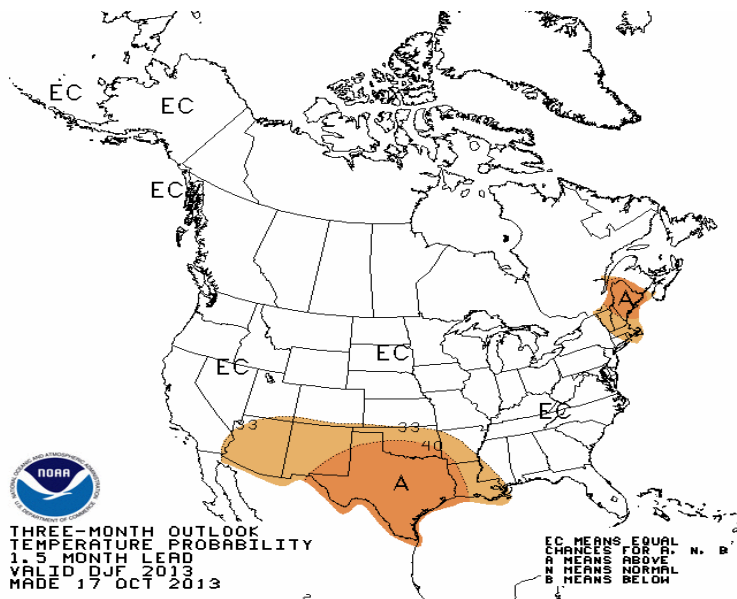


Requested No Parking

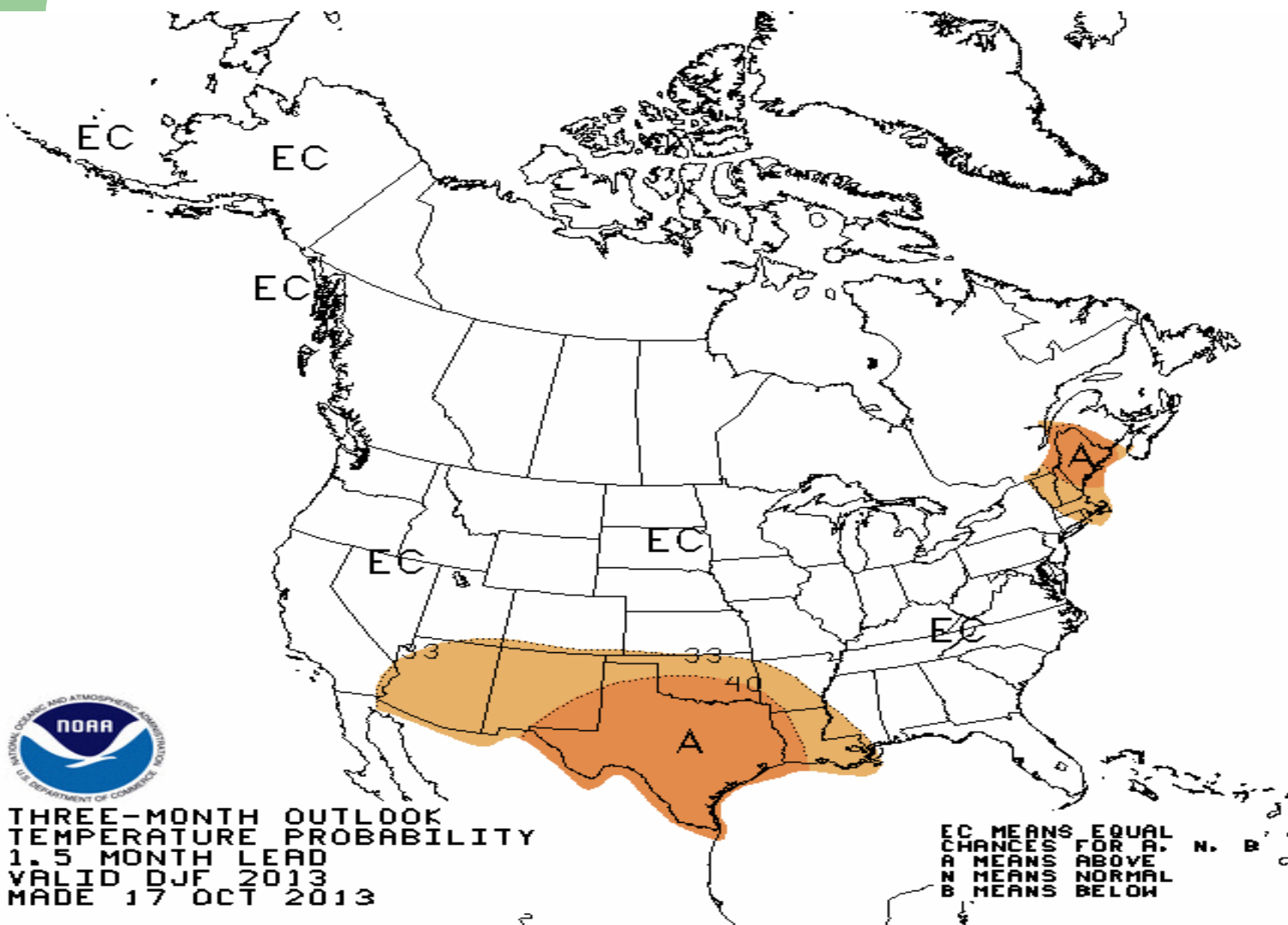


Mark's Forecast

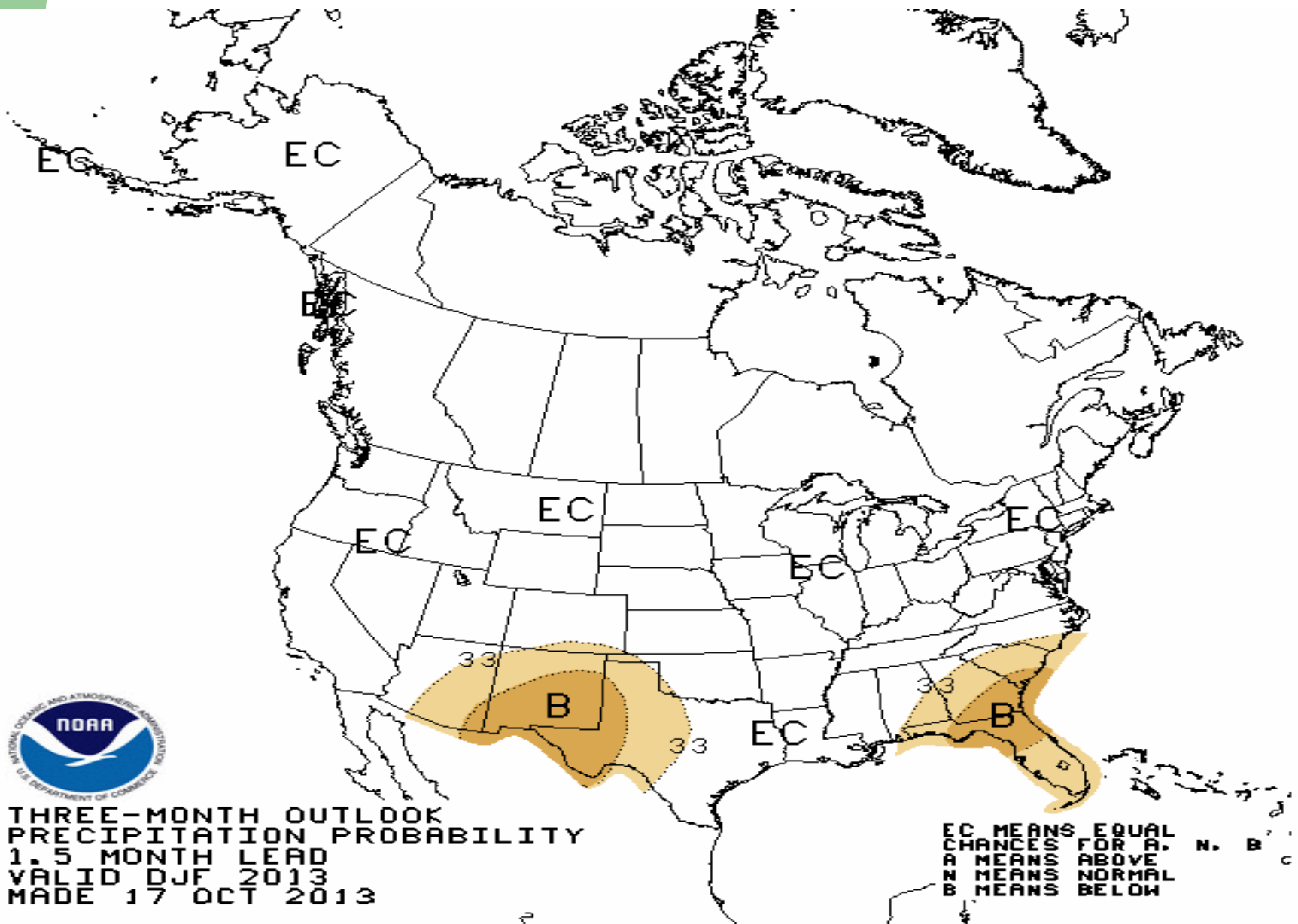
- NOAA Forecast
- Farmers Almanac



NOAA Temperature



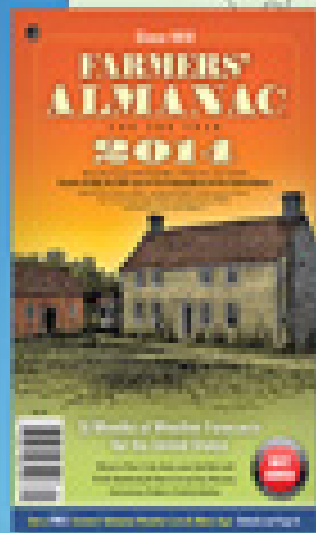
NOAA Precipitation



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
1.5 MONTH LEAD
VALID DJF 2013
MADE 17 OCT 2013

EC MEANS EQUAL CHANCES FOR A, B, OR C
A MEANS ABOVE NORMAL
B MEANS BELOW NORMAL
C MEANS NORMAL

FARMERS' ALMANAC 2014 WINTER OUTLOOK



More weather at
FarmersAlmanac.com



Summary

- Plan is updated
- Equipment is ready
- Materials are well supplied
- Staff have been trained
- Press releases are out
- Web site is updated
- We are ready to tackle what ever mother nature throws at us

Questions?

