

2015 / 2016 SNOW REMOVAL & ICE CONTROL PREPAREDNESS

Executive Summary

11/3/2015



City of Lawrence
PUBLIC WORKS

Presented by

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Assistant Director of Public Works

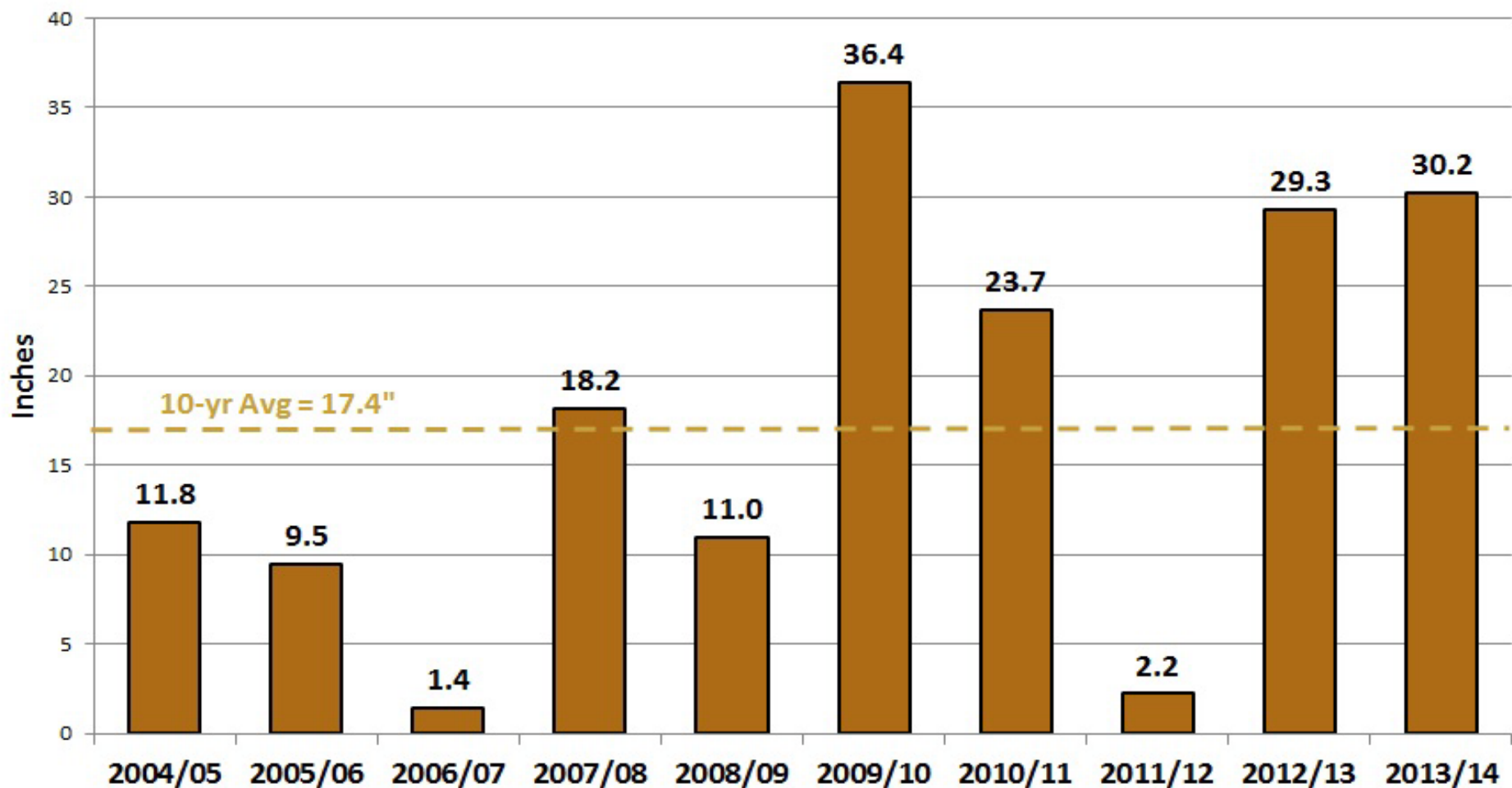
Typical Numbers For Lawrence

- 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



Comparison Last Two Seasons

	<u>2013/2014</u>	<u>2014/2015</u>
● Snowfall	29.65"	7.35"
● Number of events	13	11
● Salt consumption	4,482 tons	3,280 tons
● Sand consumption	4,054 tons	1,785 tons
● Liquid Brine	68,536 gal	81,740 gal
● Man-hours	\$242,409	\$104,521
● Equipment	\$454,177	\$164,432
● Rented Equipment	\$59,344	\$0
● Materials	<u>\$320,735</u>	<u>\$216,067</u>
● Total cost	\$1,076,665	\$485,020

Watch us grow!

As Our City Grows so do the Lane Miles by 6.5%!

Year	2010	2011	2012	2013	2014	2015
Total Miles	805	811	812	825	837	853
Residential				440	447	449
Collector				147	152	152
Minimum Arterials				36	36	36
Principle Arterials				194	194	208
Ramps/Rural				7	8	8

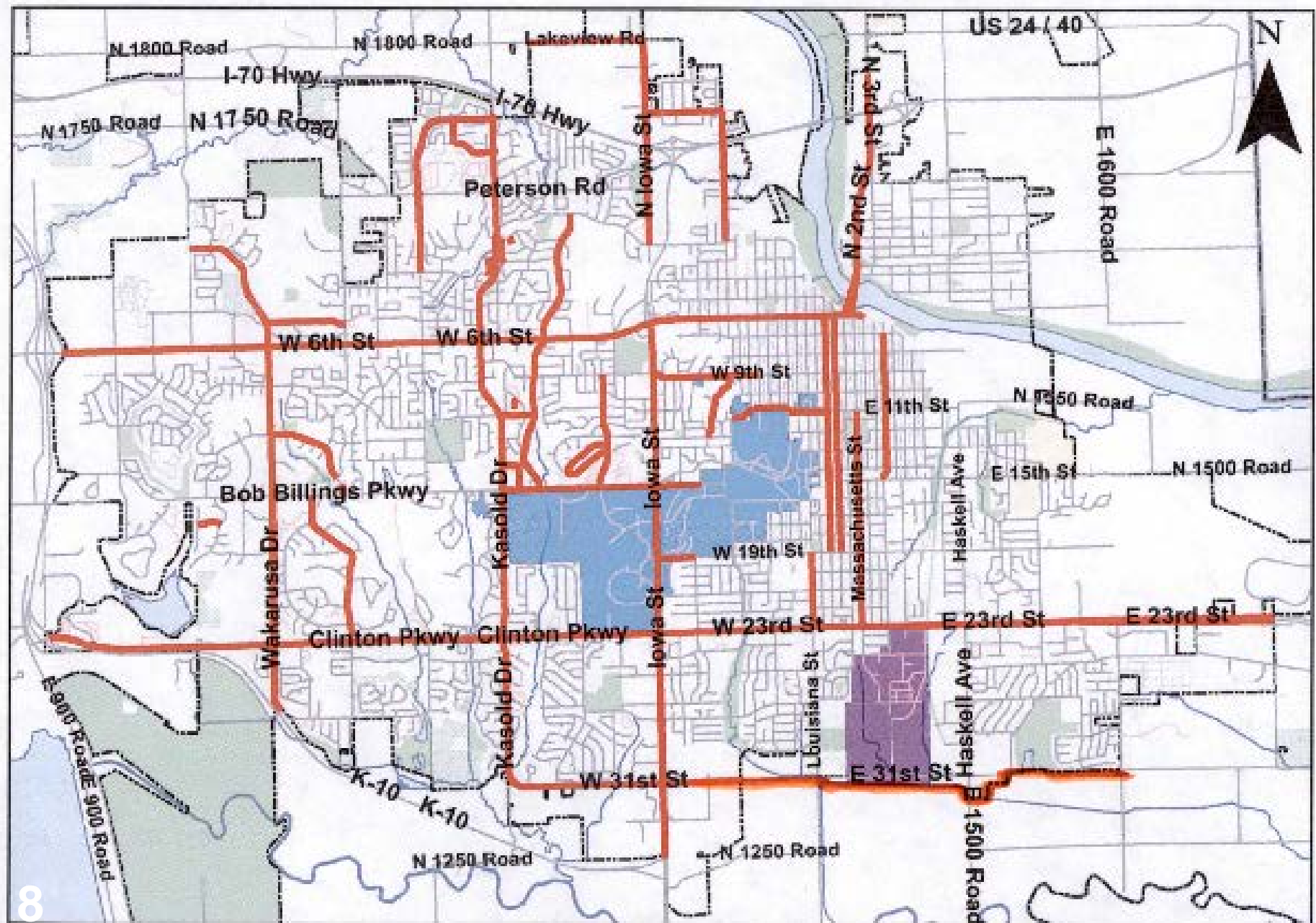
Snow / Ice Control Plan

- The city is divided into 9 areas
- Each area is then divided into routes creating a team concept for each area.
- There are 19 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



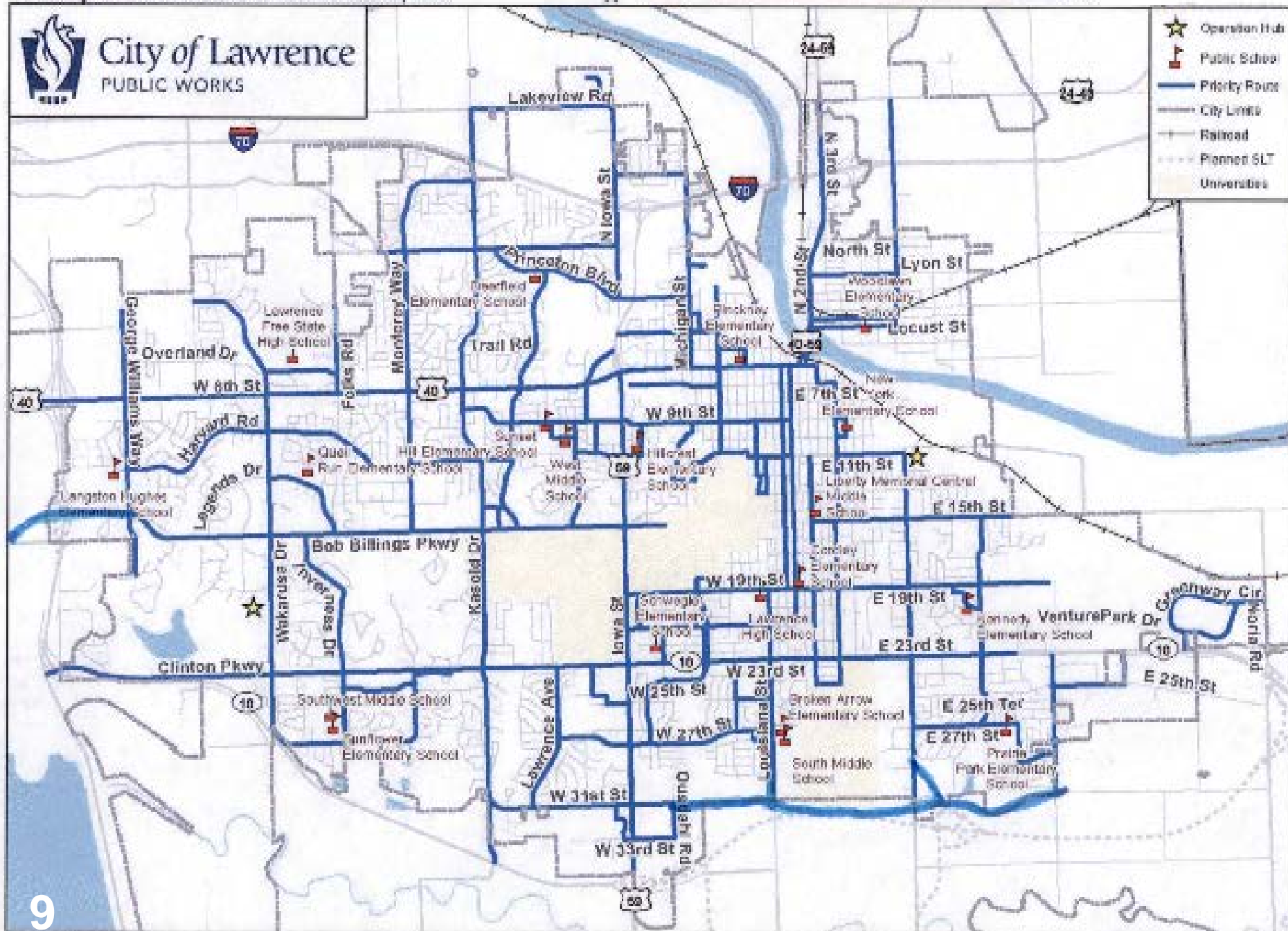
Priority Snow Routes: Lawrence, KS



City of Lawrence
PUBLIC WORKS



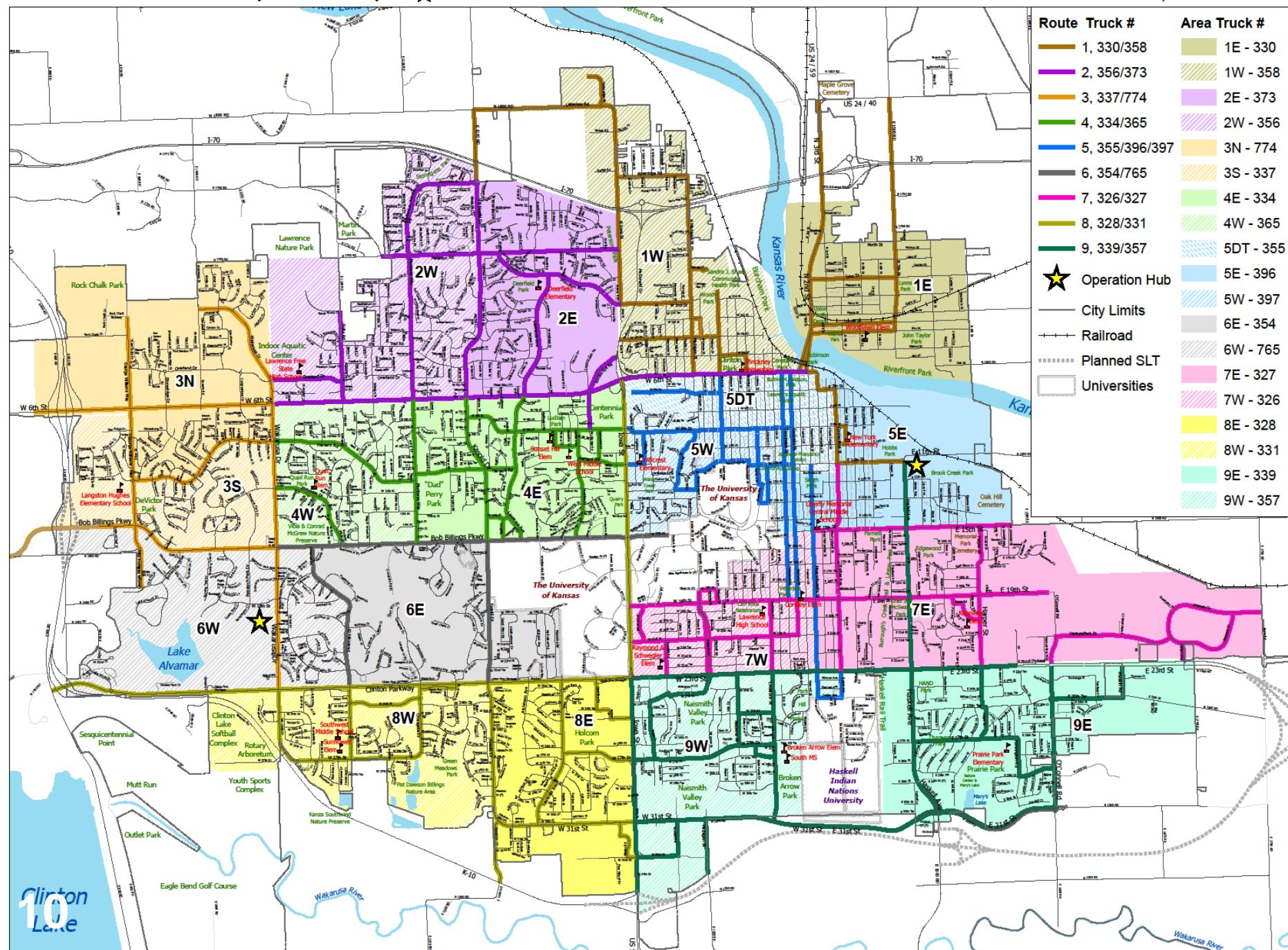
- ★ Operation Hub
- Public School
- Priority Route
- City Limits
- Railroad
- Planned SLT
- Universities



Lawrence Snow Response Map



Map Date: 10/26/2015



Materials



- We will start this season
 - 10,000 tons of salt
 - 1,000 tons of sand
 - 2,500 tons of salt sand mix
 - 21,000 gallons brine



Equipment

- 7 - Tandem axle dump trucks
- 5 - Single axle dump trucks
- 7 – Flatbed 4x4 trucks
- 1 – Wheel loader
- 2 – Motor graders
- 3 – Back-hoe
- 2 – Farm tractors
- 2 – Liquid tank spreader
- 5 - Wing blades
- 2 – 1 Ton 4X4 pickup trucks



Personnel

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



Public Awareness

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

How Can The Public 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
- Patience

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



2015 Public Works Team took 12 awards in 8 events and competed against 40 teams from the KC Metro and NE Kansas Area.

What's New This Year

- Additional Wing plows
 - Increases efficiency on plowing arterials by 86%
 - Allows us to move equipment into other areas sooner
 - Safer
- Revised routes
 - Updated based on new streets
 - Updated to accommodate wing plows

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Snow and Ice

Winter 2011/2012

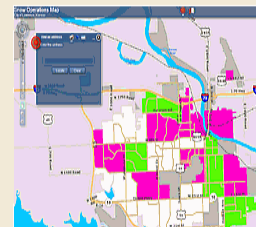
Use this guide as a resource for snow-related topics.

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](#)
- [More city news ...](#)

Snow Map

[View Snow Map](#)

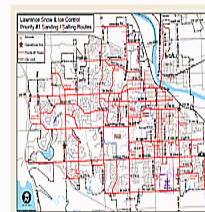
Reviewing the Plan

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:

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

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

City News

[Three local organizations come together to make a child's day special with the 'Birthday Beat'](#)

[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](#)

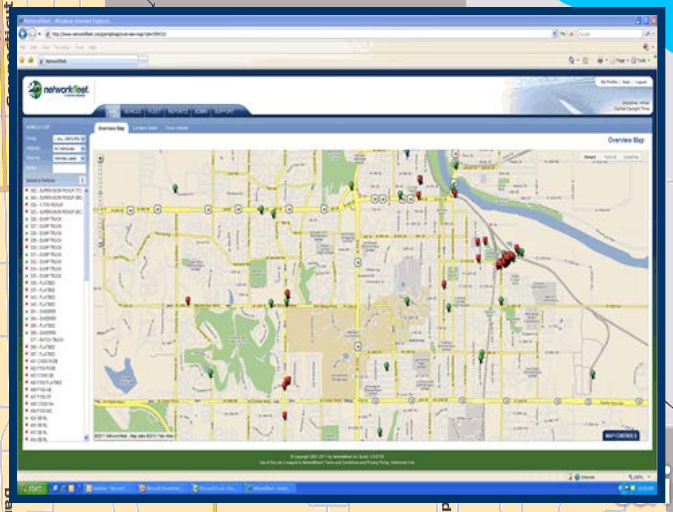
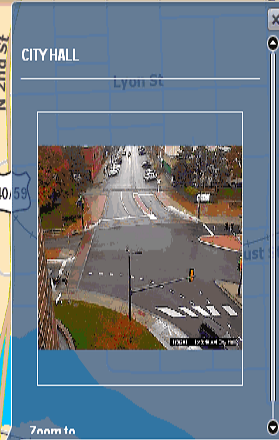
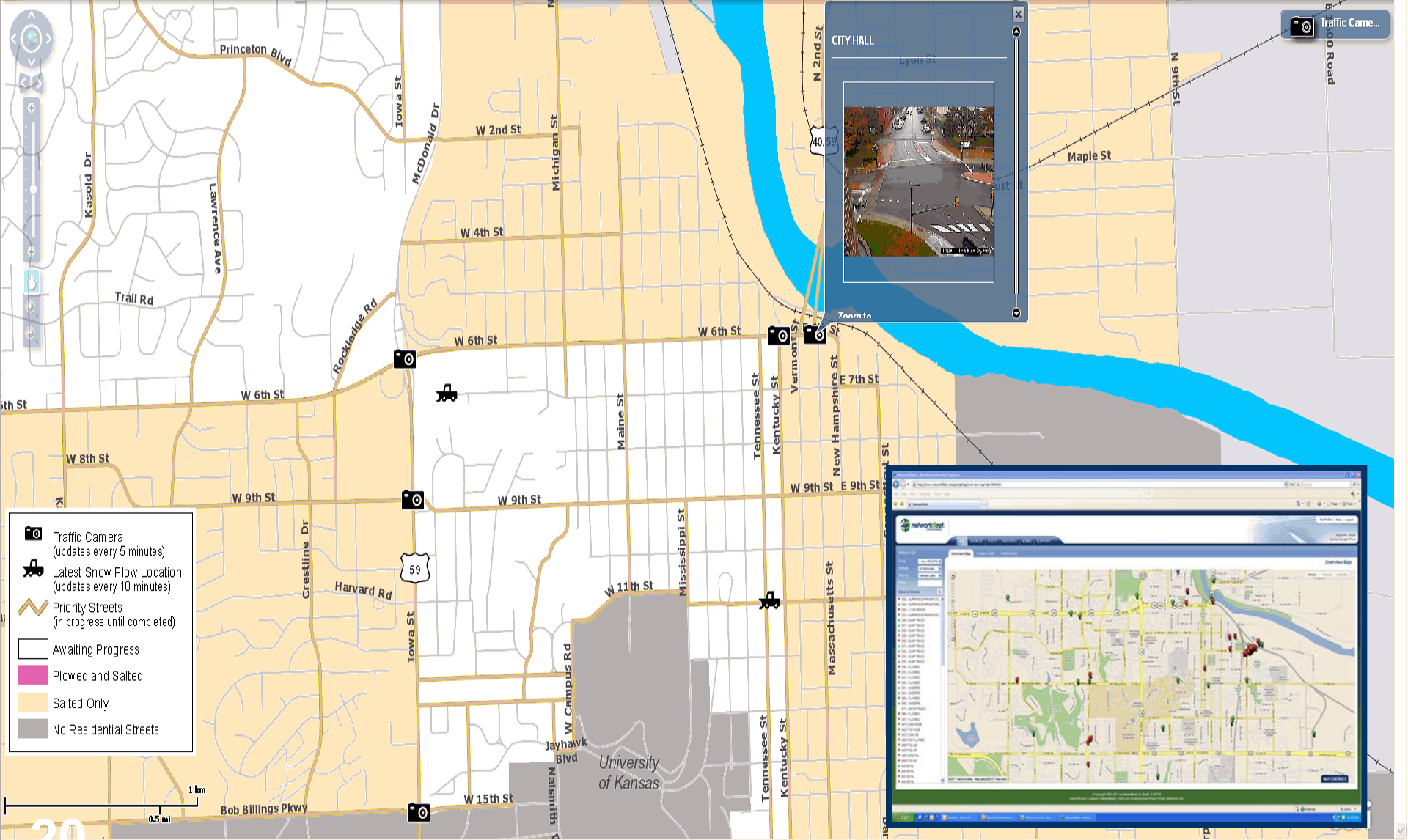
[Shelters and park restrooms closing for season](#)

[More city news ...](#)



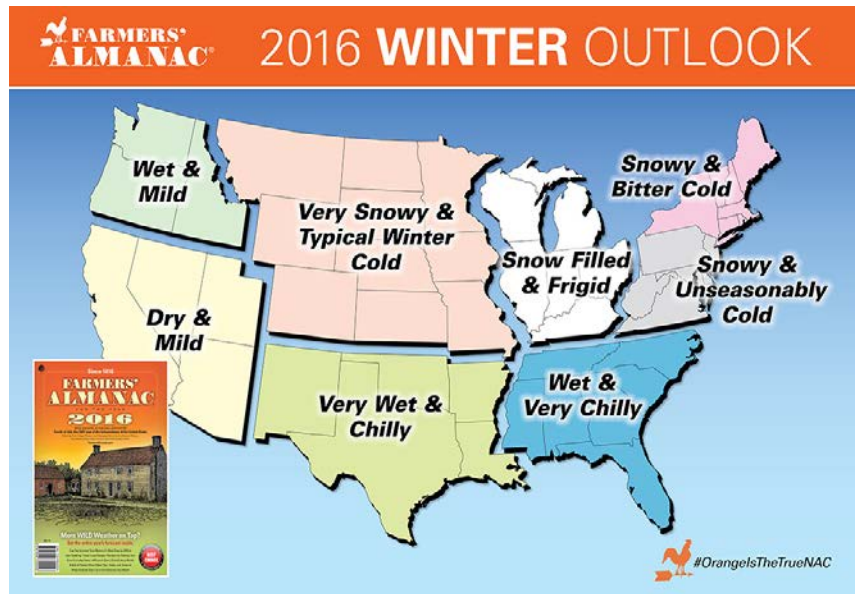
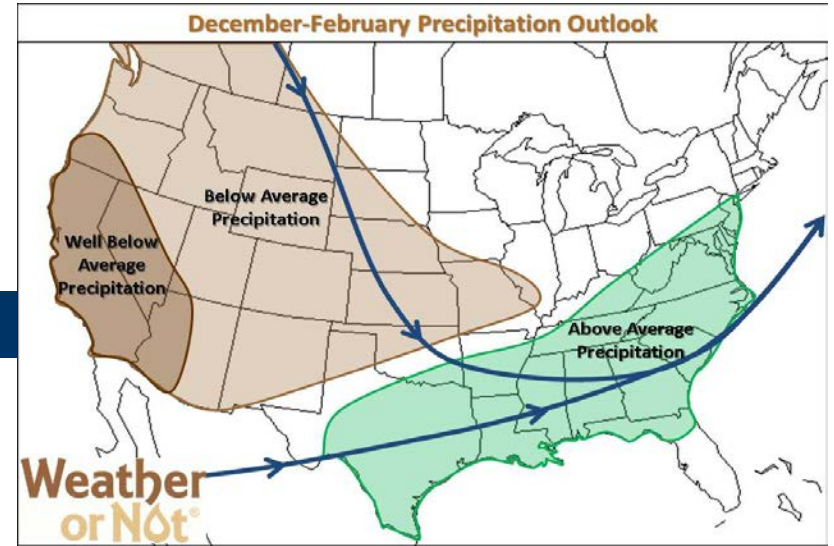
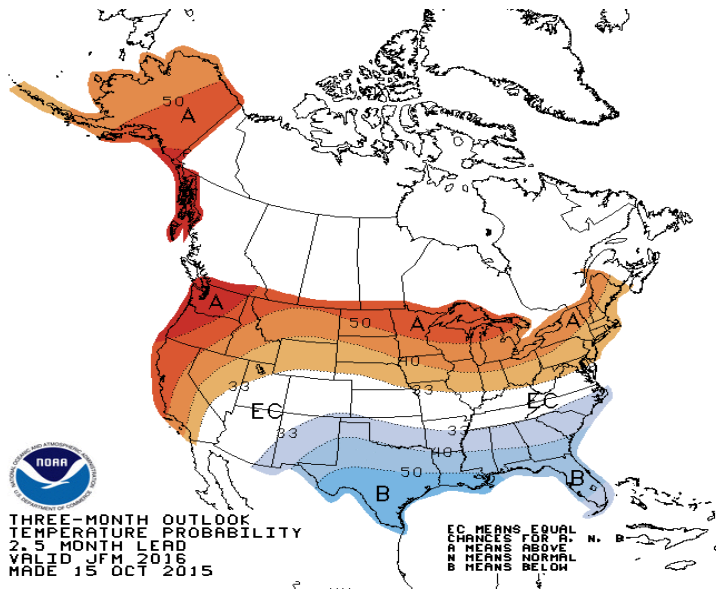
Snow Operations Map

City of Lawrence, Kansas

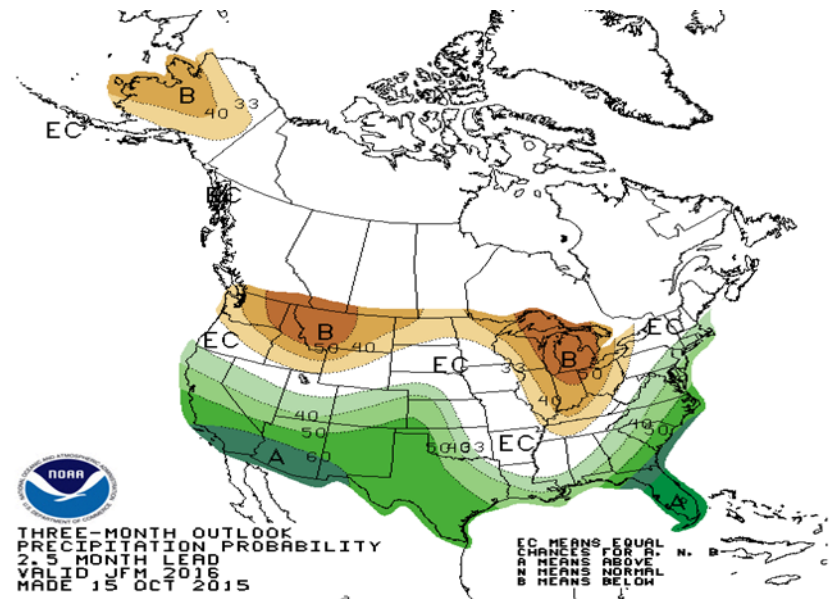
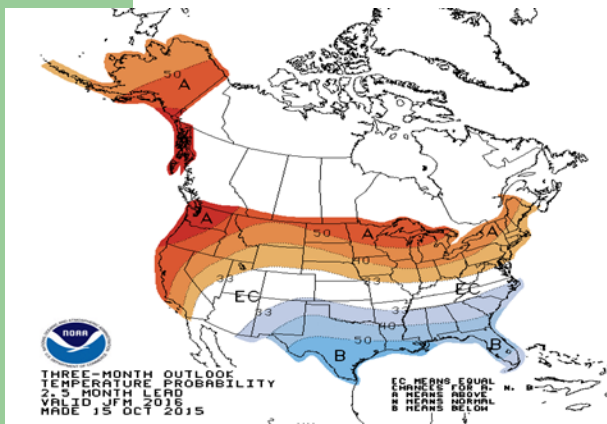
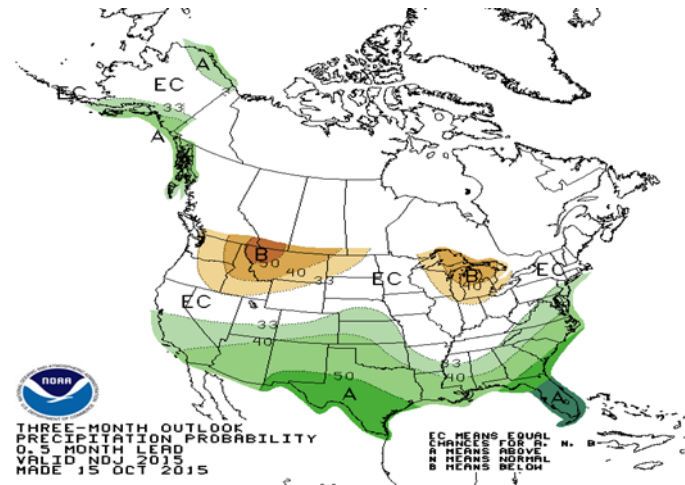
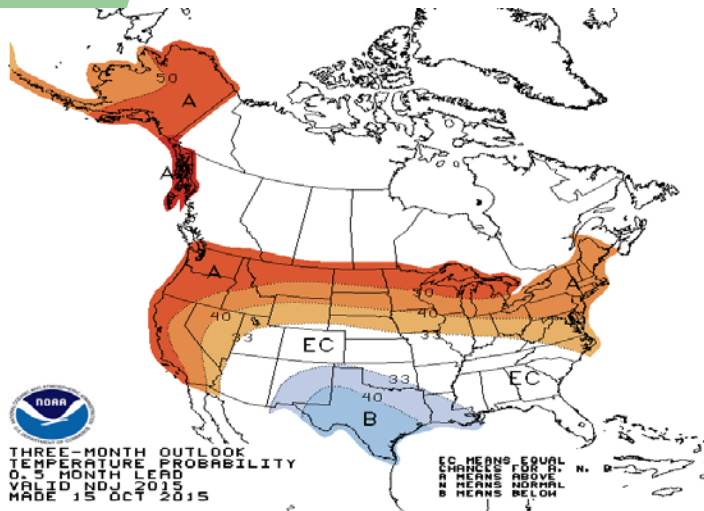


Forecasts

- NOAA Forecast
- Farmers Almanac
- Weather or not



NOAA Dec to Mar (Temp vs. Prec)





#OrangelsTheTrueNAC

So, What's Really Going To Happen?

- Based on the three weather indicators we are preparing for a near normal winter
- Very similar patterns to last year
- Several small / short events with ice early on
- A few snow events January / February

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?

