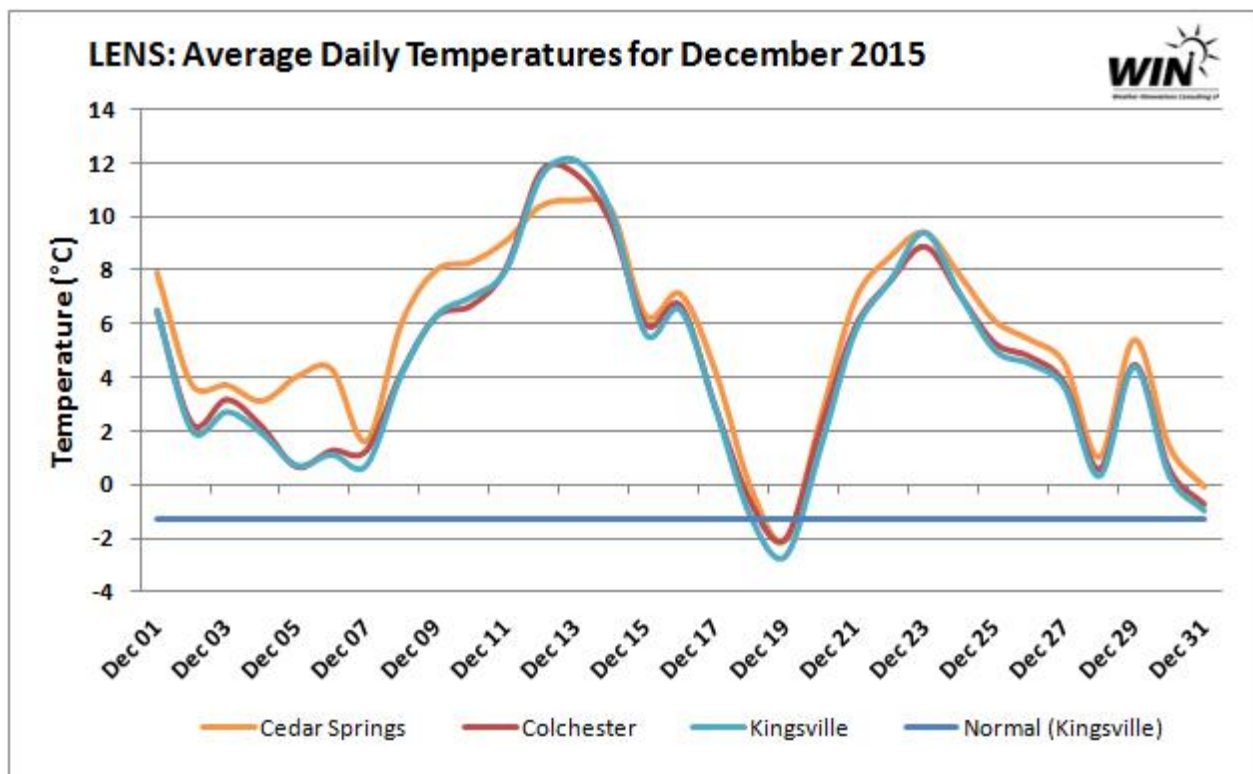




## December 2015

### Overview

Average December temperatures at Cedar Springs, Colchester, and Kingsville were 5.3°C, 4.5°C, and 4.3°C respectively (compared to 1.1°C, 0.6°C, and 0.3°C in 2014). The average monthly temperatures were 5.6°C to 6.6°C above normal for the Lake Erie North Shore appellation (compared to 1.6°C to 2.4°C below normal in 2014). These statistics are based on Environment Canada's 30-year normals for Kingsville. This summary illustrates December 2015 minimum temperatures and icewine hours. For this report, icewine hours are defined as instances when the average hourly temperature was between -8.0°C and -12.0°C, inclusive.



### Temperature Analysis

The monthly minimum temperatures for each site in December 2015 were -4.5°C (compared to -10.7°C in 2014) at the Cedar Springs station; -3.4°C (compared to -10.4°C in 2014) at the Colchester station; and -5.9°C (compared to -11.7°C in 2014) at the Kingsville station. These monthly minimum temperatures occurred on December 19 and 20. There were 0 days this month, compared to 2 days in December 2014, when temperatures, at one or more stations, dipped into icewine temperature ranges. There were also no icewine hours recorded during November for the Lake Erie North Shore appellation.



### LENS: Daily Minimums

November 2015

| Date   | Cedar Springs | Colchester | Kingsville |
|--------|---------------|------------|------------|
|        | 1-Nov         | 7          | 7.9        |
| 2-Nov  | 4.7           | 2.6        | 2.5        |
| 3-Nov  | 11.7          | 9          | 8.4        |
| 4-Nov  | 13.8          | 6.6        | 7.3        |
| 5-Nov  | 14.5          | 11.6       | 13.1       |
| 6-Nov  | 9.8           | 9.6        | 8.9        |
| 7-Nov  | 2.9           | 3.5        | 1.6        |
| 8-Nov  | -0.2          | -0.3       | -2.4       |
| 9-Nov  | 1.6           | -0.9       | -1.7       |
| 10-Nov | 6.7           | 6.8        | 6.6        |
| 11-Nov | 5.5           | 3.8        | 1.1        |
| 12-Nov | 7.6           | 7.7        | 7.1        |
| 13-Nov | 3.4           | 3.1        | 2.3        |
| 14-Nov | 3.2           | 3.4        | 3          |
| 15-Nov | 7             | 6.6        | 6.4        |
| 16-Nov | 7.4           | 3.8        | 5.3        |
| 17-Nov | 10.4          | 6.3        | 7.1        |
| 18-Nov | 12.8          | 11.9       | 11.7       |
| 19-Nov | 3.4           | 4.2        | 3.6        |
| 20-Nov | 2.6           | 2.7        | 2          |
| 21-Nov | 0             | -1.5       | -1.5       |
| 22-Nov | -3.8          | -3.3       | -5.5       |
| 23-Nov | -4.5          | -3.3       | -5.7       |
| 24-Nov | -2.1          | -3.2       | -3.5       |
| 25-Nov | 5.8           | 4.4        | 4          |
| 26-Nov | 9.9           | 7.1        | 7.3        |
| 27-Nov | 2.9           | 2.2        | 1.9        |
| 28-Nov | -2            | -2.3       | -2.4       |
| 29-Nov | -4.9          | -4.2       | -4.4       |
| 30-Nov | -2.1          | -2.2       | -3.4       |

December 2015

| Date   | Cedar Springs | Colchester | Kingsville |
|--------|---------------|------------|------------|
|        | 1-Dec         | 4.6        | 3          |
| 2-Dec  | 0.1           | -2.4       | -3         |
| 3-Dec  | 0.7           | 0.1        | -0.1       |
| 4-Dec  | 1.1           | 0.3        | 0          |
| 5-Dec  | 3.4           | -0.2       | -0.1       |
| 6-Dec  | 0.5           | -2.5       | -2.6       |
| 7-Dec  | -1.4          | -1.5       | -2         |
| 8-Dec  | 1.6           | 1.7        | 1.9        |
| 9-Dec  | 5.9           | 4.3        | 3.8        |
| 10-Dec | 5.7           | 3.9        | 3.9        |
| 11-Dec | 7.8           | 6          | 5.8        |
| 12-Dec | 8             | 9.1        | 8.3        |
| 13-Dec | 9             | 10.3       | 11         |
| 14-Dec | 7.8           | 6.8        | 6.6        |
| 15-Dec | 4.5           | 5.1        | 4.1        |
| 16-Dec | 4.3           | 4.8        | 4.2        |
| 17-Dec | 0.8           | -0.3       | -1.4       |
| 18-Dec | -2.7          | -2.5       | -3.2       |
| 19-Dec | -3.7          | -3.4       | -4.1       |
| 20-Dec | -4.5          | -2.2       | -5.9       |
| 21-Dec | 5.3           | 3.8        | 3.7        |
| 22-Dec | 5.1           | 1.3        | 1.4        |
| 23-Dec | 6.2           | 4.5        | 2.3        |
| 24-Dec | 6.3           | 4.9        | 4.8        |
| 25-Dec | 1.7           | 1.6        | 1.2        |
| 26-Dec | 1             | 1.6        | 0.8        |
| 27-Dec | 1.2           | 0.2        | 0.1        |
| 28-Dec | -0.7          | -1.2       | -1.5       |
| 29-Dec | 2.4           | 1.5        | 1.2        |
| 30-Dec | 0.7           | 0.3        | 0          |
| 31-Dec | -1            | -1.4       | -1.7       |

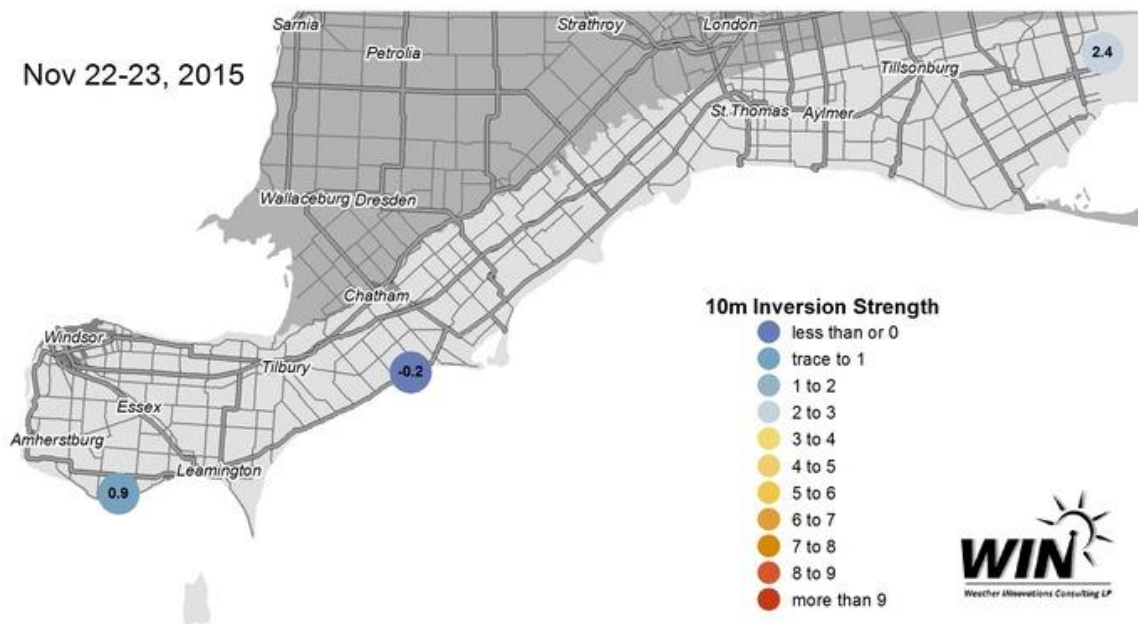
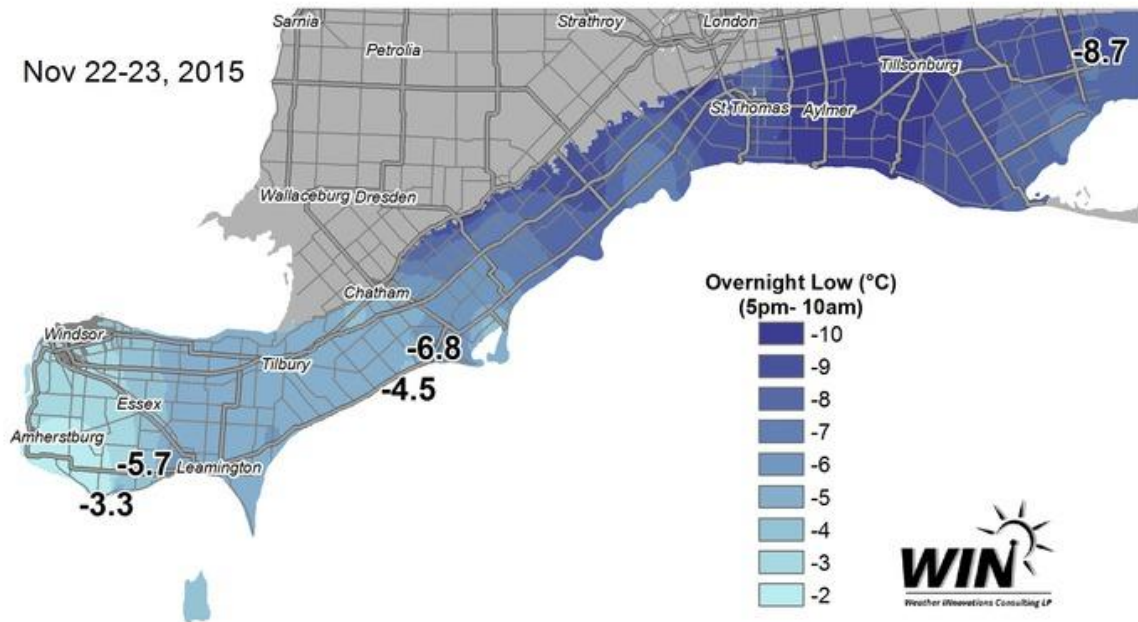


|  |                                |
|--|--------------------------------|
|  | Days with Icewine Temperatures |
|  | Monthly Minimum                |



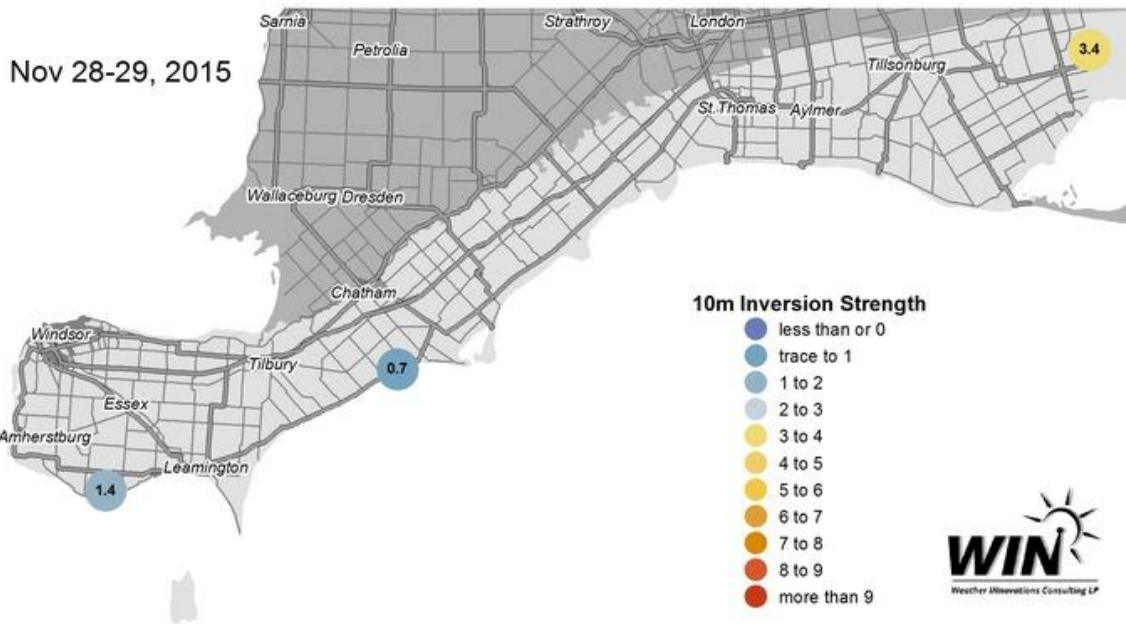
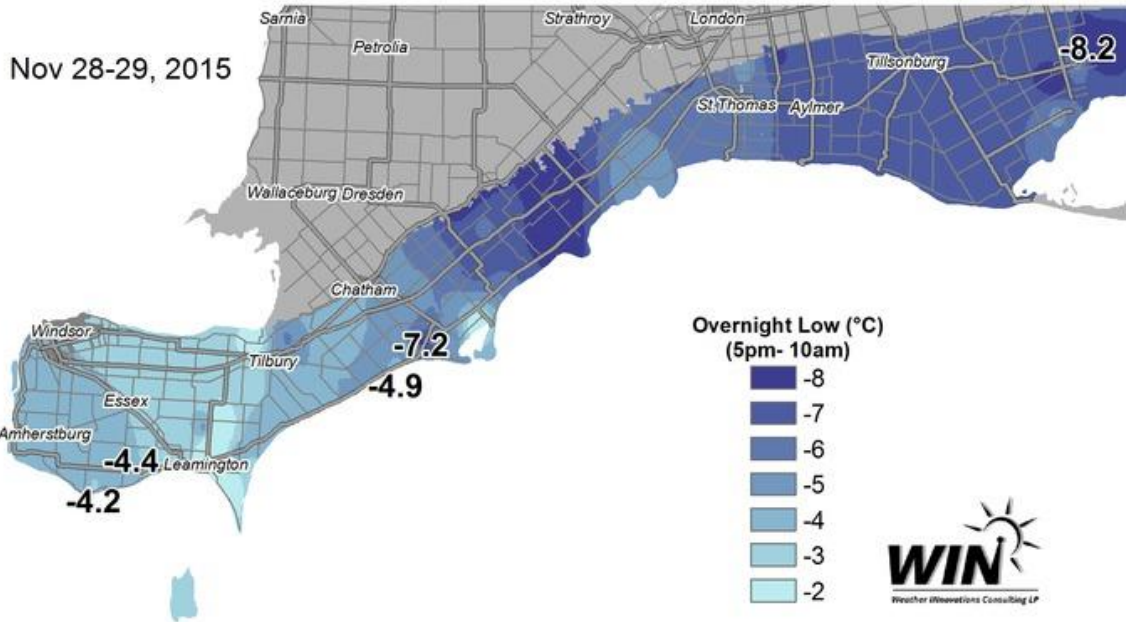
## Inversion Strength

The following eight figures show the temperature and 10 m inversion strengths for the coldest November and December nights: November 22-23, November 28-29, December 18-19 and December 19-20. Wind machines were not needed due to the mild temperatures.



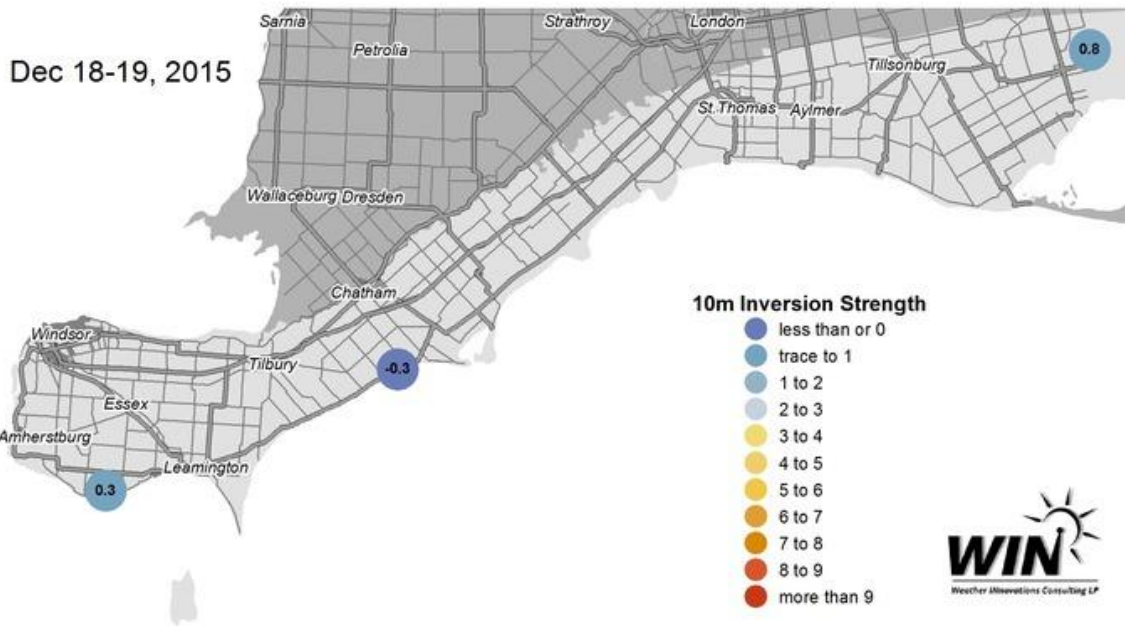
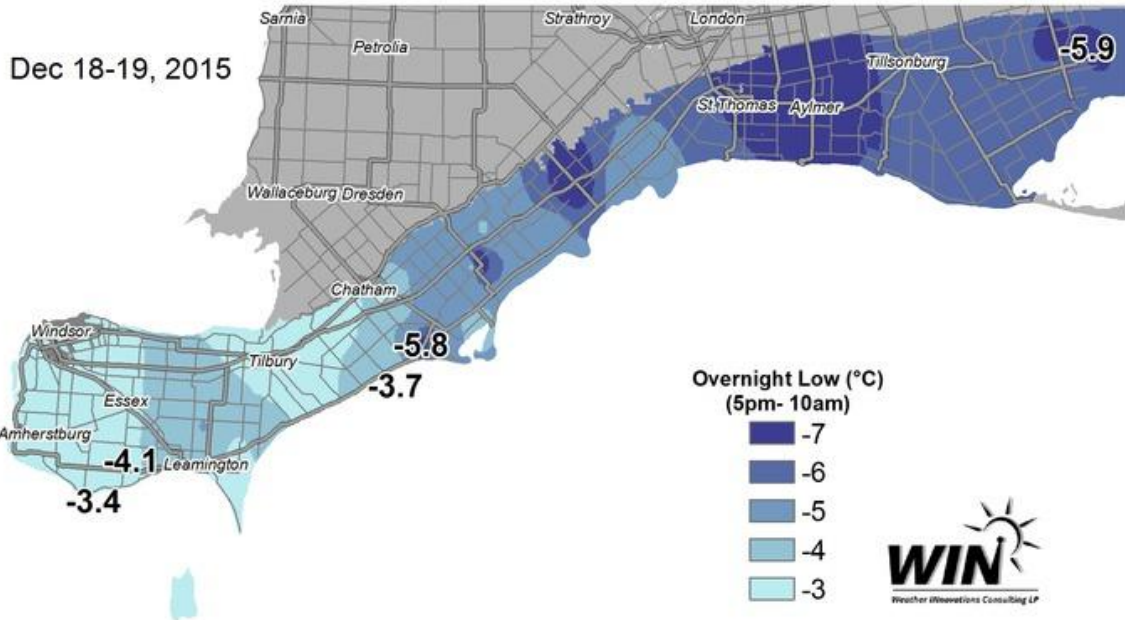


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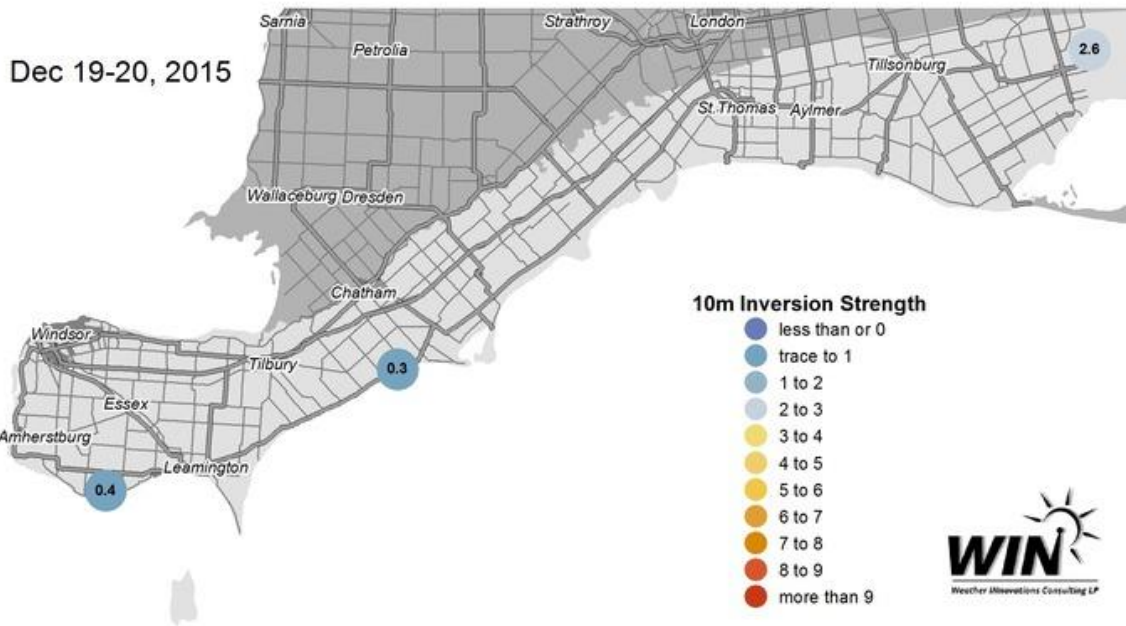
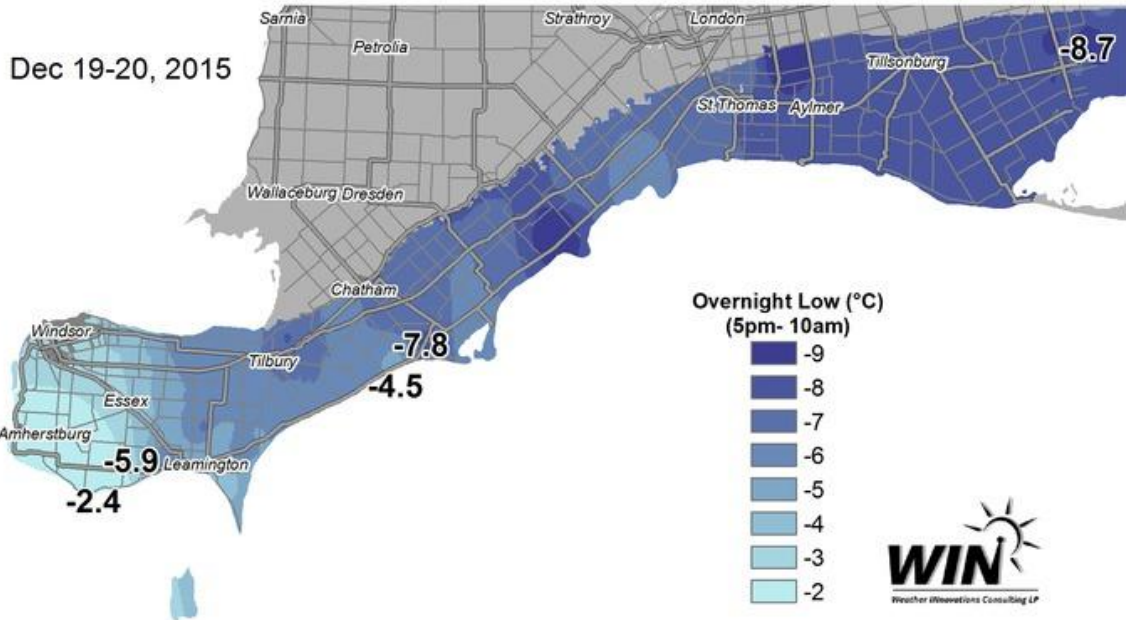


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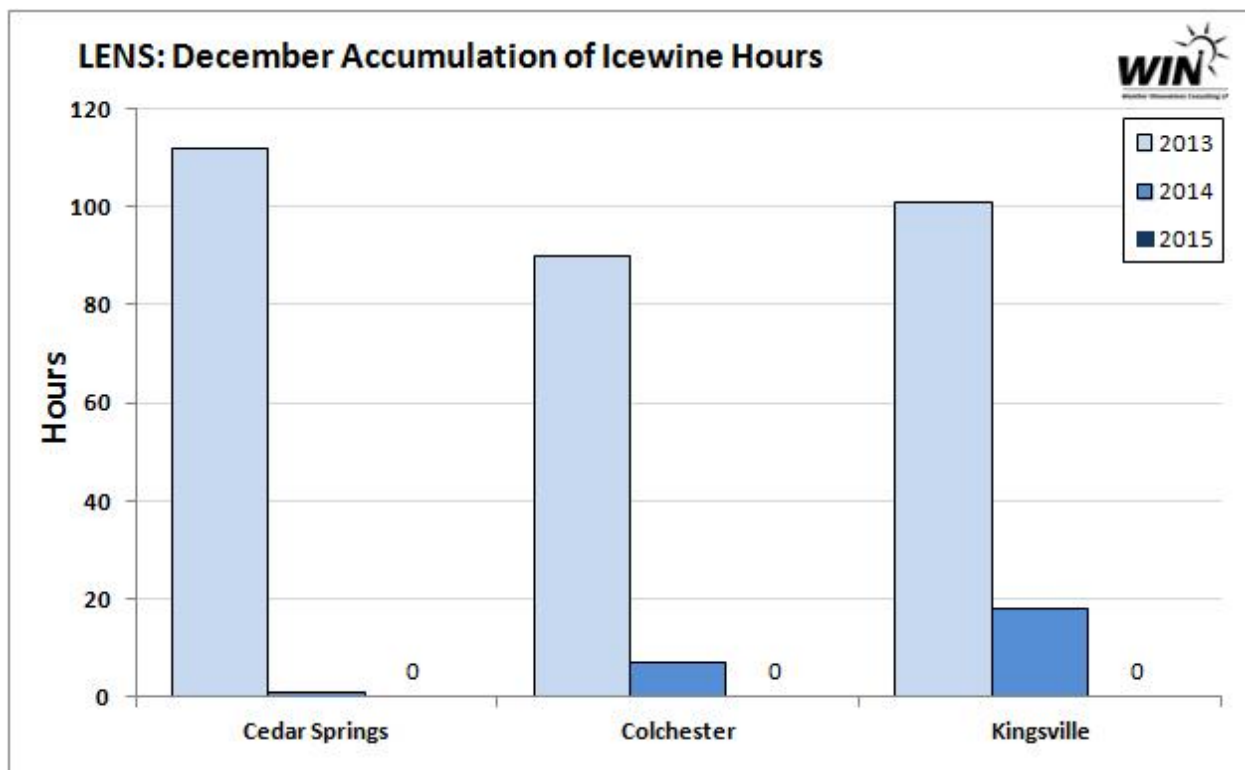
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## Icewine Hours Analysis

The mild temperatures during December resulted in zero icewine hours for all three stations. December 2015 icewine hours were comparable to 2014 but significantly fewer than those recorded in December 2013, as seen in the following figure. The Lake Erie North Shore stations recorded between 1 and 18 icewine hours in December 2014 compared to between 90 to 112 icewine hours in December 2013. Stations recorded zero icewine hours over November 2015 as well. Due to the lack of icewine harvest opportunities, many harvests were put off until the new-year.



## Summary

December 2015 temperatures were significantly above-normal in the Lake Erie North Shore appellation; average temperatures for the month were 5.6°C to 6.6°C above the 30-year normals. The coldest temperature reached was -5.9°C on December 20 at the Kingsville station. November and December provided no opportunities for harvesting icewine grapes at all locations, unlike 2013. These conditions will lead to a later icewine harvest for many this year.