**Climate Change in the Great Lakes**

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| **Introduction: How has the global and regional climate changed?** | | | |
| 1:00: | Temperature: | | * warming trend – effects:   + plant hardiness zones have changed   + Snow depth and number of days decreased * Great Lake changes – effects:   + temperature of lakes is warming twice as fast as the air around it   + Losing ice cover |
| 5:16: | Precipitation: | | * Increase in intense storms * Lake Levels declining |
| 7:14 | Summary of Existing Trends | | * Temperature is rising   + Especially in winter, which are shorter bringing spring earlier   + Less ice cover * Precipitation is changing   + More rain, more snow becomes rain   + More extreme events * Lake levels are declining |
| 7:51: | What are the projected global and regional changes? | | (Explains how the projections are made, using temperature as the example) |
| 9:50: | Great Lakes Regional Temperatures | | Warmer in this region by up to 10 degrees F. |
| 13:17: | Great Lakes Precipitation | | More precipitation in fall, winter, spring. Less in summer. |
| 15:26: | Summary | | * Temperature:   + Winter +7 F, Summer +9 F   + Extreme heat more common * Precipitation:   + Winter, Spring, Fall increasing   + Summer decreasing (drier soils, more droughts) * More extreme events – storms, floods * Ice cover decline will continue |
| 16:20 | What are the projected regional impacts? | | * Future Snow Days decrease (Michigan – 50 to 20) * Future Water Levels – models showing different results |
| 19:53: | Potential Impacts | | * Fish 20:38 * Water 21:57 * Forest 26:33 * Land Use * Public Health 29:50 * Birds and Wildlife 27:50 * Tourism and Recreation |
| 30:55: | Are we Preparing? | “We have to double down our efforts to try to delay and decrease the amount of climate change in the future, but at the same time we need to prepare for that inevitable change that we are going to be seeing.” | |