



**NOAA Atlas 14, Volume 8, Version 2**  
**Location name: Faribault, Minnesota, US\***  
**Coordinates: 44.3749, -93.2520**  
**Elevation: 976 ft\***  
 \* source: Google Maps



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

**PF tabular**

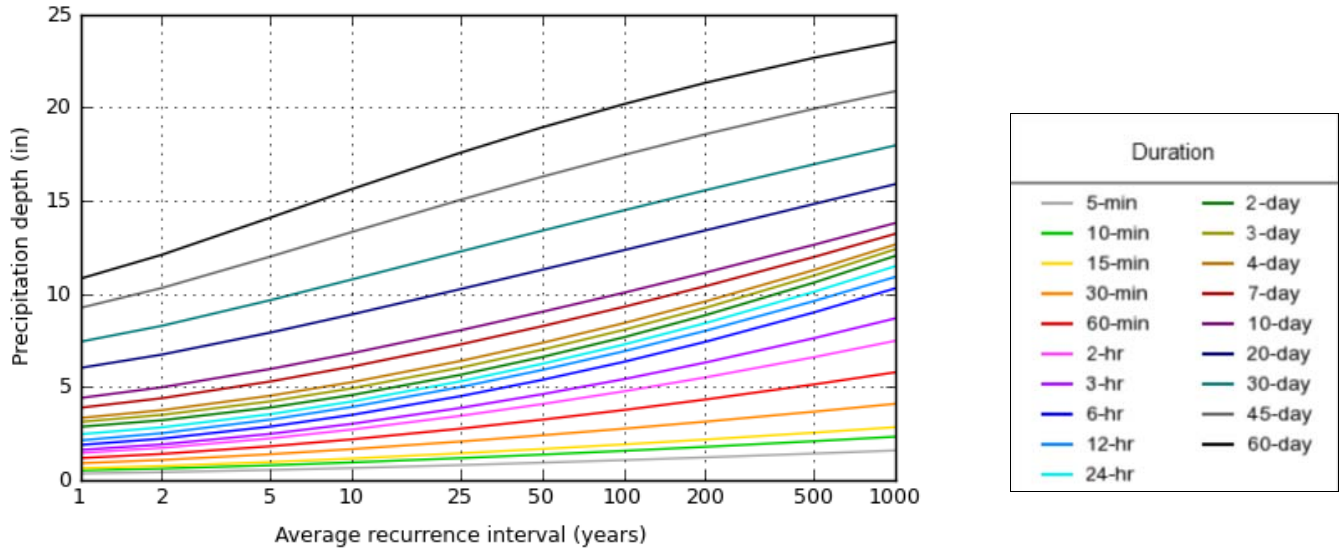
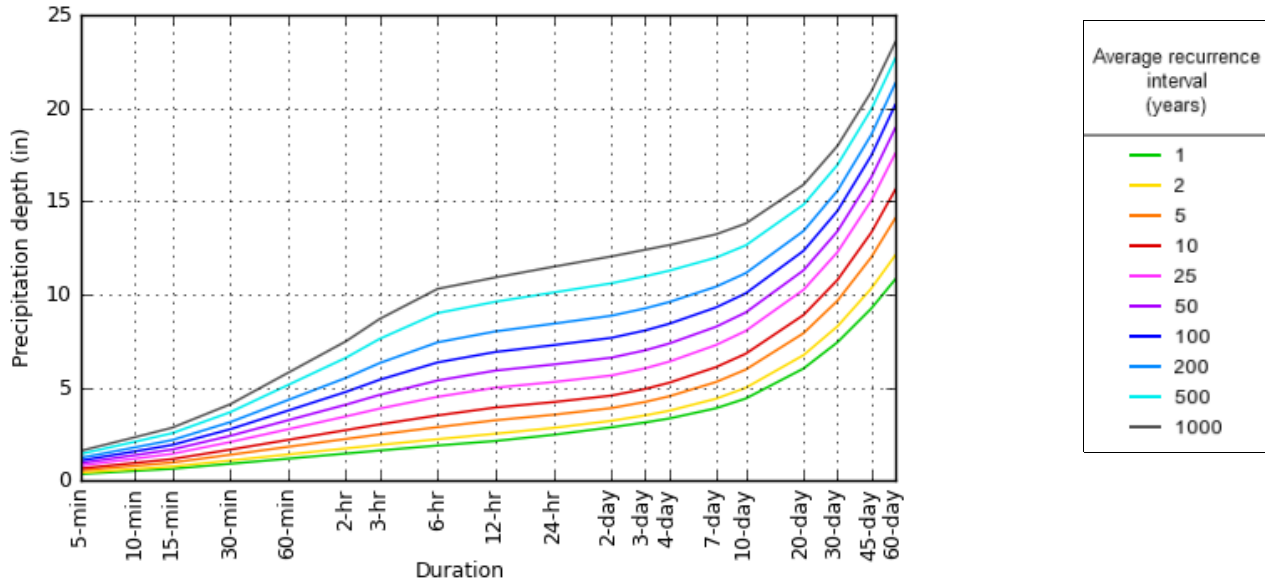
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
<b>Duration</b>	<b>Average recurrence interval (years)</b>									
	<b>1</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>	<b>200</b>	<b>500</b>	<b>1000</b>
<b>5-min</b>	<b>0.356</b> (0.283-0.458)	<b>0.424</b> (0.336-0.545)	<b>0.543</b> (0.429-0.699)	<b>0.648</b> (0.510-0.838)	<b>0.805</b> (0.615-1.07)	<b>0.935</b> (0.694-1.25)	<b>1.07</b> (0.767-1.46)	<b>1.22</b> (0.833-1.69)	<b>1.43</b> (0.934-2.00)	<b>1.59</b> (1.01-2.24)
<b>10-min</b>	<b>0.521</b> (0.414-0.670)	<b>0.621</b> (0.493-0.799)	<b>0.794</b> (0.628-1.02)	<b>0.950</b> (0.746-1.23)	<b>1.18</b> (0.900-1.57)	<b>1.37</b> (1.02-1.84)	<b>1.57</b> (1.12-2.14)	<b>1.78</b> (1.22-2.47)	<b>2.09</b> (1.37-2.93)	<b>2.33</b> (1.48-3.29)
<b>15-min</b>	<b>0.636</b> (0.505-0.818)	<b>0.757</b> (0.601-0.974)	<b>0.969</b> (0.766-1.25)	<b>1.16</b> (0.910-1.50)	<b>1.44</b> (1.10-1.92)	<b>1.67</b> (1.24-2.24)	<b>1.92</b> (1.37-2.60)	<b>2.18</b> (1.49-3.01)	<b>2.54</b> (1.67-3.58)	<b>2.84</b> (1.80-4.01)
<b>30-min</b>	<b>0.905</b> (0.719-1.16)	<b>1.08</b> (0.858-1.39)	<b>1.39</b> (1.10-1.79)	<b>1.66</b> (1.31-2.15)	<b>2.07</b> (1.58-2.76)	<b>2.40</b> (1.78-3.22)	<b>2.76</b> (1.97-3.75)	<b>3.14</b> (2.15-4.34)	<b>3.67</b> (2.40-5.16)	<b>4.09</b> (2.60-5.78)
<b>60-min</b>	<b>1.18</b> (0.937-1.52)	<b>1.41</b> (1.11-1.81)	<b>1.81</b> (1.43-2.34)	<b>2.19</b> (1.72-2.83)	<b>2.76</b> (2.11-3.70)	<b>3.24</b> (2.41-4.36)	<b>3.76</b> (2.69-5.13)	<b>4.33</b> (2.96-6.00)	<b>5.13</b> (3.37-7.23)	<b>5.79</b> (3.68-8.16)
<b>2-hr</b>	<b>1.45</b> (1.17-1.85)	<b>1.73</b> (1.39-2.20)	<b>2.24</b> (1.79-2.85)	<b>2.71</b> (2.15-3.46)	<b>3.45</b> (2.68-4.58)	<b>4.08</b> (3.07-5.44)	<b>4.76</b> (3.46-6.44)	<b>5.51</b> (3.83-7.57)	<b>6.59</b> (4.39-9.20)	<b>7.48</b> (4.81-10.4)
<b>3-hr</b>	<b>1.62</b> (1.31-2.04)	<b>1.92</b> (1.55-2.42)	<b>2.48</b> (2.00-3.13)	<b>3.02</b> (2.41-3.83)	<b>3.87</b> (3.03-5.13)	<b>4.61</b> (3.50-6.12)	<b>5.42</b> (3.97-7.29)	<b>6.31</b> (4.42-8.63)	<b>7.61</b> (5.11-10.6)	<b>8.68</b> (5.63-12.0)
<b>6-hr</b>	<b>1.89</b> (1.54-2.35)	<b>2.22</b> (1.81-2.77)	<b>2.87</b> (2.33-3.58)	<b>3.50</b> (2.83-4.38)	<b>4.50</b> (3.57-5.91)	<b>5.38</b> (4.14-7.06)	<b>6.34</b> (4.71-8.46)	<b>7.42</b> (5.27-10.0)	<b>8.99</b> (6.13-12.4)	<b>10.3</b> (6.77-14.1)
<b>12-hr</b>	<b>2.13</b> (1.76-2.61)	<b>2.52</b> (2.08-3.09)	<b>3.24</b> (2.66-3.99)	<b>3.93</b> (3.21-4.84)	<b>4.99</b> (4.00-6.44)	<b>5.91</b> (4.59-7.64)	<b>6.91</b> (5.18-9.07)	<b>8.01</b> (5.75-10.7)	<b>9.60</b> (6.62-13.0)	<b>10.9</b> (7.28-14.8)
<b>24-hr</b>	<b>2.46</b> (2.05-2.98)	<b>2.83</b> (2.36-3.43)	<b>3.54</b> (2.94-4.29)	<b>4.22</b> (3.48-5.13)	<b>5.29</b> (4.30-6.75)	<b>6.23</b> (4.91-7.97)	<b>7.27</b> (5.53-9.44)	<b>8.42</b> (6.14-11.1)	<b>10.1</b> (7.07-13.6)	<b>11.5</b> (7.77-15.4)
<b>2-day</b>	<b>2.86</b> (2.41-3.42)	<b>3.21</b> (2.71-3.84)	<b>3.89</b> (3.27-4.67)	<b>4.56</b> (3.81-5.49)	<b>5.64</b> (4.64-7.11)	<b>6.60</b> (5.27-8.34)	<b>7.66</b> (5.91-9.83)	<b>8.85</b> (6.54-11.6)	<b>10.6</b> (7.52-14.1)	<b>12.0</b> (8.26-16.0)
<b>3-day</b>	<b>3.12</b> (2.65-3.70)	<b>3.50</b> (2.97-4.16)	<b>4.22</b> (3.57-5.02)	<b>4.92</b> (4.14-5.87)	<b>6.03</b> (4.98-7.51)	<b>6.99</b> (5.62-8.75)	<b>8.06</b> (6.25-10.2)	<b>9.24</b> (6.88-12.0)	<b>11.0</b> (7.85-14.4)	<b>12.4</b> (8.58-16.3)
<b>4-day</b>	<b>3.33</b> (2.84-3.93)	<b>3.75</b> (3.20-4.43)	<b>4.53</b> (3.84-5.35)	<b>5.25</b> (4.44-6.23)	<b>6.39</b> (5.29-7.88)	<b>7.36</b> (5.93-9.13)	<b>8.42</b> (6.56-10.6)	<b>9.59</b> (7.17-12.3)	<b>11.3</b> (8.10-14.7)	<b>12.6</b> (8.81-16.6)
<b>7-day</b>	<b>3.88</b> (3.34-4.53)	<b>4.39</b> (3.78-5.13)	<b>5.29</b> (4.54-6.18)	<b>6.09</b> (5.19-7.14)	<b>7.28</b> (6.05-8.81)	<b>8.26</b> (6.70-10.1)	<b>9.29</b> (7.29-11.5)	<b>10.4</b> (7.84-13.2)	<b>12.0</b> (8.68-15.4)	<b>13.2</b> (9.32-17.2)
<b>10-day</b>	<b>4.41</b> (3.81-5.10)	<b>4.98</b> (4.31-5.77)	<b>5.96</b> (5.14-6.92)	<b>6.81</b> (5.84-7.93)	<b>8.04</b> (6.70-9.62)	<b>9.03</b> (7.35-10.9)	<b>10.1</b> (7.93-12.4)	<b>11.1</b> (8.44-14.0)	<b>12.6</b> (9.21-16.2)	<b>13.8</b> (9.80-17.8)
<b>20-day</b>	<b>6.02</b> (5.27-6.87)	<b>6.74</b> (5.90-7.70)	<b>7.91</b> (6.90-9.06)	<b>8.89</b> (7.72-10.2)	<b>10.2</b> (8.61-12.0)	<b>11.3</b> (9.29-13.4)	<b>12.3</b> (9.83-14.9)	<b>13.4</b> (10.3-16.5)	<b>14.8</b> (10.9-18.7)	<b>15.9</b> (11.5-20.3)
<b>30-day</b>	<b>7.42</b> (6.55-8.40)	<b>8.28</b> (7.30-9.38)	<b>9.65</b> (8.48-11.0)	<b>10.8</b> (9.41-12.3)	<b>12.3</b> (10.4-14.2)	<b>13.4</b> (11.1-15.7)	<b>14.5</b> (11.6-17.3)	<b>15.6</b> (12.0-19.0)	<b>16.9</b> (12.6-21.1)	<b>18.0</b> (13.1-22.8)
<b>45-day</b>	<b>9.24</b> (8.21-10.4)	<b>10.3</b> (9.15-11.6)	<b>12.0</b> (10.6-13.5)	<b>13.3</b> (11.7-15.0)	<b>15.0</b> (12.8-17.2)	<b>16.3</b> (13.6-18.9)	<b>17.4</b> (14.1-20.6)	<b>18.6</b> (14.4-22.4)	<b>19.9</b> (14.9-24.6)	<b>20.9</b> (15.3-26.3)
<b>60-day</b>	<b>10.8</b> (9.65-12.1)	<b>12.1</b> (10.8-13.5)	<b>14.1</b> (12.5-15.8)	<b>15.6</b> (13.8-17.5)	<b>17.6</b> (15.0-20.0)	<b>18.9</b> (15.8-21.8)	<b>20.2</b> (16.4-23.7)	<b>21.3</b> (16.6-25.6)	<b>22.7</b> (17.1-27.8)	<b>23.5</b> (17.4-29.5)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

**PF graphical**

PDS-based depth-duration-frequency (DDF) curves  
Coordinates: 44.3749, -93.2520



NOAA/NWS/OHD/HDSC

Created (GMT): Mon Jul 15 20:31:43 2013

[Back to Top](#)

### Maps & aerials

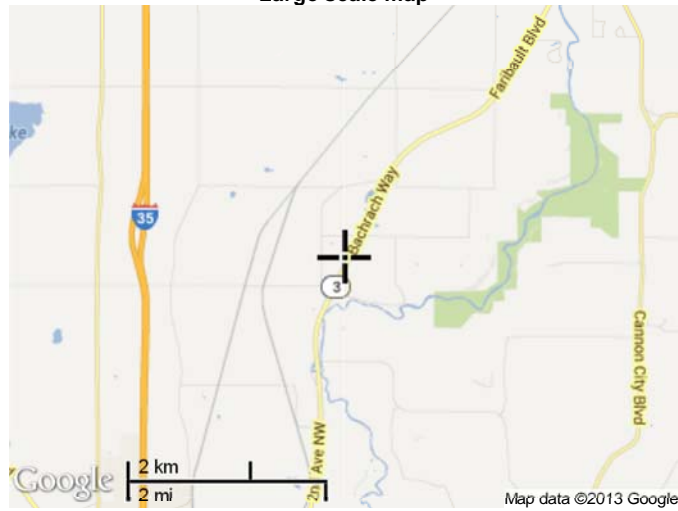
#### Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



[Back to Top](#)

---

[US Department of Commerce](#)  
[National Oceanic and Atmospheric Administration](#)  
[National Weather Service](#)  
[Office of Hydrologic Development](#)  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

[Disclaimer](#)