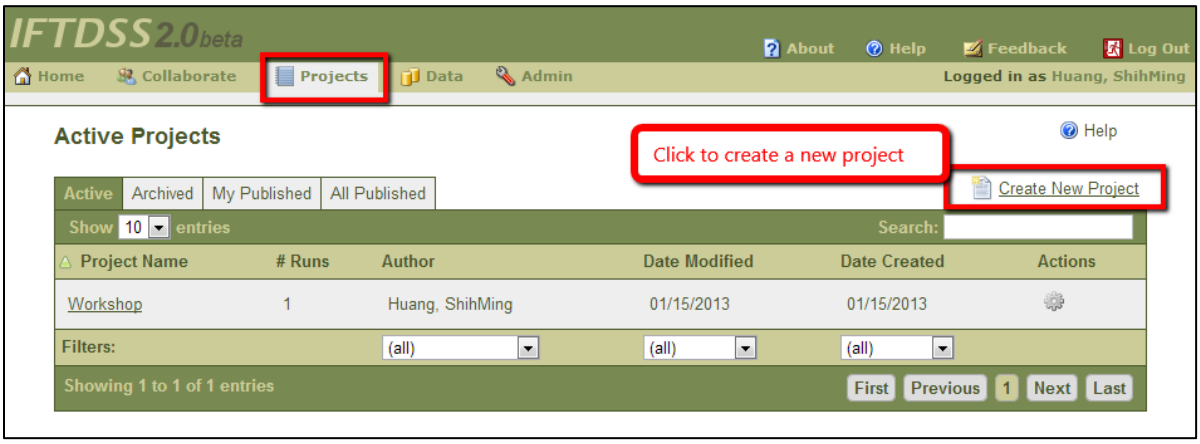
# IFTDSS Workshop

## Handout 4: Calculate Fire Weather Statistics (IFT-FireFamilyPlus)

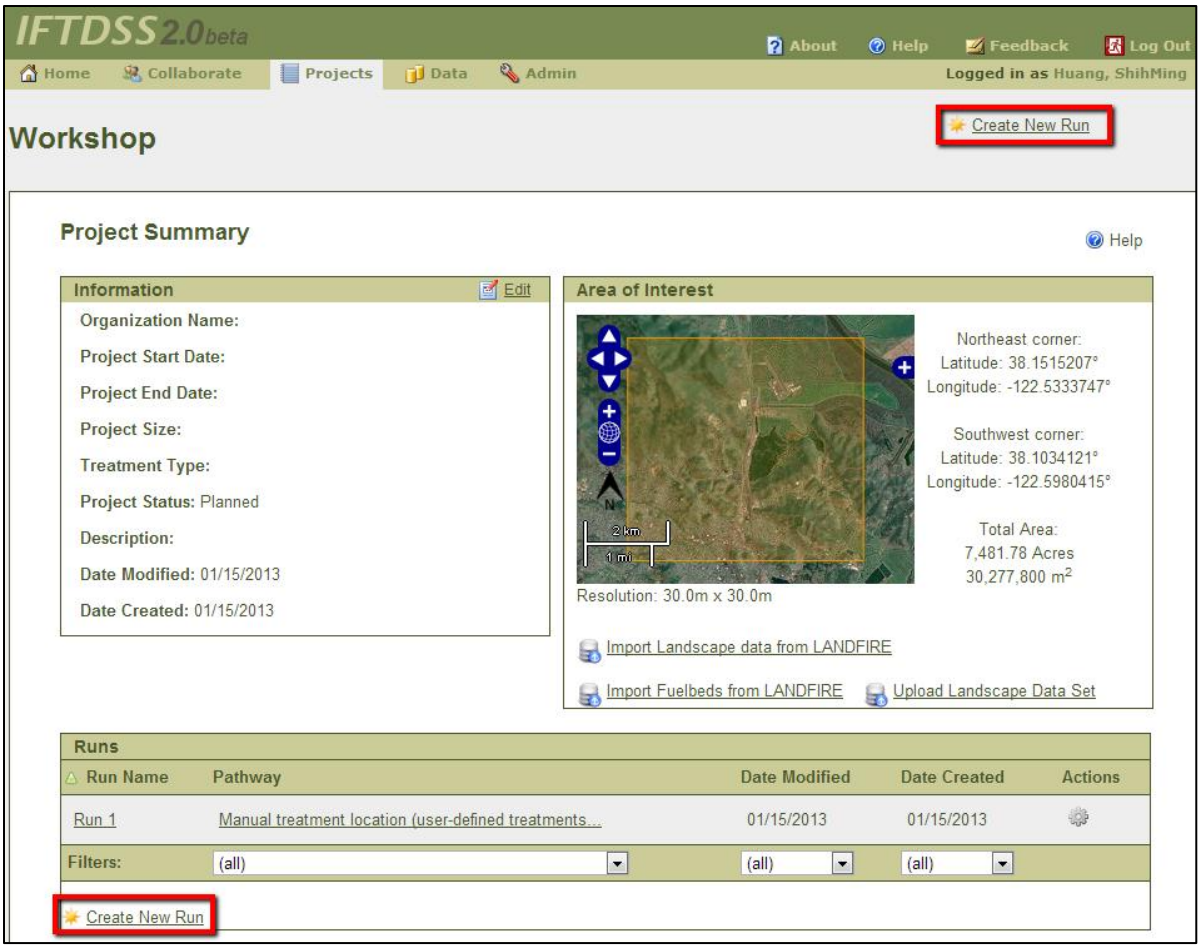
1. Go to http://iftdss.sonomatech.com/ and log in.

2. Go to the Active Projects page by clicking on the **Projects** link.

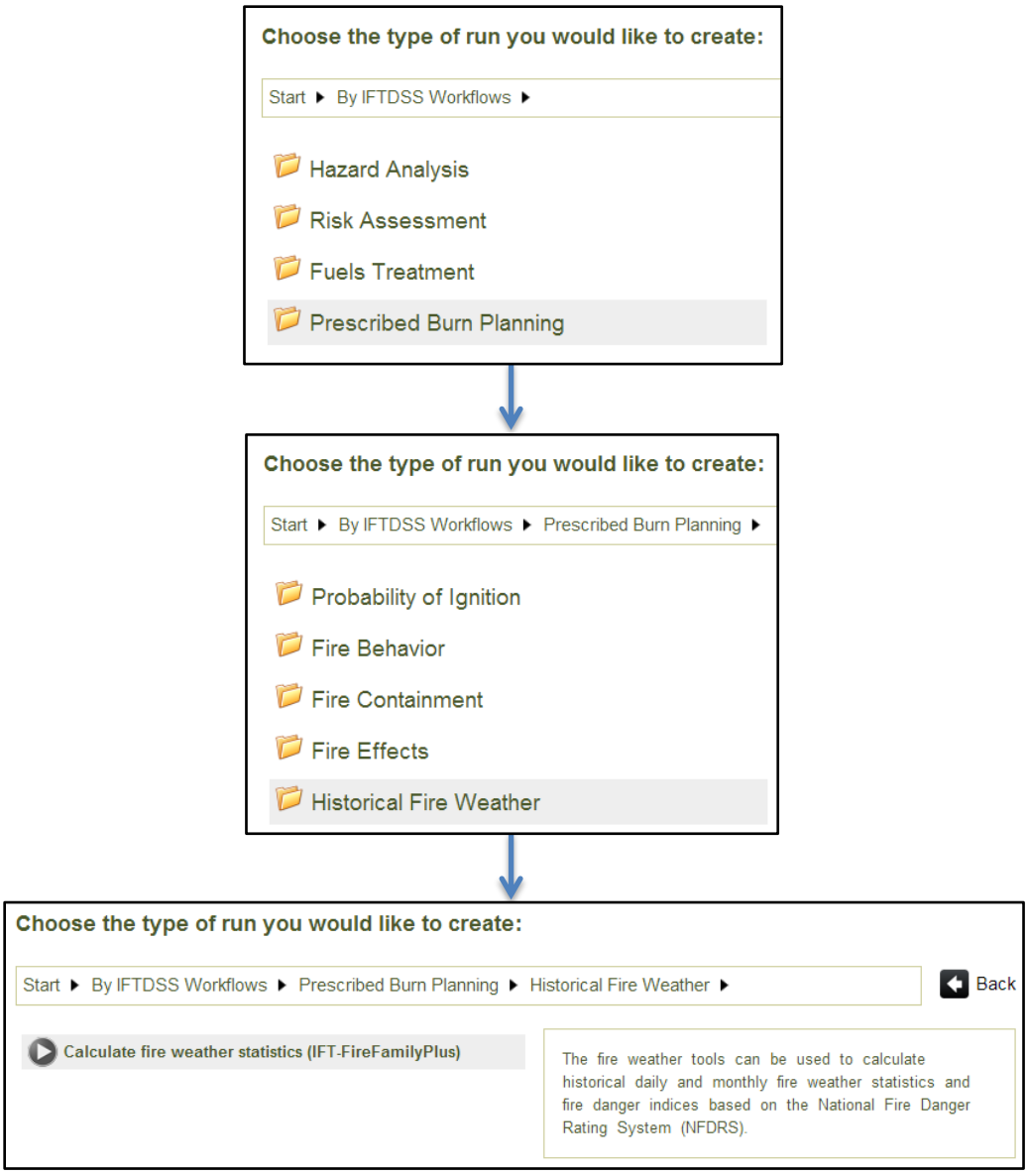
3. Create a new project by clicking **Create New Project** or click on an existing project from the Active Projects list.



4. From the Project Summary page, click on **Create New Run**.

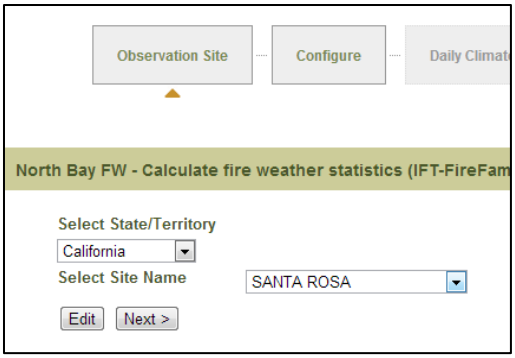


5. Select **Prescribed Burn Planning**, then select **Historical Fire Weather**, and finally select the **Calculate fire weather statistics (IFT-FireFamilyPlus)** pathway.

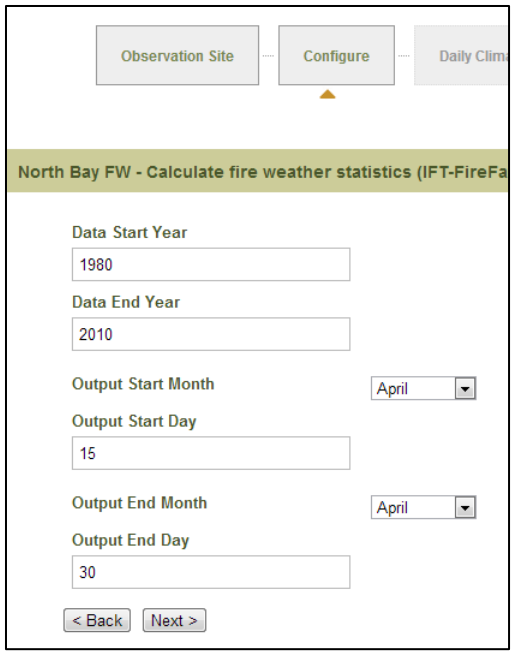



6. Give the run a unique name, then click **Next**.

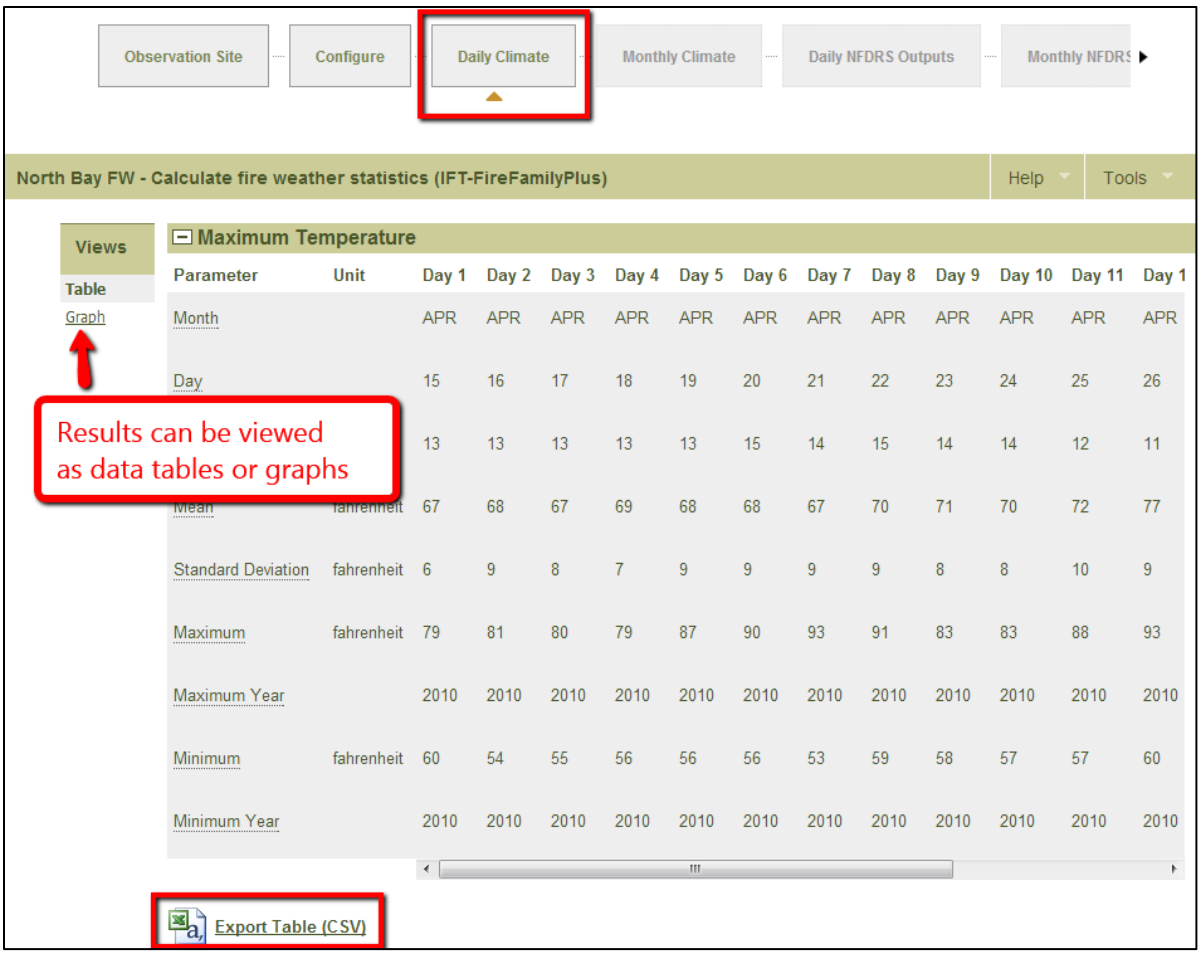
7. On the Observation Site page, select the weather station in or closest to the area of interest. Click **Next**.




8. Configure the range of data for which the fire weather statistics will be calculated. On the Configure page, enter **Data Start Year**, **Data End Year**, **Output Start Month**, **Output Start Day**, **Output End Month**, and **Output End Day**. Click **Next**.

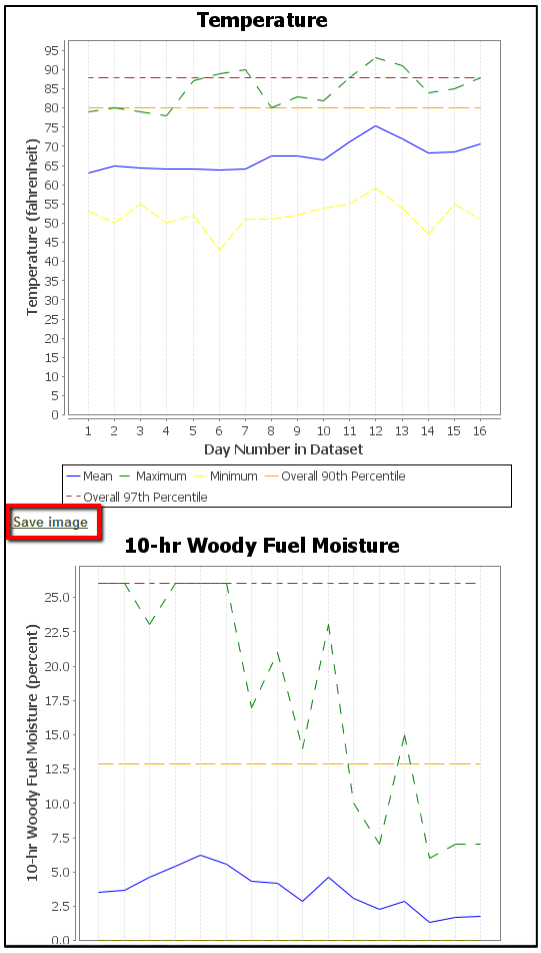


9. Now, the daily climate statistics are displayed. Export a data table to a CSV file by clicking the **Export Table (CSV)** link below the table. View a graph of the results by clicking on the **Graph** link on the left side of the screen.



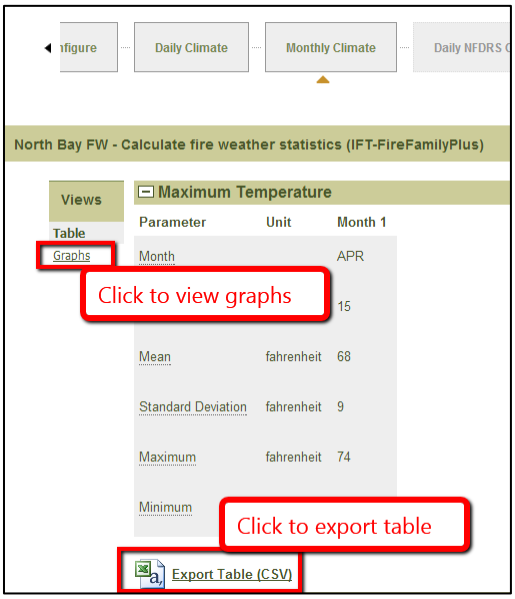

| Parameter | Unit | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | | APR | APR | APR | APR | APR | APR | APR | APR | APR | APR | APR | APR |
| Day | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | | 13 | 13 | 13 | 13 | 13 | 15 | 14 | 15 | 14 | 14 | 12 | 11 |
| Mean | fahrenheit | 67 | 68 | 67 | 69 | 68 | 68 | 67 | 70 | 71 | 70 | 72 | 77 |
| Standard Deviation | fahrenheit | 6 | 9 | 8 | 7 | 9 | 9 | 9 | 9 | 8 | 8 | 10 | 9 |
| Maximum | fahrenheit | 79 | 81 | 80 | 79 | 87 | 90 | 93 | 91 | 83 | 83 | 88 | 93 |
| Maximum Year | | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 |
| Minimum | fahrenheit | 60 | 54 | 55 | 56 | 56 | 56 | 53 | 59 | 58 | 57 | 57 | 60 |
| Minimum Year | | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 |

10. Save a graph as a PNG file by clicking on **Save Image** below the graph.

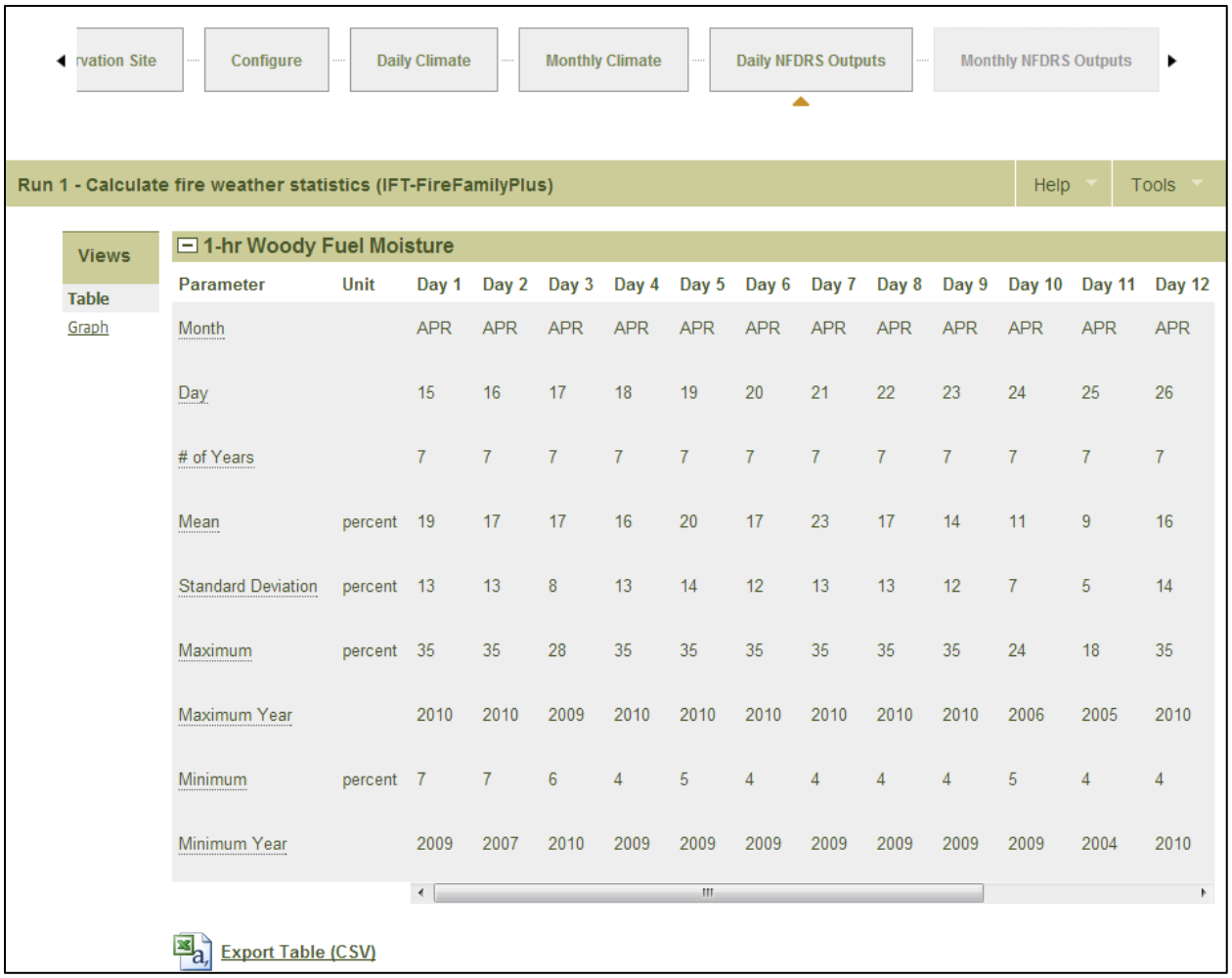



11. Scroll down the screen to view results for maximum temperature, minimum temperature, temperature, 10-hr woody fuel moisture, wind direction, wind speed, maximum relative humidity, minimum relative humidity, relative humidity, precipitation amount, precipitation duration, solar radiation, herbaceous greenness factor, and shrub greenness factor. Click **Next** to view monthly climate statistics.

12. On the Monthly Climate page, you can view statistics of each of the parameters by month in table or graph mode, and you can export those statistics to CSV and PNG files. Click **Next**.

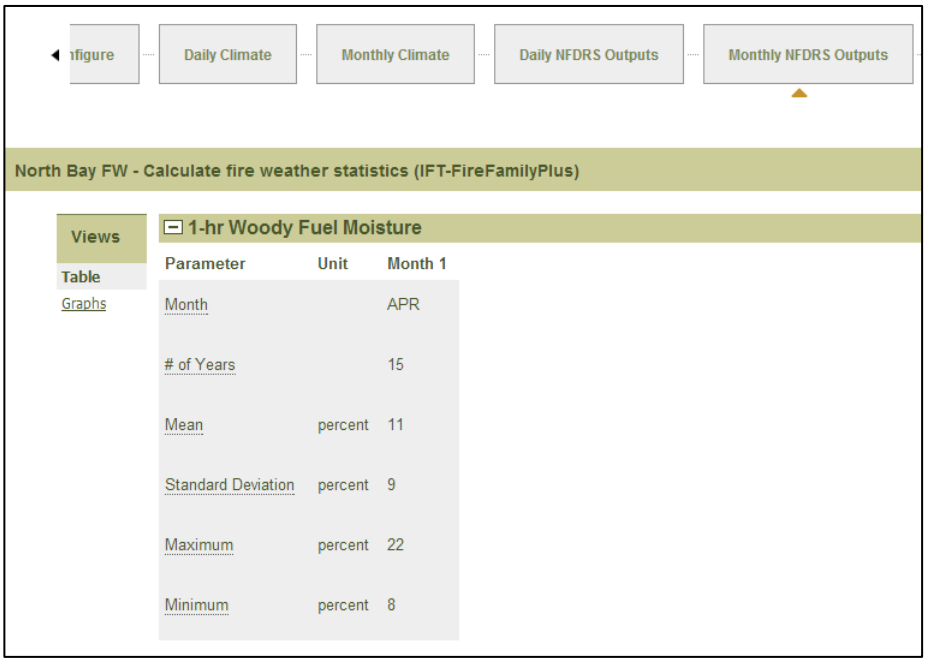


13. Now, Daily NFDRS Outputs are shown. The NFDRS (National Fire Danger Rating System) parameters include 1-hr woody fuel moisture, 10-hr woody fuel moisture, 100-hr woody fuel moisture, 1000-hr woody fuel moisture, herbaceous fuel moisture, live woody fuel moisture, Keetch-Byram Drought Index (KBDI), rate of spread, ignition component, energy release component, flame length, fire intensity, and burning index. Again, statistics of each of the parameters can be viewed in table or graph mode, and can be exported to CSV and PNG files. Click **Next**.




| Parameter | Unit | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | | APR | APR | APR | APR | APR | APR | APR | APR | APR | APR | APR | APR |
| Day | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| # of Years | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Mean | percent | 19 | 17 | 17 | 16 | 20 | 17 | 23 | 17 | 14 | 11 | 9 | 16 |
| Standard Deviation | percent | 13 | 13 | 8 | 13 | 14 | 12 | 13 | 13 | 12 | 7 | 5 | 14 |
| Maximum | percent | 35 | 35 | 28 | 35 | 35 | 35 | 35 | 35 | 35 | 24 | 18 | 35 |
| Maximum Year | | 2010 | 2010 | 2009 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2006 | 2005 | 2010 |
| Minimum | percent | 7 | 7 | 6 | 4 | 5 | 4 | 4 | 4 | 4 | 5 | 4 | 4 |
| Minimum Year | | 2009 | 2007 | 2010 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2004 | 2010 |

14. Monthly NFDRS Outputs are displayed.  Again, statistics of each of the parameters can be viewed in table or graph mode, and can be exported to CSV and PNG files.




15. Click **Finish** to end the run and go to the Run Summary page.