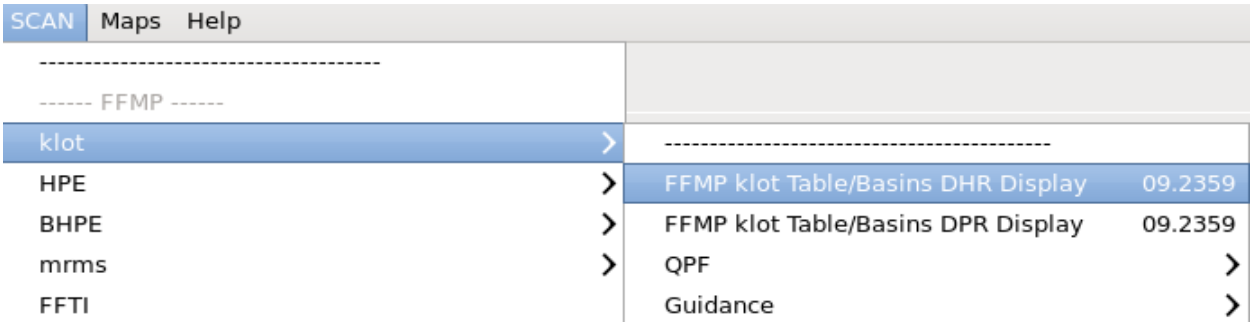
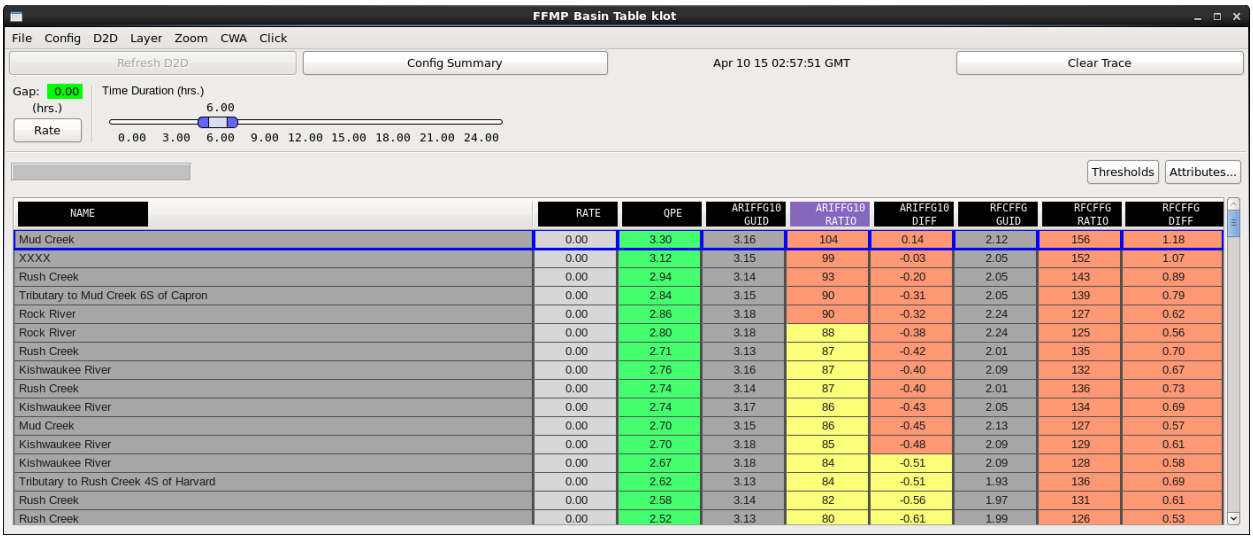
Jobsheet #3: Loading ARI data from the FFMP Basin Trend Graph

Loading ARI data in the FFMP Basin Trend Graph

1. **Load FFMP** for any precip source (e.g. **SCAN-> FFMP $radar Table/Basins DHR Display**)
    - e.g. SCAN-> FFMP klot Table/Basins DHR Display for the klot Legacy DHR precip source



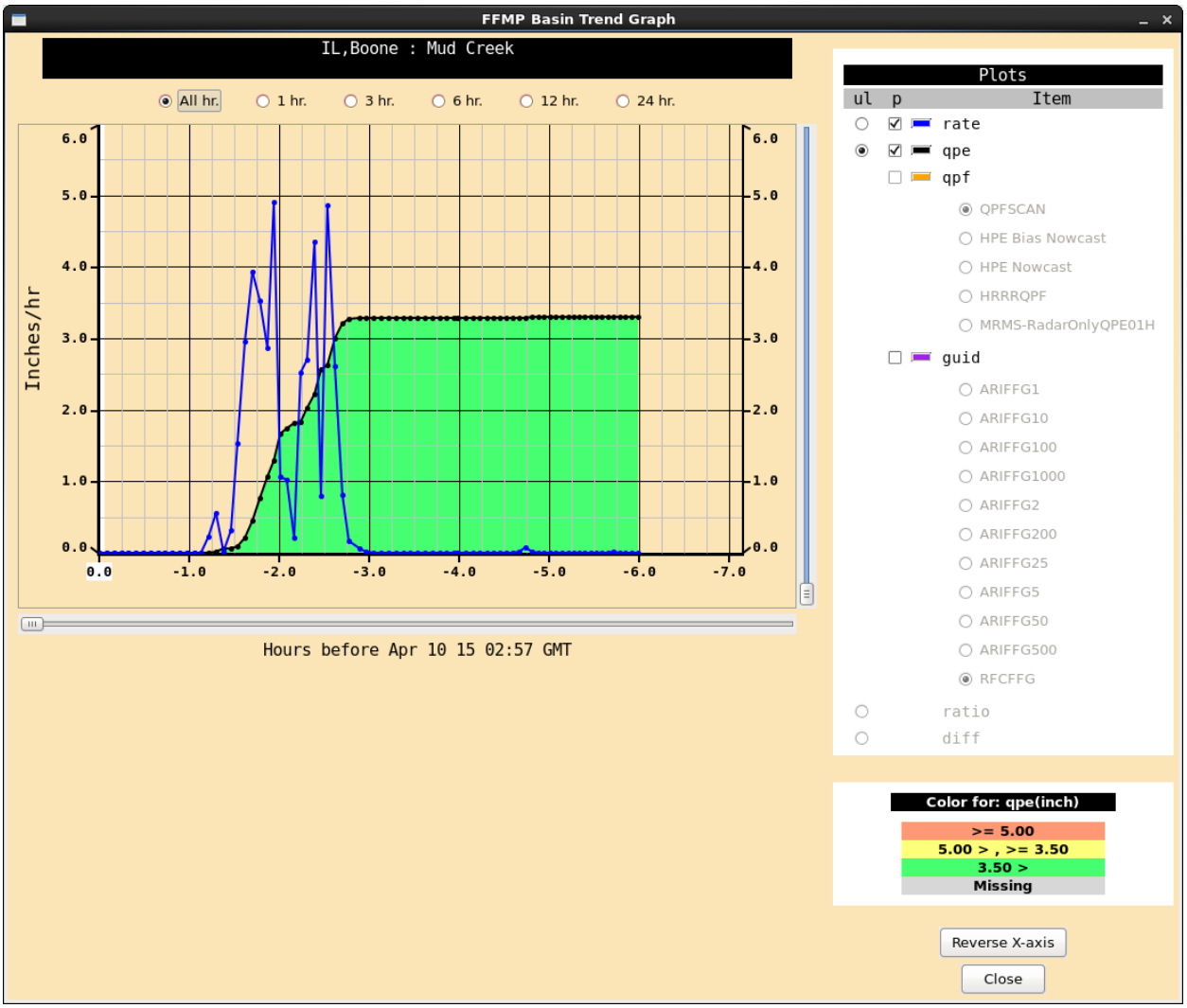
2. Load a basin trend by:
    1. **Right clicking** on a **basin name** in the FFMP table or



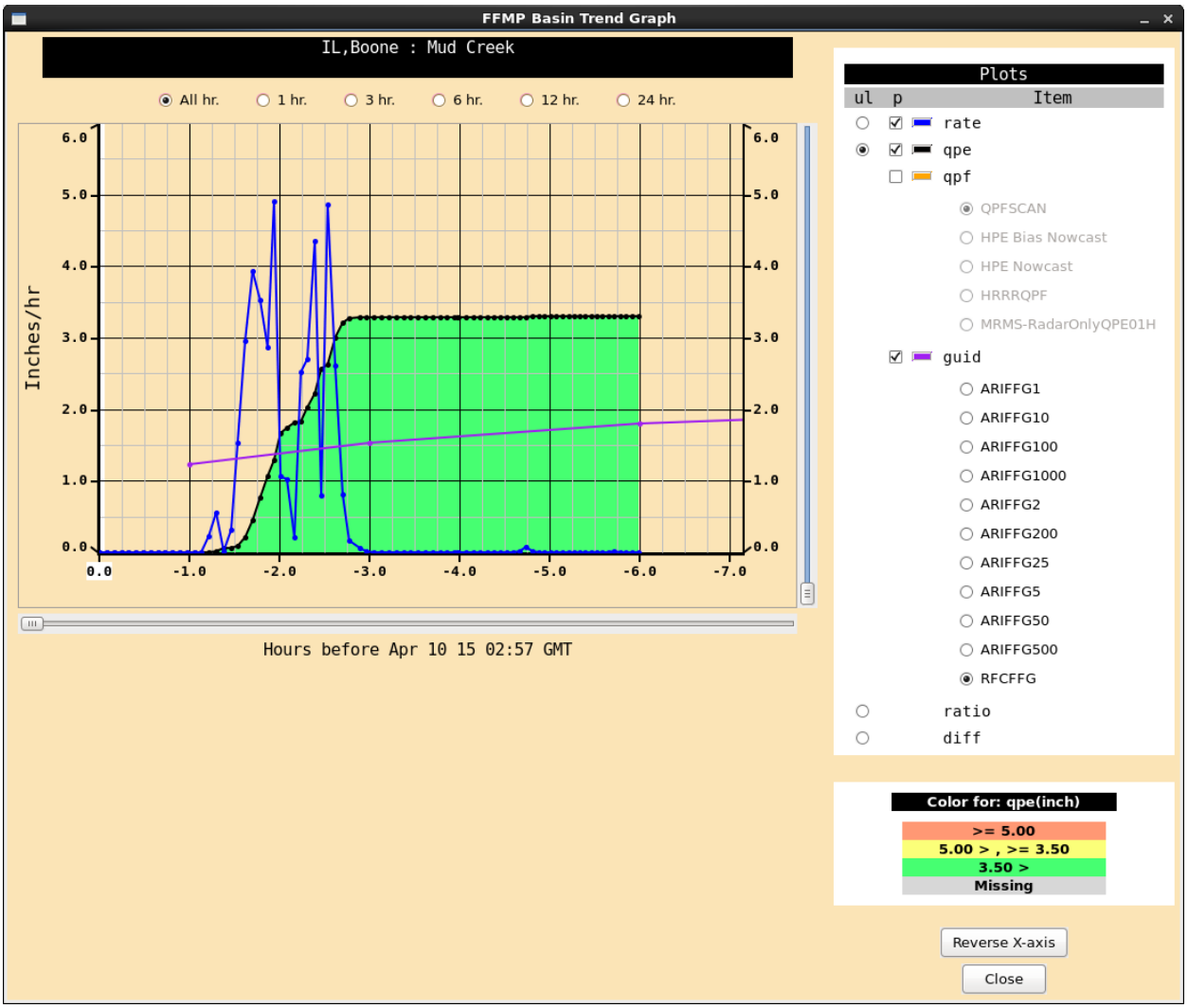
NAME	RATE	QPE	ARIFFG10 GUID	ARIFFG10 RATIO	ARIFFG10 DIFF	RFCFFG GUID	RFCFFG RATIO	RFCFFG DIFF
Mud Creek	0.00	3.30	3.16	104	0.14	2.12	156	1.18
XXXX	0.00	3.12	3.15	99	-0.03	2.05	152	1.07
Rush Creek	0.00	2.94	3.14	93	-0.20	2.05	143	0.89
Tributary to Mud Creek 6S of Capron	0.00	2.84	3.15	90	-0.31	2.05	139	0.79
Rock River	0.00	2.86	3.18	90	-0.32	2.24	127	0.62
Rock River	0.00	2.80	3.18	88	-0.38	2.24	125	0.56
Rush Creek	0.00	2.71	3.13	87	-0.42	2.01	135	0.70
Kishwaukee River	0.00	2.76	3.16	87	-0.40	2.09	132	0.67
Rush Creek	0.00	2.74	3.14	87	-0.40	2.01	136	0.73
Kishwaukee River	0.00	2.74	3.17	86	-0.43	2.05	134	0.69
Mud Creek	0.00	2.70	3.15	86	-0.45	2.13	127	0.57
Kishwaukee River	0.00	2.70	3.18	85	-0.48	2.09	129	0.61
Kishwaukee River	0.00	2.67	3.18	84	-0.51	2.09	128	0.58
Tributary to Rush Creek 4S of Harvard	0.00	2.62	3.13	84	-0.51	1.93	136	0.69
Rush Creek	0.00	2.58	3.14	82	-0.56	1.97	131	0.61
Rush Creek	0.00	2.52	3.13	80	-0.61	1.99	126	0.53

    2. Configuring the Click menu in the FFMP table to be "Basin Trend", making FFMP legend text editable, and then right clicking on a basin.

3. In the basin trend click on the **guid** button



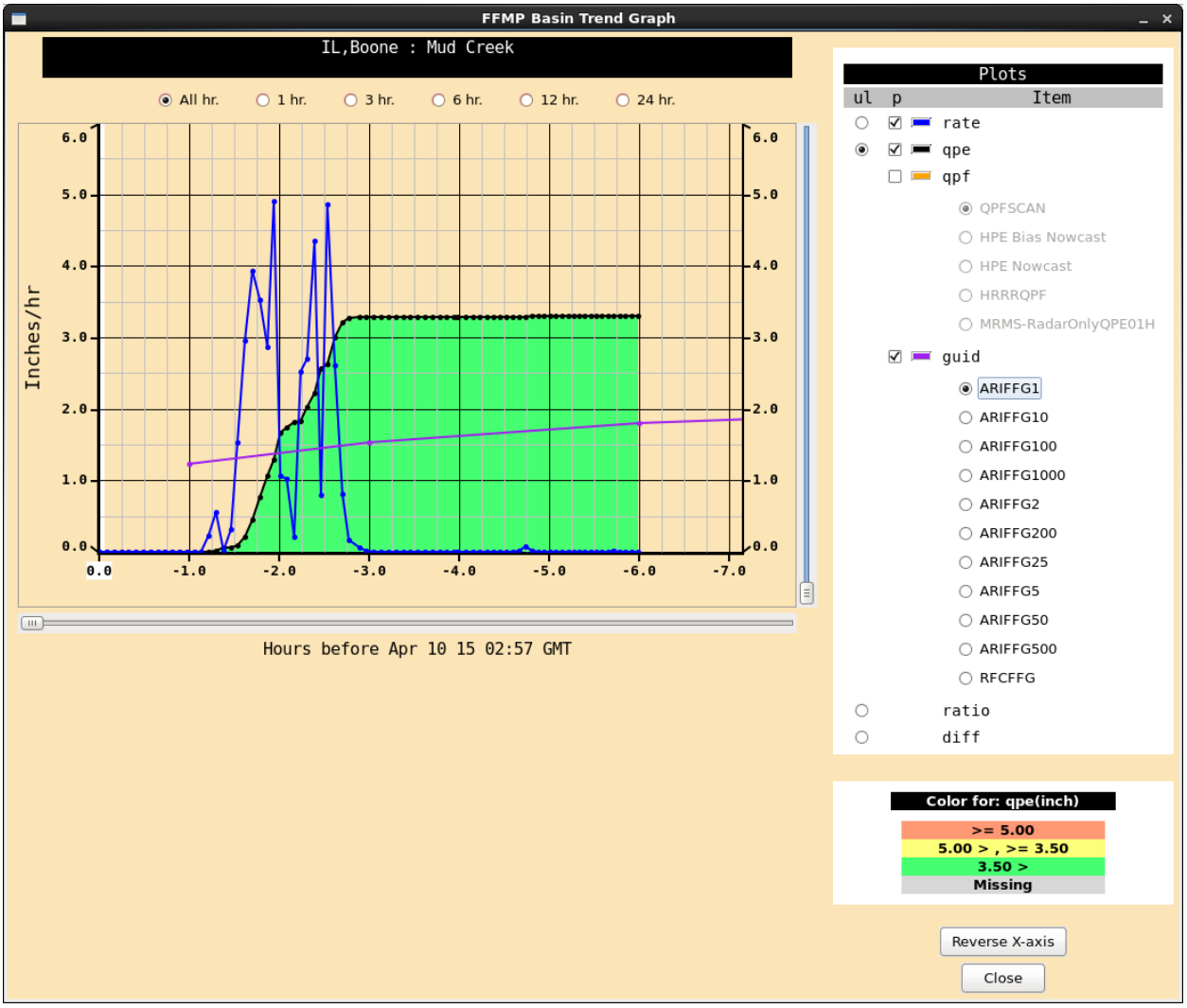
- Note: FFG is typically the default guidance overlay, with magenta dots at 1-hr, 3-hr, and 6-hr representing the basin-averaged flash flood guidance for these durations from the RFCs (1-hr FFG ~ 1.25", 3-hr FFG ~ 1.5", and 6-hr FFG ~1.9" in. Also note the black line represents the precip accumulation over that duration (e.g. 3.3" at -3.0 is a 3-hr precip accumulation of 3.3").


FFMP Basin Trend Graph
IL,Boone : Mud Creek
All hr.
1 hr.
3 hr.
6 hr.
12 hr.
24 hr.
Inches/hr
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-6.0
-7.0
Hours before Apr 10 15 02:57 GMT
Plots
ul
p
Item
rate
qpe
qpf
QPFSCAN
HPE Bias Nowcast
HPE Nowcast
HRRRQPF
MRMS-RadarOnlyQPE01H
guid
ARIFFG1
ARIFFG10
ARIFFG100
ARIFFG1000
ARIFFG2
ARIFFG200
ARIFFG25
ARIFFG5
ARIFFG50
ARIFFG500
RFCFFG
ratio
diff
Color for: qpe(inch)
>= 5.00
5.00 > , >= 3.50
3.50 >
Missing
Reverse X-axis
Close

4. Select **ARIFFG1** to view the guidance line for the 1-year ARI.

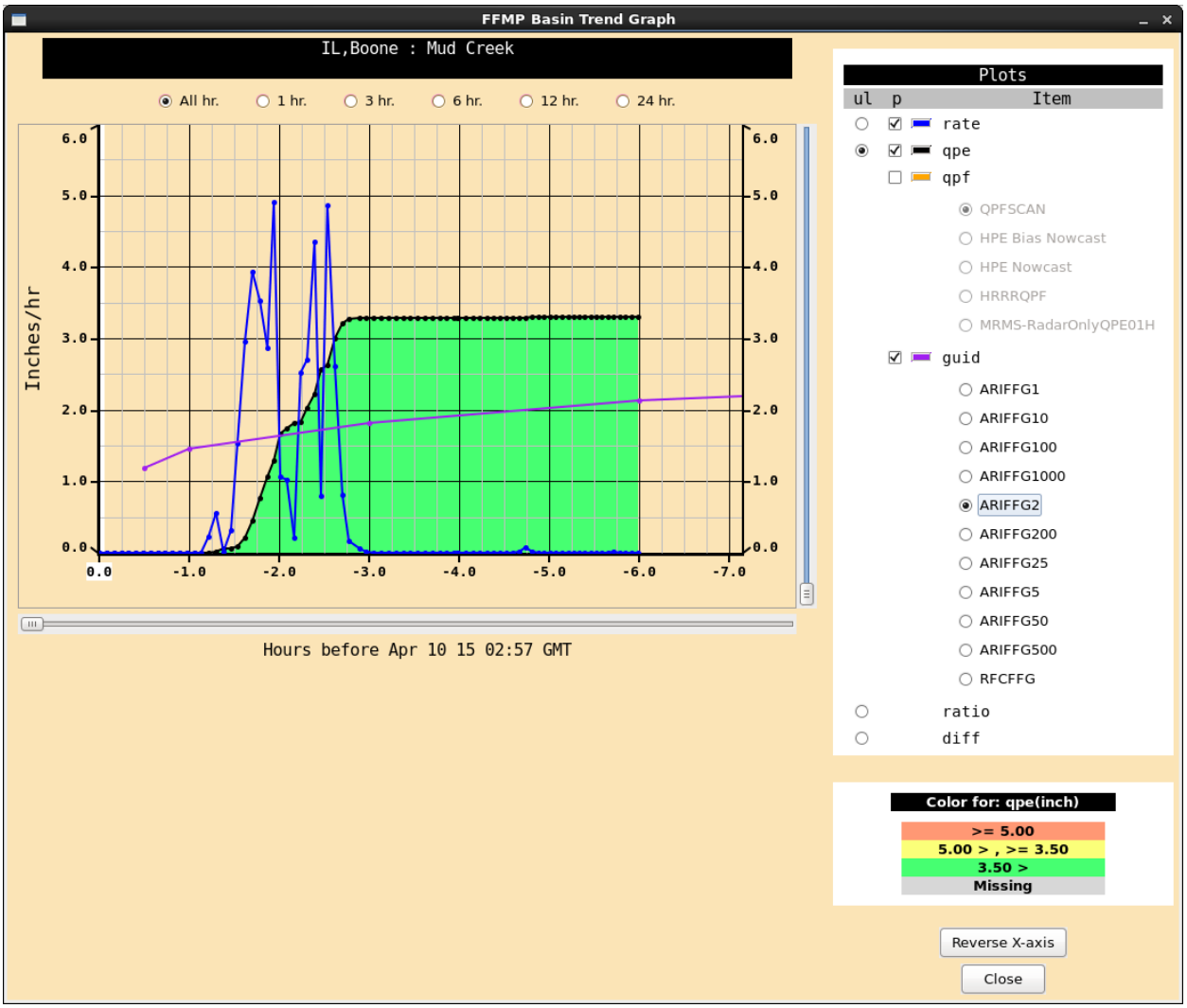
   - The magenta dots are now the basin-averaged 1-year ARIs for 30-min, 1-hr, 3-hr, 6-hr etc. durations. When the black line (precipitation accumulation) is higher than the value of the ARI for that duration (indicated by the magenta line), you have exceeded the precip associated with that ARI.

   - In the plot, the 1-year 3-hr ARI is ~ 1.5", while the 3-hr accumulation is ~3.3". So we have exceeded the 1-year ARI for this duration.

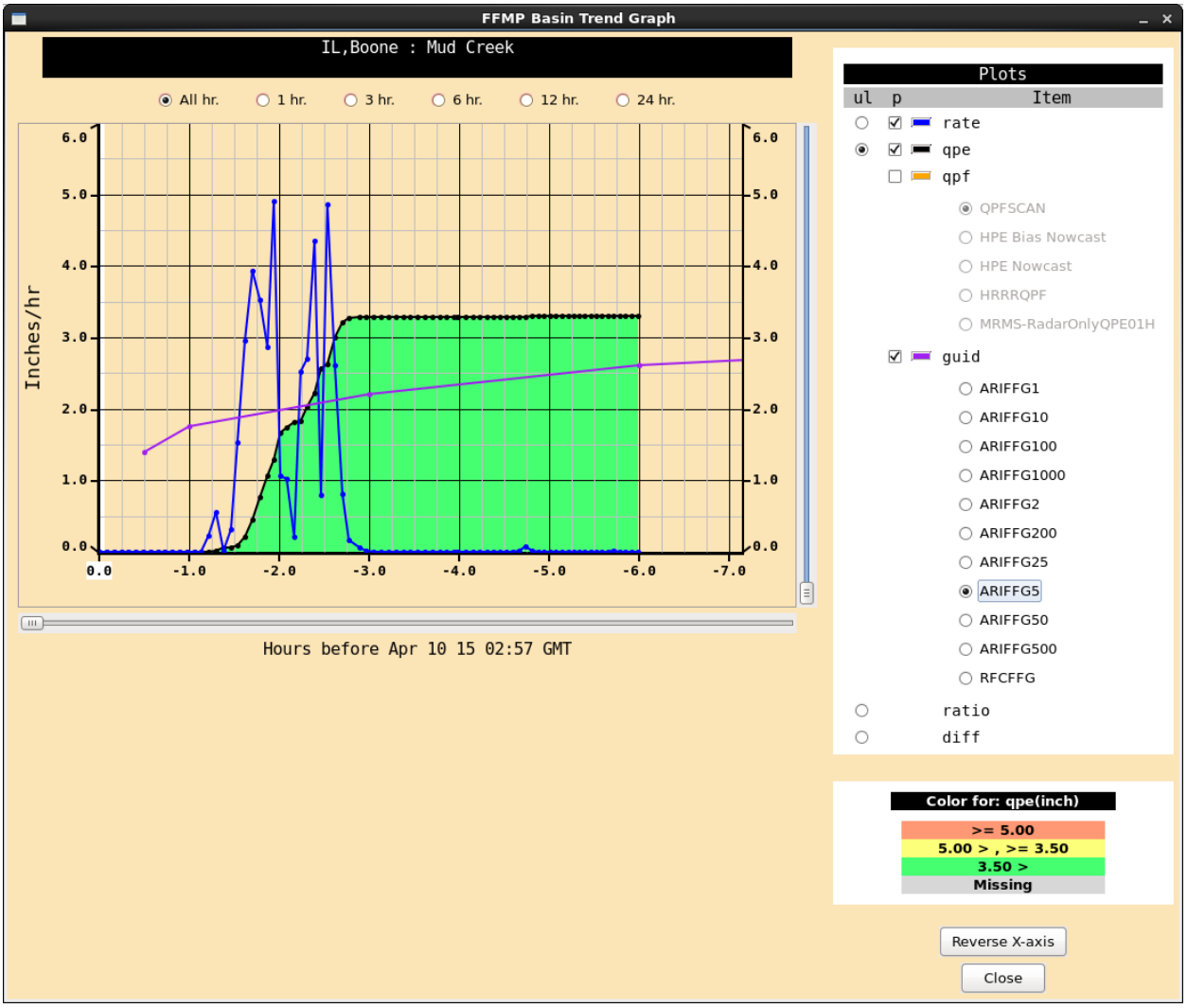


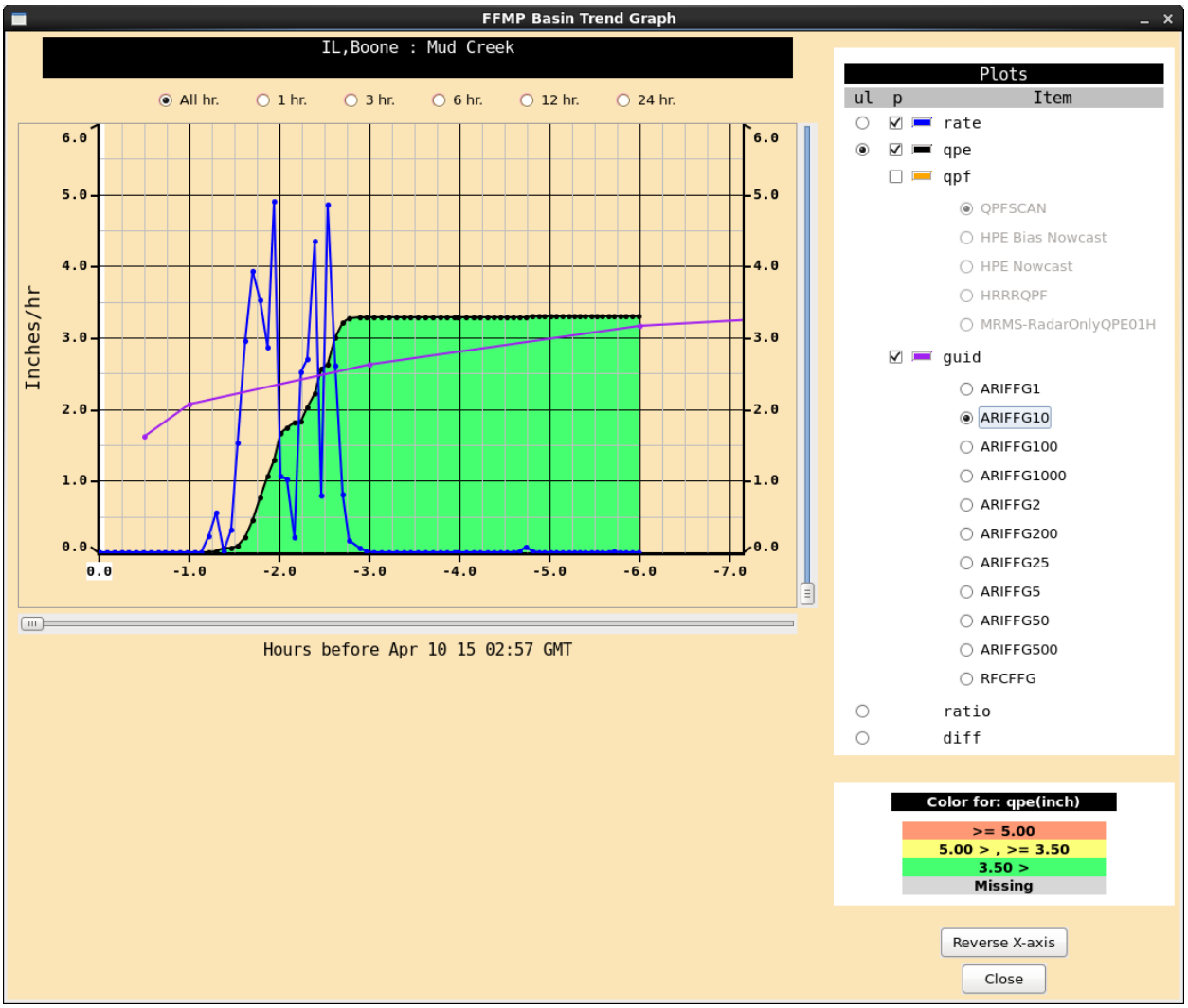
Cycle Through All ARI Values Quickly in Basin Trend

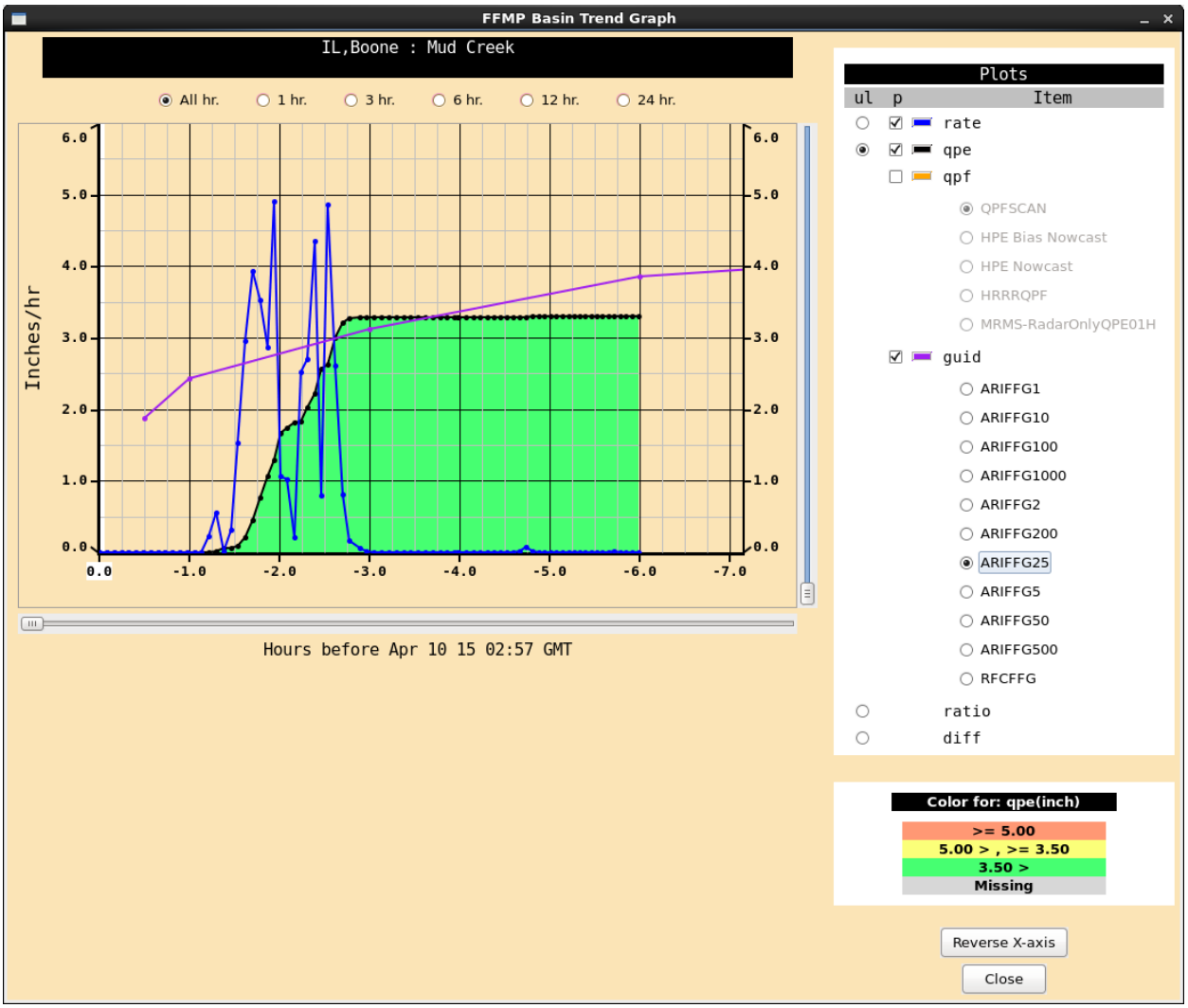
1. Select **ARIFFG2** to view the 2-year ARIs for all durations.



2. Repeat the process for higher values **ARIFFG5**, **ARIFFG10**, **ARIFFG25**, etc. and note how the ARI thresholds increase (i.e. more rainfall is needed to exceed rarer ARIs). The maximum ARI for this basin is a 25-year ARI for a 3-hr duration.




FFMP Basin Trend Graph
IL,Boone : Mud Creek
All hr.
1 hr.
3 hr.
6 hr.
12 hr.
24 hr.
Inches/hr
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-6.0
-7.0
Hours before Apr 10 15 02:57 GMT
Plots
ul
p
Item
rate
qpe
qpf
QPFSCAN
HPE Bias Nowcast
HPE Nowcast
HRRRQPF
MRMS-RadarOnlyQPE01H
guid
ARIFFG1
ARIFFG10
ARIFFG100
ARIFFG1000
ARIFFG2
ARIFFG200
ARIFFG25
ARIFFG5
ARIFFG50
ARIFFG500
RFCFFG
ratio
diff
Color for: qpe(inch)
>= 5.00
5.00 > , >= 3.50
3.50 >
Missing
Reverse X-axis
Close



3. This is a particularly efficient way to cycle through multiple ARIs and durations for a particular basin. You can also view ARI data for individual time plots using the buttons on the top of the basin trend graph (e.g. 1hr, 3hr, 6hr, etc.).