API
Site Specific Model Experiences

at

LMRFC

LMRFC SSM Overview

- **SSM Development**
- **LMRFC Experience**
- **WFO Coordination**
- **Example Output**
- **Limitations**

SSM Development

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- **Delineate HW basin**
- **Export basin outline using IHABBS or AV8**
- **Define basin in WHFS**
- **Define in OFS where appropriate**
- **Define USGS or synthetic rating**
- **Derive 1-hr UHG using IHABBS or Excel**
- **Flood Stage from Service Hydrologist**
- **Develop FFGUID HW parameters**
- **Setup FFH product for guidance values**

SSM Development

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- **Initial deployment ~ 1.5yrs ago**
- **Development hours per site ~ 8hr**
- **Frequently requires refinements post storm event**

UHG Development

- **Derive 1hr UHG from archived hourly stage/MPE data as available**
- **Develop synthetic UHG using IHABBS**
  - **Distributed Time Area method generally work best**
- **Use MBRFC's S-Curve Excel method for backing out 1-hr from a good 6-hr UHG.**

Post Event Analysis

Site Specific - LMRFC

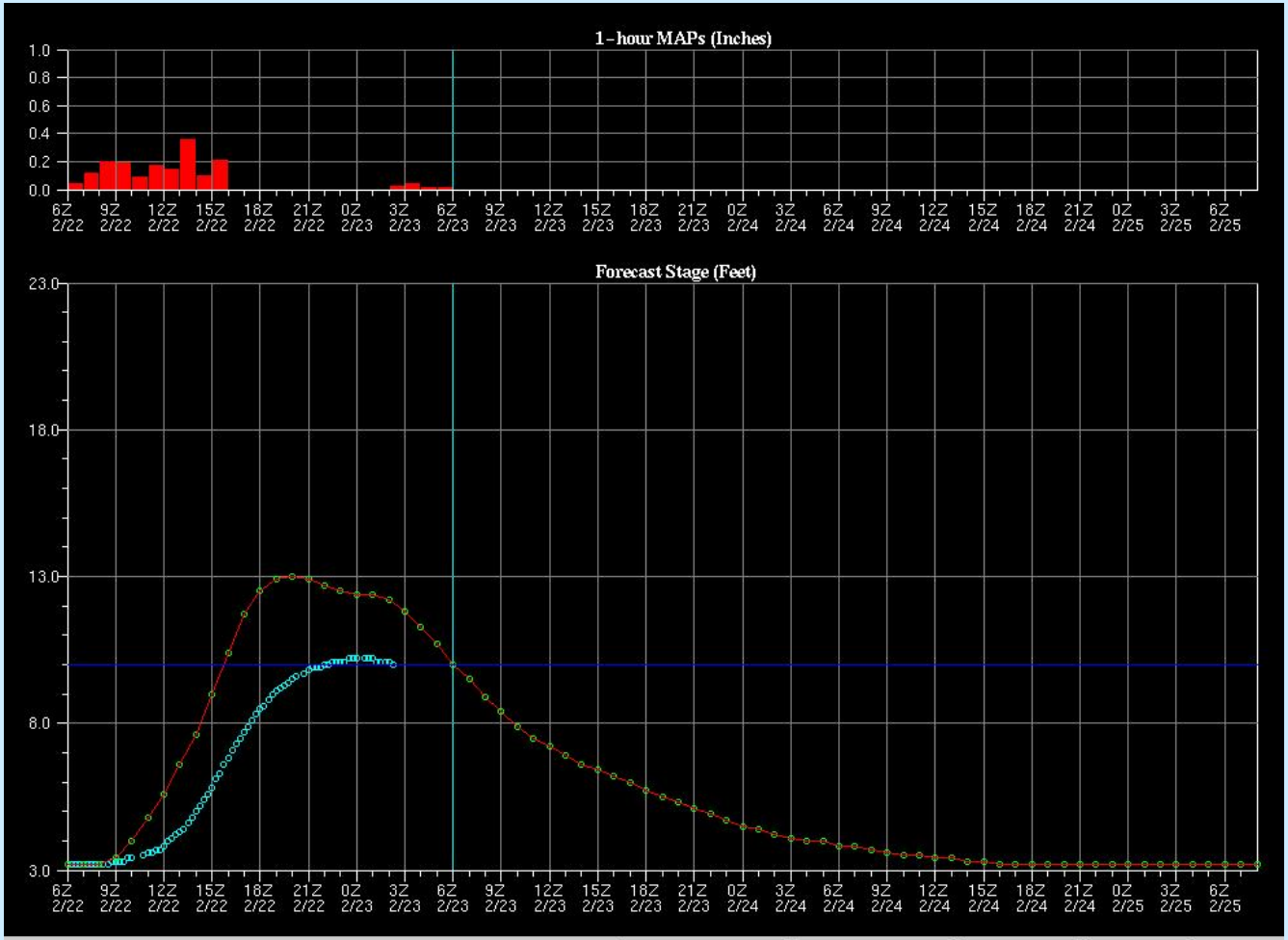
- Screen capture archive of SSM runs
- Fine tune UHGs as necessary
- Fine tune HW parameters as needed
  - UHG peak Q, % impervious, Runoff adjust, and High Flow Adjust
  - SAC-SMA changes to weighted area(s) where appropriate
- SSM sensitive to FFH guidance values

WFO Feedback

SSM - LMRFC

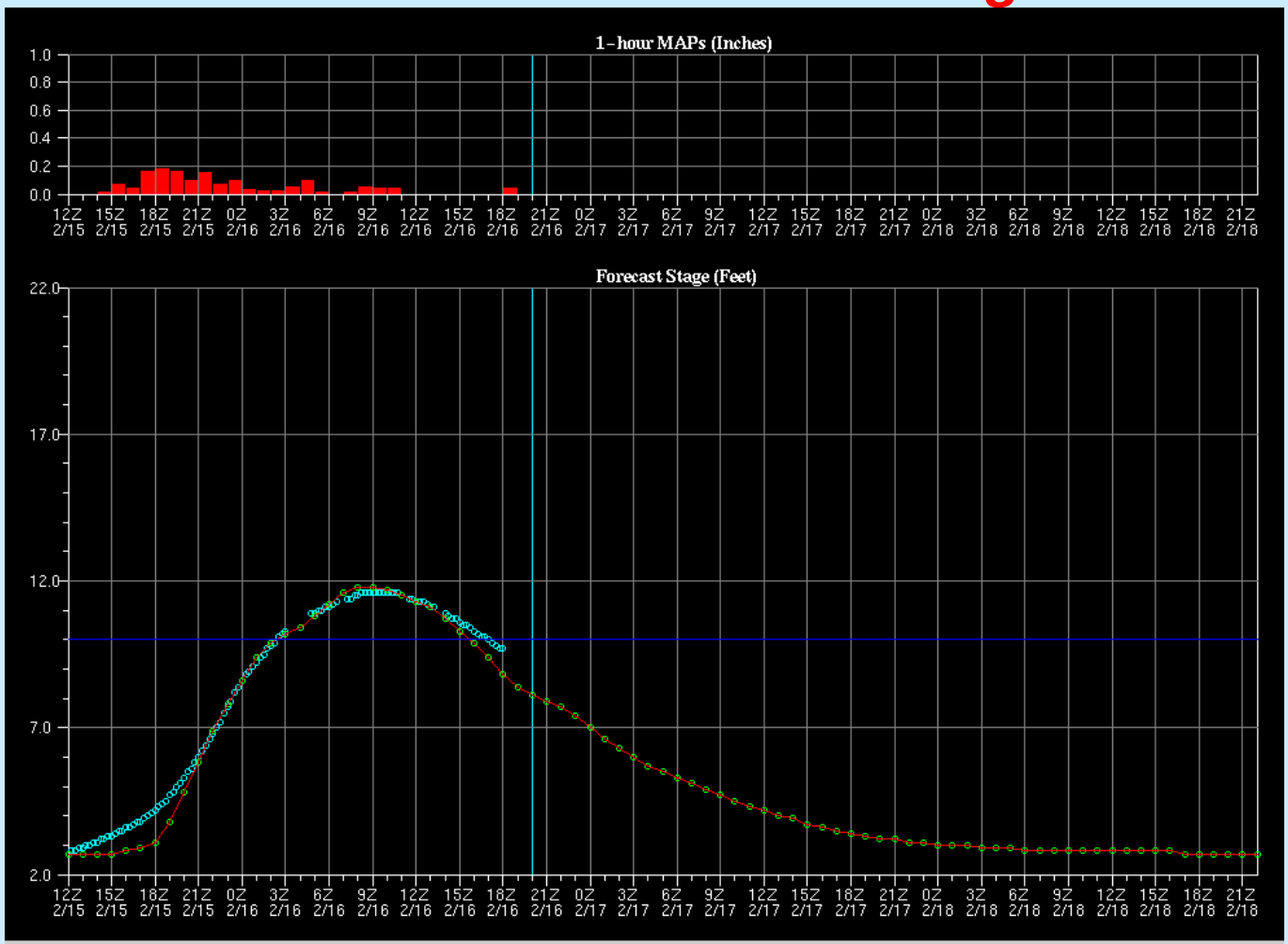
- **Total of 35 SSM sites implemented**
  - **14 of 18 WFO's with SSM**
  - **~ ½ at request of WFOs**
- **Feedback from 4 WFO's (28%)**
  - **2 WFOs provide routine feedback**

RLRV2 Forecast 2/16/2003

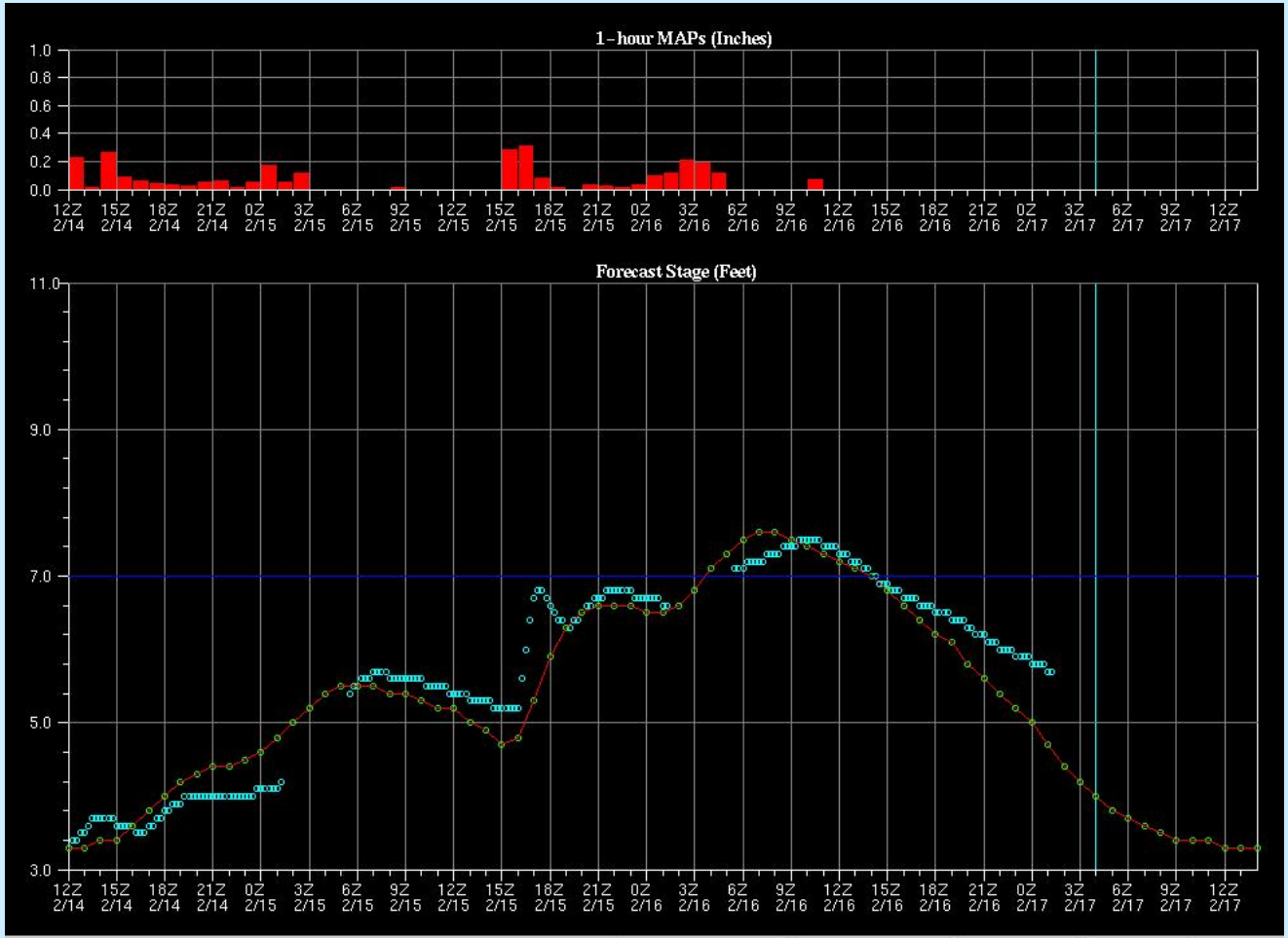


RLRV2 Forecast 2/23/2003

with UHG & HW Parm changes



MADA1 Forecast 2/17/2003



SSM Comments

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- **Improved functionality/computational time**
- **Very limited WFO feedback**
- **Need quality synthetic 1-hr UHG generator**
- **WHFS lacks UHG adjustment technique**
- **Post storm analysis can be time consuming**
- **Overall perception – with few exceptions, most WFOs generally do not use the SSM as an operational tool.**