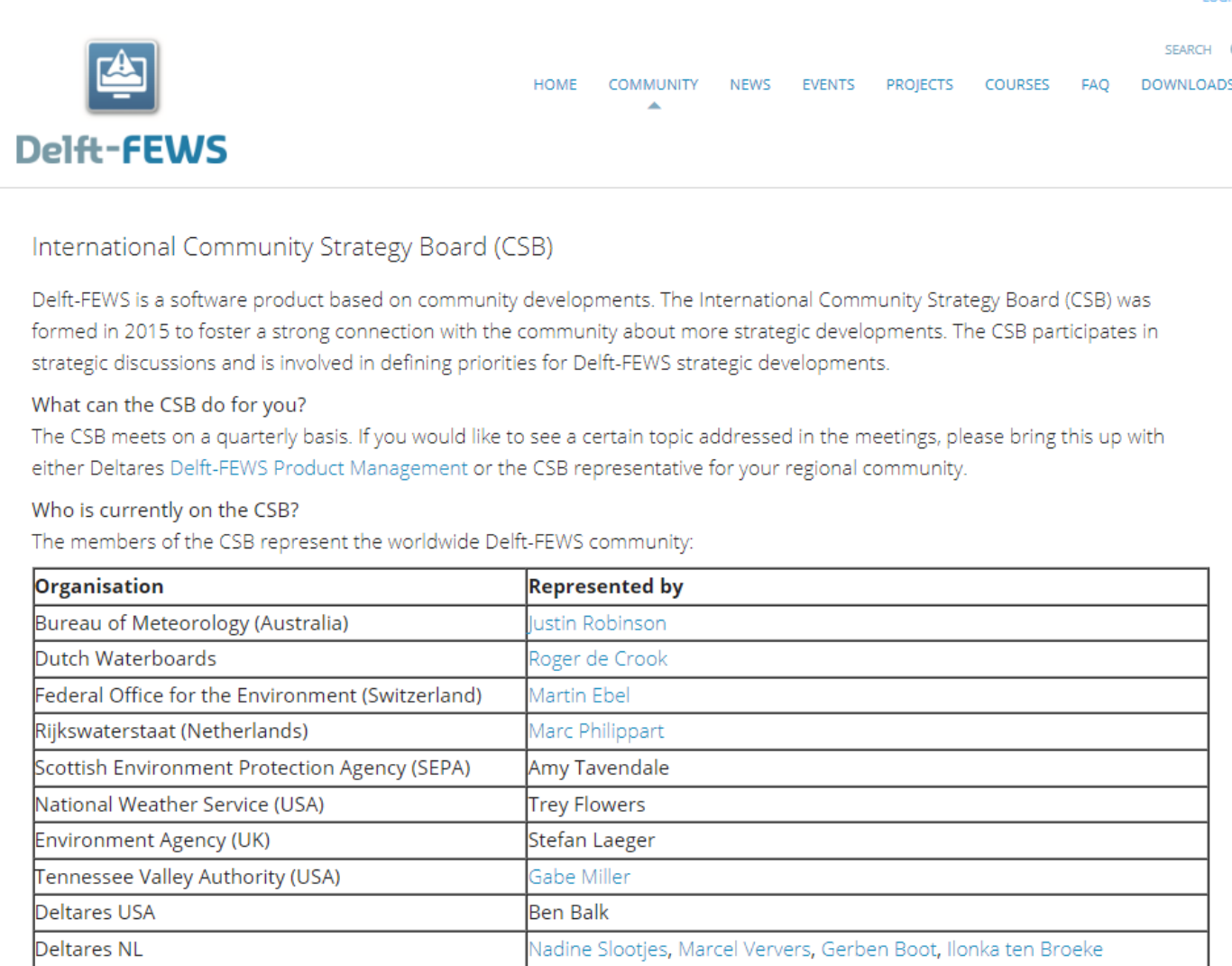


Welcome to the FEWS Community



An initiative of the Delft-FEWS Community Strategy Board

- Welcome ([Amy Tavendale](#) - Scottish Environment Protection Agency (SEPA))
- Update on FEWS Releases and Plans ([Marcel Ververs](#) – Deltares)
- FEWS Talk ([Justin Robinson](#) – Bureau of Meteorology (Australia))
- Community Breakout ([The FEWS Community](#))



The screenshot shows the Delft-FEWS website with a navigation bar including links for HOME, COMMUNITY, NEWS, EVENTS, PROJECTS, COURSES, FAQ, and DOWNLOADS. The main content area is titled 'International Community Strategy Board (CSB)' and describes the board's role in fostering connections and defining priorities. It lists the members of the CSB in a table.

Organisation	Represented by
Bureau of Meteorology (Australia)	Justin Robinson
Dutch Waterboards	Roger de Crook
Federal Office for the Environment (Switzerland)	Martin Ebel
Rijkswaterstaat (Netherlands)	Marc Philippart
Scottish Environment Protection Agency (SEPA)	Amy Tavendale
National Weather Service (USA)	Trey Flowers
Environment Agency (UK)	Stefan Laeger
Tennessee Valley Authority (USA)	Gabe Miller
Deltares USA	Ben Balk
Deltares NL	Nadine Slootjes , Marcel Ververs , Gerben Boot , Ilonka ten Broeke

Community Talk

Justin Robinson

Community Services Group | Environmental Prediction - Water
Australian Bureau of Meteorology





Australian Government
Bureau of Meteorology

What is new and what is to come in 2022 at the BOM


- The Bureau is almost ready to jump 5 years to the present from our 2017 version of FEWS to 2021.01
- I want to say thanks to the FEWS community for all the fantastic new features in the latest version of FEWS
- **Cutover date is scheduled for July this year!**

- Share how we manage our FEWS System and some of the features (old and new) we really like about FEWS

The BOM's FEWS System is called HyFS

Encourage people to ask questions via the chat and the community can provide answers in real time!

The Bureau uses JIRA and GIT and Source Tree to manage the FEWS Configuration



Version FEWS-2021.01-1.0.0 UNRELEASED
📅 Start: 01/Aug/21 Release: 15/Jun/22 Release Notes
Release 1 (June)

8 days left

168 Issues in version

128 Issues done

15 Issues in progress

25 Issues to do

1-168 of 168

P	T	Key	Summary
🔴	🔵	HYFS-4928	HyFS Defects
🔴	🔵	HYFS-4935	HyFS Front End Display
🔴	🔵	HYFS-5128	HyFS Features Removed
🔴	🔵	HYFS-5130	Data Import and Processing (QPF)
🔴	🔵	HYFS-5132	HyFS Web Browser
🔴	🔵	HYFS-5133	Data Imports and Processing (Obs)
🔴	🔵	HYFS-5143	Hydrological Modelling
🔴	🔵	HYFS-5152	Admin Interface
🔴	🔵	HYFS-5160	DELWP project (2021.01-1.0.0)
🔴	🔵	HYFS-5201	HyFS User Guides (2021.01-1.0.0)
🔴	🔵	HYFS-5212	HyFS User Training (2021.01-1.0.0)
🔴	🔵	HYFS-5221	HyFS System Changes (2021.01-1.0.0)
🔴	🔵	HYFS-5222	PAT Improvements
🔴	🔵	HYFS-5301	HyFS Clients for 2021.01
🔴	🔵	HYFS-5304	Macintyre Model Review (2021.01-1.0.0)

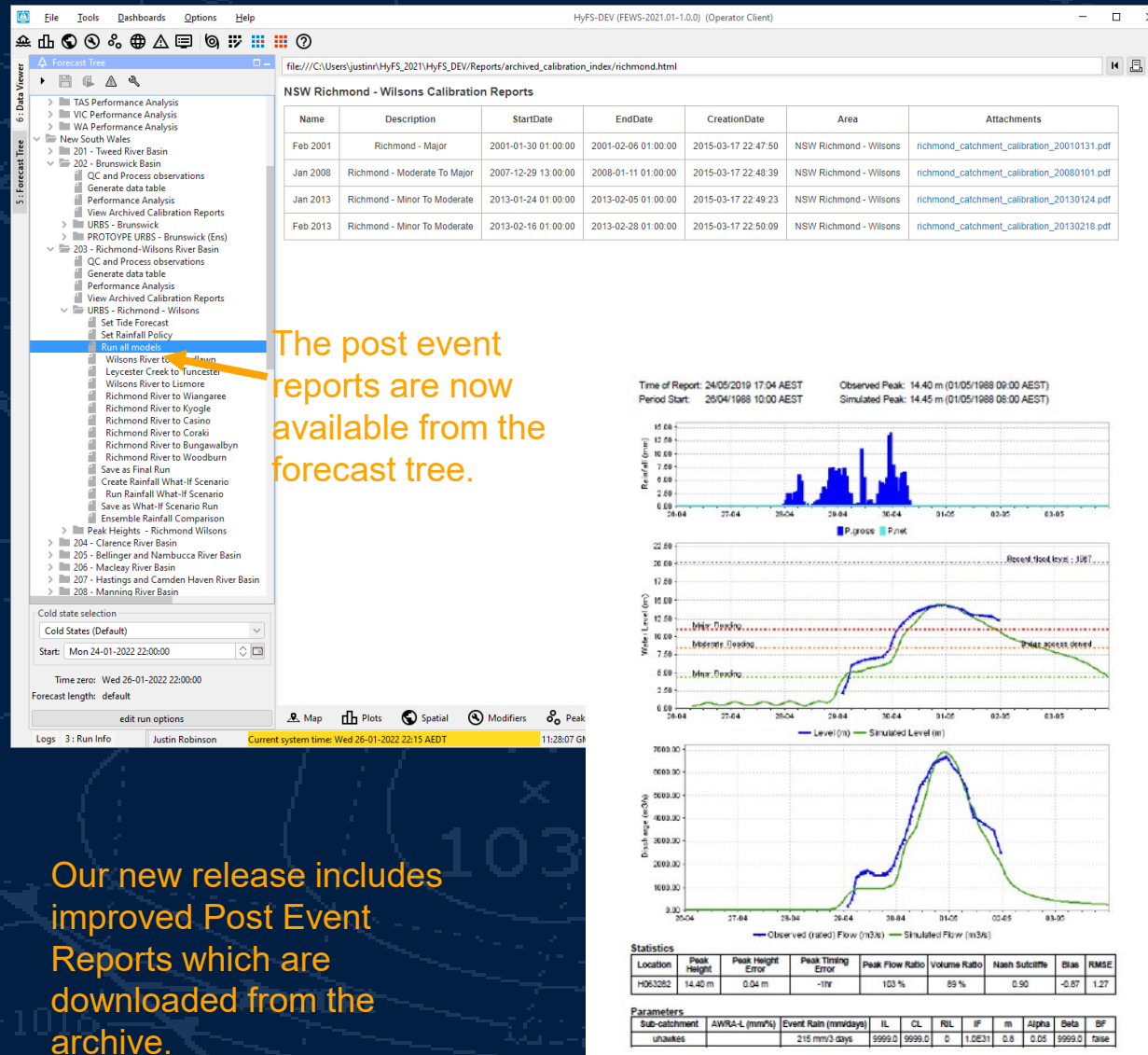
⚙️ >>



We have more than one FEWS System

- HyFS has a set of live and off-line systems to support training, testing and continuous improvement, as well as post-event model testing and analysis.
- HyFS-PROD - Primary FEWS System
- HyFS-PROD-DR - Secondary FEWS System
- HyFS-UAT - Primary Training and acceptance testing
- HyFS-UAT-DR - Secondary Training and acceptance testing
- HyFS-DEV - Live development system
- HyFS-GIT - Offline development system
- HyFS-SA - Offline analysis using data from the HyFS archive
- HyFS-WC - Water Coach for training using historical flood events.

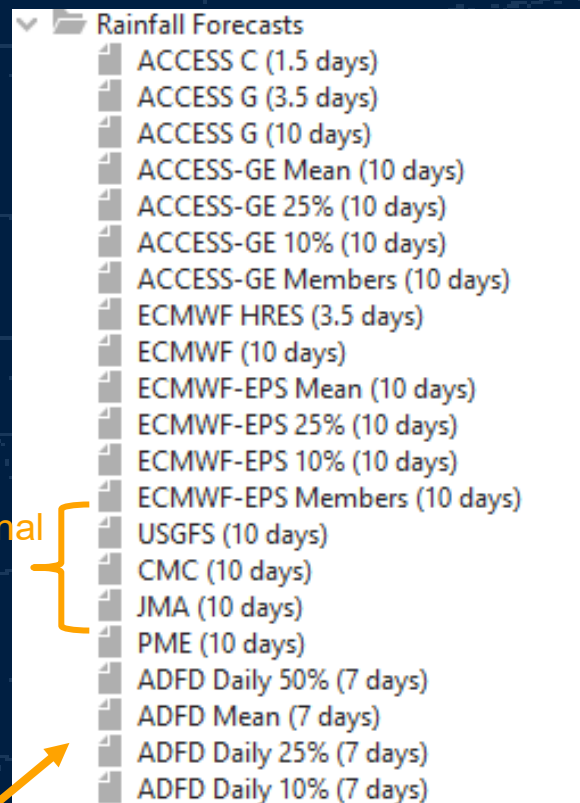
The BOM's FEWS System is called HyFS (Hydrological Forecasting System)





Spatial Display

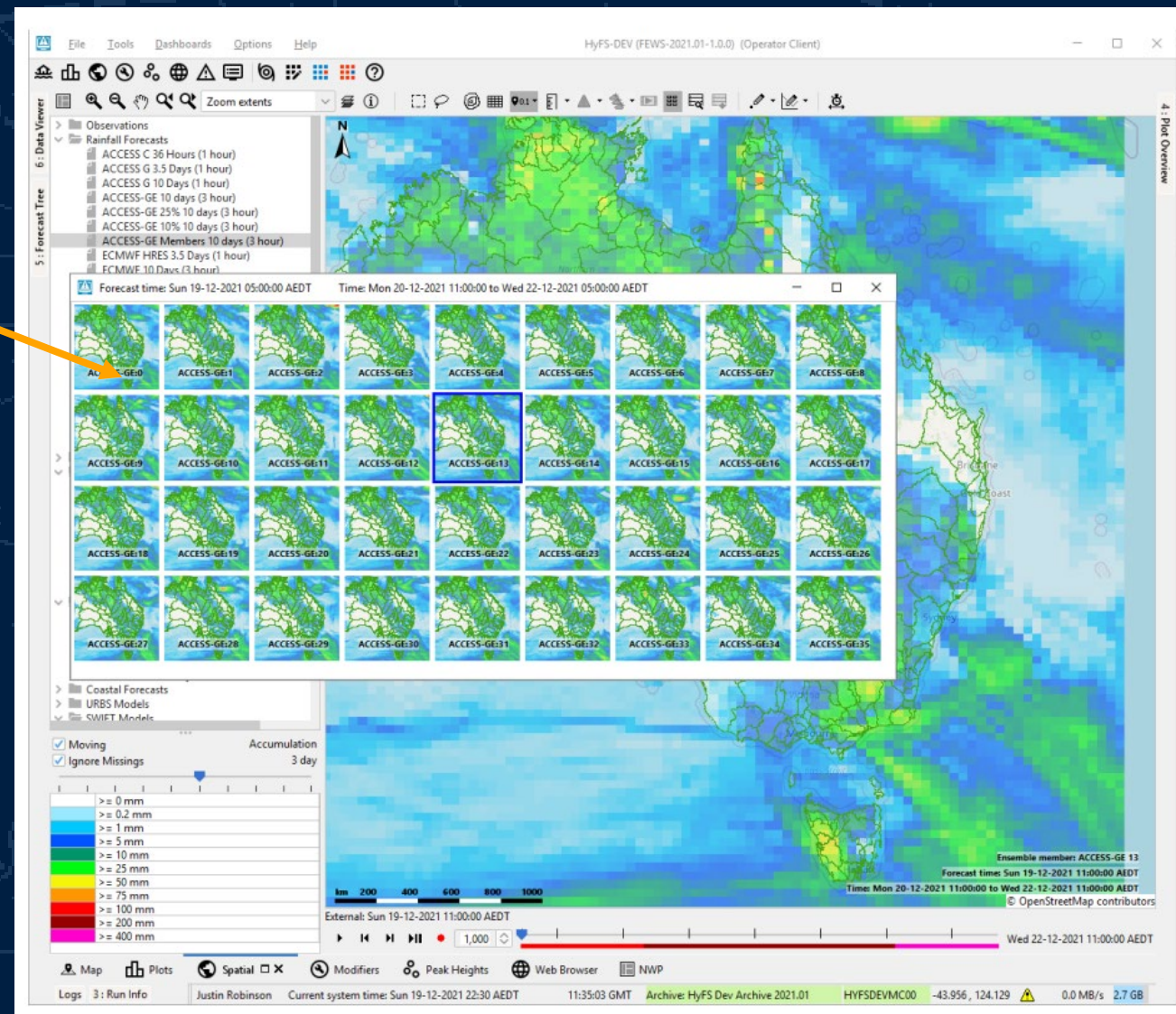
- New Rainfall Forecasts:



New International Models

The NexGen forecasts are now called ADFD and HyFS now uses the daily percentile forecasts.

Ensemble Thumbnail Viewer

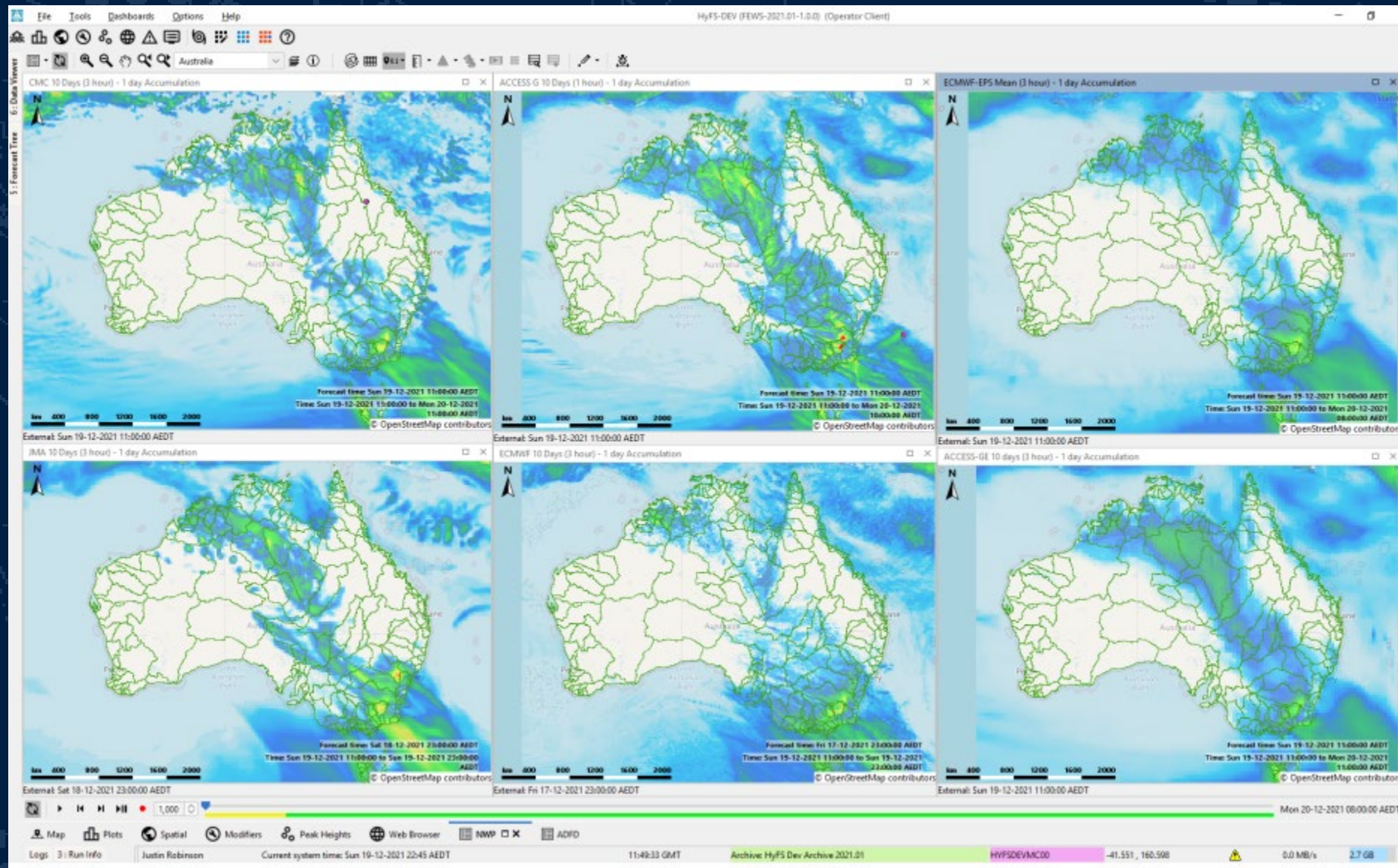




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Bureau of Meteorology

Dashboard Display

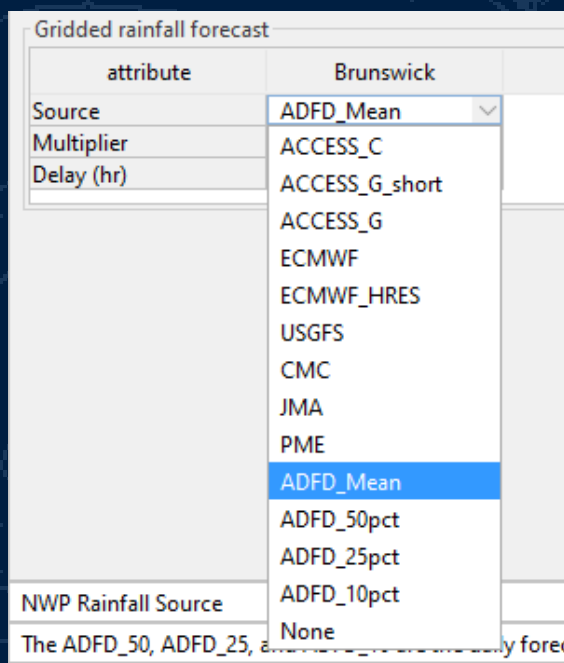
There are a set of pre-defined dashboards or you can build your own from the plots and spatial display



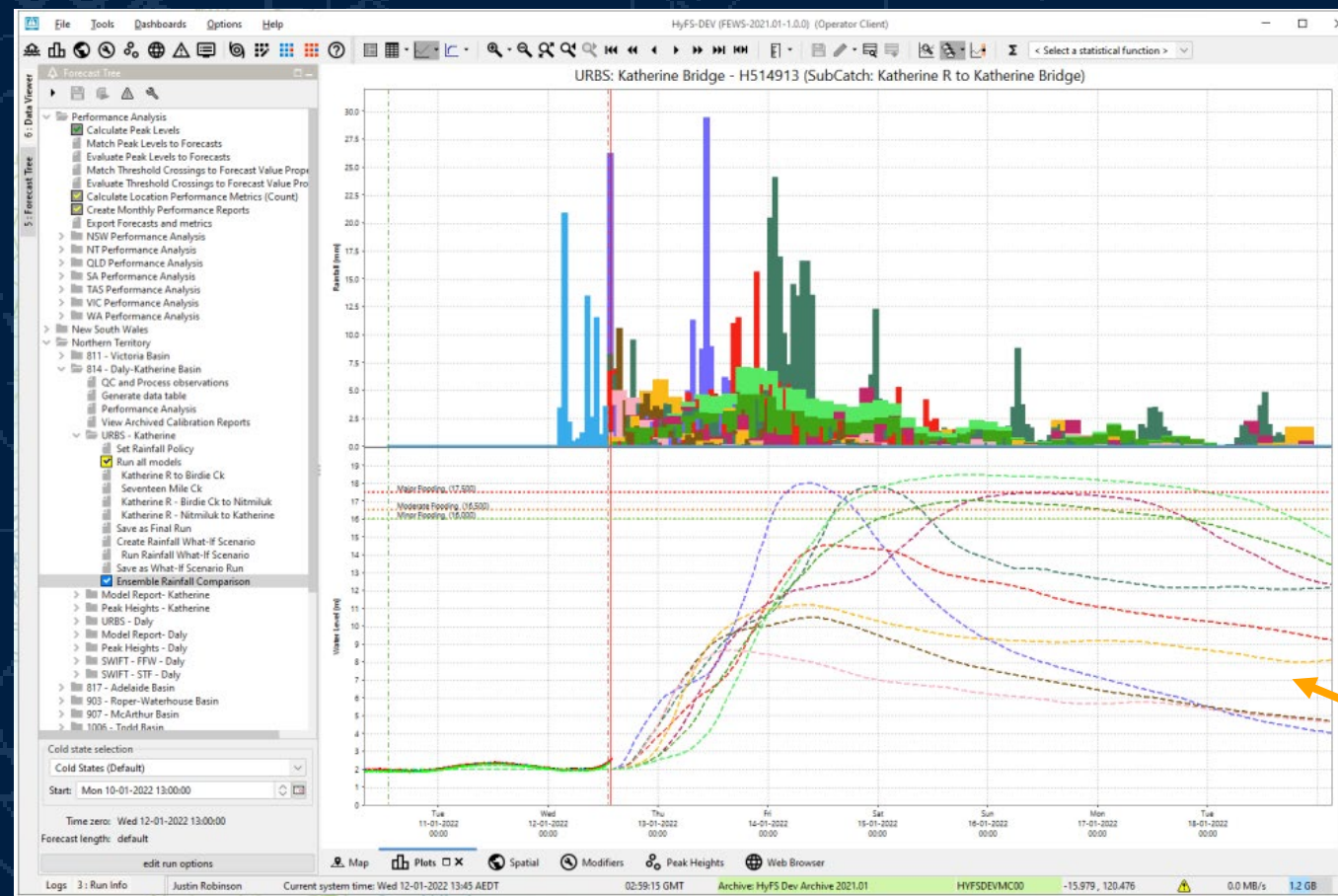
View of the rainfall forecast on the new dashboard display.



The default rainfall policies are the ADFD_Mean and the ADFD_25pct (What-if)



**ADFD are forecasts
prepared by our
operational meteorologists**



- Includes – ACCESS C and G, ECMWF-HRES, JMA, CMC, USGS

Plan to start running ACCESS and ECMWF Ensembles next release



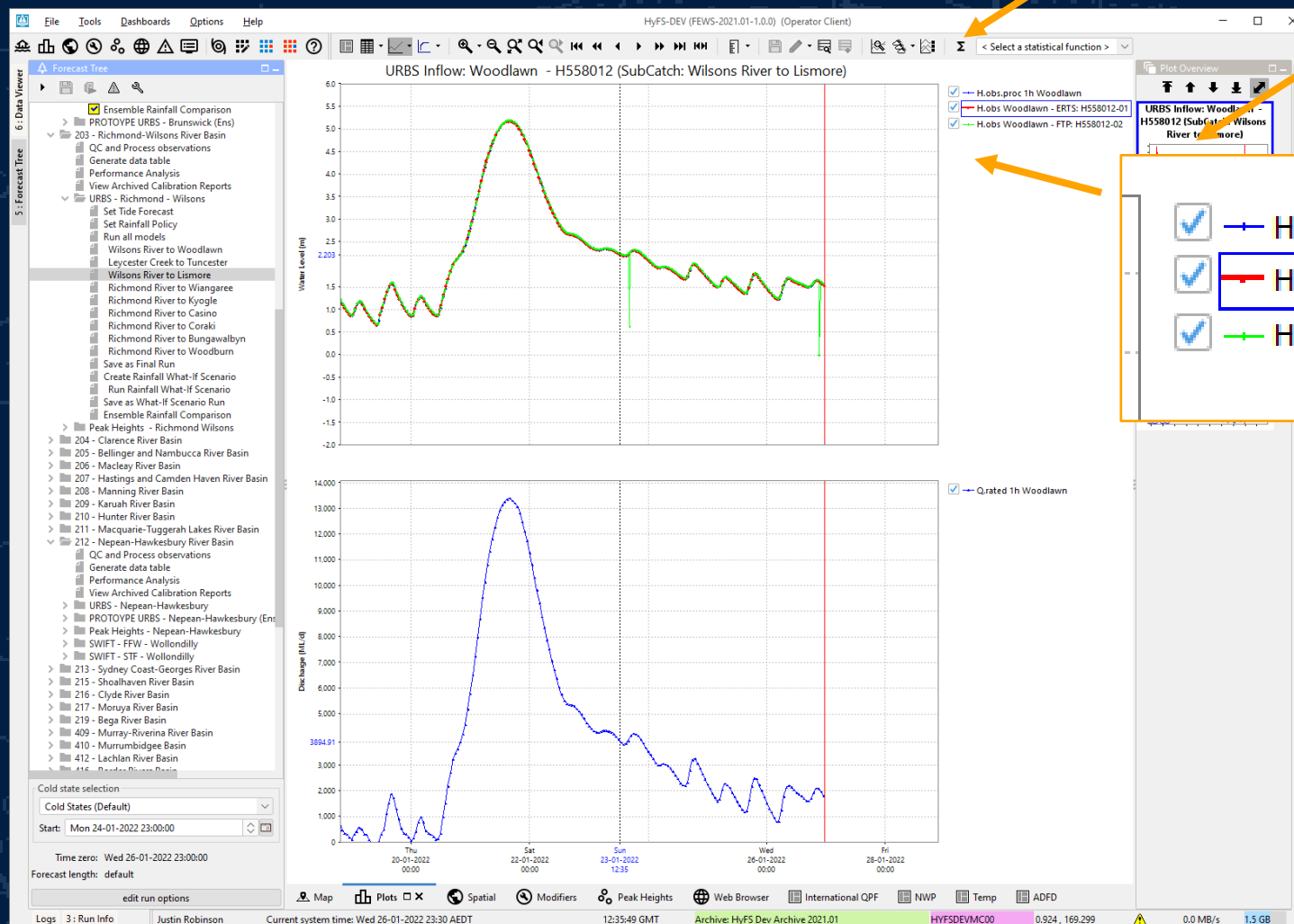
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Bureau of Meteorology

Plot Over View Displays

Quick
accumulation
tool

Nice that you can have your
own icon to the functions you
frequently use

Hide and show
timeseries using
tick box selection



☒ + H.obs.proc 1h Woodlawn
☒ - H.obs Woodlawn - ERTS: H558012-01
☒ + H.obs Woodlawn - FTP: H558012-02

The plot overview now
shows the sensor level
observed data as well as
processed data used in
the model runs

We really like the new feature
where you can show on the plot
but not in the table



Web Viewer

- The new web viewer is linked to the forecast tree and is used to view pdf and html reports created by FEWS.

View Preview

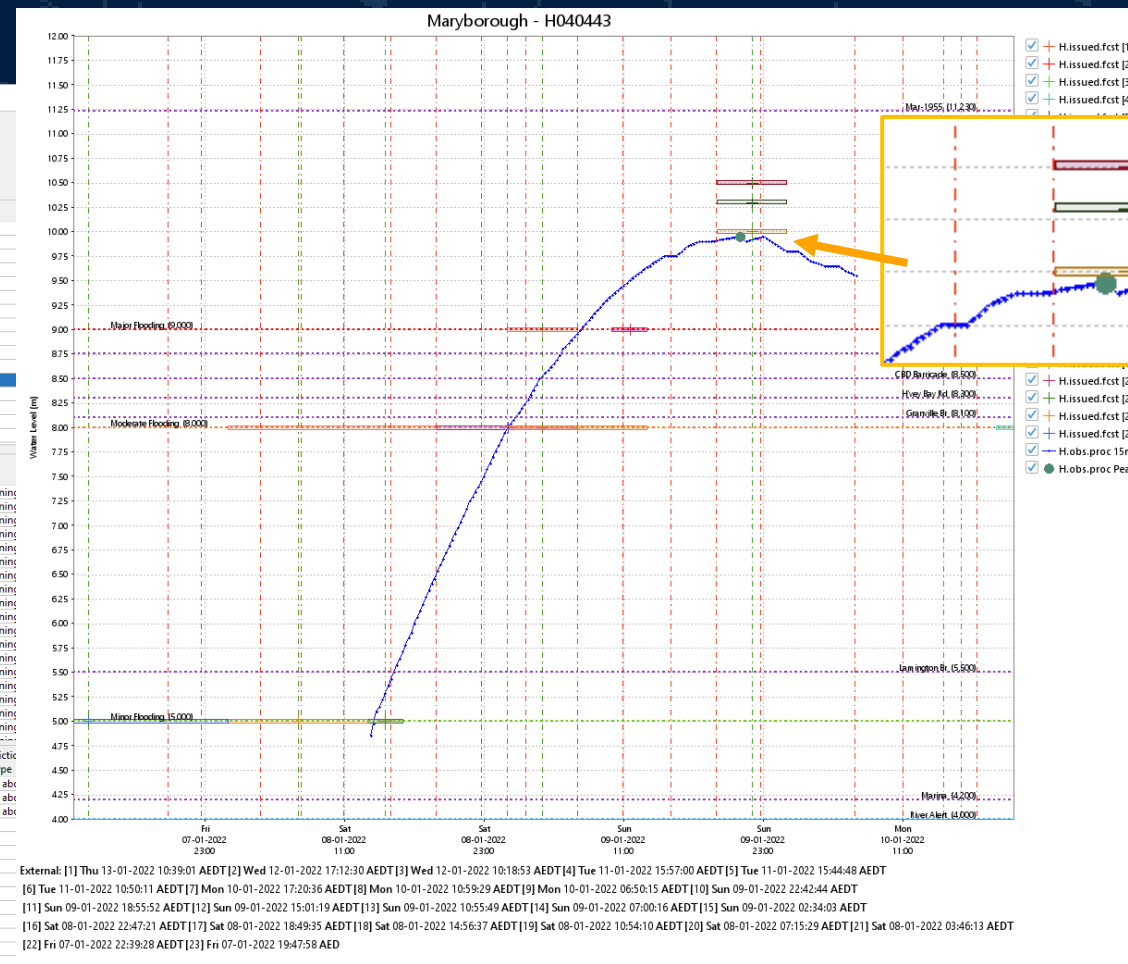
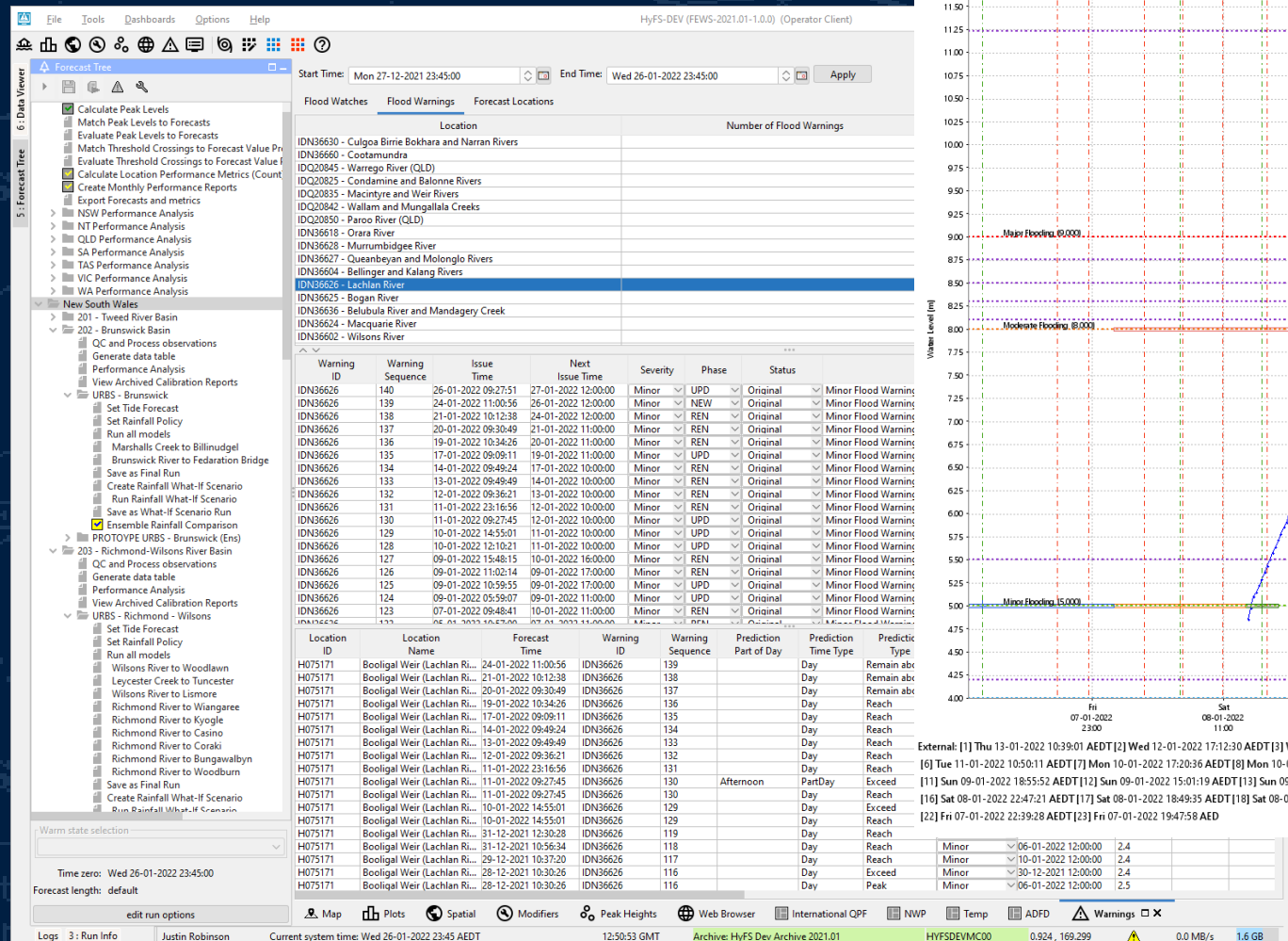
View Latest
Issued
Outlook

The screenshot displays the HyFS-DEV (FEWS-2021.01-1.0.0) Operator Client interface. On the left, a 'Forecast Tree' sidebar lists various analysis tasks, including 'VIC Flood Scenarios Outlook'. An orange box highlights this section, with arrows pointing to 'View Preview' and 'View Latest Issued Outlook'. The main window shows the 'VIC Flood Scenarios Outlook' report for Gippsland and parts of North East Victoria. The report includes an event description, two maps (Scenario 1: Most Likely, and Scenario 2: Higher Possible), and a legend for flood levels (Below Flood Level, Minor, Moderate, Major, No Scenario). The bottom status bar shows the current system time as Wed 26-01-2022 23:30 AEDT.

View of the flood scenario outlook on the web viewer (linked to the forecast tree)



Warnings Display



View issued forecasts and warnings
on the plots display

Display developed for the Bureau
to support our automated
performance analysis

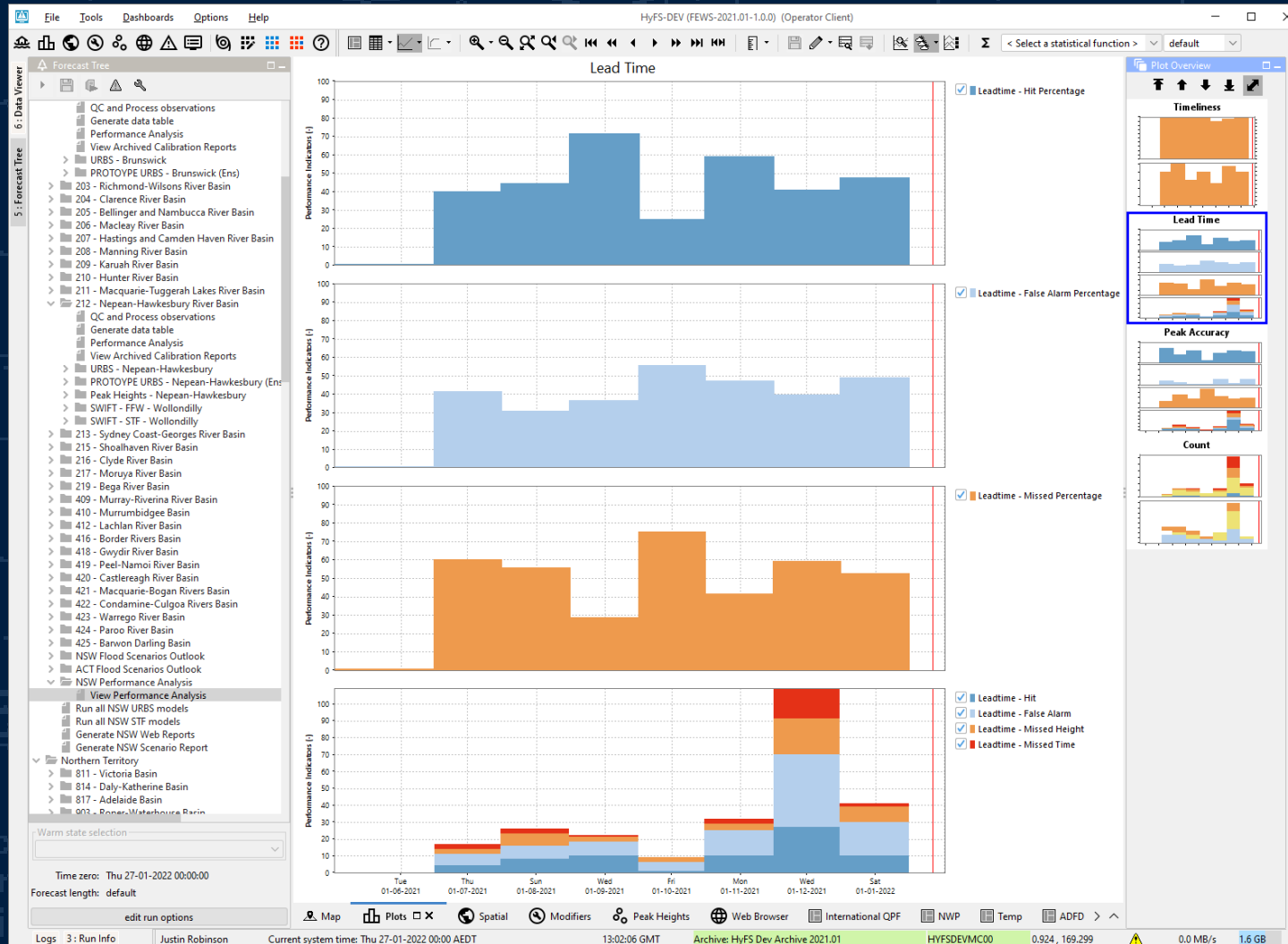
View issued forecasts and warnings. Also used for quality control for
the performance analysis tool



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Performance Analysis

View
Performance
KPIs at the
State/Territory
and Basin
Scale



Automatically calculates
performance KPIs for each month
(still requires quality control via
Warnings Display)

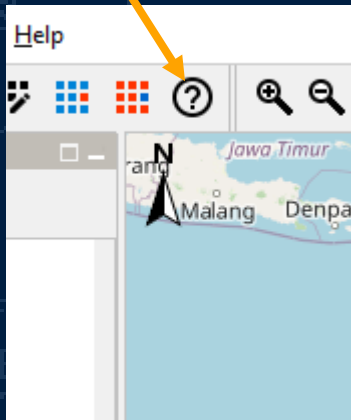
KPIs of Timeliness,
Lead Time, Accuracy
as well as the number
of warnings



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The help icon
provides support
information

User Help, Support and Training



HyFS uses a tiered support model based on service impacts. The Flood Forecasting and Warning Service has Category 1 support and the Seven Day Streamflow Forecasting Service has Category 3 (business hours) support.

The IT Command Centre is the first point of call for incidents. They will triage the incident to the relevant support teams for resolution.

Call the IT Command Centre on [redacted] and provide:

1. Name and Phone Number
2. Service Impact
3. Description of incident
4. You may need to log a Cherwell ticket.

If there is limited or no service impact the incident will be addressed during business hours.

Easy HyFS Fixes - Try this first

1. Read [HyFS User Guide](#) or ask a colleague for support - it might be a user error.
2. Restart HyFS - Always good to see if restarting HyFS fixes your problem.

When to switch to PROD-DR?

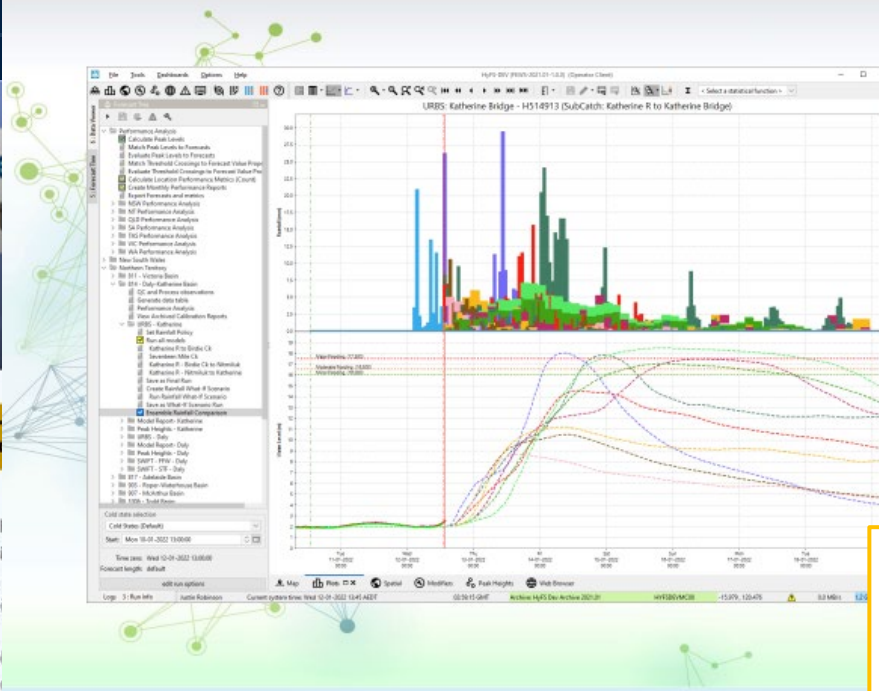
There are two instances of HyFS. You will normally use the HyFS-PROD system. Use the HyFS-PROD-DR (Disaster recovery system) when:

*The PROD system status is **red** and the client is unable to connect to the PROD server*

*When the PROD system status is **orange** which indicates that HyFS has failed over to HyFS-PROD*



HyFS User Guide 2021



80+ Pages all about
HyFS. The guide
will be updated after
each release

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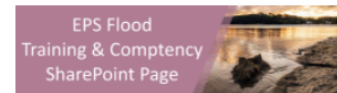
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The HyFS workstations are for water operations
Please read the [Operational Notice 3/2022](#) on
acceptable usage.

Remote Access and Usage

HyFS Service Management Guide



The **purpose** of this course is to provide an
overview of the changes to HyFS from February
2022 with the release of HyFS 2021.01.

If you have any questions or issues please email
us at floodwings@bom.gov.au

Completion Progress

■ NOW

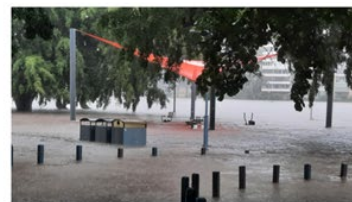
Consolidate your learning QUIZ
Not completed

We have user training that
needs to be completed by
forecasters before we go live



What is next?

1. FEWS archive improvements – all about quality controlling data on the archive.
2. Getting FEWS to do more for us – we don't want to maintain so many bespoke systems.
3. Web Services – making the information held in the FEWS data system available to other systems within the Bureau.
4. Security, Security, Security ...



The Bureau is working on a number of proof of concept (POC) projects on what a flood extent forecasting or warning service may look like



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Now to meet the community

