Creating follow-on flood statements in Hazard Services is straightforward. Just select the hazard in the Console or the Spatial Display, and the **HID** will populate with the hazard event metadata to modify. For **point-based** River Flood statements you do the same, but you always need to remember to first rerun the River Flood Recommender to update the observed and forecast values from the hydro database before you preview your text from the HID.

Once you are done modifying the hazard event data in the HID, then click **Preview** to launch the **Product** Editor where you can edit and issue your product as in this FLS continuation for a river flood warning.

Follow-On Statements: HY.S
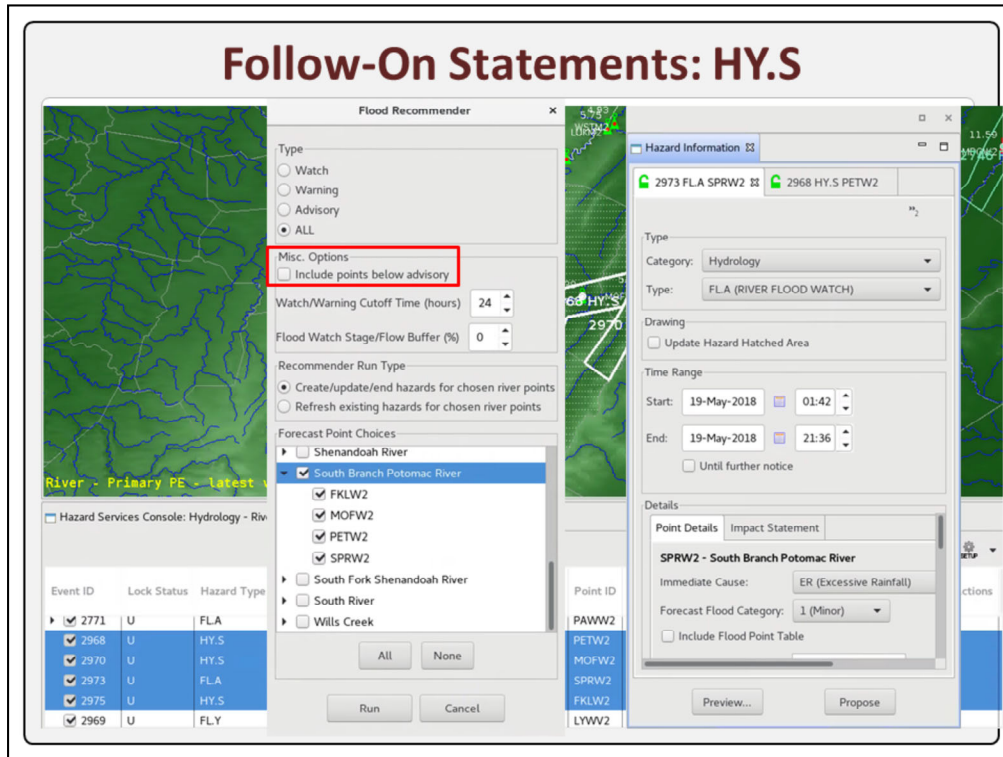
The HY.S statements are also easy to generate in Hazard Services when you have the required condition of some forecast points below action stage and other forecast points above action stage with corresponding advisories, watches, or warnings. Remember from the earlier video if you select the "**Include** points below advisory" option in the River Flood Recommender, you can generate default HY.S hazard types. From there you just select the group of forecast points along the river, and it will populate the **HID** with your HY.S and other flood hazard types.

Transitioning Hazards – Change Hazard Type
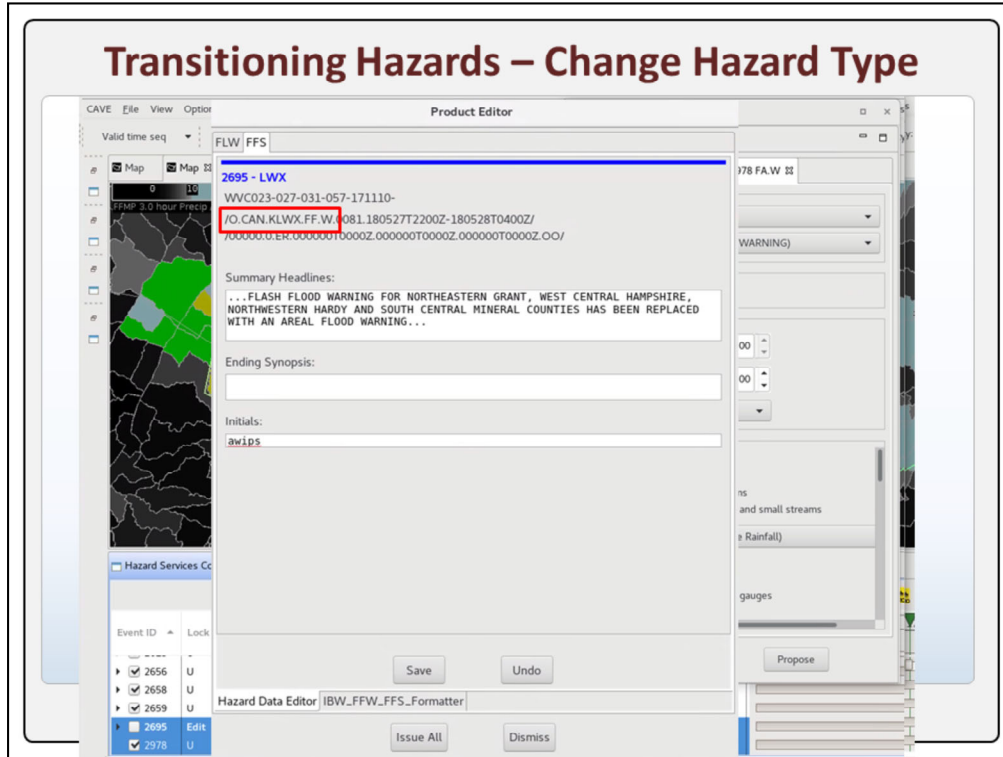
To lead to a more information centric workflow, Hazard Services has implemented a simple transitioning logic. When you want to transition a flash flood warning to an areal flood warning or other combinations like transitioning a point-based flood watch to a point-based flood warning, all you have to do is select your Issued hazard and **change** the hazard type. All the combinations of transitioning products have been implemented in the hazard type pulldown options in the HID. Once you **select** the hazard to change to, the software drafts a cancellation for the initial hazard along with a NEW VTEC action for the new hazard. Both will be selected in a "selected set", so you will have two tabs in the HID. You can choose to issue the CAN and NEW at the same time, or you can choose to issue one at a time by deselecting a hazard in the selected set.

In this example you can see the **NEW** aerial flood warning in the FLW tab in the Product Editor along with the **CAN** of the flash flood warning in the FFS tab. Issue All will issue both at the same time.

Which one of these settings does not include watches?

- Hydrology_All
- Hydrology_NotRiver
- Hydrology_River
- Hydrology_WarningAdvisory

- **IOC Learning Interaction 3**

- *Quiz - 2 questions*

- Last Modified: Oct 29, 2018 at 05:34 PM

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A lot of the special logic of handling extensions, expirations, cancellations, and continuations with the different time windows specified by policy or adopted in the previous software have been implemented similarly in Hazard Services either automatically or with simple right clicks in the console.

For **EXTs**, just change the **end** time of any hazard in the HID and the VTEC Action will be an EXT. For the special circumstance of creating a **NEW** hazard from an existing one, like you might do if a hazard ended before you issued the EXT, you can just right click in the console and select "**Copy** to New Event". Note that to access an ended event you would need to turn on ENDED hazards in your settings filter.

For issuing expiration messages, the logic will automatically assign an **EXP** VTEC Action. For example, in the **5min** prior to a flash flood warning ending and the 10min extension window after ending, an EXP would be assigned. In the **10** to 5min prior to ending, the default is CAN and/or CON, but if you want an EXP you can right click in the Console and select "**Expire** This".
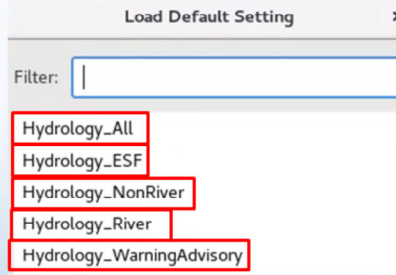
CANs and CONs follow a similar logic as before. For flash flood, **CON** is the default VTEC in Previewing an Issued Hazard until 5 min before ending if there are no changes in polygon. If you **shrink** a short fused polygon and remove a county, then

a CAN is generated for that segment. Otherwise if you want to issue a full CAN, you can select a hazard and right click in the Console and select "**End** This".

In practice Hazard Services takes care of most of the logic for your, and for just about everything else you simply right click in the Console.

In summary, the Hazard Services Initial Operating Capability replaces the legacy WarnGen, GHG, and RiverPro hydro watch/warning/advisory product generation. The legacy watch, warning, and advisory product generation is available during IOC but it will soon be retired and removed.

The **products** supported in IOC are all watch, warning, and advisory products and statements for flash flood, areal flood, river flood, as well as the hydrologic statement, hydrologic outlook, and RVS river statements. It is important to recognize that there is **no** new policy or products with IOC. The transition from the previous product-specific approach to a more information-centric approach will continue to evolve in future versions of the software.

There are **4 recommenders** in Hydro IOC. The **burn scar** and dam break are selected from a simple list the focal point creates using a default shapefile and metadata for the HID. The **flash flood** recommender is an FFMP-based recommender. The **river flood** recommender uses the hydro database to compare observed and forecast stages to different flood stage categories at forecast points. You can run it for a single forecast point by **selecting** a forecast point in the Hydro Perspective and using a right click menu or you can run the recommender from the **Tools** button and work with multiple forecast points to issue segmented hazards from the selected set you choose.

The **RVS** tool allows forecasters to issue RVS statements containing the current stage levels for forecast points, and because the RVS isn't technically a hazard event, it is unique in bypassing the HID.

The **settings** are a key way to filter different types of hazards and tools from the Console and Spatial Display. It also optimizes the columns in the Console for a particular hazard type. The **All** setting works with all hazards. the **ESF** only works with the hydrologic outlook. The **NonRiver** works with all hydro hazards except river, the **River** works with river hazards and the hydrologic statements and outlooks, and the **warning** advisory works with all hydro products except watches.

Hazard Services has implemented **smart** logic for statements and hazard transitions that is intuitive and mostly automatic. The general philosophy is **grab** and go for issuing follow-on statements from Issued hazards. For follow up point-based flood hazards always remember to rerun the **River** Flood Recommender to update the HID with the latest observed and forecast stage values. Most of the extra interactions for ending, expiring, or copying that are not automatic are a simple **right** click in the Console.

This completes the training for hydro IOC. When you are ready to take the quiz, advance to the next slide. You can **click** on this link if you want to reflect on the learning objectives one last time.

•**HydroMain**

•*Quiz - 17 questions*

•Last Modified: Aug 08, 2019 at 09:59 AM

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