What is "critical action"?

Critical Action means any activity for which even a slight chance of flooding is too great. Critical actions include, but are not limited to, those which create or extend the useful life of structures or facilities:

(1) Such as those which produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials;
(2) Such as hospitals and nursing homes, and housing for the elderly, which are likely to contain occupants who may not be sufficiently mobile to avoid the loss of life or injury during flood and storm events;
(3) Such as emergency operation centers, or data storage centers which contain records or services that may become lost or inoperative during flood and storm events; and
(4) Such as generating plants, and other principal points of utility lines.

Is there an anticipated date for the final FEMA policy on FFRMS?

We are expecting FEMAs FFRMS policy and rule to hit the Federal Register soon, but HUD has already published their proposed policy if you are trying to see how another agency has implemented FFRMS thus far.

What action is taken when the BFE +2' or BFE + 3' is higher than the 0.2% annual chance WSEL?

The FVA and 0.2% chnace flood levels are compared in FEMAs current policies so that Applicants must elevate or floodproof the structures to the 0.2% annual chance flood elevation15 or an additional 2 feet above the base flood elevation (BFE), whichever is lower, and Applicants must elevate or floodproof the structures to the 0.2% annual chance flood elevation or an additional 3 feet above the BFE, whichever is higher.

Please see one of our active FEMA Partial Implementation policies here;
https://www.fema.gov/sites/default/files/documents/fema_policy-fp-206-21-003-0001-implementation-ffrms-hma-program_122022.pdf

All published NoFos and partial implementation FFRMS policies can be found online

Can you explain again how the 2' and 3' were calculated?

Andrew will be going deeper into the data aspects of the FFRMS as he rolls on this session. +2 and +3 feet are representative of the Freeboard value approach, where The elevation and flood hazard area result from adding an additional 2 feet to the base flood elevation for non-critical actions and by adding an additional 3 feet to the base flood elevation for critical actions.

Just like FEMA has the "FEMA Flood Map Service Center" to find the BFE (100-year); could or will FEMA make it easier to find 500-year elevation? FIS are not user friendly!

Thanks for the question! Andrew will likely mention this in a bit but there is an interagency effort currently ongoing to establish a Decision Support Tool that will assist with obtaining the best available information to make the decision on FFRMS project levels

What contractors/which firm is helping HQ do the mapping?

We are utilizing our Production and Technical Services contract, which is re-competed every 5 years. There are 3 joint venture companies that support this contract to help create the flood hazard data that are incorporated into our FIRMs

Are these new FFRMS extents a bathtub model extension of the FEMA BFE? Or is additional/other modeling incorporated?

This is a relatively simplistic approach. We're just adding elevation to the effective FEMA BFE's. No additional modeling at all.

Wondering if any type of assessment is going to be incorporated in coastal areas related to potential shoreline changes (retreat) and V zone inland extension due to storm surge changes and waves traveling further inland.

Dr. Juza, great question. :) I don't know, to be honest. I don't know if NOAA will include that kind of assessment into future conditions projections. But, I will ask Doug next time I talk to him

For Andrew Martin's presentation - will the FFRMS mapping dataset be updated as additional digital data/modeling becomes effective across the country? And what would the timeline for updates be?

Great question! That is the intent. Right now we have a discrete amount of funding to get the initial dataset, but we will be updating our guidance and standards in the near future so that FFRMS FVA data is developed alongside new FIRMs

It will be awesome to see these new user-friendly maps. I currently deal with floodplain ordinances that require residential structures to have the lowest horizontal elevated 3FT above the 0.2%.

so glad this will help!

Are we able to get the pilot study results for internal use and to share with the communities?

The pilot studies did not follow the same approach that we will be using for the nation-wide data development, and I wouldn't want to share that. However, we will complete the entire country in the next 12 months and all of the areas within the pilot studies will have that data available publicly.

What is an "action"? If a project is privately funded, is it an action? Will floodplain administrators be required to apply this information in their review of floodplain development permits?

Actions Subject to the Federal Flood Risk Management Standard means an action where funds are used for new construction, substantial improvement, or to address substantial damage to a structure or facility.

FFRMS can get sort of complex, but please keep in mind that FFRMS is a federal standard implementing requirements for federally funded projects; you are only subject to FFRMS if you are receiving funding

from a federal agency implementing FFRMS (such as FEMA, HUD, etc).

Floodplain administrators will see virtually no impact unless those persons are the Applicants for a federal project.

FFRMS project paperwork will be almost entirely completed between the funding agency and the applicant (with various players in between, like state HMA personnel awarding funding, etc)

How will this affect ECs? Will freeboard (critical/non-critical) be an added section on the EC?

It shouldn't affect ECs too much; think about how we currently do federally funded projects with increased elevation requirements for PA/HMA/etc. These things don't generally affect the ECs very much outside of that additional freeboard.

We will be looking at how we can most effectively prove the FFRMS requirements have been met, but the onus of that may fall to FEMA EHP field staff instead of the FPA/engineer.

Didn't see FFRMS specialist for Region 3. Is there one?

We are currently hiring these specialists. I believe the R3 one for Floodplain management is being filled. Our EHP FFRMS positions still largely need to be hired, but the Regional Environmental Officers for FEMA in each region and our HQ team is helping to fill some of these regional gaps in the meantime.

Elevations on the FFRS are not regulatory, correct?

Elevations and/or mapping from the FFRMS FVA data will not be utilized to determine mandatory flood insurance purchase

Is this all going to be in a major CFR update?

Yes! FFRMS will be almost entirely reflected as changes to 44 CFR Part 9.

When are communities made aware of the start of this process, and how is the data going to be shared with them? Will communities be able to review the results before they are final?

Any ongoing project for FEMA will be subject to FFRMS standards due to those partial implementation policies. The partial policies are published and upheld by that FEMA program (i.e Hazard Mitigation will use their partial policy to add FFRMS standards to their HMA projects)

Are any the current maps for which this FFRMS mapping will be created based on 2D floodplain model mapping?

anywhere that 2D models were used for an effective FIRM (I think there may be 1 or 2 at this point) will be included.

How often does the MD Crab tool get updated - is it kept up-to-date with FEMA map updates? Is your plan to incorporate FEMA's FFRMS products into your tool or keep it separate?

The Maryland CRAB was developed with FEMA CTP funding. Future updates - if any - will be dependent on a funding source being identified/

FFRMS applies to federally funded buildings and projects, correct? It's not for a typical residential or commercial development?

Yes- federally funded projects. You won't have to implement FFRMS if you aren't receiving funding from a federal agency implementing FFRMS.

Once mandatory, will the insurance "breaks" for being above the now stated BFE, go away since the 1-3' freeboard will then be a requirement??

Insurance is a complex topic. As you increase the height of your structure, you should see additional discounts to reflect that freeboard. However, with RR 2.0 I cannot promise this will greatly reduce your insurance due to coming up to the actuarial rate

Are federally funded (FMA, HMGP, BRIC) Elevation projects over 500k held to this standard as well?

ALL federally funded projects are held to FFRMS standards. There will be cases where FFRMS does not apply, but assume all federally funded projects will be subject to this

In Maryland it is based on State funding over $ 500,000. Federal BRIC funding is based on Federal standards.

How will this impact the Insurance companies ?

It shouldn't affect insurance operations at all. Increased elevation should provide flood insurance discounts but with the swing to actuarial rates this becomes a more difficult equation. Your discounts may or may not impact your rate very deeply. It will be on a case by case basis but generally the insurance impact should be positive

Will this new rule slow the FEMA progress in remapping paper map communities? In other words will these budgets be negatively affected?

No, it shouldn't. We got this funding completely outside of our annual budget allotment for Risk Map. I hope that we will get another bucket this year separate from the Risk Map allocation. In the future, some annual Risk Map dollars will be needed to develop FFRMS datasets in conjunction with regulatory map updates, but the cost per study is actually not that burdensome

Are we able to get the pilot study results for internal use and to share with the communities?

The pilot data was not developed utilizing the same standards that we are applying to the national data development effort. These were test cases where were looking to understand the impact of certain approaches and utilized to make decisions on what the final product would look like.

Are there any plans to incorporate First Street Foundation Flood Factor mapping while you're looking for data that's already available?

That is not planned.

How is the 8th National Risk Assessment going to be considered in a potential revision of the FFRMS ?

Per E.O. 13690:
The Water Resources Council shall issue any further amendments to the Guidelines as warranted.

(b) The Mitigation Framework Leadership Group in consultation with the Federal Interagency Floodplain Management Task Force shall reassess the Standard annually, after seeking stakeholder input, and provide recommendations to the Water Resources Council to update the Standard if warranted based on accurate and actionable science that takes into account changes to climate and other changes in flood risk. The Water Resources Council shall issue an update to the Standard at least every 5 years.

If highways are elevated to a higher standard, we will pay $4M per mile per foot of extra elevation. Who will pay for that?

Only federally funded new construction and SI/SD actions in the FFRMS floodplain are subject to the requirements and such actions will be subject to the applicable cost share. Other agencies are issuing their own regulations and policies for FFRMS.

What role do you see local regional engineers here? If you are creating maps, what is the feedback with local staff?

The freeboard mapping effort to support FFRMS is based on existing, effective flood hazard information that has already gone through the full public appeal/comment period.

How did you do smoothing between the DEMS, especially when you changed the resolution of DEMs? Also, how did you do the hydro conditioning?

We are still finalizing our technical methodology.