

An overview of plan to get to 2016 beta release for wildland fires, prescribed and agricultural burns for USA and outside USA

YEAR 2016 EMISSIONS MODELING PLATFORM PURPOSES

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Outline

- ▶ Summarize states, tribes, and other agencies submitted data (voluntary)
- ▶ Other fire information
- ▶ Other input data changes
- ▶ International fires (Canada and Mexico)
- ▶ Tentative schedule leading up to beta release

Summary of data submitted by states, tribes and other agencies

- ▶ Georgia: an entire fire emissions inventory replacement (WF, Rx, Ag)
- ▶ North Carolina: total replacement of Rx and WF events, day-specific, lat-lon, acres-burned
- ▶ Kansas: day-specific, lat-lon, acres-burned for Flint Hills Rx burns for days 58-125; also reclassify fuels for some ag burns
- ▶ Colorado: day-specific, lat-lon, acres-burned, Rx burns
- ▶ Idaho: day-specific, lat-lon, acres-burned Ag burns
- ▶ Nez Perce tribe (ID): day-specific, lat-lon, acres-burned Ag burns
- ▶ Washington: lat-lon, acres-burned, fuel loading, emissions for ag burns but not day-specific; also use 2014NElv2 non-point burning (Rx pile burns) in similar manner for year 2016
- ▶ USFS-Minnesota: lat-lon day-specific, corrected acres-burned for Rx and Ag burns (move some alpha version Rx burns to Ag burns)

Plan for using data submitted by states, tribes and other agencies

- ▶ Georgia: use the fire emissions inventory replacement (WF, Rx, Ag)
 - ▶ QA vs. county/other totals provided by GA
- ▶ North Carolina: total replacement of Rx and WF events, day-specific, lat-lon, acres-burned
 - ▶ emissions to be calculated using Blue Sky
- ▶ Kansas: day-specific, lat-lon, acres-burned for Flint Hills Rx burns for days 58-125; also reclassify fuels for some ag burns
 - ▶ Ag fuels reclassified
 - ▶ Rx emissions calculated inside and outside of SF2-Bluesky
- ▶ Colorado: day-specific, lat-lon, acres-burned, Rx burns
 - ▶ Fire information used as input into SmartFire2

Plan for using data submitted by states, tribes and other agencies

- ▶ Idaho: day-specific, lat-lon, acres-burned Ag burns
 - ▶ Used for Ag burn processing (EPA Pouliot)
- ▶ Nez Perce tribe (ID): day-specific, lat-lon, acres-burned Ag burns
 - ▶ Used for Ag burn processing (EPA Pouliot)
- ▶ Washington: lat-lon, acres-burned, fuel loading, emissions for ag burns but not day-specific; also use 2014NElv2 non-point burning (Rx pile burns) in similar manner for year 2016
 - ▶ Still researching options; likely to be used in some manner outside of SmartFire2-Bluesky
- ▶ USFS-Minnesota: lat-lon day-specific, corrected acres-burned for Rx and Ag burns (move some alpha version Rx burns to Ag burns)
 - ▶ Used as fire information input into SmartFire2
 - ▶ Some Rx burns moved to Ag burn processing (Pouliot)

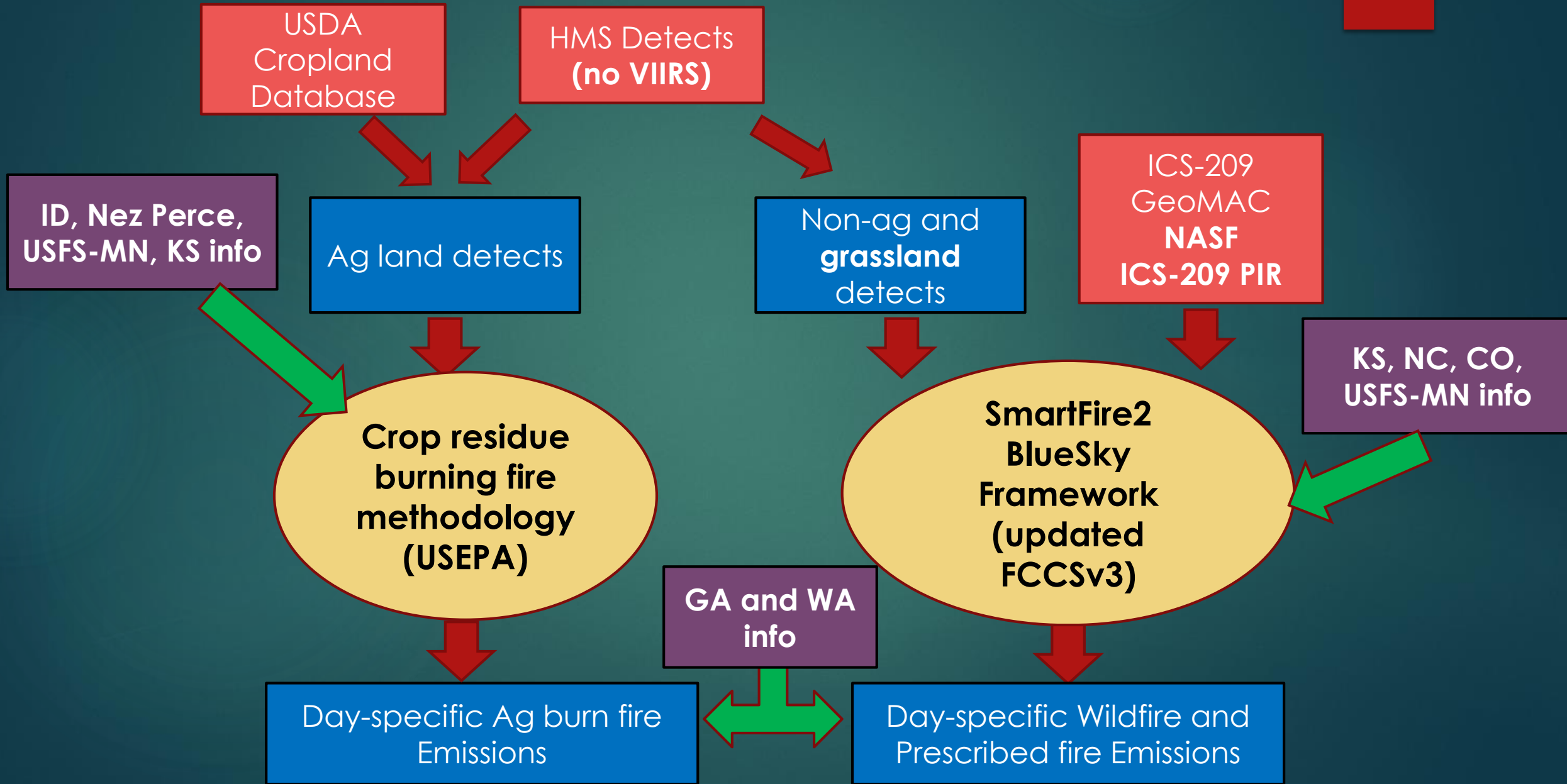
Other fire information to be used and changed in 2016 beta fire inventory

- ▶ National Association of State Foresters (NASF) fire information data
 - ▶ National database that is a collection of wildfire events from state forest agencies
 - ▶ Contains lat-lon, acres-burned, start and end date, name and other info
 - ▶ Some QA and editing necessary for burn durations and lat-lons
 - ▶ Should help with fire size, location, type, and other identification
- ▶ HMS fire detects for year 2016
 - ▶ Visible Infrared Imaging Radiometer Suite (VIIRS) detects included in the HMS dataset for the first time in year 2016 but very late in the year (Nov and Dec only)
 - ▶ USFS AIRFIRE team recommended removing these VIIRS detects for year 2016 only

Other fire information to be used and changed in 2016 beta fire inventory

- ▶ Replaced year 2007-ish fuel-bed 1km resolution input data to Fuel Characteristic Classification System version 2 (FCCSv2)
 - ▶ Using Landfire v1.4 (year 2014) fuel bed at 200m resolution
 - ▶ Updated to FCCSv3
- ▶ Move all grassland fire detects (Cropland Data Layer) to the SF2-Bluesky processing
- ▶ ICS-209 related changes
 - ▶ Improve duration information for small fires
 - ▶ ICS 209 Planned Ignition Release (PIR) table: fire information for Rx fires
- ▶ Add HAPS via emissions factors post BlueSky

Fire Emissions Processing at High-Level for 2016 beta



International Fire inventory

- ▶ Fire Inventory from NCAR (FINN) global dataset
 - ▶ Recently discovered leap-year error (Feb 29-Dec 31 fires displaced one day)
 - ▶ FINN author working to correct this for inclusion for beta release
 - ▶ FINN used for Mexico for all of 2016 and for some months in Canada
- ▶ Environment Canada inventory
 - ▶ Year 2016 inventory with some missing winter months
 - ▶ Use FINN to fill in missing time periods
 - ▶ Fort McMurray fire (1.5M acres; May-Aug)
- ▶ More analysis of these inventories in coming months

Schedule to 2016 beta release for fires

- ▶ Week of Sept 24th: Draft beta version data available for QA
- ▶ Oct 4th: Next 2016 Fire Workgroup call
 - ▶ Early QA findings for draft beta
 - ▶ Technical documentation update; need your input!
 - ▶ International fires summary
- ▶ Rest of October
 - ▶ More QA
 - ▶ Tweak 2016 draft beta to get actual beta inventory
 - ▶ Update technical documentation
- ▶ Nov 1st: another 2016 Fire Workgroup call
 - ▶ Any last minute business for beta release?
 - ▶ Finish tech doc status
- ▶ Take a deep breath before moving toward 2016v1 (late winter-early spring 2019)