Fire Regime Condition Class Questionnaire Results
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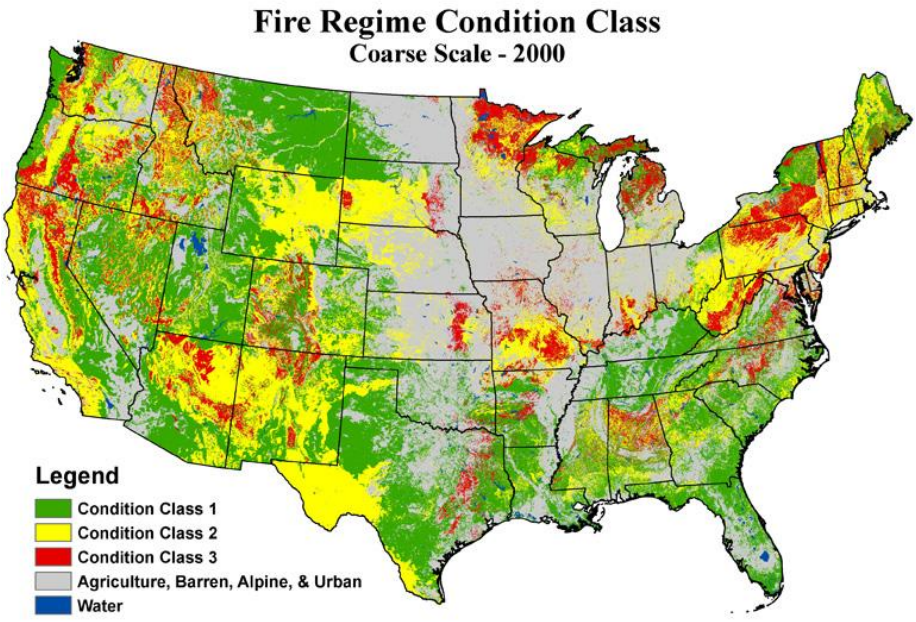
The problems that exist in the world today cannot be solved at the same level of thinking that created them. ~ Albert Einstein

The Fire Regime Condition Class (FRCC) concept has been in existence since 2002, when the first national depiction of condition class was published. Summarized at a coarse scale, the data were intended to describe national fire regime trends among wildlands and identify ecological departure between current and historical reference conditions. At that time, agency leadership requested field-based methods and tools to support local FRCC assessments. As a result, an interagency working group was formed. During the past decade, this group has maintained a helpdesk, website, software tools, on-line courses, user guides, and methods to support FRCC evaluation (www.frcc.gov). Current and past applications include project reporting, land health summaries, fire management planning, land use planning, project design, within allocation models, and as a performance measure.

The National Wildfire Coordination Group's (NWCG) Fuels Management Committee (FMC) has been the primary sponsor of the FRCC Working Group since 2002. The FMC has provided annual funding and guidance related to the content and emphasis of FRCC resources.



In January of 2013 the FMC in collaboration with the Wildland Fire Management RD&A designed a questionnaire requesting user feedback on FRCC. In light of current budgetary tightening, the FMC intended to solicit user feedback on the utility of the FRCC project through a questionnaire designed to gather specific feedback related to:

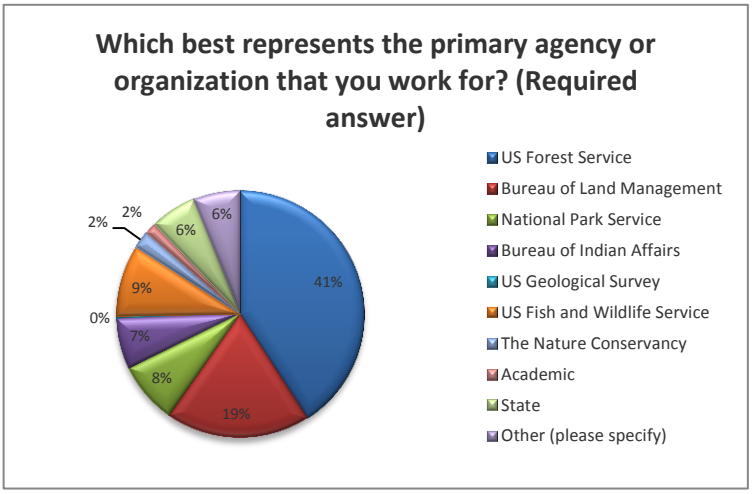
- How fire managers are assessing the condition of their landscapes;
- The effectiveness of FRCC training, and resources;
- FRCC software tools;
- Needed enhancements to FRCC; and
- How FRCC is used among agencies.

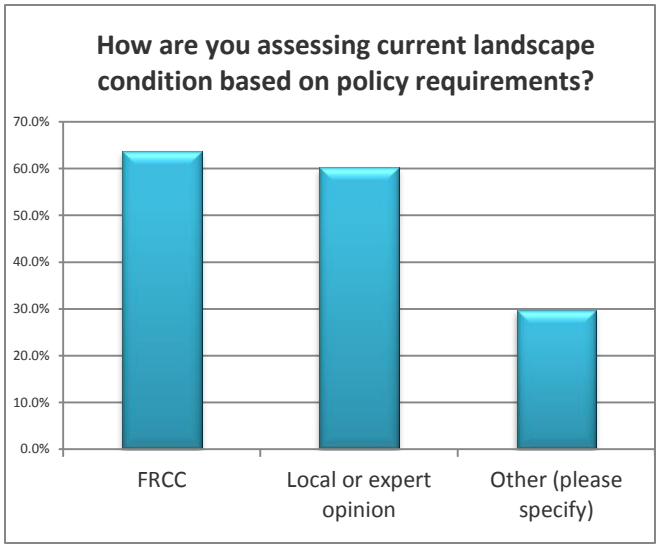
The user feedback will contribute to the future direction of FRCC, or perhaps the development of a different indicator of land health or fire regime integrity.

The questionnaire was delivered via emails in January 2013 to federal employees who had registered for at least one FRCC online course or workshop during the time period 2008 to 2012. Users of other fire and fuels related software tools who had registered for NWCG courses were also invited. The questionnaire was sent out by the FRCC Helpdesk, signed by Jim Hutton, Chair of the NWCG Fuels Management Committee. The questionnaire was designed to take 20 minutes online and responses were collected up until March 15, 2013 (https://www.surveymonkey.com/s/FRCC2013). Overall, 396 individuals responded to the questionnaire.

What did we learn?

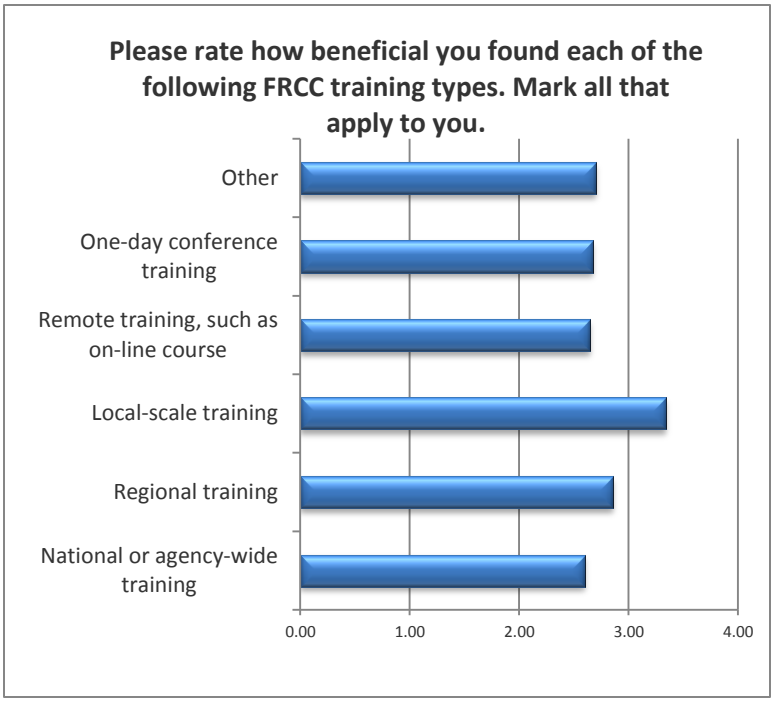
Results indicate that the FRCC concept is widely used for landscape scale assessment of ecological departure and over half the respondents would like FRCC concepts to be included in existing relevant NWCG courses. The US Forest Service (USFS) and the Department of Interior (DOI) dominated the responses with 40.9% and 43.2% respectively. The remaining respondents were from state, academic, private or other organizations. The majority of the federal respondents worked in job series 401 (General Natural Resources Management and Biological Sciences) and 462 (Forestry Technician) as fuels technicians (30.6%) or fire management officers (13.4%) at the GS level 9, 11 or 12. Other common position descriptions included Ecologist, Fire Planner, and Forester.

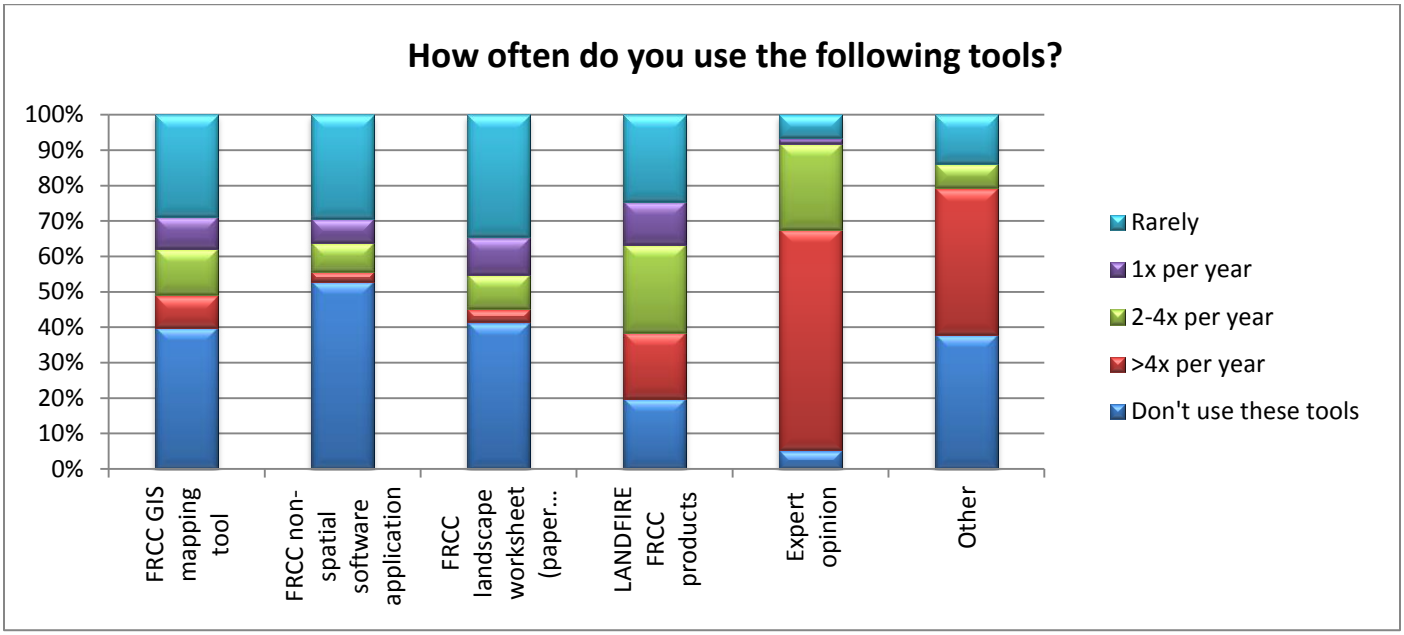




When asked what tools were used to assess current landscape condition as required by current policy, the majority of those who responded use FRCC as the preferred method (63.7%). Local expert opinion was commonly used in addition to FRCC assessments. Several individuals commented that additional criteria for landscape assessments were considered, for example: wildlife habitat quantity and quality; interdisciplinary team health assessments, monitoring data, bark beetle kill aerial surveys, crown fire risk assessments, and fire return interval departure (FRID). The LANDFIRE Biophysical Settings (BpS) models or other similar modeling tools were mentioned by several users. Biophysical settings are divisions in the landscape with similar biological and physical characteristics. They provide an approximation of the vegetation and disturbance processes thought to have been dominant on the landscape prior to Euro-American settlement.

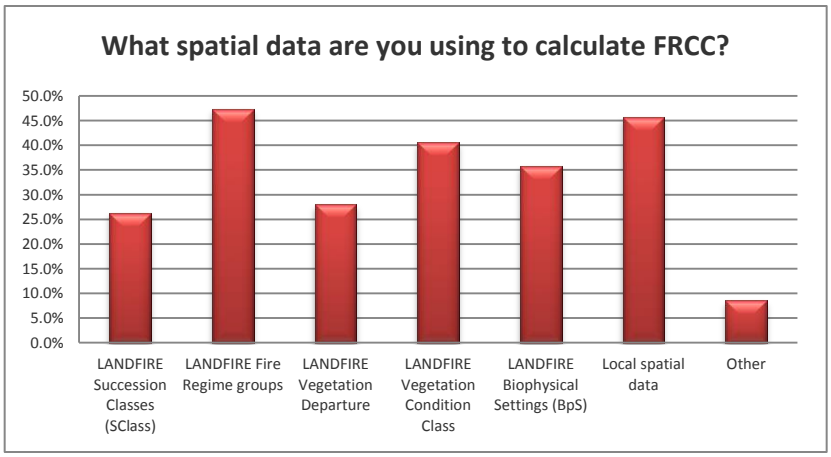
Common methods for obtaining FRCC training included online courses, classroom workshops, instructor-led training at conferences, webinars, and 219 respondents considered themselves self-taught to some degree. Local-scale training was deemed slightly more beneficial compared to regional, national, conference workshops or online training; however 68% of the respondents said they would be most likely to attend online training or webinar because of difficulties to travel, followed by workshops (64%) and conference training (25%)

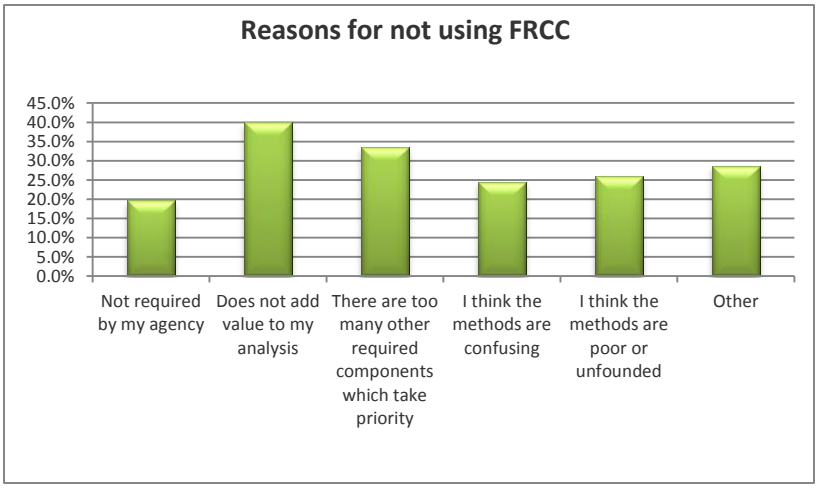




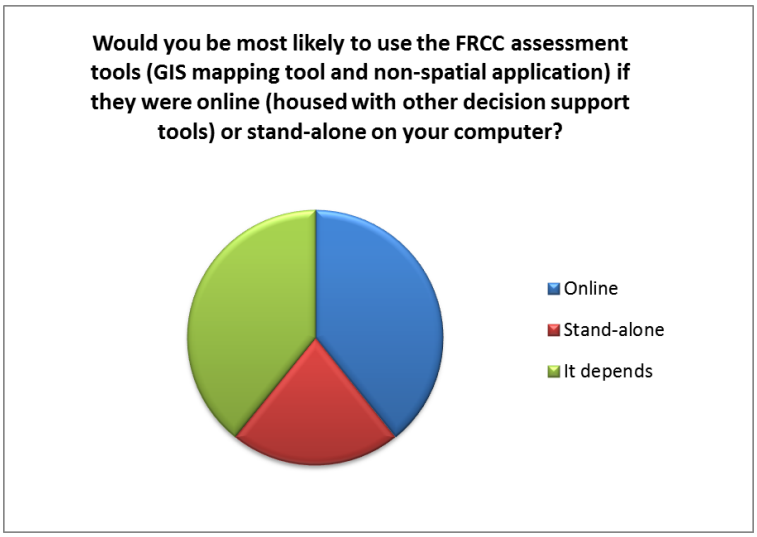
FRCC is commonly calculated for reports such as land use plans, fire management plans, project plans (EA, EIS, NEPA etc.), burn plans, and reporting requirements for FACTS or NFPORS. All available methods for calculating FRCC were found useful. The questionnaire responses indicate that the FRCC calculation methods are used in the following order from most used to lease used: 1) Expert opinion; 2) LANDFIRE FRCC products; 3) The GIS-based FRCC Mapping Tool; 4) FRCC landscape worksheet (paper forms); and 5) FRCC non-spatial software application. GIS was thought to be a barrier from using FRCC tools by 30.7% of the respondents. FRCC is used to depict fire regime departure, vegetation departure, fire frequency and severity departure and as a measure of ecological integrity.

A variety of LANDFIRE data layers complemented by local spatial data are used to derive FRCC metrics. Commonly used LANDFIRE layers include Fire Regime Groups, Vegetation Condition Class, Biophysical Setting, Vegetation Departure and Succession Class. Of those using LANDFIRE data, 35% used the data as is, 44% made some modifications, and 21% modified the LANDFIRE data a considerably.





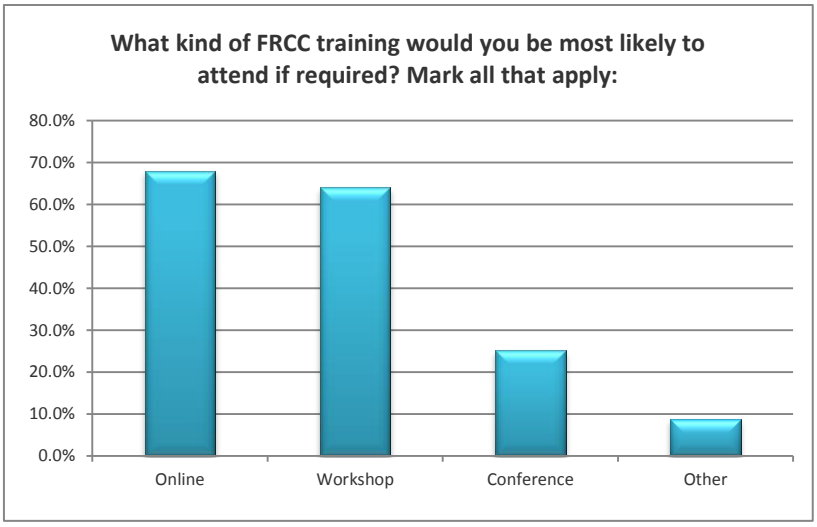
FRCC is intended to be an indicator of ecological condition or fire regime intactness. Respondents that are not using FRCC do so for several reasons, for example: the analysis area is too small, FRCC does not work well for the ecosystem in question, the concept of a historical reference condition does not make sense for the ecosystem, the respondent does not write reports, the method was thought to be too simplistic or confusing, or they did not know about FRCC.



When users were asked if they would prefer an FRCC tool online rather than a stand-alone desktop application 39.2% said "yes" and 39.2% said "it depends". Reasons for wanting the FRCC online were: lack of GIS skills, an online tool would eliminate problems associated with different versions of ArcGIS, not software installation would be needed and the tool could be used on any computer with internet access.

Several users pointed out that they liked the ArcMap FRCC Mapping tool and were afraid that the online tool would be slow due to poor internet speed. Others suggested that an online tool may not allow for complicated analyses and customization.

Most respondents considered themselves using FRCC according to the methodology described in the FRCC Guidebook and 75% of them had at some point visited the FRCC web site. Users find that scale is an issue since both extent and treatment area strongly influences the FRCC assessment. Analysis areas are commonly small parcels which makes the FRCC landscape scale analysis challenging. Some users were not aware of the new FRCC Guidebook. In a few cases, users claim that FRCC was based on assumptions about fire history, fire suppression, fire severity, and fire effects that do not generally pertain to their vegetation types.
Almost half of the respondents (45.7%) use local data in FRCC calculation but most commonly in combination with LANDFIRE data.



Suggested improvements to the current FRCC calculation included: Accommodate for climate change and invasive species, improvements to make FRCC more useful in the eastern states, develop a common framework for how to treat disturbances meant to mimic fire, and allow for alternate definitions of the reference condition.

Overall, the questionnaire indicates the all available FRCC calculation tools and methods are widely used in a variety of management applications and required reports. There is a need for additional training and incorporation of FRCC in NWCG courses. Students are most likely to attend online training, especially "live" webinars, although it is clear that they find local training more effective. Constructive and insightful suggestions for improvements in the FRCC calculation were provided and it would be advantageous to form a committee to further review opportunities to advance and improve the FRCC concept to better fit contemporary needs across the nation.

"And it is your obligation to… move forward… in a way that does not denigrate, dilute or diminish in the slightest degree that which came before you, because many thousands of men and woman gave their careers, and some even gave their lives, for what you are working toward– saving dirt."

Lynn Greenwalt