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UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF CALIFORNIA

AMY GRANAT; CORKY LAZZARINO; SIERRA ACCESS COALITION; CALIFORNIA OFF-ROAD VEHICLE ASSOCIATION; THE COUNTY OF PLUMAS; and THE COUNTY OF BUTTE, Plaintiffs, v. UNITED STATES DEPARTMENT OF AGRICULTURE, a federal agency; TOM VILSACK, in his official capacity as Secretary of the UNITED STATES DEPARTMENT OF AGRICULTURE; UNITED STATES FOREST SERVICE, a federal agency; THOMAS L. TIDWELL, in his official capacity as Chief of the UNITED STATES FOREST SERVICE; RANDY MOORE, in his official capacity as PACIFIC SOUTHWEST REGIONAL FORESTER; ALICE CARLTON, in her official capacity as the former PLUMAS NATIONAL FOREST SUPERVISOR; and EARL FORD, in his official capacity as PLUMAS NATIONAL FOREST SUPERVISOR, Defendants.	No. 2:15-cv-00605-MCE-EFB (TEMP) **DECLARATION OF KYLE FELKER IN SUPPORT OF MOTION TO COMPEL INCLUSION OF CERTAIN DOCUMENTS AS PART OF THE ADMINISTRATIVE RECORD** Date: February 17, 2016 Time: 10:00 a.m. Courtroom: 8, 13th Judge: Magistrate Judge Edmund F. Brennan

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I, Kyle Felker, hereby declare as follows:

1. I have personal knowledge of the following facts and if called upon to do so could competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I own a small business "Kyle Felker Consulting," in which I provide mapping services to a wide variety of clients who need to depict specific geographic locations for their projects. In my business, I use technology known as Geographic Information System (GIS) and Global Positioning System (GPS).

3. GIS is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

4. GPS is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense. GPS was originally intended for military applications, but in the 1980s, the government made the system available for civilian use. GPS works in any weather conditions, anywhere in the world, 24 hours a day. There are no subscription fees or setup charges to use GPS.

5. My services include GPS data collection, processing the data through GIS and development of maps and information. I am an expert in GPS and GIS, which is reflected in the jobs that I perform for my clients. I am also the prep-Forester for Plumas County Fire Safe Council. Fire Safe Council projects consist of taking an approved project and developing it on the ground. This requires advanced GPS and GIS skills for field mapping, GPS data collection, and processing data through GIS to develop a contract map with accurate acres for payment, and developing the contract for treatments.

6. I also contract with the Forest Service as California's Infrared Regional Coordinator / GACC IR Liaison, working for the Washington Office, National Infrared Program Manager, and Infrared Interpreter (IRIN) on large fire incidents. Among other things, I use advanced GIS skills for Infrared Interpretation and mapping.

7. I am also a member of NorCal Team 1 Incident Management Team (IMT) as Geographic Information System Specialist (GISS). This is a disaster management team of 54

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people with specialized skills that respond to major disasters, including forest fires. I provide all GIS and mapping services required for the incidents.

8. I am a member of Plaintiff Sierra Access Coalition (SAC) and have been a member since 2010.

9. I am also a member of Plaintiff California Off-Road Vehicle Association (CORVA) and have been a member since 2010.

10. From July 1972 to July 2010, I worked as an employee of the Department of Agriculture, Forest Service.

11. While I was employed by the Forest Service, I had several duties over the years. In 1972 I was first hired as a Log Scaler, measuring logs for final payment by loggers to the FS. In 1978, I became the Small Sales Officer for all small commercial forest product sales. In July, 1980, I was promoted to the Timber Sale Preparation Forester, planning and implementing Timber Sales. This was accomplished by using NEPA to guide me through the process.

12. In August, 1992, I became GIS Coordinator of the Mt. Hough Ranger District, with responsibilities for GIS support, including roads and trails and other geographic features. I provided GIS expertise for the Mt. Hough District, which included participation as an interdisciplinary team member on many projects. I taught district employees how to use GPS equipment and perform basic GIS functions. I would work on the more complicated mapping projects and provide information derived from GIS to the district specialists. I was considered an expert in the mapping field, and worked with other GIS specialists throughout California.

13. During the implementation of the Travel Management Project in Plumas National Forest and the associated NEPA process, I would often receive data for proposed trail locations from Forest Service employees and the public. I processed the data and forwarded it to Michael Kobelt, GIS Coordinator for the Travel Management Project team.

14. I attended many weekly in-house meetings during the two years of the inventory phase of the Travel Management Project for Plumas National Forest. I provided technical support and expert assistance to the decision makers at the Forest Service.

15. In June 2010 I retired from the Forest Service.

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16. I have worked with Light Detection and Ranging data (LiDAR) technology since approximately 2007, when I was an employee of the Forest Service. LiDAR is an advanced technical tool used for a variety of purposes. LiDAR is a remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflective light. Originating in the early 1960s, LiDAR focuses a narrow laser beam to map physical features with very high resolution, serving as an important and now routinely used tool to provide precise coordinates of geographic features such as roads, trails, hills, valleys, and watercourses. While I was employed by the Forest Service, I encouraged the Service to increase its use of LiDAR technology to map roads and trails in connection with the implementation of the Travel Management Plan in Plumas National Forest, because such technology provided substantially more accurate mapping results upon which decisions could be made than the other mapping technologies.

17. The Forest Service began using LiDAR technology to map certain geographic features in Plumas National Forest in early-to-mid 2009. The first area mapped using LiDAR in Plumas National Forest is an area near a small town in California named Storrie, in order to plan for the rehabilitation of the area from a massive wildfire encompassing tens of thousands of acres. The decision to use LiDAR for such purposes was driven by considerations of developing the most accurate data in the most cost effective manner. LiDAR was also used by the Forest Service to pinpoint with a great deal of accuracy two potential landslides within Plumas National Forest, before they occurred. LiDAR was also used to find archaeologically significant sites by virtue of its ability to "see through" trees and brush in a manner providing a very high degree of resolution.

18. In 2009, the Forest Service started to generate LiDAR data for watercourses located in Plumas National Forest for use by hydrologists and other scientists who need to know the precise locations of watercourses. For example, watercourses in the Chips Creek area, the Meadow Valley Area, and the Yellow Creek area were mapped using LiDAR technology in 2009. The LiDAR results show not only the true watercourses locations but also the locations of historical roads and trails used for motorized travel in those three areas.

19. The LiDAR data also show the locations of watercourses, roads and trails mapped by the Forest Service without using LiDAR were incorrect. The divergence between watercourse

locations using LiDAR technology and not using LiDAR technology is depicted in Exhibit A and Exhibit B of this declaration.

20. Exhibit A depicts a portion of Plumas National Forest where LiDAR data was collected. The yellow lines depict the mapping results using non-LiDAR methods ("Current Stream Layer"), while the blue lines depict the mapping results using LiDAR methods ("Draft Stream Layer"). As set forth in Exhibit A, there is a substantial divergence between the mapping results using non-LiDAR vs. LiDAR methods of mapping.

21. The same types of results can be seen in Exhibit B, showing another area of Plumas National Forest where LiDAR data was collected. Here again, the yellow lines also depict mapping results using non-LiDAR methodology ("Current Stream Layer"), while the blue lines depict mapping results using LiDAR methodology. Again, the divergence of the mapping results is pronounced.

22. In all, approximately 20% of the area of Plumas National Forest was mapped using the LiDAR technology.

23. The LiDAR data generated by the Forest Service should be included in the Administrative Record because it shows that the actual locations of many watercourses, roads, and trails identified by the Service for purposes of the Travel Management Program in Plumas National Forest are scientifically and technically inaccurate. For example, non-LiDAR data shows that certain trails are located within watercourses and, consequently, the Forest Service summarily rejected those routes for inclusion as motorized access routes in the Travel Management Plan. However, the LiDAR data show that the trails are in fact not within the watercourses and that, therefore, those routes should have been further evaluated to determine whether they should have been included or excluded from motorized travel.

24. The effort to use LiDAR by the Forest Service was documented in a 2009 power point presentation presented to Forest Service staff. In 2009, Michelle Coppoletta and I recommended to the Forest Service that the Service expand the use of LiDAR to map important geographic features throughout Plumas National Forest. The Forest Service refused to do so because it would take too much time and money. The 2009 power point presentation that was

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given to the Forest Service should be included in the Administrative Record because it shows that the Forest Service was aware in 2009 (during the EIS process) that LiDAR could be used to more accurately pinpoint routes historically used for motorized travel than the methodology actually used by the Forest Service and that the Forest Service was aware that its methodology was neither scientifically or technically defensible.

25. Electronic GPS Data in the possession of the Federal Defendants regarding route inventory field data collected by the Forest Service's crews and contractors from 2006 through 2009 should be included in the Administrative Record because GPS was the only approved field data collected for the Travel Management analysis, as referenced in PLU-F-000084 through PLU-F-000111 of the Administrative Record proffered by the Federal Defendants (See Exhibit C). By comparing the GPS data with GIS and LiDAR data, inconsistencies can easily be found. This will also show whether or not the guidelines for mapping standards were followed by the Forest Service during the NEPA process.

26. "Semi-Primitive Nonmotorized Data" also should be included in the Administrative Record. Such data is comprised of the original map that formed the basis for creating the boundaries for the "Semi-Primitive Nonmotorized" land classifications in the Plumas National Forest Land Management Plan, which governs all land management in the Forest. Such classifications and the data upon which they were based were brought over to the Travel Management Plan and the NEPA EIS associated therewith. Over time, the old maps were carried forward and errors from the old technology are now magnified in the current environmental impact statement and the Travel Management Plan. The boundaries of these land areas affected the analysis. As a result, many historical routes used for motorized travel were not approved for continued use because of mapping errors surviving to the next phase of planning, when better technological tools were available. Having the original maps and other data in the Administrative Record will allow demonstration that the scientific and technical errors have been accumulating over time, leading to conclusions reached in the EIS and Travel Management Plan that cannot be supported. This applies to all of Plumas National Forest, as depicted on the map in PLU-A-000377 of the Administrative Record proffered by the Federal Defendants. (See Exhibit D).

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I declare under penalty of perjury that the foregoing is true and correct, to the best of my knowledge, and that this declaration was executed this 19 day of January, 2016, at Plumas County, California.

KYLE FELKER

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CERTIFICATE OF SERVICE

I hereby certify that on January 19 , 2016, I electronically filed the foregoing with the Clerk of the Court for the United States District Court for the Eastern District of California through the Court's CM/ECF system.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the Court's CM/ECF system.

/s/ THEODORE HADZI-ANTICH
THEODORE HADZI-ANTICH

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