

## **An interactive map to communicate route location proposals and facilitate the race permitting process**

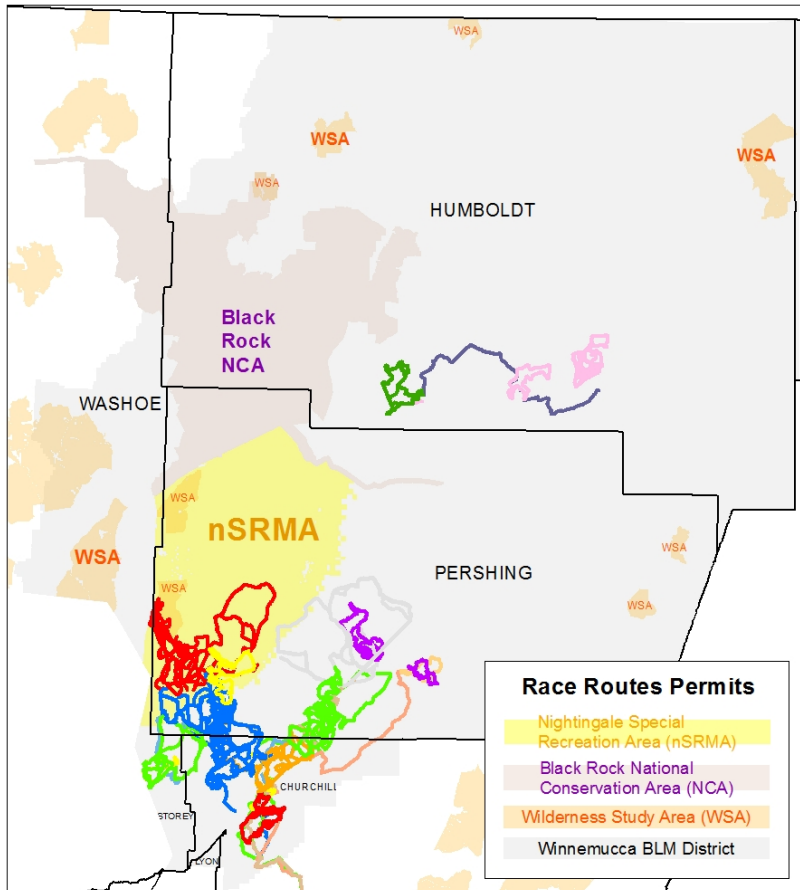
When only previous permitted route segments were to be considered for future race routes, an efficient method was needed for race organizers identify previous route segments to create new route proposals based on segments that have already passed environmental review. The method also needed integrate with BLM's GIS sytem to compare those routes with reference background data for analysis and documentation. The previous race routes dataset was originally created to **identify general route locations and areas** in the Winnemucca BLM district. It has now been published as a KMZ file makes use of

### **Google mapping tools.**

This allows the exchange of race data and comments directly via an interactive map containing not only documented, approved routes but reference data essential to race organizers and BLM staff alike. The electronic submission of routes for a

[Special Recreation Permit \(SRP\)](#)

is now reality.



### Objectives

This dataset was initiated ten years ago, to describe general route locations and identify **areas** by which races would be permitted **rather than specific linear routes.**

While those

#### [programmatic EA](#)

efforts might again be revived, the dataset has found multiple purposes throughout the years. GIS routes allow for the overlay of administrative (i.e. legal land descriptions, surface ownership) and resource (wildlife habitats, hydrology) data layers. When new routes were to be compromised of already permitted segments, the dataset became invaluable. Maps were printed, marked with ink and then re-digitized back into GIS.

#### [Google mapping tools](#)

provides solutions that integrate both recreational and professional level GIS and GPS systems. The electronic submission of proposed routes will allow for the efficient **2-way communication of spatial data** and ease the permitting process.

More on the [Special Recreation Permit \(SRP\)](#) process for races

### **Data & Results**

- 3700 miles total
- 52 previously permitted race routes dating back to 1980s
- District-wide dataset with most routes in Nightingale and Sahwave mountain ranges
- Individual routes by club and year
- Generalized route locations
- Mileage, EA and SRP numbers noted for each route

Please be sure to read the [FAQ](#) and [Project History](#) for this data.

### **Chosen communication tools and benefits**

While there is **NO** need to download any additional software or files to **view the data online**, a wealth of additional capabilities are gained by downloading and installing the desktop application Google Earth. Race organizers can then

### **sketch new routes**

derived from previously approved route segments displayed in the background and add comments directly on-screen. Proposed locations and comments are exported to a

### **KMZ file**

that is distributed by

### **email.**

This file is imported into the recipient's desktop Google Earth to review marked proposals, reply to comments and add their own markup. BLM can convert the KMZ file to an ESRI shapefile for GIS analysis, approval and incorporation into their GIS database. Other features such as its direct use with GPS, laptops or cell phone in the field make this a

### **n integrated solution**

for both permittees and the BLM.

In 2011, the race route data was moved from the previously published GeoPDF format to Google mapping tools for the following reasons -

## **1. Popularity**

Many are now very familiar with Google's mapping tools

## **2. File size**

Google offers imagery, labels, roads and many reference layers that no longer needed to be delivered with route data. Therefore, file sizes were much decreased.

## **3. Online viewing**

Routes can be viewed in Google Maps online directly within a browser. It is no longer necessary to download or install any special tools or programs to view route data with Google Maps. Optionally, the Google Earth plug-in may be added to the browser to allow for viewing of the data online in 3D view, a unique and informative perspective on the data!

## **4. Google Earth's many capabilities**

Google Earth is an application that requires installation on the desktop computer. This step is only necessary for those who wish to create location-based comments for the route data.

Google Earth offers many, many capabilities such as transfer data to and from a GPS receiver, ESRI ArcGIS, 3D imagery, virtual driving tours and more. For more about these capabilities with respect to the published route data, click [here](#)

### **5. Alternate options for viewing**

Google Earth was chosen for the above reasons but it is possible to load and view the .kml file into [www.ArcGIS.com](http://www.ArcGIS.com) if you prefer to build your own map.