

PART THREE: TECHNICAL NOTES

FIELD

Trimble mobile devices were used to GPS-capture point, line and polygon features and attributes with the established NV BLM route inventory standard. Additional information such as trail conditions assessments and other quality data was also recorded to assist the BLM in creating a travel management plan and managing special recreation permits. RICOH GPS-cameras were used to document team observations and support route assessment data.

TRIMBLE GEOEXPLORER XT

These mobile devices offered the abilities to -

1. Display and navigate to features

GIS datasets, project and previously collected datasets were available for display on the mobile device during data collection.



2. GPS-record locations with submeter accuracy

Locations were GPS-captured as distinct points, lines or polygon features with a high level accuracy. This is much greater detail offered by the current dataset digitized from 1:24,000 and 1:250,000 topo maps.

3. Record information for each location

Use of the NV BLM route inventory standard ensured that collected data easily combines with previous data sets. For future inventories, it is recommended that the current Trimble TerraSync -Pathfinder Office workflow be replaced with an ArcPad -Trimble GPS Analyst workflow which will significantly improve data collection and management processes.

RICOH GPS CAMERAS

RICOH GPS cameras were used to photo-document each intersection and additional points of interest. These cameras offer the following advantages -



1. GPS-record the locations photographs were taken

The location where the photograph was taken is GPS-recorded to an accuracy of approximately 2-5 m. This is sufficient accuracy for managing the **1,000-plus photos** taken for this project.

2. Field worthy

These cameras have continued to survive harsh desert conditions and a brutal amount of road vibrations and dust, despite **hundreds of miles of route inventories** and many other office projects.

INTEGRATED SUITE OF GPS/GIS TOOLS

Data collected by both the Trimble GPS and RICOH cameras devices share these common abilities to –

- Capture **GPS locations**
- Record **attributes** about that location
- Export that information to an **the ESRI shapefile** for use in ArcGIS

POST - FIELD

TRIMBLE PATHFINDER OFFICE (PFO)

PFO was used to **post-process data** against a base station and ensure sub-meter accuracy of each GeoXT location. This software was also used to **export the data** to an ESRI shapefile, a common ArcGIS format. All data was exported to the **NAD83 UTM Zone 11N**, the federal standard for Northern NV.

GEOSPATIAL EXPERT GPS-PHOTO LINK

The Ricoh camera has onboard GPS which embeds the coordinates of the location where the photo was taken into the image file. GPL-Photo Link software exports that spatial data to an **ESRI shapefile**. The software also generates a **watermarked version** of the photograph which displays the file name, date, time and location of the image.

Occasionally photographs were taken before the GPS had a chance to initialize. Most of those photos were located using the **tracklog** from the Trimble device.

ESRI ARCGIS

ArcGIS was used for data management, spatial analysis, and mapmaking. The geodatabase, the current industry standard format, provides the opportunity to capitalize on the many capabilities offered in ArcGIS for data collection, analysis and management.

The project geodatabase (GDB) was created from the standard NV BLM route data dictionary (.ddf).

Geodatabases can be of 3 types: i) personal GDB, ii) file GDB or an iii) ArcSDE GDB. A **personal GDB (pGDB)** was chosen for this project to allow for future data collection by the recommended ArcPad- Trimble GPS Analyst workflow for future route inventories.

PFO-exported shapefiles were loaded into the project geodatabase. The project geodatabase can also be used to **centrally organize 2005-2008 route inventory data and the 1:100 GIS road data.**

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PART FOUR: REFERENCES

Documents are included in the References section of the project DVD when applicable.

1. BLM Comprehensive Travel & Transportation Management (CTTM) Program
http://www.blm.gov/wo/st/en/prog/Recreation/recreation_national/travel_management.html
http://www.blm.gov/wo/st/en/prog/Recreation/recreation_national/travel_management/travel_mgt_guidance.html
2. BLM Addressing the Transportation Challenge: Transportation Resource Paper for Reauthorization of SAFETEA-LU
A discussion of the nationwide BLM transportation system components and issues, 2005.
3. Transportation and the BLM
State-by-state summaries of transportation types by miles and expenditures, 2006.
4. The BLM's Priorities for Recreation Visitor Services
'Workplan Goal and Objective # 1: Establish a comprehensive approach to travel planning and management.', 2003.
5. BLM Strategies and Guidance
Presentation with overview of travel management, land use and recreation issues.
6. BLM National Management Strategy for OHV use on Public Lands, **2001**
7. BLM Executive Order - Use of off-road vehicles on the public lands
Executive Order 11644 of Feb. 8, 1972, appear at 37 FR 2877, 3 CFR, 1971-1975 Comp., p. 666
8. USFS Travel Management Directives, Forest Service Manual 2350, 7700, and 7710 and Forest Service Handbook 7709.55

9. USFS Travel Management, Designated Routes and Areas for Motor Vehicle Use
US Forest Service 36 CFR Parts 212, 251, 261, and 295 RIN 0596-AC11

10. Citizen Route Inventory, Arizona
'...off-road clubs develop their own 'citizen alternative'
<http://sharetrails.org/magazine/article/?id=896>

11. Citizen Route Inventory, New Mexico
'The Roads, Boundaries and Impacts Survey is conducted by trained field staff, paid contractors, and dedicated volunteers'
<http://www.oteromesa.org/wilderness/citizens-wilderness-inventory-of-otero-mesa/>

12. Route Evaluation Tree Process©
Travel Management Planning software used by Arizona BLM
http://www.arsplanning.com/files/RETP_flowchart.pdf

13. BLM Roads and Trails Terminology, Technical Note 422

14. BLM Planning and Conducting Route Inventories, Technical Reference 9113-1

FIVE: APPENDICES

Documents are included in the References section of the project DVD when applicable.

- A. Roads and Trails Terminology
- B. Proposed National Data Standard for Primitive Roads
- C. National Data Standards for Roads
- D. Project Data Standards
- E. 2007 Race Routes GeoPDF
- F. Approved courses in Winnemucca district
- G. Typical MRANN Racing Schedule
- H. Sample Motorcycle Race Event Flyer
- I. NV BLM Special Stipulations for SRPs

A. ROADS AND TRAILS TERMINOLOGY

The BLM Roads and Trails Terminology Team was chartered to *'establish strategic direction and consistent terminology used by the recreation, planning, National Science and Technology Center (NSTC), National Landscape Conservation System (NLCS), lands, property, and engineering groups to manage the BLM transportation system in activities such as planning, inventorying, designating, mapping, signing, monitoring, developing public information, maintaining, assessing condition, tracking, and reporting data so ongoing alignment of current and future strategic comprehensive travel management and transportation objectives can be achieved.'*^[Ref 13] Their recommended terminology for route classification includes -

A. BLM Transportation system

Road

A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

Trail

A linear route managed for human-powered, stock, or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Primitive road

Routes presently used by a number of organizations to describe high-clearance and 4 × 4 routes that are not designed to an engineering standard, but are available for use and should be identified on transportation systems.

B. Non-BLM Routes

Linear disturbances may include engineered (planned) as well as unplanned (user-created) single and two-track linear features that are not part of the BLM transportation system.

B. PROPOSED NATIONAL DATA STANDARD FOR PRIMITIVE ROADS

Only the standard for primitive roads is displayed.

Refer to BLM Technical Reference 9113-1 for road segments and optional features. ^[Ref 13]

Asset Data Element Status

Road Latitude	Required
Longitude	Required
Meridian	Required
Township	Required
Range	Required
Section	Required
Aliquot Part	Required
Functional Class	Required
Seismic Zone	Optional
Congressional District	Required
Locator Code	Required
Easements Needed	Required
Admin State	Required
Geographic State	Required
OR-CA Land	Required
Route Number	Required
Spur Number	Required
Begin Route	Required
Terminus	Required
Year Withdrawn	Required
Road Restrictions	Optional
County	New in Phase II
Jurisdiction	New in Phase II
Master AUC	New in Phase II

C. NATIONAL DATA STANDARD FOR ROADS

Only the standard for road is displayed.

Refer to BLM Technical Reference 9113-1 for road segments and optional features. ^[Ref 13]

Asset Data Element Status

Road Latitude	Required
Longitude	Required
Meridian	Required
Township	Required
Range	Required
Section	Required
Aliquot Part	Required
Functional Class	Required
Seismic Zone	Optional
Congressional District	Required
Locator Code	Required
Easements Needed	Required
Admin State	Required
Geographic State	Required
OR-CA Land	Required
Route Number	Required
Spur Number	Required
Begin Route	Required
Terminus	Required
Year Withdrawn	Required
Road Restrictions	Optional
County	New in Phase II
Jurisdiction	New in Phase II
Master AUC	New in Phase II

D. PROJECT DATA STANDARDS

This project used the NV BLM route inventory data dictionary established in 2005 as a minimum standard. The collected project data encompasses most of the information targeted by the proposed standard for primitive roads. Attributes added to meet project-specific goals are indicated by an asterisk. Attribute values more appropriate for completion in GIS rather than in the field are marked as such. Consult the individual studies throughout this report to view photographs, descriptions and discussions for attribute values.

"Statewide Dictionary", Dictionary, "v7-2-2009 for Race Route Team"

Attributes for the point feature : Route Point (Route_pt)

point, "", 1, seconds, 5, Code

Point Type (Point type)

menu, Required, Required

"Y,T Intersection"

"4 Way"

"5 Way"

"6 Way"

"End of Route"

"Other"

"End of Day"

Comment

text, 99, normal, normal

Date

date, auto, mdy, auto, normal, normal

Same value for all collected features

Method

menu, normal, normal

" GPS_Res_Grd "

"GPS_Rec_Grd"

"Digitized"

"Duplicate"

Attributes for the linear feature: Route

line, "", 1, seconds, 1, Code

Study 1

Route Type (rt_type)

menu, normal, "NOTE : Drivable wash = Drivable by 4x4", normal
"Single Track"
"Drivable Wash"
"Unimproved; 2-Track"
"Improved; Dirt/Blad"
"Improved; Grvl"
"Paved"

Road Number (trail_num)

menu, normal, normal
"BLM 204"
"BLM 205"
"BLM 2033"
"BLM 205"
"County 7"
"County"
"NV 447"
"WSA"
"Does Not Apply"

Route Width in Feet (rt_width_ft)

menu, normal, "NOTE: Approximate", normal
"2"
"4"
"6"
"8"
"10"
"12"
"14"
"20"
">20"

Study 2

Suitability

menu, normal, "NOTE: Highest vehicle that can travel it", normal
"Equestrian"
"Pedestrian"
"Mtn. Bike"
"Motorcycle"
"ATV"

"4WD/High Clearance"
"4WD"
"High Clearance"
"2WD/High Clearance"
"All Vehicles"

Overall Condition

menu, normal, "NOTE: Use photos to support", normal
"Good"
"Fair"
"Poor"
"Impassable"
"Does not apply"

Study 3 and 4

Specific Condition *

menu, normal, "**For Racers**", "NOTE: Requires photo(s)", normal
"Needs Rehab"
"Good Example"
"Excellent Example"
"Does Not Apply"

Vertical Variance *

menu, normal, "**For Racers**", normal
"Flat"
"Gentle Slope"
"Undulating"
"Steep"
"Whoops"
"Whooped Out"
"Sidehill"
"Downhill Only"
"Does Not Apply"

Braided *

menu, normal, "**For Racers**", normal, Label2
"No"
"Yes"

Soil Type *

menu, normal, "**For Racers**", normal
"Rocky & Sandy"
"Rocky"

"Sandy"
"Hardpack"
"Wash"
"Boulders"
"Waterfall"
"Does Not Apply"

Condition

menu, normal, "NOTE: Use photos to support", normal
"Rocky; Rough"
"Rutted"
"Washed Out"
"Brushed In"
"Loose Sand; Silt"
"Steep"
"Trees Blocking"
"Impassible"
"Rocks in Road"
"Poor Drain"
"Does Not Apply"

For all studies

Comment

text, 99, normal, normal

Date

date, auto, mdy, auto, normal, normal

Same value for all collected features

Method

menu, normal, normal
"GPS_Res_Grd "
"GPS_Rec_Grd"
"Digitized"
"Duplicate"

Values entered post-field in GIS

Agency

menu, normal, "Fill in from GIS instead", normal, Label1

"BLM"

"BR"

"NPS"

"BIA"

"FWS"

"USFS"

"DOD"

"PVT"

"COE"

"ST"

"CNTY"

"UNK"

"DOE"

"OTH"

County

menu, normal, "Fill in from GIS instead", normal

"Carson City"

"Churchill"

"Clark"

"Douglas"

"Elko"

"Esmeralda"

"Eureka"

"Humboldt"

"Lander"

"Lincoln"

"Lyon"

"Mineral"

"Nye"

"Pershing"

"Storey"

"Washoe"

"White Pine"

"Other"

"Unknown"

State

menu, normal, normal

"NV"

"UT"

"CA"

"ID"

"AZ"
"OR"

Attributes from standard data dictionary not used

trail_class

Note: these classes are not used by recreation staff in the district

menu, normal, normal

"TC1- Prim/Undvlpd"

"TC2- Minor Dvlpmnt"

"TC3- Dvlpd/Imprvd"

"TC4- Highly Dvlpd"

"TC5- Fully Dvlpd"

ROW

Note: right-of-way data is unknown to team and not in district GIS

menu, normal, normal

"Authorization Needed"

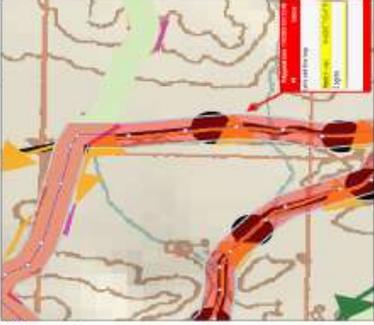
"Existing Easement"

"Existing Lease"

"Existing Permit"

"Existing Tmp Easmnt"

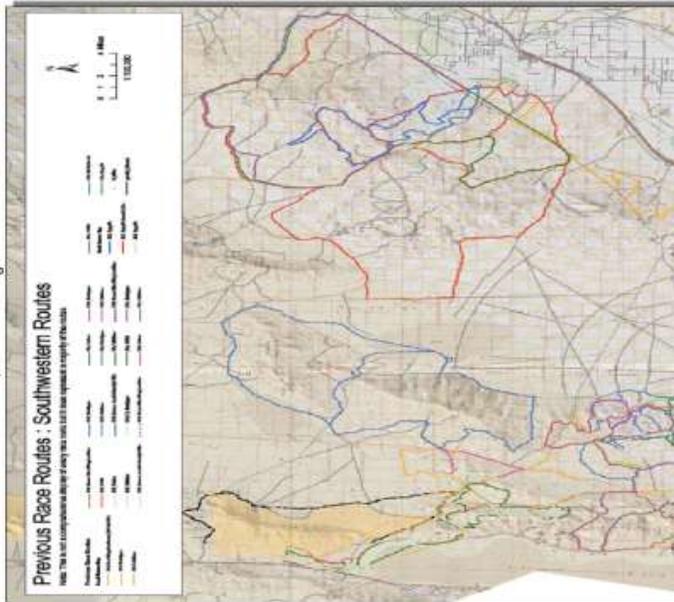
E. 2007 RACE ROUTES GEOPDF

<p>CD CONTENTS</p> <ul style="list-style-type: none"> • GeoPDF map with race routes and background data • Step-by-step tutorial to view, author and exchange proposed routes and comments • GeoPDF toolbar installation file <p>For further information: Joey Carmosino Outdoor Recreation Planner Vito_Carmosino@nvblm.gov (775) 623-1500</p>  <p>BLM Winnemucca Field Office 5100 E. Winnemucca Blvd Winnemucca, NV 89445</p>	 <p>Race Route Inventory GeoPDF Map & CD</p>  <p><i>An Interactive Map and Geospatial Communication Tool</i></p> <p>Fall 2007 Edition</p>	<p>Winnemucca Race Route Applications</p> <p>The Winnemucca Field Office currently has a GIS database of approximately 30 motorcycle, off-road 4WD and road rally routes analyzed within the NEPA process since 2000. Although new routes can be explored, the cost recovery regimen can be prohibitive for some clubs seeking race permits on public land. To minimize costs while still offering different routes each year, race organizers are proposing new routes derived from previous route segments. The Race Route GeoPDF map greatly facilitates this planning process.</p> <p>This map format allows for electronic communication directly via an interactive map containing not only documented, approved routes but background data such as land status and USCS topology maps. A race organizer proposes a route by tracing previous routes. Comments can be attached to each segment if desired. The proposed locations and comments are exported to a file that is easily distributed by e-mail. The comment file is imported to the recipient's copy of the map to review marked proposals, reply to comments and add their own markup. Once a route is finalized, the BLM can convert this file for use in GIS for analysis and approval.</p>  <p><small>Example of proposed route and associated comments marked in GeoPDF.</small></p>
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What is a GeoPDF Map?

The Winnemucca Race Routes Map is a standard PDF file viewed in Adobe Reader. The GeoPDF toolbar is a free Adobe Reader add-on that allows for sophisticated markup and communication of map data. For your convenience, the toolbar installation file, the race route map and a tutorial created to assist race organizers in selecting routes for a Special Recreation Permit in the BLM Winnemucca Field Office are included on the accompanying CD.

For further information on GeoPDF, visit www.terragotech.com



Advantages

View the map interactively



Unlike a static map, you choose which details to see when and where you need them. You can turn map layers on & off, pan & zoom and more.

Author proposed routes right on the map

Draw proposed routes, pit and start areas directly on the map and associate comments with each location. Background layers including previously approved routes, land status and USGS maps help you place proposed routes.



Review proposals and manage comments right on the map

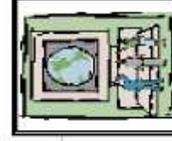
Your proposed locations and comments are exported to a small file that is easily e-mailed to others. The recipient imports the file into their copy of the GeoPDF map for review. They can respond to your e-mailed proposals, add their own locations and comments within the map.

Finalize route



Once a proposed route is finalized, the BLM can convert the comment file directly to GIS for analysis and approval.

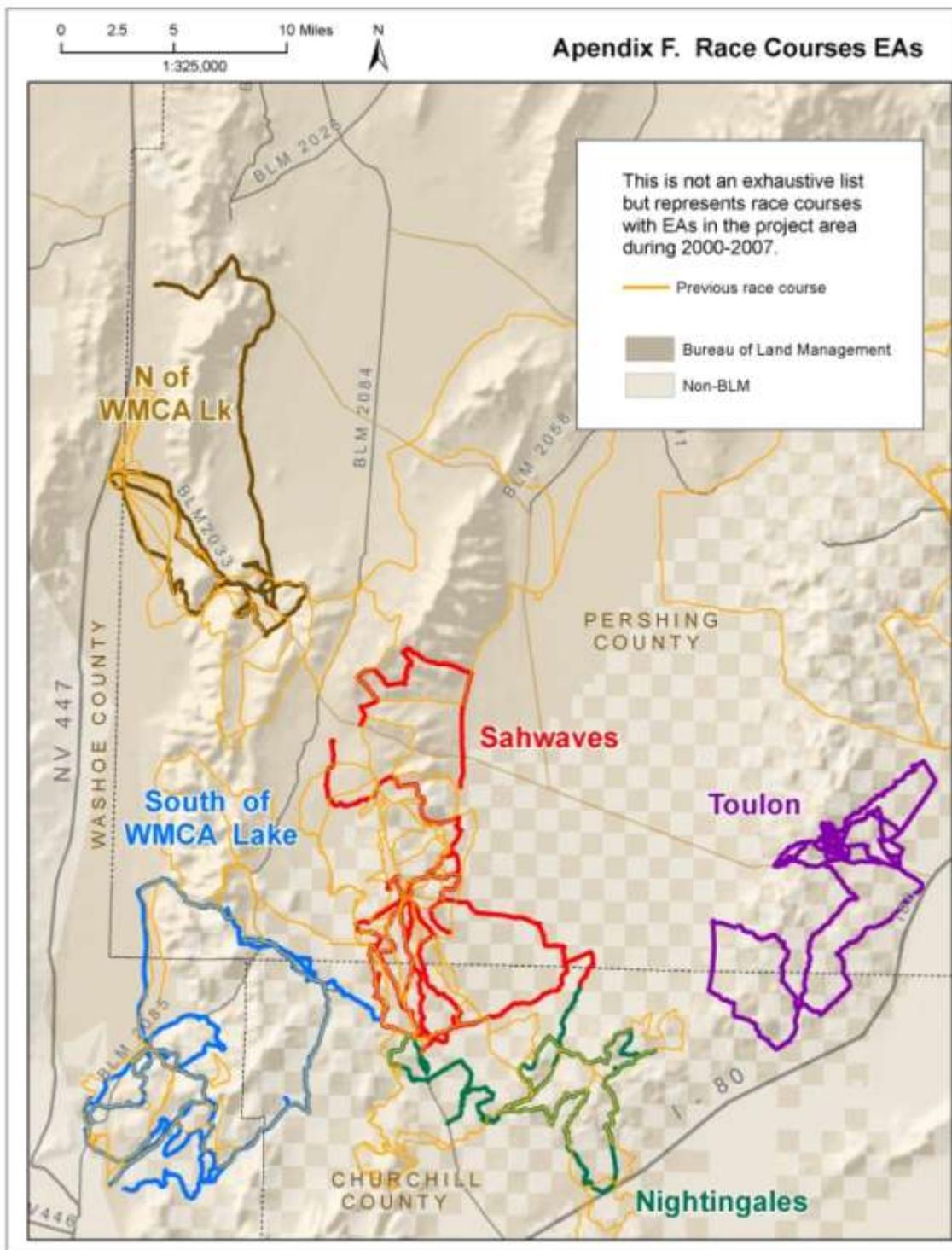
Let's Race!



GeoPDF is a tool for commissioning and planning race route locations clearly and efficiently via an interactive map.

F. APPROVED COURSES IN WINNEMUCCA DISTRICT

Compare project data with previously approved race routes to view additional route inventories that need to be completed by motorcycle.



G. TYPICAL MRANN RACING SCHEDULE

Motorcycle Racing Association of Northern Nevada (MRANN) hosts a dozen motorcycle races per calendar year. Half of these races are in the Winnemucca BLM district. A typical year's offerings are as such -

Date	Club/Race	Location	BLM Office
Feb 14-15	Trailblazers	Nightingale	Winnemucca
Mar 28-29	Western States	Toulon	Winnemucca
May 2-3	Lassen MC	Doyle, CA	Surprise
Jun 20-21	Virginia City MC	Tri Center	Carson City
Sep 12-13	Mason Valley	Yerington	Carson City
Sep 26-27	Tankslappers	Purgatory	Winnemucca
Oct 11-12	Western States	Toulon (Enduro)	Winnemucca
Oct 17-18	Cheaters	Nightingale/Toulon	Winnemucca
Oct 21-Nov 1	Rimbenders	Moon Rocks	Carson City
Nov 14-15	Western States	Toulon (Hare & Hound)	Winnemucca
Dec 5-6	UTA	Fallon	Carson City

H. SAMPLE MOTORCYCLE RACE FLYER

Event weekends are a family-event filled with riding, camping and camaraderie. Races are held on both days with the Sunday race usually the larger, more competitive course of a 50-mile loop ridden twice by each of the 250 riders.

NIGHTINGALE, NV

12TH ANNUAL TRAIL BLAZERS MUSTANG 22

John Flynn Memorial 100

FEBRUARY 13-14, 2010

SATURDAY FEB 13

Event 1 - PeeWee 6 & Under (1.5 mile)
9am - 30 Minute Race - \$25

Event 2 - PeeWee 7 & Older (1.5 mile)
10am - 30 Minute Race - \$25

Event 3 - Minis (10 Mile)
11am - 1.5 Hour Race - \$35

Event 4 - V Women (10 Mile)
1pm - 1.5 Hour Race - \$35

SUNDAY FEB 14

Big Bike Start at 10am - \$50 Fee
Loop 1 - 55 Mile, Loop 2 - 45 Miles
One Loop to Finish

DIRECTIONS

I-80 East from Reno,
Past Fernley to Nightingale Exit
Left Under Freeway, follow ribbon
10 Miles of Fresh Graded Dirt Road
1 Hour from Fernley

SIGN UP

Saturday - 8am - 5pm
Sunday - 7am - 9:30am

RIDERS MEETING

15 Minutes before each race in the pits
ALL RIDERS MUST ATTEND

INFO

SPARK ARRESTOR REQUIRED
Dead Engine Gas
Alt. Gas Leaves at 9am
Elevation 4200-6500
98db Check
1 Loop Finishers Awarded
No Prerun Bomb Start - WALK IT!
Dead Engine Banner Start

ALL MRANN RULES APPLY

MRANN Card Required
Sign Up Early for MRANN
NO Fireworks, NO Pit Riding
NO Pets in Pit, NO Smoking

PAST WINNERS

2009 Dennis Belingheri
2008 Martin Kite
2007 Cody Wallis
2006 Reece Honea
2005 Jesse Ochoa
2004 Bryce Olsen
2003 Dennis Belingheri
2002 Rob Zimmerman
2000 Shane Esposito

I. NV BLM SPECIAL STIPULATIONS FOR SRPS

These are the Special Stipulations for SRPs common to all Field Offices, Nevada. Each office applies only the stipulations which are relevant to the local office and event.

In addition to items (a), (b), (c), and (d) and the 16 Terms and Conditions on the back of the permit form (8370-1), the following special stipulations are included as part of this permit.

Stipulations specific to individual locations or specific activities may be added in addition to these stipulations at the discretion of the Authorized Officer.

Issuance of Permit

[1-16 on permit application itself..sic]

17. The permittee shall comply with all Federal, State, County and local governmental agencies having jurisdiction, ordinances, regulations, orders, postings, or written requirements applicable to the area or operations covered by the *Special Recreation Permit* (SRP). The permittee must contact and receive concurrence and license, where required, from all other federal, state, county and local governmental agencies having jurisdiction. The permittee shall ensure that all persons operating under the authorization have obtained all required Federal, State, and local licenses or registrations. The permittee shall make every reasonable effort to ensure compliance with these requirements by all agents of the permittee and by all clients or customers under the permittee's supervision.

18. An SRP represents a nonexclusive privilege authorizing special uses of the public lands and related waters and, should circumstances warrant, the permit may be modified by the BLM at any time, including the amount of use. The authorized officer may suspend or terminate an SRP if necessary to protect public resources, health, safety, the environment, or in the event of noncompliance with permit stipulations.

19. No value shall be assigned to or claimed for the permit, or for the occupancy or use of Federal lands or related waters granted thereupon. The permit privileges are not to be considered property on which the permittee shall be entitled to earn or receive any return, income, price or compensation. The use of a permit as collateral is not recognized by the BLM.

20. An SRP only authorizes the use, for the time and in the area, as specifically described therein. Pre-event use of event site or Pre-running of race courses will not be allowed without written permission from the Authorized Officer.

21. Unless expressly stated, the SRP does not create an exclusive right of use of an area by the permittee. The permittee shall not interfere with other valid uses of the Federal land by other users. The United States reserves the right to use any part of the area for any purpose.

22. The permittee may not assign or sublease any portion of the permit authorization or interest therein, directly or indirectly, voluntarily or involuntarily. However, contracting of equipment or services may be approved by the authorized officer in advance, if necessary, to supplement a permittee's operations. Such contracting should not constitute more than half the required equipment or services. If equipment or services (excludes use under permit) are contracted, the permittee shall continue to be responsible for compliance with all stipulations and conditions of the permit.

23. This permit does not give permission to cross over or use any private lands during the event. The permittee will be fully responsible for all trespass on and/or damages to private land which result from the conduct of the event. Permittee shall provide written certification to BLM that contacts with all private landowners have been made to the best of permittee's knowledge. Permittee shall obtain permission to cross private lands in writing prior to the event and provide copies to the Authorized Officer. This however does not apply where the permittee has permission, from the appropriate State or County agency, to use State or County roads and rights-of-way, which

cross private lands.

24. The use of the designated event site or race route on BLM land is permitted, but the right to use county, state or federal roads crossing BLM lands is neither granted, nor implied, by the issuance of this permit.

25. Unless specifically authorized, an SRP does not authorize the permittee to erect, construct, or place any building, structure, or other fixture on the public lands. Any use of the public lands is subject to the condition that upon leaving, the lands must be restored as nearly as possible to preexisting conditions.

26. All advertising and representations made to the public and to the authorized officer must be accurate. Although the addresses and telephone numbers of the BLM may be included in advertising materials, official agency symbols may not be used. The permittee shall not use advertising that attempts to portray or represent the activities as being conducted by the BLM. The permittee may not portray or represent the permit fee as a special Federal users tax. The permittee must furnish the authorized officer with any current brochure and price list.

27. The permittee must present or display a copy of the special recreation permit to a participant, authorized officer's representative, or law enforcement personnel upon request. The authorized officer, or other duly authorized representative of the BLM, may examine any of the records or other documents related to the permit, the permittee or the permittee's operator, employee, or agent for up to 3 years after the expiration of the permit.

28. Payment due to the government shall be either (check one):

recreation use fees or

cost reimbursement

in conformance with existing regulations. If the Special Recreation Permit minimum fee (currently \$80.00) has been charged in advance it will be deducted from the fees due. Cost Reimbursement shall be actual costs to the government for processing the permit and monitoring all pre, actual and post race activities as reflected by charges, including salaries (direct and indirect costs), vehicle mileage, per diem, and administrative costs, made to a special account established to track event processing costs. Estimated fees or costs shall be provided to the applicant prior to permit approval and must be paid in advance.

Safety and Hazard Mitigation

29. The permittee must assume responsibility for inspecting the permitted area, and any surrounding areas in which the event participants or spectators might reasonably be expected to enter, for any existing or new hazardous conditions, e.g., land slides, avalanches, rocks, changing water or weather conditions, falling limbs or trees, submerged objects, hazardous wildlife, abandoned mine shafts or other hazards that present risks for which the permittee assumes responsibility. Identified hazards shall be marked and, if necessary, barriers erected to prevent entry.

30. The permittee will be responsible for public safety in the event area. The permittee is required to post warning signs, at all known mine shafts and other hazardous areas which occur within 100 feet of the race course or pit/spectator area and will verbally inform race participants of all hazards at the pre-race meeting. The permittee shall prepare a written operations plan for BLM review and approval detailing permittee's plans for providing emergency services including aid to injured participants, evacuation of injured participants and the types and location of rescue equipment to be provided. This plan shall comply with stipulation # 32 and shall ensure that emergency aid personnel can access the scene of any accident or injury, at any location within the approved event area or on the course route, within 30 minutes of notification of an incident to evaluate the situation and begin to render aid.

31. The permittee is responsible for clean-up and assumes liability for any and all releases of hazardous substances and or oil disposed on public land as defined in the National Oil and Hazardous Substances Contingency Plan (40 CFR 300). Permittee will immediately notify the BLM Authorized Officer of any and all releases of hazardous substances and or oil (more than one quart) on public land. Permittee shall advise participants that every effort must be made to avoid soil contamination while fueling or making repairs to vehicles. This includes putting a tarp on the ground prior to making repairs at Pit or remote, on-course locations.

32. FUEL & FLUIDS MANAGEMENT - The following stipulations are required -
- a. ALL VEHICLES - A method of controlling and capturing fuel spilled during fueling must be placed under all dump cans and under each vehicle during fueling operations. Commercially available absorbent products are available but a piece of scrap carpet is acceptable as long as the carpet absorbs the fuels and doesn't simply allow the fuels to run off or drain through.
 - b. ALL PITS WITH 50 OR MORE GALLONS OF FUEL - All pits that have 50 or more gallons of fuel available, whether in drums or dump cans, must provide for fuel containment. At a minimum this requires - 1) an impermeable membrane with raised edges capable of containing all fuels on site should the containment vessel fail and 2) absorbent materials (commercially produced spill pads, diapers) available to soak up spilled fuels. This does not apply to fuels located within fuel trucks or fuel drums not in use stored in trucks or trailers.
 - c. FLUIDS (oil, transmission, etc.) - During vehicle maintenance and repairs all fluids must be contained in spill proof containers. Drop cloths and absorbent pads shall be used under vehicles when changing fluids or repairing engines and transmissions where fluids may be released.
Known product suppliers that could be contacted for information (no requirement to use these companies, information only):
Fuel containment New Pig Corporation 1-800-468-4647
Product suppliers Lab Safety Supply 1-800-356-0783
34. The permittee shall complete the post-event portion of the permit and return it to the Field Office issuing the permit within 15 calendar days of the completion of the event. In addition, the permittee will immediately notify the Field Manager, or his Authorized Officer of any serious injuries or fatalities, which occur in connection with the event. A written incident report will be submitted with the completed post-event portion of the permit. The *Authorized Officer* will provide permittee BLM's incident report form (DI-134) which details all necessary information to be furnished for any serious injuries or accidents.
35. Recreation Use Permit First Aid Stipulations
- a. For NON-MOTORIZED, NON-COMPETITIVE events with a small use area and attendance Permittee shall insure that first aid services provided at this event have the capability to insure that any accident victim may be located, treated, and evacuated as needed.
 - b. For NON-MOTORIZED COMPETITIONS under 150 participants, and MOTORIZED NONCOMPETITIVE events, (Dual Sport Ride & Drives, Mountain bikes, Horse events, etc.):
 - Permittee shall insure the provision of first aid services capable of locating, rendering aid to, and evacuating any accident victim. First aid services shall include a person currently certified as an Emergency Medical Technician Basic (or higher) equipped with sufficient supplies for emergencies, including locally approved equipment for the immobilization of the cervical spine. A dedicated and reliable communication system shall be provided sufficient to provide immediate contact for the first aid provider (EMT) to local emergency dispatch centers.
 - c. For NON-MOTORIZED events with over 150 participants, and OPEN CANOPY COMPETITIVE MOTORIZED events (motorcycle and ATV races)
 - Permittee shall insure the provision of first aid services capable of locating, rendering aid to, and evacuating any accident victim. First aid service shall include an ambulance unit, which is dedicated to the event and has no public call response responsibility, and is permitted by the local authority having jurisdiction. (i.e. Clark County Health Dist. inside Clark County, or Nev. State EMS outside Clark County.) (Use of a public entity is permitted where no suitable private services capable of being "event dedicated" are available or located within 100 miles of the main event site.) This unit shall only be acceptable if staffed and equipped to the local standards as prescribed by the authority having jurisdiction. A dedicated and reliable means for the first aid provider to immediately contact emergency dispatch centers shall be required.
 - d. For COMPETITIVE MOTORIZED events involving enclosed canopy motor vehicles (Truck and buggy races, movie stunts).
 - Permittee shall insure the provision of first aid services capable of locating, rendering aid to, and evacuating any accident victim. First aid service shall include an ambulance unit, which is dedicated to the event and has no public call response responsibility, and is permitted by the local authority having jurisdiction. (i.e. Clark County Health Dist. inside Clark County, or Nev. State EMS outside Clark County.)

(Use of a public entity is permitted where no suitable private services capable of being “event dedicated” are available or located within 100 miles of the main event site.) This unit shall only be acceptable if staffed and equipped to the local standards as prescribed by the authority having jurisdiction. A means of suppression of a fire in the incipient stage, and for the extrication of victims from within a motor vehicle must be provided, and remain dedicated to the event. This includes the provision of a hydraulically operated gas or electric powered tool system for the cutting and spreading operations related to victim extrication from vehicles. A dedicated and reliable means for the first aid provider to immediately contact emergency dispatch centers shall be required

e. For LONG DISTANCE COMPETITIONS, where the provision of a single dedicated system would not be possible:

Permittee shall insure the provision of first aid services capable of locating, rendering aid to, and evacuating any accident victim. First aid service shall include a person currently certified as an Emergency Medical Technician Basic or higher equipped with sufficient supplies for emergencies, including locally approved equipment for the immobilization of the cervical spine. A reliable means for the first aid provider to contact emergency dispatch centers is required. The permittee shall provide to the BLM and its representatives, upon request, a plan for the provision of first aid and rescue services, including locations of any event first aid persons, locations and contacts of any local area EMS units available to the event, and a means for reporting of accidents to event officials and first aid personnel. The permittee or representative shall provide verification that local emergency services are aware of the event, and potential impact in local areas.

Environmental Stipulations

The permittee and all persons associated with the event must comply with all Terms and Conditions of the current Biological Opinion.

36. The permittee shall do everything possible to insure that event participants and spectators do not harass or collect wildlife, plants, livestock or archaeological features or artifacts. The event will avoid stock watering tanks, springs, wells, wildlife improvements, corrals, etc., by no less than one-quarter mile unless otherwise approved by the BLM authorizing officer. The event may not utilize, other than on designated roads passing through, for any activities, any burned area(s) which is/are recovering from the impacts of wildfire.

37. Permittee shall monitor the race events to prevent damage from course cutting and participants traveling off course. The permittee shall establish racecourse checkpoints to prevent short coursing. Any participant caught short coursing or passing in no passing areas will be disqualified by race officials. The permittee will be responsible for keeping contestants on the designated route/course. Participants who violate any of the mitigation measures or stipulations shall be disqualified from the race. Additionally, any support personnel or spectators found in violation of the stipulations, associated with a participant shall result in the disqualification of that participant.

38. The event shall be confined entirely to a clearly defined and plainly marked area/route as shown on the authorized use area maps. Racecourses shall consist of existing roads, washes, old courses and trails. For lineal events, passing shall be limited to the disturbed areas of these roads, washes, old courses and trails. Passing is not permitted in vegetated areas adjacent to the course. The maximum allowable width of courses shall be no greater than the existing disturbance (road, old course or trails).

39. The permittee will be responsible for the prompt repair of any event-related damages to utilities and related improvements to a condition which is at least as good as the condition just prior to the race within 72 hours after the event. If they are not returned to a condition that is satisfactory to the Authorizing Official and the Utility Company, the permittee will be assessed a fine to cover the cost of a contractor to get the work completed.

40. No less than 15 days prior to use (or earlier if required by the Authorized Officer), the requested use area, course route and/or spectator/pit area(s) shall be marked sufficiently to allow BLM personnel to easily determine the location, size and extent of the requested use area. The use area(s), race course(s) and spectator/pit area(s) shall be confined entirely to designated areas as approved by BLM. Spectator area/pit boundaries shall be clearly marked and monitored to the extent necessary to restrict spectators, pit crews and others to the confines of the designated areas. All event staff must stay in areas assigned. Stakes, flagging

materials, equipment, temporary facilities, and all other event-related materials must be removed within 15 days after the event. The permittee will be responsible for marking the use area, racecourse and boundaries of spectator parking and pit areas to the satisfaction of the authorized officer. The permittee will not mark the course by painting rocks or plants or other land features. Leave No Trace and Tread Lightly land use ethics shall be encouraged and practiced by event officials, participants and spectators.

41. Trash, food items and event-related litter shall be promptly contained and removed from the use area immediately upon completion of the event. This will help reduce the attractiveness of the area to scavengers, ravens and other animals. The permittee shall dispose of refuse resulting from the permitted use, including flagging, signs, waste materials, garbage, and rubbish of all kinds in an approved landfill, and shall guard the purity of streams and other surface waters from contamination.

42. Permittee shall provide a minimum of two (2) restrooms at every start/finish (S/F) area, pit location and/or spectator area on public lands which will be occupied for more than four (4) hours; and additional units if: 1) the S/F, pit, or spectator areas are split by the course route or a physical barrier, two restrooms shall be provided on either side; or if 2) the S/F, pit or spectator area is in excess of 1/4 mile (1,320 feet) in length, restrooms (2) shall be provided at both ends. Restrooms may be provided through rental of units, use of self-contained trailers or motor homes or any other means providing access to the general public in S/F and spectator areas and all crews in pit areas. If restrooms other than rental units are used, adequate signage must be provided to make their presence known. All refuse must be removed from the event area and deposited in an approved treatment facility or landfill. Exceptions to this stipulation include: 1) check points manned by only a few personnel; 2) S/F, pit or spectator areas adjacent to hotel or casino properties offering restroom facilities; 3) events where there are no specified S/F, pit or spectator areas (i.e. Tour and Trail rides); and 4) pit areas for point-to-point events where pit crews stay only long enough to service their vehicle then move on to the next point (S/F and spectator areas for these type events still require restrooms if used in excess of four (4) hours). All restroom facilities must be removed from area within 24 hours after the event.

43. Staking, flagging materials, equipment, temporary facilities, litter and all other event related materials will be completely removed to an approved landfill by the permittee within 15 days following the event. If BLM post-race field checks reveal event related materials that have not been removed, BLM shall notify permittee and allow an additional 7 days for removal. Permittee shall be required to reimburse BLM for costs of subsequent field checks. If event materials remain after the second field check, BLM shall effect their removal by either contract or BLM personnel and bill the permittee for any associated costs.

44. RACE COURSE REHABILITATION GUIDELINES

The Authorized Officer will complete a Post Event/Race Evaluation. Upon inspection, a determination will be made on which portions of the event area or racecourse, if any, need additional rehabilitation. The permittee may be required to grade, drag, disc or seed soil and vegetation areas within the course and pit areas that were significantly changed or impacted as a result of the event. Main access roads used by support or rescue vehicles where significant road damage occurs must be graded to pre-event status. Site-specific stipulations (attached below) requiring rehabilitation of areas must be accomplished within 15 days following the event unless a shorter time frame is required for public safety. The permittee shall be responsible for all costs associated with rehabilitation required.

45. Post Event rehabilitation guidelines *prior* to BLM inspection:

- a. Where berms, ruts and/or depressions due to soil loss have occurred, smooth the race trail to pre-event soil levels. Use a drag harrow to loosen and spread soils to create a more natural appearance and to maintain trail condition for future use.
- b. Neutralize single track ruts 8" deep or more where soil erosion or water run-off is likely.
- c. Level berms created by hard turns on commonly used roads and trails.
- d. Repair any damages to fences, posts, gates or range improvements that occurred as a result of the race. Soil ruts that develop at gate locations must be leveled to prevent livestock from getting under the gate/fence. Loose wire must be tightened to prevent livestock entanglement. Leave gates open or closed according to condition found at race time.
- e. If mechanized equipment is required to make trail repairs, use must be coordinated with BLM. Extra caution must be taken when making repairs near historic ruins, rock walls, tailings piles, and historic

debris.

Tool Options:

1. Steel, Toothed Drag: use ATV's or 4X4:
2. Tractor Rental:
 - a. Road grader: narrow width preferred
 - b. Rubber tired 4-wheel drive front-end loader or rear blade 4'-5' wide max.
 - c. Box Scraper with rippers - PTO attachment
 - d. Rototiller - PTO attachment
- 3) Hand tools:
 - a. Pulaski
 - b. Shovel
 - c. McLeod
 - d. Multi-tool

46. Fire Precautions: The permittee or any participant may be held accountable for suppression of a wildland fire determined to be directly caused by those associated with the event.

- a. An escaped fire or an observed wildland fire ignition must be reported immediately by calling 911 or notifying emergency response personnel.

Las Vegas Interagency dispatch: (702) 515-5300 Elko Dispatch: (775) 753-0310

Ely Dispatch: (775) 289-1925-1800

Caliente Field Station: (775) 726-8146/8100

Battle Mt. Dispatch: (775) call Elko Winnemucca Dispatch: (775)

Minden Sierra Front Dispatch (Reno/Carson City): (775) 883-5995

- b. Spark arresters and mufflers are required on all vehicles normally equipped with them. Race status does not exempt any vehicle. Each vehicle shall carry a fire extinguisher.

- c. Use of incendiaries, fireworks, or road flares are prohibited due to high wildland fire potential.

- d. Drivers and chase vehicles shall avoid parking on vegetated lands off the side of roads. If they must, drivers should check frequently for smoldering grass or brush, which can become lodged up in the undercarriage or on the exhaust system.

- e. The permittee shall be aware of temporary campfire restrictions on public lands prior to the event and make them known. If campfire restrictions are in effect, cooking may be done on gas or propane stoves.

Barbecues must be closely attended; all coals must be put dead out.

- f. Campfire / no burning, no welding, no smoking closures may be in place on public lands at event time.

Check with local offices prior to the event for up-to-date information.

- g. Campfires may not be ignited if weather conditions are hot, dry and windy.

- h. No cans, bottles, aluminum or plastic should be burned in a campfire. The campfire and campsite must be clean of garbage, unburnt material, and litter prior to abandonment.

- i. A burning campfire shall not be left unattended at any time. A bucket of water and a shovel must be close at hand when a campfire is burning. The campfire must be put dead out.

- j. All unburnt debris must be removed and disposed of properly.

Air Quality Management

47. Any portion of the event occurring within the Non-Attainment boundary for the Las Vegas Valley must obtain a Dust Mitigation Plan from Clark County Air Quality Management. The plan must be submitted to the BLM no later than 60 days before the event for review. Failure to meet any of the required Dust Mitigation Plan Stipulations will result in immediate action against the permittee not limited to canceling the race, denial of future events, and/or fines by the BLM and/or Clark County.

Non-compliance with any above permit stipulations will be grounds for denial of future permits, and/or race cancellation.

48. Performance evaluation, violations, and penalties:

Performance will be based upon:

1. Stipulation and Operating Plan Compliance;
2. Protection of Resource Values; and

3. Quality and safety of services provided to the public.

Performance levels are:

A= Acceptable: Permittee is in compliance with permit stipulations; has taken prompt steps to rectify any performance issues and complaints; does not repeatedly violate conditions, or show a disregard for stipulations.

P= Probationary: Where there have been repeated violations or a disregard for permit stipulations.

U= Unacceptable: Permittee willfully and/or repeatedly violated permit conditions to provide substandard service to the public. Conduct is lacking in reasonableness or responsibility to the point that it becomes reckless or negligent.

Response to Violations and Penalties:

A= Complaints/issues may be discussed over the phone or in writing. When due dates or completion dates are established, the permittee will be afforded a 15-day grace period, unless otherwise specified.

P= A Notice of Noncompliance (Notice) will be issued by the Authorized Officer specifying in what respects the permittee has failed to comply, the terms of the probationary status, and the consequences of further noncompliance.

U= Permit privileges would be revoked for one to three years. The permittee would be allowed the opportunity to appeal the decision under Title 43 CFR, Part 4.

Critical Standards - a breach of critical standards can lead directly to administrative penalties, suspension or revocation of a permit. Critical standards are stipulations and requirements necessary for the health and welfare of

the public and protection of resources. The permit shall be suspended or revoked if required State or local licenses

pertaining to public health and safety are revoked. Violation of mandatory Federal or State safety requirements will

result in probationary status or loss of permit privileges.

The conviction of a violation of any Federal or State law or regulation pertaining to the conservation or protection of natural resources, the environment, endangered species or antiquities that is related to permit operations will result in probationary status or loss of permit privileges.

I declare I have read and understand all of the stipulations associated with this Special Recreation Permit. I acknowledge that as signee of the permit and these stipulations that I am fully responsible for all of the mitigative measures and compliance with said permit stipulations and that non-compliance with any above permit stipulations will be grounds for denial of future permits, and/or race cancellation.

Applicant's Name (Print) Signature Date

AUTHORIZED OFFICER (PRINT) SIGNATURE DATE

PART SIX: TEAM MEMBERS

Suzannah Johnson, CPESC, CISEC

As a **storm water, land restoration and environmental professional**, Suzy has managed **multi-disciplinary environmental compliance** for private and public entities at every level and discipline of federal and local governmental regulation in Northern California and Nevada. She currently specializes in grant writing, data gathering and management, land and waterway restoration and conservation, and project management. As a **MRANN rider**, she has worked in **course marking, design, permitting and environmental assessment** as well as facilitated **event management** solutions with multiple agencies. Experienced in **soil and water management, regulatory enforcement resolution and environmental permitting**, Suzy holds international certifications in **storm water management and erosion control** as well as a Bachelor's degree from the University of Oregon.

Jeff Henning

Jeff is an Expert and 30-year veteran of **MRANN racing, riding and regulation**. To say that he brings a wealth of experience in **trail mapping, rating and course design** to bear in OHV management is an understatement. A nationally ranked rider on the West Coast from 1976 -84, he now brings a formidable set of skills in his service as a national and regional race umpire and referee under AMA, MRANN and District 36 regulations. Jeff has worked with the USFS and BLM in California and Nevada for three decades in the pursuit of his sport. His experience in **event and safety management, course design, mapping, permitting and rehabilitation** is unparalleled. Jeff holds a Bachelor of Science in MIS from Wichita State.

Additional field staff - Brandon Henning and Robert Underwood.

Special Thanks to -

Partner Great Basin Institute

Joey Carmosino for his insights and support.

Report submitted: MARCH 26, 2010
Joey Carmosino, Outdoor Recreation Planner
Vito_Carmosino@nv.blm.gov
Bureau of Land Management
5100 E. Winnemucca Boulevard
Winnemucca, Nevada 89445
775-623-1500



ABOUT THE AUTHOR

Laura M. Levy

During her 6 years as **GIS Specialist** for BLM Winnemucca, projects included leading teams for the **2005-07 route inventories**, monitoring permit stipulations and daily population figures at the annual Burning Man event, and providing Trimble-certified, GPS-to-GIS training to resource specialists nationwide. She is the founder of Integrated Mapping Strategies, a GPS/GIS consulting business emphasizing **geographic fundamentals, hands-on training, ongoing support and project work**. The Winnemucca-based company empowers clients by **integrating strategic thinking and geospatial tools to provide documented, defensible data** as the basis for **informed management decisions** and **weaving spatial tales** such as this report. For comments or questions, please feel free to contact **Laura@Spatial-Ed.com**.

An electronic copy of this report is available at
www.Spatial-Ed.com