

**COUNTY OF INYO**  
**REPORT TO LEGISLATURE**



Report submitted pursuant to Vehicle Code § 38026.1(f)

January 1, 2022

**AMENDED MARCH 18, 2022**

**County of Inyo**  
**Public Works Department**  
**P.O. Drawer Q, 168 N. Edwards St.**  
**Independence, California 93526**

# Contents

1.	INTRODUCTION .....	1
2.	PROJECT SETTING .....	1
3.	ROUTE DESCRIPTIONS .....	1
4.	PUBLICCOMMENTS .....	4
5.	IMPACTS TO NATURAL AND CULTURAL RESOURCES, POLLUTION, TRAFFIC & NOISE .....	5
	Exhibit A: Maps of Approved Combined Use Routes .....	i
	Exhibit B: Assembly Bill 628 .....	iv
	Exhibit C: Public Comments .....	viii
	Exhibit F: Agency Comments .....	xvi
6.	AMENDMENT NO. 1 Agency Comments .....	xvi
7.	AMENDMENT NO. 2 A Citizens' Full Report "Off-Highway Vehicle Impacts in Inyo County, CA" .....	xviii

**COMBINED USE ROUTES  
DESIGNATED PER ASSEMBLY BILL 628**

Vehicle Code section 38026.1(f) requires that no later than January 1, 2022:

“ [t]he County of Inyo, in consultation with the Department of Fish and Wildlife and the Great Basin Unified Air Pollution Control District, shall prepare and submit a report to the Legislature on the operation and impacts of the Adventure Trail System combined use highways designated pursuant to this section, and the portions of any adjoining trails in close proximity to those highways, including impacts to neighboring lands affected by the system, if any. The report shall include the latest available information, including but not limited to impacts on cultural resources and archaeological sites, streambed modifications and water quality impacts, impacts on protections for wildlife and aquatic habitat, native plants, and wildlife, traffic, particulate pollution, and noise.

**1. INTRODUCTION**

AB 628, creating Vehicle Code section 38026.1, was passed by the Legislature and signed into Law in 2011 and then extended via SB 1345 in 2016. The bills authorized Inyo County to establish a pilot project and designate specified combined-use highways to link existing off-highway motor vehicle trails and trailheads on federal Bureau of Land Management or United States Forest Service lands, and to link off-highway motor vehicle recreational-use areas with necessary service and lodging facilities, in order to provide a unified linkage of trail systems for off-highway motor vehicles. The pilot project was scheduled to sunset in 2020 but was extended 5 years by the Inyo County Board of Supervisors on February 5, 2019.

**2. PROJECT SETTING**

All of the proposed and designated combined-use routes are on roads which are part of the Inyo County Maintained Mileage System. All of the proposed and designated combined-use routes rotate around communities in the Owens Valley and into adjacent mountain ranges. The land ownership pattern in the Owens Valley is very distinctive. The communities are primarily private property though land owned by the Los Angeles Department of Water and Power is interspersed with and adjacent to the communities. Surrounding the communities and in the lower part of the Valley are lands primarily owned by the City of Los Angeles Department of Water and Power. On the alluvial fans are lands owned by the Bureau of Land Management (BLM). BLM lands form a type of “bathtub ring” around the valley. The two exceptions are the southern Inyo Mountains and the Volcanic Tableland north of Bishop. Above the BLM land are properties owned and managed by the Inyo National Forest. A significant portion of Inyo County to the east of the Owens Valley is part of Death Valley National Park. ATVs and non-street legal vehicles are not allowed in any part of Death Valley National Park.

**3. ROUTE DESCRIPTIONS**

The tables below identify each of the designated combined use routes, describes the start and end points, states the portion of Government Code the route was designated under, states the opening date

when non-street legal vehicles were able to start using the route, and provides a description of the combined-use route.

<b>Bishop Area Route</b>		
#	<b>Start &amp; End Point</b>	<b>Opening Date</b>
5	Brown Town Store & Campground to Poleta OHV Open area	September 5, 2017
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Bishop No. 5 combined use segment provides a link between Browns Town Store &amp; Campground and the Poleta Canyon OHV Open Area. The combined-use route starts by traveling west on Schober Lane, turns left or south onto Sunland Drive, turns east onto Warm Springs Road where it crosses US 395, turns left or north onto Eastside Road, and then turns right or east onto Redding Canyon Road, and then turns left into the Bureau of Land Management managed Poleta Canyon OHV Open Area. The total length of this segment is 9.7 miles.</p> <p>The segment starts at the Browns Town Campground and travels west then south then east and finally north across Open Space land zoned for a 40-acre minimum parcel size and land designated State and Federal Lands . This route traverses roads that have a speed limit of 55 mph for street-legal vehicles and 35 mph for non-street legal vehicles in compliance with Assembly Bill 628 / SB 1356.</p>		

<b>Bishop Area Route</b>		
#	<b>Start &amp; End Point</b>	<b>Opening Date</b>
6	Pleasant Valley Campground to an OHV trail segment on BLM land near Horton Creek Campground	September 5, 2017
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Bishop No. 6 combined use segment provides a link between an OHV Recreation Area and a dirt road or OHV trail segment on BLM land. The combined-use route starts by traveling south on Pleasant Valley Dam Road and crossing US 395 before turning right or west on South Round Valley Road and then turning left or south onto Horton Creek Road before turning left or east on a dirt road or BLM trail segment. The total length of this segment is 6.7miles.</p> <p>The entire segment travels across Open Space land zoned for a 40-acre minimum parcel size and land designated State and Federal Lands and Natural Resources. This route traverses roads that have a speed limit of 55 mph for street-legal vehicles and 35 mph for non-street legal vehicles in compliance with Assembly Bill 628 / SB 1356.</p>		

<b>Bishop Area Route</b>		
#	<b>Start &amp; End Point</b>	<b>Opening Date</b>
7	Pleasant Valley Campground to BLM OHV trail segment at the end of Tungsten City Road	September 5, 2017
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Bishop No. 7 combined use segment provides a link between an OHV Recreation Area and a dirt road or OHV trail segment on BLM land. The combined-use route starts by traveling south on Pleasant Valley Dam Road and crossing US 395 before turning left or east on Sawmill Road and then turning right or south onto Ed Powers Road before turning west on Tungsten City Road until it end where it meets a dirt road or BLM trail segment. The total length of this segment is 6.4 miles.</p>		

The route starts adjacent to an area zoned and designated Industrial and the remainder of the route travels across Open Space land zoned for a 40-acre minimum parcel size and land designated State and Federal Lands and Natural Resources . This route traverses roads that have a speed limit of 55 mph for street-legal vehicles and 35 mph for non-street legal vehicles in compliance with Assembly Bill 628 / SB 1356.

<b>Bishop Area Route</b>		
#	<b>Start &amp; End Point</b>	<b>Opening Date</b>
9	Brown's Town Store & Campground to an OHV trail segment off of Bir Road on BLM land	September 5, 2017
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Bishop No. 9 combined use segment provides a link between Brown's Town Store &amp; Campground and a BLM trail segment off of Bir Rd. Bishop No.9 combined use segment provides a link between Browns Town Store &amp; Campground and an OHV trail segment on BLM land off of Bir Road. The combined-use route starts by traveling west on Schober Lane and crossing Sunland Drive before turning left or south on Barlow Lane and then turning right or southwest at an intersection onto Bir Road before accessing a dirt road or BLM trail segment to the left off of Bir Road. The total length of this segment is 3.8 miles.</p> <p>The route starts adjacent to an area zoned and designated Industrial and the remainder of the route travels across Open Space land zoned for a 40-acre minimum parcel size and land designated State and Federal Lands and Natural Resources . This route traverses roads that have a speed limit of 55 mph for street-legal vehicles and 35 mph for non-street legal vehicles in compliance with Assembly Bill 628 / SB 1356.</p>		

<b>Bishop Area Route</b>		
#	<b>Start &amp; End Point</b>	<b>Opening Date</b>
15	Britt's Diesel to Poleta OHV Open area	August 5, 2015
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Bishop No. 15 combined use segment provides a link between Britt's Diesel in Laws and the Poleta Canyon OHV Open Area. The combined-use route starts by traveling south on Joe Smith Road, turns left or east onto Silver Canyon Road, turns south onto the Laws – Poleta Road, turns left or east onto Poleta Road, angles right onto Eastside Road, turns left onto Redding Canyon Road, and then turns left into the Bureau of Land Management managed Poleta Canyon OHV Open Area. The total length of this segment is 6.0 miles.</p> <p>The route starts adjacent to an area zoned and designated Industrial and the remainder of the route travels across Open Space land zoned for a 40-acre minimum parcel size and land designated State and Federal Lands and Natural Resources . This route traverses lightly traveled roads that have a speed limit of 55 mph for street-legal vehicles and 35 mph for non-street legal vehicles in compliance with Assembly Bill 628.</p>		

<b>Independence Area Route</b>		
#	<b>Start &amp; End Point</b>	<b>Opening Date</b>
1	Independence Inn to Betty Jumbo Mine Road turn	July 14, 2015
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Independence No. 1 combined use segment provides a link between the Independence Inn in Independence to Inyo National Forest Road number 36E401 (Betty Jumbo Mine Road) located in the Inyo Mountains east of the community of Independence. The combined-use segment starts at the Independence Inn.</p>		

The segment continues eastward on Park Street to its intersection with Clay Street. At Clay Street, the segment turns south to its intersection with Mazourka Canyon Road. The segment then turns eastward and follows Mazourka Canyon Road to its intersection with road number 36E401. Road number 36E401 starts on Bureau of Land Management land and is open to use by off-highway vehicles (OHVs) and is considered to be an OHV recreational facility. The total length of this segment is 8.5 miles.

The route starts at a motel part of the Central Business District and then travels past a mix of residentially zoned properties, industrially zoned properties and Public zoned properties before heading out toward the edge of town past Rural Residential parcels. Off of the map below to the east is one more Rural Residential parcel and then the remainder of property is zoned Open Space and designated Natural Resources or State and Federal Lands.

Lone Pine Area Route		
#	Start & End Point	Opening Date
1	Boulder Creek RV Park to N. Fork Lubken Ck	July 24, 2015
Route designated provides a link between a necessary service facility and an OHV trail segment		
<p><b>Route Description:</b> Lone Pine No. 1 combined use segment provides a link between the Boulder Creek RV Park in Lone Pine to a dirt road on Bureau of Land Management land that goes to the mouth of a canyon on the North Fork of Lubken Creek Canyon. The combined-use segment starts at the Boulder Creek RV Park and travels west across US Highway 395 and up Lubken Canyon Road to its intersection with Horseshoe Meadows Road. The segment turns south on Horseshoe Meadows Road to the end of the combined-use segment on a BLM road. The BLM road to the North Fork of Lubken Creek is open to use by off-highway vehicles (OHVs) and is considered to be an OHV recreational facility. The total length of this segment is 4.3 miles.</p> <p>The route starts at an RV Park and Store that is zoned Multiple Residential. The route crosses US 395 and passes to the south of the Foothill Trailer Park before continuing up Lubken Canyon Road on land zoned Open Space. The route continues on Open Space land to its end where it is close to land zoned Rural Residential.</p> <p>The route crosses US 395 and has signage specified by Caltrans.</p>		

#### 4. PUBLIC COMMENTS

The Inyo County Public Works Department maintains a website that is a central hub for collecting public and public agency comments and complaints on the combined-use routes, which includes all correspondence from the public and public agencies regarding all combined use segments. The following website address serves as the portal for accepting comments:  
<http://www.inyoltc.org/ab628impl.html>

The County has received 105 comments via the inyoltc.org website since January 1, 2019 (Appendix XX). The County categorized the comments into the following categories: Complaint Adventure Trails Related; Complaint Non-Adventure Trails; Complaint Adventure Trails & Non Adventure Trails; Support for Adventure Trails; and Duplicate or Follow Up emails. These comments are included in Exhibit E.

Of the 105 comments, 20 were categorized as duplicate or follow up emails.

Of the remaining 85, 3 complaints were submitted that were directly related to impacts occurring on a combined-use route. The OHV use cited in the complaints was in the vicinity of the Segment #15,

connecting Laws and the Poleta OHV area. The nature of the complaints related to excessive speed, driving in the shoulder at excessive speed causing dust pollution, driving on the wrong side of the road, and OHV driver's apparent lack of awareness of the vehicular traffic behind him.

Two comments were categorized as complaints about non-combined use, but potentially related to a combined-use route. The illegal OHV use observed by the commenter was not on a combined use trail, however the commenter believed that the OHV drivers were exiting designated combined-use route #9 due to its proximity. Commenter cited a perceived increase in illegal OHV use in the area as a result of the establishment of the combined-use routes.

A single comment cited full support and expressed a desire to expand the combine-use route options to increase access to amenities and services.

The remaining 79 (or 93%) of the comments from the public described illegal OHV use throughout the county. The range of the illegal OHV use cited extends from Horseshoe Meadows Road in southern Inyo County near Lone Pine, to Goodale Rd. near Independence, to the northernmost county roads, such as Pine Creek Road and N. Round Valley Road. However, the vast majority of the complaints focused on county roads around the outskirts of the City of Bishop. West Line St. (Hwy 168 between Manor Market and the Starlight community) is listed 13 times as an area subject to illegal OHV use. Similarly, East Line Street was listed 15 times as conduit for illegal OHV use between the City of Bishop and Poleta OHV area. South Barlow St. was cited 16 times as a pathway for illegal OHV's. Two complaints cited OHV's driving within the downtown sections of the city, including on Warren St., West Line St. in front of City Hall, Fowler St. and West St.

This analysis has revealed that non-combined use roads and streets are frequently used as access-ways to OHV routes, and there is a perceived lack of enforcement. In addition, there is a strong desire among a handful of county residents to increase public awareness of acceptable vs. non-acceptable routes, and for more robust law enforcement in the non-combined use areas.

## **5. IMPACTS TO NATURAL AND CULTURAL RESOURCES, POLLUTION, TRAFFIC & NOISE**

There is no indication that OHV usage of combined use trails has caused impacts to cultural resources, streambeds or to water quality. Staff has received no complaints from the public, local agencies, or landowners regarding impacts to habitat, and native plants and wildlife.

Regarding particulate pollution, one comment was received citing dust pollution because of driving and OHV on the shoulder of a combined use route at excessive speed.

Regarding traffic, the three complaints directly related to combined-use routes cite a lack of awareness of surrounding vehicular traffic and driving on the wrong side of the shared road. No complaints were received regarding noise impacts on the combined use routes.

### **Synopsis**

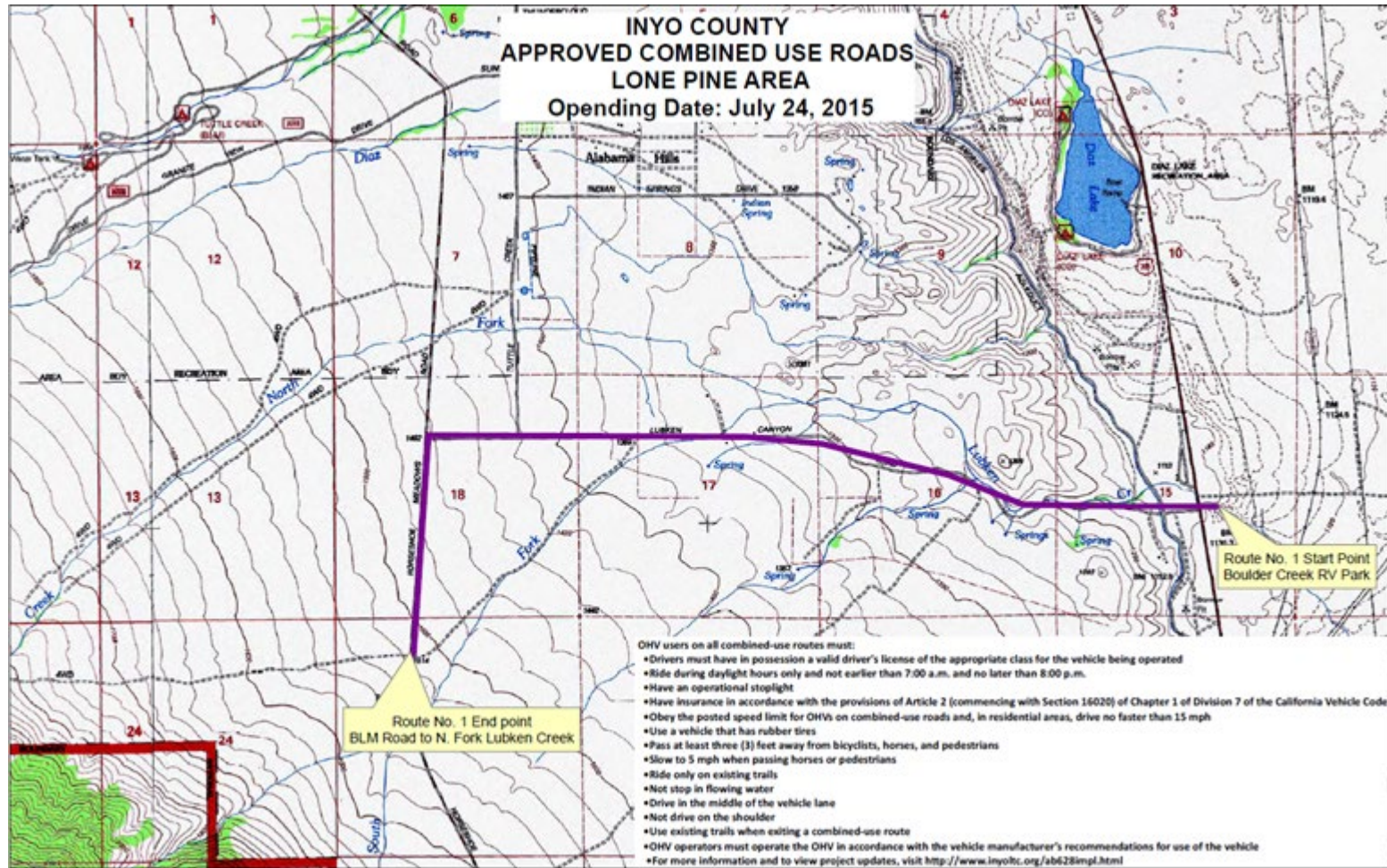
OHV users in the Owens Valley are able to ride routes on existing seldom maintained dirt roads that cross LADWP, USFS, and Bureau of Land Management land. With AB 628, OHV riders have access to 7 combined-use routes that link amenities in Lone Pine, Independence, and the City of Bishop with nearby

established OHV areas via county and city roads. A detailed review of 105 public comments submitted since January 2019 via the portal on the Inyoltc.org website revealed very few complaints about combined use routes related to traffic and dust. Zero comments have been made in regard to impacts to environmental or cultural resources, habitats, wildlife, streambeds, native plants and noise. The Great Basin Unified Air Pollution Control District and \*CDFW provided no concerns or comments on the combined-use routes.

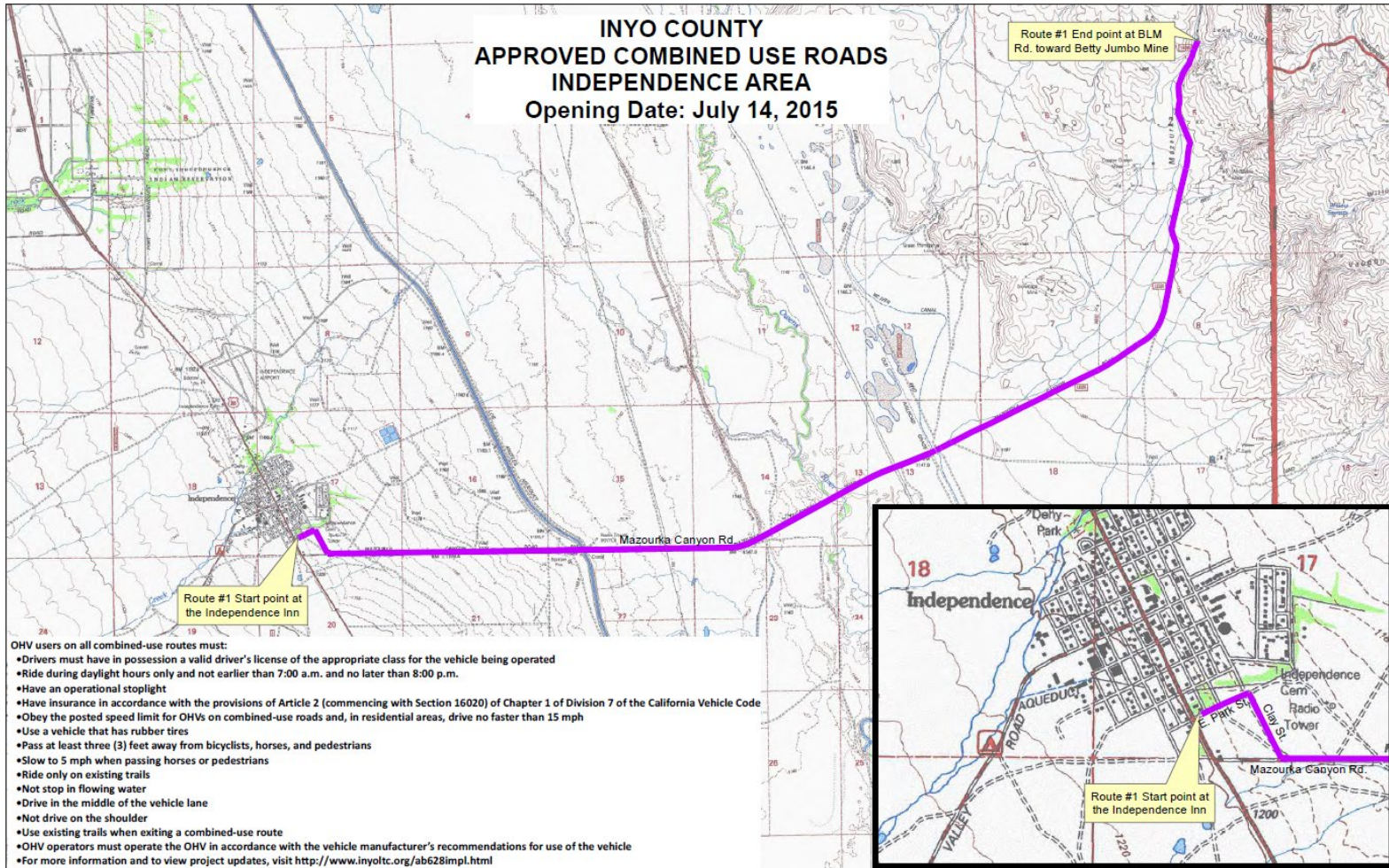


## Exhibit A: Maps of Approved Combined Use Routes

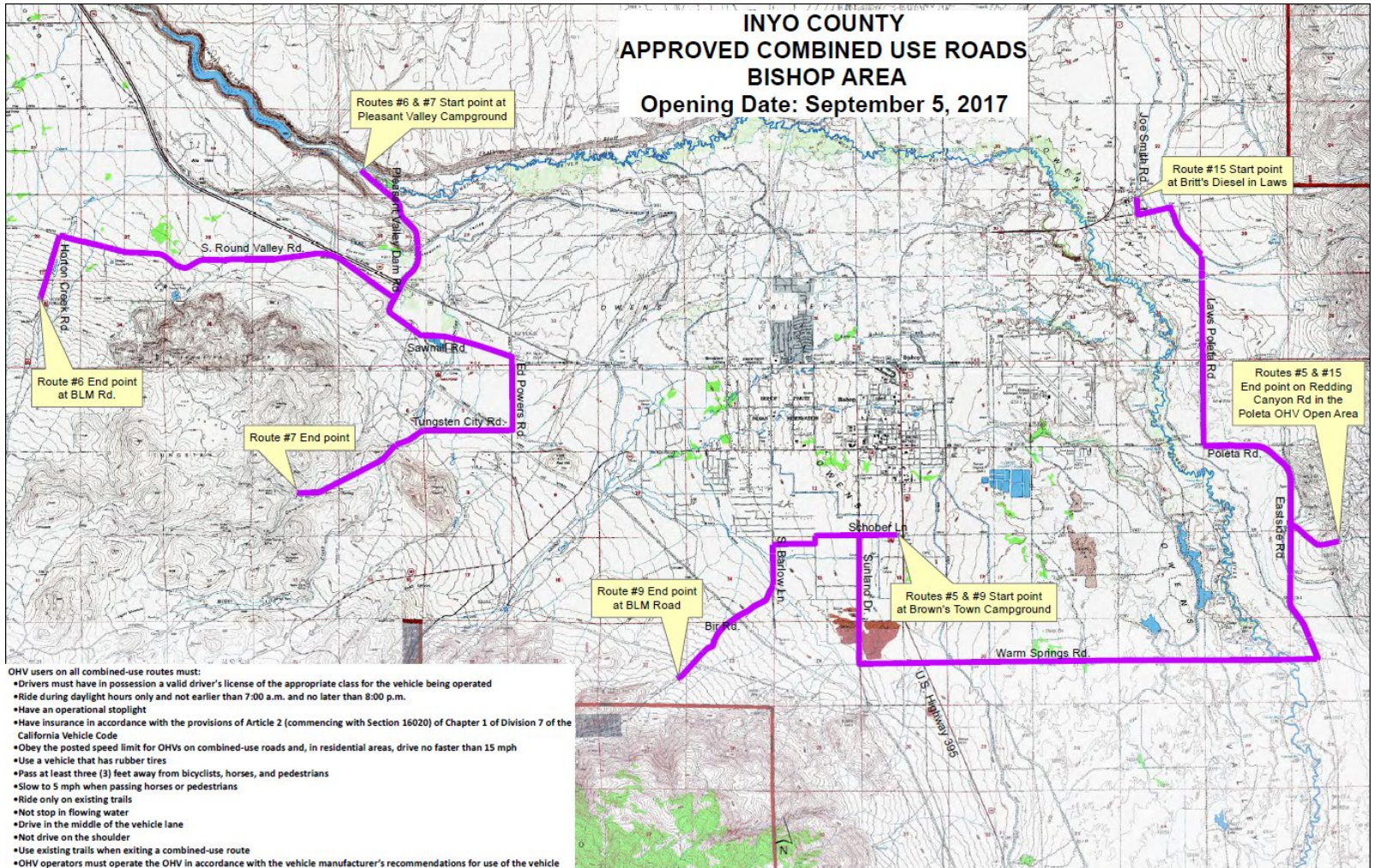
- Lone Pine No. 1



# Independence No. 1



Bishop No. 5, 6, 7, 9, & 15



## Exhibit B: Assembly Bill 628

### Assembly Bill No. 628

#### CHAPTER 532

An act to amend Sections 38026 and 38026.5 of, and to add and repeal Section 38026.1 of, the Vehicle Code, relating to vehicles.

[ Approved by Governor October 07, 2011. Filed with Secretary of State October 07, 2011. ]

#### LEGISLATIVE COUNSEL'S DIGEST

AB 628, Conway. Vehicles: off-highway vehicle recreation: County of Inyo.

Existing law authorizes an off-highway motor vehicle that has been issued a plate or device to be operated or driven upon a highway under certain circumstances. Existing law authorizes various public entities, and the Director of Parks and Recreation, to designate a highway, or portion thereof, for the combined use of regular vehicular traffic and off-highway motor vehicles if certain requirements are met. Existing law prohibits a highway from being designated for this combined use for a distance of more than 3 miles.

This bill would, until January 1, 2017, authorize the County of Inyo to establish a pilot project that would exempt from this prohibition specified combined-use highways, except as provided, in the unincorporated area in the County of Inyo so that the highways can be used to link existing off-highway motor vehicle trails and trailheads on federal Bureau of Land Management or United States Forest Service lands, and to link off-highway motor vehicle recreational-use areas with necessary service and lodging facilities, in order to provide a unified linkage of trail systems for off-highway motor vehicles, among other things, as prescribed.

The bill would authorize the pilot project to include the use of a state highway, subject to the approval of the Department of Transportation, or the crossing of a highway, and would require the County of Inyo to indemnify the state, as specified. The bill would require the County of Inyo, in consultation with the Department of the California Highway Patrol, the Department of Transportation, and the Department of Parks and Recreation, not later than January 1, 2016, to prepare and submit to the Legislature a report evaluating the effectiveness of the pilot project, and containing specified information.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

#### THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

**SECTION 1.** The Legislature finds and declares all of the following:

- (a) Inyo County is a rural county with a population of 17,945 residents.
- (b) Inyo County is comprised of 10,140 square miles.
- (c) Inyo County is the second largest county in the United States in area, yet only 2 percent of this land is inhabited.
- (d) Ninety-two percent of land in Inyo County is federally administered public lands.

(e) Inyo County has outstanding natural diversity, including Mount Whitney in the eastern Sierra, which is the highest peak in the contiguous United States, as well as Death Valley, which is the lowest point in the United States and the largest national park in the contiguous United States.

(f) With six million acres of public land, Inyo County offers numerous opportunities to explore and recreate.

**SEC. 2.** It is the intent of the Legislature in enacting this act and designating combined-use highways on unincorporated county roads in the County of Inyo for more than three miles to link existing roads in the unincorporated portion of the county to existing trails and trailheads on federal Bureau of Land Management or United States Forest Service lands in order to provide a unified system of trails for off-highway motor vehicles. It is further the intent of the Legislature that no General Fund moneys be expended for the pilot project established by this act, and the project will be revenue neutral to the state.

**SEC. 3.** Section 38026 of the Vehicle Code is amended to read:

**38026.** (a) In addition to Section 38025 and after complying with subdivision (c) of this section, if a local authority, an agency of the federal government, or the Director of Parks and Recreation finds that a highway, or a portion of a highway, under the jurisdiction of the authority, agency, or the director, as the case may be, is located in a manner that provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway, the local authority, by resolution or ordinance, agency of the federal government, or the Director of Parks and Recreation, as the case may be, may designate that highway, or a portion of a highway, for combined use and shall prescribe rules and regulations therefor. A highway, or portion of a highway, shall not be so designated for a distance of more than three miles, except as provided in Section 38026.1. A freeway shall not be designated under this section.

(b) The Off-Highway Motor Vehicle Recreation Commission may propose highway segments for consideration by local authorities, an agency of the federal government, or the Director of Parks and Recreation for combined use.

(c) Prior to designating a highway or portion of a highway on the motion of the local authority, an agency of the federal government, or the Director of Parks and Recreation, or as a recommendation of the Off-Highway Motor Vehicle Recreation Commission, a local authority, an agency of the federal government, or the Director of Parks and Recreation shall notify the Commissioner of the California Highway Patrol, and shall not designate any segment pursuant to subdivision (a) which, in the opinion of the commissioner, would create a potential traffic safety hazard.

(d) (1) A designation of a highway, or a portion of a highway, under subdivision (a) shall become effective upon the erection of appropriate signs of a type approved by the Department of Transportation on and along the highway, or portion of the highway.

(2) The cost of the signs shall be reimbursed from the Off-Highway Vehicle Trust Fund, when appropriated by the Legislature, or by expenditure of funds from a grant or cooperative agreement made pursuant to Section 5090.50 of the Public Resources Code.

**SEC. 4.** Section 38026.1 is added to the Vehicle Code, to read:

**38026.1.** (a) Except as provided in subdivision (e), the County of Inyo may establish a pilot project to designate combined-use highways on unincorporated county roads in the county for no more than 10 miles so that the combined-use highways can be used to link existing off-highway motor vehicle trails and trailheads on federal Bureau of Land Management or United States Forest Service lands, and to link off-highway motor vehicle recreational-use areas with necessary service and lodging facilities, in order to provide a unified system of trails for off-highway motor vehicles, preserve traffic safety, improve natural resource protection, reduce off-highway vehicle trespass on private land, and minimize impacts on county residents.

(b) The pilot project shall do all of the following:

(1) Prescribe a procedure for highway, road, or route selection and designation. The procedure shall be approved by a vote of a majority of the Inyo County Board of Supervisors.

(2) Prescribe a procedure for the county to remove a combined-use designation, including a designation that is removed as a result of the conclusion of the pilot program.

(3) In cooperation with the Department of Transportation, establish uniform specifications and symbols for signs, markers, and traffic control devices to control off-highway motor vehicles, including, but not limited to, the following:

(A) Devices to warn of dangerous conditions, obstacles, or hazards.

(B) Designations of the right-of-way for regular vehicular traffic and off-highway motor vehicles.

(C) A description of the nature and destination of the off-highway motor vehicle trail.

(D) Warning signs for pedestrians and motorists of the presence of off-highway motor vehicle traffic.

(4) Require that off-highway motor vehicles subject to the pilot project meet the safety requirements of federal and state law regarding proper drivers' licensing, helmet usage, and the requirements pursuant to Section 38026.5.

(5) Prohibit off-highway motor vehicles from traveling faster than 35 miles per hour on highways designated under this section.

(6) Include an opportunity for public comment at a public hearing held by the county in order to evaluate the pilot project.

(c) The pilot project may include use of a state highway, subject to the approval of the Department of Transportation, or any crossing of a highway designated pursuant to Section 38025.

(d) (1) By selecting and designating a highway for combined use pursuant to this section, the County of Inyo agrees to defend and indemnify the state against any and all claims, including legal defense and liability arising from a claim, for any safety-related losses or injuries arising or resulting from use by off-highway motor vehicles of a highway designated as a combined-use highway by the Inyo County Board of Supervisors pursuant to this section.

(2) This subdivision does not alter the requirements of subdivision (e).

(e) The County of Inyo shall not designate a highway for combined use pursuant to this section unless the Commissioner of the Department of the California Highway Patrol finds that designating the highway for combined use would not create a potential traffic safety hazard.

(f) Not later than January 1, 2016, the County of Inyo, in consultation with the Department of the California Highway Patrol, the Department of Transportation, and the Department of Parks and Recreation, shall prepare and submit to the Legislature a report evaluating the pilot project, and containing both of the following:

(1) A description of the road segments designated to allow combined use for over three miles, as approved or adopted by a majority vote of the members of the Inyo County Board of Supervisors.

(2) An evaluation of the overall safety and effectiveness of the pilot project, including its impact on traffic flows, safety, off-highway vehicle usage on existing trails, incursions into areas not designated for off-highway vehicle usage, and nonmotorized recreation.

(3) A description of the public comments received at a public hearing held by the county in regards to an evaluation of the pilot project.

(g) (1) A report submitted pursuant to subdivision (f) shall be submitted in compliance with Section 9795 of the Government Code.

(2) This section shall remain in effect only until January 1, 2017, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2017, deletes or extends that date.

**SEC. 5.** Section 38026.5 of the Vehicle Code is amended to read:

**38026.5.** (a) In accordance with subdivision (c) of Section 4000, a motor vehicle issued a plate or device pursuant to Section 38160 may be operated or driven on a local highway, or a portion of the local highway, that is designated pursuant to Section 38026 or 38026.1 if the operation is in conformance with this code and the vehicle complies with off-highway vehicle equipment requirements specified in this division.

(b) Notwithstanding subdivision (a), it is unlawful for a person using an off-highway vehicle on a combined-use highway to do any of the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate a vehicle on the highway that does not have an operational stoplight.
- (3) Operate a vehicle on the highway that does not have rubber tires.
- (4) Operate a vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate a vehicle on the highway without complying with Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

**Exhibit C: Public Comments**

<b>Commenter</b>	<b>Comment Category</b>	<b>Date</b>	<b>Text</b>
Frank Stewart	Complaint NonAT	3/24/2019	Reported non combined OHV use N Round Valley Rd, Birchim Ln, Pine Creek Rd
Margaret Marshall	Complaint Non AT	4/28/2019	Reported non combined quad use on corner of Fowler and West Line when a quad came by at about 35 miles an hour (speed limit 25) with no muffler and proceeded east bound in front of the Police Station to turn right on Warren
Matt Weaver	Support for AT	5/9/2019	Expressed desire for more Combined Routes in the Bishop Area.
Denise Waterbury	Complaint Non AT, Dust	7/25/2019	Reported non Combined use -shoulder and high speed OHV use on E Line St. Dust pollution due to shoulder and high speed.
Denise Waterbury	Complaint AT	7/25/2019	Reported Combined use OHV driving at excessive speeds and creating a lot of dust and noise. Segment #5
Denise Waterbury	Complaint Non AT	8/16/2019	Reported non combined OHV use - E. Line St. I was about 2 miles from the east to Line St Canal and there were 3 off road vehicles riding on the pavement in a section that is NOT a portion of the Adventure Trails combined use routes. I called the Inyo Sherrifs dispatch ( which was instructed to do) and they didn't seem to understand that OHVs are not supposed to do that. Sheriff Lutze said that we should always call Inyo Sheriffs office when this occurs.
Sharon Connor	Complaint Non AT	8/17/2019	Reported non combined OHV use on Hwy 168, and E. Line St. Noted difficulty monitoring.
Denise Waterbury	Complaint Non AT	8/20/2019	Reported non combined OHV use - this kid comes riding up on an OHV from the south end of Mummy Ln. I watched him and he turned onto Line Street (Hwy. 168) and proceeded up to Red Hill Road where he turned onto and rode up. This was a kid, probably about 15 years old.
Denise Waterbury	Complaint Non AT	9/6/2019	Reported non combined OHV use -another OHV was going down Mummy Lane toward Line Street. They made a left turn onto Highway 168 and then went up and made a right hand turn onto Red Hill Road. It sure would be nice if Inyo county could put up some signs. This person didn't have a license plate.



Denise Waterbury	Complaint AT	9/21/2019	Reported combined OHV use -I got behind an OHV who was mostly on the wrong side of the road heading east. I was behind them for about 1.5-2 miles. They did not slow down or pull over for me to pass. I give them the benefit of not going over 40mph. They had no rear view mirrors at all and that is probably why they didn't know I was there. Segments #5 & #15
Michael Prather	Complaint Non AT	10/4/2019	Reported Non Combined OHV use on Horseshoe Meadows Rd.
Margaret Marshall	Complaint Non AT	10/4/2019	Reported non combined OHV use Ed Powers and Red Hill. AT not stopping illegal use of County Roads
Frank Stewart	Complaint Non AT	10/11/2019	Reported non combined OHV use N Round Valley Rd, Birchim Ln, Pine Creek Rd
Diana Cunningham	Complaint Non AT	10/13/2019	Reported non combined OHV use Startlight Dr. Also reported No Quads sign knocked over on north side of Buttermilk Rd.
Diana Cunningham	Complaint Non AT	10/13/2019	Reported non combined OHV use Startlight Dr. Also reported No Quads sign knocked over on north side of Buttermilk Rd.
William Mitchel	Complaint AT & Non AT	10/22/2019	Reported non combined dirt bike use on S. Barlow at Sunset - Believes related to Adventure Trails due to close proximity/ connection to AT route #9
Denise Waterbury	Complaint AT	11/1/2019	Reported combined use OHV driving on the shoulder aggressively, almost causing accident. Segment #5
William Mitchel	Complaint AT & Non AT	11/3/2019	Reported non combined dirt bike use on S. Barlow at Sunset - Believes related to Adventure Trails due to close proximity/ connection to AT route #9
Sharon Connor	Complaint Non AT	11/17/2019	Reported non combined OHV use - 2 ATV's turn left off of Reata Road and head west on W. Line St. in the bike lane. We proceeded to Manor Market to pick of groceries and when we came out there were 3 off road vehicles in the parking lot. They had just pulled up and were also going in to shop. There were no trailers, no trucks, they had arrived illegally.
Sharon Connor	Complaint Non AT	11/19/2019	Reported non combined ATV use on W. Line St, & Manor Market.
Margaret Marshall	Complaint Non AT	12/17/2019	Reported non combined use Collins Rd at Owens River
Susan Greenleaf	Complaint Non AT	1/10/2020	Reported non combined OHV use - dirtbike on S Barlow last evening, 1/10/20, at about 5pm. It was right around where Sunset comes in, and I believe it pulled onto S Barlow from one of those eastern side streets

Susan Greenleaf	Complaint Non AT	1/11/2020	Reported non combined dirt bike use on S. Barlow at Sunset
Susan Greenleaf	Complaint Non AT	1/25/2020	Reported non combined dirt bike use Intersection of S Barlow around Sierra Vista/Irene
Sharon Connor	Complaint Non AT	3/29/2020	Reported non combined OHV use - East Line and Hanby dirt bike approaching from other direction, east to west. No license plate. Maybe flag with a number, perhaps had been in a race
Sharon Connor	Complaint Non AT	4/15/2020	Reported non combined OHV use - 2 motorcycles, 1 had license plate the other did not. Driving side by side some of the time, made a right turn on Main St., lots of revving up. Driving west on East Line St. to Main St
Denise Waterbury	Complaint Non AT	4/19/2020	Reported non combined OHV use -ATV with 4 people in it drive west on West Line Street up to Red Hill Road. It then turned up Red Hill Road. a different ATV passed my parked car coming up Mummy Lane from the south, heading north to West Line Street, with 4 people in it. They paused at the stop sign and proceeded to turn left onto West Line Street and drive west up to Red Hill Road, where they turned onto Red Hill Rd and kept going. THESE ROADS ARE NOT COMBINED USE ROUTES!
Margaret Marshall	Complaint Non AT	4/22/2020	Reported non combined use W. Line St and Meadow Ln. no license plates
William Mitchel	Complaint Non AT	4/22/2020	Reported non combined OHV use -One OHV, probably a Polaris RZR, driving west on Sunset Drive. No passengers, just a single driver. About a half hour later it returned. I have seen this vehicle numerous times on Sunset and called the Sheriff's dispatch once which was a waste of time
Margaret Marshall	Complaint Non AT	4/24/2020	Reported non combined dirt bike use on S. Barlow at W. Line
Susan Greenleaf	Complaint Non AT	4/24/2020	Reported non combined OHV use - Along the stretch of Underwood where it goes past all the houses off S Barlow out to the open space at the big bend. 2 dirtbikes going along that whole length of road, past all the houses.
Sharon Connor	Complaint Non AT	4/25/2020	Reported non combined OHV use -East Line St. and we passed a dirt bike heading in the opposite direction. The second was last week, I believe the 15th of April when I was behind 2 motorcycles, one w/license plate and one without.
Dan Connor	Complaint Non AT	4/28/2020	Reported non combined OHV use - corner of Fowler and West Line when a quad came by at about 35 miles an hour (speed limit 25) with no muffler and proceeded east bound in front of the Police Station to turn right on Warren.

Dan Connor	Complaint Non AT	4/28/2020	Reported non combined OHV use - Quad with no muffler speeding (at least 35) east on W. Line ran directly in front of Post Office and City Hall (police station) and turned right (South) on Warren
Susan Greenleaf	Complaint Non AT	5/1/2020	Reported non combined OHV use - ATV coming along from the north on S Barlow, and continuing south
Susan Greenleaf	Complaint Non AT	5/3/2020	Reported non combined OHV use - ATV coming along west on Schober from Brown's CG direction then heading on south on Sunland Indian Res past where the ATV route continues on Schober
Dan Connor	Complaint Non AT	5/7/2020	Reported non combined quad use on Highway 395 North at Goodale Creek Road. They crossed from east to west.
Susan Greenleaf	Complaint Non AT	5/9/2020	Reported non combined OHV use - An ATV coming along from the west on Underwood heading east toward S Barlow
Bill MIchel	Complaint Non AT	5/14/2020	Reported non combined OHV use - Two ATVs (Razr type) driving east on Sunset Drive with one following the other. I do not know where they went other than near the end of Sunset.
Denise Waterbury	Complaint Non AT	5/16/2020	Reported non combined OHV use - There were 3 motorcycles (dirt bikes) unlicensed. The first one had 3 people on it! A parent and 2 small kids. The next one had one adult, and the third, a sort of Mimi motorcycle with a kid about 6-8 years old on it. Riding west on Willow Street. While they all had helmets on, the dirt bikes were unlicensed, and three people on the first one! All on a city street which is not legal!
Denise Waterbury	Complaint Non AT	5/19/2020	Reported non combined OHV use East on Willow St. and then making a right turn (South) onto Hanby.
Nick Sprague	Complaint Non AT	5/20/2020	Reported non combined OHV use -There were 4 large/long OHVs (side by sides or sand rails) stopped at the dirt road below the 6000' level on SR 168 and above the curve at McGee Creek. They appeared to be about to head down 168. Later, while I was stopped at the junction of SR 168 and Starlite Road, all 4 OHVs came down 168 (illegally) and on to Starlite Road. I assume that they proceeded to dirt roads beyond Starlite.
Diana Cunningham	Complaint Non AT	5/20/2020	Reported non combined OHV use - 4 camouflage painted OHV's with 2+ people each, with small UTAH plates drove through our neighborhood on their way to the Buttermilk area. 3 of the 4 did either slow or stop-ished at the stop sign right by my house. The other one just went right on through. They did not have mufflers.
Diana Cunningham	Complaint	5/21/2020	Reported non combined OHV use -between Buttermilk Road and Cerro Coso.

	Non AT		They were trying to stay somewhat on the shoulder but that was too unstable so they had to be on the road. It was really dangerous for the kids and could have caused problems for cars if there had been any normal traffic on 168.
Allan Pietrasanta	Complaint Non AT	5/23/2020	Reported non combined OHV use - ATV on Red Hill Road heading west to the intersection of Ed Powers Road.
Bill MIchel	Complaint Non AT	5/23/2020	Reported non combined OHV use - : One ATV driving east and then west through the intersection mentioned above..
Diana Cunningham	Complaint Non AT	5/23/2020	Reported non combined OHV use -2 Rhinos with little orange flags were so loud that I looked up and saw them drive past my house, once again using Starlite Dr. as part of Adventure Trails, which it is NOT. This is becoming a daily problem and so far different groups each day.
Kathy Varnum	Complaint Non AT	5/24/2020	Reported non combined OHV use - two side-by-side OHVs driving eastbound on W. Line St. west of Mumy Lane, turning southbound onto Mumy Lane and continuing at a rapid speed down Mumy Lane
Margaret Marshall	Complaint Non AT	5/24/2020	Reported non combined OHV use - Lake Sabrina Several motorcycles were parked on the east side of the parking lot. The owner of the cafe was asking them to move because they had blocked traffic. At least two of the motorcycles had no plates, they were serious off road bikes
Allan Pietrasanta	Complaint Non AT	5/31/2020	Reported non combined OHV use - One ATV and two side by sides following two motorcycle riders going south on Round Valley Road. They turned west on the Pine Creek Road and headed toward Rovana. They were not ranchers working their fields.
Allan Pietrasanta	Complaint Non AT	6/4/2020	Reported non combined OHV use - side by side turn north on 395 at Wall St. I followed it to near the helitack site north of Independence. Side by side on 395!
Kathy Varnum	Complaint Non AT	6/9/2020	Reported non combined OHV use -OHV was at the intersection of W. Line St. and Meadow Lane waiting to make left turn from northbound Meadow Lane to westbound W. Line St
<a href="mailto:neecerberry@gmail.com">neecerberry@gmail.com</a>	Complaint Non AT	6/14/2020	Reported non combined OHV use -East Line Street, heading East, approaching Third St. junction. This section of East Line Street is a neighborhood and is NOT a combined use route nor a part of the Adventure Teails routes!
Susan Greenleaf	Complaint Non AT	6/19/2020	Reported non combined OHV use 2716 Carol Ln Bishop, dirt bike headed east
Margaret Marshall	Complaint	6/21/2020	Reported non combined OHV use - A motorcycle, with no license plate, drove

	Non AT		west on 168, then turned north on Ed Powers Road at Hwy 168 stop sign. This was not a street legal bike, and this intersection is not part of any combined use route.
Margaret Marshall	Complaint Non AT	6/23/2020	Reported non combined OHV use driving up Starlite from 168. I turned around to follow the side by side and snap a picture. At the intersection of Altair and Starlite the OHV pulled over, and I pulled along side. A man and his family were lost. They had driven the AT route that ends on 168 (even though it's one of the Buttermilk/Tungsten Loops) and were trying to find a way back to their vehicle. I gave them instructions. They knew they were driving illegally, but didn't see any alternative--because there isn't one!
Susan Greenleaf	Complaint Non AT	6/23/2020	Reported non combined OHV use - 2 dirtbikes heading south on S Barlow near Sierra Vista
Susan Greenleaf	Complaint Non AT	6/25/2020	Reported non combined OHV use dirtbike heading south on S Barlow near Sierra Vista
Susan Greenleaf	Complaint Non AT	6/27/2020	Reported non combined OHV use ATV heading south on Ed Powers, then crossing 168 after we'd gone by, onto the little Edison Rd opposite
<a href="mailto:neecerberry@gmail.com">neecerberry@gmail.com</a>	Complaint Non AT	6/30/2020	Reported non combined OHV use East end of Willow, an unlicensed dirt bike and a person on an ATV just went whipping by my house
Susan Greenleaf	Complaint Non AT	7/7/2020	Reported non combined OHV use 2716 Carol Ln Bishop, dirt bike headed west
Sharon Connor	Complaint Non AT	7/19/2020	Reported non combined quad use on E. Line St turned south on canal Rd-High Speed, no license plate
Sharon Connor	Complaint Non AT	9/24/2020	Reported non combined dirt bike use on E. Line St going east, high Speed, no license plate
Sharon Connor	Complaint Non AT	10/6/2020	Reported non combined dirt bike use on E. Line St west on canal - High Speed, no license plate
Dan Connor	Complaint Non AT	10/13/2020	Reported non combined OHV use on shoulder, E. Line St to Airport Rd. No plates or headlights. Cars had to swerve o avoid an accident.
Dan Connor	Complaint Non AT	10/20/2020	Reported non combined OHV use on shoulder, E. Line St to Airport Rd. No plates or headlights.
Susan Greenleaf	Complaint Non AT	11/8/2020	Reported non combined OHV use -2 dirtbikes heading west on Carol Ln
Susan Greenleaf	Complaint Non AT	11/20/2020	Reported non combined OHV use -Four dirtbikes passed me heading south on S Barlow, just south of intersection with W Line
Dan Connor	Complaint	11/22/2020	Reported non combined OHV use -East Line St and the canal road in east

	Non AT		Bishop. Three side by sides with 2 people each wearing jump suits and helmets, caravanning east on East Line St. They turned into the canal entrance on the south side of line (just after crossing the bridge) passed through the gate and proceeded south on the canal road
Susan Greenleaf	Complaint Non AT	11/26/2020	Reported non combined OHV use -2 dirtbikes heading west on Carol Ln
Susan Greenleaf	Complaint Non AT	11/30/2020	Reported non combined OHV use 2716 Carol Ln Bishop, 2 dirt bikes headed east, then west
Susan Greenleaf	Complaint Non AT	12/2/2020	Reported non combined OHV use -a dirtbike heading east on the bend of Irene
Margaret Marshall	Complaint Non AT	12/17/2020	Reported non combined use OHV 395 Aberdeen Stn Rd Grand Army of the Republic Hwy.
Margaret Marshall	Complaint Non AT	12/17/2020	Reported non combined dirt bike use Intersection of Sunset Drive and Sundown Circle in West Bishop
Susan Greenleaf	Complaint Non AT	12/17/2020	Reported non combined OHV use S Barlow between Underwood and Longview
Margaret Marshall	Complaint Non AT	12/17/2020	Reported non combined OHV use -Five Bridges Road Rd between the Owens River and Highway 6. OHV use after sunset
Randy Roche	Complaint Non AT	12/17/2020	Reported non combined OHV use -Collins Rd at Owens River
Susan Greenleaf	Complaint Non AT	12/25/2020	Reported non combined OHV use - 2716 Carol Ln, Bishop -2 dirtbikes heading west on my street
Susan Greenleaf	Complaint Non AT	1/7/2021	Reported non combined OHV use - a big 4 wheeler going south on S Barlow and Underwood
Susan Greenleaf	Complaint Non AT	1/13/2021	Reported non combined OHV use - a small 4wheeler coming from the north on S Barlow, turn west on Underwood
Susan Greenleaf	Complaint Non AT	1/24/2021	Reported non combined OHV use - dirtbike coming from the north on S Barlow, heading south on S Barlow
Sharon Connor	Complaint Non AT	2/5/2021	Reported non combined OHV use - Dirt bike, no license plate, heading west on East Line St., turned North on the canal road.
Sharon Connor	Complaint Non AT	2/5/2021	Reported non combined OHV use -a dirt bike without a license plate passed me coming from the east and turned north on the canal road. People think they can drive into town from Poleta on East Line St.
Denise Waterbury	Complaint Non AT	2/7/2021	Reported non combined OHV use -3 dirt bikes turned off Reata Road onto West Line Street. They were riding on West Line Street in the street lane and

			then after passing Issac Walton Park, moved to the bike lane. They were going at a good clip at first and then slowed down to turn into Manor Market to get gas. None of the dirt bikes were licensed.
Denise Waterbury	Complaint Non AT	3/24/2021	Reported non combined OHV use - OHV on Willow St.
Denise Waterbury	Complaint Non AT	3/26/2021	Reported non combined OHV use -Dirt Bikes on West Line Street
Denise Waterbury	Complaint Non AT	01/13/21- 01/15/21	Reported non combined OHV use -The first time, he rode straight to the east end of Willow, thinking he could get to the canal I guess but it is fenced. So he turned around and headed north on Hanby. The second time, he rode past my house on Willow again, turned south on Hanby and I assume to Line Street. Today,1/15/2021, he rode past my house, turned south on Hanby again and headed to Line Street. WHY IS HE RIDING ON RESIDENTIAL CITY STREETS?

## **Exhibit F: Agency Comments**

Feedback was solicited from the Great Basin Unified Air Pollution Control District and California Fish and Wildlife Agencies. ~~No comments were received about the impacts to cultural resources and archaeological sites, streambed modifications and water quality impacts, impacts on protections for wildlife and aquatic habitat, native plants, and wildlife, traffic, particulate pollution, and noise.~~

### **6. AMENDMENT NO. 1 Agency Comments**

**\*Subsequent to the original submission of this report to the Legislature, the CDFW provided the following Comments on December 31, 2021, at 2:00 pm:**

*CDFW has several concerns, comments and recommendations regarding the combined-use pilot program known as 'Adventure Trails' in Inyo County:*

*Bishop OHV use is within the Round Valley deer herd winter range. South Round Valley Road and Horton Creek Road are within the winter range for Round Valley deer and deer are concentrated along those two roads. In addition, the final 3km ending at Route #7 (Tungsten City Rd) is also winter range for the Round Valley deer herd.*

- CDFW is concerned that more OHV use will create new and additional disturbance to these deer. The use and development of roads/trails for OHV disturb deer. During winter, some of the areas proposed for new or additional OHV use are very important to the Round Valley deer herd.*
- CDFW is concerned that the proposed project will contribute to spider web trailing typical of unregulated OHV use.*
- CDFW suggests implementing a 5mph speed limit when approaching mule deer, and any other wildlife.*
- CDFW recommends posting signs to remind OHV motorists to keep a minimum of 3 feet away from any wildlife when passing*
- CDFW recommends posting signs to stay on designated trails*
- CDFW recommends posting signs reminding users of wildlife*

*Trisha A. Moyer*

*CDFW- Desert Inland Region 6  
Habitat Conservation Program Supervisor  
787 North Main Street Suite 220  
Bishop, CA 93514*

*(760) 835-4304*



**\*Subsequent to the original submission of this report to the Legislature, the GBUAPCD provided the following Comments on January 6, 2022, at 11:39 am:**

*January 6, 2022*

*Via Electronic Mail*

*Justine Kokx, Transportation Planner, Public Works  
Inyo County  
168 Edwards St.  
P.O. Drawer Q  
Independence, CA 93526*

*Subject: Adventure Trails Combined-Use OHV Route Information Request*

*Dear Justine Kokx,*

*This letter is in response to Inyo County's request for the latest available information on particulate pollution or other impacts related to the Adventure Trails combined-use OHV routes. At this time, the Great Basin Unified Air Pollution Control District does not have any documented complaints, monitoring data, or other information related to particulate pollution impacts from OHV use associated with the Adventure Trails.*

*Please contact me at (760) 872-8211 or [ann@gbuapcd.org](mailto:ann@gbuapcd.org) if you have any questions.  
Sincerely,*

*Ann Logan  
Deputy Air Pollution Control Officer*

**7. AMENDMENT NO. 2 A Citizens' Full Report "Off-Highway Vehicle Impacts in Inyo County, CA"**

**\*Subsequent to the original submission of this report to the Legislature, the Citizen led group [ohvimpacts@gmail.com](mailto:ohvimpacts@gmail.com) provided the following Report on January 21 at 2:25 pm:**

**See Next Page**

# Off-Highway Vehicle Impacts in Inyo County, CA:

A Citizens' Report in Response to Requirements of CA Vehicle Code § 38026.1



28 December 2021

## **Executive Summary**

In 2011, the California legislature passed AB628. The bill allowed Inyo County, California, to make exceptions to California vehicle code §38026 by designating road segments up to 10 miles in length on county-maintained streets and roads for combined use by both off-highway vehicles (OHVs) and motor vehicle traffic as part of a unified OHV trail system (“Adventure Trails”). Although intended as a pilot project, no baseline data were collected before the program began, and only limited observations of the program’s effects were collected directly from the combined use routes when the program was implemented. In addition, reports of noise and air quality impacts, proliferation of routes, and impacts to adjacent lands were dismissed when they did not occur directly on the combined use routes themselves. The program has been extended twice, most recently in 2019. However, a 2019 amendment to evaluate whether the combined use system is “workable” included a measure requiring Inyo County to detail “the operation and impacts of the pilot trail system, including impacts on the neighboring lands, cultural resources and archeological sites, streambed modifications and water quality, protections for wildlife and aquatic habitat, native plants, and wildlife, traffic, particulate pollution, and noise.”

Due to difficulties in reporting, a lack of complete implementation of Inyo County’s implementation plan, and a perceived gap in data collection and analyses of impacts, a group of Inyo County residents established a website for easier and more standardized reporting of illegal use. A total of 143 legitimate reports of illegal OHV use were collected between March 08, 2020 and October 31, 2021. Although these reports capture only a fraction of illegal use, we found significant impacts to neighboring lands and communities, water quality, wildlife and aquatic habitat, native plants, and air quality, with the potential for ongoing and significant impacts due to continuing erosion and emissions from initial impact sites. We also found the potential for significant impacts to water supply. Our results suggest that the combined use system is not workable in its current form without significant costs to wildlife, the environment, and the health and lives of Inyo County residents.

Table of Contents

- 1 Introduction** ..... 5
- 2 Methods**..... 6
- 3 Results**..... 7
  - 3.1 Summary of Citizen Reports ..... 7
  - 3.2 Impacts to Neighboring Lands ..... 8
    - 3.2.1 Cultural Resources and Archeological Sites ..... 10
    - 3.2.2 Streambed Modifications and Water Quality Impacts ..... 10
    - 3.2.3 Impacts to Native Plants ..... 10
    - 3.2.4 Impacts to Wildlife ..... 11
    - 3.2.5 Traffic Incidents..... 11
    - 3.2.6 Particulate Pollution..... 12
    - 3.2.7 Noise ..... 12
- 4 Discussion** ..... 13
  - 4.1 Overview ..... 13
    - 4.1.1 This report addresses only a fraction of relevant damage ..... 13
    - 4.1.2 Damage should be considered in context, as a cumulative and ongoing effect ..... 13
  - 4.2 Streambed Modifications, Water Quality, and Water Supply Impacts ..... 14
  - 4.3 Additional Impacts of Particulate Matter Pollution..... 15
  - 4.4 Additional impacts on wildlife, including impacts of noise pollution ..... 16
    - 4.4.1 Indirect impacts on wildlife..... 16
    - 4.4.2 Noise pollution and wildlife ..... 16
  - 4.5 Vegetation..... 17
  - 4.6 Impacts on Non-Motorized Recreation ..... 18
  - 4.7 Community Impacts..... 19
- 5 Management Recommendations** ..... 23
  - 5.1.1 General Management Approaches..... 24
- 6 References** ..... 25
- 7 Appendix I. Bills Relating to CA Vehicle Code §38026.1** ..... 31
  - 7.1 Appendix I-A. Inyo County Assembly Bill 628 Implementing Procedures ..... 31
  - 7.2 Appendix I-B. SB 402..... 36
- 8 Appendix II. Adventure Trail Maps**..... 39
- 9 Appendix III. Citizen Reports and Overview Map** ..... 43

<b>10</b>	<b>Appendix IV. Photographic Case Studies and Illustrations .....</b>	<b>48</b>
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# 1 Introduction

The State of California authorized Inyo County to conduct a pilot program, beginning in 2012, to designate road segments up to 10 miles in length on county-maintained streets and roads (hereafter, “highways”) for combined use by both off-highway vehicles (OHVs) and motor vehicle traffic. This pilot program was meant to allow project applicants in Inyo County to create what has become the Adventure Trails of the Eastern Sierra (AT) system. The AT system is a network of routes meant to provide linkage between service and lodging facilities and existing off-highway routes on public lands. Seven combined-use (CU) routes opened between 2015 and 2017 following guidelines developed by Inyo County (see Appendix I-A: Inyo County AB 628 Implementing Procedures). Five of those routes are in the Bishop area (Routes #5, #6, #7, #9, #15), one is in Independence (Route #Indy1), and one is in Lone Pine (Route #LP1; Appendix II: Route Maps).

The initial authorization (AB 628, 2011), which amends Vehicle Code section 38026, was in effect through January 1, 2017, but has twice been extended, and is now authorized through January 1, 2025 (SB 1345, 2016; SB402, 2019). This most recent authorization of this pilot project (SB 402, 2019), amends the bill’s purpose to read, **“It is the intent of the Legislature in enabling this act to continue to better evaluate whether a combined-use highway system is workable in the County of Inyo.”** This extension of the pilot project also requires additional reporting, “detailing the operation and impacts of the pilot trail system, including impacts on the neighboring lands, cultural resources and archeological sites, streambed modifications and water quality, protections for wildlife and aquatic habitat, native plants, and wildlife, traffic, particulate pollution, and noise” (Appendix I-B: SB402).

Since the opening of the AT network in the Bishop area, recreational users have noted significant off-road route proliferation (in violation of Vehicle Code §38319), which includes the creation of new routes, extensions of existing routes, “shortcuts” between existing routes, and hill climbs. This route proliferation comes with complaints of noise, dust, and environmental damage to areas adjacent to the AT system. Many individuals have sent their observations to [ab628@inyocounty.us](mailto:ab628@inyocounty.us), a repository created by Inyo County to address CU pilot program comments and questions. These public comments were compiled and included in past reports to the state legislature pursuant to CA Vehicle Code § 38026.1(f). However, because previous reports were not required to identify “impacts to neighboring lands,” these complaints were largely dismissed because they occurred off of the CU routes themselves – the very definition of “route proliferation.” This issue is further complicated by the fact that no systematic baseline conditions or data were collected prior to the commencement of the pilot project.

Therefore, the full range of impacts associated with the AT system has been largely unnoticed by policymakers and important stakeholders. Thousands of local residents live in close proximity to the AT system and regularly recreate on neighboring lands. Leveraging residents' expertise, including knowledge of baseline conditions, we created an online database to collect reports of illegal off-highway use in Inyo County.

This report is meant to begin to fill in the large gap between the required Inyo County reports and a more accurate description of the impacts of the CU pilot project and the AT system on adjacent lands and user groups. It is a snapshot of the developing conditions surrounding the AT system, including CU routes. It is the result of citizen concern, action, and at times, frustration.

This report is a first attempt to answer the questions posed in SB 402 and CA Vehicle Code §38026.1(g):

1. How is the Combined Use highway system working in Inyo County? Is it workable in its current form?
2. “What are the impacts of the Combined Use highway system on neighboring lands, cultural resources and archeological sites, streambed modifications and water quality, protections for wildlife and aquatic habitat, native plants, and wildlife, traffic, particulate pollution, and noise?”

## 2 Methods

Citizen reports of off-highway vehicle use in unauthorized locations within Inyo County were collected via an online data portal between 3/01/2020 and 10/31/2021.

Seventeen people submitted reports during the fifteen-month reporting period. The reports were based on observations and encounters that occurred during the reporters’ normal daily activities. Reporters were hiking, mountain biking, running, gardening, driving to and from their homes, and sitting at home when they observed illegal off-highway vehicle activity. Reporters were not assigned areas of interest or otherwise specifically looking for off-highway vehicle activity.

Reports collected in this study represent the intersection of off-highway vehicle use and daily activity of reporters. For that reason, data here can be understood to represent only a portion of the off-highway vehicle use in Inyo County, including lands neighboring the AT system. The actual amount of route proliferation and illegal street use of off-highway is presumably much higher than these data represent.

Reports were collected using an online data portal that directed Citizen Reporters to provide the following information:

- Name
- E-mail address
- Type of report: 1) OHV on a City or County Road, 2) New OHV or motorcycle trespass, 3) Established trespass or route
- Time and Date of Observation
- How many people were with you?
- What were you doing at the time?
- Where were you? Describe in detail, using road names, road numbers, distance from the trailhead, landmarks, GPS coordinates, etc.
- What did you observe?
- Photos and GPS points/tracks

Each report was quality-checked to ensure accuracy and completeness. Reports that lacked a specific date, time, and location were not accepted. For instance, “Hazardous dust immediately north of Dixon Lane” was excluded because the date, time, and exact location were not provided. Report sites were compared to known legal routes to ensure sites were not on routes where the responsible agency allows OHV and motorcycle use. Reports on the US Forest Service (USFS) were identified as route proliferation if the route was not shown on the Motor Vehicle Use Map, Inyo National Forest. Reports on Bureau of Land Management (BLM) Land, where no current Motor Vehicle Use map exists, were identified as proliferation if the reported route was not signed as “open” to motorcycle or OHV use. This signage is most often a small carsonite pictograph showing approved vehicles (Fig. 1). Reports on City and Inyo County roads were included if the road was not part of the AT CU system.





Fig. 1. Carsonite BLM sign indicating allowable trail users.

Valid reports were numbered and catalogued based on observation date. Most reporters distinguished between two-wheeled off-road vehicles (“DB”) and four-wheeled off-road vehicles (“OHV”). Distinctions are maintained between these two vehicle classes for the purposes of summarizing results below. Each report was mapped using CalTopo and placed on a CalTopo basemap. Reports of DB or OHV tracks crossing or proliferating from a hiking trail or road were mapped as single points. These reports were placed on the map using GPS coordinates, detailed location descriptions, or photographs. Reports that identified complete segments of DB or OHV tracks using GPS track data were uploaded directly to the map. Reports that identified DB and/or OHV traffic on City and County Roads were mapped using specific descriptions (e.g., “W. Line from Manor Market to Red Hill Road”).

### 3 Results

#### 3.1 Summary of Citizen Reports

From March 08, 2020 to October 31, 2021, a total of 143 OHV/DB related incident reports in Inyo County were obtained via the online data portal (Appendix III). There were 90 instances of illegal pavement use, 49 instances of route proliferation, one instance of night operation, one instance of route damage, and two instances of trespass onto private property (Table 1). More than half (57%) of reported incidents involved DBs, though this number is likely an underestimate as not all reporters distinguished between DB and OHVs.

Table 1. Number of incidents by vehicle type. DB=dirt bike; OHV=4-wheel off-road vehicle.

<b>Incident Type</b>	<b>DB</b>	<b>DB &amp; OHV</b>	<b>OHV</b>	<b>Unknown</b>	<b>Total</b>
<b>Illegal pavement use</b>	41	2	47		<b>90</b>
<b>Night operation</b>			1		<b>1</b>
<b>Legal route damage</b>	1				<b>1</b>
<b>Route proliferation</b>	37	1	8	3	<b>49</b>
<b>Trespass</b>			2		<b>2</b>
<b>Total</b>	79	3	58	3	<b>143</b>

### 3.2 Impacts to Neighboring Lands

Most reports of route proliferation on neighboring lands occurred in the Tungsten Hills on BLM and Los Angeles Department of Water and Power (LADWP) lands and in the Buttermilks on LADWP and USFS lands (Fig. 2). Forty-two reports included photographic evidence of impacts and/or detailed written descriptions of impacts. A summary of these impacts as well as potential impacts warranting further investigation are provided below. Detailed photographic case studies are provided in Appendix IV. Impacts reported from Death Valley National Park and the White-Inyo Mountains are not included in the subsections below due to the distance from the AT system, though it is possible that AT promotion contributed to these incidents.

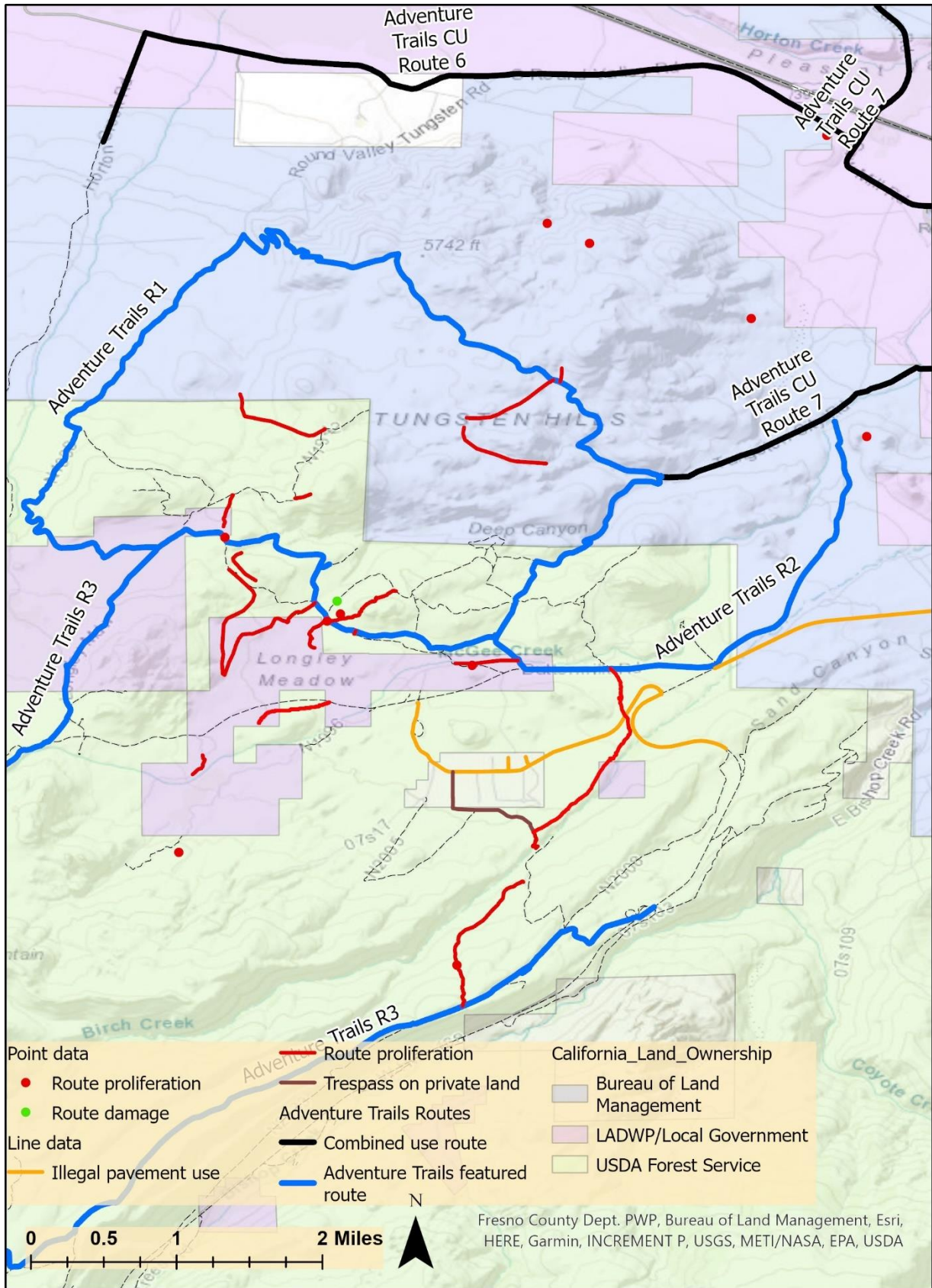


Fig. 2. Illegal OHV/DB use in Buttermilk-Tungsten Hills area.

### 3.2.1 Cultural Resources and Archeological Sites

Archeologists from BLM, LADWP, and USFS should be consulted regarding impacts to cultural resources and archeological sites since such information is not made available to the general public. However, one citizen report noted that an illegal route between R2 and Birch creek resulted in the disturbance of obsidian points and chips (Report #20-03-23-01).

### 3.2.2 Streambed Modifications and Water Quality Impacts

Reports of route proliferation in riparian areas occurred at Birch Creek (BLM, USFS), McGee Creek (LADWP, USFS), Longley Meadow (LADWP, USFS), and Sharp’s Meadow (LADWP, USFS) (Appendix III). From 2019 to 2021, OHV-users modified an intermittent waterway, connected to McGee Creek, by chopping away portions of the streambank, creating a ramp, and driving through extensive sections of the creek bed (Appendix IV-D). In addition to these direct impacts, a proliferation of user-created OHV routes has had indirect impacts on streambeds and water quality by altering hydrological patterns and increasing sediment loads deposited into nearby waterways (Appendix IV-C).

### 3.2.3 Impacts to Native Plants

Of the 33 reports of route proliferation in the Buttermilks-Tungsten City area, at least seven noted crushed and/or cut vegetation. Species impacted include big sagebrush (*Artemisia tridentata*), bitterbrush (*Purshia tridentata*), blackbrush (*Coleogyne ramosissima*), Purpus’ buckwheat (*Eriogonum kennedyi* var. *purpusii*), and rabbitbrush (*Ericameria nauseosa*). Lichens and soil crusts were also impacted. At least two incursions (21-06-19-01; Appendix IV-E) occurred within known sites (pers. obs. C. Klinger) of the rare crowned muilla (*Muilla coronata*, CRPR 4.2) and another (20-04-11-1) occurred within a known site of Water Birch Riparian Scrub, a sensitive vegetation type (CDFW 2021). In addition, cheatgrass (*Bromus tectorum*), red brome (*Bromus rubens*), and Russian thistle (*Salsola tragus*) are invasive species that are abundant in the Buttermilk-Tungsten City area, particularly within the perimeter of the 2011 Buttermilk fire. All 33 reported OHV/DB incursions have created new potential vectors for non-native species invasions.

However, as described in the Methods and Discussion sections, 26 instances were not investigated in detail since individuals simply reported the point of incursion. It is likely that these instances damaged native vegetation, which may have included sensitive species known to occur in the area (CCH 2021; Table 2).

Table 2. Plant species of conservation concern documented in the Buttermilks-Tungsten City area (CCH 2021; CDFW 2021).

Common Name	Scientific Name	CRPR Ranking	Other Status
Great Basin onion	<i>Allium atrorubens</i> var. <i>atorubens</i>	2B.3	
pinyon rockcress	<i>Boechera dispar</i>	2B.3	
Great Basin woollystar	<i>Eriastrum sparsiflorum</i>	4.3	
Bailey’s buckwheat	<i>Eriogonum baileyi</i> var. <i>prabens</i>	4.3	
McGee Meadows lupine	<i>Lupinus magnificus</i> var. <i>hesperius</i>	1B.3	BLM Sensitive
Crowned muilla	<i>Muilla coronata</i>	4.2	
Small flowered parnassia	<i>Parnassia parviflora</i>	2B.2	
Inyo phacelia	<i>Phacelia inyoensis</i>	1B.2	BLM Sensitive: USFS Sensitive

### 3.2.4 Impacts to Wildlife

Wildlife on neighboring lands has been impacted due to habitat loss, direct collision, and noise (Appendix IV-G, IV-H). The destruction of native vegetation described above removed forage for wildlife as well as native vegetation that supports pollinators. Instances of route proliferation have crushed burrows for small mammals and in some cases removed all vegetation that would otherwise provide habitat (Appendix IV-H). Wildlife species that were crushed by OHVs include the kangaroo rat (*Dipodomys* sp.), gopher snake (*Pituophis* sp.), horned lizard (*Phrynosoma* sp.), long-nosed leopard lizard (*Gambelia wislizenii*), and rattlesnake (*Crotalus* sp.).

Sensitive wildlife species known to occur in the area that could have been impacted include Wong's springsnail (*Pyrgulopsis wongi*; USFS sensitive status) and northern leopard frog (*Lithobates pipiens*; CDFW Species of Special Concern). In addition, several species of game mammals and birds occur in the area which could have also experienced impacts from habitat loss, direct collision, and/or noise.

### 3.2.5 Traffic Incidents

There were 88 reported instances of illegal pavement use in close proximity to the Bishop-area combined use routes (Fig. 3). One of these incidents occurred after daylight hours. Several reporters provided details about potential traffic hazards, including instances of OHVs driving on the shoulder forcing traffic to drive in the center lane, and OHVs driving far above the legal speed limit endangering other drivers. Further south, there was one instance of illegal pavement use reported near Aberdeen across Highway 395 on Goodale Rd and another reported along Highway 395 in Independence.

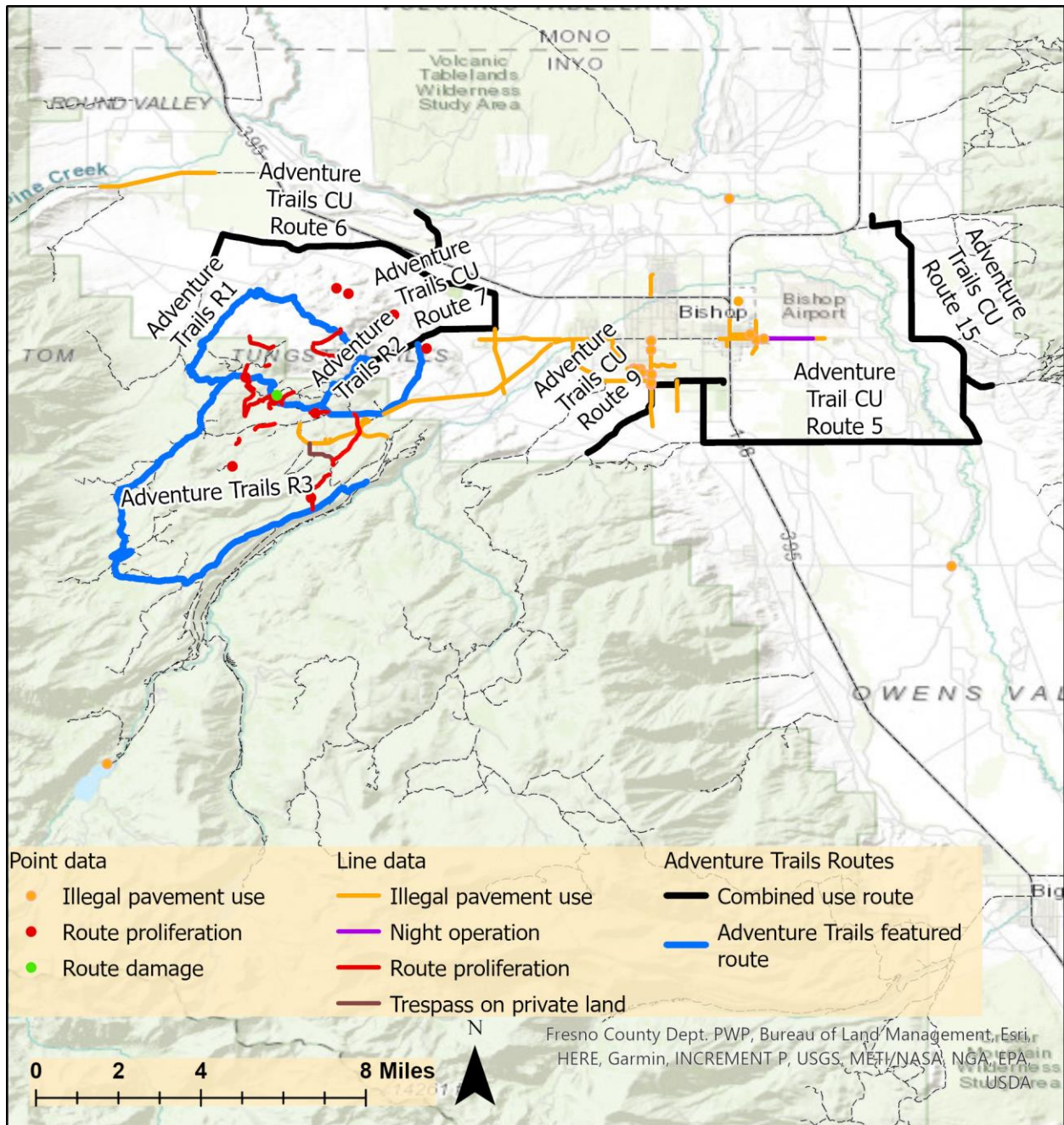


Fig. 3. Illegal OHV/DB use in the Bishop area.

### 3.2.6 Particulate Pollution

Our citizen reports did not include measurements of air quality, however report photographs provide evidence of airborne dust (Appendix IV-B).

### 3.2.7 Noise

Our citizen reports did not include measurements of noise impacts, but information about noise impacts can be inferred from other studies and is discussed below in more detail.

## 4 Discussion

### 4.1 Overview

What has become clear during the collection of data and preparation of this report is that Inyo County has an illegal OHV use problem—particularly illegal use of motorcycles or dirt bikes—that must be addressed honestly and managed carefully.<sup>1</sup> This use problem affects air quality through directly generated dust and through emissions from erosion; has changed local hydrology and degraded water quality and air quality; has affected wildlife, reduced native vegetation, and destroyed biological soil crusts in many areas; can have downstream effects on health and how well we breathe; and has the potential to affect not only local water supplies but also water supplies for the greater City of Los Angeles.

#### 4.1.1 This report addresses only a fraction of relevant damage

Although we documented many incursions during the short period of our study, what we documented is only a fraction of what has occurred and what can be anticipated to occur. This is due in part to selection bias for areas that our volunteers either live in or near or visit regularly on foot—areas they can reach easily during time off from work. Many of our reports came from Bishop, which has a higher concentration of Inyo County’s population. In addition, our volunteers simply did not have enough time or resources to report every violation they saw. And finally, some of the illegal incursions into adjacent lands that we report here will have ongoing impacts long past our study period. The preponderance of reports from the northern end of Inyo County should not be interpreted as an assessment of the full amount of damage, an exhaustive inventory of all of the Adventure-Trails-associated incursions in Inyo County, or even as an inventory of all such incursions in the Bishop area. Nevertheless, our reports—which have been provided by many volunteers traveling on foot to specific areas—may provide a more targeted and detailed picture of damage than agency staff can obtain while trying to patrol two counties by auto during the busy course of a work week.

The upshot is that illegal use is inevitable as a part of legal use. A best management approach would anticipate such illegal use, assess the extent of potential damage, and adjust policies accordingly, rather than allowing irretrievable damage to happen as a cost of doing business.

#### 4.1.2 Damage should be considered in context, as a cumulative and ongoing effect

One of the goals of Eastern Sierra Adventure Trails—a system enabled by SB 402—was to “provide a unified system of trails for off-highway motor vehicles,” and indeed, combined-use trails have been heavily promoted as part of a much larger unified trail system with accompanying maps, signs, and kiosks. (See Appendix IV-A.) However, we did not find that such promotion helped to “preserve traffic safety, improve natural resource protection, reduce off-highway vehicle trespass on private land, and minimize impacts on county residents.” What has been accomplished, instead, is a system of trails that leads users into large areas of public and private land that have been promoted in a unified way as “OHV areas” and treated that way rather than as multi-use public—and private—lands that, in addition to

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<sup>1</sup>Other counties in the arid southwestern US experience rampant illegal OHV trespass, e.g., Riverside County, CA (<https://www.riversidesheriff.org/CivicAlerts.aspx?AID=2143&ARC=3585>) and Pima County, AZ ([https://webcms.pima.gov/UserFiles/Servers/Server\\_6/File/Government/Office%20of%20Sustainability%20and%20Conservation/Conservation%20Science/Multi-species%20Conservation%20Plan/PICO\\_OHV%20Monitoring%20Protocol.pdf](https://webcms.pima.gov/UserFiles/Servers/Server_6/File/Government/Office%20of%20Sustainability%20and%20Conservation/Conservation%20Science/Multi-species%20Conservation%20Plan/PICO_OHV%20Monitoring%20Protocol.pdf)))

providing recreational opportunities for motorists, also provide habitat for native plants and wildlife, ecosystem services such as clean air and water, and non-motorized recreational opportunities.

It would be irrational to light a fuse and then deny any connection to the explosion at the other end. The goal of Eastern Sierra Adventure Trails, which was expressly enabled by SB 402 and corresponding changes to CA Vehicle Code §38026, may have been to create a unified trail system, but something else has happened instead, and the impacts of that unified vision must be addressed as explosions of use occur at the other end.

Due to the nature of vehicular tracks in dry lands, and to the fact that connected trails have already drawn vehicular recreationists into areas not designated for OHV use, impacts to biological soil crusts, hydrological changes from incised motorcycle tracks, erosion, dust emissions, damage to native plants, spread of invasive plants, and impacts to wildlife will continue—and expand—long after the initial impact. The impacts we document here should be considered as part of an ongoing and widening series of future impacts, some of which may last for centuries or longer (Lovich & Bainbridge, 1999).

#### 4.2 Streambed Modifications, Water Quality, and Water Supply Impacts

We found direct, intentional streambed modifications (for detailed examples and illustrations, see Appendix IV-D) as well as unintentional modifications of streambeds (for examples see Appendix IV-C and IV-D); illegal tracks and resulting erosion that affected local water courses and hydrology (IV-C); and headcuts, incisions, and significant and pervasive erosion from ongoing illegal incursions (IV-C and IV-D). We also found direct, acute dust generation (Appendix IV-B) and sites that will generate ongoing particulate matter pollution from erosive tracks and incised channels (Appendices IV-C to IV-E; see also photos in IV-F).

Aside from the immediate and direct effects of a single incised motorcycle track through soil, how do illegal OHV tracks in adjacent lands relate to water quality and water supply? Such damage has pervasive and widespread effects on water quality and water supply, from direct devegetation and erosion of hillsides and increased sediment loads in local streams to increased particulate matter landing on the Sierra Nevada snowpack, which accelerates melting and amplifies the already significant effects of drought and climate change.

To state an obvious but important fact, water flows to the point of least resistance. Incision of new waterways—particularly in the form of illegal motorcycle tracks, but also deeper ATV tracks—not only removes vegetation and breaks down soil in the track, but also diverts water from surrounding native plants and biological soil crusts. As a simple information sheet on streambed erosion (Minnesota Department of Natural Resources, 2010) explains, “An incised channel is disconnected from its floodplain. During high flows the channel must transport the total volume of water because it cannot access the floodplain that, under natural conditions, could store and slow down the floodwaters.”

Diversion of water from local vegetation means fewer plants and organisms to maintain the integrity of local soils and an increased chance that drying and de-vegetated slopes surrounding illegal tracks will wash away in floods or blow away in high wind, thus further increasing sediment loads in local waterways. Illegal tracks themselves will also continue to erode long after riders are gone, again contributing to high sediment loads in waterways and high dust loads in the airways of humans and wildlife. Tracks on steep slopes such as those radiating from Adventure Trails routes in the Buttermilk area and Tungsten Hills that originate, in turn, from CU routes, are even more likely to cause rapid soil



erosion. In some cases, the tracks also create conditions for headcuts in waterways, dropping groundwater levels and changing courses of intermittent and perennial streambeds. In dry lands such as Inyo County's, this is a particularly egregious impact; even intermittent waterways are extremely important as habitat and as corridors for wildlife (Levick et al., 2008).

More sediment is produced from disturbed soils such as those we found. As Welsh (2008) reported in a doctoral dissertation on the subject, even increasing legal OHV traffic on dirt roads multiplies sediment loads. Recent research has demonstrated that windblown dust from distant OHV use reaches high alpine snowpacks, resulting in earlier melting of snow (Painter et al., 2018; Clow et al., 2016; Belnap et al., 2009; see also Duniway et al., 2019 and "Additional impacts of particulate matter pollution" below). In the eastern Sierra Nevada, that means less storage of groundwater due to faster melting and runoff, greater flood risk due to faster runoff, and a longer fire season due to early snowmelt and drier summer vegetation.

Dust from traffic on legal and illegal routes and from suspended soils blown from de-vegetated areas—whether native vegetation has been torn out by motorcycle tires, crushed by illegal ATV use, or withered by changes in hydrology—thus likely significantly affects the Sierra Nevada snowpack, an issue of extreme importance not only for residents and wildlife in Inyo County, Mono County, and the Sierra Nevada, but also for the city of Los Angeles, which exports water from both counties via the Los Angeles Aqueduct. Ironically, some of the direct dust generation reported during our study originated from illegal OHV activity on LADWP lands. LADWP has tried to control some of this activity, with limited effects. (See "Community Impacts.")

#### 4.3 Additional Impacts of Particulate Matter Pollution

Aside from the standard emissions generated by gas-powered OHVs, legal and illegal off-highway vehicle use in the project area contributes both directly to dust emissions (see, for example, Appendix IV-B as a direct effect; see also Duniway et al., 2019 and Nauman et al., 2018) and indirectly to dust emissions as an ongoing effect of erosion from illegal use (see Appendix IV and "Streambed modifications and water quality" section above).

While exhaust is not unique to OHVs, the ability of OHVs to range far into unpaved and unroaded areas, incise new tracks, and thereby create scoured areas and eroding areas that then emit particulate matter pollution for years or decades is unmatched. In general, pedestrian and equestrian groups do not have the same mileage range and do not incise continuous paths on a single trip. Non-motorized wheeled vehicles such as baby buggies and mountain bikes also don't have the compression weight of motorcycles or ATVs. As Field et al. (2010) observed, "Off-road recreational activity in southern California has risen from virtually zero in 1960 to almost 10 million user-days in 2006 (Bureau of Land Management RIMS database). If users drive 32 km per day, this specific activity alone, in this relatively small region, can generate as much as 2.7 metric tons of dust per year."

Particulate matter pollution has "staggering" (Anderson et al., 2012) short- and long-term effects on human health and has been linked to an increased risk of asthma, strokes, heart failure, and lung cancer, among other risks (West et al., 2016). Human exposure to particulate matter pollution may also increase the risk of death from COVID-19 (Tian et al., 2020; Yao et al., 2020; Zhou et al., 2021). Effects on other mammals in the project area are likely similar to those in humans (e.g., cancer; see Loomis et al., 2013);

effects on avians are likely worse (due to avian breathing efficiency; see Lovette & Fitzpatrick, 2016; Sanderfoot & Holloway, 2017).

#### 4.4 Additional impacts on wildlife, including impacts of noise pollution

##### 4.4.1 Indirect impacts on wildlife

OHV impacts on wildlife in arid- and semi-arid land have been reviewed extensively (e.g., Switalski, 2018; Webb & Wilshire, 2012). The impacts we found appeared to disrupt the food web and wildlife at almost every level, which is consistent with those findings.

Desert plants and shrubs create microclimates and microhabitats (for an explanation of how this works, see Geiger et al., 2009, particularly chapters regarding the effect of low plant cover on the surface air layer; for examples, see Sotomayer & Drezner, 2019, or see Appendix IV-E.1-8). Illegal tracks not only disrupt these microclimates and habitats for new plants and for pollinators who are yoked to host plants, but also destroy those plants as browse for the animals who depend on them. For example, in the project area, when a motorcycle churns through patches of desert wildflowers, the tracks affect harvester ants who depend on flower seeds, horned lizards who depend on harvester ants, and roadrunners who eat the lizards. When an ATV crushes a new path through shrubs and rabbitbrush, a habitat is destroyed, as well as communities of desert night lizards who live in and depend on the duff. When bitterbrush is destroyed, the mule deer who depend on it also lose essential calories while overwintering and gestating.

During our data collection period, we found illegal tracks that incised desert soil crusts; cut through, directly ripped out, and thus killed vegetation that supports native bumblebees and other pollinators, rodents, lagomorphs, and ungulates; crushed rodent burrows; and ran directly over an assortment of animals (see, for example, Appendix IV-E. and IV-G.). New illegal tracks also diverted water from native plants, cast dust over sunlight-gathering leaf surfaces, and likely exacerbated the recent spread of invasive bromes and *Salsola* (e.g., see Appendix IV-E.; see also Switalski, 2018 for an explanation of how dust on leaf surfaces affects native plants and how OHVs exacerbate the spread of invasive plants). Swaths of bitterbrush will no longer be available to grazing mule deer (e.g., see Appendix IV-E.9 & IV-E.10). Some areas of public land are so scoured of vegetation (e.g., immediately adjacent to the combined use route on Tungsten City Road; see Appendix IV-H) that they cannot support arthropod, reptilian, or mammalian life from other parts of the project area and instead create a biological barrier devoid of cover or shelter from vehicles that cuts off travel for surviving terrestrial animals from one patch of remaining habitat to another.

##### 4.4.2 Noise pollution and wildlife

Anthropogenic noise from vehicular traffic can “exceed natural ambient sound levels by an order of magnitude or more.” Motorcycles “project substantially more noise” than average automobiles, “up to 40 dB(A) at 1 km” (Barber et al., 2010). Noise levels from motorcycles in the Tungsten City project area can be heard from at least 2 km away (pers. obs., C. Klingler). Noise pollution from increased traffic throughout project areas can affect small animals (Bednarz, 2021; Morley et al., 2014) and large—from bees, beetles, kangaroo rats, and nesting and migrating birds to overwintering mule deer.

The Eastern Sierra Adventure Trails map produced by the project proponents labels the Horton Creek drainage as a “deer migration area.” In fact, herds of Inyo mule deer (*Odocoileus hemionus inyoensis*) overwinter in the area, and the Horton Creek drainage provides shelter and limited winter browse, i.e.,

blackbrush, sagebrush, bitterbrush, and mountain mahogany, for pregnant females (CA DFW, 2021; pers. obs., C. Klingler, 1997-2021). Anthropogenic noise, particularly motorized noise, is well-known as a stressor for mule deer, who shift habitat and reduce their foraging areas (Northrup et al., 2021; see also Switalski, 2018). Horton Creek Campground is closed from November through May, during the peak gestation and overwintering season. However, “Eastern Sierra ATV Adventure Trails” R-1, which loops from the combined use route on Tungsten City Road through the overwintering and gestation habitat, is not closed, and thus noise from vehicular recreationists on R-1 and on the extensive number of illegal routes branching from it represent an added stressor for pregnant mule deer who are trying to forage.

In winter, noise pollution from east Bishop CU routes (#5 and #15) and from illegal route use are highly likely to affect the behavior of desert bighorn sheep who overwinter low in the White Mountains. Bighorn sheep avoid high-use roads at a much greater distance than low-use roads (Papouchis et al., 2001), which would cause them great hardship during winter on the west side of the Whites (east Bishop), where combined use routes and the legal and illegal routes that branch from them travel through vital water sources and overwintering zones.

Among small mammals affected by noise pollution in the project area, kangaroo rats “play key roles in ecosystem structure and composition” (Goldingay et al., 1997). They use vibrational communication and are extremely sensitive to sound (Randall & Lewis, 1997). They hear and respond to vehicle noise (Shier et al., 2012), can be deafened by noise from OHVs, and suffer lasting or fatal effects from such noise, e.g., being unable to detect rattlesnake predators (Brattstrom & Bondello, 1983). Other small mammals are affected by noise as well (Bednarz, 2021).

Noise pollution has been shown to affect resident and migratory bird populations in many ways, including avian communication, ability to forage, physiology, attendance at nests, reproductive success, selection of breeding sites, migration, and community composition (e.g., see Blickley et al., 2012; Francis et al., 2009; Injaian et al., 2018; Kight et al., 2012; Leonard et al., 2015; McClure et al., 2017; Potvin & MacDougall-Shackleton, 2015; Quinn et al., 2006). Other reptiles in the project areas (e.g., Great Basin fence lizards—see Tull & Brussard, 2007) experience distress from OHV noise pollution, and even pollinating insects, e.g., ground-nesting bees, are also highly likely to be affected (Morley et al., 2014). Finally, native plants detect and respond to the specific frequency of some pollinator wing sounds by changing nectar production (Veits et al., 2019), suggesting that OHV noise pollution loud enough to drown out such sounds may disrupt the efficiency of nectar production and the delicate signaling system between some pollinators and their host plants.

*(For other wildlife impacts, see also: III. Additional impacts of particulate matter pollution, above.)*

#### 4.5 Vegetation

Instances of OHV trespass are thought to be more prolific in arid environments where vegetation is sparse and easily maneuverable (Switalski, 2018), yet recovery in these environments can take hundreds of years (Lovich and Bainbridge, 1999). High levels of OHV/DB use in arid landscapes are associated with substantial decreases in vegetation cover ranging from 2 to 5 times less cover than areas closed to OHV/DB use (Misak et al. 2002; Groom et al. 2007; Cheung et al. 2021). It is highly likely the lands neighboring the AT system will continue to undergo similar transformations if OHV/DB route proliferation continues. Direct impacts to native vegetation, such as the crushing and cutting of plants, have occurred and may continue to occur. While only a small portion of OHV/DB user created routes

were fully surveyed by citizen reporters, the remaining instances of route proliferation are likely to yield signs of direct and/or indirect vegetation impacts.

Indirect impacts to vegetation are well-established and include reductions in water availability, dispersal of invasive plant species, and reduced regeneration of native plant species. User-created routes result in soil compaction, loss of soil crusts, and erosion, which can reduce moisture availability for existing plants (Ouren, 2007). Furthermore, vehicles are well-known agents of long-distance dispersal and can carry non-native species such as cheatgrass, red brome, and Russian thistle into novel locations (Taylor et al., 2012). Finally, the removal of mature shrubs due to soil disturbance or crushing can reduce the ability of plants to regenerate since mature shrubs often serve as nurse plants in arid environments (Carrillo-Garcia et al. 1999).

A range of scenarios are plausible if route proliferation is allowed to persist on lands neighboring the AT system. At worst, direct and indirect impacts can lead to widespread desertification, including soil erodibility, degradation of top soils, and increased soil temperatures (Webb et al. 1978; Belnap, 1995; Al-Awadhi, 2013). Localized impacts may lead to declines of sensitive plant species (Table 2) and sensitive natural communities such as Water Birch Riparian Scrub. As is common in arid landscapes, OHV/DB route proliferation has predictably taken place in washes and intermittent stream corridors, which often have higher production than the surrounding landscape (Hsu, 2014; Murray and Webb, 2020). Negative impacts to these structurally diverse environments may have a disproportionate effect on the overall ecological health of the landscape. Additional vegetation-related cumulative impacts including wildlife, hydrology, and human health have been addressed above.

#### 4.6 Impacts on Non-Motorized Recreation

Many non-motorized users travel to public lands to seek refuge from more urbanized areas and the noise, light, and air pollution in those areas. Among humans, increased anthropogenic noise has been linked to increased risk of cardiovascular disease, cognitive impairment among children, disruption of healthy sleeping patterns, tinnitus, and aggravation (World Health Organization, 2011). In addition, as noted elsewhere, particulate matter pollution has staggering effects on human health. (See “Additional Impacts of Particulate Matter Pollution” above.)

Abundant illegal routes in the project areas as well as legal routes connected by the AT system and the CU routes to those areas make it difficult for non-motorized recreationists to escape particulate matter pollution and almost impossible to escape noise pollution; when they do, they may be competing with birds and mammals who are also trying to escape that noise pollution. (See “Additional Impacts on Wildlife” above.)

Aside from impairing such health benefits of public land, the AT routes and combined use routes may also inadvertently give non-motorized users the impression that some areas have been designated for the exclusive use of OHV recreationists to the exclusion of non-motorized users and wildlife. For example, in the Tungsten City combined use area, signs on county roads, signs on Tungsten City Road, maps depicting the Buttermilk area, and signs leading from the Tungsten City area to the Buttermilk area all lend to the impression that lands in that area, public or private, signed or not, are an “OHV area” (See Appendix IV-A). Non-motorized users who venture past the signs will still receive auditory and visual signals that discourage anyone seeking fresh air or natural ambient noise levels from recreating in zones that connect to the combined use routes.

#### 4.7 Community Impacts

A surprising result of the data collected is the number of reports (63%) that refer to OHV and DB use on City of Bishop and Inyo County roads. Reporters often reference the loud noise of OHVs and DBs as the reason they noticed these vehicles passing. Also included in report narratives is surprise at the seemingly blatant disregard for the law (both OHVs and DBs have been observed passing in front of the Bishop Police station). Mapping of the on-road OHV/DB use reports suggests a relationship to the authorized CU routes (Figs. 2–3; Appendix III). For the CU system to be workable, it must provide the information and incentives needed to keep OHV and DB users on the defined routes. To date, the CU system currently authorized by SB402 and CA Vehicle Code §38026 is not accomplishing that minimum goal.

The California Vehicle Code (Division 16.5, Chapter 2, Article 1, §38025) clearly limits the use of registered OHVs and DBs on highways. SB402 currently amends that prohibition while Inyo County conducts a pilot project to allow combined use of specific routes. In 2012, the Bishop-based community organization “Save Our Streets” prevented the authorization of any CU routes within residential neighborhoods, citing noise and dust as detrimental to their quality of life. The five CU routes subsequently approved in the Bishop area are all on the periphery of residential areas. Unfortunately, data collection shows considerable illegal OHV/DB use of City and County roadways including some within residential areas (Fig 3; Appendix IV-I).

Noise pollution is defined by the US Environmental Protection Agency as “unwanted or disturbing sound” and acknowledges direct negative linkage between noise and health (EPA, 2021; see also WHO, 2011). Dust pollution has similar impacts, most of which are discussed in “Additional Impacts of Particulate Matter Pollution” above. The California Vehicle Code (13 CCR 27200-27207; Division 12, Chapter 5, Article 2.5. Noise limits) exempts off-highway motor vehicles from noise limits—because they are not licensed for use of public roadways due to a myriad of factors. Most officially designated OHV areas limit vehicle noise to 96 decibels (AB 2274). This puts the noise generated by OHV/DBs somewhere in between the sound produced by a power lawn mower and a chainsaw (CHC, 2021).

While the data collected in this study may be interpreted by some as a “nuisance” level problem, there are additional local indications that the dissatisfaction with OHV/DB use near homes is increasing. LADWP has, within the past year, installed signage to restrict OHV use near residential communities adjacent to their lands (Fig. 4). Additionally, the Bishop Paiute Police Department has recently added an ATV unit. The Inyo Register reported, “The ATV patrol unit was developed and implemented in August 2021 in response to problems identified through community input and analysis of calls for service regarding trespassing of recreational vehicles and damage to agricultural property and trails on the Bishop Paiute Reservation” (Inyo Register Staff, 2021).



Fig 4. Newly installed signs on LADWP lands reflecting an attempt to manage OHV/DB use.

While some illegal OHV/DB use can be expected in the rural setting of Inyo County,<sup>2</sup> Combined Use signage may be contributing to an increase in illegal OHV/DB traffic in and around Bishop. Reports of illegal use are especially high on roads that lead to the Bir Road area (CU route Bishop #9), the Tungsten Hills (CU Bishop #7), the Laws/Poleta Open OHV area, and Adventure Trails Buttermilk/Tungsten routes near the Starlite community (Fig. 3).

Signage designating the beginning and ending of Combined Use routes may be confusing OHV/DB riders and others. The signs designating the beginning of routes are significantly more prominent and official in appearance than the signs designating the end of routes (Fig. 5). The same is true of signage indicating that a CU route turns—signage is diminutive and easily missed. For example, as pictured in Fig. 5, the beginning of CU Route #7 indicates the route runs for 4.4 miles, when the route actually turns left one-half mile from this sign. As of December 10, 2021, the turn is currently unmarked.

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<sup>2</sup> See 2018 Inyo County Report to Legislature Public Comments, page 7, for a history of complaints from the public.



Fig. 5. (Left) Signage indicating beginning of CU Route #7, Ed Powers Road. (Right) Signage indicating end of CU Route #7, Ed Powers Road.

In the 2018 Inyo County Report to the Legislature, Inyo Public Works recommended installing “better directional signage” and the addition of “Paint No ATV” signage at the end of CU routes (Fig. 6). This recommendation was made in December, 2017 and has not been fulfilled. Adequate directional signage may begin to solve the problems created by the CU system, but the upgrades would be costly, and likely unwelcomed and ineffective in changing well-established but illegal behavior.



Fig. 6. Example of “No ATV [OHV]” signage for end of CU routes

Additionally, signage described by the Adventure Trails of the Eastern Sierra project as “Cowboy Kiosks” may be confusing both OHV/DB riders and others. The Cowboy themed signs often provide vague directions and seem to portray Inyo County as Open Range for OHVs (Fig. 7). Removal of these signs could begin to reduce the misperception that all lands beyond these signs are OHV areas for open use. That misperception is causing significant damage to public lands as addressed above.



Fig. 7. This sign, located at the corner of Ed Powers Road and Highway 168—more than three miles from the closest OHV trailhead—is a good example of a cowboy kiosk sign that is likely to be misinterpreted by OHV/DB users and nonmotorized recreationists.

While Inyo County is the only California county participating in the pilot project meant to investigate the workability of extended combined use on highways, there are examples of similar use in other western states. The experiences of those other OHV tourist destinations might well be used by decision-makers as a cautionary tale. Proponents of the Adventure Trails of the Eastern Sierra system often point to the Paiute Trail in south-central Utah, and the OHV recreation in Moab, Utah as models for OHV development in the Eastern Sierra (Inyo Planning Commission, 2014). Despite the economic benefit attributed to OHV tourism, many of these same communities are struggling with the growing problems of noise and dust while public agencies are left to bear the cost of environmental damage.

- “They are very loud,” he said. “It woke my whole family up” (Podmore, 2021)



- “Over the past couple of years, Moab has been struggling to balance a boom in off-highway vehicles (sometimes referred to as UTVs or ATVs) with other outdoor enthusiasts’ and residents’ desire for quiet streets and places to enjoy the outdoors” (Fixsen, 2021)
- “An expert in local noise ordinances who has spent the last two decades studying noise pollution policy, joined the Grand County Commission for part of a workshop Tuesday, March 16 as the county pursues means of regulating sound from off-highway vehicles” (Pape, 2021).

The pilot project currently authorized by Vehicle Code 38026 and SB402 (2019) is meant “to develop additional and better data to evaluate whether combined-use highways are workable.” Data collected in this study, recent impacts to local neighborhoods, and the experiences of other communities where OHVs are allowed on the roadways seem to point to the Inyo County Combined Use pilot project NOT being workable in its current form. Noise complaints, illegal roadway use, dust, private property trespass, and agricultural damage are the documented legacy of this pilot project after only six years. Further, we were unable to locate any data suggesting significant benefits to Inyo County that can be ascribed to the CU program – as much of the monitoring outlined in the County’s Implementation Procedures (Appendix I-A) has not been fully completed and economic data have never been collected.

## 5 Management Recommendations

This report provides evidence that the current Adventure Trails system, including the CU routes authorized by SB402 and Vehicle Code §38026.1, is causing damage to public lands and harm to city and county residents that were unanticipated by Inyo County and the project proponents. The recommendations discussed in detail below are intended to assist with improving the system to allow for continued access for OHV users, while protecting the lands for all to enjoy.

We recognize that we all, OHV users included, care deeply about the lands surrounding Bishop. We also recognize that legal use of the system is not the problem; rather, it is the violation of existing motor vehicle codes that is damaging public lands and community quality of life. While law enforcement is the usual “answer” to illegal use, this illegal activity seems particularly resistant to such efforts. As observed above, illegal use appears to be an inevitable consequence of legal use, and such use is not unique to Inyo County. As Chavez & Knap (2006) noted, “Almost all (91 percent) [of USFS land managers] reported that USFS staff had observed or received reports of OHV use on closed roads or trails that exclude motorized vehicles.” (p.9)

Given the ongoing and significant impacts we have documented in this report, it seems clear that authorizing CU routes in their current form is not working and that there have been extensive impacts to human communities, wildlife communities, air quality, water quality, and water supply as a result. Some of these impacts are irreversible, but many are not. The true, cumulative, and combined costs of the state’s and Inyo County’s efforts to encourage legal—and thus, inevitably, illegal—OHV use with the Adventure Trails program and related systems should be candidly, carefully, and rigorously evaluated for their present, ongoing, and potential future impacts to human health, wildlife, air and water quality, water supply, and local, state, and federal budgets. Permanent or near-permanent impacts should be identified, especially those tied to water quality, water supply, air quality, and migrating wildlife, as these have the potential to affect broader portions of the state. Effects on other portions of Inyo County’s economy—e.g., fishing (water quality and supply), hunting (wildlife values), birdwatching

(wildlife values), photography, non-motorized recreation, and other forms of outdoor tourism should be evaluated.

If those costs are deemed acceptable at the local, state, and federal level and this program is to continue, better management alternatives are available.

#### 5.1.1 General Management Approaches

A best management approach would anticipate illegal use using modern methods to predict where impacts might occur (e.g., see Hsu, 2014; Whitbeck and Fehmi 2016), assess the extent of potential damage, and adjust policies accordingly, rather than allowing irretrievable damage to happen, letting citizens and wildlife pay the consequences with their health and their lives, and leaving cleanup for future government agencies (e.g., see Switalski, 2018 and U.S. GAO, 2009). Consequences of any project should be anticipated and evaluated as part of the cost of the project. Predictive methods such as those described in Hsu (2014) were not implemented initially as part of the AT project, but should be implemented as soon as possible; costs have already been mounting steadily as described above. **We also recommend selecting CU routes on the basis of best management practices and what is best in the interests of the community and the environment, rather than emphasizing what might be convenient for one or a few motorized recreationists at the cost of residents, wildlife, and air and water quality.** And finally, although it is too late to evaluate pre-project conditions, we suggest a full assessment of current conditions—e.g., sediment loads in streams, particulate matter pollution, and dust on Sierra Nevada snowpacks—as quickly as possible so that data may be used for comparison in the future.

In particular, given the relative importance of creeks, springs, and intermittent streams in our desert environment, it seems unwise to continue to encourage illegal OHV traffic—which is a byproduct of the Adventure Trails program—in areas where creating an illegal route up an intermittent creek bed, through a spring or seep, or through a meadow is a simple matter of turning off the route. Models could also be used to predict where the most and worst damage might occur from OHV use, and traffic could be routed away from those areas.

With respect to signs and user education, misleading signs that label broad swaths of public and private land as "OHV areas" should be removed and replaced with signs that contain better and more specific information about recreation opportunities and local wildlife. Riders must be made aware that they are entering an area shared by other users and that damage to the land, wildlife, wildlife habitat or vegetative resources is illegal (CA Vehicle Code §38319). Starts and ends of routes, as well as direction changes, should be clearly marked with signage of consistent size and quality. Roads adjacent to CU routes need to be clearly marked as NOT open for OHV or DB traffic.

Whether the reporter is an OHV driver, a non-motorized user, a resident of Inyo County, or someone who is just visiting, reporting of illegal use could be made easier with a single, simple multi-agency website, or even with the simple website described in Inyo County implementation procedures (which were developed some time ago, but which still had not been fully implemented when we completed this report). Many people who witness illegal use are unfamiliar with land boundaries (e.g., BLM versus USFS versus LADWP versus other private land), but are aware that illegal use has impacts and would like to record it somehow so that it can be stopped and the effects ameliorated.

However, monitoring and reporting should not devolve to the shoulders of bystanders, residents, and a few volunteers. **If this program is to be continued, then the full cost should be anticipated, acknowledged, and funded in advance:** Before any more damage is allowed to occur, funding should be found and implemented to hire a team of paid full-time specialists, some of whose sole job is to try to restore damaged areas as much as possible, and others whose focus is to monitor OHV traffic in each area, educate riders, and cite and fine them when necessary. Fines should be commensurate to the damage, although no recompense can be made for places in which headcuts, erosion, drops in groundwater, and scouring of vegetation have erased landscapes.

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## 7 Appendix I. Bills Relating to CA Vehicle Code §38026.1

### 7.1 Appendix I-A. Inyo County Assembly Bill 628 Implementing Procedures

1. The Adventure Trails Pilot Program is authorized by Section 38026.1 and other applicable portions of the California Vehicle Code.

2. The Adventure Trails Program project advocates (Applicant) shall submit a formal application to the Inyo County Public Works Department requesting the County consider the designation of specified roadways as combined-use highways.

a. The application shall include all of the following for each portion of proposed combined use roadway:

i. Name of Highway

ii. Length of combined-use section

iii. A description of the portion of the right-of-way that is proposed to be used. That is will the off-highway vehicles be limited to: the entire lane, the edge of the lane, or some other specific area.

iv. The starting point of the combined-use segment. If this is an existing Bureau of Land Management or U.S. Forest Service road, provide the name and/or number of the off-highway motor vehicle trail or trailhead. If the starting point of the combined-use segment is a necessary service and/or lodging facility, specify the name and Assessor's Parcel Number of the facility.

1. Include a letter of permission from the owner of the Assessor's Parcel Number that is the necessary service and/or lodging facility.

v. The ending point of the combined-use segment. If this is an existing Bureau of Land Management or U.S. Forest Service road, provide the name and/or number of the off-highway motor vehicle trail or trailhead. If the ending point of the combined-use segment is a necessary service and/or lodging facility, specify the name and Assessor's Parcel Number of the facility.

1. Include a letter of permission from the owner of the Assessor's Parcel Number is the necessary service and/or lodging facility.

vi. A description of the nature and destination of any off-highway motor vehicle trail that is a starting or ending point to a combined-use segment.

vii. A description of the nature and purpose of the combined-use segment. To be considered, the combined-use segment must provide a connecting link between one of the following:

1. A connecting link between off-highway motor vehicle trail segments,

2. An off-highway motor vehicle recreational use area and necessary service facilities,  
or

3. Lodging facilities and an off-highway motor vehicle recreational facility. The applicant shall state which one of these three types of connecting link is being provided by each combined-use trail segment.

viii. An eight and one-half inch map clearly displaying each combined use section.

The map should display:

1. The information described in subsections (i) through (v).

2. Major cross streets

3. Any controlled intersections (stop signs or signalized intersections)

4. If the combined-use segment starts and/or ends on an un-named roadway, a vicinity map should be included.

ix. A list of property owners adjacent to any and all combined-use routes from the Inyo County Assessor's Department. If multiple properties are owned by one owner, that owner shall be

notified of each of their properties adjacent to the proposed combined-use segment. Legal size envelopes with first class postage affixed addressed to each property owner with the return address left blank.

- b. The Applicant can submit the application in multiple sections if they choose. If so, a cover letter to the application should state this.
- c. Once the application is submitted, the contents of the application will be available for public review.

3. The Inyo County Department of Public Works shall be responsible for the evaluation and processing of any combined-use applications.

4. The County shall determine if the application packet is complete. The County shall notify the Applicant via e-mail or telephone within 30 days if the application is complete. If feasible, this determination should be made earlier.

5. Within 120 days of the date the County deems the application complete, the County shall accept or reject the application. This period may be extended by the County, upon written notification to the applicant, together with the reason necessitating the extension. During the 120 day period, the County will do the following:

- a. Submit copies of the application to responsible State and/or land management agencies for confirmation of the validity of any trail segment and/or general comments, requesting that the requested information be provided within 60 days. The County shall provide copies of the application to pertinent land management agencies or owners to ensure conformance with the land manager's Land Use Plan. "Pertinent agencies or owners" are defined as those which own, manage, or have jurisdiction for 1) road segments which connect to County roads identified in the application, 2) the land crossed by a County road identified in the application, or 3) the land adjacent to a combined use segment;
- b. Submit the combined-use application to the Commissioner of the California Highway Patrol and ask for a determination if the proposed combined-use segment will create a potential traffic safety hazard. If the combined-use segment is determined by the Commissioner of the California Highway Patrol to have the potential to create a traffic hazard, that segment shall be dropped from consideration.
- c. Notice a public hearing on the application, providing notice to all land owners adjacent to the proposed combined-use roadway of the date, time and location of the public hearing, with notice mailed a minimum of twenty-one (21) days prior to the public hearing; and
- d. Hold a public hearing and compile all comments received on the application.

6. The County shall work in cooperation with the California Department of Transportation to establish uniform specifications and symbols for signs, markers, and traffic control devices to control off-highway motor vehicles in accordance with Section 38026.1 of the Vehicle Code.

7. The County will first designate crossings of the State Highway using Section 38026 of the Vehicle Code. The Applicant is encouraged to design their requests to the County to use combined-use segments of three miles or less. Any such request would be undertaken separately from the Pilot Program and requires a separate application to the County in conformance with the existing Vehicle Code. If this is not possible and the combined-use segment is between three and ten miles, the County will consider the designation of crossings of the State Highway as part of the Pilot Program as set forth in Assembly Bill 628.

8. The application, together with comments received during the 120 day period, shall be presented to the Board of Supervisors for consideration and approval. The Agenda Request for such consideration shall also include a recommendation for each route from the Public Works Director, the Risk Manager, the Sheriff, and County Counsel on each combined-use segment. Their recommendation shall address:

- a. Safety
- b. Liability and Risk
- c. Potential maintenance costs

9. The County shall hold a public hearing and adopt a resolution to approve combined-use segment(s). The adoption resolution may include multiple combined-use segments. The resolution shall include:

- a. A determination that the proposed combined use segment does not have the potential to create a safety hazard.
- b. A confirmation that the information contained in Section 2(A)(i) – (viii) was included in the application packet.
- c. A statement that each combined-use trail segment is in compliance with the California Vehicle Code as amended by the inclusion of Section 38026.1.

10. If the funding for the purchase and installation of signage is not forthcoming as set forth In Section 38026.1, the County shall work with the applicant to identify funding to install signage identified in Section No. 6. The purchase and installation of this signage shall be revenue neutral to the County. That is, if the funding for the signage is not forthcoming from the State, the applicant shall be responsible for this expense.

11. The County Road Department shall be responsible for the installation of all required signage on each combined-use trail segment.

12. Using aerial or satellite imagery, Inyo County will create a baseline that encompasses the area adjacent to each designated route, including the end point in a manner adequate to identify and monitor route proliferation.

13. The County shall formally open the combined-use trail segment once all signage is in place.

14. Each combined-use trail segment shall be monitored in the following ways.

- a. The County shall be responsible to maintain a database describing any collisions involving an off-highway vehicle on any combined-use segment.
  - i. The Department of Public Works will request from the Inyo County Sheriff and the California Highway Patrol a report of all collisions involving off-highway vehicles on a combined-use segment on an annual basis. This information will be solicited from local land management agencies.
- b. The Inyo County Sheriff's Department will maintain a file that includes any information regarding impact on traffic flows, safety, incursions into areas not designated for off-highway vehicle usage, to the extent such information is available.
- c. The County shall yearly collect at least a three-day-long set of data collected including two weekend days detailing the number of off-highway vehicles using each combined-use segment.
- d. The County shall twice yearly survey for new OHV routes originating off of a combined use in the field and in the office reviewing the latest aerial imagery so that it can adequately monitor for the proliferation of new routes.
- e. The County shall send a letter encouraging land management agencies that have an off-highway motor vehicle trail segment that links to a combined-use segment to monitor the amount of off-highway vehicle use.
- f. The Public Works Department shall maintain a website that is a central hub for collecting public and public agency comments and complaints on the combined-use routes which shall include all correspondence from the public and public agencies regarding all combined use segments.

g. At least 90 days prior to the development of the report described in Section 15, notice will be made to the public and local land management agencies requesting comments and observations regarding roads in the pilot program, including any results from monitoring.

15. No later than January 1, 2016, the County, in consultation with the Department of the California Highway Patrol, the Department of Transportation, and the Department of Parks and Recreation, shall prepare and submit to the Legislature a report evaluating the pilot project as described in Section 38026.1 of the Vehicle Code.

16. If Section 38026.1 of the Vehicle Code is repealed, on all designated routes, the County shall be responsible for the removal of all signage related to combined-use highway segments set forth under Section 38026.1. Further, upon repeal of section 38026.1, the designation of all combined use routes by the County shall be immediately rescinded.

17. If the property owner at a starting point or an ending point of a combined-use segment that is considered to be a necessary service or lodging facility decides at a future date that they do not wish their property to be linked to by a combined-use segment, they can submit a letter stating that the property owner does not wish to be linked to the combined-use route. Upon receipt of that letter, and assuming that the service facility is the endpoint of the combined-use segment, the designation on that road shall be changed within 90 days so that the combined-use of that roadway segment shall no longer be allowed. If a change to starting point or endpoint requires the submittal of a separate application, the 90-day period will be extended until the segment is acted upon by the Board of Supervisors.

18. If a necessary service facility that is a start or an end point of a combined-use route closes, the applicants shall be required to submit a revised application within 90 days from the date the business is closed. The County shall determine if an additional application is required.

19. If the County's monitoring of a combined-use route determines that undesirable impacts are being created by the route, the County shall have the authority by a vote of the Board of Supervisors to close a combined-use route. The County shall close the route by the removal of all signage within 90 days from the date of the Board action.

20. The Public Works Department may, at the discretion of the Public Works Director, temporarily close a combined-use route to green sticker vehicles by temporarily obscuring route signage.

21. The operation of combined use routes by off-highway vehicles in residential areas is restricted to between dawn and dark and no earlier than 7:00 a.m. and no later than 8:00 p.m.

22. The Mitigation and Monitoring Plan for the Eastern Sierra Adventure Trails System Environmental Impact Report (Appendix 1.0 to the Final EIR) is included as part of this Implementing Procedures by reference.

23. The County shall monitor for the creation of new OHV routes along the proposed combined-use routes. The County shall coordinate with the property owner/land management agency and determine if corrective action is required. If necessary, barriers will be place to prevent further use of the new routes.

24. The County shall consider the passage of an ordinance that will make it a misdemeanor offense if operators of OHV's cause damage to land, livestock, ranching and farming operations, wildlife, wildlife habitat or vegetative resources.

25. All OHVs utilizing a combined-use route must comply with the following requirements and any published written material (brochures, maps, pamphlets) produced by the applicants shall include the following educational language:

OHV users on all combined-use routes must:

- Drivers must have in possession a valid driver's license of the appropriate class for the vehicle being operated
- Ride during daylight hours only and not earlier than 7:00 a.m. and no later than 8:00 p.m.
- Have an operational stoplight
- Have insurance in accordance with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7 of the California Vehicle Code
- Obey the posted speed limit for OHVs on combined-use roads and, in residential areas, drive no faster than 15 mph
- Use a vehicle that has rubber tires
- Pass at least three (3) feet away from bicyclists, horses, and pedestrians
- Slow to 5 mph when passing horses or pedestrians
- Ride only on existing trails
- Not stop in flowing water
- Drive in the middle of the vehicle lane
- Not drive on the shoulder
- Use existing trails when exiting a combined-use route.
- OHV operators must operate the OHV in accordance with the vehicle manufacturer's recommendations for use of the vehicle.

## **Senate Bill No. 402**

### **CHAPTER 211**

An act to amend Section 38026.1 of the Vehicle Code, relating to vehicles.

[ Approved by Governor August 30, 2019. Filed with Secretary of State August 30, 2019. ]

### **LEGISLATIVE COUNSEL'S DIGEST**

SB 402, Borgeas. Vehicles: off-highway vehicle recreation: County of Inyo.

Existing law authorizes an off-highway motor vehicle that has been issued a plate or device to be operated or driven upon a highway under certain circumstances. Existing law authorizes various public entities, and the Director of Parks and Recreation, to designate a highway, or portion thereof, for the combined use of regular vehicular traffic and off-highway motor vehicles if certain requirements are met.

Existing law, until January 1, 2020, authorizes the County of Inyo to establish a pilot project that would exempt specified combined-use highways in the unincorporated area in the County of Inyo from this prohibition to link together existing roads in the unincorporated portion of the county to existing trails and trailheads on federal Bureau of Land Management or United States Forest Service lands in order to provide a unified linkage of trail systems for off-highway motor vehicles, as prescribed. Existing law requires the County of Inyo, in consultation with the Department of the California Highway Patrol, the Department of Transportation, and the Department of Parks and Recreation, to prepare and submit to the Legislature a report evaluating the effectiveness of the pilot project by January 1, 2019, as specified.

This bill would extend the operation of that pilot project until January 1, 2025, and would require the County of Inyo, in consultation with the above-mentioned entities, to submit an additional evaluation report to the Legislature by January 1, 2024.

The bill would also require the County of Inyo, in consultation with the Department of Fish and Wildlife and the Great Basin Unified Air Pollution Control District, to submit a report, as specified, to the Legislature by January 1, 2022, regarding the operation and impact of these highways.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

### **THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:**

**SECTION 1.** It is the intent of the Legislature in enacting this act to continue to better evaluate whether a combined-use highways system is workable in the County of Inyo. It is further the intent of the Legislature that no General Fund moneys be expended for the pilot project extension authorized by this act, and the project will be revenue neutral to the state.

**SEC. 2.** Section 38026.1 of the Vehicle Code is amended to read:

**38026.1.** (a) Except as provided in subdivision (e), the County of Inyo may establish a pilot project to designate combined-use highways on unincorporated county roads in the county for no more than 10 miles so that the combined-use highways can be used to link existing off-highway motor vehicle trails and trailheads on federal Bureau of Land Management or United States Forest Service lands, and to link off-highway motor vehicle recreational-use areas with necessary service and lodging facilities, in order to provide a unified system of trails for off-highway motor vehicles, preserve traffic safety, improve natural resource protection, reduce off-highway vehicle trespass on private land, and minimize impacts on county residents.

(b) A pilot project established pursuant to this section shall do all of the following:

(1) Prescribe a procedure for highway, road, or route selection and designation. The procedure shall be approved by a vote of a majority of the county's board of supervisors.

(2) Prescribe a procedure for the county to remove a combined-use designation, including a designation that is removed as a result of the conclusion of the pilot program.

(3) In cooperation with the Department of Transportation, establish uniform specifications and symbols for signs, markers, and traffic control devices to control off-highway motor vehicles, including, but not limited to, all of the following:

(A) Devices to warn of dangerous conditions, obstacles, or hazards.

(B) Designations of the right-of-way for regular vehicular traffic and off-highway motor vehicles.

(C) A description of the nature and destination of the off-highway motor vehicle trail.

(D) Warning signs for pedestrians and motorists of the presence of off-highway motor vehicle traffic.

(4) Require that off-highway motor vehicles subject to the pilot project meet the safety requirements of federal and state law regarding proper drivers' licensing, helmet usage, and the requirements specified in Section 38026.5.

(5) Prohibit off-highway motor vehicles from traveling faster than 35 miles per hour on highways designated under this section.

(6) (A) Prohibit a combined-use highway road segment designated under this section from exceeding 10 miles.

(B) Notwithstanding subparagraph (A), two or more combined-use highway road segments may share a common starting point or ending point and may partially overlap as long as the resulting network of the highway road segments does not include more than three distinct locations of shared starting or ending points, or both.

(7) Include an opportunity for public comment at a public hearing held by the county in order to evaluate the pilot project.

(c) A pilot project established pursuant to this section may include use of a state highway, subject to the approval of the Department of Transportation, or any crossing of a highway designated pursuant to Section 38025.

(d) (1) By selecting and designating a highway for combined use pursuant to this section, the county agrees to defend and indemnify the state against any and all claims, including legal defense and liability arising

from a claim, for any safety-related losses or injuries arising or resulting from use by off-highway motor vehicles of a highway designated as a combined-use highway by the county's board of supervisors pursuant to this section.

(2) This subdivision does not alter the requirements of subdivision (e).

(e) The county shall not designate a highway for combined use pursuant to this section unless the Commissioner of the Department of the California Highway Patrol finds that designating the highway for combined use would not create a potential traffic safety hazard.

(f) (1) Not later than January 1, 2019, the County of Inyo, in consultation with the Department of the California Highway Patrol, the Department of Transportation, and the Department of Parks and Recreation, shall prepare and submit to the Legislature a report evaluating the pilot project, and containing all of the following:

(A) A description of the road segments designated to allow combined use for over three miles, as approved or adopted by a majority vote of the members of the Inyo County Board of Supervisors.

(B) An evaluation of the overall safety and effectiveness of the pilot project, including its impact on traffic flows, safety, off-highway vehicle usage on existing trails, incursions into areas not designated for off-highway vehicle usage, and nonmotorized recreation.

(C) A description of the public comments received at a public hearing held by the county in regards to an evaluation of the pilot project.

(2) On or before January 1, 2024, the County of Inyo, in consultation with the entities listed in paragraph (1), shall prepare and submit a report to the Legislature that includes the information specified in paragraph (1).

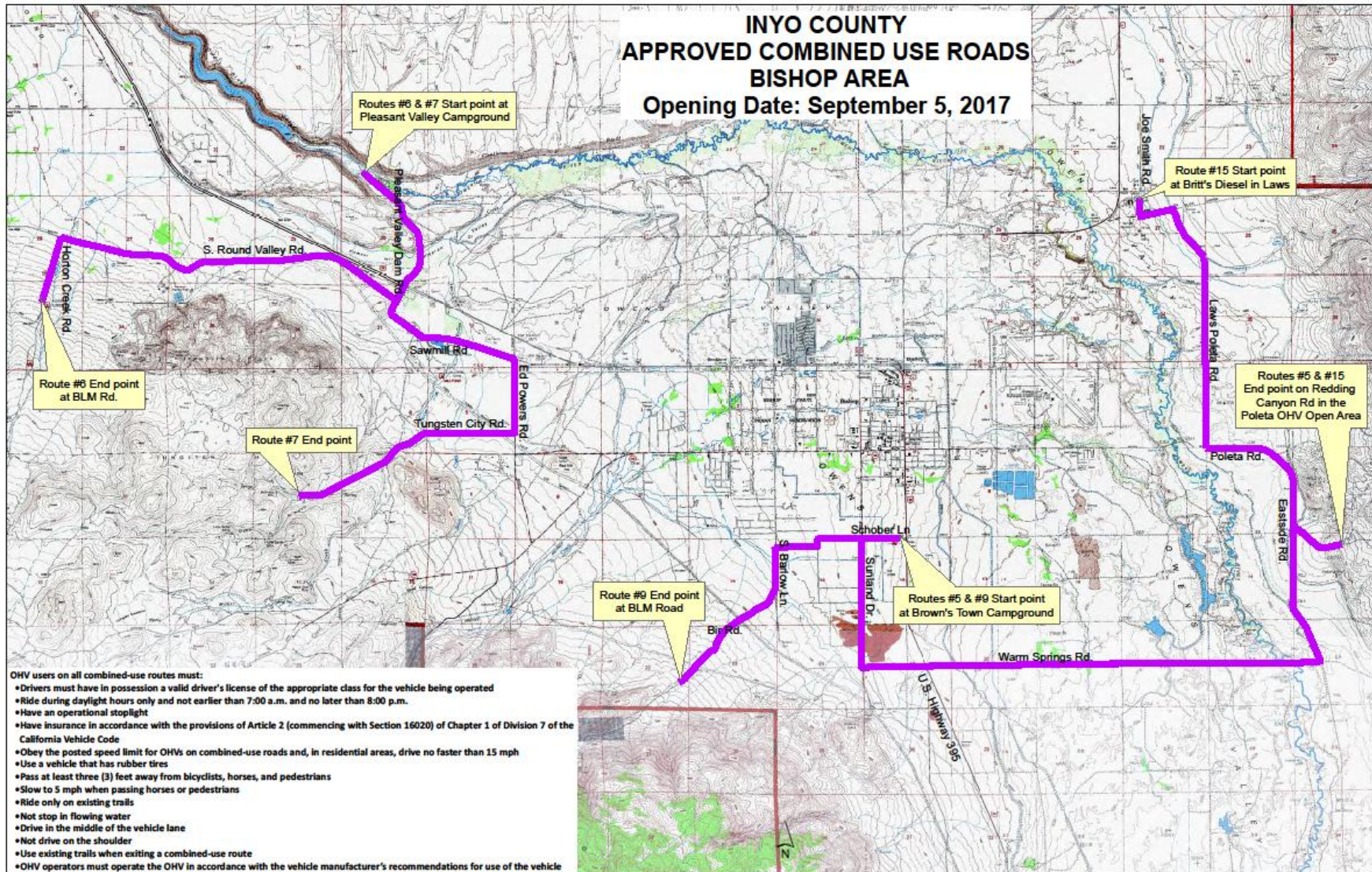
(g) On or before January 1, 2022, the County of Inyo, in consultation with the Department of Fish and Wildlife and the Great Basin Unified Air Pollution Control District, shall prepare and submit a report to the Legislature on the operation and impacts of the Adventure Trail System combined use highways designated pursuant to this section, and the portions of any adjoining trails in close proximity to those highways, including impacts to neighboring lands affected by the system, if any. The report shall include the latest available information, including but not limited to impacts on cultural resources and archaeological sites, streambed modifications and water quality impacts, impacts on protections for wildlife and aquatic habitat, native plants, and wildlife, traffic, particulate pollution, and noise.

(h) (1) The reports submitted pursuant to subdivisions (f) and (g) shall be submitted in compliance with Section 9795 of the Government Code.

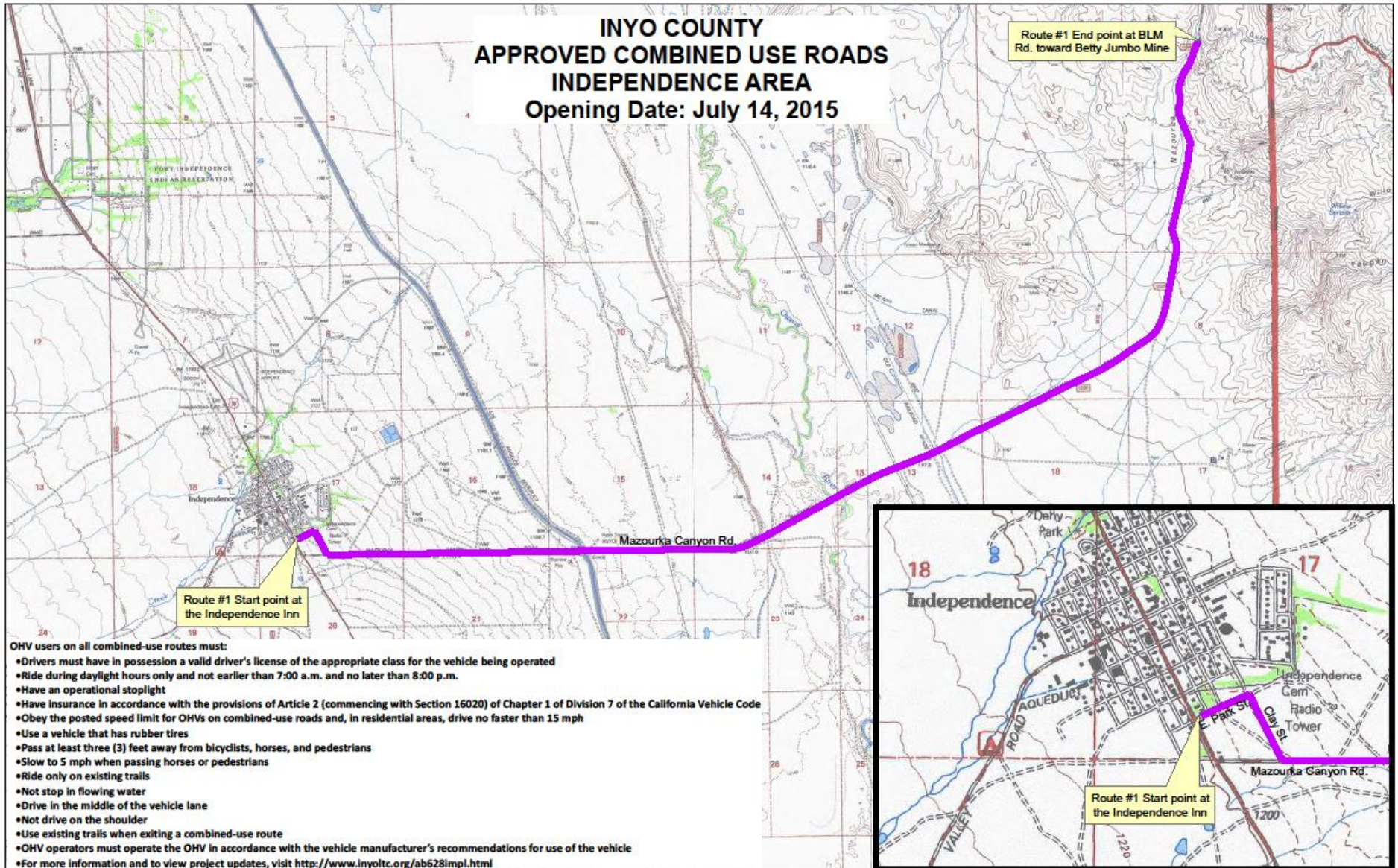
(2) This section shall remain in effect only until January 1, 2025, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2025, deletes or extends that date.



## 8 Appendix II. Adventure Trail Maps



**INYO COUNTY  
APPROVED COMBINED USE ROADS  
INDEPENDENCE AREA  
Opening Date: July 14, 2015**



Route #1 End point at BLM Rd. toward Betty Jumbo Mine

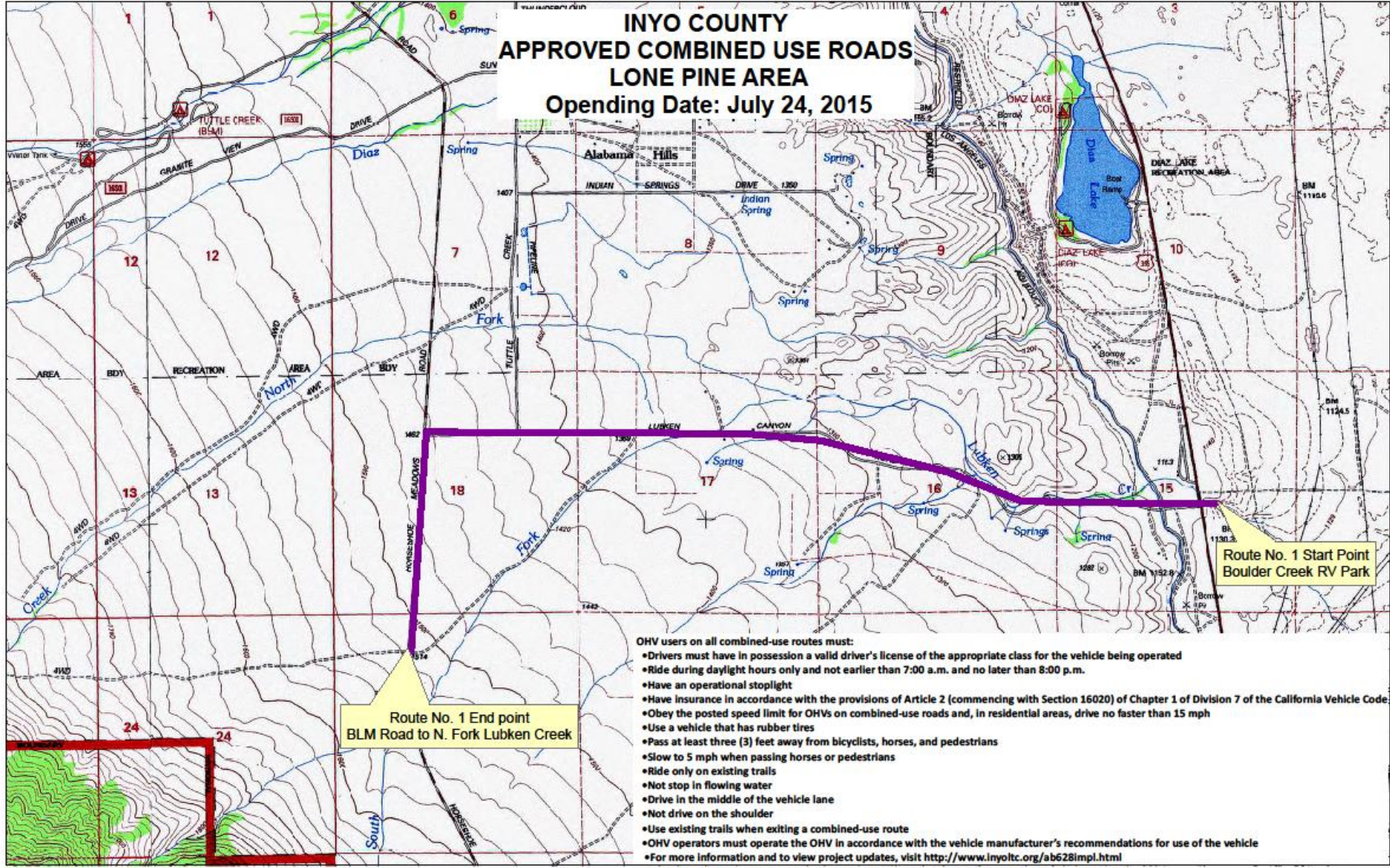
Route #1 Start point at the Independence Inn

Route #1 Start point at the Independence Inn

**OHV users on all combined-use routes must:**

- Drivers must have in possession a valid driver's license of the appropriate class for the vehicle being operated
- Ride during daylight hours only and not earlier than 7:00 a.m. and no later than 8:00 p.m.
- Have an operational stoplight
- Have insurance in accordance with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7 of the California Vehicle Code
- Obey the posted speed limit for OHVs on combined-use roads and, in residential areas, drive no faster than 15 mph
- Use a vehicle that has rubber tires
- Pass at least three (3) feet away from bicyclists, horses, and pedestrians
- Slow to 5 mph when passing horses or pedestrians
- Ride only on existing trails
- Not stop in flowing water
- Drive in the middle of the vehicle lane
- Not drive on the shoulder
- Use existing trails when exiting a combined-use route
- OHV operators must operate the OHV in accordance with the vehicle manufacturer's recommendations for use of the vehicle
- For more information and to view project updates, visit <http://www.inyoct.org/ab628impl.html>

**INYO COUNTY  
APPROVED COMBINED USE ROADS  
LONE PINE AREA  
Opening Date: July 24, 2015**



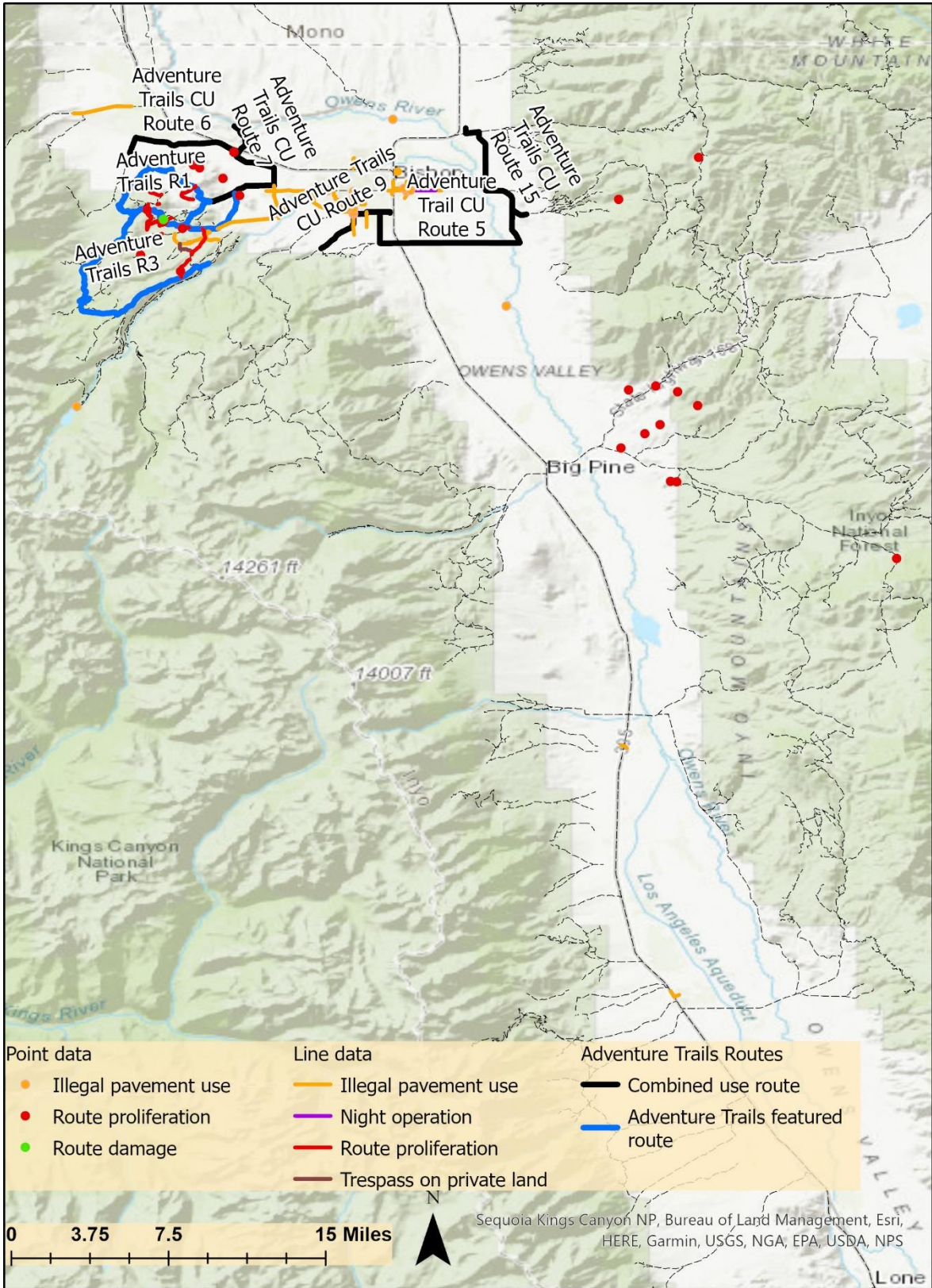
Route No. 1 End point  
BLM Road to N. Fork Lubken Creek

Route No. 1 Start Point  
Boulder Creek RV Park

- OHV users on all combined-use routes must:
- Drivers must have in possession a valid driver's license of the appropriate class for the vehicle being operated
  - Ride during daylight hours only and not earlier than 7:00 a.m. and no later than 8:00 p.m.
  - Have an operational stoplight
  - Have insurance in accordance with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7 of the California Vehicle Code.
  - Obey the posted speed limit for OHVs on combined-use roads and, in residential areas, drive no faster than 15 mph
  - Use a vehicle that has rubber tires
  - Pass at least three (3) feet away from bicyclists, horses, and pedestrians
  - Slow to 5 mph when passing horses or pedestrians
  - Ride only on existing trails
  - Not stop in flowing water
  - Drive in the middle of the vehicle lane
  - Not drive on the shoulder
  - Use existing trails when exiting a combined-use route
  - OHV operators must operate the OHV in accordance with the vehicle manufacturer's recommendations for use of the vehicle
  - For more information and to view project updates, visit <http://www.inyolc.org/ab628impl.html>

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# 9 Appendix III. Citizen Reports and Overview Map



Name	Location	Incident Type	Vehicle Type
20-03-14-01	37.358008, -118.501515	Route proliferation	DB
20-03-14-02	37.339718, -118.555014	Route proliferation	DB
20-03-14-03	37.340421, -118.553683	Route proliferation	DB
20-03-14-04	37.348015, -118.565171	Route proliferation	DB
20-03-15-01	37,23.2487x-118,30.1630	Route proliferation	DB
20-03-16-1	CalTopo File	Route proliferation	DB
20-03-16-2	CalTopo File	Route proliferation	DB
20-03-21-01	Tungstens, See map	Route proliferation	DB
20-03-21-02	Tungstens, see map	Route proliferation	OHV
20-03-21-03	Tungstens, See map	Route proliferation	DB
20-03-21-04	Tungstens, See map	Route proliferation	DB
20-03-21-05	Tungstens, See map	Route proliferation	DB
20-03-21-06	Tungstens, See map	Route proliferation	DB
20-03-21-07	Tungstens, See map	Route proliferation	DB
20-03-23-01	37.32844, -118.52504	Route proliferation	DB
20-03-23-02	gpx.track	Route proliferation	DB
20-03-23-03	gpx.track	Route proliferation	DB
20-03-23-04	gpx.track	Route proliferation	DB
20-03-23-05	gpx.track	Route proliferation	DB
20-03-24-01	37.335336, -118.540647	Route proliferation	OHV
20-03-24-02	gpx.track	Route proliferation	DB
20-03-24-03	37.341672, -118.554008	Route damage	DB
20-03-28-01	gpx.track	Route proliferation	DB
20-03-28-02	gpx.track	Route proliferation	DB
20-03-30-02	37.305635, -118.542126	Route proliferation	DB
20-03-30-03	R-2 to Buttermilk Rd.	Route proliferation	DB
20-04-02-01	Birch Creek near Starlite	Route proliferation	OHV
20-04-03-01	gpx.track	Route proliferation	Unknown
20-04-03-02	gpx.track	Route proliferation	Unknown
20-04-03-03	gpx.track	Route proliferation	Unknown
20-04-04-01	Track.gpx, see map	Route proliferation	DB
20-04-10-01	37.36971, -118.51296	Route proliferation	DB
20-04-11-01	Buttermilk, see map	Route proliferation	DB
20-04-11-02	Buttermilk, see map	Route proliferation	DB
20-04-11-03	Buttermilk, see map	Route proliferation	DB
20-04-11-04	Buttermilk, see map	Route proliferation	DB
20-04-11-05	Buttermilk, see map	Route proliferation	DB
20-04-19-01	Manor Mkt. to Tungsten City turn via Red Hill	Illegal pavement use	OHV
20-04-19-02	Mumy to W. Line to Red Hill	Illegal pavement use	OHV
20-04-22-01		Route proliferation	DB
20-04-23-01	E. Line onto Meadow w/ stop at Manor Mkt.	Illegal pavement use	DB

20-04-23-02	Wbound on Sunset @Sundown	Illegal pavement use	OHV
20-04-24-01	N2309 x Papoose Flat	Route proliferation	DB
20-04-25-01	Underwood, Wbound	Illegal pavement use	DB
20-04-25-02	Wbound on E. Line @ Hanby	Illegal pavement use	DB
20-04-25-03	E. Line onto 395N (Main)	Illegal pavement use	DB
20-04-27-01	Near Schulman Grove	Route proliferation	OHV
20-04-28-01	West Line onto Warren S.	Illegal pavement use	OHV
20-05-01-01	South Barlow	Illegal pavement use	OHV
20-05-03-01	Sunland Res Rd.	Illegal pavement use	OHV
20-05-07-01	Underwood to S. Barlow	Illegal pavement use	OHV
20-05-08-01	37.37714, -118.52898	Route proliferation	DB
20-05-13-01	Bar M onto Saniger	Illegal pavement use	DB
20-05-14-01	Eastbound on Sunset near Sundown	Illegal pavement use	OHV
20-05-16-01	Willow St. westbound	Illegal pavement use	DB
20-05-17-01	940 Starlite Drive	Trespass	OHV
20-05-18-01	Willow onto Hanby	Illegal pavement use	OHV
20-05-20-01	Starlite at Polaris	Illegal pavement use	OHV
20-05-20-02	168 onto Starlite	Illegal pavement use	OHV
20-05-21-01	168 between Buttermilk and Ed Powers. Children	Illegal pavement use	OHV
20-05-23-02	Starlite Drive	Illegal pavement use	OHV
20-05-23-03	Sunset at Sundown	Illegal pavement use	OHV
20-05-23-04	Round Valley Rd onto Pine Creek Rd.	Illegal pavement use	DB_OHV
20-05-24-01	Lake Sabrina	Illegal pavement use	DB
20-05-24-02	W. Line onto Mumy	Illegal pavement use	OHV
20-05-31-01	Red Hill Road	Illegal pavement use	OHV
20-06-04-01	395 in Independence	Illegal pavement use	OHV
20-06-05-01	Willow St. to 395	Illegal pavement use	OHV
20-06-07-01	East line, westbound	Illegal pavement use	OHV
20-06-09-01	W. Line at Meadow Lane	Illegal pavement use	OHV
20-06-13-01	E. Line onto Hanby	Illegal pavement use	OHV
20-06-19-01	Carol Lane	Illegal pavement use	DB
20-06-21-01	168W onto Ed Powers	Illegal pavement use	DB
20-06-23-01	S. Barlow x Sierra Vista	Illegal pavement use	DB
20-06-23-02	AT loop to 168 to Starlite	Illegal pavement use	OHV
20-06-25-01	South Barlow	Illegal pavement use	DB
20-06-27-01	Ed Powers, crossing 168	Illegal pavement use	OHV
20-06-30-01	Willow St.	Illegal pavement use	DB_OHV
20-07-07-01	Carol Lane	Illegal pavement use	DB
20-07-18-01	Line St. x canal	Illegal pavement use	OHV
20-09-15-01	Carol Lane	Illegal pavement use	OHV
20-09-19-01	Poleta x Line	Night operation	OHV
20-09-22-01	Line St. x canal	Illegal pavement use	DB

20-10-04-01	Line St. x canal	Illegal pavement use	OHV
20-10-06-01	Line St. x canal	Illegal pavement use	DB
20-10-30-01	gpx.track, DV area	Route proliferation	DB_OHV
20-11-05-01	Harlis Brody area, gpx.track	Route proliferation	OHV
20-11-08-01	Carol Lane	Illegal pavement use	DB
20-11-12-01	South Barlow @ Longview	Illegal pavement use	DB
20-11-13-01	S. Barlow @ Longview	Illegal pavement use	DB
20-11-15-01	Carol Lane	Illegal pavement use	DB
20-11-15-02	S Barlow between Underwood /Longview	Illegal pavement use	DB
20-11-20-01	S Barlow at W. Line	Illegal pavement use	DB
20-11-20-02	Harlis Brody area, gpx.track	Route proliferation	OHV
20-11-21-01	Harlis Brody area, gpx.track	Route proliferation	DB
20-11-21-02	Harlis Brody area, gpx.track	Route proliferation	DB
20-11-22-01	E. Line onto Canal S.	Illegal pavement use	OHV
20-11-26-01	Carol Lane	Illegal pavement use	DB
20-11-29-01	Collins Rd @ Owens River	Illegal pavement use	OHV
20-11-29-02	Five Bridges @ Owens River	Illegal pavement use	OHV
20-11-30-02	Carol Lane	Illegal pavement use	SB
20-12-02-01	Irene, near S. Barlow	Illegal pavement use	OHV
20-12-03-01	Sharp's Meadow, 37.31792, -118.56978	Route proliferation	DB
20-12-04-01	Carol Lane	Illegal pavement use	DB
20-12-06-01	395 @ Aberdeen	Illegal pavement use	OHV
20-12-25-01	Carol Lane	Illegal pavement use	DB
21-01-07-01	S Barlow @ Underwood	Illegal pavement use	OHV
21-01-09-01	Redding Canyon	Route proliferation	DB
21-01-13-01	S Barlow onto Underwood	Illegal pavement use	OHV
21-01-15-01	Willow St onto Hanby	Illegal pavement use	OHV
21-01-20-01	Willow St.	Illegal pavement use	OHV
21-01-24-01	S Barlow @ Sierra Vista	Illegal pavement use	DB
21-02-02-01	Eastern Sierra Flyers Field	Trespass	OHV
21-02-05-01	E. Line onto Canal north	Illegal pavement use	DB
21-02-07-01	Riata to Manor Market	Illegal pavement use	DB
21-02-16-01	Barlow from Schoeber to Sunset	Illegal pavement use	OHV
21-02-20-01	East line, westbound	Illegal pavement use	DB
21-02-20-02	W. Line, McClaren to Red Hill	Illegal pavement use	OHV
21-02-21-01	S Barlow, Schoeber to Sunset	Illegal pavement use	OHV
21-02-25-01	Carol Lane	Illegal pavement use	DB
21-02-26-01	Willow onto Hanby	Illegal pavement use	OHV
21-03-02-01	S Barlow @ Sierra Vista	Illegal pavement use	DB
21-03-05-01	Carol Lane	Illegal pavement use	DB
21-03-14-01	S Barlow @ Underwood	Illegal pavement use	OHV
21-03-14-02	S Barlow, Schoeber to Underwood	Illegal pavement use	DB
21-03-26-01	Carol Lane	Illegal pavement use	DB



21-04-10-01	Starlite, Polaris, Altair	Illegal pavement use	OHV
21-04-18-01	S Barlow onto Sunset	Illegal pavement use	OHV
21-04-28-01	Carol Lane	Illegal pavement use	DB
21-04-30-01	Carol Lane	Illegal pavement use	DB
21-05-09-01	S Barlow from W. Line	Illegal pavement use	DB
21-05-30-01	S Barlow onto Sunset	Illegal pavement use	DB
21-05-31-01	Carol Lane	Illegal pavement use	DB
21-06-19-01	37.33153, -118.55488	Route proliferation	OHV
21-06-19-02	37.32861, -118.56159	Route proliferation	OHV
21-06-20-01	Von's parking lot	Illegal pavement use	OHV
21-08-04-01	E. Line, westbound @ canal	Illegal pavement use	OHV
21-08-05-01	Manor Market to 168 W	Illegal pavement use	OHV
21-08-26-01	Starlite Drive	Illegal pavement use	DB
21-08-28-01	E. Line, westbound @ canal	Illegal pavement use	OHV
21-09-11-01	E. Line @ 395	Illegal pavement use	DB
21-09-18-01	E. Line and across 395	Illegal pavement use	DB
21-10-03-01	W. Line, eastbound @ Mummy	Illegal pavement use	OHV

## 10 Appendix IV. Photographic Case Studies and Illustrations

Where applicable, photo dates are included in parentheses following the caption narratives. All photographs in Appendix IV were taken while traveling on foot except photos in Figs. A1 and A2.

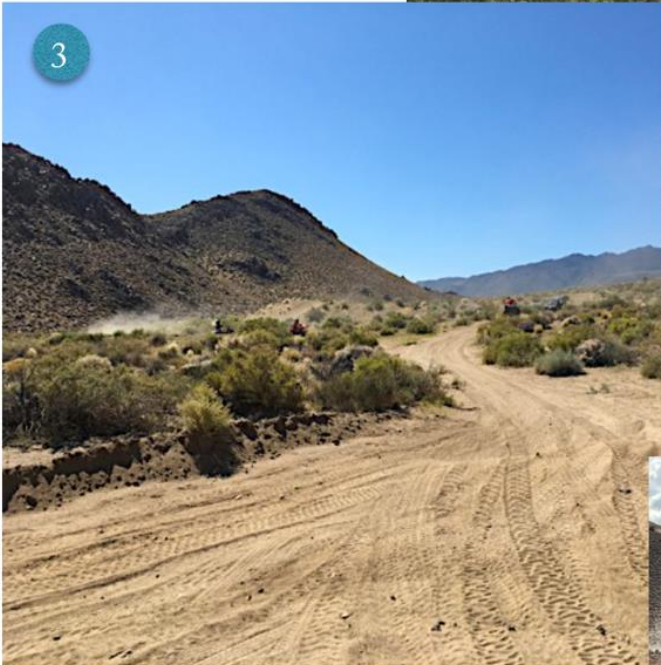
### A. Combined promotions of “different” Adventure Trails projects: Tungsten City Road and Buttermilks

1–2) Signs on paved Inyo County roads direct bypassers to “OHV area” rather than to “Tungsten City Road,” potentially giving the impression that LADWP and BLM lands beyond the signs are designated for OHV use rather than multiple use. 3) Once on Tungsten City Road, combined use route leads vehicular recreationists to an information kiosk that shows the route as part of a wide-ranging “ATV Adventure Trails” system. 4) Free maps at the kiosk invite riders to drive further on extensive routes advertised as “Bishop Buttermilk Tungsten OHV area.” (Confusingly, even though lower Buttermilk Road isn’t labeled “R-3” on these maps, carsonite signs on Buttermilk Road itself bear an “R-3” label.) 5) Maps lead drivers from kiosk and combined use route on Tungsten City Road into the Tungsten Hills and the Buttermilks, where numerous impacts are now occurring from vehicular recreation. 6) In order to “loop” back down to Tungsten City Road from R-3, riders or drivers must a) drive cross-country through private property in Starlite or b) ride down State Route 168 (both of which have been reported).

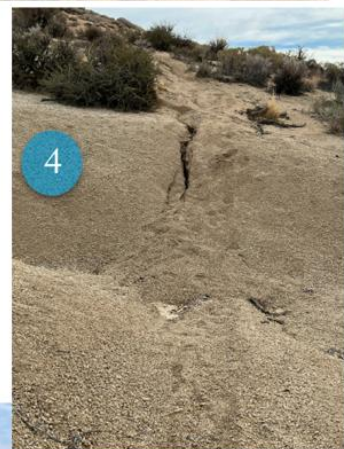


**B. Direct generation of particulate matter pollution/airborne dust**

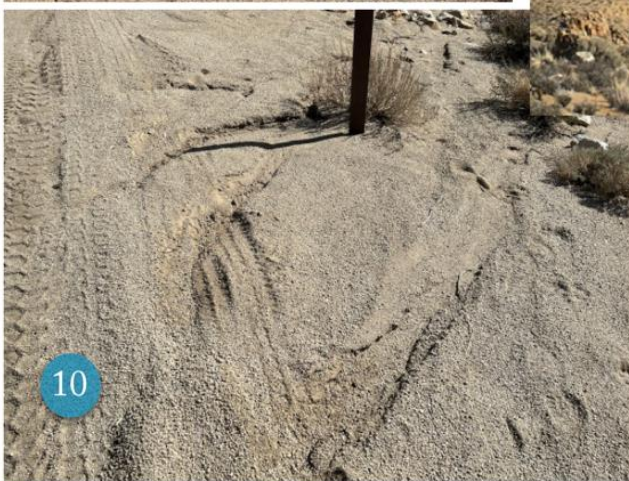
**1-2)** An adult on an ATV rides on the Tungsten City combined use route behind a child on a smaller ATV. Both then turn off to a patch adjacent to the use route (07/06/2019). **3)** Four ATVers drive into a devegetated stunt zone adjacent to Tungsten City Road (07/06/19). **4)** Two ATVers ride up Buttermilk Road (which has two carsonite signs labeling it as "Adventure Trail route R-3") (10/20/21).



**C. Erosion and capture of flows:** Water flows to the point of least resistance. Illegal tracks below capture water that would otherwise go to local vegetation and instead channel increased sediment loads to local springs and creeks, alter the courses of local waterways, and increase headcuts, flood risk, and dust emissions. **1)** An illegal hill climb branching from AT R-1 takes a route down an extremely steep grade in spring 2020 (4/13/2020). **2–3)** By November 15, 2021, the route has eroded down to bare stone in many places, and motorcyclists have begun to expand the illegal route to easier slopes. **4)** On the same illegal route, motorcycle tracks have now created a new narrow gully-in-process that is 8" deep and that will continue to erode, creating a channel that acts as a pit trap and head cut (11/15/21). **5)** Water from McGee Creek in the Buttermilks fills tracks from an illegal crossing that branches off Adventure Trail route R-1 (02/11/17). **6)** An illegal motorcycle route between AT route R-1 and Buttermilk Rd. (which has two carsonite signs labeling it as AT route "R-3") erodes after a rainstorm (07/26/21). (Continues on next page.)



**C. Erosion and capture of flows** (*continued*): Illegal tracks below capture water that would otherwise go to local vegetation and instead channel increased sediment loads to local springs and creeks, alter the courses of local waterways, and increase the risk of flooding and dust emissions. **7)** Illegal OHV tracks track down a hillside from a route branching south off Buttermilk Road (signed as Adventure Trail route R-3) (10/08/19). **8)** One of the illegal tracks from the incident in photo 7 has now eroded into the legal route (09/13/21). Someone placed a piñon limb across the erosion, which did not stop the damage. **9)** Soil erodes from R-1 into an illegal ATV route that goes down the hillside (11/2/21). **10)** Detail of #9. **11)** (See mid-photo) A series of illegal motorcycle trails climb out of an arroyo near Tungsten City Road combined use route (which is the long straight route at top left). Broken hillsides such as this one lose soil loads in rainstorms, do not recover vegetation easily, and are dust emissive in high wind (2/11/2019). **12)** An illegal motorcycle trail that branches off Tungsten City Road/Adventure Trails route R-1 in the Tungsten Hills. This trail will likely erode in the next rainstorm (2/08/20).



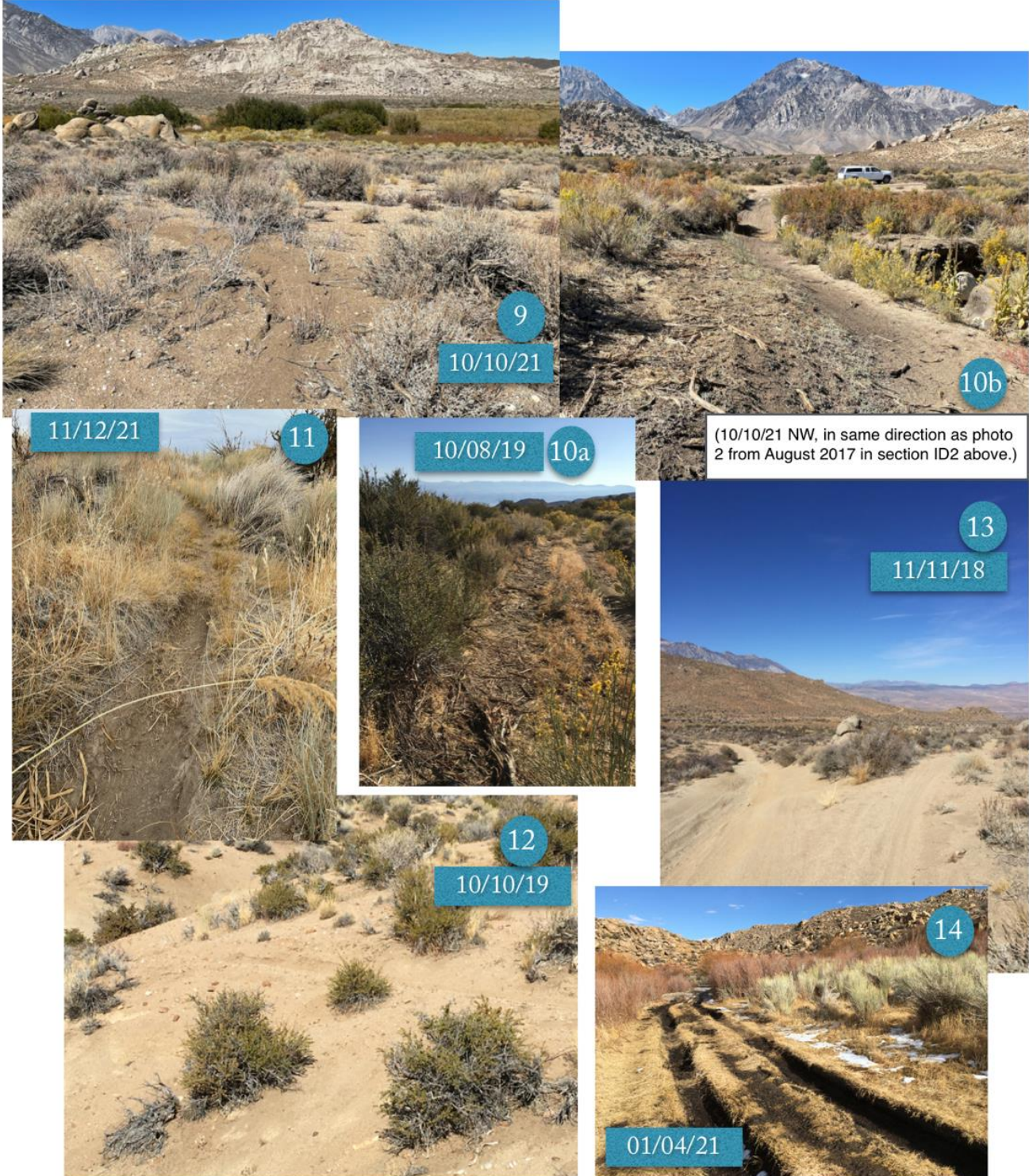
**D. Streambed alteration** (see also IV.C.5 above): **1)** An intermittent streambed on City of Los Angeles Property flooded in 2017 and washed out a popular OHV loop route from Buttermilk Road (signed as "R-3" in two places) across LADWP property. (Photo taken 08/05/17 to SE). **2)** The streambed was unmodified at the end of August 2017 (08/30/17 to NW). **3-4)** In 2019, someone chopped away the bank on viewer's left and used the soil to build a ramp for motorcyclists (viewer's right bank). An ATVer attempted to drive through the streambed and up but failed (tracks in foreground) (10/08/19 to SE). **5)** In 2021, someone chopped soil away from the banks and used it to build a ramp wide enough for a narrow ATV. (10/10/21 to SE) Meanwhile, wide swaths of *Purshia tridentata* on the opposite side were destroyed in efforts to build a continuous loop beginning and ending at AT R-3. (See IV.E for photos of vegetation loss.) **6)** This illegal motorcycle route connected to R-1 that goes through an intermittent stream created a headcut. Motorcyclists then expanded the trail up the new bank (viewer's left, 11/12/21).



**E. Other hydrological alterations, devegetation, and desertification: 1–4)** Kennedy's buckwheat (*Eriogonum kennedyi*) and other buckwheats in the Eastern Sierra have co-evolved with subspecies of *Euphilotes* butterfly endemic to the Owens Valley and to other sites in the Eastern Sierra. Loss of host plants means the loss of these butterflies as well as other endemic pollinators. Unfortunately, some of these buckwheats—*E. kennedyi* especially—grow in mats in soft desert soil crusts and are extremely vulnerable to destruction by tires. Illegal motorcycle and ATV incursions to buckwheat patches also alter soil crusts and hydrology, creating desertification and emissive dust patches. Too many illegal ATV and motorcycle incursions to illustrate here occurred to buckwheat patches adjacent to R-1 and Buttermilk/"R-3" from 2018–2021, including incursions shown below. **5–7)** Three species of *Euphilotes* blue butterfly on three species of buckwheats (Sulphur/*E. umbellatum*, Kennedy's, and nude buckwheat/*E. nudum*) in the AT project area. **8)** Crowned muilla (*Muilla coronata*), CA rare plant rank 4.2, has been affected in the same area. (Continued on next page.)



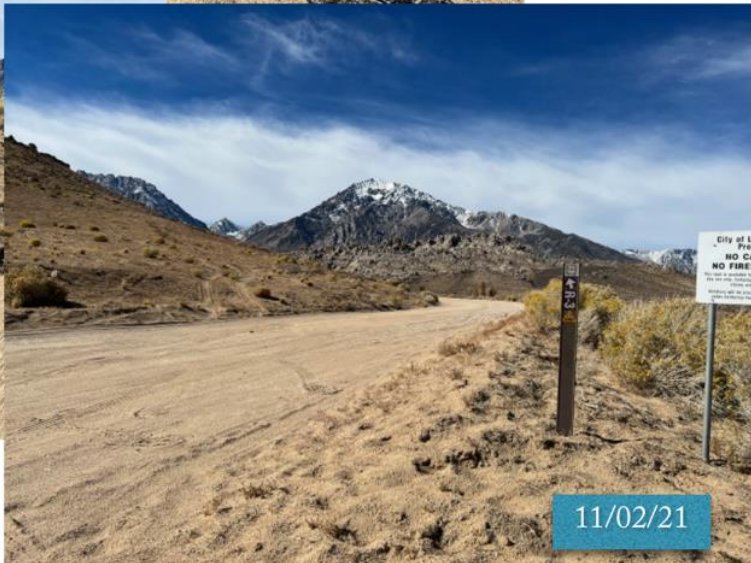
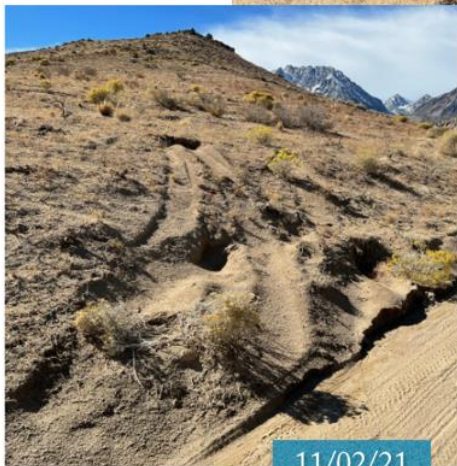
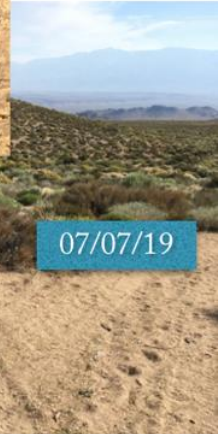
**E. Other hydrological alterations, devegetation, and desertification (continued):** **9)** Desert vegetation and soil crusts are extremely vulnerable to destruction and hydrological alteration, as demonstrated in this illegal motorcycle incursion near Buttermilk Road, signed as “R-3.” **10a–10b)** In 2019, ATVs attempting to connect a loop route that begins and ends on “R-3” rode over, crushed, or removed bitterbrush and other vegetation in a stretch more than a hundred yards long on LADWP land south of Buttermilk Road/“R-3” (see also Appendix IV-D above). **11)** This illegal trail that connects with the trail shown in #12 cuts steeply through a meadow, channeling water out of the meadow. **12)** These illegal motorcycle tracks leading from R-1 travel in and along an intermittent stream bed into a seep on LADWP land. **13)** The route on the left is R-1; the route on the right is an illegal motorcycle trail that branches off to cut a corner. The illegal route diverts water from local vegetation and is beginning to form a deep rut. **14)** Route R-1 travels through a groundwater-dependent meadow and seep outflow.



(10/10/21 NW, in same direction as photo 2 from August 2017 in section ID2 above.)



**F. Fire risk:** Multiple ATV incursions to the area opposite of and just NW of the Adventure Trails “R-3” sign on Buttermilk Road have occurred during the last two years. Such incursions contribute to direct fire risks from dry vegetation in contact with vehicular chassis and indirect fire risks from the introduction of new seeds that germinate flammable invasive vegetation.



**G. Direct impacts to wildlife:** Aside from being crushed in burrows beneath illegal tracks, small animals cannot outrun OHVs traveling at high rates of speed on legal routes stemming from combined use routes. **1)** Kangaroo rat crushed on Eastern Sierra ATV Adventure Trails R-1 (09/08/19). Kangaroo rats play an extremely important role in seed transportation and caching for native plants. **2)** Crushed gopher snake found opposite “R-3” sign (06/22/2020). **3)** Baby horned lizard found crushed in ATV track going through private property near Buttermilk Adventure Trails area (08/30/2020). **4)** Female gravid long-nosed leopard lizard killed near “R-3” sign before she had time to lay eggs (07/21/2019). **5)** Dead baby rattlesnake found by private property owner in illegal motorcycle track that swerved between cinder blocks and cut a track through vegetation to reach the snake (10/16/2021). Snakes such as those in #2 and #5 provide valuable controls for rodent populations and reduce the risk of Hantavirus. The owners of the property in #3 and #5 keep a dirt route through their property open to provide an east-west route for their neighbors from Starlite in case of fire. They have placed boulders, a gate, signs, and most recently the cinderblocks to slow and direct traffic and prevent injuries to pedestrians, wildlife, and vegetation from OHV traffic coming from the north and south pincers of R-3 (fencing would impede wildlife migration and provide perches for predators), but they have been unable to stop wildlife deaths and irreversible damage to vegetation on their property.



**H. Scouring of land:** At its most extreme, expansion of legal and illegal routes scours vegetation, compresses soil, and creates conditions that do not support life (area on Tungsten City road adjacent to combined use route, February 11, 2019).



**I. Evidence of illegal highway use by OHVs. 1) Dirt bike parked at Manor Market. 2) OHVs on Round Valley Rd. 3) Lost OHV on Starlite Rd 4) OHV on Red Hill Rd. 5) OHV on US Route 395.**

