

Fall/Winter 2019 • MDIA, PO Box 346, Walnut Creek, CA 94597-0346 • 925-927-7222 • www.mdia.org

# How Park Rangers Determine When to Close the Park Dick Nicoll, MDIA Board Director

Fire is a daily concern in Mount Diablo State Park. Sometimes, the park closes. But how is that decision made? Who decides when this must happen, and how do they do it? Recently, Supervising Ranger Cameron Morrison explained the method Park Staff uses to decide whether to close the park due to extreme fire danger. The process is a little more complicated than you might think.

During the fire season, park staff compute a fire warning twice every day. They use fuel moisture time lag fuel sticks, between  $\frac{1}{4} - 1$ " in diameter, to estimate the humidity of dead wood in the Park. Rangers determine the moisture content of the fuel sticks by weighing them on a scale inside the Junction Ranger station. The weight of

the fuel sticks represents how much moisture the sticks have retained or lost due primarily to humidity and precipitation. If the fuel sticks have retained moisture following a rainstorm or during periods of moderate to high relative humidity, they will weigh more. During periods of low relative humidity the fuel sticks will weigh less. The less the sticks weigh, the more likely a fire is to start and to spread rapidly.



SUPERVISING RANGER CAMERON MORRISON • DICK NICOLL

Measuring the weight of the Dead Fuel Moisture sticks to determine moisture content is just the beginning. Park rangers then consider the relative humidity and temperature of the prior day, the current wind speed and direction, and cloud cover. They next calculate an "ignition component" which represents how many fires are likely to start and sustain new fire if burning embers were to fall on the fuel.

After consideration of the typical vegetation, rangers compute how likely a fire is to spread, how much energy will be released, and a "burn index." Although this sounds complicated, rangers do this twice every day and are very skilled at the calculations. Ultimately, the data analysis results in a "Fire Danger Reading" that we see posted at the park entrance. There are normally five fire danger levels—Low, Moderate, High, High with Red Flag, and Extreme/Park Closed. Low is during conditions when it is unlikely for a fire to start or spread, such as in winter with



MITCHELL CANYON • DICK NICOLL

### MDIA President's Column Stephen Smith



Welcome to Mount Diablo State Park and all of its magnificence! As you travel the roads and trails throughout our vast 20,000 acres I truly hope that nothing impedes your absolute enjoyment of the sights, sounds and smells of the

beauty that surrounds you. We live in such a busy society these days with the demands that are put upon us by technology, work, traffic and noise—all the clutter that comes with living in a metropolitan area. This is what makes Mount Diablo so very special, a vast and protected open space for all to enjoy right in the heart of 7 million people. Spending a day here can recharge your tank, drain your worries away, and provide you with a calming sense of self, of nature, and of your place in it. We are so happy that you have chosen this park to come and relax in.

What you may not see, or even realize, is that literally hundreds of dedicated volunteers make it all happen. They are out fixing trails, putting up trail posts, and removing trash and debris. They are painting buildings, repairing damaged picnic tables, fixing the roadways, and trimming poison oak. They are helping at the visitor centers, providing campfire programming, leading hikes, and creating educational materials. They are patrolling the roads and trails on two feet, two wheels, and four hooves. These dedicated individuals work behind the scenes to make sure the park operates smoothly, and they work in the forefront to assist you out on the trail. They are friendly, knowledgeable, passionate, dedicated and immensely helpful. If you see one out there give them a thanks, have a chat with them, or better yet... ask them a question about the mountain, they love that!

However you choose to enjoy the mountain, know that a wonderful and experienced group of staff and volunteers can be found throughout the park to help you along your journey in finding your own bliss. The Mount Diablo Interpretive Association (MDIA) is an all-volunteer, non-profit organization dedicated to enhancing your visit by developing interpretive displays and publications, offering nature hikes and programs, and so much more. All net proceeds from merchandise sales, membership dues, and donations go directly back to the park! Please visit mdia.org to plan your visit, check out the calendar for upcoming events, shop for publications and souvenirs at the online store, or sign up to become a member of MDIA. Please enjoy your stay and come again soon one visit is never enough.

Sincerely, Steve Smith

#### How Park Rangers Determine When to Close the Park, continued from page 1

normal precipitation. Moderate is when there is a chance that a fire could start but it would not be too difficult to fight. High is when there is a very strong chance that a fire could start, spread easily and it would be difficult to fight. High with Red Flag indicates even greater risk of fire. Extreme/Park Closed is when the chance of a fire starting is so high/ likely that the public is at risk. Note that the posted notice in the Mount Diablo Park can differ from warnings in other parts of California because local conditions may differ.

Why does this matter? The recent catastrophic fires in Northern California have forced us all to consider the possibility that one might happen close to home. Mount Diablo State Park has seen major fires in 1977, 1981, 1992, and 2013. The heavy rains of last winter have resulted in over twice as much potential fire fuel as normal. Almost 95 percent of fires in California are started by people. Occasionally, the Park needs to close to reduce the chance of human caused fire and to keep the public out of a potential fire area.

Over a 25-year period, the park closed an average of about eight days a year due to fire danger. If the park is closed, we should not risk our lives and the lives of first responders by ignoring the posted warning. There is only one paved, narrow Summit Road in Mount Diablo for all emergency vehicles to enter, and all park users to exit. Please help keep everyone safe and honor park closures when posted.

### Wild Turkeys Staci Hobbet, Natural History Docent, Mount Diablo Interpretive Association



MITCHELL CANYON • STACI HOBBET

If you've lived in the Mount Diablo region for a long time, think back: when did you start noticing a lot of turkeys? If you see them only on a platter, you need to get outdoors more. We're talking about the wild turkey, the bird Benjamin Franklin admired and insisted was a more appropriate national symbol than the bald eagle, a good argument to lose.

Contrary to what many people assume, turkeys were a rare sight in California until the last 20 years. Their native range is in the Eastern half of the U.S., so California's Native Americans did not feast on turkey; nor did the miners of the Gold Rush.

What changed? In the early 1900's, as part of its recreational hunting program, the California Department of Fish and Wildlife introduced farm-raised turkeys to the state, but the birds didn't take. Undeterred, in 1959, the Department hit upon a better idea, at least for hunters. Over the next forty years, through 1999, they released wild-trapped turkeys from West Texas, an exceptionally tough and adaptable subspecies. These birds knew how to exploit almost any environment, and did. If turkeys have scratched the paint on your car, uprooted your garden, or left their sizable calling cards on your deck, you're not alone. The concerns about the population explosion are serious: turkeys reproduce quickly, will eat almost anything, and don't have to worry much about being eaten themselves, Thanksgiving aside. Wild predators like coyotes and bobcats, both common on Mount Diablo, will grab a turkey dinner when they can, but it's risky to try it. Turkeys have height, weight, beaks, claws, spurs, and a lot of vigilant friends.

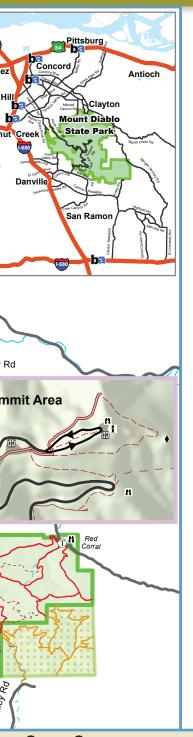
But these wild birds don't require wild lands to thrive. Almost any place will do, including the streets and sidewalks of our suburbs. According to Scientific American (March 8, 2016), "descendants of (the West Texas) turkeys occupy over 29,000 square miles of California—about one quarter of the state." It's not unusual to see flocks of 50 and more in the fall and winter in places like Mitchell Canyon.

Turkeys compete directly with our native species. They vacuum up acorns, a critical food source for woodpeckers, jays, crows, quail, rabbits, ground squirrels, deer, coyote, fox, mice, voles, opossums, and raccoons. But turkeys also eat just about anything else they can find, too: insects, spiders, including tarantulas, snakes, grubs, frogs, toad, and the bulbs of rare native wildflowers. Ground-nesting birds are all fair game for this gamebird, too: juncos, killdeer, A more detailed topographic map is available for purchase at the entrance stations and the Summit and Mitchell Canyon visitor



#### centers.

# **Camping at Mount Diablo State Park**



#### Group Camps

	NIGHTLY USE FEE	CAPACITY CAMPERS VEHICLES		
	\$65	20	7	
	\$65	20	7	
	\$100	30	10	
	\$100	30	10	
rrace	\$165	50	17	
			_	

#### Mount Diablo has three designated family camping areas and five group camps:

**Juniper Campground** (36 sites, elevation 3,000 ft.) Located approximately 2 miles below the summit, on Summit Road, Juniper is known for its fantastic views. Three campsites meet accessibility (Americans with Disabilities Act) standards. *Reservations available*.

**Live Oak Campground** (23 sites, elevation 1,450 ft.) Located one mile above the South Gate Entrance Station, off South Gate Road. Live Oak is near Rock City, where one can explore rock formations. *Reservations available*.

**Junction Campground** (6 sites, elevation 2,200 ft.) Located where South Gate Road and North Gate Road meet at the Ranger Station. This campground is situated in an open woodland area. *Available on a first-come, first-served basis only*.

**Group Camps** are Buckeye, Barbecue Terrace, Wildcat, Stagecoach, and Boundary. Each campground is primitive with running water (subject to availability) and pit toilets. Barbecue Terrace is equipped with horse ties for equestrian use. RVs are not allowed in the group camping areas. *Reservations available*.

- All campgrounds are provided with picnic tables, fire pits or stoves, potable water (subject to availability) and restrooms. Showers are available at Juniper and Live Oak campgrounds at no additional charge.
- The campgrounds are mainly designed for tent camping, but can accommodate RVs up to 20 feet in length. No hookups and dumping stations are provided.

#### **Camping Procedures**

Make reservations up to 6 months in advance using the ReserveCalifornia website at **reservecalifornia.com**. To view a map of the campgrounds and for additional info, please visit mdia.org/camping.

Check-in time is 2:00 p.m. Check-out time is 12:00 noon.

During the fire season (generally May to October), the park is subject to closure due to extreme fire danger. Campers must call the park at 925.837.2525 or 925.837.0904 one day prior to their arrival to confirm park status.

#### **General Rules**

- Alcoholic beverages are prohibited in the park.
- 8 people and 2 vehicles maximum per campsite.
- Each juvenile (under age of 18) must have written permission from his/her parents (with parent's phone number) prior to camping without adult supervision. Phone verifications will be attempted.
- Quiet hours are from 10:00 p.m. to 6:00 a.m.
- No electric generators from 8:00 p.m. to 10:00 a.m.
- Firewood gathering is prohibited.
- Fires must be in stoves or fire pits provided. NO GROUND FIRES.
- Campfire restrictions are in effect during the fire season. Check fire conditions for appropriate use (see page 6).
- Campers are locked in the park overnight from sunset to 8:00 a.m. For emergencies dial 911.
- Quiet—noise must not carry beyond your immediate camp or picnic ground.

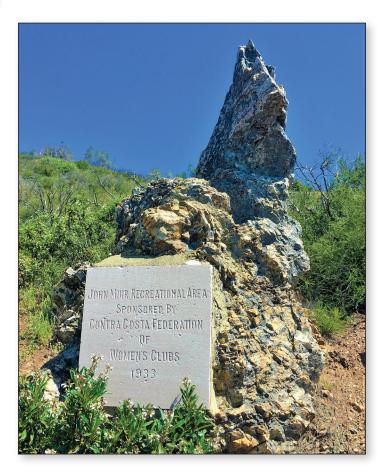
## Wild Turkeys, continued from page 3

ducks, geese, and quail. They like an egg now and then—or, if the egg has hatched, the chick will do.

The scientific research needed to prove environmental harm hasn't yet been done, as it's expensive, and must be long-term. But even casual hikers in the park note the high numbers of turkeys, and few ecologists doubt that these huge birds impact the health and welfare of our native species.

Proof wouldn't solve the problem anyway. There are no good means to control the birds. Hunting won't do it, obviously. They're fast, smart, wily, and resilient, just as Ben Franklin said, and they're here to stay.

# Where in the Park is this?



The plaque is above the Muir Picnic Area north of the Summit Road.

The answer is:

Fire Danger Chart						
Fire Danger Reading	Wood fire permitted in stoves & BBQ pits (designated picnic and campsites)	Use of Compressed Logs	Use of Charcoal	Use of Self- contained Stove	Cigarette Smoking <sub>1</sub>	Park Closed <sub>2</sub>
LOW	YES	YES	YES	YES	YES	NO
MEDIUM	NO	YES	YES	YES	YES	NO
HIGH	NO	NO	YES	YES	NO	NO
HIGH WITH RED FLAG	NO	NO	NO	YES	NO	NO
VERY HIGH/EXTREME	NO	NO	NO	NO	NO	YES

THE PROHIBITION OF SMOKING UNDER HIGH FIRE DANGER INCLUDES SMOKING WITHIN A VEHICLE.

<sup>2</sup> PARK CLOSURE APPLIES TO ALL HIKERS, VEHICLES, BICYCLISTS (MOUNTAIN AND ROAD), AND HORSEBACK RIDERS.

#### Fire Danger: How Will It Affect You?

- Maintain fires at all times in a safe condition that does not threaten any person or natural or structural feature.
- Never leave a fire unattended.
- Extinguish all fires prior to departure.
- Ground fires are not permitted.
- Firewood gathering is prohibited.
- Report all wildfires immediately. Call 911.

# **MDIA Product Order and Membership Form**

### Clip and mail to MDIA, PO Box 346, Walnut Creek, CA 94597-0346. Checks only, made payable to MDIA.

<ul> <li>Maps and Hiking Information</li> </ul>	EACH	QTY	TOTAL	IF YOU WOULD LIKE TO SUPPORT MDIA, PLEASE CONSIDER JOINING Mount Diablo Interpretive Association Membership Application			
Trail Map of Mount Diablo State Park (7 <sup>th</sup> Ed.)	7.50						
Hiker's Guide to Mount Diablo State Park	18.00			Membersh	ip dues are deductible t	o the full ext	tent
Interpretive Publications		1		allowed by	law. New membership: blo trail map.		
Mount Diablo, The Extraordinary Life and Landscapes of a California Treasure	60.00				MEMBERSHIP CATEGORY		
The Mount Diablo Guide (3 <sup>rd</sup> Ed.)	17.00				(CIRCLE ONE)		
Mountain Lore—History & Place Names of Mount Diablo	7.50				Student/Senior (55+) Individual	\$15 \$25	
Trees and Shrubs of Mount Diablo	7.50			-	Family	\$40	
	7.50			-	Contributing	\$100	
Common Birds of Mount Diablo	7.50				Lifetime	\$500	
Mt. Diablo Wildflowers	7.50			Donation \$			
Geology Brochure and Map	2.50			Name:		\$	
Products with Mount Diablo State Park Logo				Address:			
T-shirts: Sky Blue or Stonewashed Green; S, M, L, XL (circle size and color)	16.00			City:			
Mount Diablo Patch	4.00			State/Zip:			
Mount Diablo Lapel/Hat Pin	5.50			Telephone:	: ( )		
	5.50			Email:			
SUE	BTOTAL	\$					
10% Discount for MDIA, California State Parks Foundation members, and Park Staff				Join MDIA or renew your membership online now.			
TOTAL AMOUNT (INCLUDES SALES TAX, SHIPPING & HANDLING) Thank you for your mail order! Profits from sales support the educational program		\$		Use your smartphone. https://squareup.com/store/mount- diablo-interpretive-association/item/ mdia-membership			Ð.
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## Article or Photograph Submission

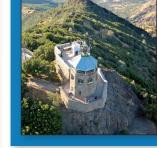
To submit articles or photographs for the next issue of the Mount Diablo Review, email info@mdia.org or leave a message at 925.927.7222. Submission deadline for the Spring/Summer issue is January 15, 2018.

#### **Event Calendar**

Check out all the hikes and other events happening in Mount Diablo State Park.



www.mdia.org/site/mdia-event-calendar



## Summit Museum

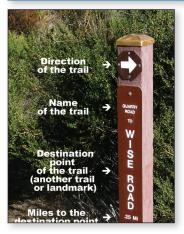
is open 7 days a week 10 a.m. to 4 p.m. 925.837.6119

# **Park Rules**

#### YOU ARE RESPONSIBLE FOR OBEYING THESE AND OTHER PARK RULES

- All Features of the Park Are Protected! Do not remove or disturb plants, animals, or geological features.
- **Park Hours:** Opens at 8 a.m. and closes at sunset. Visitors should be in their vehicles heading out at sunset to avoid being locked in.
- **No Alcohol:** All alcoholic beverages are prohibited in the park.
- Vehicles/Bicycles Speed Limit: 15 to 25 mph on park roads, 15 mph in campgrounds and picnic areas. All vehicles must stay on the pavement and are prohibited on trails and fire roads.
- **Bicycles** are allowed only on paved roads, fire roads and designated trails. Check at the Ranger Station for current regulations.
- Drones or Unmanned Aircraft Systems (UAS) are prohibited.
- **Skateboards**, rollerblades, rollerskates, and gravity-propelled devices are prohibited.
- **Dogs:** Must be on leash at all times when out of your car; must be in a tent or a vehicle at night; and must stay in developed areas—they are not allowed on trails or fire roads.
- Fires: Restrictions in effect during season. Check with a Ranger. Fires must be in fire stoves or barbecues provided—no ground fires.
- Emergencies: Dial 911.
- Fireworks are prohibited.
- Firearms/airguns and hunting are prohibited.

#### **Understanding Trail Signs**



Trail signs in the park follow California State Parks uniform format. The name of the trail you are on is specified in relatively small horizontal type near the top of the sign. The name that appears vertically in large type (another trail, destination, or park boundary) identifies the termination of that particular trail; note the word "TO" in small letters. The mileage to that end point is specified at the bottom.

California State Parks supports equal access. Prior to arrival, visitors with disabilities who need assistance should contact the Contra Solano Sector Office, 925.673.2891. This newsletter is available in alternate formats by contacting 925.673.2891.



Rules of the Road For Motorists and Cyclists



## Share the roadway with all Park users.

- Drive at or below the posted Park speed limits.
   CALIFORNIA VEHICLE CODE 22350\*
- Pass with sufficient visual clearance. CALIFORNIA VEHICLE CODE 21751\*
- Do not pass on blind curves. CALIFORNIA VEHICLE CODE 21752(a)\*
- Give bicyclists 3 feet clearance. CALIFORNIA VEHICLE CODE 21760(b)\*
- Yield to equestrians. CALIFORNIA VEHICLE CODE 21759\*

\*MINIMUM FINE: \$238.00

Take your time and enjoy

Mount Diablo's scenic views

## Mount Diablo State Park Phone Numbers

Supervising Ranger	.925.855.1730
Junction Ranger	.925.837.6129
Mitchell Canyon Ranger	.925.672.4266
Summit Museum	.925.837.6119
South Gate Entrance Station	.925.837.0904
Maintenance	.925.837.6122
Sector Office	.925.673.2891
General Information	.925.837.2525
TTY Relay Service	.711



Mount Diablo State Park 96 Mitchell Canyon Road Clayton, CA 94517-1500