

# BADWATER®



April 2023



Founded in 1984 by yours truly, AdventureCORPS® has made its name producing the world's toughest endurance races in dramatic, remote locations that few people would ever visit, let alone run or bike across. Held under the Badwater® banner, these events have allowed runners and bicyclists to explore Death Valley, Cape Fear, the Salton Sea, the Mojave Desert, and the Nevada outback in the USA, as well as the Okanagan Valley of British Columbia, Mustang region of Nepal, Yunan Province of China, and in the Republic of Artsakh.

With "chasing the horizon" as our credo, we are extremely pleased to host the tenth Badwater Salton Sea, the second leg of the Badwater Ultra Cup, on April 29-30, 2023. This three-event series kicked off on March 18 with Badwater Cape Fear and concludes July 4-6 with the Badwater 135 Ultramarathon.

A truly epic event in an otherworldly location, Badwater Salton Sea pits up to 100 of the world's toughest athletes, competing together on teams of either two or three, against one another, the route, and the elements. With its dramatic route and a team ultra running format unique to this race, it is the one of the most demanding and extreme running races on the planet.

The start line is the shoreline of the Salton Sea at Salton City, located at 234' (71m) below sea level in Imperial County. Runners traverse Anza-Borrego Desert State Park for the first 49 miles – including an 8-mile, 3500 foot single-track trail ascent - before stopping to pose with Rancheti, the Yeti of Ranchita, at mile 50. After another grueling ascent, the race finishes atop Palomar Mountain, San Diego County's almost tallest peak at 5500' (1676m) and the home of the world famous Palomar Observatory. The race course covers two major mountain ranges for a total of 9,000' (2743m) of cumulative vertical ascent over its 81-mile (131km) distance.

We thank and salute the County of Imperial, County of San Diego, California Department of Transportation, and Anza-Borrego Desert State Park, whose staff - and permits - oversee this event. We thank all the AdventureCORPS staff for their hard work in hosting a smooth and successful race. We thank everyone involved with the event for their sense of adventure and unassailable commitment to sportsmanship, fair play, and esprit de corps.

We wish everyone - racers, crews, staff, sponsors, media, and fans - a safe and successful race this year. May this truly be a life-changing experience for everyone. Welcome - or welcome back - to the Badwater Family!

Race Director and Chief Adventure Officer

*Chris Kostman*

*PS Special thanks to Ian Parker for the photo on the front cover (Remo Spagnol and Jeremy Eppley in 2022) and outside back cover (2019 start line), and Rich Peers for his art featured herein!*



Chris with some of the 2022 finishers.



## 2023 Badwater Salton Sea Schedule of Events

### Thursday, April 27, 2023

**1900:** Meet for dinner (no host) at the Borrego Springs Resort (across the driveway from the hotel lobby at The Arches.) The “cool kids” get to town on Friday in order to socialize and kick off things in style! ;-)

### Friday, April 28, 2023

**0700-0900:** Optional: Road and trail run around Borrego Springs past many of the incredible metal sculptures which dot the landscape and are known as Galleta Meadows. Depart on foot from Borrego Springs Resort lobby at 730am. (Approximately six miles, very easy pace, with several stops for photos.)

**1030:** Optional: Meet at Hotel Lobby to carpool to Salton City to visit the start line area and first 35 miles of the Badwater Salton Sea race route. (All are responsible for their own transportation. Please carpool.)

**1430-1600:** Runner Check-In and Team Photos (Anza Room adjacent to Borrego Springs Resort lobby)

**1600-1700:** Pre-Race Meeting (Anza Room adjacent to Borrego Springs Resort lobby)

### Saturday, April 29, 2023

**0500** Runners/Crews must depart Borrego Springs to the start line.

**0533** Civil Twilight (first light in the sky)

**0559** Sunrise

**0600** Absolute deadline to arrive at the start line at: 905 Sea Port Ave, Salton City, CA 92274

**0630** RACE START

**1530** Time Cut-Off at Mile 35.23 (Borrego Springs): RUNNERS BEYOND THIS TIME CUT-OFF MUST WITHDRAW FROM THE RACE.

**1730** Time Cut-Off at Mile 40.6 (Lower Trailhead): RUNNERS BEYOND THIS TIME CUT-OFF MUST WITHDRAW FROM THE RACE.

**1900** “Nighttime” - as defined by us - begins: follow nighttime protocols.

**1925** Sunset

**1952** Civil Twilight (no light left in the sky)

### Sunday, April 30, 2022

**0532** Civil Twilight (first light in the sky)

**0558** Sunrise

**1030** RACE COURSE CLOSSES (28 Hour Limit)

## Course Records

Team	Names	Category	Year	Grp	Elapsed
The Septemberists	Pete Kostelnick & Jon Kuehler	2x Men	20+	2017	14:04:20
J-Ray	Jared Fetterolf & Ray Sanchez	2x Men	30+	2016	14:56:00
Too Legit To Quit	Dan McHugh & Walker Higgins	2x Men	40+	2018	15:36:00
Prickly Pair	Rober Buruss & Keith Straw	2x Men	50+	2016	23:58:00
That Married Couple	Kayla Delk & Kevin Delk	2 Mixed	30+	2018	19:53:00
Los Aventureros	Nelva Valladares & Mark Matyazic	2 Mixed	40+	2016	16:02:00
DingoBlonde	Amy Costa & Mark Matyazic	2 Mixed	50+	2016	17:33:00
Wingman Foundation	Monique Jacques & Brittany McCullough	2 Women	30+	2016	18:55:00
Sweat It Out	Molly Troy & Cheryl Tulkoff	2 Women	40+	2016	19:27:00
Island Girls	Pamela Chapman-Markle & Kerri Kanuga	2 Women	50+	2019	20:14:30
Disney McFarland USA	Carlos Cabanillas, Diego Diaz, & Oswaldo Velasquez	3 Men	30+	2015	15:09:42
Electrolyte Love	Walker Higgins, Jacob Jackson, & Dan McHugh	3 Men	40+	2019	15:05:00
Yinzers	Keith Straw, Jeff Gleason, & Bill Thompson	3 Men	50+	2014	19:39:00
Youth & Inexperience	Mike Arnspiger, Bob Becker, & Keith Straw	3 Men	60+	2015	25:30:53
Legend of the Dragon's Toothbrush	Jean Aponte, Rhea Loney, & Kevin Spruell	3 Mixed	30+	2019	19:35:45
Texas Relentless Roadrunners	Brian Hill, Alison Miller, & Brian Miller	3 Mixed	40+	2017	18:23:40
Bat	Beverley Anderson-Abs, Alan Abs, & Kermit Cuff	3 Mixed	50+	2021	18:18:05
The Dharma Bums	Boni Collins, Jodi Samuels, & Jodi Weiss	3x Women	40+	2015	22:37:40

### Badwater Salton Sea General Race Rules

1. All runners must check in at the start line, ready to race, at 0545 and the race will begin at 0630 on race day. (This requires departing Borrego Springs no later than 500am.)
2. There are only two divisions: Duo or Trio, which are then subdivided into men's team, women's team, and mixed team sub-categories.
3. There are mandatory intermediate cut-offs along the route. Specifically, all teams must have continued beyond the Borrego Springs Resort at mile 35.23 within nine hours of starting the race, while all teams must have continued onto the trail section - which begins at mile 40.6 - within eleven hours of starting the race. Teams / runners which exceed these deadlines will be declared DNF and MUST discontinue running and participation in the race.
4. For the trail section of the race, which starts at mile 40.6, every runner must carry a rain jacket (not just a windbreaker), beanie, gloves, emergency blanket, whistle, reflective gear (as used for night running), front and rear blinky lights (kept on at all times), head lamp or flashlight and a second set of new batteries for the light (or two separate lights / headlamps with new batteries), as well as a full charged cell phone, AMPLE hydration for six hours (Minimum of 1.5L / 50 ounces), AMPLE nutrition for six hours (Minimum of 1000 calories), and other supplies. Reflective gear and blinky lights (in on position) must be worn at all times on the trail section, regardless of time of day. NOTE: The fastest teams cover the trail section in about 2.5 hours, while the back-of-the-pack teams have taken as much as SIX HOURS to complete the trail section.
5. The clock does not stop for any reason until the race course officially closes after 28 hours. All racers must leave the course by the 28th hour (or sooner, if cut-offs are missed, as outlined above).
6. Running must always be single file and outside the white "fog line" on the edge of the roadway. Running should be off the left side of the road, facing traffic. Running well away from the pavement may be done on either side of the road, depending on which side is safest and has the best line of sight. The intent of the rules and the event's concept is that all running is done outside the white "fog line" and therefore never in any traffic lane (except during the first 6.9 miles through Salton City, where all running is along local roads.)
7. There is no "I" in "TEAM": All members of each team must remain together while running (within 10 meters) at all times. If members of a team become more than 10 meters apart, the lead runner, or runners, who allowed the gap to grow to more than 10 meters will be disqualified immediately. This applies for the entire 81 miles of the race course, especially on the trail section where teams should make an even bigger effort to stay well within the 10-meter limit.

(Teams are expected to run together, single-file, essentially at all times. The 10-meter limit is only intended to allow privacy during nature calls, not to allow the runners on a team to spread out.)

8. Teams must make their presence known at all checkpoints located along the route; they must arrive at all checkpoints together and may only depart each checkpoint together, unless one runner is dropping out of the race at that location. Team arrival time at checkpoints will be recorded and made public.
9. All members of each team must run the entire distance and cross the finish line together to be considered Official Finishers and be ranked in the results. Teams which do not complete the course intact (i.e. one or two team members drops out along the way) will not be ranked, but the remaining team members are encouraged to complete the race under all applicable race rules and will be listed as Official Finishers (but not ranked). Finisher buckles will be awarded only to runners who complete the full 81-mile route within the guidelines of the race, but only intact teams will be ranked as Official Finishers.
10. Teams may not change division (for example, from Trio to Duo) after the start of the race. If a Trio has one runner drop out during the race, that team will NOT be re-categorized as a Duo.
11. Racers, crew, and staff must not litter, mar, or pollute the landscape or environment.
12. All racers, crew and staff must display courtesy, good taste, decorum, and sportsmanship at all times. Nudity is specifically not allowed.

#### Legal and Bureaucratic Issues

1. If the event is canceled due to pandemic, extreme weather, community disaster, or other *force majeure*, neither refunds nor credits will be given.
2. Although we anticipate using the same route each year, the final, exact route is subject to approval from various government agencies and is always subject to change due to various factors beyond our control.
3. Badwater® is a federally registered trademark and may not be used in any commercial or promotional manner except under license from AdventureCORPS, Inc. In particular, t-shirts (such as for crew members) may not state "Badwater" nor feature any version of the race logo or Badwater logo.
4. All racers must follow and complete the entire application and entry process, filling out all forms and paying all necessary fees.
5. All racers and all crew members must sign and fully complete the Accident Waiver and Release of Liability / Release of Name and Likeness. All racers must also sign and fully complete the San Diego County Waiver and Release of Liability. Each team must also bring the properly completed Check-In Form to Runner Check-In.



6. All race vehicles must meet the minimum requirements of property damage and personal injury liability automobile insurance for the State of California. All vehicle drivers must be fully licensed.

7. All racers and support team members must attend Racer Check-In and the Pre-Race Meeting.

8. All entrants must bring one U.S. dollar (or more) in a sealed envelope to Racer Check-In. Please write the runner name and team name on the envelope. This envelope will not be returned and the money will be donated to charity.

9. During Racer Check-In, all entrants must display ONE satisfactory reflective vest and TWO blinking red lights PER RUNNER and PER CREW MEMBER. These must be worn and utilized by the runners and crew at all times while outside of vehicles during nighttime periods of the race. (Our definition of nighttime is 700pm to 700am.) Runners without satisfactory quality, or quantity, nighttime safety equipment will not be allowed to compete. (Hi-visibility clothing is highly recommended for both runners and crew members at all times, including during the day.)

10. All entrants must be a minimum of 18 years on the start line of the race.

11. All racers must be willing to submit to a drug urine test before (at any point prior to the race, after being officially confirmed for entry), during (at any time), or after the race (up to 90 days after the conclusion of the race). If any WADA banned substances are detected, the racer will be disqualified from competition, listed as DISQUALIFIED FOR DOPING in the final standings of the race, and banned for life from any AdventureCORPS event. Refusal to submit a urine specimen upon demand will also result in the racer being disqualified from competition, being listed as DISQUALIFIED FOR DOPING in the final standings of the race, and being banned for life from any AdventureCORPS event. Additionally, any BADWATER Salton Sea finisher who fails a drug test within 36 months after competing in any edition of BADWATER Salton Sea will be retroactively disqualified from any and all previous BADWATER Salton Sea races, removed from all BADWATER Salton Sea race results, as well as banned for life from any AdventureCORPS events.

12. No commercial photographer / videographer may accompany or cover any racer or the race itself without the specific written permission of AdventureCORPS, Inc. Additionally, multiple government agencies may also require payment of a filming fee and signature of a filming agreement.

### **Support Crew and Assistance**

1. Each team must be accompanied by a support crew comprised of no more than one four-wheeled motor vehicle and a minimum of two crew members - both of whom are legally licensed to drive and at least one of whom can speak English - at all times. Each team must have its own dedicated personal support crew and vehicle; crew and support vehicles may not be shared, except informally in

the spirit of the event, i.e., support crews may lend assistance to other teams, racers, or crews. "Unofficial crews or crew vehicles" and "family cheering squads" are not allowed at the race.

2. Runners must progress under their own power without drafting, helping, pushing, supporting, or any other type of physical assistance, EXCEPT from their teammates. (Teammates may help one another in any reasonable manner, including pushing, pulling, towing, and the like.)

3. So-called "cooling vests" or other types of artificial / technological cooling systems may not be worn or utilized by race entrants while making forward progress on the race course.

4. Trekking poles are allowed, but they must be used carefully.

5. Tethering / towing teammates is allowed, but must be done so carefully.

6. Runners may not be accompanied by a crew member at any time while making forward progress on the race course, EXCEPT during brief moments when supplies are being handed off. Crew members that are handing off supplies, or otherwise providing aid to the runners, must be off the roadway at all times (i.e. outside the white line on the shoulder). Crew members may not run in front of race entrants at any time. Crew members may not accompany / pace runners during the trail section of the race (mile 40.6 to mile 48.5.)

7. After mile 6.9 (leaving Salton City), runners must NEVER run abreast with other runners: All running must be single-file.

8. Crew members may not use illegal drugs, stimulants, or dope, as well as alcohol of any kind, during the race or at any official race events or activities.

9. Wheeled conveyances (other than a motorized support vehicle), including in-line skates, strollers, and bicycles, are prohibited on the course at all times. Likewise for hovercrafts and helicopters. Runners accompanied by any such conveyance will be disqualified.

### **Support Vehicles**

1. The California Motor Vehicle Code, and all local, county, and/or State Park laws, rules, and regulations, must be respected at all times. In particular, support vehicle drivers and crews are reminded that phones must only be operated by the driver with a hands-free device; seat belts must be worn by all vehicle occupants at all times while moving, and it is illegal to drive on a highway while displaying emergency flashers. For further information, consult the DMV Code.

2. Support vehicles may not be wider than 80" in width, per official manufacturer specifications (not including mirrors.) Additionally, support vehicles may not be more than 84" in height. Small Cars, Minivans, and SUVs are recommended. Oversize SUVs, vans, and trucks, or other types of oversize vehicles are strongly discouraged. Motorhomes, RVs, "SportsMobiles," Sprinter Vans (and similar, such as the Dodge Ram 1500 / 2500 Promaster), vehicles with extra high

rooflines, and all types of Hummers are specifically not allowed. Support vehicles may not pull trailers of any kind. (The largest vehicle currently allowed at the event is the Nissan NV3500, which is no longer made, as of 2022. Please note that Ford Transit vans are also now too wide for use at the race. See the Ideal Support Vehicle and Set-Up blog post at [Badwater.com](http://Badwater.com) for further information.)

3. All race vehicles must have highly visible signage on the back of the vehicle stating "CAUTION RUNNERS ON ROAD," as provided by the race organizers at Runner Check-In. (Teams may provide their own signage for this purpose, but its suitability will be inspected.)

4. All support vehicles must have their Team Name easily and clearly visible on all four sides. The lettering must be at least 10" (26cm) tall. A high-visibility "paint pen" may be used to mark the team name in the lower section of the windows on all four sides of the vehicle, so long as it does not obstruct the view through any of the windows. (The race organizers will have several paint pens available for this purpose.) Alternatively, or additionally, teams may choose to have custom signage made to identify their vehicle.

5. Place the provided sticky Team Name sign on the driver's door of the support van.

6. Except as noted above, the view through vehicle windows may not be blocked or obstructed with any signage, paint, or the like. If a team's support vehicle is found with blocked windows during the race, that team will be forced to stop and wait while the vehicle's windows are unblocked and signage properly mounted.

7. Vehicles must "leapfrog" the runner at all times. Generally speaking, each "leapfrog" should be approximately THREE MILES in length during daylight, and ONE MILE or more in length during nighttime. Racers may never be "shadowed" (driving a vehicle at the runner's speed) and vehicles must not "caravan" (drive together, like a train, at any speed). Driving may never be at the speed of any racer. Driving must be done at the speed of traffic, never slowing down to encourage, talk to, or lend assistance to any racer while moving. All assistance must be provided by pedestrian crew members; handing off of supplies from the vehicle is never allowed while the vehicle is in motion.

8. All support vehicles must have their headlights on while driving, 24 hours a day. From 700pm to 700am (our definition of nighttime), at all times while stopped or parked off the road, support vehicles must have their headlights turned off and emergency flashers turned on.

9. Vehicles must be parked completely off the road surface whenever they are stopped - with all four tires right of the white line, preferably at least 8 feet beyond the white line. Many areas of the route have very little shoulder for parking, so care must be taken in choosing stopping places. When stopping/parking, vehicles may not stop on the left side of the road, except in VERY LARGE pullouts at which the vehicle will be at least 15 feet from the edge of the roadway.

### **Safety and Medical Issues**

1. Remember, at all times and in all situations, safety is the most important issue. This means safety for racers, crew, staff, and the general public must always be respected. The roads are not closed for this event and may be, in fact, quite busy with tourist and local traffic.

2. I.V.s (intravenous fluids) are not permitted during the race. If a racer receives an I.V. during the race, for any reason, then that racer is disqualified and must withdraw from the race and the race course. His or her teammates may continue as an unranked team.

3. From 700pm to 700am (our definition of nighttime), while out of doors on the race course, all racers and all crewmembers must wear reflective material facing in all four directions, as well as blinking red lights facing front and rear. Racers and crewmembers are encouraged to wear high-visibility clothing during the day as well.

4. Racers are responsible for their own actions, their teammates' actions, and their crew's actions; crews are responsible for both their own actions and their racers' actions.

5. Always look and listen both ways before crossing the highways. Remember that drivers will not expect to encounter a racer or parked vehicle out on the course. Remember we are on public roads with no road closures or traffic monitoring. Racers should not cross over the highway more than necessary; crew should cross the highway carefully to bring assistance to their racer.

6. All entrants and crew must study "Medical Risks in Badwater Salton," "Dangers of Running in the Heat," and "The Dangers of Hot Weather Running" as published at [www.badwater.com](http://www.badwater.com)

### **Leaving the Course or Withdrawing**

1. Every inch of the course must be traveled by each racer. In the event of a routing error, e.g., wrong turn, the racer may be driven back to the exact original spot where he/she left the course and continue running from that location. There will be no allowance made for lost time or miles run in the wrong direction.

2. If a racer or team needs to leave the course, his/her crew must note the exact location with some sort of marker left on the ground, as well as resetting their odometer to mark the distance to the location. The racer and his or her team must then resume the race from the same place that he/she left it. Racers may only leave the course for appropriate reasons such as rest or medical attention. Focus must be kept on the speedy completion of the course.

3. If a racer or team withdraws, he/she or his/her crew must contact Race Headquarters or a checkpoint immediately. Team Name, reason for withdrawal, time of withdrawal, and miles completed must be stated. All racers and crew who drop are encouraged to come to the finish line to greet and celebrate with their fellow racers and crews.

4. All Emergency Evacuation costs for participants or crews will be borne by that person or their heirs. The race organizers are in no way liable or responsible for emergency evacuation.

### Awards

1. All racers who begin the event will receive a BADWATER t-shirt, hat, sunglasses, and tote backpack, and other selected Badwater products.

2. All runners who complete the full 81-mile route within the guidelines of the race will receive the finisher's buckle and be listed as an Official Finisher, but only intact teams will be ranked (i.e. 2nd or 4th place.)

### Rule Enforcement and Penalties

1. Race rules are designed to provide a safe and fair experience for everyone involved and to help ensure our ability to produce the race again next year.

2. Major rule infractions by racers or their crew, especially those regarding "cheating," safety, and poor sportsmanship will result in immediate disqualification of the racer, or racers.

3. Other, lesser offenses will result in the following cumulative time penalties:

- First Penalty: One Hour
- Second Penalty: Disqualification

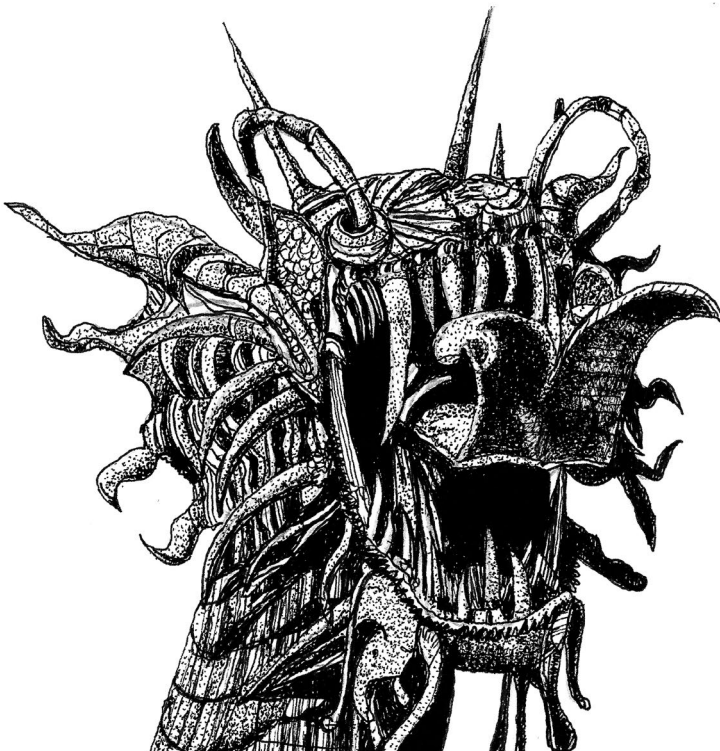
4. Time penalties are imposed at the finish line by adjusting finishing times.

5. The Race Director has the authority, at any time, to overrule any rule or invent a new rule based on extenuating, unforeseen, and/or unusual circumstances and/or to maintain the integrity and fair play necessary for the successful completion, and continuation, of the race. The Race Director has ultimate authority in regards to all rules, their interpretation, and their enforcement. There is no "appeals committee" nor an "appeals process." All entrants in the race, and their support crews, willingly acknowledge this fact, as well as all other race rules, by attending the race in any capacity.

6. In all cases and circumstances, it is the intent, and spirit, of the rules which will govern their implementation and enforcement.

### Finally

1. Have fun and keep smiling!



# 2023 Badwater Salton Sea Official Race Roster

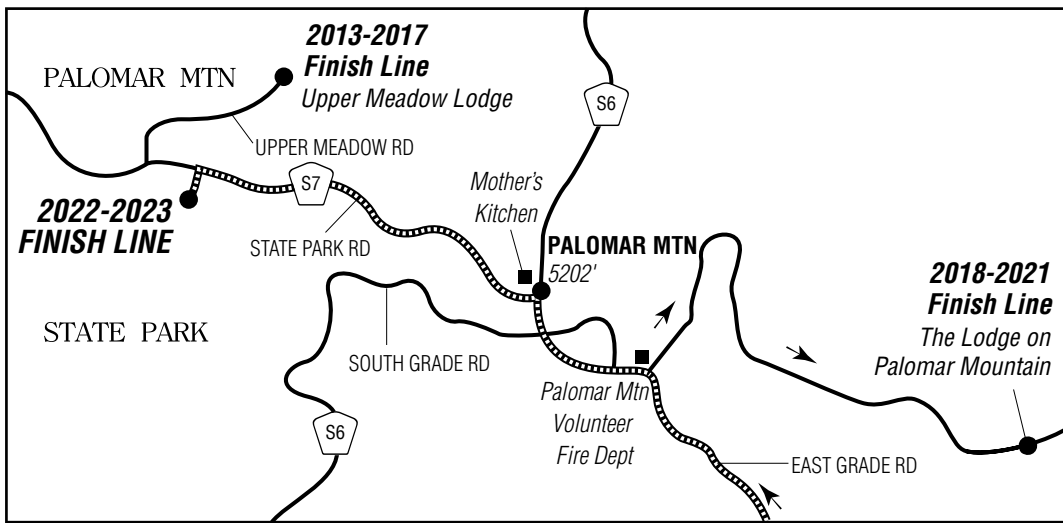
Team Name	Category	First Name	Last Name	M/F	Age	AgeGrp	State	Country	Nationality	Finisher?
65 Percenters	3-Man	Charles	Zuckerman	M	55	40+	CA	USA	USA	Yes
65 Percenters	3-Man	Neel	Vora	M	43	40+	CA	USA	Kenya	No
65 Percenters	3-Man	Remo	Spagnol	M	46	40+	TX	USA	USA	Yes
Baby Bathwater 135	2-Mixed	Hannah	Perry	F	35	30+	BC	Canada	Canada	No
Baby Bathwater 135	2-Mixed	Michel	Leblanc	M	44	30+	AB	Canada	Canada	No
Barely Forties	2-Mixed	Christopher	Caravello	M	40	40+	FL	USA	USA	No
Barely Forties	2-Mixed	Mindy	Hyatt	F	49	40+	FL	USA	USA	No
Beauties and the Beast	3-Mixed	Kevin	Delk	M	40	40+	TN	USA	USA	Yes
Beauties and the Beast	3-Mixed	Telma	Altoon	F	47	40+	CA	USA	Armenia	Yes
Beauties and the Beast	3-Mixed	Timothy	Henderson	M	53	40+	NY	USA	USA	No
Chasing Who	3-Mixed	Beverley	Anderson-Abbs	F	59	50+	CA	USA	USA	Yes
Chasing Who	3-Mixed	Kenneth	Ringled	M	42	50+	CA	USA	USA	Yes
Chasing Who	3-Mixed	Ray	Sanchez	M	56	50+	CA	USA	USA	Yes
Coast-2-Coast Girls	2-Woman	Bethany	Cazenave	F	60	50+		USA	USA	Yes
Coast-2-Coast Girls	2-Woman	Maria	Poso	F	51	50+	CA	USA	Philippines	Yes
Constant Runtime	2-Man	Patrick	Hrabos	M	37	30+	OR	USA	USA	No
Constant Runtime	2-Man	Rokas	Zickevicius	M	34	30+	OR	USA	USA	No
Costa's Crew	2-Mixed	Catie	Grisham	F	34	30+	CA	USA	USA	No
Costa's Crew	2-Mixed	Cyrus	Weigand	M	38	30+	CA	USA	USA	No
Couch to Palomar	2-Mixed	Emily	Lyons	F	32	40+	NC	USA	USA	No
Couch to Palomar	2-Mixed	Sam	Felsenfeld	M	48	40+	PA	USA	USA	No
From Palomar to Whitney	2-Woman	Hillary	Peabody	F	36	30+	VA	USA	USA	Yes
From Palomar to Whitney	2-Woman	Rachel	Pedersen	F	35	30+	WI	USA	USA	No
Ground Thunder Jersey	2-Man	Justin	Bennett	M	41	40+	NJ	USA	USA	No
Ground Thunder Jersey	2-Man	Robert	Weeks	M	55	40+	NC	USA	USA	No
Honeybadger Babes	2-Woman	Beth	Townsend	F	46	40+	CA	USA	USA	No
Honeybadger Babes	2-Woman	Meili	Mathuren	F	48	40+	CA	USA	USA	No
Irish Okies	2-Mixed	Eva	Jones	F	49	30+	OK	USA	USA	No
Irish Okies	2-Mixed	Ryan	McCarthy	M	29	30+	OK	USA	USA	No
Just 3 turns	3-Mixed	Bobby	Andrews	M	42	40+	WA	USA	USA	Yes
Just 3 turns	3-Mixed	Eric	Kennedy	M	44	40+	CA	USA	USA	No
Just 3 turns	3-Mixed	Erika	Small	F	50	40+	CA	USA	USA	No
Long Shadow Runners	3-Mixed	Nate	Dirvin	M	41	40+	NJ	USA	USA	No
Long Shadow Runners	3-Mixed	Sonia	Ahuja	F	47	40+	CA	USA	USA	No
Long Shadow Runners	3-Mixed	Wade	Beane	M	49	40+	CA	USA	USA	No
Los Chingones	2-Man	David	Vega	M	43	30+	TX	USA	USA	No
Los Chingones	2-Man	Jordan	Barnhart	M	36	30+	TX	USA	USA	No
Mad Marmots	2-Mixed	Megan	Eckert	F	36	40+	NM	USA	USA	No
Mad Marmots	2-Mixed	Stephen	Wissing	M	46	40+	NM	USA	USA	No
Marathons With Meaning	2-Man	Joshua	Kline	M	47	50+	FL	USA	USA	Yes
Marathons With Meaning	2-Man	Peter	Kline	M	70	50+	WA	USA	USA	No
Mettle Maidens	2-Woman	Kaz	Williams	F	50	50+		France	United Kingdom	No
Mettle Maidens	2-Woman	Molly	Sheridan	F	66	50+	NV	USA	USA	Yes
No Fun Zone	2-Woman	Kristy	Devincentis	F	46	40+	NY	USA	USA	No
No Fun Zone	2-Woman	Rebecca	Burgo	F	42	40+	NY	USA	USA	No
Nomadic	2-Mixed	Tuvshintugs	Sukhbaatar	M	55	50+	CA	USA	Mongolia	No
Nomadic	2-Mixed	Zagdaa	Baatar	F	52	50+	CA	USA	Mongolia	No
Past, Present, & Future	3-Mixed	Amy	Adams	F	47	40+	MD	USA	USA	No
Past, Present, & Future	3-Mixed	Kaylee	Frederick	F	18	40+	PA	USA	USA	No
Past, Present, & Future	3-Mixed	Keith	Straw	M	68	40+	PA	USA	United Kingdom	Yes



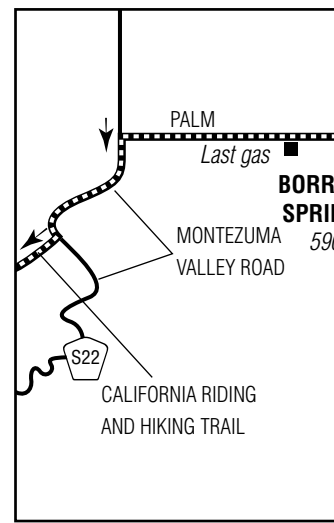
Team Name	Category	First Name	Last Name	M/F	Age	AgeGrp	State	Country	Nationality	Finisher?
Project Valkyrie	2-Woman	Amanda	Wilson	F	39	30+	VA	USA	USA	No
Project Valkyrie	2-Woman	Shaye	Haver	F	32	30+	VA	USA	USA	No
Put the Kettle On	2-Woman	Emma	Harris	F	42	40+	Hampshire	United Kingdom	United Kingdom	No
Put the Kettle On	2-Woman	Susie	Chan	F	47	40+		United Kingdom	United Kingdom	No
Random Guys	3-Mixed	Glen	Kovacs	M	61	50+	VA	USA	USA	No
Random Guys	3-Mixed	Mollie	Melton	F	39	50+	FL	USA	USA	Yes
Random Guys	3-Mixed	Justin	Yonker	M	50	50+	FL	USA	USA	Yes
Run Like Deere	2-Woman	Jessica	Sohngen	F	40	40+	FL	USA	USA	No
Run Like Deere	2-Woman	Laura	Cole	F	54	40+	FL	USA	USA	No
Run Republic	2-Man	Alexander	Koops	M	51	40+	CA	USA	USA	No
Run Republic	2-Man	Joseph	Nakamura	M	44	40+	CA	USA	USA	Yes
Side Hustle	2-Woman	Josie	Vitale	F	43	40+	PA	USA	USA	No
Side Hustle	2-Woman	Michele	Landry	F	49	40+	CA	USA	USA	No
SoFlo Boys	2-Man	David	Castro	M	50	40+	FL	USA	USA	No
SoFlo Boys	2-Man	Ty	Aronson	M	44	40+	FL	USA	USA	No
Sommy Poy	2-Mixed	Catherine	Somits	F	37	30+	CA	USA	USA	No
Sommy Poy	2-Mixed	Tim	Poydenis	M	38	30+	CA	USA	USA	No
Sunscreen and Bad Decisions	2-Woman	Rhoda	Smoker	F	36	30+	PA	USA	USA	No
Sunscreen and Bad Decisions	2-Woman	Samantha	Hurlbutt	F	42	30+	PA	USA	USA	No
Sunshine Girls	2-Woman	Candy	Dice	F	52	40+	FL	USA	USA	No
Sunshine Girls	2-Woman	Nellie	Untalan	F	46	40+	OR	USA	USA	No
Tiny Tornados	2-Mixed	Haley	Morrison	F	44	30+	OR	USA	USA	No
Tiny Tornados	2-Mixed	Keith	Eckert	M	32	30+	CA	USA	USA	No
V for Victory	2-Man	Joseph	Bradley	M	38	30+	CA	USA	USA	No
V for Victory	2-Man	Kurtis	Brown	M	35	30+	CA	USA	USA	No
Wicked Bad	3-Man	Chris	Collier	M	43	40+	CA	USA	USA	No
Wicked bad	3-Man	Robert	Mello	M	42	40+	CA	USA	USA	No
Wicked Bad	3-Man	Tyler	Nash	M	35	40+	NV	USA	USA	No
Zone 2ers	2-Man	Erik	Brandner	M	36	30+	MN	USA	USA	No
Zone 2ers	2-Man	Jeremy	Segal	M	37	30+	MN	USA	USA	No

2022 Start Line

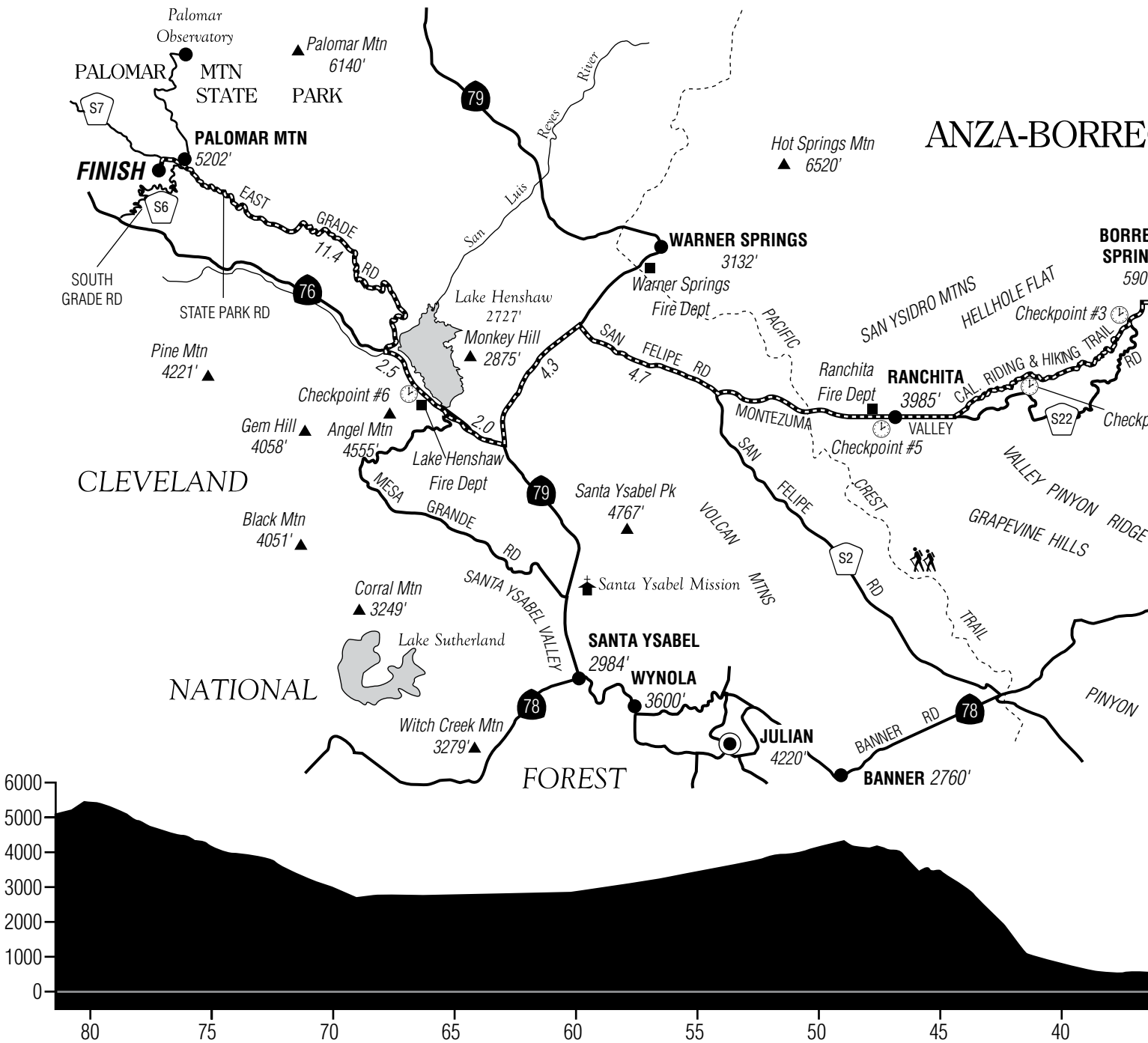




Palomar Mountain detail



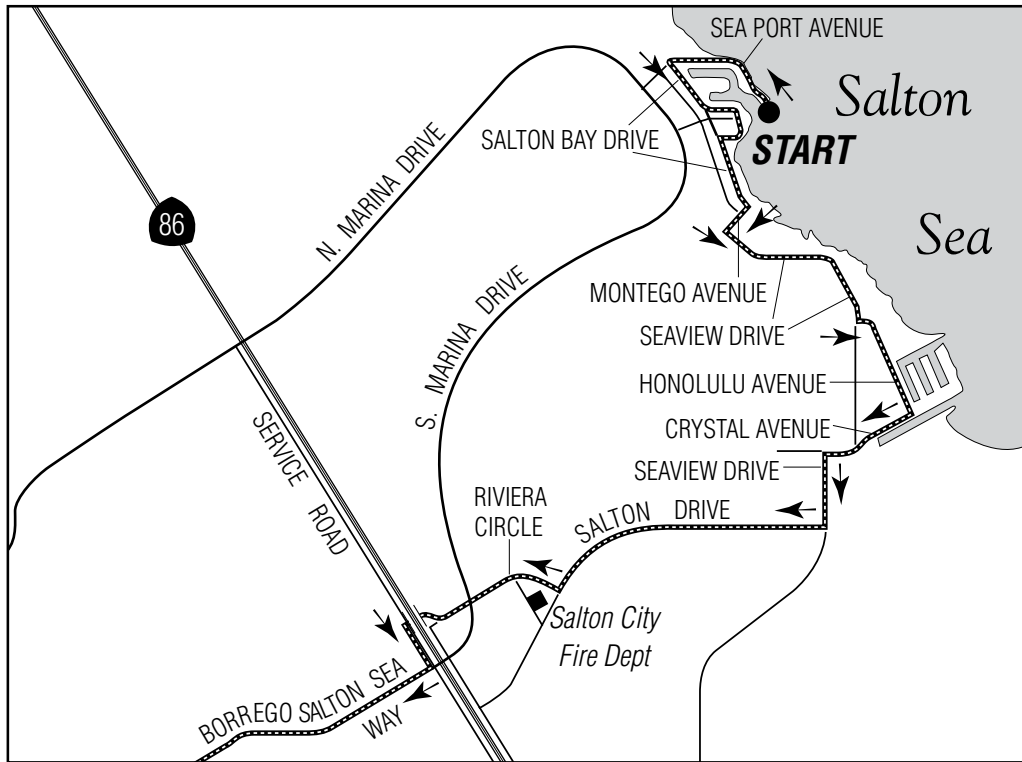
Borrego Springs detail







## 2023 BADWATER SALTON SEA OFFICIAL RACE ROUTE

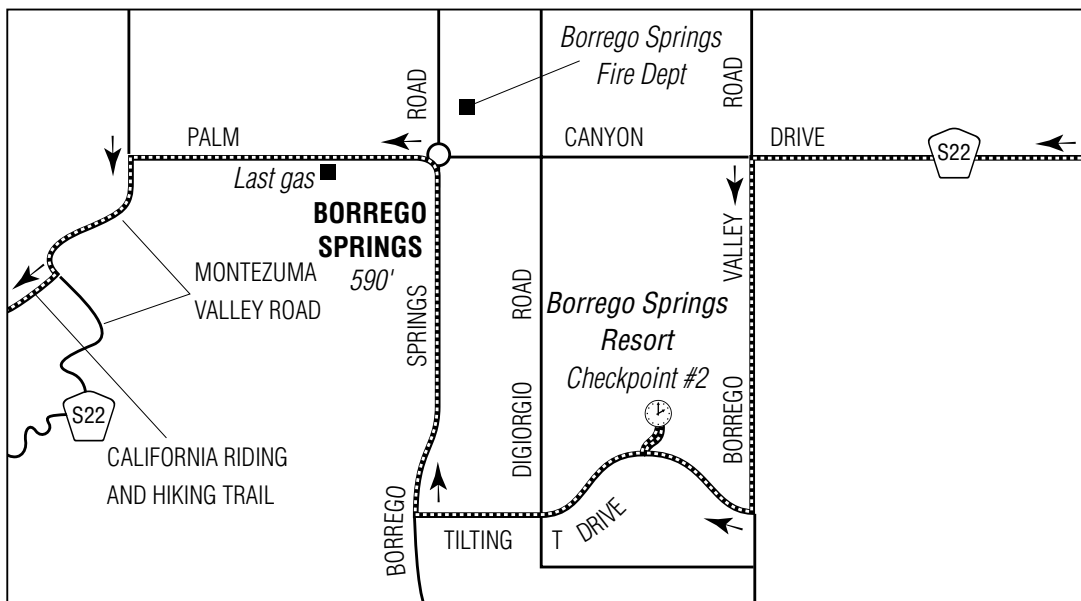


Distance (ml.)	Landmarks / Notes	Elevation
0	Salton Sea Start Line at 905 Sea Port Ave, Salton City, CA 92274	-234 ft.
0.55	Left Salton Bay Dr.	
<b>Note:</b>	<b>Crews: drive directly to Mile 6.75, NOT on race route. Runners must self-support until 6.93.</b>	
0.83	Left Flamingo Ave.	
1.1	Road bears right	
1.24	Left Salton Bay Dr.	
1.6	Right Montego Ave.	
1.75	Left Sea View Dr.	
2.35	Stay right on Salton Bay Dr.	
2.73	Left Honolulu Ave.	-234 ft.
3.3	Right Crystal Ave. (T-int)	
3.8	Left Sea View Dr. (SS, T-in)	
4.17	Right Salton Dr. (SS)	
5.7	Right Riviera Circle	
6.17	Cross South Marina Dr. (SS)	
6.2	Veer right towards culvert under hwy ( dirt road)	
6.45	Cross under CA 86 via dirt road through culvert	
6.5	Left Service Rd. just on other side of highway CA 86	- 120 ft.
6.75	Right Borrego Springs Seaway / S22 at huge gas station / mini mart	
<b>Note:</b>	<b>Crews drive directly to here from start. Last Gas &amp; Supplies until Borrego Springs.</b>	
10.2	Cross Bantsch Trail (first climb)	70 ft.
14.3	Checkpoint #1: USN Microwave Tower (enter San Diego Co. & ABDSP)	510 ft.
16.9	Big Scenic Overlook with Parking on Right	
18.67	Call Box	
20.1	Mile Marker 33	



## 2023 BADWATER SALTON SEA OFFICIAL RACE ROUTE

Distance (ml.)	Landmarks / Notes	Elevation
21.2	Mile Marker 32 and Call Box	
22.2	Big pullout on right	
22.9	Big walled pullout on left	840 ft.
23.6	Call Box on left	
25.1	Mile Marker 28 + Anza-Borrego Desert State Park sign (facing opposite)	670 ft.
26.3	Mile Marker 27	670 ft.
27.3	Pass Henderson Canyon Rd. (at Call Box and near Mile Marker 26)	610 ft.
28.1	Mile Marker 25	
28.9	Mile Marker 24	
29.6	Road bears right, and becomes Palm Canyon Dr.	570 ft.
31.25	Borrego Valley Airport & The Propellor Restaurant on right	520 ft.
32.55	Left Borrego Valley Rd. (SS)	520 ft.
34.3	Right Tilting T Dr.	
34.9	Right into Borrego Springs Resort	
35.05	<b>Checkpoint #2:</b> at resort lobby (U-turn here) at 1112 Tilting T Drive 92004	560 ft.
<b>Note:</b>	<b>Runners must pass here by 1530!</b>	
35.2	Right Tilting T Dr. (SS)	
36.5	Right Borrego Springs Rd. (SS)	
38.2	Left at Christmas Circle (runners may cut the corner)	590 ft.
38.5	The Mall: Calico Café on left / Center Market on right: <b>Get Real food!</b>	
38.6	<b>Last Chance for GAS!</b>	680 ft.
39.55	Left Montezuma Valley Road / S22	750 ft.
40.4	<b>Checkpoint #3:</b> Right into dirt parking lot at Hellhole Canyon Trail	
40.5	Enter California Right and Hiking Trail (3800 ft. of total gain; plan 2.5 to 6 hours!)	880 ft
<b>Note:</b>	<b>Runners must start trail by 1730!</b> <b>CREWS: After runners depart, we recommend you get real food, drinks, and gas in town. Then, it is a 7.4 mile drive from Hellhole Canyon to the CP#4 turn off (a dirt road on the right) You can wait near there to see your runners DURING the trail section, otherwise continue to 10 miles beyond Hellhole Canyon to the summit of Montezuma Valley Road and wait there.</b>	
45.35	<b>Checkpoint #4:</b> Peña Spring Trailhead at Culp Valley Rd (off Montezuma Valley Rd)	3590 ft.



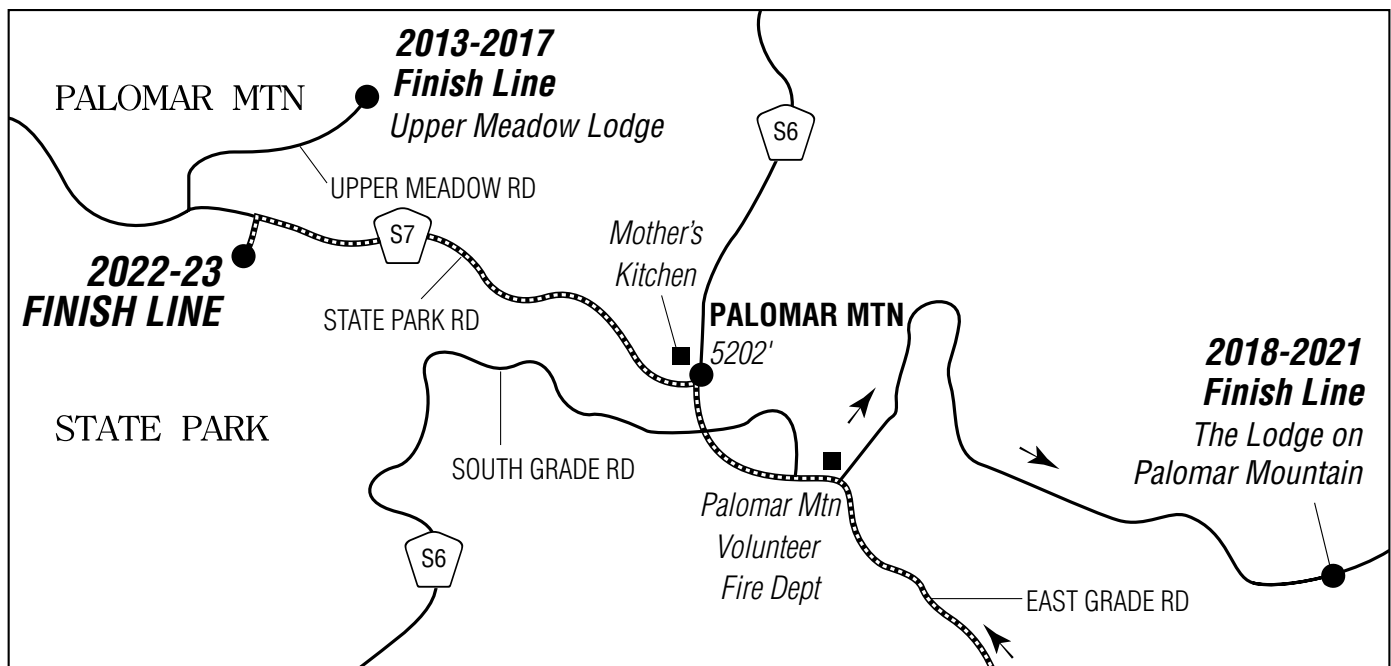
**adventureCORPS®**



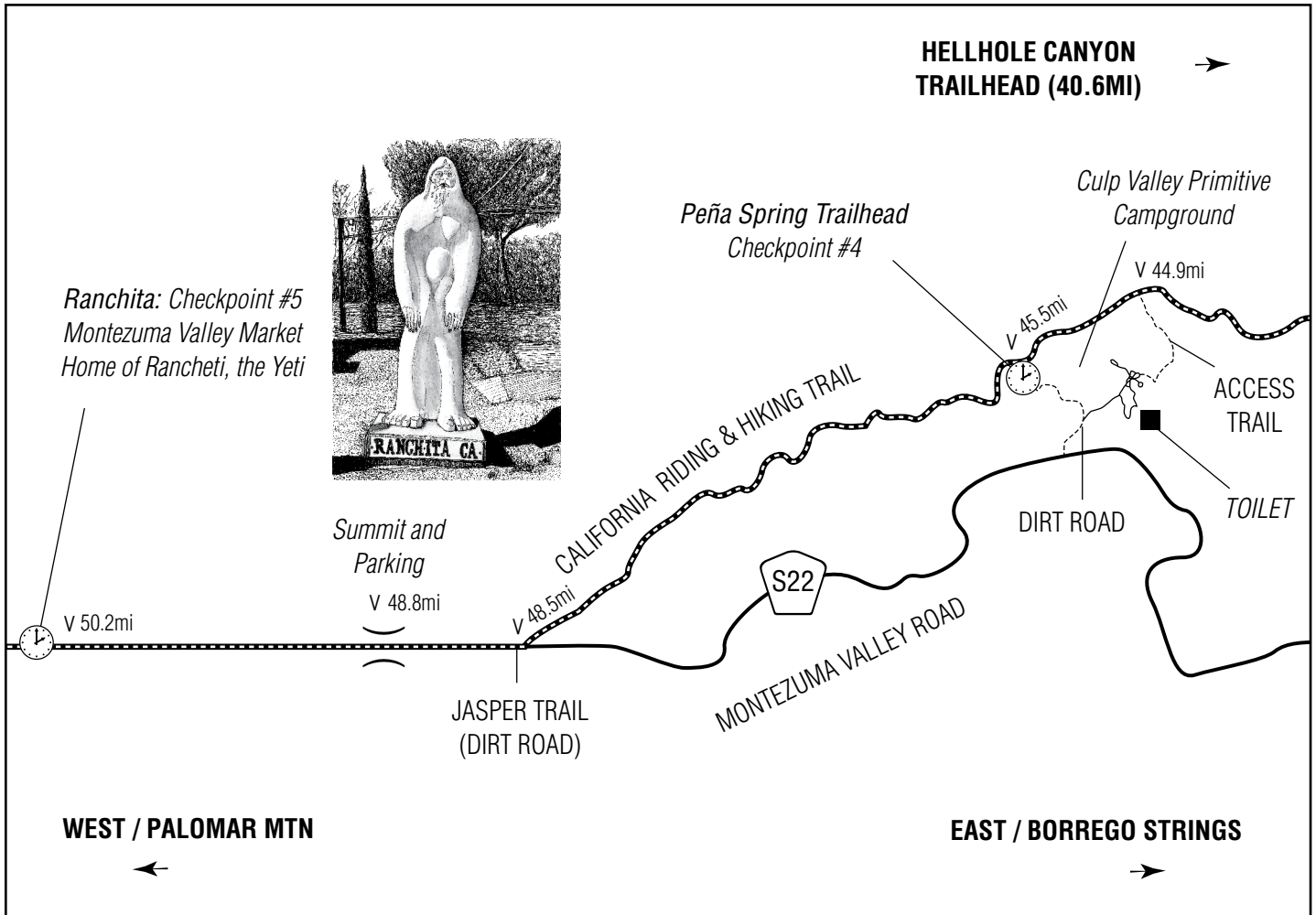
## 2023 BADWATER SALTON SEA OFFICIAL RACE ROUTE

Distance (ml.)	Landmarks / Notes	Elevation
48.35	Rejoin paved Montezuma Valley Road: turn right to go uphill	3745 ft.
48.7	Summit of Montezuma Valley Road	4225 ft.
<b>Note:</b>	<b>Support Crews, park in this vicinity while waiting for your runners to finish the trail section.</b>	
50.1	<b>Checkpoint #5:</b> Montezuma Valley Store in Ranchita on Right by "Rancheti"	4100 ft.
<b>Note:</b>	<b>Last Chance for Food, Drinks, Water, Supplies! Also, free soup and hot chocolate!</b>	
50.25	Fire Station on right at 37370 Montezuma Valley Road, Ranchita 92006	
55.25	Right S2 (T-int; yield)	3500 ft.
59.9	Left SR 79 (SS, T-int)	3000 ft.
<b>Note:</b>	<b>Minimal road shoulder from here to finish. Run, drive, and park carefully!</b>	
61.6	Mataguay Scout Ranch on left	2870 ft.
62.2	100km Mark! Huge gravel pullout on right	
63.3	CA DOT "Lake Henshaw" HQ on right	
64.2	Right on SR 76	2820 ft.
67	Viewpoint / Call Box / Large pullout on right	
67.9	<b>Checkpoint #6:</b> Lake Henshaw Resort, then Fire Station at 26147 CA-76 92070	2760 ft.
<b>Note:</b>	<b>Please Call or Text team name and location to the Race Director as Runners Pass Here!</b>	
68.75	Right S7 / East Grade Road	2720 ft.
70.55	Mile Marker 1.8 and "Scenic Vista" sign	3210 ft.
72.8	Mile Marker 4.0: View of the Pacific!	3880 ft.
76.8	Mile Marker 8.0	4660 ft.
79.9	Just after the summit and Mile Marker 11, STAY LEFT at Fire Station	5260 ft.
80.15	Stay straight onto S6 at four-way intersection, but get ready for a quick turn left:	
80.2	Left on State Park Rd. just before store / Mother's Kitchen	
80.7	Pass 21205 State Park Road (Green Sign) on left, then look for next driveway	
80.8	Turn left into 21145 State Park Road, Palomar Mountain, CA 92060	5500 ft.
81	Finish Line via left / side yard into backyard: Park on RIGHT of house!	5500 ft.

©AdventureCORPS, Inc.







## UPPER MONTEZUMA VALLEY ROAD DETAIL

The trail section of the race is VERY steep and surprises runners every year with both its steepness, rugged terrain, and intense heat. Knowledge of maintaining proper electrolyte balance is critical.

Leg cramps are a sign that SOMETHING IS WRONG. (Ditto for dizziness, "goose bumps," nausea, headache, weak legs, lack of coordination, rapid pulse and / or heavy sweating and/or moist and cold skin.)

These symptoms are not to be ignored, nor "pushed through." This is even more important on the trail section: If you head up the trail and don't feel well, and/or get cramps, TURN AROUND and come back down immediately!

- The trail is 7.8 miles long (some have measured it at 8+!) with 3600 feet of elevation gain.
- The fastest teams cover the trail section in about 2.5 hours, while the back-of-the-pack teams will take up to SIX HOURS to complete the trail section.
- There is a timing checkpoint located 5 miles up the trail. (This is the only place to leave the trail!) Crews have the option of meeting their runners at this location. (Culp Valley Campground: Peña Spring Trailhead)
- Runners will exit the trail a quarter-mile below the summit of Montezuma Valley Rd. (Watch out for cars!) After ascending the road a few hundred yards, runners meet back up with their crews parked at or near the summit.
- Once runners start up the trail at CP3, many crews go back into Borrego Springs to buy real food and to get gas. From CP3, it is a 7.3-mile drive to the Culp Valley CP#4 turn-off, or 10 miles to the summit of Montezuma Valley Road, where crews will park and await runners.



# THE DANGERS OF RUNNING IN THE HEAT

Noora Alidina receives fluids for inside and out during the 2007 race from her husband and daughter.

By Jason Hodde, MS, ATC/L

Running in hot weather can pose many dangers to ultrarunners. Although most runners are aware of the dangers of running for prolonged distances in hot and humid weather, many are also inadequately prepared for the intense stress placed on the body during these hot weather runs.

In July 2002, I participated in the 25th anniversary of the Badwater Ultramarathon, a 135-mile trek from the lowest place in the continental United States (Badwater Basin), through Death Valley National Park, and to the foot of Mount Whitney, the Whitney Portals, at an altitude of 8,360 feet (2,548 meters). The run was held in the middle of one of the most severe heat waves southern California has ever seen. In preparation for the run, I made sure my crew was aware of the signs and symptoms of heat illness, as well as how to treat me should problems occur. Here are some of the dangers of ultrarunning in the heat, and preventative measures that can be taken to avoid potential problems.

## The Heat Index

The heat index is the apparent temperature felt by the body due to the combined effects of actual temperature and humidity. Most people understand that as the air temperature goes up, so does the heat index, but humidity also plays a role. As the humidity rises, the body is unable to efficiently evaporate the sweat it produces. Therefore, the perceived temperature is much higher than the actual air temperature. The loss of cooling efficiency thus makes exercise extremely dangerous.

Although it is convenient to use a single number to describe the apparent temperature your body feels, keep in mind that heat and humidity affect everybody differently. Several assumptions are made to calculate the heat index measurements in the table below. Specifically, the heat index assumes the body to be:

- 5' 7" (170 cm) in height
- 147 pounds (67 kg) in weight
- Caucasian
- At 98.6° F (37° C) body temperature



- Clothed in long pants and a short-sleeved shirt
- In shade
- Walking at a speed of 3.1 mph (5 kph)
- In a breeze of 6 mph (10 kph)
- Not dripping with sweat

Changing any of these factors can either increase or decrease the heat index from those shown in the table. Be aware that heat index values of over 100 significantly increase your risk of heat-related illness.

Relative Humidity	Air Temperature (Degree F)										
	70	75	80	85	90	95	100	105	110	115	120
0%	64	69	73	78	83	87	91	95	99	103	107
10%	65	70	75	80	85	90	95	100	105	111	116
20%	66	72	77	82	87	93	99	105	112	120	130
30%	67	73	78	84	90	96	104	113	123	135	148
40%	68	74	79	86	93	101	110	123	137	151	
50%	69	75	81	88	96	107	120	135	150		
60%	70	76	82	90	100	114	132	149			
70%	70	77	85	93	106	124	144				
80%	71	78	86	97	113	136	157				
90%	71	79	88	102	122	150	170				
100%	72	80	91	108	133	166					

**Heat Illnesses**

There are three major heat illnesses—and all of them can be exacerbated by ultra distance running and prematurely end an ultrarunner’s race. In all cases, the main reason that runners experience heat illness is dehydration. If you replace lost fluids and electrolytes and are able to train your body to process a high volume of fluid in a short period of time, you significantly decrease the risk of experiencing these race-ending medical emergencies.

**Heat cramps:** Exercising in hot weather can lead to muscle cramps, especially in the legs. This is usually caused by imbalances or deficiencies in your body’s electrolyte stores. A cramp is characterized by sharp, stabbing pain in the muscle and rarely works itself out on its own. On a training run earlier this year in Death Valley, many runners complained of cramps in their legs; I suffered from cramps in my diaphragm and had difficulty breathing for more than an hour! Cramps become less frequent with heat training, but for those of us unaccustomed to such extreme conditions, maintaining adequate hydration and electrolyte balance is critical to avoiding them. To eradicate cramps, you should stop running, drink fluids containing electrolytes, cool your body with wet towels, and immediately get out of the sun.

**Heat exhaustion:** Losing fluid and electrolytes through sweat leads to dizziness and weakness if the lost fluids are not replaced. Heat exhaustion is characterized by a moderate rise in body temperature, dizziness, nausea and vomiting, and a headache. You might also experience weakness, lack of coordination, heat cramps, heavier than usual sweating accompanied by moist and cold skin, and “goose bumps.” Your heart rate may rise and you won’t be able

to run as fast due to fatigue. Many runners—even those who are well trained—will suffer from mild heat exhaustion after running for several hours in hot and humid conditions. If you experience the signs of heat exhaustion, stop running immediately and drink fluids containing electrolytes, cool your body with wet towels, lie down and elevate your feet a few inches above your heart, and immediately get out of the sun. Since heat exhaustion can lead to the most severe form of heat-related illness, heat stroke, seeking prompt medical attention for heat exhaustion is also highly recommended.

**Heatstroke:** In extreme cases heat can upset the body’s thermostat, causing body temperature to rise to 105 degrees F or higher. This is a life-threatening situation that requires immediate medical attention. While it is common for untreated heat exhaustion to rapidly progress to heatstroke, heatstroke can (and does) occur without the signs of heat exhaustion being apparent. Symptoms of heatstroke include lethargy and extreme weakness, confusion and odd or bizarre behavior, disorientation and unconsciousness. Because heatstroke is a complete failure of the body’s temperature regulation system, sweating ceases and the skin becomes hot and dry. Convulsions or seizures can occur as the brain begins to shut down. Coma and death are also possible in extreme cases. Heatstroke is a medical emergency that requires immediate medical attention. Call the emergency response system immediately! Get the runner out of the sun, remove all clothing, and immediately rub their body with ice or immerse the runner in cold water.

By staying properly hydrated and recognizing the early warning signs of heat illness, as a runner you can prevent a heat-related problem from becoming a life-threatening situation. As a volunteer, recognizing these heat-related dangers may one day help you save the life of a runner who has underestimated the intensity of the surroundings.



## Medical Risks in the Badwater Salton Sea



2011 champ Oswaldo Lopez stays cool during the 2013 race.

This 81 race is one of the most physically taxing competitive events in the world. It also has considerable medical risks. All runners and crews must appreciate these two facts both before and during the race.

Heat illness and heat stroke are serious risks. These can cause death, renal shutdown, and brain damage. It is important that runners and crews be aware of the symptoms of impending heat illness. These include: nausea, vomiting, headache, dizziness, faintness, irritability, lassitude, weakness, and rapid heart rate. Impending heat stroke may be signaled by a decrease in sweating and goose bumps, especially over the chest.

Heat stroke may progress from minimal symptoms to complete collapse in a very short period of time. Deaths and renal shutdown (kidney failure) have been reported in other ultra-marathons. Adequate conditioning is mandatory.

Adequate fluid and electrolyte intake is the most important preventative for heat illness. Runners may well require dozens of gallons of fluid during this race. Proper pace is crucial.

The high altitude plus exertion can also produce various degrees of altitude sickness. This can lead to severe lung and brain swelling, and even death. The main treatment is rest, and especially to get to a lower altitude.

Blisters are also a problem on this course, with pavement temperatures perhaps reaching 200 degrees. Proper foot care & preparation are essential for having a successful race.

Remember, you are responsible for your well-being while participating in this race. There are no aid stations. Know where your limits are and know your body. Your acceptance of invitation to this race declares that you are aware of the risks & potential health problems.

HEAT EXHAUSTION		OR	HEAT STROKE	
Faint or dizzy			Throbbing headache	
Excessive sweating			No sweating	
Cool, pale, clammy skin			Body temperature above 103° Red, hot, dry skin	
Nausea or vomiting			Nausea or vomiting	
Rapid, weak pulse			Rapid, strong pulse	
Muscle cramps			May lose consciousness	
<ul style="list-style-type: none"> <li>• Get to a cooler, air conditioned place</li> <li>• Drink water if fully conscious</li> <li>• Take a cool shower or use cold compresses</li> </ul>			<p><b>CALL 9-1-1</b></p> <ul style="list-style-type: none"> <li>• Take immediate action to cool the person until help arrives</li> </ul>	

@NWSSacramento  
weather.gov/Sacramento



@SacramentoOES  
SacramentoReady.org





## Historical Data, Badwater Salton Sea, 2013-2022:

**Total Number of Participants:** 614 (187F / 427M)

**Total Number of Unique Entrants:** 440

**Total Number of Unique Finishers:** 379

### Nationalities Represented:

Armenia: 2	Mexico: 9
Australia: 5	Netherlands: 1
Belarus: 1	Peru: 1
Bolivia: 1	Philippines: 6
Brazil: 3	Poland: 2
Canada: 19	Serbia: 1
Cayman Islands: 2	Singapore: 1
Colombia: 1	Slovakia: 1
Czech Republic: 2	South Korea: 1
Denmark: 4	Sweden: 3
Germany: 7	Switzerland: 3
India: 2	United Kingdom: 13
Italy: 3	USA: 503
Japan: 14	

**American States Represented:** 40

### Hats Off to our Six-Time Finishers!

Emily Ryan and Ray Sanchez

