

MAPPING EMIGRANT TRAILS MANUAL

PART E PHOTO MONITORING

**Prepared by the
Mapping and Marking Committee**

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(Revised and Expanded)
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PHOTO MONITORING

INTRODUCTION

How often have you thought to yourself “this looks different,” but weren’t able to say specifically why? Gradual changes over long periods of time often defy identification, but with a photo monitoring program in place, changes can be identified and steps taken to prevent deterioration of historic emigrant trails.

A photo-monitor is the eyes and ears of OCTA and the advocate of the historic emigrant trails. Using a monitoring program, volunteers identify, record, and report trail and resource conditions, thereby ensuring continued preservation of the western emigrant trails. The following guidelines will assist in setting up a photo-monitoring program.

ITEMS NEEDED

1. Selected section of an emigrant trail.
2. Topographic map of the location.
3. Camera, preferably digital with wide angle capabilities.
4. GPS and compass.
5. Printed copies of the photos and CD of the photos.
6. Forms you will create.
7. Archival pen and archival page protectors.
8. Notebook (Photo Monitoring Album) to store monitoring program forms and photos.

If you are working with a local federal agency, you may be asked to create two photo monitoring albums, one for the local land authority and one for your monitoring team, so you will need two sets of photos, CDs, forms and notebooks.

CHOOSING A LOCATION

A location can be chosen for numerous reasons. Perhaps it is your favorite historic spot along an emigrant trail, or your favorite hike, or it is convenient for you to check on, or you feel its integrity is threatened by overuse, disuse, development or neglect.

1. Choose an area you can access and will have the time and opportunity to visit at the same time each year as you will need to repeat the monitoring process on a yearly basis.
2. Select enough key spots, or “photo points,” along the selected trail section so that you are able to adequately represent the entire section of the trail as well as record important specific locations.
 - a) If possible, choose a wide angle, long range landscapes (also known as a setting). These are critical to demonstrate the overall status of the area. Select a landmark

to position in the background of the photo so the same view can be repeated every year. Boulders, mountains, power poles and buildings are good reference points. Trees, logs, other types of vegetation and stream banks grow or disappear and are not wise choices. You will take photos in at least four different directions standing at each of these long range photo points.

- b) Also include areas threatened by encroachments such as grazing, eroding creek banks, the “improvement” of roads, or non-permitted activities.
- c) Specific points to photograph would be items such as where the trail classification changes from one class to another, wagon ruts or swales, rust marks left on rocks by wagon wheels, tree blazes made by the emigrants, unique land forms possibly listed in emigrant diaries and emigrant inscriptions on rocks.

GETTING STARTED

Obtain a topographic map of the area, visit the trail location you chose and identify the Photo Point locations that you want to use each year. Use a GPS to locate and mark the coordinates of these points on the topographic map. (See Example A.)

For each photo you will take, create a separate Photo Album Sheet (see Example B) that includes:

1. The name of the Photo Point. Each photo will be numbered with a code based on its location (Photo Point 1), and the sequence in which it was taken at that point (Photo 1-1, 1-2, 1-3 and 1-4). See Example C for further explanation of this code.
2. GPS coordinates of the photo point with instructions how to get to there.
3. Description of visually identifiable points in the area. Geodetic Survey monuments are particularly helpful.
4. Which direction to take the photo from the point. Take photos in at least four different directions from each point.
5. Any notable remarks, such as “The California Trail is in the shallow valley bottom between the railroad and the sand dunes on the right.”
6. When setting up the page, include the name of the trail or trails section at the bottom of each page along with the page number.
7. You will eventually place on each of these pages a “reference photo” taken the first year monitoring is done.

These pages will form the new Photo Monitoring Album and will be done only the first year. For use every year, prepare:

1. A cover sheet with date, trail name and location, team members and a key to the photo labeling code. (See Example C.)

2. A photographic record on which to list the photos taken, with lines for the date, time, subject and compass direction faced. (See Example D.)
3. A monitoring form to record any changes observed from the previous year; to be signed and dated by the team members. (See Example E.)

All of these forms will be placed in the front of the Photo Monitoring Album.

IN THE FIELD

Although photo monitoring can be accomplished by just one person, it's easiest and best organized with a team of three. One team member acts as the photographer; the second reads instructions and directions to the photographer and the third records the data and notes.

Even though the terrain may not be rugged, it's handy to use a pick-up truck so the photographer can stand in the bed of the truck to take elevated shots of the area. Otherwise, bring along a step ladder to get those pictures. Be sure the vehicle is not in the view of the camera when you take a picture.

If this is a repeat study (not the initial photo monitoring session), study the reference photo in the manual and line up the shot in the same way. Compare the skyline, contour of mountains, roads and/or telephone poles.

PUTTING IT ALL TOGETHER

After your day out in the field, you will need to organize the information you collected into a usable format to keep for your records, to submit to the chapter preservation officer, and, if requested, to submit to the local, state or federal agency in the area where the trail section is located.

Creating a Photo Monitoring Album for the first time:

1. Obtain one 4x6 inch glossy print of each photo for every album you are creating. You will create at least two albums. The 4x6 format is big enough to provide details but is convenient to handle. The glossy finish provides the sharpest photo detail. Also create at least two photo CDs of all the pictures.
2. Label the photos on the front using an "archival pen" and the coding described in Step 1 of the "Getting Started" section. Archival supplies can be obtained at photo shops, stationary stores, or stores that sell scrapbooking supplies.
3. Attach the photo to its corresponding Photo Album Sheet (Example B) that you have created, and insert into an archival page protector. Place this in the Photo Monitoring Album so it is a "right hand page" when you open the album.
4. Repeat Steps 1-3 for all remaining photos. These are now your "reference photos" that you will compare subsequent years' photos against.

5. Place the completed Cover sheet, Photographic Record page and Monitoring Form in the front of the Photo Monitoring Album.

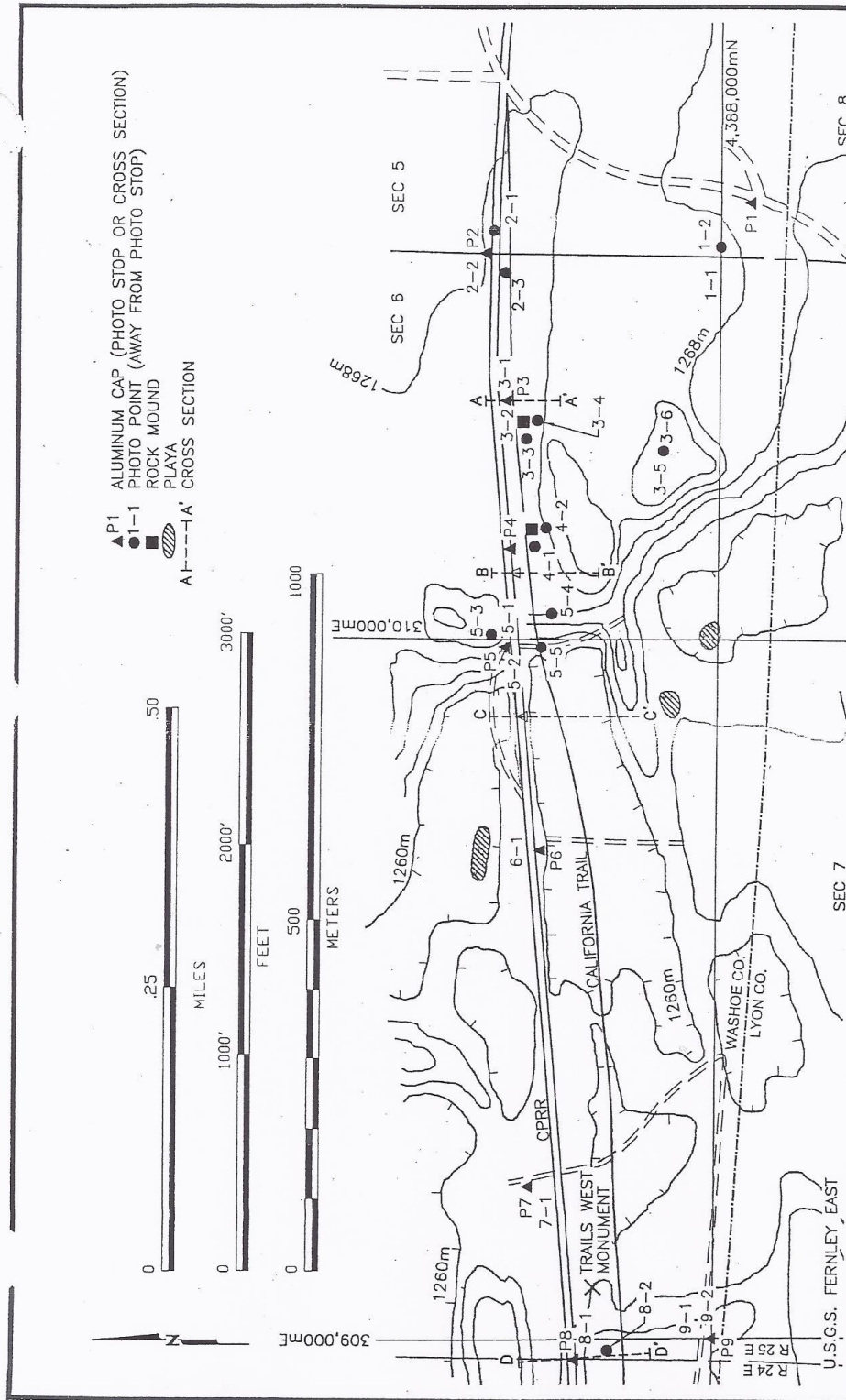
Using the Photo Monitoring Album in subsequent years:

1. Each year, obtain one 4x6 inch glossy print of the new photos for each of the albums you are working with, as well as two photo CDs.
2. Label the photos on the front and back using an “archival pen” and the coding described in Step 1 of the “Getting Started” section.
3. Place the new photo in the back of the left hand page protector so when you open the album you can compare the new photo (on the left page) to the reference photo (on the right page). Discard the previous year’s photos.
4. Fill out the Monitoring Form (Example E) while comparing the current year’s photographs to the reference photographs. You can do this by comparing the actual photographs to each other, or for more detail, view the pictures from the new photo CD on your computer monitor and compare them to the reference photographs. Note the differences on the Monitoring Form.
5. Replace the Cover sheet, Photographic Record page and Monitoring Form at the front of the Photo Monitoring Album with the year’s set of forms.

COMPLETED PHOTO MONITORING ALBUM

The Photo Monitoring Album is a basic tool for preservation activities. It provides the basis for discussions with agencies and landowners. The results should also be provided to the chapter preservation officer.

Example A, Topographic Map



FIGURE

2

CALIFORNIA TRAIL AND CENTRAL PACIFIC
RAILROAD (FERNLEY SWALES)
CR 3-1799; CR 2-2705

CROSS SECTION AND REPEAT
PHOTOGRAPHY LOCATIONS

Harding ESE
A MACTEC COMPANY
Engineering and
Environmental Services

DRAWN	JOB NUMBER	APPROVED	DATE
KH	54426.01		4/29/02

PHOTO STOP 6

Return to vehicle. Follow the railroad grade west 0.1 mile. MONUMENT P6 (309,69⁶₈ m E 4,388,25⁷₆ m N) is on the left (south) side of the railroad grade, just west of the intersection with a four-wheel drive road. Park on the left side of the road adjacent to the monument.

Photo 6-1



PHOTO 6-1 is taken from on top of the vehicle, facing 120 degrees.

The CPRR grade is on the left side of this view. The California Trail is in the shallow valley bottom between the railroad and the sand dunes on the right. In the foreground is disturbance from the off road vehicle trail.

OCTOBER 2012 PHOTO MONITORING

DATE OF PHOTO MONITORING: November 13, 2012

MONITORS: Jim Moorman, Denise Moorman (OCTA members)

PHOTOS LABELED BY: Jim Moorman (OCTA) November 13, 2012

CODE ON FRONT: 1-1 = Photo Point Number

CODE ON BACK: WF-D-12-1

WF = Wade Fernley Land Exchange

D = Digital Camera

12 = The Year 2012

Last number = The number of the photo taken.

Example D, Photographic Record

Photographer (s) JIM MOORMAN PHOTOGRAPHIC RECORD

COPY

Roll No. 1

WADE FERNLEY PHOTO MONITORING

DIGITAL

Year		Film Type		Camera & Lens Type		Film Speed	Pg. #
2012		DIGITAL		OPTICAL 5.0 EQUIVALENT 75 28 MM			
Mo. Day		Time	exp	fr	PP = Photo Point	f stop/lense	Facing
11	13	12:48	1		PP 1-1	F 7.0	276°
11	13	12:48	2		PP 1-2	F 7.0	346°
11	13	12:58	3		PP 2-1	F 7.0	178°
11	13	13:05	4		PP 2-2	F 7.0	242°
11	13	13:07	5		PP 2-3	F 7.0	270°
11	13	13:16	6		PP 3-1	F 7.0	90°
11	13	13:19	7		PP 3-2	F 7.0	270°
11	13	13:29	8		PP 3-3	F 7.0	85°
11	13	13:32	9		PP 3-4	F 7.0	352°
11	13	13:42	10		PP 3-5	F 7.0	275°
11	13	13:43	11		PP 3-6	F 7.0	68°
11	13	13:56	12		PP 4-1	F 7.0	40°
11	13	13:57	13		PP 4-2	F 7.0	344°
11	13	14:10	14		PP 5-1	F 7.0	112°
11	13	14:13	15		PP 5-2	F 7.0	270°
11	13	14:14	16		PP 5-3	F 7.0	258°
11	13	14:24	17		PP 5-4	F 7.0	235°
11	13	14:26	18		PP 5-5	F 7.0	80°
11	13	14:35	19		PP 6-1	F 7.0	120°
11	13	15:11	20		PP 7-1	F 7.0	158°
11	13	15:17	21		PP 8-1	F 7.0	90°
11	13	15:23	22		PP 8-2	F 3.5	258°
11	13	15:34	23		PP 9-1	F 3.5	20°
11	13	15:38	24		PP 9-2	F 3.5	90°
			25				
			26				
			27				
			28				
			29				
			30				
			31				
			32				
			33				
			34				
			35				
			36				

COPY

Example E, Monitoring Form

MONITORING FORM for Segments of the California National Historic Trail, Fernley Swales and the Central Pacific Railroad

This form allows the monitor to document (written notes, map notation, and photography) non-permitted activities causing damage or having the potential to damage the cultural resources within the historic preservation and access easement. Non permitted activities include off-road activities, recent dumping, or other destructive activities. Upon documentation, the monitor (BLM or its agents) will notify the BLM representative within 24 hours (phone or email) and no later than 7 days in writing regarding these types of unauthorized activities.

Photo monitoring should be conducted every November while general monitoring for non permitted activities should be conducted every quarter, i.e., in November (in conjunction with the repeat photography), February, May, and August.

Please describe in detail the type of non-permitted activity (illegal dumping, OHV, etc.) and possible recommended and future actions. Also please note the location of the non-permitted activity on the "repeat photography locations" map while noting the photo number(s) on this form.

1. Vegetation significantly reduced throughout entire area due to year-long drought. Area received less than 50% of normal precipitation.
2. Illegal dumping continues at approximately 2011 levels. During recent cleanup 61 cubic yards removed. City Council of Fernley considering implementing monitoring program by volunteers to report illegal dumping.
3. This past May, replaced 4 of the BLM posted signs. Need an additional 5 signs to complete needed signage. Installed 9 new Carsonite markers, 2 of which have already been destroyed by illegal shooting.
4. PP5-2: CPRR grade continues to degrade due to even more ORV use. Point where ORVs cross CPRR grade now degraded 4 feet. Degradation now extreme; repair work required. Fencing or law enforcement needed.
5. The drought and frequent high winds are causing noticable impact on historic sand swales. This, combined with increased traffic and illegal uses, is greatly effecting the preservation of the historic sand swales. ACTION NEEDED NOW!
Contact with other individuals (name and licence plate): None

Monitor(s): Jim Moorman, Denise Moorman, OCTA members

Date: 11-13-2012

Prepared by: Jim Moorman

A:\MonitoringForm_WadeFernley_TEMPLATE.wpd