



**CITY OF CHICO
BIDWELL PARK AND PLAYGROUND COMMISSION (BPPC)
NATURAL RESOURCE COMMITTEE
(Haar (Chair), McReynolds and Nickell)
Regular Meeting Agenda
September 19, 2018, 6:00 p.m.**

**Chico Municipal Center Council Chamber Building
421 Main Street
Conference Room 1**

Materials related to an item on this Agenda are available for public inspection in the Park Division Office at 965 Fir Street during normal business hours or online at <http://www.chico.ca.us/>.

1. CALL TO ORDER

2. REGULAR AGENDA

2.1. CONSIDERATION OF OPTIONS REGARDING THE REPAIR OF AND VEHICLE ACCESS TO UPPER BIDWELL PARK ROAD

At its 8/27/18 meeting, the Bidwell Park & Playground Commission (BPPC) considered the Natural Resource Committee's (NRC) recommendation to improve all of Upper Park Road to allow for emergency vehicle access only at this time. The BPPC directed the NRC to review the costs and feasibility of repairing the road to provide this emergency response access, and to continue the policy discussion regarding whether to allow public vehicle access past the Diversion Dam gate.

Recommendation: The Park & Natural Resources Manager is requesting the Committee provide recommendations regarding the following options:

- 1) An alternative proposal to allow public vehicle access to Salmon Hole (Lot N) at this time.
- 2) To continue discussions regarding providing further public vehicle access beyond Salmon Hole.
- 3) Maintaining the current policy of allowing public vehicle access to Diversion Dam gate only.

3. BUSINESS FROM THE FLOOR

Members of the public may address the Committee at this time on any matter not already listed on the agenda, comments are limited to three minutes. The Committee cannot take any action at this meeting on requests made under this section of the agenda.

4. ADJOURNMENT

Unless otherwise noticed, adjourn to the next regular meeting on October 17, 2018 at 6:00 p.m. in Conference Room 1, Chico Municipal Center Council Chamber Building located at 421 Main Street, Chico, California.



Please contact the Park Division Office at (530) 896-7800 if you require an agenda in an alternative format, or if you need to request a disability-related modification or accommodation. If possible, this request should be received at least three (3) working days prior to the meeting.



BPPC Natural Resource Committee Report

Meeting Date 9/19/18

DATE: 9/14/18
TO: Natural Resource Committee
FROM: Linda Herman, Parks and Natural Resources Manager
SUBJECT: CONSIDERATION OF OPTIONS REGARDING THE REPAIR OF AND VEHICLE ACCESS TO UPPER BIDWELL PARK ROAD

REPORT IN BRIEF:

At its 8/27/18 meeting, the Bidwell Park & Playground Commission (BPPC) considered the Natural Resource Committee's (NRC) recommendation to improve all of Upper Park Road to allow for emergency vehicle access only for now. The BPPC directed the NRC to review the costs and feasibility of repairing the road to provide this emergency access, and to continue the policy discussion regarding whether to allow public vehicle access past the Diversion Dam gate.

Recommendation: The Park & Natural Resources Manager is requesting the Committee provide recommendations regarding the following options:

- 1) An alternative proposal to allow public vehicle access to Salmon Hole (Lot N) at this time.
- 2) To continue discussions regarding providing further public vehicle access beyond Salmon Hole.
- 3) Maintaining the current policy of allowing public vehicle access to Diversion Dam gate only.

FISCAL IMPACT:

The estimated cost to complete the road drainage and stream crossing treatments on the three High Priority sites is approximately \$32,000. Assuming an average repair cost of \$10,625 per erosion site, the cost to provide access to Salmon Hole is estimated at an additional \$32,000, depending on the site conditions. There will also be costs to move the Diversion Dam gate. Capital Project (Project # 50303) - Upper Park Road Rehabilitation has a current balance of \$38,677, which is enough to fix the 3 priority sites. If approved by the BPPC, the additional cost to provide access to Salmon Hole could be funded from Capital Project 50304 – Park Facility Improvements

BACKGROUND:

After receiving extensive damage from the storms in 2012, the approximate 4.4-mile unpaved section of Upper Park Road between the Diversion Dam gate and the end of Upper Park Road has been closed to private vehicle use. The City retained Pacific Watershed Associates (PWA) to conduct a physical assessment of the Upper Bidwell Park Road. The purpose of the assessment was to inventory the current road conditions and to develop an action plan to control or prevent erosion and sediment from entering Big Chico Creek. In its report, PWA presented the following:

1. PWA identified a total of 43 erosion sites within the 4.4 miles of unpaved road. Treatment of the sites were prioritized as High Priority, High-Moderate Priority, Moderate Priority, Moderate-Low Priority, and Low Priority. A map of the erosion sites by priority is attached as Exhibit A.
2. 3.42 miles of the total 4.4 miles are hydrologically connected to streams, thereby having the potential to deliver sediment directly into Big Chico Creek (BCC).
3. Recommended repair measures include both sediment control treatments, such as modifying stream crossings and culverts, and road drainage improvements.
4. Treatment of all of the erosion sites could reduce approximately 3,572 cubic yards of episodic and chronic (over 10 years) sediment from depositing onto Upper Park Road and potentially entering BCC.
5. Erosion sites #27, #38 and #39 were identified as High to High-Moderate priority.
6. The estimated costs to treat all 43 sites was estimated at \$457,000

At its 10/30/17 meeting, the BPPC directed staff to repair the three High Priority erosion sites (27, 38, & 39). PWA recommended that these three sites receive both stream crossing and road drainage treatments, which would include installation of new culverts, armor fills, rolling dips, berm removal, and grading. PWA estimated that these repairs would require a bulldozer, grader and excavator, and approximately 100 cubic yards of road rock. The stream crossing work would also require permits from the CA Fish and Wildlife. The specifics regarding these site treatments are summarized in the attached Table 1 (Exhibit B).

Due to time constraints in receiving the permits for the stream crossing repairs, the BPPC directed that only the road treatments be conducted by City Staff before the winter rains, if possible. The BPPC also recommended clearing of debris from existing culverts, using the City's community partners, such as CalFire, and/or volunteers. However, Staff was unable to make these repairs before the rains last year

DISCUSSION:

Emergency Vehicle Access

Providing emergency vehicle access to the end of the road will require installing both the road drainage and storm crossing improvements on the high priority sites and probably improvements on some of the moderate priority sites from Horseshoe Lake (Lot E) to the to the end of the road. Providing space for the apparatus to turn around at the end of the road is also needed. This would provide access for utility type Fire equipment and all-wheel drive vehicles only. Providing access to larger Fire Apparatus and standard two-wheel drive vehicles would require repairing all of the erosion sites, which would approach the \$457,000 costs estimated by PWA.

Staff intends to obtain the required permits to make the necessary road drainage and storm crossing treatments for the three (3) High Priority erosion sites to improve emergency access. The work will be completed by City Right-of-Way and Park Division staff over the next couple of months.

Policy Decisions Regarding Vehicle Access

Despite the potential ability to make repairs to the road, the question remains on what the overall public's desires regarding vehicle access is. Although the public survey indicated that 2/3 of the respondents wanted access to the remote areas of Upper Bidwell Park, it did not clearly indicate to what location(s). Nor was it clear that the public understood the full costs of providing this vehicle access, which may have changed their responses. The Committee is requested to provide direction to Staff on whether to pursue further public opinion on this topic.

Salmon Hole Alternative

As an alternative, Staff is proposing that providing vehicle access to Salmon Hole may be a good compromise at this point in time for the following reasons:

1. Provides vehicle access to about half way from Horseshoe Lake (Lot E) to the end of the road (Lot U).
2. Provides vehicle access to another popular swimming area, which may decrease the impacts on Bear Hole.
3. Salmon Hole has a parking lot (Lot N), with a circular entrance and exit, trash containers and a pad for a portable restroom. It also has room to expand the parking lot to accommodate more vehicles and park amenities.
4. There are only three additional erosion sites from Diversion Dam to Salmon Hole that will need repairs.
5. The elevation and grade/slope east of Salmon Hole change dramatically, which is evident by PWA's identity of the 3 High Priority and 16 High-Moderate Priority erosion sites in this stretch of Upper Park road (see map and grade chart in Exhibit C).
6. Access to this area would still be under the current policy to close the gates on Sundays and Mondays.
7. This will allow time to seek additional funding, such as grants, if a decision is made to change the policy to allow farther vehicle access in the future.

It should be noted that Park Maintenance and Ranger Staff have indicated that the amount of trash generated, vandalism, and other enforcement issues did decrease at Salmon Hole and Brown's Hole when the Diversion Dam gate was closed to vehicle traffic.

Attachments:

Exhibit A: PWA Map 3- Upper Park Road Erosion Sites

Exhibit B: Table 1: Summary of Treatments for Sites 27, 38 & 39

Exhibit C: Map of Upper Park Road Distances/Grade Elevation

NRC Report


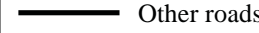


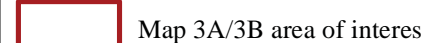
City of Chico – Parks Division

EXHIBIT A - MAP OF EROSION SITES BY TYPE AND PRIORITY

Map 3. Road related sediment source **by treatment immediacy** for the Upper Bidwell Park Road, Big Chico Creek, Butte County, California.

Sites by priority

- High
- ▲ Moderate
- Low
- ⊕ Start of survey
- ⊖ End of survey
- * Parking Areas
- ⊥ Gate

 PWA assessed roads
 Other roads
 Streams
 State Highway 32
 Map 3A/3B area of interest

0 750 1,500 3,000
 Feet
 Scale: 1:18,000 1 in : 1,500 ft
 Contour interval: 10m
 Imagery: NAIP 2016

Note: Streams displayed are based on field mapping and aerial photo interpretation.

Prepared February 2017 by:
 Pacific Watershed Associates
www.pacificwatershed.com


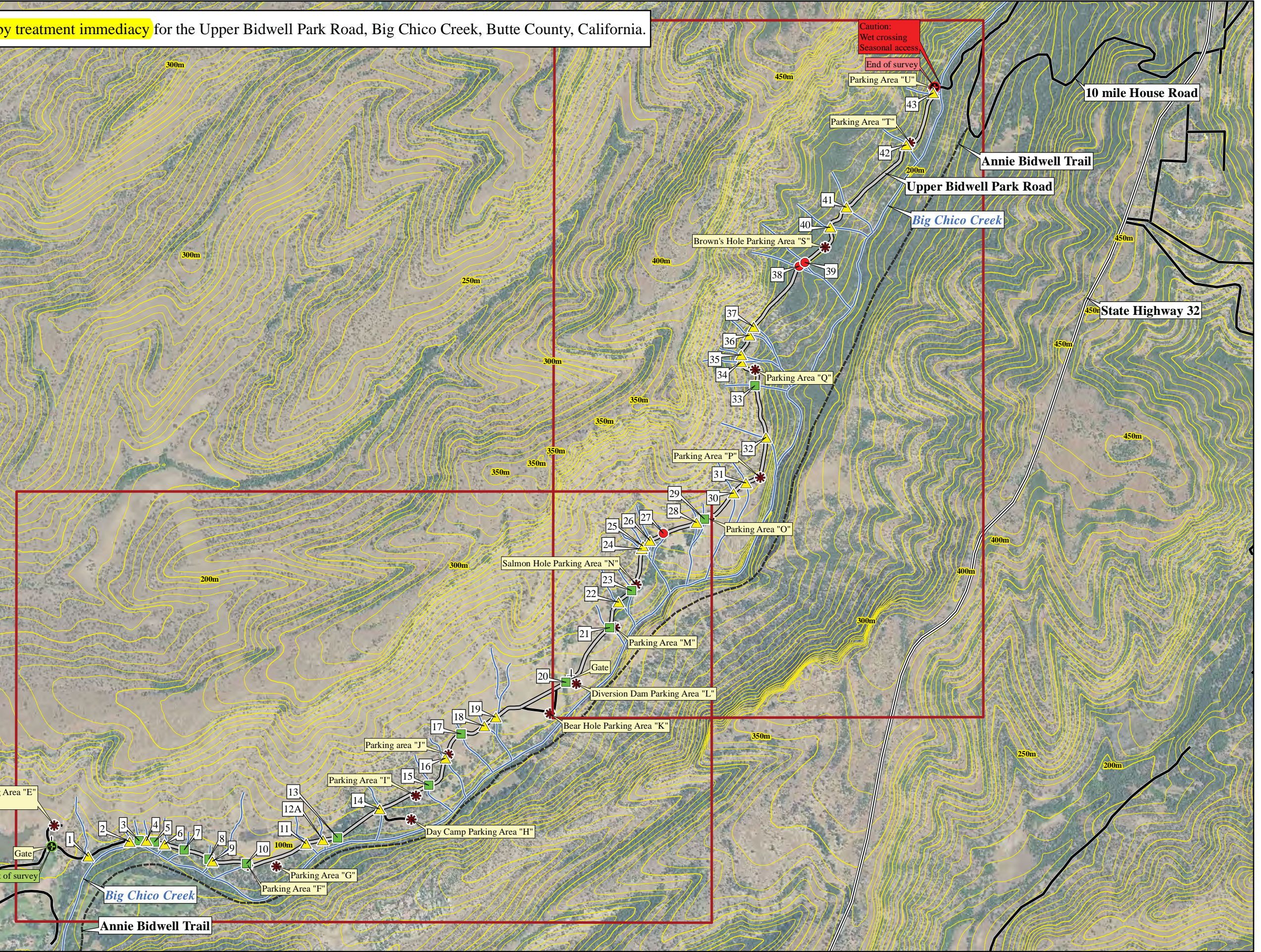



EXHIBIT B - THREE PRIORITY SITE COSTS

Table 1. Field observations and treatment recommendations for road related features, Upper Bidwell Park Road, Butte County California.

Site #	Treatment immediacy	Problem	Estimated future sediment delivery (yd ³)	Hydrologically connected road length		Comment on treatment
				Left road length (ft)	Right road length (ft)	
27	HM	Stream crossing	118	620	0	1. Excavate a broad dip through road prism 60'W x 1'D x 15'L= 33 yd ³ , remove old culvert and rebuild with no diversion potential. 2. Excavate a keyway 7'W x 2'D x 20'L= 10 yd ³ . 3. Armor the keyway 7'W x 2'D x 20'L= 10 yd ³ . 4. Outslope left road and remove ditch and berm for 620 ft. 5. Install 3 rolling dips to left road. 6. Stockpile spoils locally.
38	H	Stream crossing	116	0	935	1. Excavate crossing from top flag to bottom flag. 2. Install 42 inch diameter culvert. 3. Install a critical dip on left hinge line. 4. Armor entire outboard fillslope with 10 yd ³ of 0.5' - 1.5' diameter riprap. 5. Install 4 rolling dip to right and remove berm for 750 ft. 6. Stockpile spoils locally.
39	HM	Stream crossing	32	0	90	1. Excavate a broad dip through the crossing 60"W x 1'D x 1'L= 33 yd ³ , remove old culvert, rebuild road prism with no diversion potential 2. Excavate keyway 7'W x 2'D x 15'L= 10 yd ³ . 3. Armor keyway 7'W x 2'D x 15'L= 10 yd ³ with 0.5' - 1.5' diameter riprap. 4. Outslope the road to left and remove the berm and fill ditch, for 90 ft. 5. Install 1 rolling dip to right road and connect to the ditch. 6. Stockpile spoils locally.

Table 2. High and High - Moderate priority sites heavy equipment hours and materials needs for Upper Park Road – Bidwell Park, Chico, CA

Site #	Problem type	Treatment area	Drainage areas	Treatment type	Excavator	Bulldozer	Grader	Laborer	DumpTruck	Roller	Water Tuck	Truck/trailer	Road Rock	Rip Rap	Culvert diameter	Culvert length
Rate			acres		hours	hours	hours		hours	hours	hours	hours	# of cubic yards	# of cubic yards	inches	inches
27	Stream Crossing	Site specific	<10.0	Construct armored fill	6	6			12			2		10		
	Road drainage	Road drainage		620 ft (left road approach)		6	3			4	3		30			
38	Stream Crossing	Site Specific	25.6	Install new culvert	8	8		8	21			5		10	42	40
	Road drainage	Road drainage		935 ft (right road approach)		8	4			4	9		60			
39	Stream Crossing	Site Specific	18.9	Construct armored fill	4	4						2		10		
	Road drainage	Road Drainage		90 ft (right road approach)		2	1		6	2	2		10			
Totals					18	34	8	8	39	10	14	9	100	30	42	40

EXHIBIT B - THREE PRIORITY SITE COSTS

Table 3. High and High - Moderate priority sites heavy equipment costs and materials costs for Upper Park Road – Bidwell Park, Chico, CA

Site #	Problem type	Treatment area	Excavator costs	Bulldozer costs	Grader costs	Dump Truck costs	Roller costs	Water Tuck costs	Truck/trailer costs	Road Rock # of cubic yards	Rip Rap (cubic yards)	Culvert costs	Mulch, seed and trees	Miscellaneous erosion control	Total cost
Rate			\$215	\$181	\$176	\$155	\$135	\$145	\$85	\$30/cubic yard	\$30/cubic yard				
27	Stream Crossing	Site specific	\$1,290	\$1,086	\$0	\$1,860	\$0	\$0	\$170	\$0	\$300		\$50	\$100	\$4,706
	Road drainage	Road drainage	\$0	\$1,086	\$528	\$0	\$540	\$435	\$0	\$900	\$0				\$3,489
38	Stream Crossing	Site Specific	\$1,720	\$1,448	\$0	\$3,255	\$0	\$0	\$425	\$0	\$300	\$3,200	\$100	\$200	\$7,148
	Road drainage	Road drainage	\$0	\$1,448	\$704	\$0	\$540	\$1,305	\$0	\$1,800	\$0				\$5,797
39	Stream Crossing	Site Specific	\$860	\$724	\$0	\$0	\$0	\$0	\$170	\$0	\$300		\$50	\$100	\$2,054
	Road drainage	Road Drainage	\$0	\$362	\$176	\$930	\$270	\$290	\$0	\$300	\$0				\$2,328
Totals			\$3,870	\$6,154	\$1,408	\$6,045	\$1,350	\$2,030	\$765	\$3,000	\$900	\$3,200	\$200	\$400	\$25,522




Table 4. Grand total for High and High - Moderate priority sites, Upper Park Road – Bidwell Park, Chico, CA

Site #	Treatment immediacy	Problem	Grand total (\$)
27	HM	Stream crossing	\$8,195
38	H	Stream crossing	\$12,945
39	HM	Stream crossing	\$4,382
Total			\$25,522
Permitting			\$2,400
PWA layout, supervision, technical oversight			\$3,500
Grand total			\$31,422



EXHIBIT C - UPPR DISTANCES AND GRADES

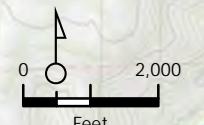
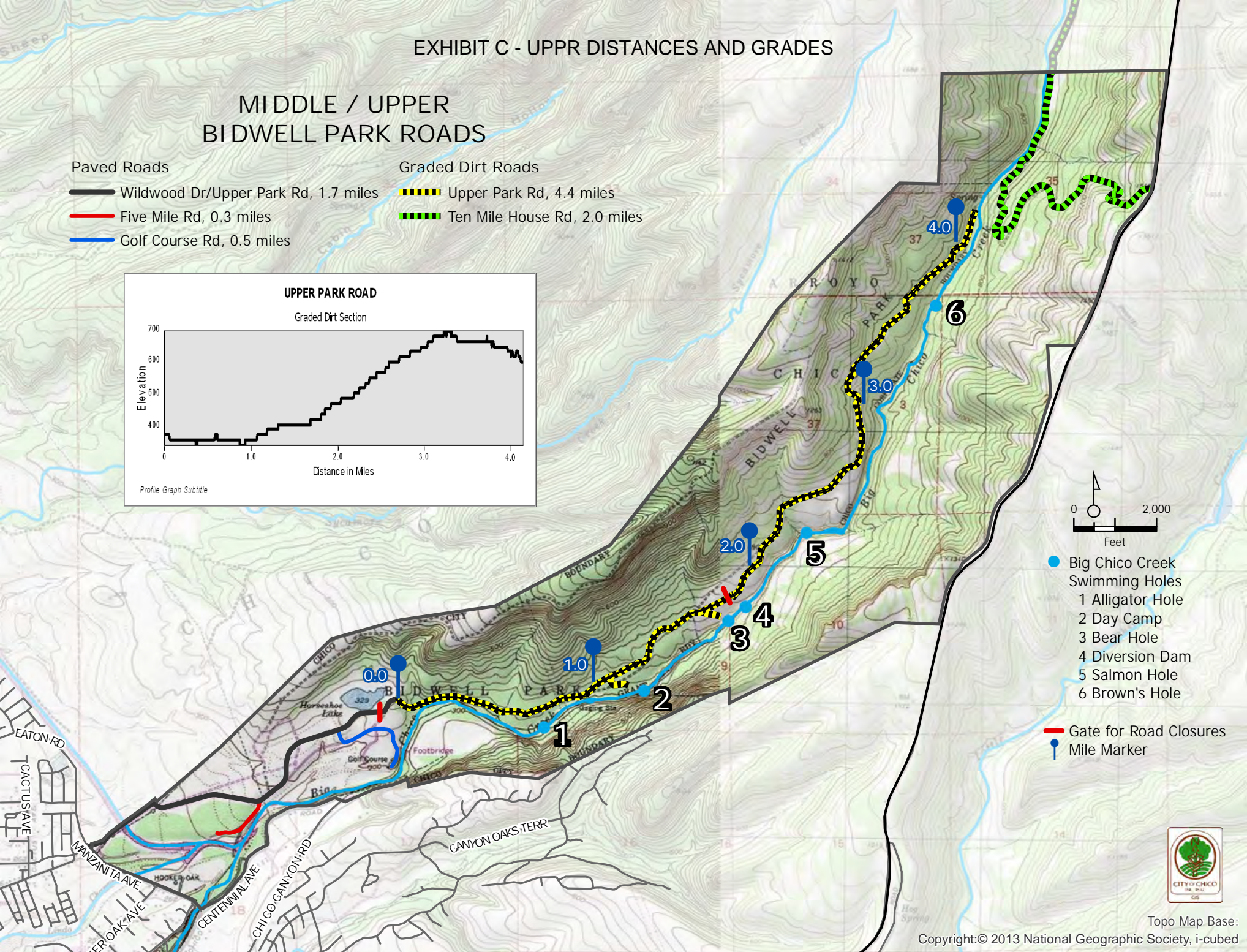
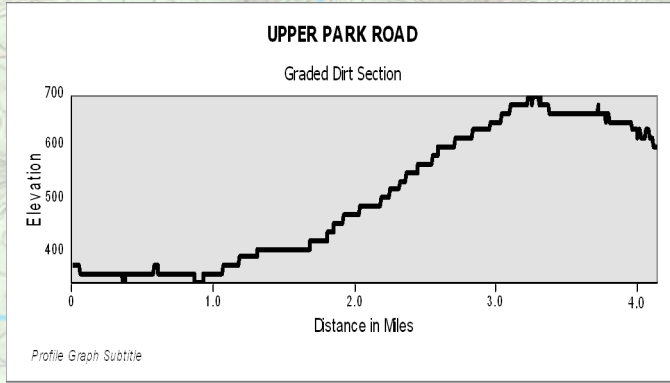
MIDDLE / UPPER BIDWELL PARK ROADS

Paved Roads



-  Wildwood Dr/Upper Park Rd, 1.7 miles
-  Five Mile Rd, 0.3 miles
-  Golf Course Rd, 0.5 miles

Graded Dirt Roads

-  Upper Park Rd, 4.4 miles
-  Ten Mile House Rd, 2.0 miles



-  Big Chico Creek Swimming Holes
- 1 Alligator Hole
- 2 Day Camp
- 3 Bear Hole
- 4 Diversion Dam
- 5 Salmon Hole
- 6 Brown's Hole

-  Gate for Road Closures
-  Mile Marker

