

## APPENDIX D: HABITAT INVENTORY INFORMATION

### Study Reach Information

Table D-1 provides details for each study reach including location, length, dates surveyed, and types of survey work completed. As indicated in the table, the work items listed above were not always completed during each survey. LWD surveys were completed only once per study reach, in spring at Study Reaches 1, 2, and 3, and in summer at Study Reach 4, as LWD inventory did not change appreciably in the approximately five months between survey dates. Study Reach 2 was dry during the second day of surveys in April, and during all of the September survey work. Fall surveys were not conducted in Study Reach 3 (Gobernador Creek) due to an inability to re-secure landowner's permission. Permission to survey Study Reach 4 was not obtained in time for the April surveys.

	<b>Study Reach 1</b>	<b>Study Reach 2</b>	<b>Study Reach 3</b>	<b>Study Reach 4</b>
Stream	Lower Carpinteria	Lower Carpinteria	Gobernador	Upper Carpinteria
Start Point (Latitude, Longitude)	N 34° 23.52", W 119° 30.89"	N 34° 24.05", W 119° 29.66"	N 34° 25.21", W 119° 28.28"	N 34° 24.62", W 119° 28.73"
End Point (Latitude, Longitude)	N 34° 23.75", W 119° 30.41"	N 34° 24.07", W 119° 29.17"	N 34° 25.52", W 119° 28.47"	N 34° 24.78", W 119° 28.48"
Length in ft.	2,650	2,640	2,680	1,667
Elevation (start-stop) in ft.	(29-52)	(115-150)	(708-848)	(250-352)
Average Stream Gradient	0.009	0.013	0.052	0.061
<b>Spring Survey Date</b>	4/16 and 4/17	4/17 and 4/23	4/30 and 5/1	--
Channel/Habitat Typing Survey	Yes	Yes	Yes	--
LWD Survey	Yes	Yes	Yes	--
Water Quality/Flow Measurements	Yes	Yes	Yes	--
Fish Survey	Yes	Yes	Yes	--
Plant/Wildlife Observations	Yes	Yes	Yes	--
<b>Summer Survey Date</b>	9/10	9/10	--	9/18
Channel/Habitat Typing Survey	Yes	No	--	Yes
LWD Survey	No	No	--	Yes
Water Quality/Flow Measurements	Yes	No	--	Yes
Fish Survey	Yes	No	--	Yes
Plant/Wildlife Observations	Yes	Yes	--	Yes

## Discharge Data

Discharge data collected during this study is as follows:

<u>Study Reach</u>	<u>Date</u>	<u>Discharge (cfs)</u>
1	4/16/03	6.2
1	9/10/03	0.4
2	4/17/03	6.2
2	4/23/03	0 (dry)
2	9/10/03	0 (dry)
3	4/30/03	3.1
4	9/18/03	0.6

Data and observations from this and previous studies provide more detail regarding discharge patterns throughout Carpinteria Creek and its tributaries. The lower mile or so of the creek from the estuary to approximately one-half mile upstream of the U.S. 101 crossing is typically perennial, with continuous base flows of 1 cfs or less between rainy periods. Base flow in this section of the creek originates from groundwater that appears to be forced to the creek bed surface. Runoff from adjacent agricultural and residential areas in the lower watershed also contributes to base flows.

The remainder of the main stem and the lower mile of Upper Carpinteria Creek and Gobernador Creek experience intermittent flow conditions. During the wettest of years, these creek segments have had surface flow for most or all of the year, but typically they dry up within a few weeks to months of major rainfall events. The latter situation was the case in 2003. A combination of substantial rainfall events in March and April created peak discharges in excess of 300 cfs at the gaging station. Discharge in Study Reach 2, which includes the gaging station was 6.2 cfs during the April 17 survey. The next week on April 23, Study Reach 2 was completely dry, as were the lower reaches of Upper Carpinteria Creek and Gobernador Creek. These areas were also completely dry during the September surveys.

From about one mile upstream of the confluence and well into the mountains, both Upper Carpinteria Creek and Gobernador Creek and several tributaries including Sutton Canyon Creek, Steer Creek, and El Dorado Creek have year-round flow in most years. Landowners report that base discharges in these creeks are fed by several springs and seeps. Base discharges are typically lowest near the end of the dry season in the late summer and fall. As shown above, discharge in Upper Carpinteria Creek (Study Reach 4) was approximately 0.6 cfs. Although surveys could not be completed in upper Gobernador Creek in September, surface flow was observed starting about one mile upstream of the confluence with Carpinteria Creek during a visual assessment; which landowners report to be a typical condition that extends from this point for several miles into the mountains year-round.

Insert Figure III-5 from CA Salmonid Stream Habitat Restoration Manual (Hardcopy Only)