## SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY Ditch Creek, Pennington County

02-0059-00

2006

Table 1. Population and Biomass Estimates for Ditch Creek

Site Number: 14	Date Sampled: 09/21/2006	Conductivity 470
Site Midpoint (Latitude, Longitude): 43.97247052, -103.84458740	Site Length (m): 100	(umhos/cm):
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 1.1	pH:
Stream Classification: BK2, RB0		Water Temperature (C): 7.8
	Number of Pass: 4	Voltage:

Species	Size Class	Total Number Captured	Est. # in site	Upper 95% Cl	Lower 95% Cl	# per Hectacre	Kg per Hectacre	# per Km	# per Acre	lb. per Acre	# per Mile	Mean Length (mm)	Mean Weight (grams)
Brook Trout	<200mm	106	106	106	106	9966	167	1060	4036	148.75	1706	105.8	16.7
Brook Trout	>=200mm	1	1	1	1	94	8	10	38	7.22	16	200.0	86.0
Brook Trout	All	235	238	243	235	22376	389	2380	9062	346.92	3829	106.7	17.4
Rainbow Trout	<200mm	4	4	4	4	376	10	40	152	8.98	64	139.5	26.8
Rainbow Trout	All	4	4	4	4	376	10	40	152	8.98	64	139.5	26.8

Stream sites are classified based on the estimates of adult trout over eight inches that exist within the site. Estimates are derived from 3-pass backpack electrofishing surveys at 100-meter sites within streams. While all fish in the site are collected and measured, only trout species are used for classifications. Sites are numbered in accordance for the distance (m) from the stream confluence of a higher order stream/river.

Based on number of trout in excess of eight inches				
Class BR1	Number of wild Brown Trout exceeds 150 per acre			
Class BR2	Number of wild Brook Trout ranges from 25 to 150 per acre			
Class BR3	Number of wild Brown Trout is less than 25 per acre			
Class BK1	Number of wild Brook Trout exceeds 150 per acre			
Class BK2	Number of wild Brook Trout ranges from 25 to 150 per acre			
Class BK3	Number of wild BrookTrout is less than 25 per acre			
Class RB1	Number of wild Rainbow Trout exceeds 25 per acre			
Class RB2	Number of wild Rainbow Trout is less than 25 per acre			

Table 2. Species composition and population estimates on Ditch Creek, 1996-2006

## Site 14

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 14, 1998	189	171-207	
	Sep 21, 2006	106	106-106	
Brook Trout >=200mm	Jul 14, 1998	4	4-6	BK2
	Sep 21, 2006	1	1-1	BK2
Rainbow Trout <200mm	Jul 14, 1998	4	4-6	
	Sep 21, 2006	4	4-4	

## **Length Frequency Distribution**

Length frequency histogram of species sampled by year.



Species: Brook Trout





