

Determination of Public Land (Rangeland) Health for 65027 LONE WOLF

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. While habitat parameters may meet the Biotic standard, the habitat requirements for Special Status Species (lesser prairie chicken and sanddune lizard) habitat are a concern. Factors such as oil and gas activities and the associated infra-structure, the mesquite encroachment in some areas and the low composition of the tall grass species required for nesting success must continue to be addressed to improve the existing habitat and prevent lost of habitat from fragmentation.

Based on the assessments, it is my determination that public land within Lone Wolf allotment #65027, meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ T. R. Kreager
Assistant Field Manager

09/28/2005
Date

Standards of Public Land Health Evaluation of 65027 LONE WOLF Allotment [06/27/2005]

The ROSWELL Field Office conducted rangeland health assessments at one (1) study site within the Lone Wolf allotment 65027. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65027- SCHOOL- D261	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Lone Wolf allotment #65027. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on one location were utilized to assess rangeland health of public land within this allotment. This allotment is a category "C" (custodial) due to small amounts of public land present.

School Pasture is a CP-2 Sandy Plains ecological site. The acreage is 743 or 301 hectares on a Roswell-Jalmar soil phase. This phase occurs on high terraces in the eastern part of the survey area. Slope is 0-10% and the elevation is between 3,900 ft/1,182 m and 4,100 ft/1,242 m. No livestock were present at the time of the field assessment. The pasture and allotment as a whole appears to have recovered from past oil and gas activity. The two-tracks have vegetated and are well covered and hidden. The site is very diverse as proportions of grass to forbs and shrubs appear adequate. A majority of indicators assessed rated Slight to Moderate with slight departures from normal ranges of variability. Hairy grama (*Bouteloua hirsuta*), threeawn (*Aristida* spp.), dropseed (*Sporobolus* spp.), little bluestem (*Schizachyrium scoparium*) and sand bluestem (*Andropogon hallii*) are the principal grass species present and are attempting to reproduce. Forbs like buckwheat (*Eriogonum* spp.), globemallow (*Sphaeralcea* spp.) and sunflower (*Helianthus* spp.) are abundant and add diversity. A good mulch layer exists indicating litter has fallen in place and is breaking down for site protection. Mesquite (*Prosopis glandulosa*) is scattered throughout and rates invasive plants as Moderate. This pasture appears in good to excellent condition.

Hydrology - School Pasture - The rills, water flow patterns, pedestals and/or terracettes, bareground, gullies, wind-scoured, blowouts, and or deposition areas, litter movement, soil surface resistance to erosion, loss or degradation, plant community composition and distribution relative to infiltration and runoff, compaction layer, litter amount and physical/chemical/biological crusts indicators rated none to slight and slight to moderate, indicating a healthy ecological condition.

Wildlife - Evaluation of the integrity of biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as functional/structural groups and plant mortality & decadence.

In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation. A unique assemblage of terrestrial species and avifauna can be expected to use the Mescalero Sands ecosystem. Of significance are the sand dune lizard and lesser prairie chicken known only to occur within this ecosystem. The vegetation community of interest is the shinnery oak-tall grass type only found in this portion of the Field Office area. Key habitat components include sand bluestem, shinnery oak, sand dune lizard habitat features (dune blowouts), and lesser prairie chicken habitat features (booming grounds & nesting areas). The amount, condition and juxtaposition of these habitat features are used as habitat indicators for this assessment. The assessment begins by determining if the site is within "Core Areas" for lesser prairie chicken. Other important wildlife species and their habitats, such as desert mule deer, pronghorn, a variety of game and non-game species, are also considered in the assessment.

School Pasture - The area of interest does not fall within the Core Area. There are no known sightings of LPC. The area does not appear to provide suitable habitat for sand dune lizard. Pronghorn and desert mule deer inhabit this allotment and vicinity.

One rangeland health indicator fell within the Moderate rating; invasive plants, specifically, mesquite. Wildlife Habitat rated moderate due to reduced composition of mid and tall grass species. Special Status Species, none are known to occur in the area of interest.

In the professional opinion of the Assessment Team, public land within Lone Wolf allotment #65027, meets Upland and Biotic standards. There are no Riparian issues present, therefore this standard was not addressed. See site notes and recommendations for further information regarding this assessment.

Recommendations: The recent rainfall has no doubt assisted this site to recover from previous oil and gas exploration and recent dry conditions. Continued prudent management by the allottee should continue to insure this allotment's improving status.

RFOs Upland and Biotic Standard Assessment Summary Worksheet

SITE 65027-SCHOOL-D261

Legal Land Desc	SWNW 30 0070S 0310E Meridian 23	Acreage	743
Ecosite	070BY055NM SANDY PLAINS CP-2	Photo Taken	Y
Watershed	13060007050 WHITE LAKES		
Observers	NAVARRO/ARTHUN	Observation Date	07/18/2005
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	RPD	Soil Taxon Name	ROSWELL
Texture Class	NM644 FS	Soil Phase	ROSWELL-JALMAR
Texture Modifier	NM644 FINE SANDS,HILLY		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	17.94	NOAA Growing Season Precipitation	14.86
NOAA Avg Annual Precipitation	14.75	NOAA Avg Growing Season Precipitation	12.63
Disturbances and Animal Use:	No livestock observed, but there appears to be some old mining activity or oil and gas operations which have long since been abandoned. Any two-tracks or other access have revegetated over. Except for the occasional dunal area, most of the area has adequate ground cover.		

Part 2. Attributes and Indicators

Attribute	Indicators	Departure from Ecological Site Description/Ecological Reference Areas				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:	Current estimate is 40-50%. Long-term average is 45%.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Slight reductions only.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Slight reductions in species within groups.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 50%.					
B	Annual Production				X	
Comments:	600 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants			X		
Comments:	Mesquite is scattered and/or sporadic throughout.					
B	Reproductive Capability of Perennial Plants					X
Comments:						

S	Physical/Chemical/Biological Crusts				X	
Comments:	An adequate physical crust exists.					
B	Wildlife Habitat			X		
Comments:	This is a hummocky mesquite grassland providing habitat primarily for pronghorn antelope, upland game birds and a variety of non-game terrestrial species. A shift from a grassland community to a mesquite grassland type has occurred. Habitat conditions now favor shrub-tolerant wildlife species.					
B	Wildlife Populations			X		
Comments:	No specific wildlife population information at this time. Pronghorn antelope are known to occur, upland game birds such as quail can be found using this habitat type.					
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	7	3
H	Hydrologic	0	0	0	8	3
B	Biotic	0	0	3	5	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

--

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		0	3	10

Site Notes: The ecological site is in very good condition. Seed head and tillers of most perennial grass is prominent. The area appears to be recovering from drought and past livestock use. No livestock were observed. The diversity of the site is very good. Forbs, grass and shrub components appear to be in the proper composition for range management purposes.

The only real issue is a reduction in the bluestem grasses. Threeawn and hairy grama are both showing signs of healthy reproduction.

Wildlife - The habitat type includes a variety of shrubs and half-shrubs such as sand sage, shinnery oak, yucca spp. and broom snakeweed. The combination of shrubs and grasses in an improving trend contributes to habitat diversity. No major developments in the area such as oil and gas activity that would impact habitat.

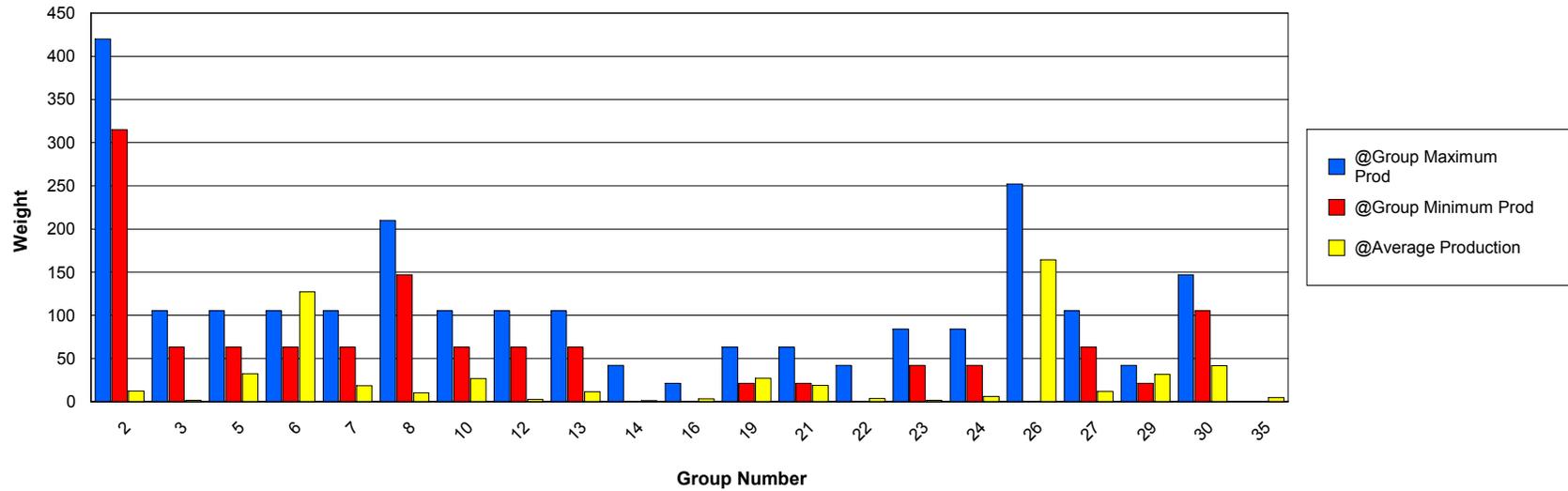
Functional / Structural Groups

Report Parameters

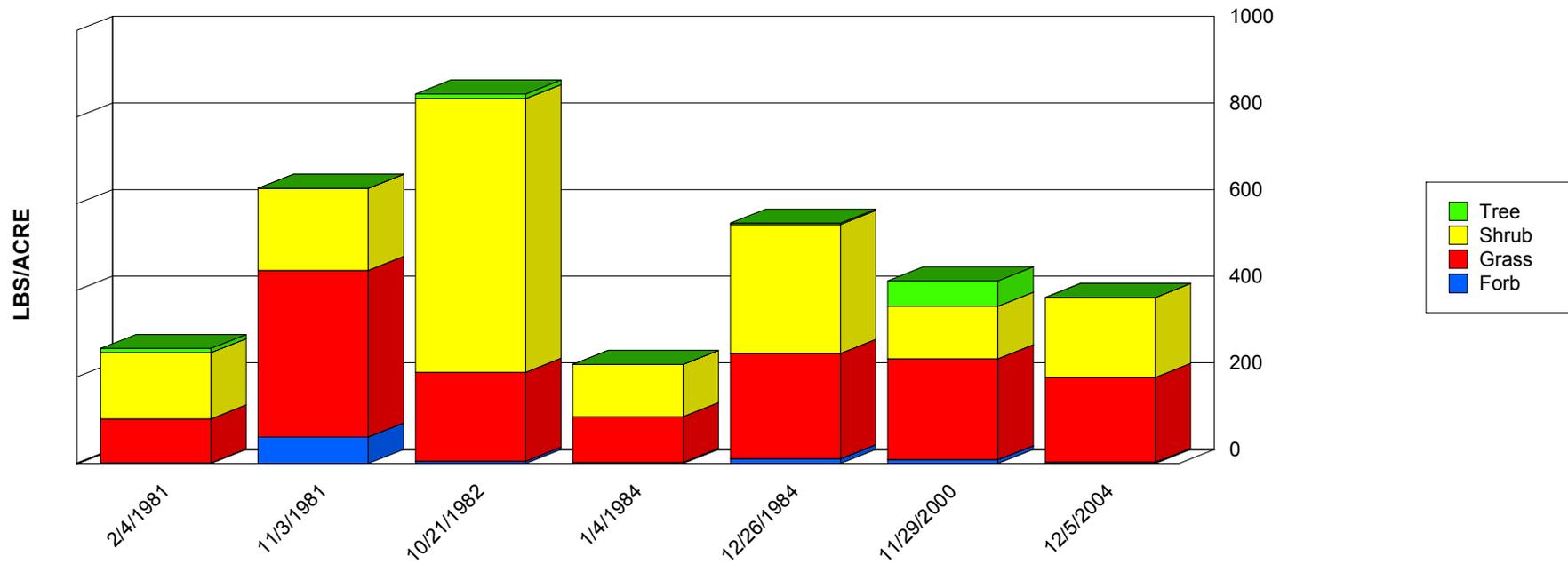
SITE NAME LIKE 65027-SCHOOL-D261
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2005
 MIN LBS TO GRAPH 1
 SELECTED ECOSITE 070BY055NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
2	Grass	ANGE	315	420	0.00	1.54	0.77	0.77
2	Grass	ANSC2	315	420	0.00	39.06	11.32	13.93
3	Grass	EROX	63	105	0.00	5.00	1.32	1.65
3	Grass	PAST6	63	105	0.00	1.33	0.22	0.50
5	Grass	BOHI2	63	105	3.48	73.00	32.27	21.77
6	Grass	ARIST	63	105	38.00	143.52	76.61	40.80
6	Grass	ARLO3	63	105	0.00	101.40	50.70	50.70
7	Grass	LECO	63	105	0.00	73.92	18.31	23.57
8	Grass	SPCR	147	210	0.00	47.00	10.29	15.24
10	Grass	BOER4	63	105	0.00	72.08	26.84	23.12
12	Grass	SPCO4	63	105	0.00	15.00	2.67	5.53
13	Grass	BOCU	63	105	0.00	30.80	11.55	9.60
14	Grass	MUSQ	0	42	1.00	1.33	1.17	0.17
16	Grass	CAREX	0	21	0.00	6.40	3.20	3.20
19	Grass	AGSM	21	63	0.00	5.20	2.60	2.60
19	Grass	BOGR2	21	63	0.00	27.84	9.64	9.22
19	Grass	ERSE2	21	63	0.00	1.00	0.23	0.38
19	Grass	ERTR	21	63	0.00	4.86	0.97	1.94
19	Grass	MUAR	21	63	0.00	17.86	8.93	8.93
19	Grass	SPFL2	21	63	0.00	18.35	3.73	6.70
19	Grass	TRMU	21	63	0.00	4.72	0.94	1.89
21	Forb	ERIOG	21	63	0.00	53.94	18.88	24.82
22	Forb	AMPS	0	42	1.34	6.00	3.67	2.33
23	Forb	AAFF	42	84	0.00	4.00	1.36	1.43
24	Forb	CRJA2	42	84	0.00	6.86	3.43	3.43
24	Forb	PPFF	42	84	0.00	2.08	1.03	0.85

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
24	Forb	SENEC	42	84	0.00	7.20	1.44	2.88
26	Shrub	QUHA3	0	252	41.76	472.50	164.28	132.62
27	Tree	YUEL	63	105	0.00	58.67	11.73	19.63
29	Shrub	GUSA2	21	42	0.95	93.28	31.64	33.56
30	Shrub	ARFI2	105	147	5.76	67.20	41.57	21.70
35	Shrub	PRGL2	0	0	0.00	22.40	4.63	8.89



Production Lbs/Acre Trends

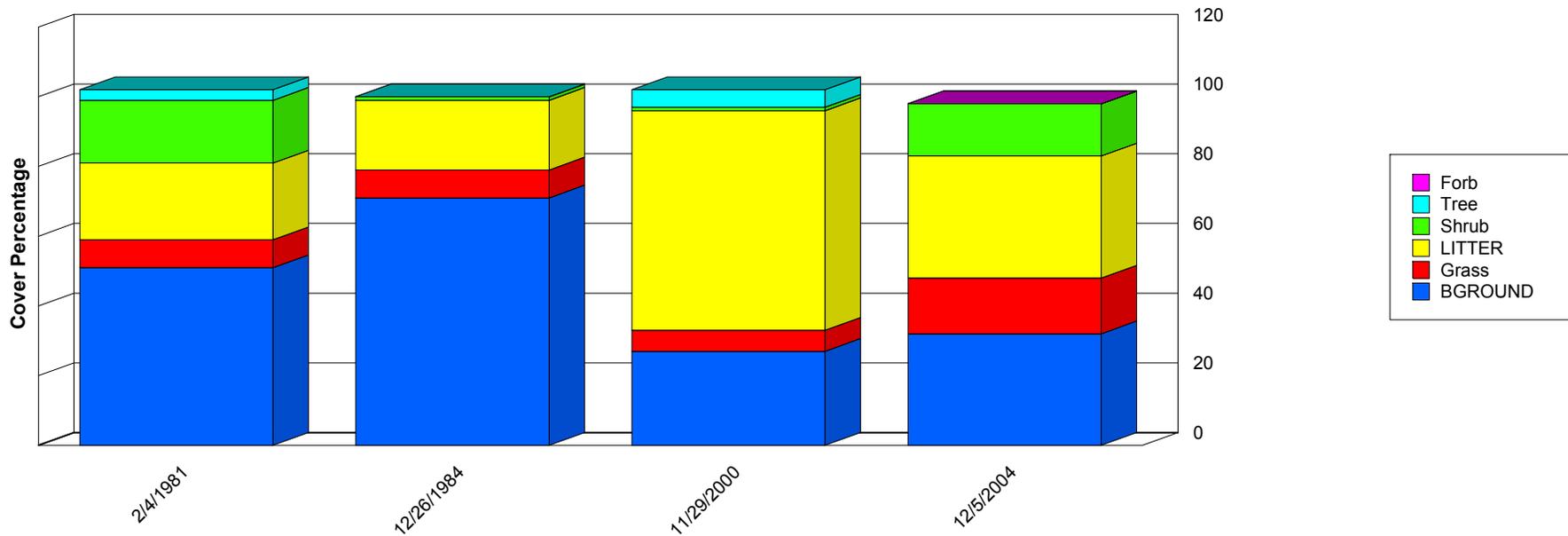


	2/4/1981	11/3/1981	10/21/1982	1/4/1984	12/26/1984	11/29/2000	12/5/2004
Forb	1.47	61.14	5.40	2.68	11.00	8.94	3.04
Grass	101.45	384.88	205.06	105.68	243.00	232.66	195.94
Shrub	153.03	189.36	631.86	120.28	298.00	121.53	184.27
Tree	9.67	0.00	10.80	0.00	3.00	58.67	0.00
Total	265.61	635.38	853.12	228.64	555.00	421.79	383.25

Report Parameters

SITE NAME LIKE 65027-SCHOOL-D261
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2005

Ground Cover Trends



	2/4/1981	12/26/1984	11/29/2000	12/5/2004
BGROUND	51.00	71.00	27.00	32.00
Forb	0.00	0.00	0.00	0.00
Grass	8.00	8.00	6.00	16.00
LITTER	22.00	20.00	63.00	35.00
Shrub	18.00	1.00	1.00	15.00
Tree	3.00	0.00	5.00	0.00
Total	102.00	100.00	102.00	98.00

Report Parameters

SITE NAME LIKE	65027-SCHOOL-D261
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2005