

SG-1 Pond						elevation change	distance
	ac-ft	ft^2	ft^3	cfs	ft	350	6767
water shed area		603800.9				Area	501.534
water shed perimeter					6457.85	dis w/ shaft	29.02
soil type						90b,10c	
pond area		21573					
pond volume 100			87555.4				
pond volume 25			61506.58				
required storage 100	2.01						
required storage 25	1.412						
Discharge req 25				17.64			
Discharge req 100				24.35			
pond depth 100					4.058564		
pond depth 25					2.851091		
d=(1525((Q*n)/sqrt(S)))^-.375							

SG-2 Pond							elevation change	distance
water shed area	ac-ft	ft^2	ft^3	cfs	ft	80b,20c	490	1735
water shed perimeter		139509.3			1805.374			
soil type								
pond area		4088.7						
pond volume 100			17384.54					
pond volume 25			11803.19					
required storage 100	0.4							
required storage 25	0.27							
Discharge req 25				3.31				
Discharge req 100				4.67				
pond depth 100					4.25185			
pond depth 25					2.886782			
d=(1525((Q*n)/sqrt(S)))^0.375								

SG-3 Pond							elevation change	distance
	ac-ft	ft^2	ft^3	cfs	ft		380	5742
water shed area		159443.8					Area	501.534
water shed perimeter					1483.175			
soil type						100B		
pond area		6088.4						
pond volume 100			27007.14					
pond volume 25			16378.52					
required storage 100	0.62							
required storage 25	0.38							
Discharge req 25				5.44				
Discharge req 100				7.5				
pond depth 100					4.435835			
pond depth 25					2.690119			
d=(1525((Q*n)/sqrt(S)))^0.375								

SG-4 Pond							elevation change	distance
	ac-ft	ft^2	ft^3	cfs	ft		100	1443
water shed area		440492.3					Area	501.534
water shed perimeter					4987.885			
soil type						5B,70C,25D		
pond area		9820.164						
pond volume 100			88862.2					
pond volume 25			62377.78					
required storage 100	2.04							
required storage 25	1.43							
Discharge req 25				17.88				
Discharge req 100				24.68				
pond depth 100					9.048952			
pond depth 25					6.35201			
d=((1525*((Q*n)/sqrt(S))))^0.375								

Shaft 3-Laydown-Deepwell-Sly Fan ponds-Drill hole to old B-seam 25 year				
	discharge	flow rates	Diamiter	
Shaft 3	3.31	3.31	6.421741189	
Laydown pond	17.64	20.95	17.63562878	
Deepwell pond	5.44	26.39	18.3617939	
Sly Fan Pond	17.88	44.27	22.10110161	$d=(1525((Q*n)/\sqrt{S}))^{.375}$
Manning	0.015			
Slope 1	0.282420749			
Slope 2	0.05172159	100%		
Slope 3	0.066179032			
Slope 4	0.069300069			

Shaft 3-Laydown-Deepwell-Sly Fan ponds-Drill hole to old B-seam 100 year				
	discharge	flow rates	Diamiter	
Shaft 3	4.67	4.67	7.306529315	
Laydown pond	24.35	29.02	19.92775918	
Deepwell pond	7.5	36.52	20.74074611	
Sly Fan Pond	24.68	61.2	24.95483105	$d=(1525((Q*n)/\sqrt{S}))^{.375}$

%	100	90	80	70	60	50	40	30	20	10
Final Size 25	22.1	21.2	20.3	19.3	18.2	17.0	15.7	14.1	12.1	9.3
Final size 100	24.95	24.0	22.95	21.8	20.6	19.2	17.7	15.9	13.6	10.5

Shaft 3-Laydown-Deepwell-Sly Fan ponds-Drill hole to old B-seam 25 year				
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	discharge	flow rates	Diamiter	
Shaft 3	0.1655	0.1655	2.088173	
Laydown pond	0.882	1.0475	5.734621	
Deepwell pond	0.272	1.3195	5.97075	
Sly Fan Pond	0.894	2.2135	7.186669	$d=(1525((Q*n)/\sqrt{S}))^{.375}$

Manning	0.015	993.4188
Slope 1	0.282421	
Slope 2	0.051722	
Slope 3	0.066179	5.0%
Slope 4	0.0693	

Shaft 3-Laydown-Deepwell-Sly Fan ponds-Drill hole to old B-seam 100 year				
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	discharge	flow rates	Diamiter	
Shaft 3	0.2335	0.2335	2.375882	
Laydown pond	1.2175	1.451	6.479958	
Deepwell pond	0.375	1.826	6.744319	
Sly Fan Pond	1.234	3.06	8.114624	$d=(1525((Q*n)/\sqrt{S}))^{.375}$

1373.328

Shaft 3-Laydown-Deepwell-Sly Fan ponds-Drill hole to old B-seam 25 year

	discharge	flow rates	Diamiter	
Shaft 3	0.0993	0.0993	1.724143	
Laydown pond	0.5292	0.6285	4.734907	
Deepwell pond	0.1632	0.7917	4.929871	
Sly Fan Pond	0.5364	1.3281	5.93382	$d=(1525((Q*n)/\sqrt{S}))^{.375}$

Manning	0.015
Slope 1	0.282421
Slope 2	0.051722
Slope 3	0.066179
Slope 4	0.0693

596.0513

3%

Shaft 3-Laydown-Deepwell-Sly Fan ponds-Drill hole to old B-seam 100 year

	discharge	flow rates	Diamiter	
Shaft 3	0.1401	0.1401	1.961696	
Laydown pond	0.7305	0.8706	5.35031	
Deepwell pond	0.225	1.0956	5.568585	
Sly Fan Pond	0.7404	1.836	6.700005	$d=(1525((Q*n)/\sqrt{S}))^{.375}$

823.9968