

Van Bussum, Monica

From: Falk, John
Sent: Monday, November 16, 2009 5:37 PM
To: GARY LEUZINGER
Cc: Van Bussum, Monica; railrider@centurytel.net; Rigby, Jerry (IWRB Member); Roxanne Brown; Dale.Gooby@id.usda.gov
Subject: RE: Arrowhead Reservoir

Thank you, Gary, for providing us the volume calculation/survey.

Based on my review, the method is acceptable and the volume of 40 acre-feet is reasonable as compared to my site observations/estimates. The construction of the emergency spillway is complete; therefore, no other dam safety issues exist regarding this reservoir.

Monica VB. expressed concern that you be made aware this larger existing reservoir (75-14465) was filed as a *Beneficial-Use Claim* that presently is undergoing investigation/verification. The procedure is not the same as a "typical" application that would be submitted for new dams/reservoirs (such as the lower, smaller impoundment known as Dixie's Pond). If you have any questions specific to water rights issues regarding 75-14465, please contact Monica directly. I'm afraid I will only muddy the water as I know just enough about the topic to be dangerous.

Thanks for your cooperation and patience, Gary. We have placed the dam on our inventory and inspection schedule, and likely will perform an inspection sometime next summer. -jf--

From: GARY LEUZINGER [mailto:gbgv16a@yahoo.com]
Sent: Thursday, November 12, 2009 9:49 AM
To: Falk, John
Cc: Van Bussum, Monica; railrider@centurytel.net; Rigby, Jerry (IWRB Member); Roxanne Brown; Dale.Gooby@id.usda.gov
Subject: Fw: Arrowhead Reservoir

John, attached are the results of the NRCS survey to determine the volume of the Arrowhead Reservoir completed by Dale Gooby. Please review and let us know if this is acceptable or if there are any other issues we need to work prior to licensing the reservoir. Please contact Dale Gooby, NRCS, 756-3211 Dale.Gooby@id.usda.gov w/any questions on the survey.

Thanks

Gary Leuzinger

----- Forwarded Message -----

From: "Curet,Tom" <tom.curet@idfg.idaho.gov>
To: GARY LEUZINGER <gbgv16a@yahoo.com>
Sent: Mon, November 9, 2009 8:05:54 AM
Subject: FW: Arrowhead Reservoir

-----Original Message-----

From: Gooby, Dale - Salmon, ID [mailto:Dale.Gooby@id.usda.gov]
Sent: Thursday, November 05, 2009 10:39 AM
To: Curet,Tom
Cc: Dodds, Tim - Salmon, ID
Subject: Arrowhead Reservoir

Tom,

Attached are the survey data, ACAD plot, PDF plot, and volumetric computations. As you will see the pond has approximately 40 acre feet of storage. The cost of doing this project is outlined below.

Project planner 1 hour @ \$125/hr	\$125
2 man survey crew 2 hour @ \$225/hr	\$450
Survey Tech. Note reduction 2 hr @ \$75/hr	\$150
Engineer Data analysis 2 hr @ \$200/hr	\$400
Total	\$1125

Dale

Documents attached to Gary Leuzinger email 3 pages
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Area 1 Elevation	Area 2 Elevation	Area 3 Elevation	Outliers
Area 1 Elevation Spillway Crest Elevation 4000.13	3992.26	3977.34	
	3992.26	3977.23	X
	3992.19	3977.24	X
	3992.12	3977.26	
Area 4 Elevation Dead Storage Water Surface Elevation 3972.34	3992.08	3977.28	
	3992.11	3977.28	
	3992.14	3977.30	
	3992.23	3977.27	
	3992.20	3977.35	
	3992.23	3977.36	X
	3992.14	3977.33	
	3992.23	3977.27	
	3992.29	3977.38	X
	3992.27	3977.27	
Area 2 Elevation Spillway Crest Elevation 4000.13	3992.24	3977.35	
	3992.28	3977.25	
	3992.23	3977.35	
	3992.28	3977.28	
	3992.08	3977.22	
	3992.39	0.05	
	3992.22	3977.30	
	3992.24		
	3992.25		
	3992.18		
Area 3 Elevation Dead Storage Water Surface Elevation 3972.34	3992.27		
	3992.23		
	Standard Deviation Average		
	3 standard deviations from the mean		
	adjusted average		
Area 4 Elevation Dead Storage Water Surface Elevation 3972.34	3992.01	3977.25	3977.35
	3992.22		
	3992.22		
	3992.01	3977.29	
	3992.22	3977.29	

Area	Volume	Computation	Average	End Area	Volume	Cubic Feet
Area 1	110478.22			Volume 1/2	747717.67	
Area 2	78578.08			Volume 2/3	866904.25	
Area 3	37551.09			Volume 3/4	129810.43	
Area 4	14897.57				1744432.35	

Pond Volume 40.047 Acre Feet

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ARROW ADJUSTMENT
SHEET 1-3-2008

