

**Ducks Unlimited, Inc.**

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<b>TO:</b>	<u>Metro Elaine Stewart</u>	<b>FROM:</b>	<u>Gus Williams</u>
<b>FAX:</b>	<u>503 797-1849</u>	<b>DATE:</b>	<u>June 6, 2003</u>
<b>PHONE:</b>	<u></u>	<b>PAGES:</b>	<u>2</u>
<b>RE:</b>	<u>Engineer Est. Smith-Bybee</u>	<b>CC:</b>	<u></u>

☐ Urgent    ☒ For Review    ☐ Please Comment    ☐ Please Reply    ☐ Please Recycle

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**Comments:**

- 1      Please see attached engineers estimate.
- 2      In regards to the cut and fill I have the following information.
  - The total excavation for the project is 2000 yards (1068yds in COE permit). ?
  - 610yds will be used to backfill the new structure (191yds in COE permit). ?
  - 280yds will be used as upland fill to improve the road (upland fill noted in COE permit). OK
  - 1110 will be exported. OK
  - Important to note that there is no increase in the amount of wetland fill associated with the new structure. OK
  - Total project will impact .06 AC of waters of the US (.06 in COE permit). OK
- 3      I think we are OK. The reason the quantities are different is because the structure is being installed 4 feet lower than preliminary plans. The Footprint is actually the same.

OR-32-1 Smith/Bybee Water Control Structure		Construction Cost Estimate			
		First Draft:		4/1/2003	
		Revision Date:		6/6/2003	
Item No.	DESCRIPTION	Units	Quantity	Unit Price	Item Cost
	Mobilization (10% of Total Construction Cost)	LS	1	\$ 30,798.50	\$ 30,798.50
<b>SITE WORK</b>					
	Erosion Control	LS	1	\$ 1,500.00	\$ 1,500.00
	Dewatering - new water control structure	LS	1	\$ 12,000.00	\$ 12,000.00
	Clear & Grub	AC	0.75	\$ 2,000.00	\$ 1,500.00
	Excavation	YD	2000	\$ 5.00	\$ 10,000.00
	Embankment Fill	YD	475	\$ 7.00	\$ 3,325.00
	Spoil Export	YD	1110	\$ 3.00	\$ 3,330.00
	Demolition of existing outlet control structure	LS	1	\$ 3,500.00	\$ 3,500.00
	3" Minus Crushed Foundation Rock	Ton	180	\$ 45.00	\$ 8,100.00
	Separation Fabric	SQ YD	970	\$ 1.50	\$ 1,455.00
	Road Base Spalls 8" minus	Ton	270	\$ 40.00	\$ 10,800.00
	3/4" Crushed Rock Surfacing	Ton	120	\$ 35.00	\$ 4,200.00
	1 1/2" Crushed Rock Base	Ton	45	\$ 35.00	\$ 1,575.00
	Rip Rap Spalls 8" minus	Ton	323	\$ 40.00	\$ 12,920.00
	Fabric Encapsulated Slope (18" high)	LIN-FT	530	\$ 16.00	\$ 8,480.00
	Hydroseeding	SF	4000	\$ 0.15	\$ 600.00
				<b>SUBTOTAL</b>	<b>\$ 69,785.00</b>
<b>BOX CULVERTS</b>					
	8 X 10 Box Material	LIN-FT	120	\$ 500.00	\$ 60,000.00
	Box culvert placement	LIN-FT	120	\$ 100.00	\$ 12,000.00
				<b>SUBTOTAL</b>	<b>\$ 72,000.00</b>
<b>CAST IN PLACE CONCRETE</b>					
	Cast in place concrete	LS	1	\$ 91,700.00	\$ 91,700.00
<b>FABRICATED STEEL</b>					
	42" Tide Gates	EA	2	\$ 5,500.00	\$ 11,000.00
	30" Combination Tide Gate	EA	1	\$ 4,000.00	\$ 4,000.00
	Grating, Rails, Guides & Anchors	LS	1	\$ 56,000.00	\$ 56,000.00
				<b>SUBTOTAL</b>	<b>\$ 71,000.00</b>
<b>WOOD</b>					
	Wood Stop Logs	LS	1	\$ 3,500.00	\$ 3,500.00
				<b>Const Cost</b>	<b>\$ 338,783.50</b>
				<b>Contingencies</b>	<b>\$ 13,755.00</b>
				<b>Total Cost</b>	<b>\$ 352,538.50</b>