

**Permanent Project Impacts**

Impact Source	Subaqueous Bottom (Ft <sup>2</sup> )	Wetland Impacts (Ft <sup>2</sup> )					Stream Impacts (Lin Ft)			
	Open Water	PFO	PFO (conv)	PSS (conv)	PEM	Total Wetland Impacts	Perennial	Intermittent	Ephemeral	Total Stream Impacts
Intake Screen	720	---	---	---	---	---	---	---	---	---
Intake Pipeline	---	---	---	---	---	---	---	---	---	---
Pump Station	---	---	---	---	---	---	---	---	---	---
Transfer Pipeline	---	---	7,708	784	---	8,492	119	76	20	215
Treatment Station	---	---	---	---	---	---	---	---	---	---
<b>Total</b>	<b>720</b>	<b>0.00</b>	<b>7,708</b>	<b>784</b>	<b>0.00</b>	<b>8,492</b>	<b>119</b>	<b>76</b>	<b>20</b>	<b>215</b>
Mitigation Ratio	0:1	2:1	1:1	1:1	1:1		<b>See USM Stream Assessment Summary Form (Form 2) for proposed Stream Credits.</b>			
Required mitigation (sf)	0	0	7,708	784	0	8,492				
Required Credits (ac)	0	0	0.177	0.018	0	0.195				

**Temporary Project Impacts**

Impact Source	Subaqueous Bottom (Ft <sup>2</sup> )	Wetland Impacts (Ft <sup>2</sup> )					Stream Impacts (Lin Ft)			
	Open Water	PFO	PFO (conv)	PSS	PEM	Total Wetland Impacts	Perennial	Intermittent	Ephemeral	Total Stream Impacts
Intake Screen	15,342	---	---	---	---	---	---	---	---	---
Intake Pipeline	2,306	---	---	---	---	---	63	---	---	63
Pump Station	---	---	---	---	---	---	---	---	---	---
Transfer Pipeline	---	8,376	---	807	3,165	12,348	117	66	20	202
Treatment Station	---	---	---	---	---	---	---	---	---	---
<b>Total</b>	<b>17,648</b>	<b>8,376</b>	<b>---</b>	<b>807</b>	<b>3,165</b>	<b>12,348</b>	<b>180</b>	<b>66</b>	<b>20</b>	<b>265</b>

**Impact Reduction**

New Kent County has included the need for impact reduction throughout the project design process. The following methods were used to reduce project impacts:

- Locating the path with the least amount of impacts at the major stream/wetland crossings within the corridor
- Using directional drill installation at major stream/wetland crossings
- Locating the pump station (Northbury property) and all treatment structures (Broyhill property) outside of jurisdictional systems
- Ensuring that wetland surfaces and stream bottoms are returned to pre-disturbance grade and contours
- Choosing the pipeline alignment with the least amount of impacts through the project area shown on Figures 9 through 12 of the Project and Resource Impact Maps
- Maintaining proper erosion and sediment control procedures during project construction