



Pender County Capital Improvement Program

Detailed Capital Project Request Form

(To be completed for all individual expenditures/projects > \$75,000.)

Date Submitted: March 2018

1. Project Details

Project Name: Upgrade of Surface Water Treatment Plant from 2 MGD to 6 MGD Life (Years): +/- 20 Years

Project Originator (Name): Bryan McCabe

Department: Pender County Utilities

Location: Pender Commerce Park

Project Ongoing: Yes No

Desired Project Timing: Start Date: June 2018

Completion Date: January 2022



2. Project Description/Justification *Include a detailed description of the project and justification. Please attach additional documentation as necessary.*

Define the Problem	Demand projections indicate the finished water demand will be 6 MGD by year 2032. The current water treatment plant is designed and built for 2 MGD but expandable up to 6 MGD with minimal equipment upgrades. By law, once the water treatment plant is operating at 80% design capacity (1.6 MGD), design and permitting to expand capacity is mandated. Demand will essentially outpace production if pre-emptive measures are not taken.
Recommended Solution	A two-stage solution is proposed to keep pace with water demand. Initially the plant will be expanded to 4 MGD. This is scheduled to occur late 2018 into mid-2019 to coincide with the anticipated IBT issuance in September 2018 and construction completion of the

	parallel NC 210 water main in mid-2021. These collective improvements are needed to keep pace with the water demands of eastern Pender County. The second stage of the long-term water demand solution is to expand the plant to its full capacity of 6 MGD. This is anticipated to occur when the maximum water demand is at 80% design capacity (3.2 MGD). Staff is recommending the 4 MGD upgrades to be permitted and constructed in FY 18 and FY 19.
Alternatives	N/A
Stage of the Project: A – Approved and Funded by the Board; B – Recommended by the Manager and unfunded; C – Identified as a need, not funded or recommended by the Manager at this time.	C – This project was introduced to the Board at their Annual Board Retreat. PCU will seek USDA-RD Loan and/or Grant Funding.

3. Project Cost Estimate Attach a detailed breakdown of costs. If this project relates to construction/remodeling, please attach a Public Works Department Cost Estimate.

Included in Fiscal Year Budget: Yes No

Amount: _____

Total Project Cost: \$2,000,000

Timing of Project Costs

FY	18	Amount \$	\$1,000,000
FY	21	Amount \$	\$1,000,000
FY		Amount \$	
FY		Amount \$	
		Total \$	2,000,000

4. Project Funding Sources If the project is going to be funded/partially funded by a specific grant/gift account rather than the capital budget pool, please specify the account number and amount of funding below:

Funding Type or Source	Water System Development Fees	Amount \$	\$ 2,000,000
Funding Type or Source		Amount \$	
Funding Type or Source		Amount \$	
Funding Type or Source		Amount \$	

5. Annual Operating Cost Impact Provide cost estimates relating to the annual impact of this project on the operating budget. For example, estimate increased maintenance or energy costs associated with new facilities. If this project is related to a new or expanded program, provide cost data, including costs for increased staff. Estimate the annual savings to the operating budget such as reduced energy costs associated with an energy conservation projector reduced staff associated with an IT project. Also estimate the increased revenue to be generated, if any.

	Annual Increase In Operating Expenses	Annual Operating Savings
Maintenance/Operations Costs:		
Energy Costs:	\$24,000	
Salary Costs:		