

CAPITAL IMPROVEMENT PLAN

CAPITAL IMPROVEMENT PLAN GUIDE

PURPOSE AND DEFINITIONS:

The purpose of the capital improvement plan (CIP) is to forecast and match projected revenues and major capital needs over a seven-year period. Capital planning is an important management tool that strengthens the linkages between community infrastructure needs and the financial capacity of the Town.

The Town defines CIP capital expenditures as any expenditure of major value that recurs irregularly, results in the acquisition of a fixed asset, and has a useful life greater than one (1) year. As a rule of thumb, items included in the CIP include those which:

- Involve acquisition, renovation, and/or construction of a single fixed asset greater than \$100,000.
- Involve any land purchases greater than \$100,000 not associated with or included in another CIP project.

CAPITAL IMPROVEMENT PLAN DEVELOPMENT:

The CIP is updated annually as part of the Town’s regular budget process. Projects are reviewed and evaluated based on Mayor and Board of Commissioners’ service desires, other Town infrastructure needs, the financial capacity of the Town and the impact the projects will create on the Town’s operating budget.

Once the projects are evaluated, a recommended CIP is developed that identifies the selection and timing of capital projects into future fiscal years. First-year projects are incorporated into the Town Manager’s recommended annual operating budget. The Mayor and Board of Commissioners are also presented the future, unappropriated planning years for their consideration,

review and endorsement so staff can proceed with planning and evaluation of potential capital projects.

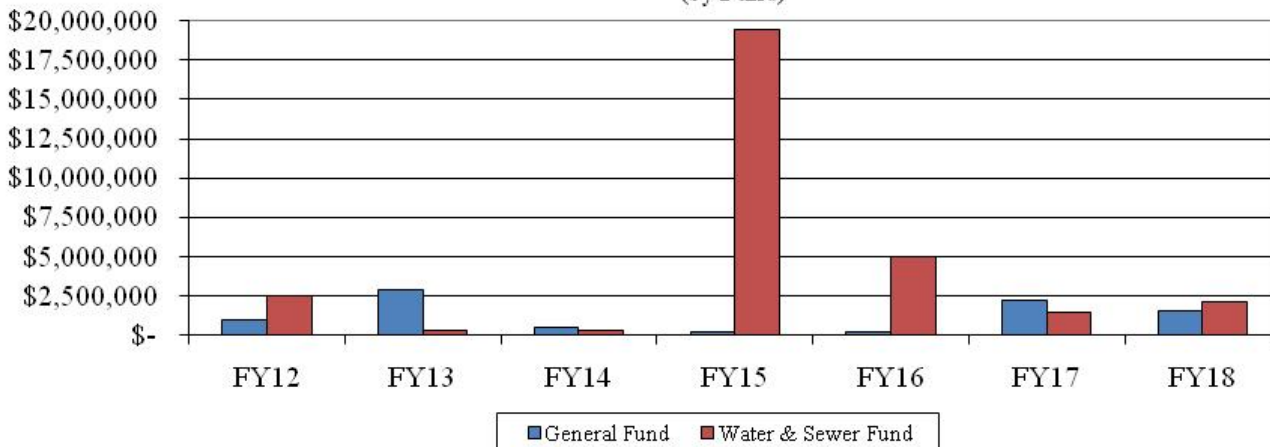
CAPITAL IMPROVEMENT PLAN:

The capital improvement plan is simply that – a *plan*. As such, projects are subject to change based on new or shifting service needs, special financing opportunities, emergency needs, or other directives or priorities established by the Mayor or Board of Commissioners. Because priorities can change, projects included in outward planning years are not guaranteed for funding.

The Hillsborough CIP achieves five major objectives as a component of the Town’s budget and financial planning process:

1. Helps the Town rationally and intelligently plan for the repair, replacement, and acquisition of capital items that are necessary in providing high quality services to the citizens of Hillsborough.
2. Assists in fiscal planning by forecasting capital demands together with future revenues and expenditures (as part of the financial plan).
3. Insuring better coordination, evaluation, and planning of projects to serve the community and its needs.
4. The CIP, together with the Financial Plan, serves as a guide to decision-making for the Board, Town Manager, and employees.
5. The systematic and comprehensive analysis of capital needs increases the probability of making rational (and correct) budgetary judgments since improvements are identified, prioritized, and matched to the projected fiscal resources of the Town.

CIP Expenses
(by Fund)



CAPITAL IMPROVEMENT PLAN (CIP) SUMMARY

| Function | Project | Primary Funding Source | Capital Cost | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total Budget Impact |
|---|---|------------------------|-------------------|------------------|------------------|----------------|-------------------|------------------|------------------|------------------|---------------------|
| GENERAL FUND | | | | | | | | | | | |
| General Government | | | | | | | | | | | |
| Parks & Rec. | Riverwalk Phase II | Debt Financing | 2,200,000 | | 2,200,000 | | | | | | \$ 2,200,000 |
| General Government Sub-Total | | | 3,700,000 | 0 | 2,200,000 | 0 | 0 | 0 | 0 | 1,500,000 | 3,700,000 |
| Public Safety | | | | | | | | | | | |
| Fire Protection | Aerial Platform Truck | Debt Financing | 750,000 | 750,000 | | | | | | | \$ 750,000 |
| | Replace Fire Engine | Debt Financing | 500,000 | | | 500,000 | | | | | \$ 500,000 |
| | New Fire Station | Debt Financing | 1,625,000 | | | | 50,000 | 75,000 | 1,500,000 | | \$ 1,625,000 |
| Public Safety Sub-Total | | | 3,730,000 | 750,000 | 0 | 500,000 | 50,000 | 180,000 | 2,250,000 | 0 | 3,730,000 |
| Public Works | | | | | | | | | | | |
| Streets | Public Works Building | Debt Financing | 150,000 | | | | 150,000 | | | | \$ 150,000 |
| Powell Bill | Street Resurfacing | Debt Financing | 700,000 | | 700,000 | | | | | | \$ 700,000 |
| Solid Waste | Replace Garbage Truck #971 | Debt Financing | 250,000 | 250,000 | | | | | | | \$ 250,000 |
| Public Works Sub-Total | | | 1,100,000 | 250,000 | 700,000 | 0 | 150,000 | 0 | 0 | 0 | 1,100,000 |
| GENERAL FUND CIP TOTAL | | | 8,530,000 | 1,000,000 | 2,900,000 | 500,000 | 200,000 | 180,000 | 2,250,000 | 1,500,000 | 8,530,000 |
| WATER & SEWER FUND | | | | | | | | | | | |
| Water Treatment Plant | Dredge Lake Johnston & Lagoons | Debt Financing | 300,000 | 300,000 | | | | | | | \$ 300,000 |
| | Backwash Pump Replacement | Debt Financing | 130,000 | 130,000 | | | | | | | \$ 130,000 |
| | Lake Johnston Dam Repairs | Debt Financing | 180,000 | 180,000 | | | | | | | \$ 180,000 |
| | WTP Expansion | Debt Financing | 2,450,000 | | | | | | 450,000 | 2,000,000 | \$ 2,450,000 |
| West Fork Eno Reservoir | West Fork Eno Reservoir Phase II | Debt Financing | 3,700,000 | | | 200,000 | 500,000 | 3,000,000 | | | \$ 3,700,000 |
| Water Distribution | New South Zone Water Tank | Debt Financing | 1,200,000 | | | | 1,208,000 | 8,000 | 8,000 | 8,000 | \$ 1,232,000 |
| | New South Zone Booster Pump Station | Operating Revenue | 200,000 | | 200,000 | 33,000 | 33,000 | 33,000 | 33,000 | 33,000 | \$ 365,000 |
| | New South Zone 12" Transmission Water Main | Debt Financing | 1,120,000 | | | | 1,120,000 | | | | \$ 1,120,000 |
| | Riverside & Crawford Water Improvements | Debt Financing | 200,000 | 200,000 | | | | | | | \$ 200,000 |
| Wastewater Collection | Elizabeth Brady Pump Station Upgrade & Relocation | Debt Financing | 600,000 | 600,000 | | | | | | | \$ 600,000 |
| | Generators | Debt Financing | 375,000 | | | | | | 375,000 | | \$ 375,000 |
| | Sewer Main Rehabilitation | Operating Revenue | 550,000 | 50,000 | 50,000 | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | \$ 550,000 |
| | Eno River Outfall Replacement | Debt Financing | 1,800,000 | | | | | 1,800,000 | | | \$ 1,800,000 |
| | Orange Grove Road Outfall | Debt Financing | 500,000 | | | | | | 500,000 | | \$ 500,000 |
| Wastewater Treatment Plant | Wastewater Treatment Plant Upgrade | Debt Financing | 17,500,000 | 1,000,000 | | | 16,500,000 | | | | \$ 17,500,000 |
| WATER & SEWER FUND CIP TOTAL | | | 30,805,000 | 2,460,000 | 250,000 | 283,000 | 19,461,000 | 4,941,000 | 1,466,000 | 2,141,000 | 31,002,000 |
| CIP TOTAL | | | 39,335,000 | 3,460,000 | 3,150,000 | 783,000 | 19,661,000 | 5,121,000 | 3,716,000 | 3,641,000 | 39,532,000 |

Town of Hillsborough, North Carolina
Fiscal Year 2011-12 through 2017-18 Capital Improvement Plan

| | | | | | | | | |
|-----------------------|---|--------------------|---------------------------------|-------------|---------------|----------------|--|--|
| Section 1 | Project Title: Aerial Platform Fire Truck | | | | | Budget Unit #: | 5350 | |
| Budget Unit: | Fire Protection | | Functional Area: | | Public Safety | Priority Rank: | 1 | |
| Total Requested Funds | Total Appropriations to date | Budget Year 1 FY12 | Unappropriated Subsequent Years | | | | Type of Project: <input type="checkbox"/> New <input checked="" type="checkbox"/> Replacement <input type="checkbox"/> Renovation <input type="checkbox"/> Expansion | |
| | | | Year 2 FY13 | Year 3 FY14 | Year 4 FY15 | Future Years | | |
| 750,000 | | 750,000 | - | - | - | - | | |

Section 2 **Description of Capital Item**

Aerial platform fire truck.

Justification; and Linkage to Council Goals, Balanced Scorecard, other Master Plans, or Dept. Goals & Objectives

Existing ladder truck is 24 years old. Industry standards recommend replacement of frontline ladders at 20 years. The existing truck is also too small to accommodate necessary equipment, which has a negative impact on the Town's ISO rating. Recent repairs have shown that parts are no longer available and modifications are required to those that are available. The department is anticipating the ability to purchase a truck with a recycled ladder from an older truck. Piggy-backing onto another bid and buying the recycled ladder has an estimated savings of \$250,000 from the cost of a totally new truck. The proposed vehicle is one of the lightest weight trucks on the market so road and parking lot damages associated with heavier vehicles will be reduced. As buildings are built and street-side setbacks are established, the current truck will be unable to reach their roofs. Construction currently within the Town, and currently proposed development, will increase the need for a ladder truck that has a greater horizontal reach.

History and Current Status; Impact if Cancelled or Delayed

If the ladder truck is not replaced the Town's ISO rating will continue to be negatively impacted, which may lead to higher insurance rates for citizens. In addition, as the truck surpasses its useful life, the likelihood of increased maintenance needs/costs increases.

Section 3 **New or Additional Impact on Operating Budget**

| Type of Expenditure | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|---------------------------|------|------|------|------|------|------|------|-------|
| Salaries / Benefits | | | | | | | | - |
| Prof. & Consult. Services | | | | | | | | - |
| Materials & Supplies | | | | | | | | - |
| Maintenance / Fuel | | | | | | | | - |
| Other | | | | | | | | - |
| Total | - | - | - | - | - | - | - | - |

Section 4 **Project Costs**

| Activity | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|----------------|------|------|------|------|------|------|----------------|
| Prelim Design / Plans | | | | | | | | - |
| Engineering / Arch. Serv. | | | | | | | | - |
| Land / ROW / Acquisition | | | | | | | | - |
| Clear / Grade / Site Prep | | | | | | | | - |
| Building / Utility Constr. | | | | | | | | - |
| Equip / Machinery / Furniture | 750,000 | | | | | | | 750,000 |
| Total Capital Cost Est. | 750,000 | - | - | - | - | - | - | 750,000 |
| Total Oper. Impact Est. | - | - | - | - | - | - | - | - |
| Total Expenditure Est. | 750,000 | - | - | - | - | - | - | 750,000 |

Section 5 **Method(s) of Financing**

| Funding Source(s) | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|----------------|------|------|------|------|------|------|----------------|
| Debt Financing | 450,000 | | | | | | | 450,000 |
| Capital Reserve Fees | 300,000 | | | | | | | 300,000 |
| | | | | | | | | - |
| Total Program Financing | 750,000 | - | - | - | - | - | - | 750,000 |

Section 6 **Maps / Charts / Tables / Pictures**



Town of Hillsborough, North Carolina
Fiscal Year 2011-12 through 2017-18 Capital Improvement Plan

| | | | | | | | | |
|-----------------------|--|--------------------|---------------------------------|-------------|---------------|----------------|--|---|
| Section 1 | Project Title: Backwash Pump Replacement | | | | | Budget Unit #: | 8120 | |
| Budget Unit: | Water Treatment Plant | | Functional Area: | | Water & Sewer | | Priority Rank: | 2 |
| Total Requested Funds | Total Appropriations to date | Budget Year 1 FY12 | Unappropriated Subsequent Years | | | | Type of Project: <input type="checkbox"/> New <input checked="" type="checkbox"/> Replacement <input type="checkbox"/> Renovation <input type="checkbox"/> Expansion | |
| | | | Year 2 FY13 | Year 3 FY14 | Year 4 FY15 | Future Years | | |
| 130,000 | | 130,000 | - | - | - | - | | |

Section 2 **Description of Capital Item**

Replace current backwash pumps not producing enough gallons per minute for filter backwash. Lowering the clearwell and pumpwell levels has created more suction head on the pumps, which has lowered pump output.

Justification; and Linkage to Council Goals, Balanced Scorecard, other Master Plans, or Dept. Goals & Objectives

With the new clearwell back online, operations of the WTP and tanks has improved. We have also been able to control THM formation. The only negative effect that has been noticed is the decline in backwash pump output. To increase the backwash rate of flow and ensure the filters receive adequate cleaning, we will need to replace the existing pumps with larger pumps.

History and Current Status; Impact if Cancelled or Delayed

The filters not being backwashed with enough gallons per minute per square foot will shorten filter hours run time. This will lead to more frequent backwashing, the use of more finished water, and increase the cost per thousand gallons of treatment. This problem could even cause a filter bottom to blow out due to prolonged build up on IMS caps (filter bottom supports).

Section 3 **New or Additional Impact on Operating Budget**

| Type of Expenditure | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|---------------------------|------|------|------|------|------|------|------|-------|
| Salaries / Benefits | | | | | | | | - |
| Prof. & Consult. Services | | | | | | | | - |
| Materials & Supplies | | | | | | | | - |
| Maintenance / Fuel | | | | | | | | - |
| Other | | | | | | | | - |
| Total | - | - | - | - | - | - | - | - |

Section 4 **Project Costs**

| Activity | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|---------|------|------|------|------|------|------|---------|
| Prelim Design / Plans | | | | | | | | - |
| Engineering / Arch. Serv. | | | | | | | | - |
| Land / ROW / Acquisition | | | | | | | | - |
| Clear / Grade / Site Prep | | | | | | | | - |
| Building / Utility Constr. | | | | | | | | - |
| Equip / Machinery / Furniture | 130,000 | | | | | | | 130,000 |
| Total Capital Cost Est. | 130,000 | - | - | - | - | - | - | 130,000 |
| Total Oper. Impact Est. | - | - | - | - | - | - | - | - |
| Total Expenditure Est. | 130,000 | - | - | - | - | - | - | 130,000 |

Section 5 **Method(s) of Financing**

| Funding Source(s) | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|---------|------|------|------|------|------|------|---------|
| Debt Financing | 130,000 | | | | | | | 130,000 |
| Total Program Financing | 130,000 | - | - | - | - | - | - | 130,000 |

Section 6 **Maps / Charts / Tables / Pictures**

Town of Hillsborough, North Carolina
Fiscal Year 2011-12 through 2017-18 Capital Improvement Plan

| | | | | | | | | |
|-----------------------|------------------------------|--|---------------------------------|-------------|-------------|----------------|--|------|
| Section 1 | | Project Title: Elizabeth Brady Pump Station Upgrade and Relocation | | | | | Budget Unit #: | 8200 |
| Budget Unit: | Wastewater Collection | Functional Area: Water & Sewer | | | | Priority Rank: | 1 | |
| Total Requested Funds | Total Appropriations to date | Budget Year 1 FY12 | Unappropriated Subsequent Years | | | | Type of Project: <input type="checkbox"/> New <input checked="" type="checkbox"/> Replacement <input type="checkbox"/> Renovation <input type="checkbox"/> Expansion | |
| | | | Year 2 FY13 | Year 3 FY14 | Year 4 FY15 | Future Years | | |
| 600,000 | | 130,500 | 130,500 | 130,500 | 130,500 | 130,500 | | |

Section 2 **Description of Capital Item**

This project will relocate the existing Elizabeth Brady Pump Station to an area that will be out of the flood zone, as well as upgrade the pump station.

Justification; and Linkage to Council Goals, Balanced Scorecard, other Master Plans, or Dept. Goals & Objectives

Currently, the pump station is in great need of an upgrade because the motors and pumps are worn out. The design of this old pump station is also a grave safety hazard, and it is also located in a flood zone. By relocating and upgrading this pump station we will eliminate the safety issues as well as provide a much more efficient pump station that will be less prone to flooding.

History and Current Status; Impact if Cancelled or Delayed

The project was approved for design in a previous fiscal year (carried over to FY11). Originally, we planned to couple it with the WWTP upgrade project with joint financing, but we were unable to do that due to some technical issues that could have caused problems for the WWTP project. The current proposal is to fund the project with a separate loan. If delayed, we could end up in a much less favorable bid environment, and pay much more for construction. Also, the existing station is one of our biggest safety concerns in the department, which is not only a danger to staff, but also causes additional time to be spent at the station to ensure that the workers' safety is protected.

Section 3 **New or Additional Impact on Operating Budget**

| Type of Expenditure | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|---------------------------|------|------|------|------|------|------|------|-------|
| Salaries / Benefits | | | | | | | | - |
| Prof. & Consult. Services | | | | | | | | - |
| Materials & Supplies | | | | | | | | - |
| Maintenance / Fuel | | | | | | | | - |
| Other | | | | | | | | - |
| Total | - | - | - | - | - | - | - | - |

Section 4 **Project Costs**

| Activity | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|----------------|------|------|------|------|------|------|----------------|
| Prelim Design / Plans | | | | | | | | - |
| Engineering / Arch. Serv. | | | | | | | | - |
| Land / ROW / Acquisition | | | | | | | | - |
| Clear / Grade / Site Prep | | | | | | | | - |
| Building / Utility Constr. | 600,000 | | | | | | | 600,000 |
| Equip / Machinery / Furniture | | | | | | | | - |
| Total Capital Cost Est. | 600,000 | - | - | - | - | - | - | 600,000 |
| Total Oper. Impact Est. | - | - | - | - | - | - | - | - |
| Total Expenditure Est. | 600,000 | - | - | - | - | - | - | 600,000 |

Section 5 **Method(s) of Financing**

| Funding Source(s) | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|----------------|------|------|------|------|------|------|----------------|
| Debt Financing | 600,000 | | | | | | | 600,000 |
| Total Program Financing | 600,000 | - | - | - | - | - | - | 600,000 |

Section 6 **Maps / Charts / Tables / Pictures**

Town of Hillsborough, North Carolina
Fiscal Year 2011-12 through 2017-18 Capital Improvement Plan

| | | | | | | | | |
|-----------------------|--|--------------------|---------------------------------|-------------|---------------|----------------|---|---|
| Section 1 | Project Title: Sewer Main Rehabilitation | | | | | Budget Unit #: | 8200 | |
| Budget Unit: | Wastewater Collection | | Functional Area: | | Water & Sewer | | Priority Rank: | 3 |
| Total Requested Funds | Total Appropriations to date | Budget Year 1 FY12 | Unappropriated Subsequent Years | | | | Type of Project: <input type="checkbox"/> New <input checked="" type="checkbox"/> Replacement <input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Expansion | |
| | | | Year 2 FY13 | Year 3 FY14 | Year 4 FY15 | Future Years | | |
| 550,000 | | 50,000 | 50,000 | 50,000 | 100,000 | 300,000 | | |

Section 2 **Description of Capital Item**

Rehabilitate sections of sewer mains throughout the entire collection system. Continue rebuilding/sealing manholes and rehabilitating pump stations. We inspected 10% of the collection system in FY10, utilizing our new TV inspection and smoke testing equipment to locate I/I problems. We have created a spreadsheet detailing the location and footage of lines to be repaired/replaced. This is part of our efforts to be more pro-active in our approach to identify areas for replacement before the problems become severe. The collection crew will repair/replace as much sewer line as possible throughout the year, but due to amount of defects and problems, it will be necessary to contract out most of these projects. Thus far in FY11 we have video inspected over 1.5 miles of sewer main of which we have determined that 40% of the lines inspected are in need of lining.

Justification; and Linkage to Council Goals, Balanced Scorecard, other Master Plans, or Dept. Goals & Objectives

This budget item is strongly needed at the maximum level available to reduce inflow and infiltration into our sewer system. I&I increases pumping and treatment costs, and leads to sewage overflows during wet periods. Reducing inflow and infiltration continues to be one of this department's top priorities. There are sections of sewer mains in the collection system that are in desperate need of rehabilitation. This will include pipe lining and point repair work to correct problems and help reduce I&I. This will be an ongoing effort and should be funded at the highest levels possible, since reduction of I&I reduces pumping and treatment costs, and gives additional treatment capacity at the WWTP.

History and Current Status; Impact if Cancelled or Delayed

Inflow and infiltration reduce the ability of sanitary sewer systems and treatment facilities to transport and treat domestic and industrial wastewater. As a result of the inflow and infiltration, wastewater treatment processes are disrupted and can result in poorly treated wastewater that can be discharged to the environment. There are various costs associated with inflow and infiltration including sanitary sewer system overflows and wastewater treatment. Overflow costs are associated with road and waterway cleanup and the potential for fines if the overflow problem is not corrected. Additionally, sewer system backups into basements or households can result in litigation and potential liabilities for the Town.

Section 3 **New or Additional Impact on Operating Budget**

| Type of Expenditure | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|---------------------------|------|------|------|------|------|------|------|-------|
| Salaries / Benefits | | | | | | | | - |
| Prof. & Consult. Services | | | | | | | | - |
| Materials & Supplies | | | | | | | | - |
| Maintenance / Fuel | | | | | | | | - |
| Other | | | | | | | | - |
| Total | - | - | - | - | - | - | - | - |

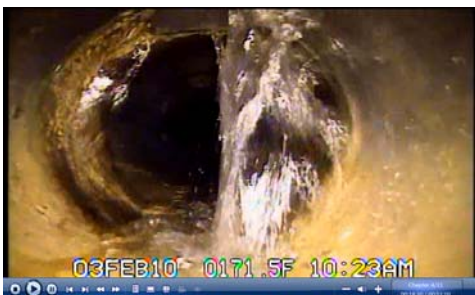
Section 4 **Project Costs**

| Activity | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|--------|--------|--------|---------|---------|---------|---------|---------|
| Prelim Design / Plans | | | | | | | | - |
| Engineering / Arch. Serv. | | | | | | | | - |
| Land / ROW / Acquisition | | | | | | | | - |
| Clear / Grade / Site Prep | | | | | | | | - |
| Building / Utility Constr. | 50,000 | 50,000 | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 550,000 |
| Equip / Machinery / Furniture | | | | | | | | - |
| Total Capital Cost Est. | 50,000 | 50,000 | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 550,000 |
| Total Oper. Impact Est. | - | - | - | - | - | - | - | - |
| Total Expenditure Est. | 50,000 | 50,000 | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 550,000 |

Section 5 **Method(s) of Financing**

| Funding Source(s) | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|--------|--------|--------|---------|---------|---------|---------|---------|
| Operating Revenue | 50,000 | 50,000 | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 550,000 |
| Total Program Financing | 50,000 | 50,000 | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 550,000 |

Section 6 **Maps / Charts / Tables / Pictures**



Actual severe infiltration and protruding sewer tap with I/I in Hillsborough's sewer system



Town of Hillsborough, North Carolina
Fiscal Year 2011-12 through 2017-18 Capital Improvement Plan

| | | | | | | | | |
|-----------------------|------------------------------|--|---------------------------------|-------------|---------------|--------------|---|------|
| Section 1 | | Project Title: Eno River Outfall Replacement | | | | | Budget Unit #: | 8200 |
| Budget Unit: | Wastewater Collection | Functional Area: | | | Water & Sewer | | Priority Rank: | 4 |
| Total Requested Funds | Total Appropriations to date | Budget Year 1 FY12 | Unappropriated Subsequent Years | | | | Type of Project: <input type="checkbox"/> New <input checked="" type="checkbox"/> Replacement <input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Expansion | |
| | | | Year 2 FY13 | Year 3 FY14 | Year 4 FY15 | Future Years | | |
| 1,800,000 | | - | - | - | - | 1,800,000 | | |

Section 2 **Description of Capital Item**

Replace sections of the sewer mains along the Eno River outfall. The Eno River outfall is the generic term used for all major sewer lines running parallel and adjacent to the Eno River, from the Water Treatment Plant to the Wastewater Treatment Plant. The upper sections (west of Allison Street) are relatively new, and do not need replacement or repair. The outfall below these areas, however, is quite old in some places, and has significant inflow and infiltration, especially during periods of high river flow.

Justification; and Linkage to Council Goals, Balanced Scorecard, other Master Plans, or Dept. Goals & Objectives

Some of the piping is vitrified clay, which tends to crack, allowing ground and stormwater to enter the sewer system. Much of the outfall consists of the largest size piping installed in the entire system (ranging from 12" to 24"). Town crews are evaluating the outfall to determine the extent of work needed. Design plans and specifications would be developed by a consultant. All of the construction work will be done by a contractor.

History and Current Status; Impact if Cancelled or Delayed

Due to the projected cost, the project should be financed. Alternatively, the project could be planned in 3 phases over 3 years, for annual budgeting of \$600,000.

Section 3 **New or Additional Impact on Operating Budget**

| Type of Expenditure | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|---------------------------|------|------|------|------|------|------|------|-------|
| Salaries / Benefits | | | | | | | | - |
| Prof. & Consult. Services | | | | | | | | - |
| Materials & Supplies | | | | | | | | - |
| Maintenance / Fuel | | | | | | | | - |
| Other | | | | | | | | - |
| Total | - | - | - | - | - | - | - | - |

Section 4 **Project Costs**

| Activity | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|------|------|------|------|-----------|------|------|-----------|
| Prelim Design / Plans | | | | | | | | - |
| Engineering / Arch. Serv. | | | | | 250,000 | | | 250,000 |
| Land / ROW / Acquisition | | | | | | | | - |
| Clear / Grade / Site Prep | | | | | | | | - |
| Building / Utility Constr. | | | | | 1,550,000 | | | 1,550,000 |
| Equip / Machinery / Furniture | | | | | | | | - |
| Total Capital Cost Est. | - | - | - | - | 1,800,000 | - | - | 1,800,000 |
| Total Oper. Impact Est. | - | - | - | - | - | - | - | - |
| Total Expenditure Est. | - | - | - | - | 1,800,000 | - | - | 1,800,000 |

Section 5 **Method(s) of Financing**

| Funding Source(s) | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|------|------|------|------|-----------|------|------|-----------|
| Debt Financing | | | | | 1,800,000 | | | 1,800,000 |
| Total Program Financing | - | - | - | - | 1,800,000 | - | - | 1,800,000 |

Section 6 **Maps / Charts / Tables / Pictures**



Sewer overflow



New sewer main installation

Town of Hillsborough, North Carolina
Fiscal Year 2011-12 through 2017-18 Capital Improvement Plan

| | | | | | | | | |
|-----------------------|------------------------------|--|---------------------------------|-------------|-------------|---------------|---|------|
| Section 1 | | Project Title: WWTP Facilities Upgrade | | | | | Budget Unit #: | 8220 |
| Budget Unit: | Wastewater Treatment Plant | Functional Area: | | | | Water & Sewer | Priority Rank: | 1 |
| Total Requested Funds | Total Appropriations to date | Budget Year 1 FY12 | Unappropriated Subsequent Years | | | | Type of Project: <input type="checkbox"/> New <input type="checkbox"/> Replacement <input checked="" type="checkbox"/> Renovation <input checked="" type="checkbox"/> Expansion | |
| | | | Year 2 FY13 | Year 3 FY14 | Year 4 FY15 | Future Years | | |
| 17,500,000 | 907,800 | 1,000,000 | - | - | 16,500,000 | - | | |

Section 2 **Description of Capital Item**

Engineering for the wastewater treatment plant expansion/upgrade began in FY09. Project expected to be completed in phases:

- Preliminary Design and Phasing Plan Contract, \$267,800 (approved on 4/13/09)
- Phase 1 Design, Grant Funding from NC Clean Water Management Trust Fund, \$492,000 (received Fall 2010)
- Phase 1 Final Design, \$640,000 (completed in Spring 2011)
- Phase 1 Construction, \$18,500,000 est. (Summer 2011 start, payments begin in FY15)
- Phase 2 Design, \$960,000 est. (Fall 2018 est.)
- Phase 2 Construction, \$10,000,000 est. (Fall 2020 est.)

Justification; and Linkage to Council Goals, Balanced Scorecard, other Master Plans, or Dept. Goals & Objectives

The wastewater treatment plant upgrade will increase the existing capacity of 1.2 million gallons per day (MGD) to 3.2 MGD—which is the forecasted capacity needed in 2030. The upgraded facility is designed to meet the new Falls Lake Rules, which will go into effect in 2016. The new rules will result in some of the most restrictive effluent limits in the country. The first phase is estimated to comply with the new rules through the year 2021 and the second phase through the year 2030.

History and Current Status; Impact if Cancelled or Delayed

The existing wastewater treatment plant was built in the mid-1970's. With only minor upgrades since that time (upgrades to the sludge process were completed in FY92 & 02) the now 30 year old plant is in desperate need of an upgrade. Additionally, due to the tightening of effluent discharge limits resulting from the new Falls Lake Rules, cutting edge technology must be implemented to meet the incredibly restrictive limits. Current allocations of nitrogen will be reduced by nearly 80% and phosphorous allocations reduced by 93%. The effluent quality produced by the upgraded municipal wastewater plant will be among the highest quality in the country and maybe the world.

Section 3 **New or Additional Impact on Operating Budget**

| Type of Expenditure | FY11 | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | Total |
|---------------------------|------|------|------|------|------|------|------|-------|
| Salaries / Benefits | | | | | | | | - |
| Prof. & Consult. Services | | | | | | | | - |
| Materials & Supplies | | | | | | | | - |
| Maintenance / Fuel | | | | | | | | - |
| Other | | | | | | | | - |
| Total | | | | | | | | - |

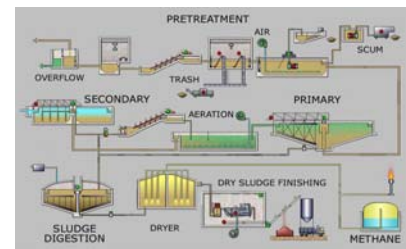
Section 4 **Project Costs**

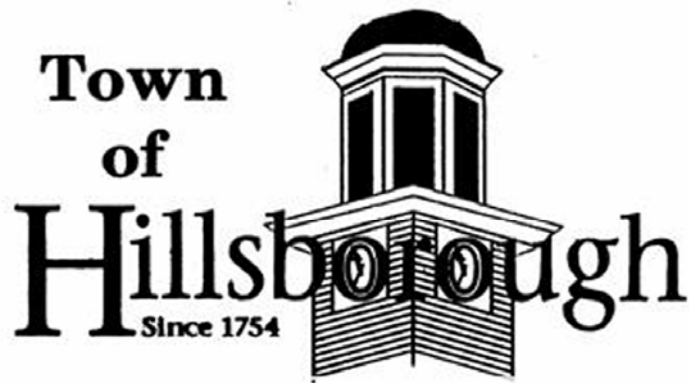
| Activity | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|------------------|----------|----------|-------------------|----------|----------|----------|-------------------|
| Prelim Design / Plans | | | | | | | | - |
| Engineering / Arch. Serv. | 1,000,000 | | | | | | | 1,000,000 |
| Land / ROW / Acquisition | | | | | | | | - |
| Clear / Grade / Site Prep | | | | | | | | - |
| Building / Utility Constr. | | | | 16,500,000 | | | | 16,500,000 |
| Equip / Machinery / Furniture | | | | | | | | - |
| Total Capital Cost Est. | 1,000,000 | - | - | 16,500,000 | - | - | - | 17,500,000 |
| Total Oper. Impact Est. | - | - | - | - | - | - | - | - |
| Total Expenditure Est. | 1,000,000 | - | - | 16,500,000 | - | - | - | 17,500,000 |

Section 5 **Method(s) of Financing**

| Funding Source(s) | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | Total |
|--------------------------------|------------------|----------|----------|-------------------|----------|----------|----------|-------------------|
| Operating Revenue | 1,000,000 | | | | | | | 1,000,000 |
| Debt Financing | | | | 16,500,000 | | | | 16,500,000 |
| | | | | | | | | - |
| | | | | | | | | - |
| Total Program Financing | 1,000,000 | - | - | 16,500,000 | - | - | - | 17,500,000 |

Section 6 **Maps / Charts / Tables / Pictures**





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