

Regular Workshop – June 16, 2014  
Agenda Item 10

**Agenda Item:** Canal Dredging Funding Options

**Presenter:** Town Manager

**Summary:** On December 11, 2013 staff presented a comprehensive report on the Town's canals, including background, past funding methodology, previous project parameters and cost, and the current status of canal depths based on staff observations.

The Town Commission requested further review and an evaluation of funding methodology used to fund the 2002-2003 project.

This item is placed on the June 16, 2014 Regular Workshop Meeting for Commission consideration.

**Attachments:** 6-4-14 Memo, Manager to Commission;  
12-11-13 Regular Workshop Meeting presentation;  
PowerPoint presentation.

**Recommended**

**Action:** Pending discussion, provide direction to Manager.

Date: June 04, 2014

TO: Town Commission  
FROM: Dave Bullock, Town Manager  
Juan Florensa, Public Works Director  
SUBJECT: Canal Dredging Funding Options

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### **BACKGROUND**

On December 11, 2013, staff presented to the Town Commission a comprehensive report on the conditions of the Town canals. The report included:

- Historical background
- Past funding methodology of canal maintenance activities
- The Town's previous canal dredging project, including costs
- Current conditions of canal depths based on staff observations

A copy of the above-referenced report, dated November 15, 2013, is attached. As a result of the presentation, the Town Commission directed staff to further review and evaluate the funding methodology used to fund the 2002-2003 project.

As reported in December 2013, shoaling of canals surveyed was sporadic and not significant. The Town has received few, if any, complaints regarding the need for a public canal maintenance project. Therefore a small-scale spot dredging project was not recommended. Staff suggested a comprehensive canal survey and feasibility study be undertaken in upcoming years. The study would encompass a detailed bathymetric survey of the Town's canal system, including consultant's recommendations of what canals should be dredged based on FDEP permit exemption requirements and established levels of service. The report would include detailed cost estimates and development of funding plans/scenarios. The cost of such a survey/study is estimated between \$80,000 and \$100,000. Sufficient funds are currently set aside in the canal dredging fund to perform this initial step. This study should be performed in 2015 or 2016.

### **ANALYSIS**

For planning purposes a Town wide on-going periodic canal maintenance program is estimated at about \$6 million inclusive of engineering, permitting and construction.

Based on the measured shoaling rates of the canals compared to the original 2003 project, staff estimates a 15 year recurring project. This would translate to a major project, similar in scope to the 2003 project, by 2018.

There is approximately \$400,000 set aside from previous year's ad valorem taxes and \$900,000 allocated from Infrastructure Surtax funds (which are collected through 2024)

for a total of \$1,300,000. Another potential funding source that may be available is funding from the West Coast Inland Navigation District (WCIND).

Staff identified three main funding options for a canal dredging project:

1. Funding through ad valorem and possibly other revenue. The Town may institute a Town-wide pay-as-you-go approach using ad valorem tax revenue and other revenue such as infrastructure surtax funds. Approximately \$1.3 million is currently available as a result of previous decisions to set aside these funds. Annual allocation of general funds or surtax could accumulate over time and fund the dredging every 15 years. If ad valorem revenues are used to support debt a referendum is required. Ad valorem revenues, grants, WCIND, and infrastructure surtax funds were used to fund the 2003 project.
2. The Town could establish a special district within which only property owners of that district are assessed a non-ad valorem assessment for the costs associated with the canal dredging project. Non-ad valorem assessments are not a tax. They are levies based upon: (a) the special benefit conferred to specific property for an improvement and (b) the assessment is fairly and reasonably apportioned amongst the benefited properties. Debt may be used to finance the project with non-ad valorem assessment payments, but if debt is used a referendum is required.
3. A hybrid of the first two can be used where the Town pays a portion of the canal dredging project from general revenue and assesses the district property owners the remainder of the dredging costs.

Whatever method of funding canal projects is selected a level of service should be adopted that forms the basis for collecting taxes or assessments. An adopted level of services establishes clear parameters for the programs and if non-ad valorem assessments are used, this level of service will be necessary to legally justify the assessment.

The fundamental questions underlying any of these funding methods is a policy decision regarding who should pay the costs of canal dredging? If the answer to that question is only those who live on canals, then an assessment district of some kind should be established. If canal dredging is considered a normal activity of government on Longboat Key than ad valorem taxes and surtax revenue is appropriate. Some combination of the two may be selected with both assessments and property taxes contributing to the program. In that case the proportion of the contribution will have to be determined.

### **MOVING FORWARD**

If the Town Commission wishes to move forward then it first should determine costs and timing based on the technical analysis described above. Once costs and timing are understood the best funding method can be analyzed and determined.

## M E M O R A N D U M

Date: November 15, 2013

**TO:** Dave Bullock, Town Manager  
**FROM:** Juan J Florensa, Public Works Director  
**SUBJECT:** Longboat Key Canal Dredging Report

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### **Historical Background – General**

Most of the coastal water canals in Longboat Key can be classified as:

- Natural canals
- Man-made canals

Man-made canals were excavated by developers as the Town was built. The dredging of the canals provided an attractive selling/marketing feature for new homes and subdivisions. In addition, the excavated materials (also known as “spoil”) from the bay bottom served as construction filler material for the pads where the new houses would be placed. This is predominantly evident in the Country Club Shores subdivisions on the southern end of the Key.

### **Private vs. Public Canals**

Irrespective of man-made or natural some of these canals are either private (i.e. side lot lines of abutting properties extend to the centerline of the canal) or public (i.e. lot lines do not extend to the centerline). The creation of private canals can also be associated with the dredging of private lands to create marinas, private boat basins or access to private properties.

### **Exempt vs. Non-exempt Canals**

For permitting purposes, Florida Department of Environmental Protection (FDEP) classifies canals as exempt (i.e. requiring only a notice general permit) or non-exempt (requires specific permits). The determination on the status of canals is made by FDEP based on previous “permitted” activity on any specific canal and on the previously permitted depth versus proposed dredge depth.

### **Town’s Canal Project – Historical Background**

Other than minor, privately funded and initiated dredging efforts, canals in Longboat Key had not been dredged or maintained until 2003. In the 1990’s, there was enough community interest in pursuing large-scale, publicly funded canal dredging that the Town Commission authorized Coastal Planning & Engineering, Inc. (CPE) to perform a canal dredging feasibility study.

The study was completed in February 1996 and included the following:

1. Reconnaissance level bathymetric survey of 53 canals
2. Collection of sediment samples
3. Engineering observations of canals and seawalls
4. Preliminary analysis of seawall stability vs. dredging
5. Engineering analysis of dredging the canals
6. Review of spoil disposal options
7. Discussion of regulatory constraints/permits
8. Development of project cost estimate

The cost for the study was \$20,000.

### **Canal Maintenance Financing Advisory Committee**

Based on the findings of the 1996 feasibility study, the Town Commission, in early 1999, created a *Canal Maintenance Financing Advisory Committee* to obtain public advice on how to fairly and equitably select a funding mechanism that would enable the canal project to proceed.

The committee recommended that ad-valorem taxes be used in lieu of special assessments to fund this project.

Further discussions with staff and the Town Commission resulted in another task for CPE to begin the permitting process and develop a set of detailed plan and specifications for implementation purposes.

### **Permitting**

In February 2001 and July 2002 the Town received permits from FDEP and the US Army Corps of Engineers (USACE) respectively for the dredging work to dredge approximately 47,000 cubic yards of sand and silt from specific locations in 53 canals along the east side of Longboat Key.

The Corps permit expired in June 2005. The FDEP permit is in fact a "permit exemption" with no termination date.

### **Construction & Project Costs**

In 2003 the Town through the competitive bidding process awarded a contract to Energy Resources, Inc. for the dredging of approximately **23,000 cubic yards** of material from **30** canals. The cost for this work was **\$1.5 million (+/-)**. The second lowest bidder, Kimmins Construction bid was \$2.66 million. There were six change orders (five were additive, one deduction). Final construction cost was \$1,312,140. Dredging began in March 2003 and was completed in December 2003.

**Other Costs** (All costs are approximate)

In addition to the feasibility study, there were additional engineering costs associated with this project. These include preparation of plans, permitting, seagrass mitigation, survey, sediment analysis, construction administration and project management. Our records indicate that the Town paid CPE about \$501,000 from FY 98/99 through FY 03/04 for these associated costs.

During the course of the Town Canal Dredging project the Harborside homeowner and condominium associations appealed to the Town Commission to support under a separate agreement the dredging of the perimeter canal surrounding the Harborside complex. The total cost for this portion of separately permitted work the project was \$664,100 of which the Town committed and paid for a total of \$330,000.

A summary of project costs is presented below:

Feasibility	\$ 20,000
Cliff Truitt (coastal engineer)	34,335
CPE (engineering)	501,000
Sea Grass Mitigation (permit required)	129,550
Legal Fees (Town Attorney)	60,000
Permit Fees (FDEP)	13,350
Construction	1,312,140
Harborside Canal Agreement	330,000
Total	\$ 2,400,375 +/-

**Funding Sources Used for this Project** (All costs are approximate)

General Fund	\$ 2.3 Million
Infrastructure Surtax	300,000
WCIND Grant (Sarasota)	95,000
WCIND Grant (Manatee)	169,000
Interest	40,000
Total	\$ 2.9 Million +/-

**Other Potential Funding Sources**

Other municipalities throughout the State have commonly used separate taxing authorities called Municipal Separate Taxing Units (MSTU), Municipal Service Benefit Unit (MSBU), Municipal Separate Taxing Districts (MSTD) or Special Tax or Assessment Districts (STD, SAD). These are typically based more on individual needs and willingness to be taxed for property owners having immediate access and benefit of the canal.

These taxes are typically assessed at rates defined by a variety of levy, but typically by individual units combined and sharing equal amounts for having access privileges, such as a Condominium complex or Homeowners Association having canals or a boat basin with adjacent access canals or waterways. The table below presents examples of funding mechanisms or methods that other public entities have utilized.

<b>MUNICIPALITY</b>	<b>Tax Authority</b>	<b>Tax Levy</b>	<b>Other</b>
Treasure Beach FL	MSBU	Individual Unit	
City of Tampa FL	Ad Valorem	50%	50% Fed. Grant
Sanibel Island FL	MSTU	Marina 40% Residents 27%	City 33% Gen Fund
City of Naples	SAD via Resolution	Unit, pro-rata of shared costs of cu.yd. dredged	
Hilton Head Island, SC	STD	Subject to SC State Law	Public or Private
Panama City	MSBU	Individual Parcel	

### **Current Canal Depths**

With the assistance of the Police Department Marine Unit, Public Works performed manual soundings on approximately 40 canals in March/April 2013. Electronic depth soundings were used to identify canal profiles along centerline navigational accesses. A depth measurement was taken at approximately 150 to 200 foot intervals and at canal entry points and dead-ends. The recorded depths were corrected to current (daily) tide elevations. Locations of soundings can be found on the attached maps.

### **Magnitude of Current Conditions**

Based on our findings, the current canal depths appear to provide enough depth for local use. There seems to be minor filling in of new material except in selected canals.

Information submitted concludes there are isolated areas in canals that may require further evaluation to confirm any indication that would warrant any potential dredging or spot removal of material. If desired spot removal of materials in these areas could be accomplished without a major project.

These canal locations that are shallower are listed in the attached **Table#1**.

Specific locations of suspect elevations are identified in red and green text on the attached Canal Depth Table spreadsheet and coincide with the red and green dots on attached Survey Maps. **Green** areas are out of design specification (shallower) .3 ft. up to .7 ft, (3 ½ inches to 8 ½ inches), design tolerance was +/- .5 ft. (6 inches) **Red** areas are out of tolerance (shallower) by +.8 ft. (9 ½ inches) or more. Yellow areas are within tolerance.

### **Next Steps**

If desired a public meeting or public survey seeking input on canal issues could be arranged to gauge the boating community desires and needs. Depending on the outcome of this meeting or survey and information collected a Committee could be formed to provide further input and commentary as to specific needs.

A more detailed bathymetric survey of the shallower areas of canals could be undertaken by a professional surveyor. Total estimated cost for these surveys is \$70,000 to \$80,000, based upon current knowledge of canal conditions. This includes \$40,000 for longitudinal hydrologic surveys and additional cost at \$3500/day for more detailed cross sectional surveys in subsequently identified shallow areas.

A fully comprehensive Canal Dredging Feasibility Study could also be considered in the next three to five year period.

The Town could also consider renewing the past practice of earmarking \$100,000 annually to the Canal Dredging Fund.

### **Current Available Funding for Future Projects**

The Town Commission in 2005 dedicated annual resources of \$100,000 per year towards a canal dredging fund. This practice was discontinued in 2008. There is approximately \$407,000 in this fund earmarked for canal dredging.

Please let us know how you wish to proceed with this program survey or let us know if you have need of further information. I would be happy to discuss the information provided in this report.

Attachments: Table #1  
Maps  
Depth Tables



# CANAL DREDGING FUNDING OPTIONS

## Policy Decision

Who should pay the costs of canal dredging?



## CANAL DREDGING FUNDING OPTIONS

1. Ad Valorem and Other Revenue (infrastructure sales tax)
2. Special District Assessments – non-ad valorem based on special benefit apportioned to specific property owners
3. Hybrid – combination of ad valorem and special district assessments



## CANAL DREDGING FUNDING OPTIONS

### Moving Forward

- Adopt a level of service
- Legally justify assessment
- Determine costs and timing of project
- Determine best funding method



**End of Agenda Item**