

4/15/2009



HILLSBOROUGH COUNTY

CANAL DREDGING PROGRAM  
MANUAL





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## Introduction

In March of 2007, after two years of study including six town hall style meetings and over twenty monthly meetings, the Hillsborough County Board of County Commissioners (BOCC) accepted the finding of the Canal Advisory Committee and their Comprehensive Canal Dredging and Preventative Measures Study (CCDPM). This study examined the eight various residential canal communities within the unincorporated portions of Hillsborough County in order to determine the location and extent of sedimentation as well as the overall cost of alleviating navigational issues within these canals. One of the primary recommendations from this study was to enact a Canal Dredging Ordinance in which communities could independently choose to pay for the necessary improvements.

In January of 2009 the BOCC enacted **County Ordinance 09-01, Canal Dredging Municipal Service Benefit Unit (MSBU) and Assessment Procedure Ordinance**. This ordinance creates a financing mechanism in which local communities can request, the County to create discreet Municipal Service Benefit Units to finance canal dredging in order to resolve navigational issues within the their residential saltwater canals. The Public Works Department, with the assistance of other County organizations, was tasked with implementing the ordinance. This Canal Dredging Program Manual will outline the County's program, its intent and purpose and lay out anticipated timelines for projects. It will also outline internal policies within the program so that applicants are clearly aware of their rights and responsibilities as well as the County's.

A key feature that should be noted in advance is that should a project proceed through fruition, the total cost of said endeavor will be borne by the residents whose properties directly benefit from the work.



## Purpose and Intent

From the onset of this program, the initial purpose and intent was to address the primary concern of the residential saltwater canal property residents which is the navigational depths within their waterways. The majority of these residential canals were created prior to the 1980s and the advent of comprehensive environmental permitting. The dominant design scheme during those periods was to maximize the amount of surface area fronting on waterfront in order to maximize profits. This design scheme resulted in what are commonly referred to as “finger canal” communities which is the predominant design within Hillsborough County’s waterfront communities. These finger canals resulted in low flush, low energy systems in which sediments could enter from various means but lacked sufficient energy to flush said sediments. Over the years these sediments and organic materials have deposited in sufficient quantities to adversely affect navigation within these communities. This program will establish a reasonable level of service that will allow recreational boat owners within the canals to affectively navigate from the center of the canal adjacent to their property to the open waters of Tampa Bay.

## What Areas Are Eligible to Participate

Per County Ordinance 09-01, this program is limited to the cleaning, deepening and widening of navigable salt or brackish water canal-type waterways that are adjacent to properties located in the unincorporated areas of Hillsborough County. Purely fresh water canals, lakes, historic drainage ditches or other storm water conveyance structures, whose original intent was purely to convey storm water are excluded from participating in this program.

## Operation and Funding Structure

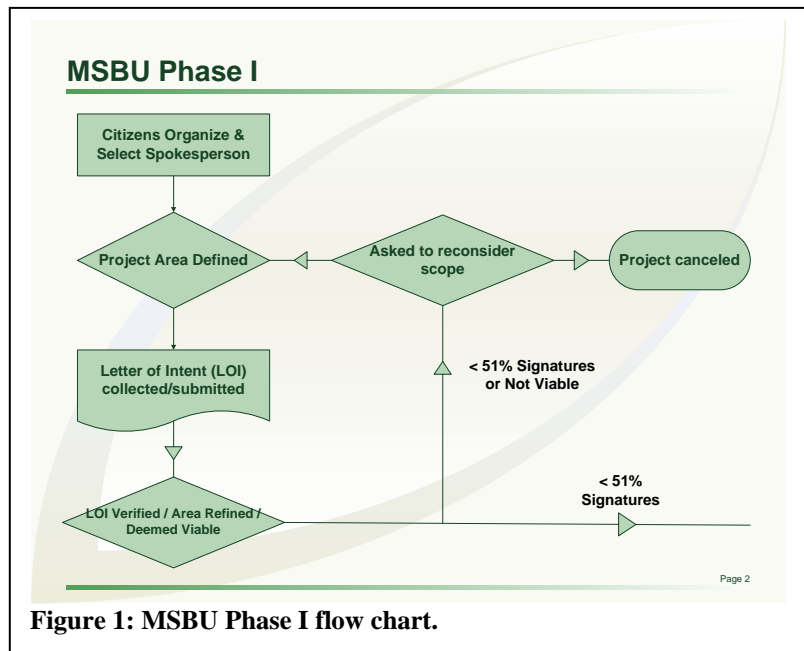
The program operates under three distinct phases, each of which are funded through various funding mechanisms. Each phase has certain requirements attached to it and may require some minor to significant time lags associated with transitioning to the next phase of the program. The



timeline contained within **Appendix A** provides an anticipated timeline of each of the individual phases as well as projected transition times between phases.

## Phase I: Project Definition and Letter of Intent

This is the initial organizational phase of the program. During Phase I, communities interested in having their canal dredged organize and choose a leader or spokesperson to represent their community regarding the establishment of the proposed **Canal Dredging Improvement Unit “CDIU”**. A CDIU is defined as “any municipal service benefit unit established by resolution of the

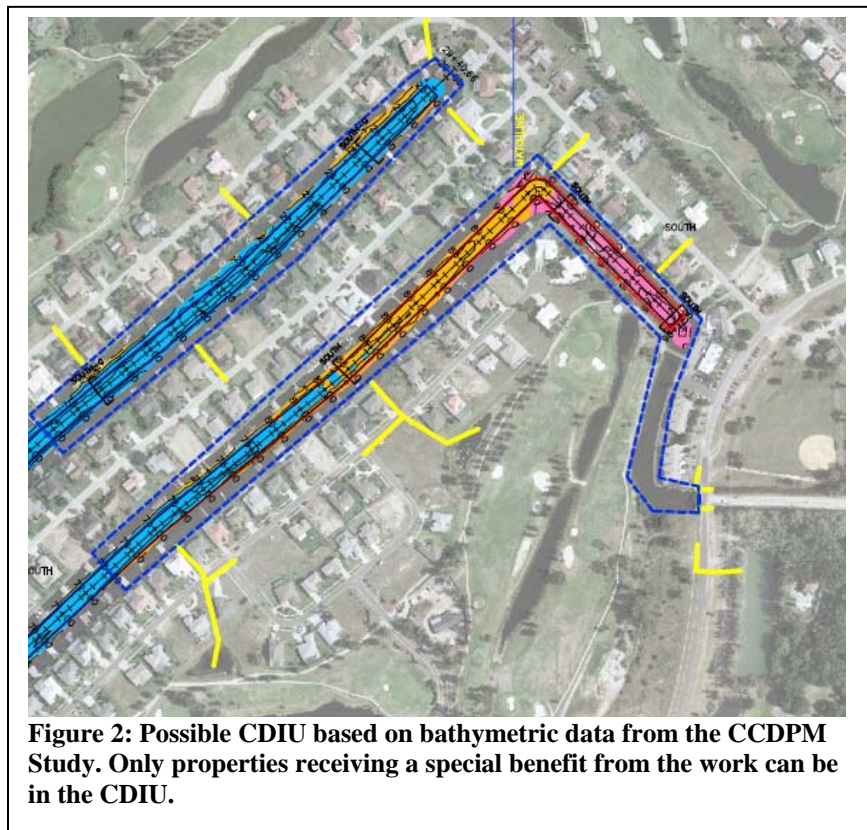


Board pursuant to Article II of County Ordinance 09-01, that specially benefits from Canal Dredging”. The property included in the CDIU is defined by the limits of the project requested by the community. For instance, if a community is interested in dredging a single dead end residential canal within a group of canals, then that CDIU would consist of the properties adjacent to said canal. For assessment purposes, an assessment can only be imposed on those properties which receive a special benefit from the work performed. In this case, it’s the properties that reside directly on the dead end canal. Conversely, if the project limits were intended to remove a choke point within a canal system in which several individual residential canals must flow through in order to gain access to open water, any and all properties upstream of that choke point which would receive a special benefit from the canal dredging would be assessed. It is highly recommended that parties interested in requesting that the County create a CDIU use the preliminary data outlined within the individual Comprehensive Canal Dredging and Preventative Measures Feasibility Studies. These studies have current bathymetric surveys of



each of the residential canal communities that can be utilized to define their preliminary project area. These reports can be found at [www.hillsborough.wateratlas.org](http://www.hillsborough.wateratlas.org).

Once a canal community has organized, chosen a spokesperson and defined their initial project area, they must submit a **Letter of Intent (LOI)** to the Hillsborough County Public Works Department Director (Director) stating their wish to have the project investigated by staff and submitted into the program for prioritization. County Ordinance 09-01 requires that the LOI must



be signed by at least fifty one percent (51%) of different property owners within the proposed CDIU verifying their desire to initiate the petition process. The letter must also contain a designation of a property owner spokesperson and the contact information for the designated spokesperson, a map identifying the boundaries of the proposed CDIU. A sample of the LOI is attached to this document as **Appendix B**.

Upon receipt of the LOI, the Director will instruct staff to verify the submittal and determine the preliminary viability of the proposed project. The Director at this point may:

- Approve the project as requested and submit it to the feasibility phase
- Deny the project and request that applicants resubmit a revised LOI.
- Refine the project limits to include/exclude parcels from the proposed CDIU.



All costs during Phase I, or the Letter of Intent (LOI) Phase, are initially borne primarily by the Public Works Department in addition to additional ancillary costs borne by other County Departments. The cost associated with this include: staff time and resources associated with shepherding applicants through the Phase I process. Should the proposed CDIU proceed through the entire program any cost associated with this phase can be allocated to the final project cost and reimbursed, with interest, from assessment proceeds or obligations issued to finance the canal dredging.

## Phase II: Feasibility Phase

Phase II of the program is the analytical phase of the program. The County has contracted with an engineering and environmental consultant to provide all services within this phase. These include engineering and environmental services as well as public outreach and grant writing. During Phase II of the program the County will issue a work order to the consultant to investigate the proposed CDIU's -project area in order to develop as hard a cost estimate as possible. The feasibility study will include but not be limited to:

- (1) the boundaries or other description sufficient to identify the territory to be included in the proposed CDIU as set forth in the LOI;
- (2) recommendations as to any territory within the proposed CDIU that should be excluded for any reason;
- (3) recommendations as to any additional territory not within the proposed CDIU that should be included for any reason;
- (4) the general location of the Canal Dredging for the proposed CDIU;
- (5) an estimate of the Capital Cost of the Canal Dredging to be undertaken;
- (6) an estimate of the annual Assessment and the anticipated number of Fiscal Years for which the Assessment will be imposed; and
- (7) a determination as to whether or not all properties within the proposed CDIU which are to be specially assessed will be specially benefited by such Canal Dredging, and whether or not each parcel in such CDIU which is to be specially assessed will be

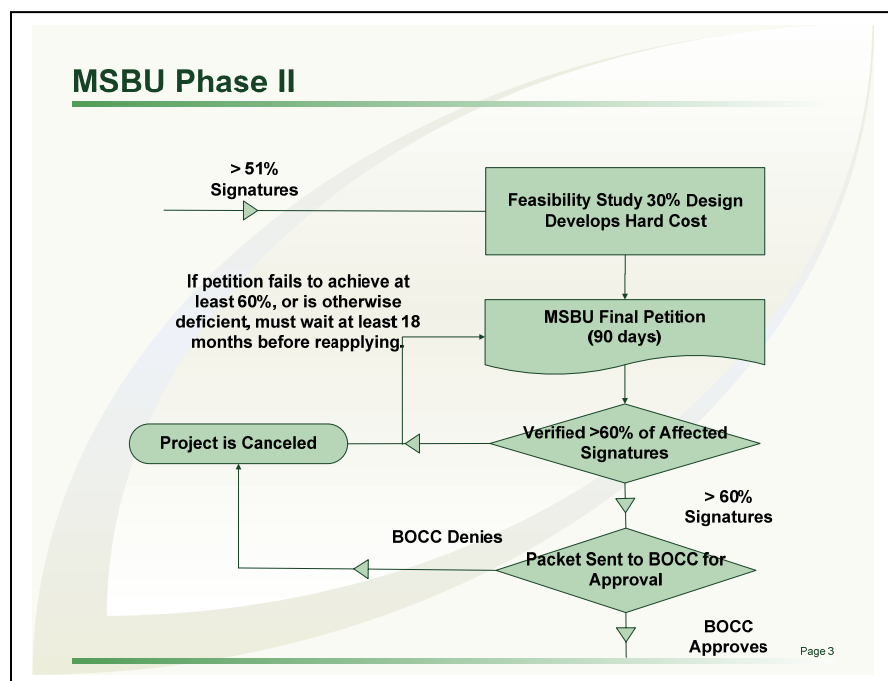


specially benefited by such Canal Dredging in excess of the amount of such assessments to be levied thereon.

The feasibility report will also address the following technical issues:

- (1) Engineering issues including dredging footprint.
- (2) Spoil quantity and quality.
- (3) Environmental issues
- (4) Associated regulatory permits and coordination

Once all of the issues of the proposed CDIU have been sufficiently investigated, and the feasibility study has been completed, the consultant shall provide the County with a preliminary Capital Cost. The consultant, in conjunction with the County's Debt Management



Department and the County's Financial Advisor shall prepare an estimated Transaction Cost for the project. The estimates will be used to prepare an estimated Project Cost. For this program "Project Cost" means: (A) the Capital Cost of any Canal Dredging, (B) the Transaction Cost associated with the Obligations which finance Canal Dredging, (C) interest accruing on such Obligations for such period of time as the County deems appropriate, (D) the debt service reserve fund or account, if any, established for the Obligations which finance the Canal Dredging, and (E) any other costs or expenses related thereto, including Administrative Costs.

Once the project cost estimate has been submitted, the consultant shall prepare an assessment methodology that includes a method of fairly and reasonably apportioning the Capital Cost and



Project Cost among the parcels of benefited property within the proposed CDIU. Such methodology will establish an apportionment unit or criteria referred to in the ordinance as an Equivalent Canal Dredging Unit (ECDU) to be utilized to determine the assessment for each parcel of property.

County Ordinance 09-01 provides that an, “ECDU may include, by way of example only and not limitation, one or a contribution of the following: front or rear footage, land area, improvement area, permitted land use, property value or any other physical characteristic or reasonably executed use of the property that is related to the Canal Dredging to be funded from proceeds of the Assessment”. The consultant will determine the monetary value of each ECDU. The assessment methodology will then be used to allocate ECDUs for each individual parcel within the proposed CDIU. The number of ECDUs assigned to any one parcel will determine its assessment for the project. For example, if a parcel has 100 ECDUs allocated to it and the capital cost is \$20 per ECDU, the final assessment associated with that parcel would be \$2000.

Upon receipt of the final feasibility report, the property owner spokesperson will be furnished with a copy of the report, the associated cost, and a **Petition Packet**. This petition packet is separate from the LOI and has a higher threshold. This packet, in addition to the names, signatures and addresses of all of the parcels associated with the proposed CDIU shall contain:

- (1) a request that a CDIU be established under the provisions of the Ordinance, embracing the territory within specified boundaries;
- (2) the description of the boundaries of the proposed CDIU;
- (3) a description and general location of the type of Canal Dredging to be undertaken;
- (4) an estimate of the Capital Cost of the proposed Canal Dredging;
- (5) an estimate of the annual Assessment and the anticipated number of Fiscal Years for which the Assessment will be imposed;
- (6) the Signatures and addresses of at least sixty percent (60%) of different Property Owners within the proposed CDIU verifying their desire to have the proposed CDIU established;



- (7) proof that one hundred percent (100%) of the property owners within the proposed CDIU have been provided a copy of the petition; and.
- (8) such other information that is deemed necessary by the County.

The spokesperson in conjunction with the consultant shall prepare a letter for each of the affected parcels detailing the above referenced information as well as an affidavit with the names and address for each of the affected parcels within the CDIU. Both parties will sign said affidavit stating that opportunity to review the petition packet was made available to the affected parcels.

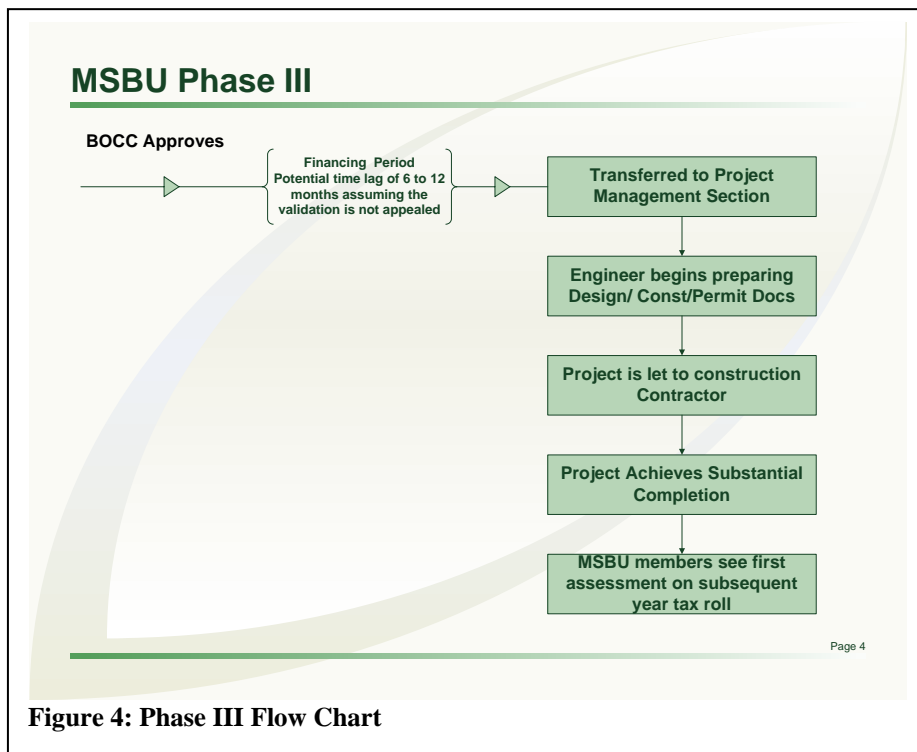
The project spokesperson is then responsible for preparing the petition, which must include the signatures and addresses of at least sixty percent (60%) of different Property Owners within the proposed CDIU verifying their desire to have the proposed CDIU established under the provisions of County Ordinance 09-01. The spokesperson has ninety (90) calendar days from receipt of the petition package from the Director to prepare and submit to the Director the petition for presentation to the Board. Should it be necessary, the spokesperson may request in writing from the Director, a one time extension of an additional ninety (90) days, provided, that a written extension request is received by the Director prior to the expiration of the initial 90 days. Should the community fail to obtain the necessary signatures within the allotted time, or otherwise fail to submit a petition satisfying the requirements of the Ordinance within the allotted time, the petition and associated LOI will be deemed null and void and a new LOI will not be considered for at least eighteen (18) months. Within ninety (90) calendar days of submission of the petition, the County shall verify whether (i) the signatures of at least sixty percent (60%) of different property owners within the proposed CDIU are contained in the petition, and (ii) the Capital Cost contained in the petition is still current. If it is determined that the Capital Cost contained in the petition is less than the current estimate, the petition shall be deemed void and the petition process must be re-initiated. If the petition is determined to satisfy the provisions of the ordinance, it shall be submitted to the BOCC for final approval and imposition. The BOCC at its discretion can choose to approve or deny the CDIU.

The second phase, the Feasibility Phase is funded through the County's Community Investment Tax and its Capital Improvement Program. These funds total \$500,000 and are anticipated to be recovered through any projects that proceed through the complete program. Should projects not



proceed beyond Phase II of the program, those funds are lost and will not be recouped. In the event that the proposed CDIU is approved by the BOCC, the County will proceed with financing the cost of the canal dredging through the issuance of obligations secured by special assessments. Depending on the conditions of the bond market at the time in which the County attempts to undertake such financing, a significant time lag may be encountered. The County has no control over existing market conditions at the time of the financing and can only provide reasonable estimates. The program cannot enter into the next phase until all of the necessary funds have been procured. The complete assessment process is detailed within Article III of the Ordinance.

### Phase III: Design, Permitting, Construction



Phase III of the program incorporates the final design and permitting of the actual project. Once the necessary funds have been obtained through the County’s Debt Management office, the County will issue an additional work order to its consultant to begin preparing final design documents and

obtaining final permits. The same contractor will be retained to manage all construction aspects of the project. The construction contract will be handled through a competitive bid process and will be awarded to the lowest responsible bidder. It is anticipated that many of the logistical issues associated with the physical dredging will be left to the discretion of the construction contractor. Once the project is completed, the County will begin tabulating total cost incurred for



the project through each of the phases to calculate the total cost incurred for the project, including financing costs. All of this information will be used to prepare the final Assessment which the affected property owners in the CDIU will see as a non-ad valorem assessment line item on their annual Property Tax bills commencing in the following year. In accordance with Section 3.10 of the Ordinance, interested parties can prepay their cost associated with the project.

## Prioritization of Projects

Due to the limited funds allocated for this program and with the level of interest displayed by the various communities, prioritization of projects will obviously become a delicate issue. While a simple rationale of “first-in / first-out” may seem the most expedient method of prioritizing projects, experiences in other jurisdictions have shown that this method has some flaws. The primary concern is that a LOI may be submitted for a distinct project area, which is separated from open water by some other choke point other than their project area. In this scenario residents could be paying an annual assessment on their initial project area and still not be able to access open water due to the downstream choke point. Just such a scenario has occurred in other governmental jurisdictions and has become a serious point of contention with the residents who are paying the assessment and the local government that authorized the work.

For this reason, the County will prioritize projects as they are submitted. Staff will prioritize projects by applying various factors, including but not limited to:

- Date of submittal.
- Accessibility to open water for the specific project area.
- Overall complexity of the project.
- Readily available spoil containment areas.
- Number of beneficiaries versus the estimated cost of the project.

Each factor will be weighed and assigned a numerical value that correlates to a quantifiable aggregate score. Each category will be scored on a scale of one (1) to ten (10) with ten carrying the greatest weight for that specific category. For instance, a project area with direct access to open water would receive a higher score in that category than a project area with one or more



other choke points between it and open water. The aggregate scores will be used to prioritize submitted LOIs.

**Table 1: Prioritization Decision Matrix**

<b>Criteria</b>	<b>Comments</b>	<b>Score</b>
Date of submittal.		
Accessibility to open water.		
Overall complexity of the project.		
Spoil containment areas.		
# Beneficiaries vs. estimated cost.		
Total Score		

### **Set Backs and Private Boat Slips**

A question that has consistently been asked during this process is, “how wide will the dredging be and how close will the work be done to my seawall, boat slip or dock?” The purpose of this program is reestablishing navigability through the center channel of the residential canals. The project footprints will be developed with the concept of working from the center line of the canal and moving out equidistant from the center to develop a usable footprint that provides access but protects adjacent structures. As a general rule each project will establish a minimum setback from any structures that will be maintained throughout that project. For instance, if the canal is one hundred (100) feet wide, and the consultant determines that the setback for this project needs to be fifteen (15) feet wide, the actual dredging footprint would be thirty-five (35) feet on each side of the center of the channel for a total seventy (70) feet wide dredging footprint. The dredging would then cease fifteen (15) feet from the edge of any structures.

As stated earlier, this program will only dredge within the center line of the residential canal or the main navigational channel. Due to the level of additional complexity, cost, permitting and potential liability, the program will not be dredging within individual boat slips. Should this be an issue for individual residents, they are encouraged to contract with a private dredging firm to



have these areas serviced either during or after the CDIU project is completed. At this time, the County does not foresee prohibiting its construction contractor from contracting privately with individuals to conduct such services during the construction phase. Any such agreements would be private contracts entered into between the resident and the contractor and all parties would have to indemnify the County and its project from any and all damages in order to allow the contractor to perform such services.

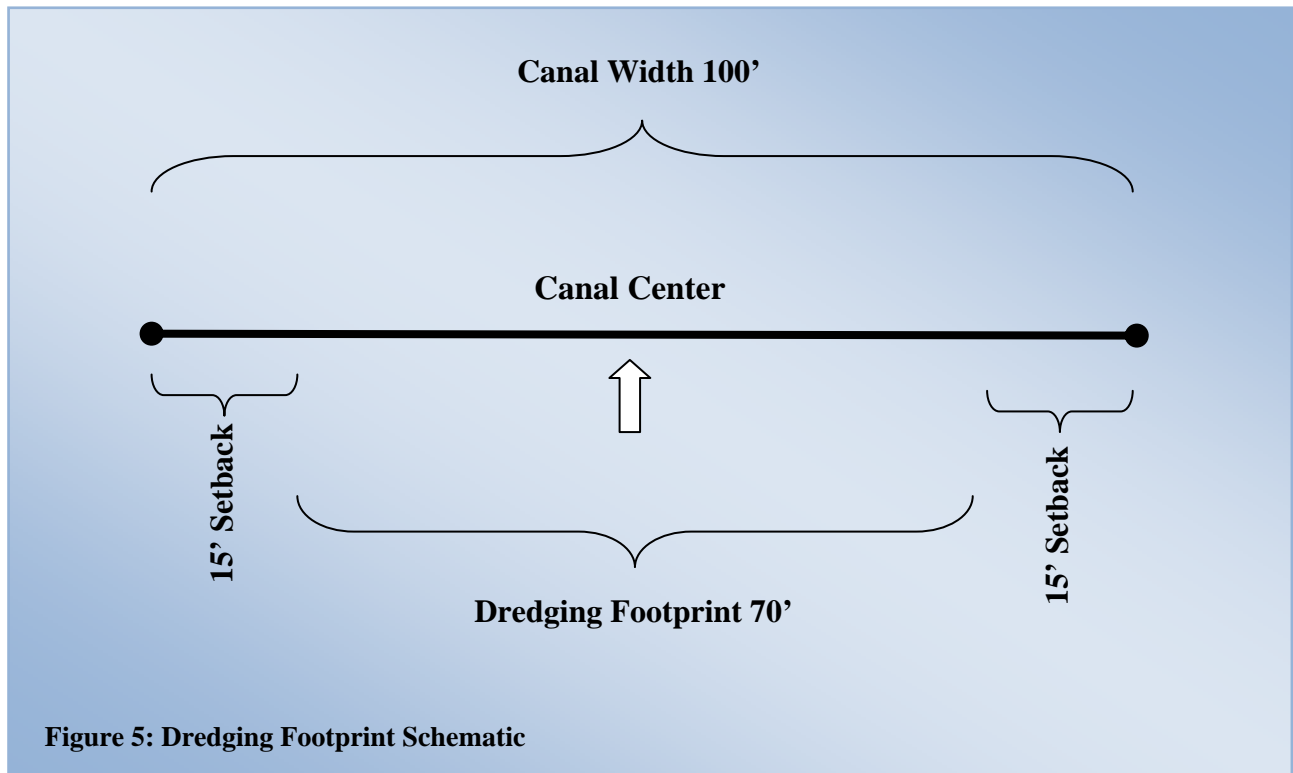


Figure 5: Dredging Footprint Schematic



## Who to Contact

Parties interested in entering into the County's Canal Dredging Program should contact the Public Works Department, Engineering Division, Specialized Services Unit at 744-5671. All correspondence should be forwarded to:

Attn: Canal Dredging Program  
Specialized Services Unit, Public Works Department  
2420 Falkenburg Road  
Tampa, FL 33619

## Conflicting Provisions

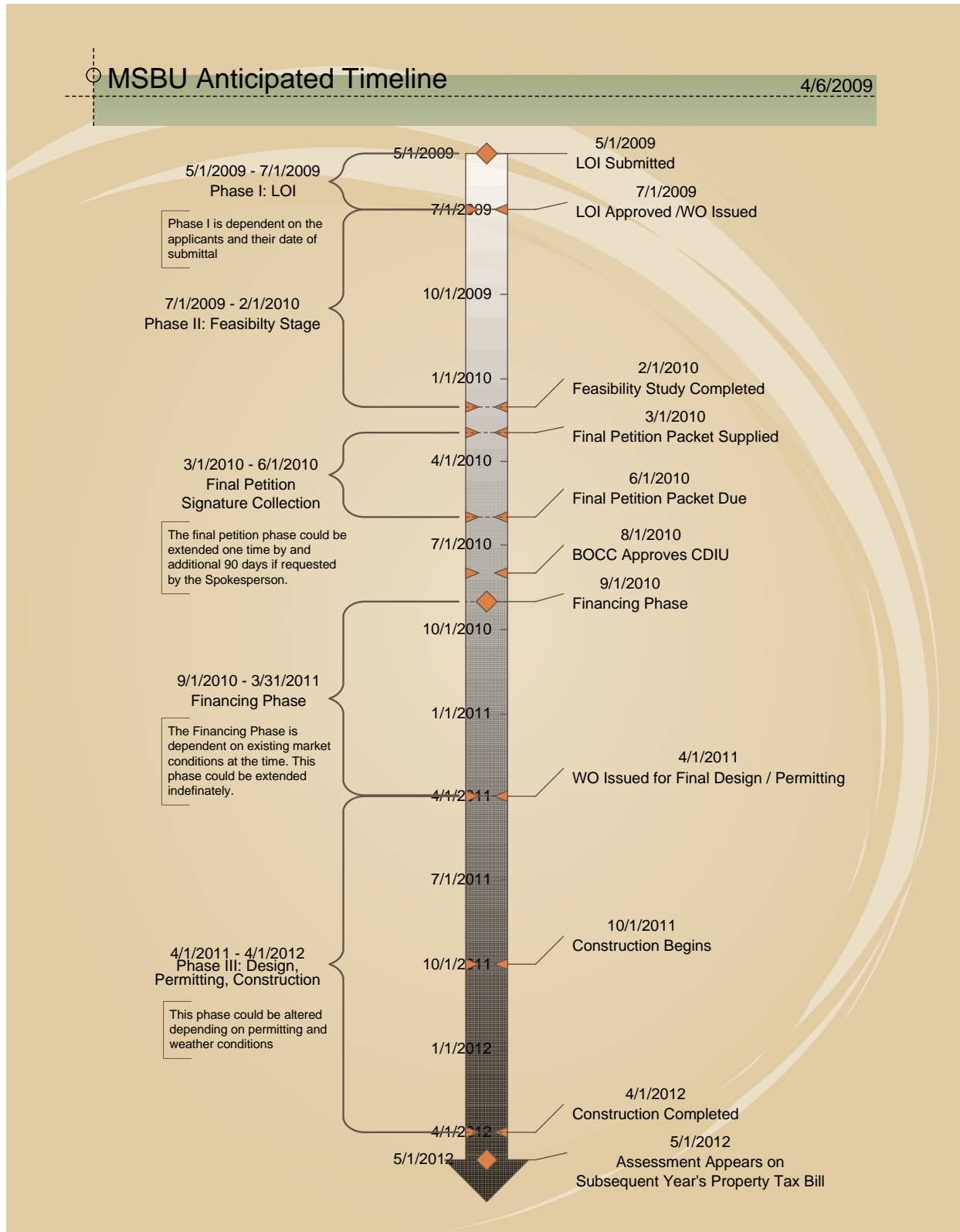
The provisions of County Ordinance No. 09-1 shall prevail over any conflicting provisions contained in this policy.

## Effective Date

This policy is effective upon approval by the Hillsborough County Board of County Commissioners.



## Appendix A: Anticipated Timeline





## Appendix B: Letter of Intent

This letter of intent (LOI) outlines our community’s intent to participate in Hillsborough County’s Canal Dredging Program. We have reviewed the program’s Canal Dredging Manual and **County Ordinance 09-01, Canal Dredging Municipal Service Benefit Unit (MSBU) and Assessment Procedure Ordinance** and fully understand its intent and purpose. We the undersigned understand that this program is purely voluntary and that the County, at its discretion, can revise the limits and scope of our proposed Canal Dredging Improvement Unit (CDIU). Furthermore, we understand that participation in this program is dependent on the availability of funds and is subject to the prioritization of projects within the program. We are also aware that there is no cost to us to enter into this program at this stage. This is merely a request for the County to consider establishing the proposed CDIU, which includes the provision of a cost estimate to dredge our proposed CDIU. But, should we elect to proceed with the canal dredging after we have received the cost estimate, and the Board of County Commissioners ultimately establishes the CDIU, any and all expenses incurred during the course of the program will be included within the cost to be paid by us through an annual special assessment. We also understand that (i) the scope of the canal dredging is intended to be limited to a one-time dredge of canals to improve navigability and does not include a maintenance program, and (ii) the obligation of benefited property owners to pay the entire amount of their respective assessment after completion of the canal dredging will not be extinguished in the event that the enhanced navigability of the canal is adversely impacted as a result of a subsequent weather event or other natural occurrence.

The name of our proposed Canal Dredging Unit shall be:

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CDIU Name

We the undersigned, agree that our designated spokesperson shall be authorized to represent our community in all contact and negotiations with the County’s Canal Dredging Program. Should there be a need to select a new spokesperson, a revised LOI cover sheet stating the name and contact information of the spokesperson shall be resubmitted. The designated spokesperson for our community shall be:

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Name (Print)	Address	Contact Phone
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Included with this LOI is a map identifying the boundaries of the proposed CDIU.



Page \_\_\_ of \_\_\_

My manual signature below indicates that I have read and understand this Letter of Intent and am verifying my desire to initiate the petition process for the establishment of a Canal Dredging Improvement Unit in accordance with the provisions of the referenced County ordinance.

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Name (Print)	Address	Contact Phone
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Signature(s)

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Name (Print)	Address	Contact Phone
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Signature(s)

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