

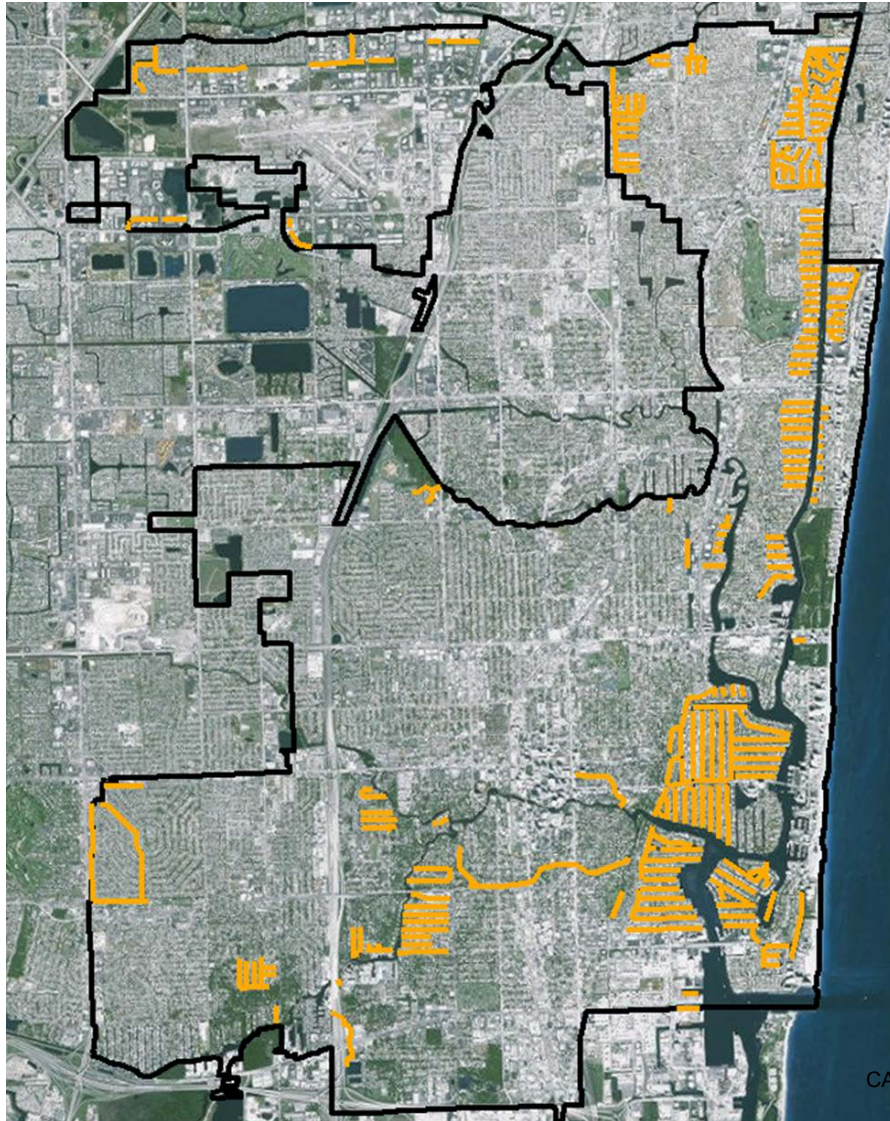
# Canal Dredging Rate Study

Fort Lauderdale, FL





# City Owned Canals



CAM# 17-0425  
Exhibit 2  
2 of 17

# 2017 Rate Study Process

## Canal Dredging Master Plan

- Surveyed 78% of City-owned canals (2012-2015)
- Developed 2015 Canal Dredging Master Plan
- Conducted and analyzed remaining 22% of surveys (2016)
- Updating Canal Dredging Master Plan (2017)

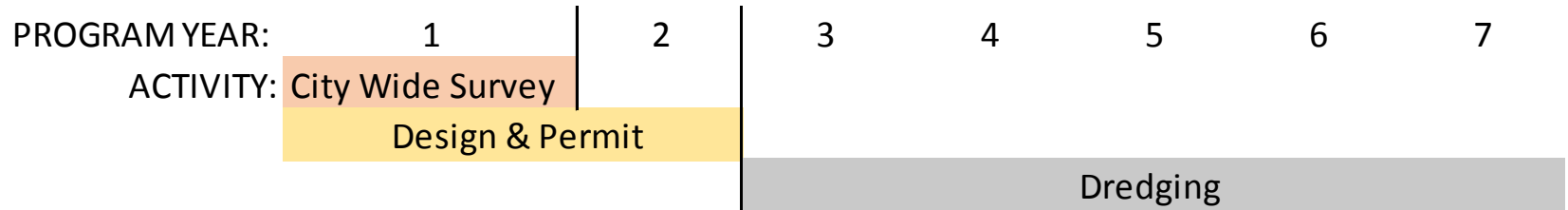
## Revenue Requirement

- Cost drivers include design, permitting, dredging, drying and disposal

## Revenue Recovery

- Special assessments included on the property tax bill can be utilized in cases where parcels derive specific benefit from the City's activities, or fees included on the utility bill can also be utilized.

# Revenue Requirement



## City Wide Survey

- Review all City-owned canals every 7 years to determine dredging needs
- Prioritize canals requiring dredging

## Dredging Design

- Design and permit of the canals to be dredged

## Dredging

- Physical removal, drying and ultimate disposal of the dredge material

# Drying Site Options

- Current drying site is expected to be sold and unavailable for the city's future dredge material drying needs
- Stantec conducted a search for viable options and their corresponding cost
- Several parcels were located with the desired proximity and zoning characteristics, a summary of those findings is included below:

Potential Drying Sites	Size in Acres	Current Asking Price
Site 1	2.50	\$2,500,000
Site 2	1.65	\$1,450,000
Most Conservative Option		\$2,500,000
<b>Annual Amortization</b>		<b>\$144,575</b>
Years	30	
Rate	4.00%	

# Revenue Requirement Findings

- Dredging expenditures are dynamic by their nature and large year to year fluctuations in program spending are expected
- Because there is little history upon which to base projections there is significant uncertainty as to potential unforeseen costs of the program. Therefore, we recommend considering establishing a minimum working capital reserve fund equal to one year's program revenue.
- In lieu of establishing a minimum working capital reserve fund for unforeseen costs, an alternative to consider would be relying upon an interfund loan from the General Fund. This loan would be paid back out of future revenues from the Canal Dredging Program and would mitigate the need for immediate rate increases.

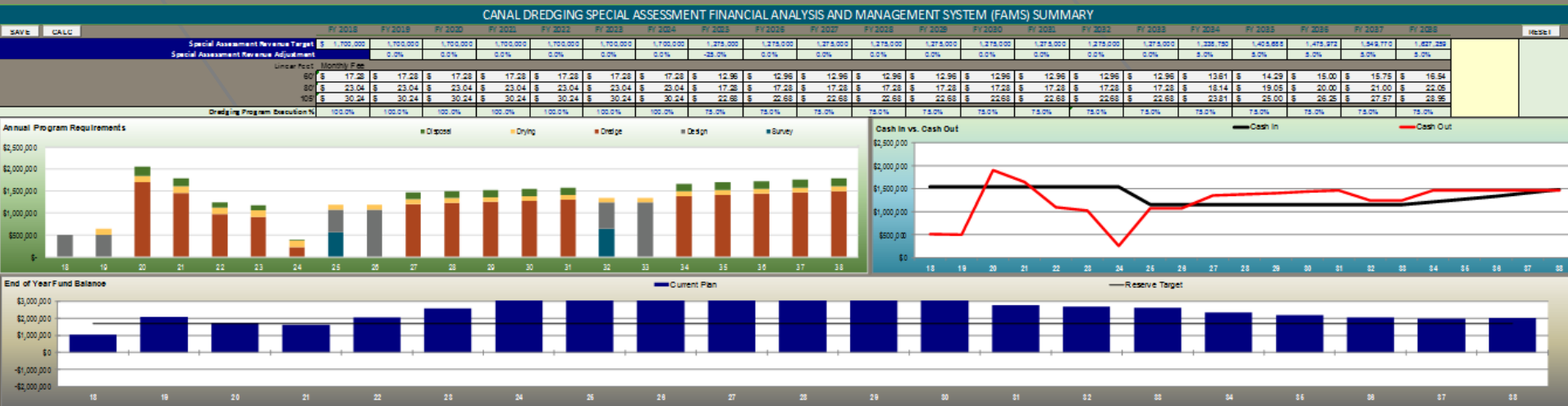
# Revenue Requirement Findings

- Based on the most current information \$1.7M in annual revenue is expected to provide a sufficient level of revenue to independently support the first seven year dredge cycle, while maintaining the above referenced minimum reserve fund balance. This should be revisited annually.
- Based on the most current information \$1.3M in annual revenue is expected to provide a sufficient level of revenue to independently support the first seven year dredge cycle, while maintaining the above referenced minimum reserve fund balance. This should be revisited annually.
- Under either scenario above, material expenditure risks were identified in the following areas:
  - Sea Grass mitigation cost
  - Disposal cost changes
  - Dredge volume (CY) changes
  - Dredging method (mechanical vs hydraulic)
  - Specific canal characteristics
  - Emergency dredging due to hurricanes

# Revenue Requirement with Minimum Reserve Balance

- Identified all projected 7- year activity costs
- Dynamic Model used to identify and evaluate viable management options
- Current dredging requirements will need an estimated \$1.7M in annual revenue

Cash Out reflects the highly dynamic nature of annual program expenditures



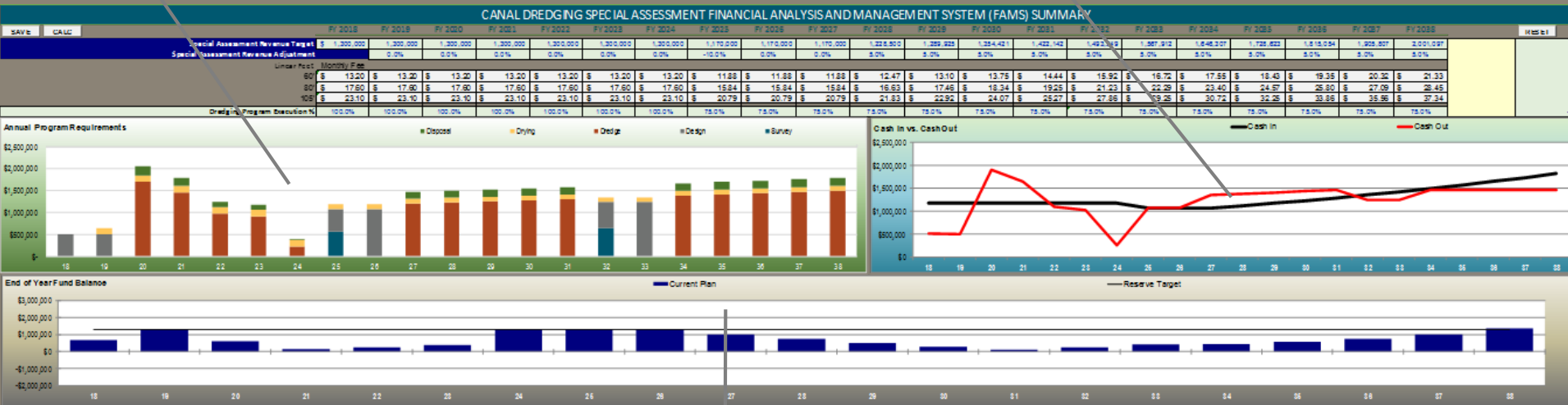
Fund Balances are accumulated or spent depending on yearly program revenue and expenditures



# Revenue Requirement with No Minimum Reserve Balance

- Identified all projected 7- year activity costs
- Dynamic Model used to identify and evaluate viable management options
- Current dredging requirements will need an estimated \$1.3M in annual revenue

Cash Out reflects the highly dynamic nature of annual program expenditures

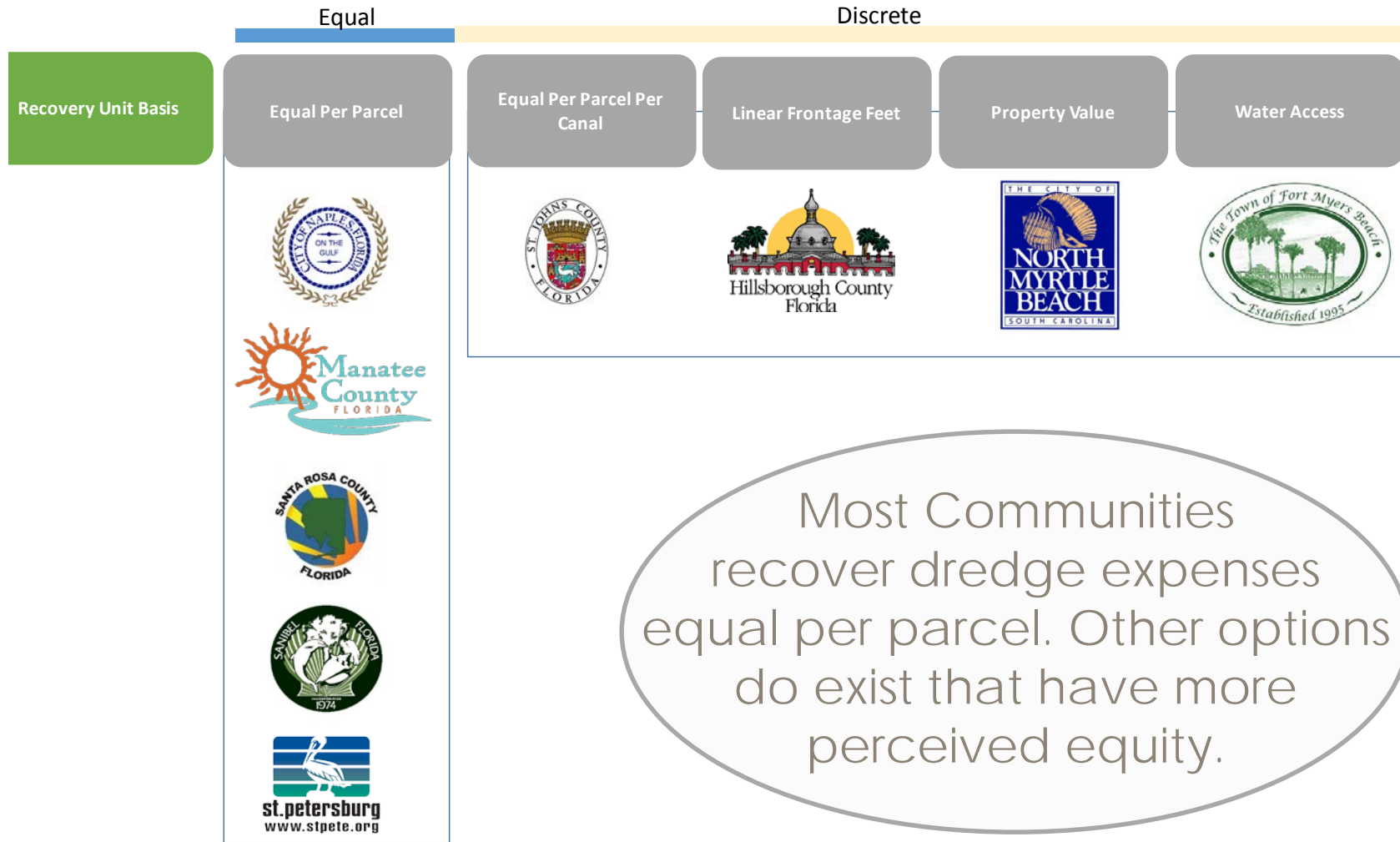


Fund Balances are accumulated or spent depending on yearly program revenue and expenditures

# Method of Cost Recovery

- Special Assessments afford local governments the ability to assess specific parcel which benefit from a particular activity in the community.
- Assessed parcels can be billed on the annual property tax bill
- Alternatively a Canal Dredging Fee can be established and included on the utility bill

# Assessment/Fee Basis Survey



# Equivalent Benefit Unit (EBU) Calculation

- Linear frontage feet calculated for each parcel fronting a City owned canal
- EBU is 5 linear front feet on canal (rounded down to nearest 5 feet)

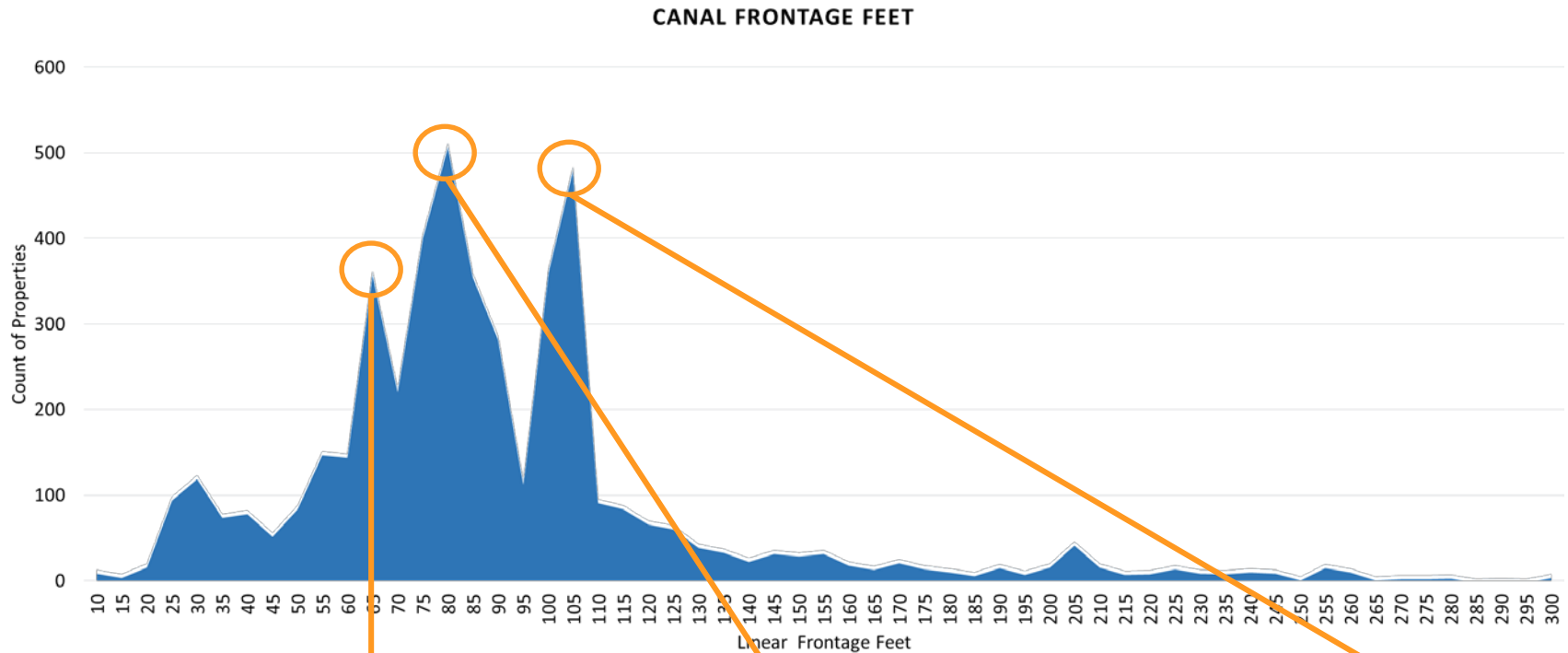


Actual Frontage Feet Fronting City Owned Canals :	503,560
Adjusted Total Frontage Feet when each parcel is Rounded Down:	492,120
Divided by 5 Linear Feet Per Equivalent Billing Unit (EBU):	5
<b>Scenario 1</b>	
Billed EBUs:	98,424
Revenue Requirement: \$	1,700,000
Monthly Assessment/Fee Per Billed EBU: \$	1.44
<b>Scenario 2</b>	
Billed EBUs:	98,424
Revenue Requirement: \$	1,300,000
Monthly Assessment/Fee Per Billed EBU: \$	1.10



# Monthly Assessment/Fee: Scenario 1

## Minimum Reserve Fund Balance



Linear Feet:

Monthly Assessment/Fee:

Parcels in Tier

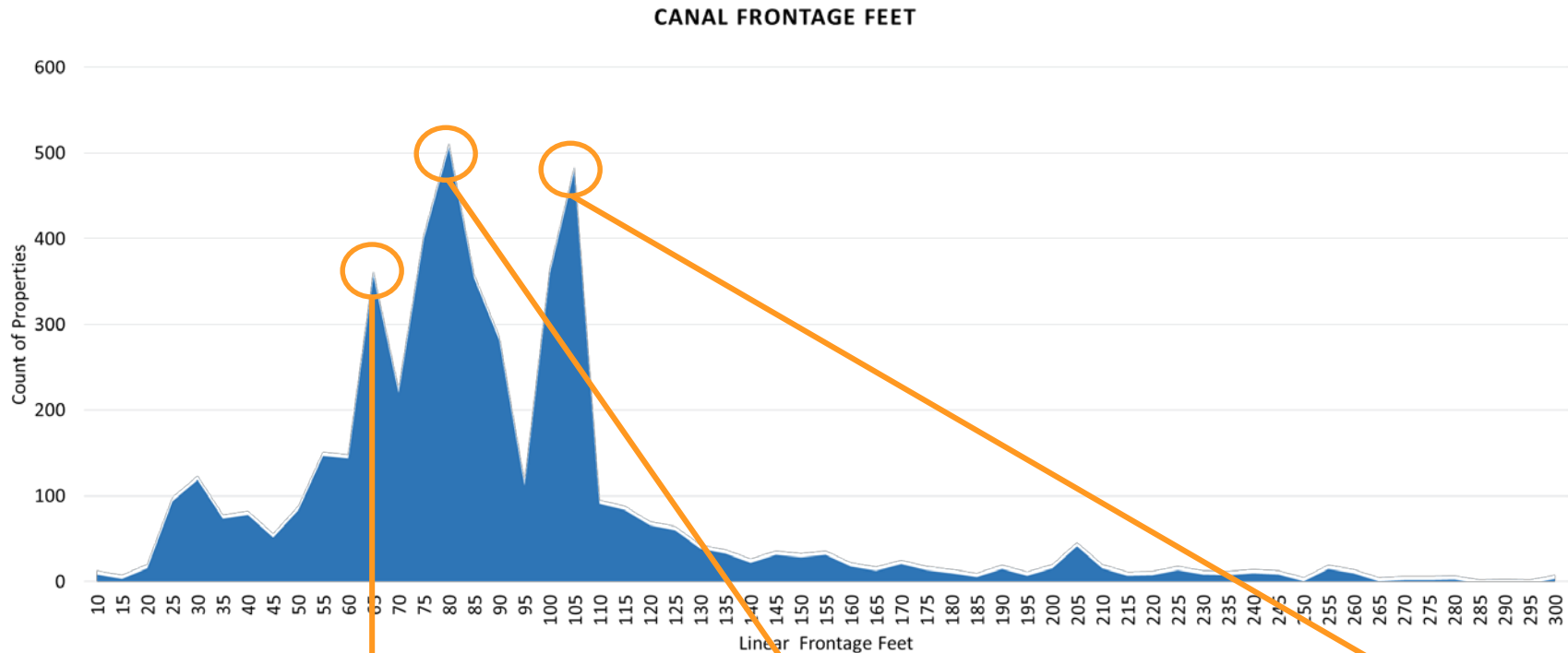
Parcels Cumulative

Percent Cumulative

60	65	70	75	80	85	90	95	100	105
\$ 17.28	\$ 18.72	\$ 20.16	\$ 21.60	\$ 23.04	\$ 24.48	\$ 25.92	\$ 27.36	\$ 28.80	\$ 30.24
362	225	404	511	358	286	117	364	484	95
1,214	1,439	1,843	2,354	2,712	2,998	3,115	3,479	3,963	4,058
23.0%	27.3%	34.9%	44.6%	51.4%	56.8%	59.0%	65.9%	75.1%	76.9%

# Monthly Assessment/Fee: Scenario 2

## No Minimum Reserve Fund Balance



Linear Feet:

Monthly Assessment/Fee:

Parcels in Tier

Parcels Cumulative

Percent Cumulative

60	65	70	75	80	85	90	95	100	105
\$ 13.20	\$ 14.30	\$ 15.40	\$ 16.50	\$ 17.60	\$ 18.70	\$ 19.80	\$ 20.90	\$ 22.00	\$ 23.10
362	225	404	511	358	286	117	364	484	95
1,214	1,439	1,843	2,354	2,712	2,998	3,115	3,479	3,963	4,058
23.0%	27.3%	34.9%	44.6%	51.4%	56.8%	59.0%	65.9%	75.1%	76.9%

# Next steps

If Adopted as an Assessment Program:

- Commission sets hearing for 9/6/17.
- A Methodology Report must be delivered to the County Property Appraiser by 5/1/2017.
- A Preliminary Assessment Roll must be delivered to the County Property Appraiser by 6/2/17.
- A Draft Ordinance and Preliminary Resolution must be prepared for a Hearing to Adopt the Preliminary Resolution which will be held on 8/22/2017.
- The required first class mailing of the Notice of Hearing will be done through the TRIM notice.
- Hearing for Adoption will be on 9/6/17.

# Next steps

If Adopted as a Fee to be Billed on the Utility Bill:

- Accomplish cross reference of Canal Dredging Fee Property Roll with the Utility Billing System Customer Database.
- Prepare Rate Ordinance and Resolution.
- Advertise for adoption of the Ordinance and Resolution.
- Conduct first and second reading for adoption of the Ordinance and Resolution prior to October 1, 2017.



# Questions/Discussion

