Town of Nags Head Capital Improvement Program Request Fiscal Years 2018-2019 through 2022-2023

1. Project:	Quickview Zoom Camera	2. Department	Stormwater	3. Rank (Completed by TM)	

4. Project Description

This request is for a $17,500 Qucikview HD, high-powered, pole-mounted zoom camera to inspect storm sewer lines, manholes, catch basins, and tanks (this was not included with the past culvert cleaner request due to the $90,000 - $100,000 cost).

5. Type of Project or Acquisition

☐ Replacement		☑ New	
☐ Renovation		☐ Expansion	
☐ Equipment		☐ Land	

6. Project Justification

This purchase will provide a means of investigating underground storm pipe networks to assess pipe conditions, verify cleaning needs, and identify repair needs. Features include remote tilt adjustment, HD Video, wireless design, touchscreen control, parabolic lamp reflector, and enhanced illumination and optical zoom. The camera can be used to investigate problems where the culvert cleaner is not needed; hauling the trailer and culvert cleaner, with the video camera attachment, is not efficient. Also not effiecent is relying solely on above-ground observations during a pipe failure. The culvert cleaner may show that a pipe is blocked, but it doesn't show what is blocking the pipe, such as extensive root growth, concrete, sediment accumulation, or other debris. We will be able to perform extensive pipe condition assessments to proactively prioritize repairs and pipe replacements, which will save the Town money as we'll be addressing issues sooner rather than later. The camera may also help identify underground conditions that can be included in a project scope of work on the front end, avoiding change orders. The camera would be used at East and West Danube Streets, Finch Street, East Barnes Street, and Memorial Avenue. Chosen for its simplicity, with video broadcast on an iPad, mobile phone, or desktop PC (brochure attached), the camera's useful life is 10 years, with a $20,000 estimated replacement cost.

7. Implementation/Acquisition Schedule

Project Category	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Beyond 2023
Planning and Design	☐	☐	☐	☐	☐	☐
Land and Land Acquisition	☐	☐	☐	☐	☐	☐
Construction	☐	☐	☐	☐	☐	☐
Equipment Acquisition	☑	☐	☐	☐	☐	☐
Miscellaneous	☐	☐	☐	☐	☐	☐

8. Operating Budget Impact

	Personnel:	Capital/One Time Costs	Maintenance/ Operating Costs:	Other:	Total:
FY 2019:		$17,500			$17,500
FY 2020:					$0
FY 2021:					$0
FY 2022:					$0
FY 2023:					$0

9. Additional or Alternate Funding Sources

	FY 2019:	FY 2020:	FY 2021:	FY 2022:	FY 2023:	Beyond 2023:	Total:
Reserve:	$17,500						$17,500
Grants:							$0
Other:							$0
Other:							$0
Total:	$17,500	$0	$0	$0	$0	$0	$17,500

insight
unleashed

quickview®

airHD

an instant,
wireless view
into any sewer

Envirosight

Wi-Fi

sewer
assessment
that unleashes
your insight

A complete sewer assessment is essential to prioritizing CCTV and maintenance activities, planning cleaning and rehab work, and meeting regulatory obligations.

Quickview airHD makes it easier, faster and more affordable to assess sewer condition, offering productivity features like:

HD video	wireless operation	touchscreen controls
motorized tilt	hands-free stability	remote centering

Quad Haloptic. Our patented Haloptic technology gives you more illumination farther into the pipe with optimum alignment at every distance. The new Quad Haloptic configuration uses four offset reflector/lamp pairs to fully encircle the camera with powerful light.

HALOPTIC

Smart Center. To adjust camera height in-manhole, push against the standoff's gas spring to the desired height; a ratchet then holds your position.

quickview
airHD

Wi-Fi. Wireless control and video eliminates cables and allows live video sharing on multiple devices.

Connection. Connect to any Quickview airHD in range, either in control or view-only mode. Download app updates to access new features.

Status Bar. Monitor illumination, zoom and tilt, as well as Wi-Fi signal and battery (for both tablet and camera).

Capture. Record video and capture still images to the media library.

+10°

-30°

camera

Illumination

HD Zoom

Tilt

controls

Text Overlay. Configure on-screen display of text, including variables like zoom, tilt and GPS coordinates. Modify text color and position.

Media Library. Browse media thumbnails, then review, annotate and share footage.

![quickview airHD logo]

system components

- camera head
- pole
- standoff
- bipod
- battery *(2)*
- battery charger
- case
- app *(tablet device not included)*

Envirosight

www.envirosight.com

(866) 936-8476 • (973) 252-6700

111 Canfield Ave., Unit B3
Randolph, NJ 07869

specifications

video system

imager . . . . 1/2.8-type CMOS
zoom . . . . 360× (30× optical, 12× digital)
resolution . . . . . . 1280×720 pixels (2.38 megapixels)
functions . . . . zoom
. . . . focus (auto/manual)
. . . . shutter (auto/manual)
. . . . sensitivity mode
field of view (hor.) . . . 63.7 deg (wide) - 2.3 deg (tele)
sensitivity . . . . 1.4 lux

illumination

system . . . . . . Quad Haloptic (four LED/reflector pairs)
illumination type . . . . coaxial, collimated
reflector type . . . . proprietary

camera head

connections . . . . 4-pin auxiliary port
depth rating . . . . 10' (3m)
construction . . . . aluminum, rubber, acrylic
sensors . . . . temperature, pressure, incline

wireless system

Wi-Fi standard . . . . IEEE 802.11b/g/n
frequency range . . . . 2.400–2.483 GHz
operating channels 1–11

centering support

extension range . . . . 18.9" (480mm)
pipe diameter compatibility . . . 6–48" (DIN 150–1200)
mechanism . . . gas spring with reciprocating ratchet

battery/charger

battery quantity 2
battery capacity . . . . 3.4 A-hr.
battery charger . . . . mains power

pole/bipod

length (collapsed/extended) . . . . 4'/16' (nominal)
stabilization . . . . . . detachable hands-free support

app

supported OS . . . . Android, iOS, Windows

worldwide sales, service and support offices