

TO: Mayor Montgomery and City Council

FROM: Jeffrey L. McCormick, Chief of Police
Brice Miller, Fire Chief

SUBJECT: AquaEye Handheld Sonar

DATE: 12/11/2024

BACKGROUND

On 12/2/2024 the Police Department and the Fire Department responded to a missing person here in Cannon Falls. The person had gone for a walk in the woods behind Larkspur Lane and had not come home. A search was begun that evening and it included the use of handheld Infrared Thermal Imaging cameras to look for heat signatures. The search continued for several days. One of the areas that needed to be searched was the river, but that presented several challenges. First it was becoming ice covered. Second it is shallow which meant that the Sheriff's boats with the sonar on them could not be used. Third the current is very swift. We utilized Marine- Remote Operated Vehicles on Tuesday, but the depth and current with the ice limited their use. The plan was to use them the following Sunday after the temperatures rose and the ice was gone.

On the morning of Saturday December 7th, we were contacted by Rochester Fire Department who offered the use of an AquaEye handheld sonar scanner. Until that time neither of us or others in the Incident Command even knew about it. We arranged to get it brought to Cannon Falls, but that took more than two hours. Before the AquaEye arrived, we reviewed the operation and use of it as a tool to find bodies under water and it appeared to be very promising for the conditions we had to deal with. <https://aquaeye-sonar.com/>. The AquaEye uses sonar technology and artificial intelligence to identify human bodies underwater and in waters with poor visibility. The display identified a body with an "X" and other objects as an "O" on the display.

Because the rising temperature had cleared most of the ice along the river bank before the "S" curve, we decided to use this tool as well as persons in cold water suits to search the area west of the "S" curve. While the missing body was found by a person in a cold water suit, the AquaEye was brought to the location and used as a training exercise and it identified the body as a target to be verified.

After seeing the ability of the AquaEye for fast body location in water, we felt that we would be negligent to not seek your approval to purchase this amazing tool for the Fire Department. While we could likely arrange to use Rochester's again, the delay of two or more hours to get it on the scene of a missing person in the water would be the difference between a rescue (live victim) or recovery (deceased victim). This is not something that either of our departments planned as a purchase, but if there ever was an item that general fund reserves should be spent on, to get a tool that can make the difference between life or death, we feel this it is. Whether it is used along the river or at the swim beach of Lake Byllesby this is a tool we feel is needed for the for those we serve.

The cost of the AquaEye, reach pole (for use with ice) and five years of warranty and updates is \$8,585.00

REQUESTED COUNCIL ACTION

Motion and approval for the purchase of the AquaEye as quoted from Alex Air Apparatus using general fund reserve funds.

A - SONAR SENSOR

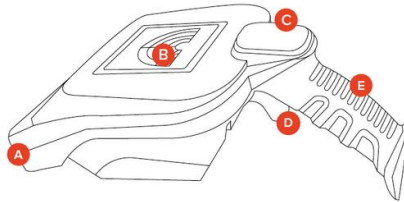
Immerse AQUAEYE parallel to the surface, the sensor already has the correct inclination

B - LCD SCREEN

AQUAEYE has a backlit LCD screen that allows a good reading of the results.

C - START BUTTON

By pressing this button long, AQUAEYE is ready for the first scan within 10 seconds



AQUAEYE® by Vodasafe – Portable **Mobile Rescue Sonar** Device

C - DISTANCE SELECTION

Select the scan distance 10, 20 or 50 meters by pressing this button short

D - TRIGGER - START SCANNING

Start the scan by pulling (and releasing) the trigger while device is under water

E - AQUAEYE HANDLE

The ergonomic handle gives you a safe and stable scan at all times



