

Procurement of Drones to support the Authority's Monitoring and Enforcement Delivery

Officers' Recommendation

That the Authority agrees to purchase the drones as described in this paper and detailed in the Drone Procurement Report (Information Annex A).

Background

At the Authority meeting held on 20th June 2024, Members agreed to sell the patrol vessel *Enforcer*. The main reason for selling the patrol vessel was that the vessel would not meet the new work boat coding requirements without substantial investment. Taking into consideration the age of the vessel, built in 2003, it had remained in service for far longer than anticipated.

Officers had identified that the sale of the vessel provided an opportunity to consider how the Authority undertakes its monitoring and enforcement activities in the future.

Current Assets and Priorities

At the Authority meeting held on 15th June 2023, members agreed that a replacement for the patrol vessel *Enforcer* would only be approved if sufficient external funding can be secured.

At the Authority meeting held on 21st September 2023, Members agreed to freeze recruitment of the vacant Enforcement Officer role.

D&S IFCA currently employs four Enforcement Officers and one Senior Enforcement Officer. The Authority now operates a single 7.8m RIB *David Rowe*.

Assessment of fishing activity in the District consistently identifies that illegal mobile gear activity within Marine Protected Areas and illegal netting in estuaries poses the greatest environmental and fishery risks.

Monitoring of the mobile gear fleet is undertaken primarily by remote monitoring. In 2018, D&S IFCA introduced the requirement for all mobile gear vessels to have a fully operational Inshore Vessel Monitoring System (IVMS) device on board. The ability to monitor mobile gear vessels remotely has improved the detection of illegal incursions into Marine Protected Areas significantly. Officers estimate that prior to 2018, using the large patrol vessel and RIB, the detection rate of offences was as low as 5%. Post 2018, the detection rate is much higher and just over 50% of spatial investigations have met the evidential test and resulted in the payment of a Financial Administrative Penalty or lead to successful prosecutions. However, in order to meet the evidential threshold a significant amount of enforcement officer time is required to analyse the positional data available from the IVMS device and gather other necessary supportive evidence.

The illegal netting activity in estuaries is carried out by very knowledgeable and skilled fishers on small, usually less than 6 metres in length, fast craft. The illegal netting invariably occurs during darkness, with the fishing vessels not displaying navigation lights and in areas which are remote and access for enforcement officers is challenging both at sea and ashore. Despite some notable successes, too much illegal activity continues to take place. Planned enforcement patrols require considerable resourcing, normally involving all the Authority's enforcement officers. These patrols are usually conducted over a number of consecutive days as the fishers intentionally keep their illegal activity as varied as possible and operate anywhere across the Southwest.

D&S IFCA has significant potting fisheries, both recreational and commercial, and other netting fisheries that receive far less monitoring and enforcement compared to other IFCA Districts as a result of prioritising the use of its limited resources elsewhere.

Future Approach

It is unlikely that D&S IFCA will receive sufficient funding to purchase a second RIB and the resources, financial and crew to operate it. The new Work Boat Code's impact on the Authority's operations goes further than prompting the sale of *Enforcer*. The new Work Boat code removes the ability to operate the *David Rowe* single handed and will require all four enforcement officers to be present when conducting inspections at sea where it is necessary for two enforcement officers to leave the RIB and get aboard the fishing vessel.

It is yet to be fully determined but due to the *David Rowe* not having a rigid wheelhouse, operations may be limited during night time hours and officers may not have the ability to operate out to the six nautical mile District boundary during these periods.

It is unlikely that the freeze on recruitment will be lifted, so the delivery of the Authority's monitoring and enforcement will be delivered with the existing, vessel and officer resources.

Remote Electronic Monitoring

D&S IFCA has always looked to technology to support the delivery of its enforcement and environmental work and the introduction of IVMS in 2018 was the most significant change to date.

For the last two years, Officers have been undertaking a Remote Electronic Monitoring (REM) project with the support of five owners of mobile fishing vessels.

It is the officers' view that effective spatial monitoring of the towed gear fleet is only achievable through the formal introduction of on-board REM technologies. In order to achieve this a number of matters need to be resolved. D&S IFCA's Mobile Fishing Permit Byelaw needs to be updated, and long-term funding support needs to be secured. Officers believe that the necessary funding can be achieved, and the amended Mobile Fishing Permit Byelaw is at the Quality Assurance stage. Officers believe that within two years, it will be possible to have a fully automated, monitored towed gear sector and will achieve meaningful protection of the Marine Protected Areas in the District.

If and when REM is introduced, the officers' time needed to investigate incursions or non-reporting of integrated tracking devices will reduce significantly as compliance is predicted to

rise to very high levels. This will release officers to spend more time monitoring the static gear fisheries in the District.

Inshore Vessel Monitoring Systems

It is expected that the national requirement for all licensed fishing vessels, less than 12 metres in overall length to have an Inshore Vessel Monitoring System (IVMS) device on board will be introduced by the end of 2024.

This is likely to provide D&S IFCA with much improved knowledge of the activities of fishing vessels to plan its enforcement patrols. The national legislation will apply to all licensed vessels so legally the vessels suspected of undertaking the illegal netting activities should also be monitored remotely.

The uptake of funding to support fishers buying and installing the IVMS devices is high, but it is a concern that the vessels suspected of carrying out the illegal netting have not installed devices. The IVMS requirement does not apply to non-powered vessels and there is evidence that the use, or claimed use of such craft in the South West has increased significantly.

Drones

The use of drones is now commonplace across many agencies, not just for the detection of crimes and the evidencing of offences but also for intertidal surveys and habitat mapping. Aside from Devon and Severn IFCA (D&S IFCA) and Cornwall IFCA (CIFCA), all other IFCAs are now routinely utilising drones for both monitoring compliance and enforcement. D&S IFCA has like other IFCAs used drones for intertidal surveys and other research applications. However, It is the Officer's intention that the primary use of the purchased drones will be for enforcement and monitoring purposes.

Drones can be used in dynamic environments, to monitor, record and evidence illegal activity that may not otherwise be seen, as well as being used for routine observations and checks. For use in law enforcement, drone features such as GPS, thermal imaging and zoom functions, can help prove offences were committed along with the precise location of that activity. Owing to the high-quality cameras fitted to the drones it is a valuable form of evidence that would otherwise be unlikely to obtain often due to the difficulty of getting close enough to observe the activities directly. When used in fisheries enforcement, drones may assist with the detection of fisheries offences, by providing officers a closer view of a vessel or activity from an angle or location not accessible by foot or patrol vessel, while also allowing the offence to be recorded for use as evidence. In addition to the detection and evidencing of offences, a drone may also support fisheries management with the monitoring of Marine Protected Areas (MPAs) or closed areas.

Officers believe that the use of a drone will support more effective monitoring of illegal netting activities in estuaries and where coastal restrictions on the use of surface nets applies. The use of a drone will also help with the monitoring of non-powered commercial vessels and recreational vessels.

Choice of Drone

Officers have been in discussions with colleagues in Southern IFCA and the preferred choice of drones is based on their experiences. Southern IFCA has been flying drones since 2021

and are advocates of their use for enforcement and research purposes. Similar to D&S IFCA, Southern IFCA operate small patrol vessels, and the addition of a drone will likewise improve the monitoring and compliance capabilities of the D&S IFCA Enforcement team.

A detailed report on drones, prepared by the Senior Enforcement Officer, is attached as Annex A

Purchase or hire of Drones

Other IFCA's have chosen to purchase the drones to provide the greatest flexibility in their deployment. Similar to sea patrols, flying of drones is weather dependent and planned operations are always susceptible to cancellation due to poor weather. Enforcement work is more dynamic than survey work and the notification period to bring in drone services would not align with the need of the enforcement team. D&S IFCA currently hires in drone services at £750 per day for intertidal surveys. It is unlikely that chartering arrangements with Southern IFCA would work as they will require the same flexibility as D&S IFCA and may require recall of the drone and the pilot at short notice.

Training

It is envisaged that two officers will be trained to pilot the purchased drones. The training for officers is £1,300 each.

Funding

D&S IFCA has submitted a bid for the purchase costs of the two drones as part of the AIFCA bid for capital asset replacement to Defra. If funding was available it would be allocated through Defra as part of the Department's settlement in the next Government Spending review.

If Defra funding is not available then the recommendation would be to use money held in the Capital Receipts Reserves. The Capital Receipts Reserves currently stands at £85,031.

Recommendation

Officers recommend the purchase of a DJI M350 RTK drone at the estimated price of £20,000 and a DJI MAVIC 3M at an estimated price of £3,800. If it is agreed to purchase the drones, officers would wait until confirmation from Defra on whether national funding is available.

LOCAL GOVERNMENT (ACCESS TO INFORMATION) ACT 1985

Background Papers

D&S IFCA Five Year Capital Replacement Strategy

Annex A Drone Procurement Report

Minutes of the Authority meeting held on 15th June 2023

Minutes of the Authority meeting held on 21st September 2023

End.