

# YDOC-FPH Local Intelligence Device (LID) for Floodplain Harvesting (FPH)

The YDOC-FPH is a solar powered Local Intelligence Device (LID) approved for use in floodplain storage monitoring. The YDOC-FPH can be combined with any of the approved floodplain storage meters (sensors).

## YDOC-FPH LID

Under the floodplain harvesting metering rules, what we normally call a remote telemetry unit (RTU) is designated a local intelligence device (LID). It is a smart, compact device which runs from a solar panel and rechargeable battery. It is responsible for reading the level sensor placed in the dam or storage (called a storage meter) for saving the readings and then for sending them to the NSW DPIE's data acquisition system (DAS). It does all this without needing any intervention from you.

## STORAGE METER SOLUTIONS

Unlike many other devices, the YDOC-NUM is super flexible. That's why we don't offer it as a single sensor solution. We would rather you talk to a professional in your area (a duly qualified person or DQP) and seek their advice on the best sensor for your storage - and how it should be installed. That may turn out to be radar sensor or a hydrostatic level sensor. Whatever the choice (and whatever interface it uses) it can be connected to the YDOC-FPH.

## WHAT'S UNDER THE HOOD?

If you want to peek inside the box (sorry, it will be locked after installation) you will find one of the superb YDOC ML417 telemetry units. It is packed with features, giving us the ability to read so many different sensors. There's enough on board memory to hold your data for generations - all on a micro SD card which, in an emergency, can be removed and read on a PC (OK, you'll need your DQP back for that). There's a modem, which sends the data out over Telstra's Cat M1 or NBloT network. As part of Telstra's internet of things (IoT) offering, these services offer coverage which far outstrips that available on the voice and data network (60 to 100km). Keeping things powered you will find a charge board and high tech 3AH LFP (lithium iron phosphate) battery. These are compact (half the size of a lead acid gel cell) and, unlike the older Lithium-ion batteries, completely safe. The signal goes out via a "puck" style antenna mounted on the unit's protective shield. And we can also fit high gain and directional antennae to help out on sites with marginal signal.

## WHERE TO GO FROM HERE

Contact us and we will put you in touch with one of our DPIE endorsed distributors. You can also find them on the IAL and AHA web sites. Just look for the section on Certified Meter Installers with endorsements in telemetry and floodplain harvesting. They will help decide on the right sensor for your job and guide you through the process of purchase through to installation and commissioning.



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*Telemetry Over Internet Protocols*

# ML417M1 Local Intelligence Device (LID) for Floodplain Harvesting (FPH)

The ML417M1 is available with a number of options. Selecting the right ones is an important component in ensuring your system will deliver the best results. When you meet with a DQP, review the list below and choose the best match for your conditions.

## Storage Meters

Visit the Floodplain Harvesting pages on the NSW DPI web site to see a list of the approved sensors. Pressure sensors are relatively simple to install, but installation can only be performed when the storages are empty.

Radar level sensors can be installed in storages at any time, as they are mounted to a gantry above the water.

Your DQP will help with choosing the best sensor for your storage.

## Antenna Options

### PUCK

The LID is fitted with a "puck" style antenna which mounts on the top of the aluminium shield. This will work if you can talk on a normal phone handset at the site.

### HIGH GAIN

For sites where a handset won't work, a signal strength test needs to be performed with an LID, as the signals they work on, can be received at greater distances than normal 4G can. The high gain ground independent dipole is mounted on a pole above the LID and will work in sites with low signal strength.

### YAGI

For sites with the most challenging conditions, a directional yagi antenna is available. These must be rotated to point to the nearest phone tower.

## Communications Options

The LID uses the 4G mobile network, but operates using the new "narrow band" services. These will work at distances of up to 100km from a phone tower.

Of the two available service types, Cat M1 is the most flexible and is used as the preferred service. The NB1 services has slightly longer range than Cat M1 but is slower and means some of the advanced diagnostic features are not available. Your unit will be set to NB1 if Cat M1 is not available at the site.

## Bird Protection

To help deter birds, the LID can be fitted with a set of bird spikes. Stainless steel spikes are available for the solar panel (BP-SS) and polycarbonate spikes for the enclosure (BP-PC).

## Lightning Protection

If your site suffers from frequent lightning strikes, a Lightning Arrestor module can be fitted inside the LID. This will be connected to an earth stake.

## Local Display

If you want to be able to see the level readings at any time, the LID can be fitted with a small touch screen. This allows you not just to see the current reading, but to scroll back and forth through the captured data. Further, if there is no phone coverage on site, you can install an LID with the TFT and use it as a Secondary Storage Monitoring Device.



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