

# WPN Guide: Asset Management

Asset Management is the process of organizing information about the utility's underground infrastructure. This information is used to increase efficiency of operations and maintenance and to plan long-term budgets for replacing assets. This guide will step you through our process and best practices for creating and managing your utility's asset information.

## Step 1: Gathering Existing Asset Information

It's likely that you already have information about assets, such as paper maps, GIS data, a billing database, CUPSS data, and/or other types of files. Once you have a WPN ID, 64seconds will review your existing asset information and help you decide how best to proceed. We can usually import some or all of your asset information into WPN to give you a head start:

- GIS data shape files, prepared following our guidelines.
- CUPSS or other CSV text files.
- Meters mapped from text data exported from a billing database.
- Extractable data from other types of files, like AutoCAD 3D.

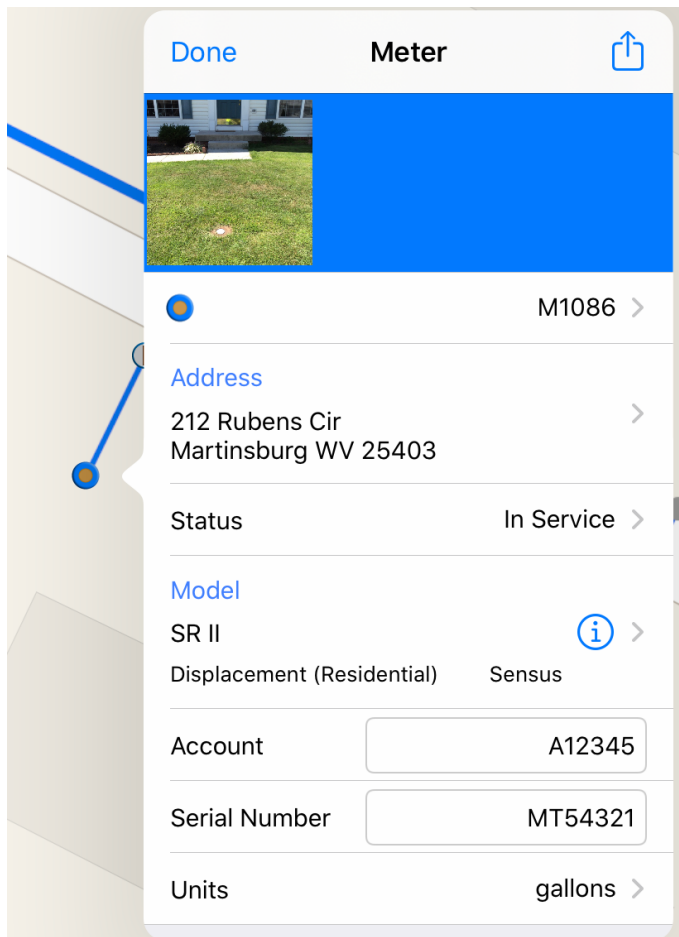
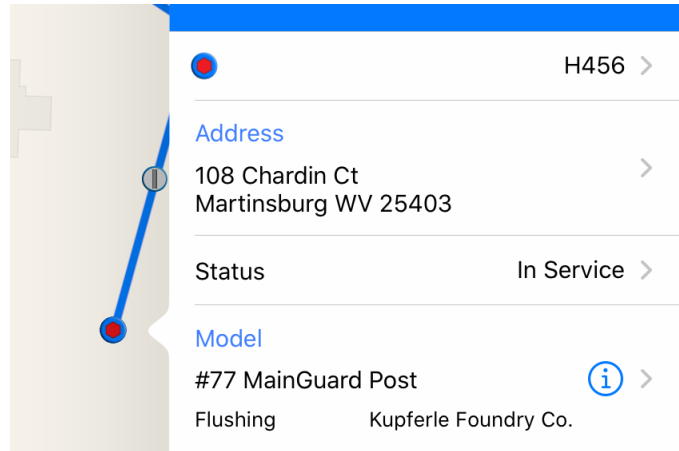
It's easy with WPN to stay up to date and to export your asset information transparently in several standard formats. This means that once you've established a gold-standard database for your assets in WPN, your utility will have that valuable data forever. At any time you can transfer WPN data to other present and future software applications.

The process for getting up to speed is described in **Step 2** through **Step 4** below. If you don't have any existing asset information to import, then jump to **Step 3**. You can build your entire water distribution and service network in WPN with no special training. An Apple Pencil is useful, but optional. You can work at your own pace, syncing regularly with the WPN Cloud.

## Step 2: Enhancing Imported Asset Information



Once you have imported data into WPN, it's advantageous to review the asset information for accuracy and completeness. Your WPN database will be the gold standard so it's worth taking the time initially to get everything set up. There are 10 things to consider.

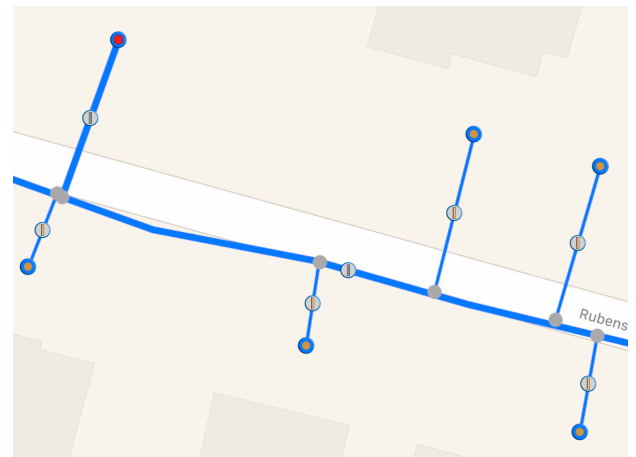
1. Asset names, like H456, are either imported or created by WPN.
2. An asset's location is defined by its GPS coordinates and there may also be a postal address. WPN can handle most GIS coordinate systems and automatically look up addresses. Alternatively, WPN can import addresses and look up GPS coordinates. This is useful with meter billing records.
3. We can store your photos, system maps, valve drawings and other images in the WPN Cloud. You can optionally associate your images with assets. Of course, in WPN you can take photos at any time or import images from your device's camera roll.
4. An asset's functional status is, by default, In Service.
5. Manufactured assets may optionally have a model, selected from WPN's library of manufacturers' asset models. 64seconds will ensure that your model information is included in the library.
6. Meter account and serial numbers can be imported. WPN can also store information about meter accessories, like meter boxes, encoders or AMR.



7. Pipes often have missing or inconsistent information, such as:
  - Pipe material or size
  - Pipe system type, like distribution, lateral, transmission or service
  - Confirmation that the pipe is mapped accurately and its location has been verified
8. Pipes in GIS systems are drawn in place on the map, but are often not connected to each other. Connections are needed:
  - To perform hydraulic studies
  - To pinpoint leaks exactly with 64seconds Leak Noise Correlator (LNC)
9. Hydrant laterals in GIS may not be present.
10. Service pipes from mains to curb stops or meters are rarely mapped in GIS.

WPN can automatically create laterals and service pipes with one tap, saving a lot of surveying effort.

 601.8 ft	P124 >
Location Verified	 >
Material	PVC >
Size	<input type="text" value="6.0"/> in
Type	Distribution Main >



### Step 3: Creating Your Own Asset Information in WPN

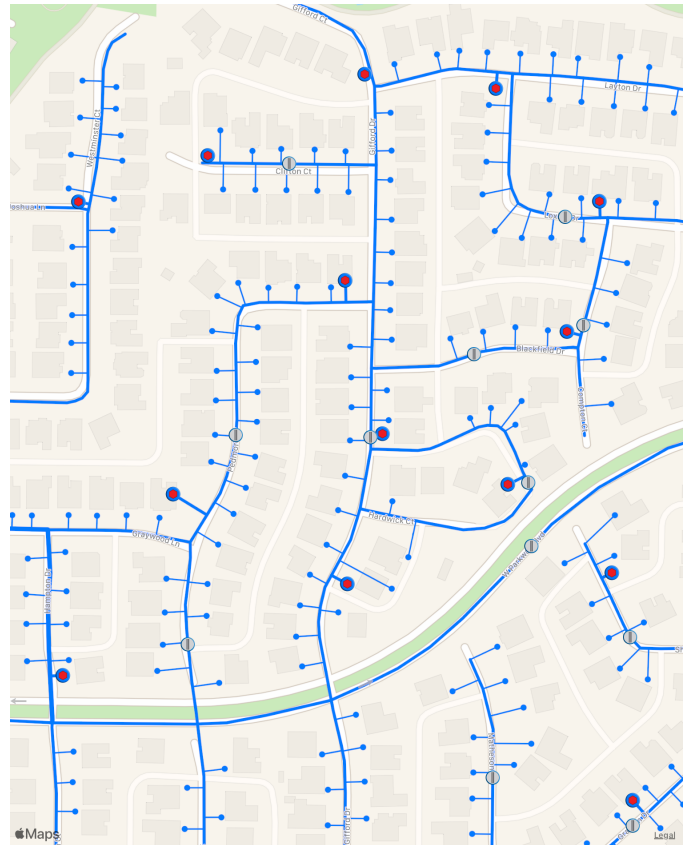
Creating asset information in WPN is fast and accurate on an iPad. (Warning: It's fun and potentially addictive!) The best-practice approach recommended by 64seconds has 6 steps:

1. Place hydrants on the map.
2. Lay pipe by:
  - Drawing by hand from an existing map (precise and easy with an Apple Pencil).
  - Tracking in a field survey (you can use any Bluetooth-enabled GPS device).
3. Add Distribution valves.
4. Place meters or service valves (curb stops).
5. Automatically create and connect hydrant laterals and service pipes.
6. Follow up in the field, over time, to confirm or pinpoint locations and verify addresses.

The goal of the 1st phase, steps 1 - 5, is to map assets and pipes quickly. The map to the right was created by hand from a paper map, local knowledge and the standard / satellite map views in WPN.

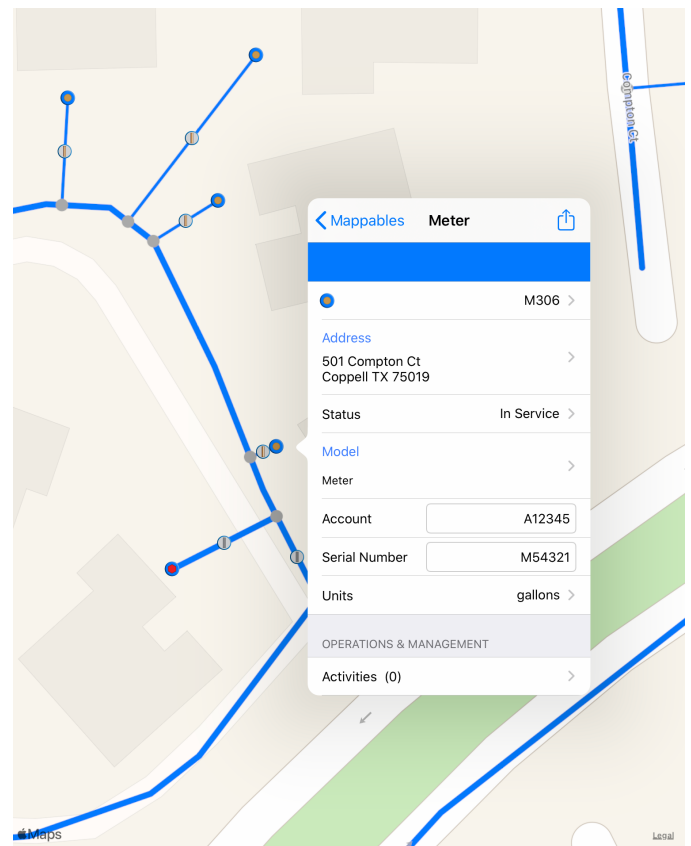
- Hydrants were placed by touching the map.
- Distribution pipes were drawn by touching the map to place anchors, which are then connected by straight-line pipe sections.
- Meters were placed by touching the map.

The hydrant laterals and service pipes were connected automatically with one tap in the WPN software. This map took about an hour, from start to finish, to create and sync with the WPN cloud.



Zooming in, notice that:

- Meters have useful information:
  - an assigned name, M306
  - an address, automatically looked up
  - a functional status, In Service
  - A placeholder for a model
  - An account number (from billing)
  - A serial number (from billing)
  - Measurement units of gallons
- ⓘ Lateral and service pipes have default values set for material, diameter and model. They are automatically:
  - Connected to hydrants or meters
  - Connected to the distribution main
  - Drawn with the shortest straight-line distance to the main



#### Step 4: Asset Management: Assessing Condition, Priority, Age and Cost

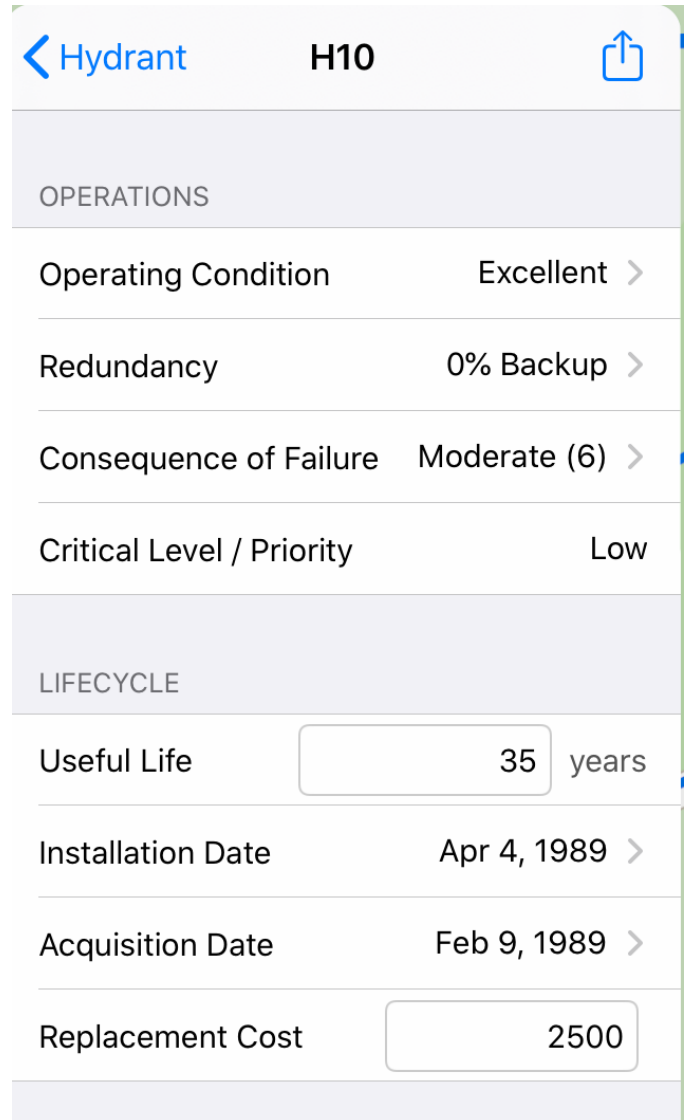
With up-to-date, comprehensive asset information, WPN can store condition and other asset information, compatible with EPA recommendations. Asset Management data can be exported from WPN in several formats, such as GIS shape files, text files and WPN’s own documented modern JSON format that is readable by humans and many other software programs.

#### Operations

1. Operating Condition is selected from 5 choices, Poor through Excellent.
2. Redundancy is selected from 4 choices, no redundancy through double redundancy.
3. Consequence of Failure is selected from 5 choices, Severe through None.
4. WPN computes a Priority, or Critical Level, from entries 1 - 3 above.

#### Lifecycle

4. Useful Life is entered in years. WPN has default values for each type of asset, like hydrants, meters, AMR and so on. For example, the value entered for hydrant H10 can be applied to all hydrants with one tap.
5. The Installation Date gives the working age of the asset.
6. The Acquisition Date is useful for accounting purposes.
7. Replacement Cost is in dollars, is useful for accounting purposes, and like Useful Life can be applied to all assets of the same type with one tap.



Hydrant H10	
OPERATIONS	
Operating Condition	Excellent >
Redundancy	0% Backup >
Consequence of Failure	Moderate (6) >
Critical Level / Priority	Low
LIFECYCLE	
Useful Life	<input type="text" value="35"/> years
Installation Date	Apr 4, 1989 >
Acquisition Date	Feb 9, 1989 >
Replacement Cost	<input type="text" value="2500"/>