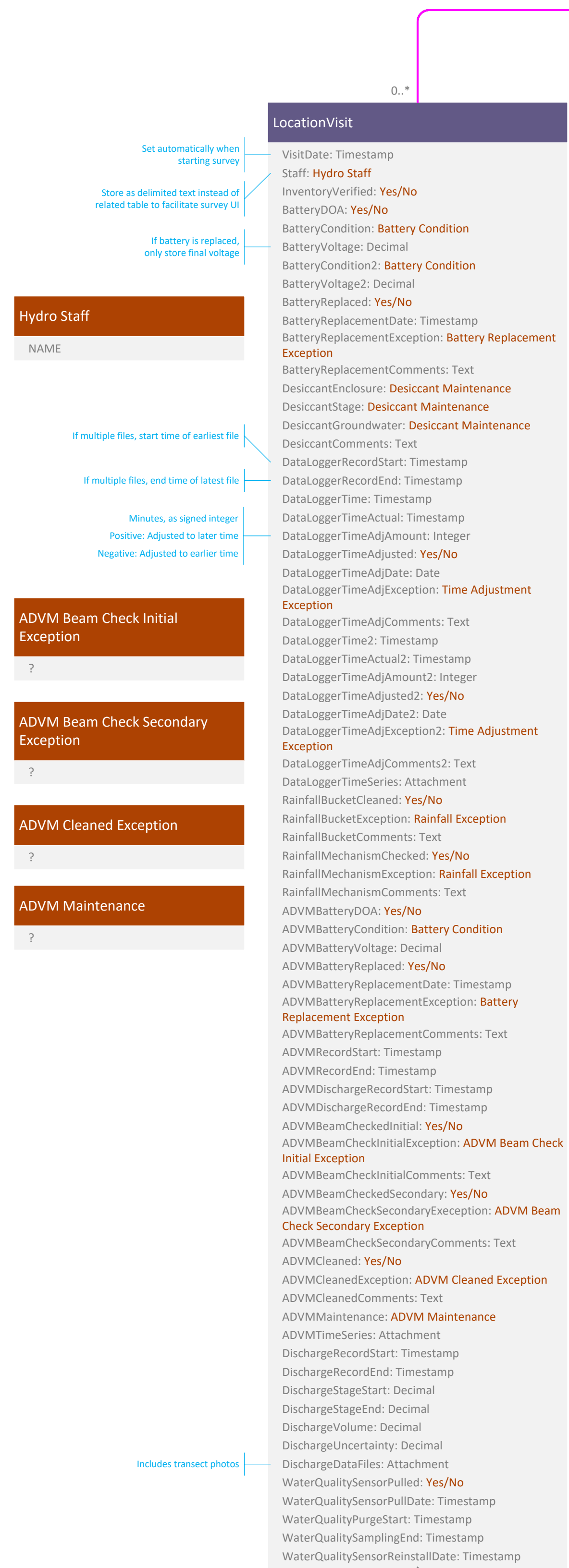


Northwest Florida Water Management District

# Hydrologic Monitoring

## Location Visit Logical Model

### Location Visit



Set automatically when starting survey

Store as delimited text instead of related table to facilitate survey UI

If battery is replaced, only store final voltage

If multiple files, start time of earliest file

If multiple files, end time of latest file

Minutes, as signed integer

Positive: Adjusted to later time

Negative: Adjusted to earlier time

**ADVM Beam Check Initial Exception**

?

**ADVM Beam Check Secondary Exception**

?

**ADVM Cleaned Exception**

?

**ADVM Maintenance**

?

**Battery Condition**

Good

Poor

**Battery Replacement Exception**

No materials

Has solar panel

Other

**Desiccant Maintenance**

Verified

Replaced

Needs replacement - No materials

Other

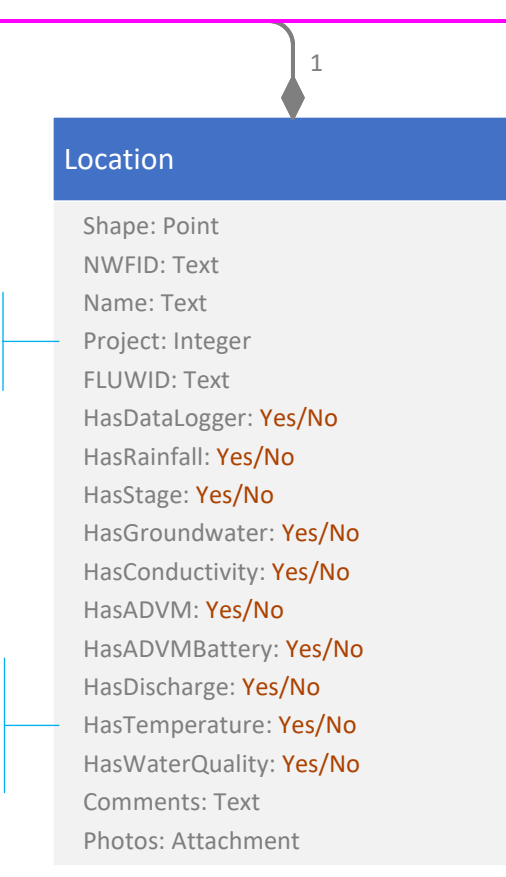
**Rainfall Exception**

No ladder

Raining

Other

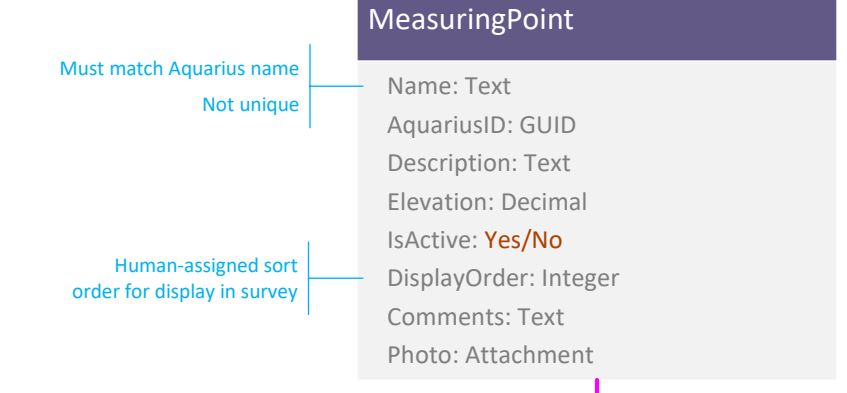
Low relay, but has solar panel so will charge on its own



Consider Attribute Rules to enforce valid combinations of "has" properties (see location\_types.xlsx)

User needs to know project to call time correctly (e.g. Stated vs. contract Location)

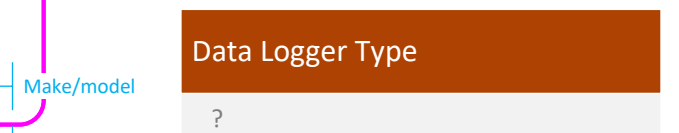
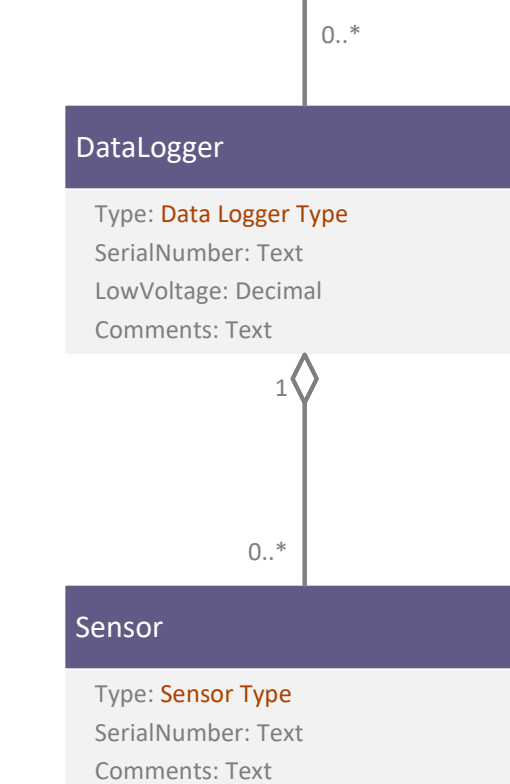
Using specific domain instead of generic Yes/No to allow for more detailed conditions in the future, if necessary



Must match Aquarius name

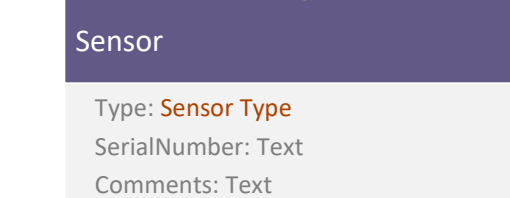
Not unique

Human-assigned sort order for display in survey

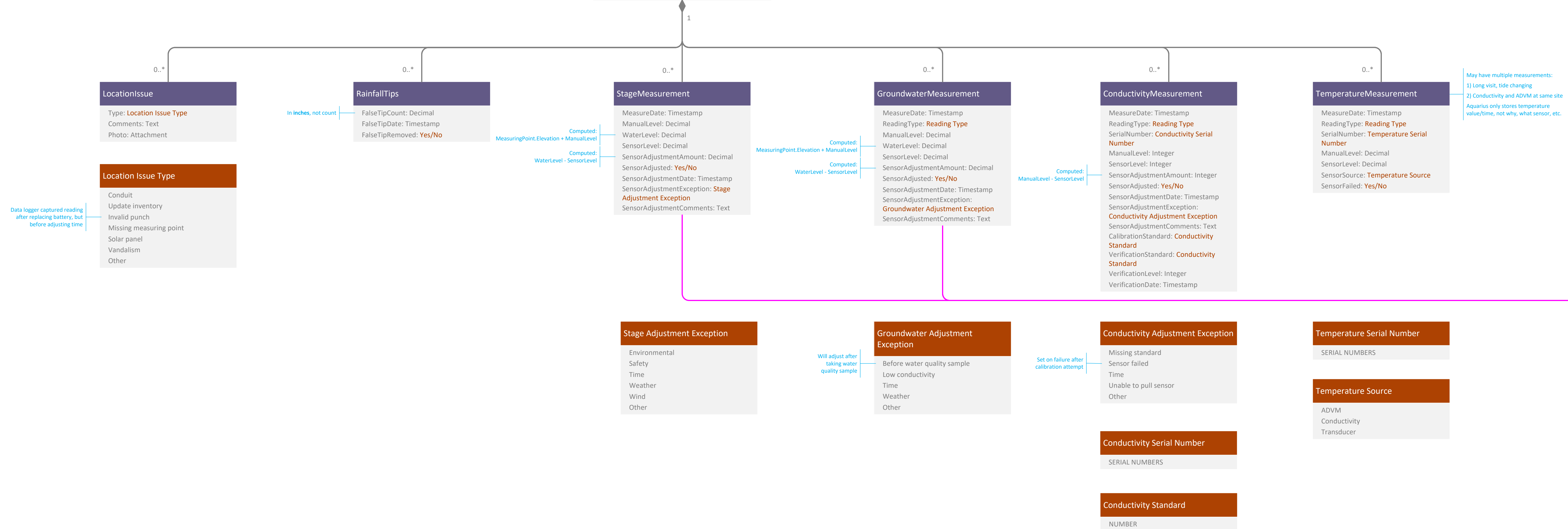


Makes/model

Volts or percent, depending on model



### Asset Management



Data logger captured reading after replacing battery, but before adjusting time

In inches, not count

Computed: MeasuringPoint.Elevation + ManualLevel

Computed: WaterLevel - SensorLevel

Computed: MeasuringPoint.Elevation + ManualLevel

Computed: WaterLevel - SensorLevel

ManualLevel - SensorLevel

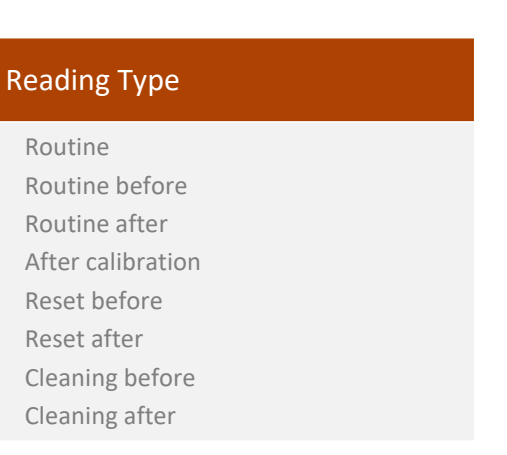
May have multiple measurements:

- 1) Long visit, tide changing
- 2) Conductivity and ADVM at same site


Aquarius only stores temperature value/time, not why, what sensor, etc.

Built in to Aquarius

Try to get survey to pick this value for user automatically



### Enumerations



Northwest Florida Water Management District

DESIGNED BY

**MANNION GEOSYSTEMS**

STATUS

**DRAFT**

REVIEWED

**2023-04-18**

**ABSTRACT**

This diagram depicts objects pertaining to NNFWMD hydrologic monitoring field activities. This data model is logical in nature, seeking to illustrate the conceptual objects, their properties, and relationships, with limited consideration for the specific information technology platform(s) on which the model may be implemented. The graphic syntax is based on UML Class Diagram notation, with some adaptations to 1) simplify presentation for a general audience, and 2) incorporate elements of ArcGIS, the District's enterprise geospatial software platform, that are important to downstream physical modeling efforts and that are not otherwise well-represented in the UML standard.

The modeling effort is ongoing. Please contact the NNFWMD GIS team with comments or corrections.