```
library(akqdecay)
# Six USGS streamgages of the Wolf River in Tennessee
wolfriver <- c("07030392", "07030500", "07031650",
               "07031660", "07031700", "07031740")
wolf.env <- new.env()
fill_dvenv(wolfriver, dvenv=wolf.env) # wolf.env now filled with six tables.
```

Daily Values <`environment`> (e.g. `wolf.env`):

- station number (e.g. `"07030392"`)
- `"07030500"` : <`data.frame`> (table of daily streamflow)
- `"07031650"` : table of daily streamflow
- `"07031660"` : table of daily streamflow
- `"07031700"` : table of daily streamflow
- `"07031740"` : <`data.frame`>
  - `agency_cd` ⇒ The agency code.
  - `site_no` ⇒ A repeat of the station number
  - `Date` ⇒ The date of the daily mean streamflow.
  - `Flow` ⇒ The daily mean streamflow in cubic feet per second.
  - `Flow_cd` ⇒ Flow code (Approved, Provisional, Working (stripped internally)
  - `year` ⇒ The year of the `Date`.
  - `month` ⇒ The month of the `Date`.
  - `decade` ⇒ The decade of the `Date` (e.g. 2016→2010).
  - `wyear` ⇒ The water year of the `Date`.

```
akqwolf.env <- new.env() # the standard declaration of an environment
fill_akqenv(wolf.env, akqenv=akqwolf.env)
```

Asquith–Knight Discharge Decay <`environment`> (e.g. `akqwolf.env`):

- `"07030392"` : <`list`> (Asquith–Knight discharge decay analysis for station number)
- `"07030500"` : <`list`>
- `"07031650"` : <`list`>
- `"07031660"` : <`list`>
- `"07031700"` : <`list`>
- `"07031740"` : <`list`>

Asquith–Knight Discharge Decay Analysis (e.g. `akqwolf.env$"07030500"`) : <`list`>

- `table` : <`data.frame`>, *n*-rows long
  - `site` ⇒ The station number (usually) but a user could emplace their own.
  - `wyear` ⇒ The water from the date.
  - `year` ⇒ The calendar from the year.
  - `month` ⇒ The month from the date.
  - `decade` ⇒ The decade from the date.
  - `date` ⇒ The date (forward bias).
  - `fdc, fqc` ⇒ Flow-duration curve (probability `fdc` and flow `fqc` [cubic feet per second].
  - `days_per_log` ⇒ Days for one log-cycle change (base10) in streamflow.
- `counts` : <`vector`> (named <`integer`>; The counts computed during the analysis.)
  - `total_count`, `decreases`, `increases`, `nochanges`, `NAs`
- `lmoments` : <`list`> (Bundle of L-moment results, see its separate structural definition)
  - `por` ⇒ The L-moment <`list`> for the period of record.
  - `by_year` ⇒ The L-moment <`data.frame`> for each *calendar* year.
  - `by_decade` ⇒ The L-moment <`data.frame`> lumped to decades.
- `summary` : <`data.frame`> (one row)
  - `site`, `beg_year`, `end_year` ⇒ Site and first/last years of the period of record.
  - `yr_range_str` ⇒ A string representing the year range.
  - `total_count`, `count` ⇒ The `count` is the sample size *n* of the analysis.
  - `kendall_tau`, `spearman_rho` ⇒ Correlations by name between `days_per_log` and `fqc`.
  - `median` ⇒ The median statistic [days per log-cycle].
  - `L1L2` ⇒ A statistic (`L1`, λ_1, mean) and L-scale (`L2`, λ_2):

    computed as $\mathtt{L1L2} = \lambda_1 + \lambda_2\sqrt{\pi}$ [days per log-cycle].
  - `gfactor` ⇒ A “G-factor” from L-moment-fit prob. distribution [days per log-cycle].
  - `gfactor_emp` ⇒ An empirical “G-factor” from rank ordering [days per log-cycle].

    The G-factor probability level is stored in <`row.names`> (e.g. `"90%"`).

L-moment results (e.g. `akqwolf.env$"07030500"$lmoments`) : <`list`>

Note, G-factor probability is `names(akqwolf.env$"07030500"$lmoments$por$gfactor_emp)`.

- `por` : <`list`> (Results for the period of record.)
  - `lambdas` ⇒ The first six L-moments (λ_r for $r \in [1,6]$) of the `days_per_log` data.
  - `ratios` ⇒ The L-moment ratios (τ_r for $r \in [2,6]$) from the λ_r.
  - `site` ⇒ Numerically identical to that in `summary` described previously.
  - `yr_range` ⇒ Numerically identical to that in `summary` described previously.
  - `yr_range_str` ⇒ Numerically identical to that in `summary` described previously.
  - `count` ⇒ Numerically identical to that in `summary` described previously.
  - `median` ⇒ Numerically identical to that in `summary` described previously.
  - `L1L2` ⇒ Numerically identical to that in `summary` described previously.
  - `gfactor` ⇒ Numerically identical to that in `summary` described previously.
  - `gfactor_emp` ⇒ Numerically identical to that in `summary` described previously.
- `by_year` : <`data.frame`> (Results tabulated by year, one row per year.)
  - `site` ⇒ A repeating station number.
  - `year` ⇒ The calendar year.
  - `count` ⇒ The number of samples in the corresponding years.
  - `median` ⇒ The median statistic of the sample size for the year [days per log-cycle].
  - `L1L2` ⇒ Computed as $\lambda_{1y} + \lambda_{2y}\sqrt{\pi}$ for the year [days per log-cycle].
  - `gfactor` ⇒ A "G-factor" from L-moment-fit prob. distribution [days per log-cycle].
  - `gfactor_emp` ⇒ An empirical "G-factor" from rank ordering [days per log-cycle].
  - `L1` ⇒ The L-moment λ_1 (arithmetic mean) [days per log-cycle]
  - `L2` ⇒ The second L-moment λ_2 (L-scale) [days per log-cycle]
  - `T3`, `T4`, `T5`, `T6` ⇒ The L-moment ratios τ_r.
- `by_decade` : <`data.frame`> (Results tabulated by decade, one row per decade.)
  - `site` ⇒ A repeating station number.
  - `decade` ⇒ The decade.
  - `count` ⇒ The number of samples in the corresponding decades.
  - `median` ⇒ The median statistic of the sample size for the decade [days per log-cycle].
  - `L1L2` ⇒ Computed as $\lambda_{1d} + \lambda_{2d}\sqrt{\pi}$ for the decade [days per log-cycle].
  - `gfactor` ⇒ A "G-factor" from L-moment-fit prob. distribution [days per log-cycle].
  - `gfactor_emp` ⇒ An empirical "G-factor" from rank ordering [days per log-cycle].
  - `L1` ⇒ The L-moment λ_1 (arithmetic mean) [days per log-cycle]
  - `L2` ⇒ The second L-moment λ_2 (L-scale) [days per log-cycle]
  - `T3` & `T4` & `T5` & `T6` ⇒ The L-moment ratios τ_r.