

*List of fields in statGAM.csv and chngGAM.csv*

| Category          | Field            | Description  |
|-------------------|------------------|--|
| Station/Parm meta | station          | Station identifier   |
| Station/Parm meta | dep              | Parameter identifier   |
| Station/Parm meta | layer            | Sample layer   |
| Station/Parm meta | latitude         | Station latitude   |
| Station/Parm meta | longitude        | Station Longitude  |
| Station/Parm meta | cbSeg92          | CBP segment  |
| Station/Parm meta | state            | State  |
| Station/Parm meta | stationGrpName   | Station Group  |
| Station/Parm meta | parmName         | Full parameter name  |
| Station/Parm meta | numObservations  | Number of observations evaluated   |
| Station/Parm meta | yearRng          | Year range of data   |
| Station/Parm meta | yearBegin        | Beginning year of data   |
| Station/Parm meta | yearEnd          | Ending year of data  |
| Station/Parm meta | numYrs           | Number of years of data  |
| Censoring         | yearRangeDropped | Year range of data removed because of too high a level of censoring            |
| Censoring         | fracLT           | fraction observations evaluated that are "<" censored                          |
| Censoring         | fracUnc          | fraction observations evaluated that are uncensored                            |
| Censoring         | fracInt          | fraction observations evaluated that are interval censored                     |
| Censoring         | fracRecen        | fraction observations evaluated that are a negative number and were recensored |
| Censoring         | recensor         | value the negative values were recensored to                                   |
| GAM model         | depGAM           | Parameter identifier for GAM   |
| GAM model         | logTrans         | Was the dependent variable log transformed                                     |
| GAM model         | gamOption        | GAM formula number (analySpec\$gamModels)                                      |
| GAM model         | gamName          | GAM formula name (analySpec\$gamModels)  |
| GAM model         | gamSelect        | Setting for select argument in mgcv::gam function (either TRUE or FALSE)       |
| GAM model         | gamK1            | Setting use in s(cyear, k=gamK)  |
| GAM model         | gamK2            | Setting use in s(cyear, k=gamK)  |
| GAM model         | hydroTermSel     | Indicator for whether "flow" or "salinity" was used for models with flw_sal    |
| GAM model         | hydroTermSel.var | Indicator of which flow or salinity term was used in models with flw_sal       |
| GAM model         | usgsGageID       | USGS Gage ID used in models with flw_sal                                       |
| GAM model         | usgsGageName     | USGS Gage Name used in models with flw_sal                                     |
| GAM model         | mgcvOK           | mgcv model converged without error   |
| GAM Coeff.        | cyear.coeff      | GAM parameter cyear coefficient  |
| GAM Coeff.        | cyear.pv         | GAM parameter cyear p-value  |
| GAM Coeff.        | interB.label     | GAM parameter intervention B coefficient                                       |
| GAM Coeff.        | interB.chgEst    | GAM parameter intervention B estimate of change                                |
| GAM Coeff.        | interB.chgEst.pv | GAM parameter intervention B estimate of change p-value                        |
| GAM Coeff.        | interC.label     | GAM parameter intervention C coefficient                                       |
| GAM Coeff.        | interC.chgEst    | GAM parameter intervention C estimate of change                                |
| GAM Coeff.        | interC.chgEst.pv | GAM parameter intervention C estimate of change p-value                        |
| GAM Coeff.        | interD.label     | GAM parameter intervention D coefficient                                       |
| GAM Coeff.        | interD.chgEst    | GAM parameter intervention D estimate of change                                |
| GAM Coeff.        | interD.chgEst.pv | GAM parameter intervention D estimate of change p-value                        |
| GAM Coeff.        | interE.label     | GAM parameter intervention E coefficient                                       |
| GAM Coeff.        | interE.chgEst    | GAM parameter intervention E estimate of change                                |
| GAM Coeff.        | interE.chgEst.pv | GAM parameter intervention E estimate of change p-value                        |
| GAM ANOVA         | p.cyear.pv       | GAM parametric cyear p-value   |
| GAM ANOVA         | p.inter.pv       | GAM parametric intervention p-value  |
| GAM ANOVA         | s.cyear.pv       | GAM smoothed cyear p-value   |
| GAM ANOVA         | s.doy.pv         | GAM smoothed doy p-value   |
| GAM ANOVA         | ti.cyear.doy.pv  | GAM smoothed trend interaction [ti(cyear,doy)] p-value                         |
| GAM ANOVA         | s.flw_sal.pv     | GAM smoothed flw_sal p-value   |

| Category            | Field                | Description  |
|---------------------|----------------------|--|
| GAM ANOVA           | ti.flw_sal.doy       | GAM smoothed trend interaction [ti(flw_sal,doy)] p-value               |
| GAM ANOVA           | ti.flw_sal.cyear     | GAM smoothed trend interaction [ti(flw_sal,cyear)] p-value             |
| GAM ANOVA           | ti.flw_sal.doy.cyear | GAM smoothed trend interaction [ti(flw_sal,doy,cyear)] p-value         |
| GAM ANOVA           | ti.interA.pv         | GAM smoothed trend interaction, intervention A p-value                 |
| GAM ANOVA           | ti.interB.pv         | GAM smoothed trend interaction, intervention B p-value                 |
| GAM ANOVA           | ti.interC.pv         | GAM smoothed trend interaction, intervention C p-value                 |
| GAM ANOVA           | ti.interD.pv         | GAM smoothed trend interaction, intervention D p-value                 |
| GAM ANOVA           | ti.interE.pv         | GAM smoothed trend interaction, intervention E p-value                 |
| GAM ANOVA           | edfMin               | Minimum edf value from ANOVA table                                     |
| GAM ANOVA           | edfMinSource         | Source of minimum edf value from ANOVA table                           |
| GAM ANOVA           | FstatFlag            | Indication of unreliable F-stat statistic in ANOVA table               |
| POR change          | sa.sig.inc           | Periods of significant increases                                       |
| POR change          | sa.sig.dec           | Periods of significant decreases                                       |
| POR change          | por.diffType         | POR comparison using regular or adjusted mean                          |
| POR change          | por.bl.mn            | POR baseline mean (expressed as log value if logTrans=TRUE)            |
| POR change          | por.cr.mn            | POR current mean (expressed as log value if logTrans=TRUE)             |
| POR change          | por.bl.mn.obs        | POR baseline mean (observed units, geo. mean if logTrans=TRUE)         |
| POR change          | por.cr.mn.obs        | POR current mean (observed units, geo. mean if logTrans=TRUE)          |
| POR change          | por.abs.chg          | POR absolute change (diff. of log values if logTrans=TRUE)             |
| POR change          | por.abs.chg.obs      | POR absolute change (observed units)                                   |
| POR change          | por.diff.se          | POR difference standard error  |
| POR change          | por.pct.chg          | POR percent change estimate (%)  |
| POR change          | por.chg.pv           | POR change p-value   |
| GAM fit diagnostics | aic                  | Akaike information criterion   |
| GAM fit diagnostics | rmse                 | Root mean squared error  |
| GAM fit diagnostics | adjR2                | Adjusted R squared   |
| Analysis Spec.      | periodName*          | User-supplied period name (see analySpec\$gamDiffPeriods)              |
| Analysis Spec.      | seasonName*          | User-supplied season name (see analySpec\$gamDiffSeasons)              |
| Analysis Spec.      | periodStart*         | Start years used to compute difference (see analySpec\$gamDiffPeriods) |
| Analysis Spec.      | periodEnd*           | End years used to compute difference (see analySpec\$gamDiffPeriods)   |
| Analysis Spec.      | seasonMonths*        | Months used to compute difference (see analySpec\$gamDiffSeasons)      |
| Customized Change   | gamDiff.diffType*    | Comparison using regular or adjusted mean                              |
| Customized Change   | gamDiff.bl.mn*       | Baseline mean (expressed as log value if logTrans=TRUE)                |
| Customized Change   | gamDiff.cr.mn*       | Current mean (expressed as log value if logTrans=TRUE)                 |
| Customized Change   | gamDiff.bl.mn.obs*   | Baseline mean (observed units, geo. mean if logTrans=TRUE)             |
| Customized Change   | gamDiff.cr.mn.obs*   | Current mean (observed units, geo. mean if logTrans=TRUE)              |
| Customized Change   | gamDiff.abs.chg*     | Absolute change (diff. of log values if logTrans=TRUE)                 |
| Customized Change   | gamDiff.abs.chg.obs* | Absolute change (observed units)                                       |
| Customized Change   | gamDiff.pct.chg*     | Percent change estimate (%)  |
| Customized Change   | gamDiff.diff.se*     | Difference standard error  |
| Customized Change   | gamDiff.chg.pval*    | P value associated with absolute change                                |

\*available in chngGAM.csv output