cGAM-PPLO model (all_gage_looest_pplo.feather)

- comid The stream reach specific common identification number (COMID) of the stream reach identified as the stream reach of the USGS streamgage. Note that geometrically, streamgages could share a COMID, so do not rely on COMID being absolutely not repeated between streamgages.
- $2. \ \ \, {\tt site_no-The~USGS} \ \, {\tt streamflow-gaging} \ \, ({\tt streamgage}) \ \, {\tt identification~number}.$
- huc12 The level-12 hydrologic unit code (HUC12) number containing the streamgage. Note
 that geometrically, streamgages could share a HUC12, so do not rely on HUC12 being absolutely
 not repeated between streamgages.
- decade The decade for which the 1950 decade is defined as the days January 1, 1950 to December 31, 1959.
- 5. dec_long_va The decimal degrees longitude in North American Datum of 1983.
- 6. dec_long_va The decimal degrees latitude in North American Datum of 1983.
- 7. in_model_pplo A binary indicator (1 = yes, 0 = no) that the streamgage-decade record was included in the whole-model computations to construct the censored generalized additive model.
- 8. pplo The observed decadal no-flow fraction.
- 9. flowtime The flowtime of the decadal no-flow fraction for which the flowtime is the base-10 logarithmic transformation of the number of nonzero streamflow days observed in the decade.
- est_lwr_pplo The whole-model lower 95-percent prediction limit of the decadal no-flow fraction.
- 11. est_pplo The whole-model estimate of the decadal no-flow fraction.
- est_upr_pplo The whole-model upper 95-percent prediction limit of the decadal no-flow fraction.
- 13. est_lwr_flowtime The whole-model lower 95-percent prediction limit of the decadal flowtime in base-10 logarithms of days.
- 14. est_flowtime The whole-model estimate of the decadal flowtime is the base-10 logarithmic transformation of the number of nonzero streamflow days observed in the decade.
- 15. est_upr_flowtime The whole-model upper 95-percent prediction limit of the decadal flowtime in base-10 logarithms of days.
- 16. rse_flowtime The scale of the residuals of the whole model in base-10 logarithmic transformation of days, and note that the model is constructed as a censored regression of the flowtime and not the no-flow fraction.
- 17. se.fit_flowtime The standard error of fit reported by the whole model and note that the model is constructed as a censored regression of the flowtime and not the no-flow fraction.
- 18. loo_est_lwr_pplo The leave-one-watershed-out (LOO) lower 95-percent prediction limit of decadal no-flow fraction.
- 19. loo_est_pplo The LOO estimate of decadal no-flow fraction.
- 20. loo_est_upr_pplo The LOO upper 95-percent prediction limit of decadal no-flow fraction.
- 21. loo_est_lwr_flowtime The LOO lower 95-percent prediction limit of the decadal flow-time in base-10 logarithms of days.
- loo_est_flowtime The LOO estimate of the decadal flowtime in base-10 logarithms of days.
- loo_est_upr_flowtime The LOO upper 95-percent prediction limit of the decadal flowtime in base-10 logarithms of days.

2. GAM-L1 model (all_gage_looest_L1.feather)

- comid The stream reach specific common identification number (COMID) of the stream reach identified as the stream reach of the USGS streamgage. Note that geometrically, streamgages could share a COMID, so do not rely on COMID being absolutely not repeated between streamgages.
- $2. \ \ \, {\tt site_no-The~USGS} \ \, {\tt streamflow-gaging} \ \, ({\tt streamgage}) \ \, {\tt identification~number}.$
- huc12 The level-12 hydrologic unit code (HUC12) number containing the streamgage. Note
 that geometrically, streamgages could share a HUC12, so do not rely on HUC12 being absolutely
 not repeated between streamgages.
- decade The decade for which the 1950 decade is defined as the days January 1, 1950 to December 31, 1959.
- 5. dec_long_va The decimal degrees longitude in North American Datum of 1983.
- 6. dec_long_va The decimal degrees latitude in North American Datum of 1983.
- 7. in_model_L1 A binary indicator (1 = yes, 0 = no) that the streamgage-decade record was included in the whole-model computations to construct the generalized additive model.
- L1 The observed decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.
- 9. est_lwr_L1 The whole-model lower 95-percent prediction limit of the decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.
- 10. est_L1 The whole-model estimate the decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.
- est_upr_L1 The whole-model upper 95-percent prediction limit of the decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.
- 12. rse_L1 The scale of the residuals of the whole model, base-10 logarithms of cubic meters per second.
- se.fit_L1 The standard error of fit reported by the whole model, base-10 logarithms of cubic meters per second.
- 14. loo_est_lwr_L1 The leave-one-watershed-out (LOO) lower 95-percent prediction limit of the decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.
- loo_est_L1 The LOO estimate of the decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.
- 16. loo_est_upr_L1 The LOO upper 95-percent prediction limit of the decadal mean nonzero streamflow, base-10 logarithms of cubic meters per second.

3. GAM-T2 model (all_gage_looest_T2.feather)

- comid The stream reach specific common identification number (COMID) of the stream reach identified as the stream reach of the USGS streamgage. Note that geometrically, streamgages could share a COMID, so do not rely on COMID being absolutely not repeated between streamgages.
- 2. site_no The USGS streamflow-gaging (streamgage) identification number.
- huc12 The level-12 hydrologic unit code (HUC12) number containing the streamgage. Note
 that geometrically, streamgages could share a HUC12, so do not rely on HUC12 being absolutely
 not repeated between streamgages.
- decade The decade for which the 1950 decade is defined as the days January 1, 1950 to December 31, 1959.
- 5. dec_long_va The decimal degrees longitude in North American Datum of 1983.

- 6. dec_long_va The decimal degrees latitude in North American Datum of 1983.
- 7. in_model_T2 A binary indicator (1 = yes, 0 = no) that the streamgage-decade record was included in the whole-model computations to construct the generalized additive model.
- 8. T2 The observed decadal coefficient of L-variation of the nonzero streamflows, dimensionless.
- est_lwr_T2 The whole-model lower 95-percent prediction limit of the decadal coefficient of L-variation, dimensionless.
- 10. est_T2 The whole-model estimate the decadal coefficient of L-variation, dimensionless.
- est_upr_T2 The whole-model upper 95-percent prediction limit of the decadal coefficient of L-variation, dimensionless.
- 12. rse_T2 The scale of the residuals of the whole model, dimensionless.
- 13. se.fit_T2 The standard error of fit reported by the whole model, dimensionless.
- 14. loo_est_lwr_T2 The leave-one-watershed-out (LOO) lower 95-percent prediction limit of the decadal coefficient of L-variation, dimensionless.
- 15. loo_est_T2 The LOO estimate of the decadal coefficient of L-variation, dimensionless.
- loo_est_upr_T2 The LOO upper 95-percent prediction limit of the decadal coefficient of L-variation, dimensionless.

4. GAM-T3 model (all_gage_looest_T3.feather)

- comid The stream reach specific common identification number (COMID) of the stream reach identified as the stream reach of the USGS streamgage. Note that geometrically, streamgages could share a COMID, so do not rely on COMID being absolutely not repeated between streamgages.
- 2. site_no The USGS streamflow-gaging (streamgage) identification number.
- huc12 The level-12 hydrologic unit code (HUC12) number containing the streamgage. Note
 that geometrically, streamgages could share a HUC12, so do not rely on HUC12 being absolutely
 not repeated between streamgages.
- decade The decade for which the 1950 decade is defined as the days January 1, 1950 to December 31, 1959.
- 5. dec_long_va The decimal degrees longitude in North American Datum of 1983.
- 6. dec_long_va The decimal degrees latitude in North American Datum of 1983.
- 7. in_model_T3 A binary indicator (1 = yes, 0 = no) that the streamgage-decade record was included in the whole-model computations to construct the generalized additive model.
- 8. T3 The observed decadal L-skew of the nonzero streamflows, dimensionless.
- est_lwr_T3 The whole-model lower 95-percent prediction limit of the decadal L-skew, dimensionless.
- 10. est_T3 The whole-model estimate the decadal L-skew, dimensionless.
- est_upr_T3 The whole-model upper 95-percent prediction limit of the decadal L-skew, dimensionless.
- 12. rse_T3 The scale of the residuals of the whole model, dimensionless.
- 13. se.fit_T3 The standard error of fit reported by the whole model, dimensionless.
- 14. loo_est_lwr_T3 The leave-one-watershed-out (LOO) lower 95-percent prediction limit of the decadal L-skew, dimensionless.
- 15. loo_est_T3 The LOO estimate of the decadal L-skew, dimensionless.
- loo_est_upr_T3 The LOO upper 95-percent prediction limit of the decadal L-skew, dimensionless.

5. GAM-T4 model (all_gage_looest_T4.feather)

- comid The stream reach specific common identification number (COMID) of the stream reach identified as the stream reach of the USGS streamgage. Note that geometrically, streamgages could share a COMID, so do not rely on COMID being absolutely not repeated between streamgages.
- $2. \ \ \, {\tt site_no-The~USGS} \ \, {\tt streamflow-gaging} \ \, ({\tt streamgage}) \ \, {\tt identification~number}.$
- huc12 The level-12 hydrologic unit code (HUC12) number containing the streamgage. Note
 that geometrically, streamgages could share a HUC12, so do not rely on HUC12 being absolutely
 not repeated between streamgages.
- decade The decade for which the 1950 decade is defined as the days January 1, 1950 to December 31, 1959.
- 5. dec_long_va The decimal degrees longitude in North American Datum of 1983.
- 6. dec_long_va The decimal degrees latitude in North American Datum of 1983.
- 7. in_model_T4 A binary indicator (1 = yes, 0 = no) that the streamgage-decade record was included in the whole-model computations to construct the generalized additive model.
- 8. T4 The observed decadal L-kurtosis of the nonzero streamflows, dimensionless.
- est_lwr_T4 The whole-model lower 95-percent prediction limit of the decadal L-kurtosis, dimensionless.
- 10. est_T4 The whole-model estimate the decadal L-kurtosis, dimensionless.
- est_upr_T4 The whole-model upper 95-percent prediction limit of the decadal L-kurtosis, dimensionless.
- 12. rse_T4 The scale of the residuals of the whole model, dimensionless.
- 13. se.fit_T4 The standard error of fit reported by the whole model, dimensionless.
- 14. loo_est_lwr_T4 The leave-one-watershed-out (LOO) lower 95-percent prediction limit of the decadal L-kurtosis, dimensionless.
- 15. loo_est_T4 The LOO estimate of the decadal L-kurtosis, dimensionless.
- loo_est_upr_T4 The LOO upper 95-percent prediction limit of the decadal L-kurtosis, dimensionless.

6. GAM-T5 model (all_gage_looest_T5.feather)

- comid The stream reach specific common identification number (COMID) of the stream reach identified as the stream reach of the USGS streamgage. Note that geometrically, streamgages could share a COMID, so do not rely on COMID being absolutely not repeated between streamgages.
- 2. site_no The USGS streamflow-gaging (streamgage) identification number.
- huc12 The level-12 hydrologic unit code (HUC12) number containing the streamgage. Note
 that geometrically, streamgages could share a HUC12, so do not rely on HUC12 being absolutely
 not repeated between streamgages.
- decade The decade for which the 1950 decade is defined as the days January 1, 1950 to December 31, 1959.
- 5. dec_long_va The decimal degrees longitude in North American Datum of 1983.
- 6. dec_long_va The decimal degrees latitude in North American Datum of 1983.
- 7. in_model_T5 A binary indicator (1 = yes, 0 = no) that the streamgage-decade record was included in the whole-model computations to construct the generalized additive model.
- 8. T5 The observed decadal fifth L-moment ratio of the nonzero streamflows, dimensionless.

- est_lwr_T5 The whole-model lower 95-percent prediction limit of the decadal fifth L-moment ratio, dimensionless.
- 10. est_T5 The whole-model estimate the decadal fifth L-moment ratio, dimensionless.
- 11. est_upr_T5 The whole-model upper 95-percent prediction limit of the decadal fifth L-moment ratio, dimensionless.
- 12. rse_T5 The scale of the residuals of the whole model, dimensionless.
- 13. se.fit_T5 The standard error of fit reported by the whole model, dimensionless.
- 14. loo_est_lwr_T5 The leave-one-watershed-out (LOO) lower 95-percent prediction limit of the decadal fifth L-moment ratio, dimensionless.
- 15. loo_est_T5 The LOO estimate of the decadal fifth L-moment ratio, dimensionless.
- 16. loo_est_upr_T5 The LOO upper 95-percent prediction limit of the decadal fifth L-moment ratio, dimensionless.