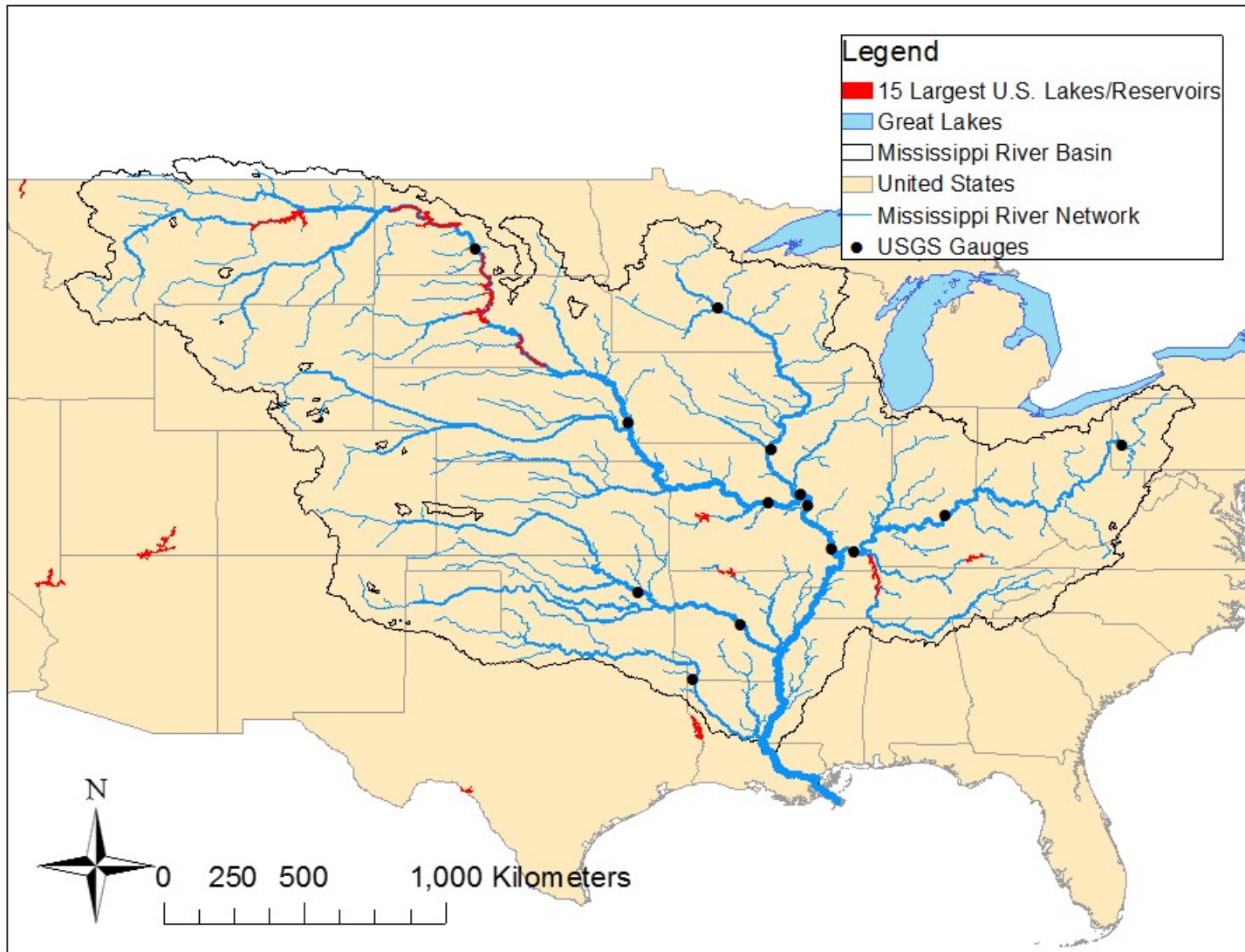


River Model Inter-comparison for (and before) SWOT Preliminary comparison of simulations

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Fleischmann³

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2. Japan Agency for Marine-Earth Science and Technology, Yokosuka, Kanagawa, Japan
3. Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil

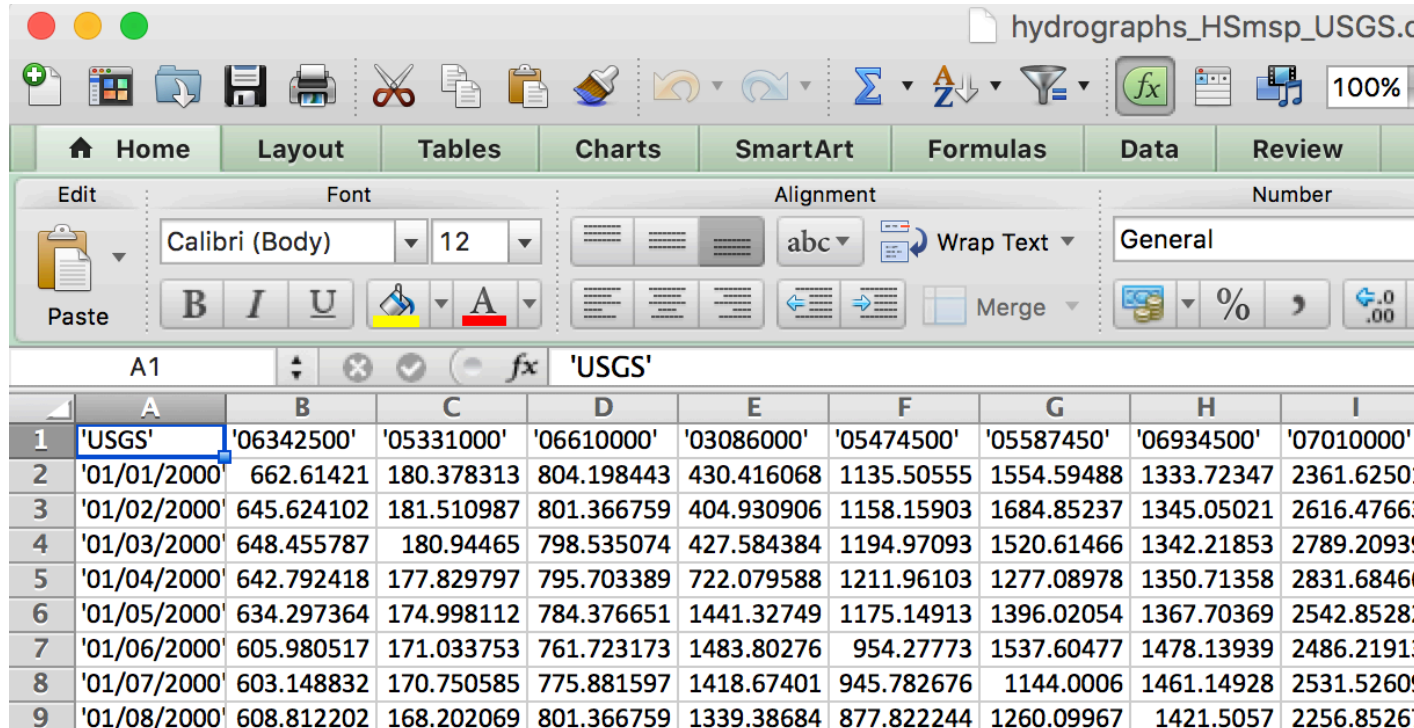
Study domain



Model outputs used

- RAPID (from David et al., 2015 WRR)
- CaMa-Flood (prepared for this study)
- MGB (prepared for this study: Hydrodynamic model; Depth h95 and Width default; without linear reservoirs)

File formats



| | A | B | C | D | E | F | G | H | I |
|---|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1 | 'USGS' | '06342500' | '05331000' | '06610000' | '03086000' | '05474500' | '05587450' | '06934500' | '07010000' |
| 2 | '01/01/2000' | 662.61421 | 180.378313 | 804.198443 | 430.416068 | 1135.50555 | 1554.59488 | 1333.72347 | 2361.6250 |
| 3 | '01/02/2000' | 645.624102 | 181.510987 | 801.366759 | 404.930906 | 1158.15903 | 1684.85237 | 1345.05021 | 2616.4766 |
| 4 | '01/03/2000' | 648.455787 | 180.94465 | 798.535074 | 427.584384 | 1194.97093 | 1520.61466 | 1342.21853 | 2789.2093 |
| 5 | '01/04/2000' | 642.792418 | 177.829797 | 795.703389 | 722.079588 | 1211.96103 | 1277.08978 | 1350.71358 | 2831.6846 |
| 6 | '01/05/2000' | 634.297364 | 174.998112 | 784.376651 | 1441.32749 | 1175.14913 | 1396.02054 | 1367.70369 | 2542.8528 |
| 7 | '01/06/2000' | 605.980517 | 171.033753 | 761.723173 | 1483.80276 | 954.27773 | 1537.60477 | 1478.13939 | 2486.2191 |
| 8 | '01/07/2000' | 603.148832 | 170.750585 | 775.881597 | 1418.67401 | 945.782676 | 1144.0006 | 1461.14928 | 2531.5260 |
| 9 | '01/08/2000' | 608.812202 | 168.202069 | 801.366759 | 1339.38684 | 877.822244 | 1260.09967 | 1421.5057 | 2256.8526 |

14 locations
throughout the
Mississippi River
Basin

As specified in experimental design table:

http://rapid-hub.org/docs/SWOT_ST_WG_Mississippi_Experimental_Design.pdf

Processing toolbox

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c-h-david / rrr Watch 1 Star 1 Fork 4

Code Issues 0 Pull requests 0 Projects 0 Pulse Graphs

Reproducible Routing Rituals (RRR)

49 commits 1 branch 21 releases 3 contributors BSD-3-Clause

Branch: master New pull request Find file Clone or download

| | | Latest commit 3578746 a day ago |
|------------------|-----------------------------------------|---------------------------------|
| src | Removed extra blank spaces. | a day ago |
| tst | New tests for David et al. (2015, WRR). | a day ago |
| .gitignore | Added tracking for testing scripts. | 13 days ago |
| .travis.yml | Updated year to 2017. | 19 days ago |
| CONTRIBUTING | Updated contributors. | 8 months ago |
| LICENSE | Updated year to 2017. | 19 days ago |
| README.md | Modified for new HydroSHEDS scripts. | 2 months ago |
| requirements.txt | Updated year to 2017. | 19 days ago |
| version.sh | Updated year to 2017. | 19 days ago |

README.md

license BSD 3-Clause

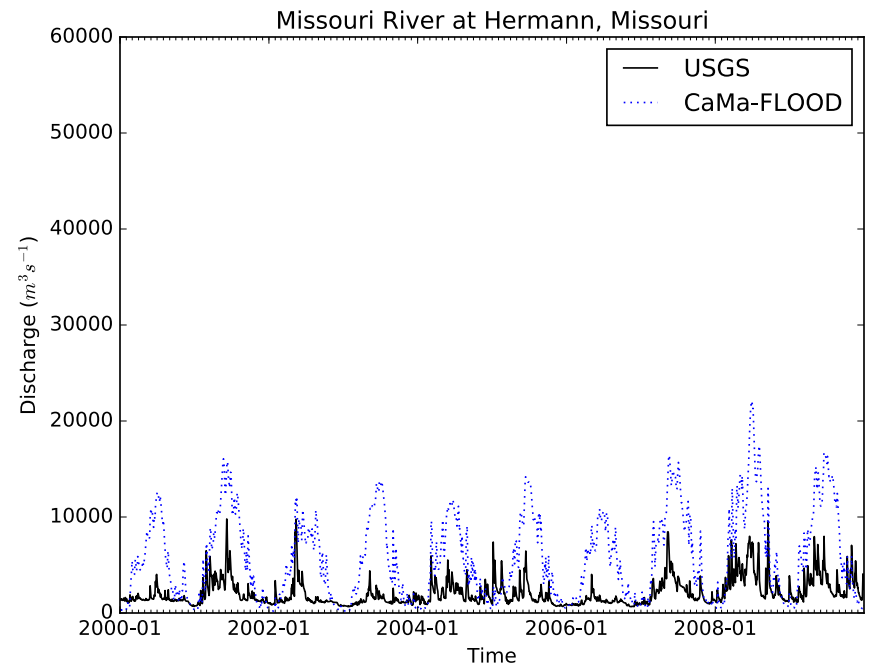
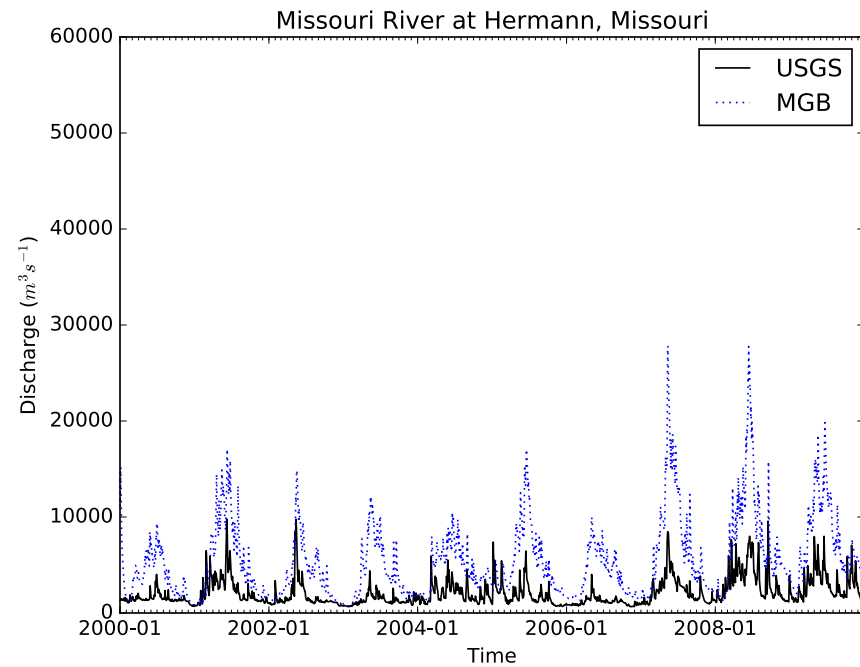
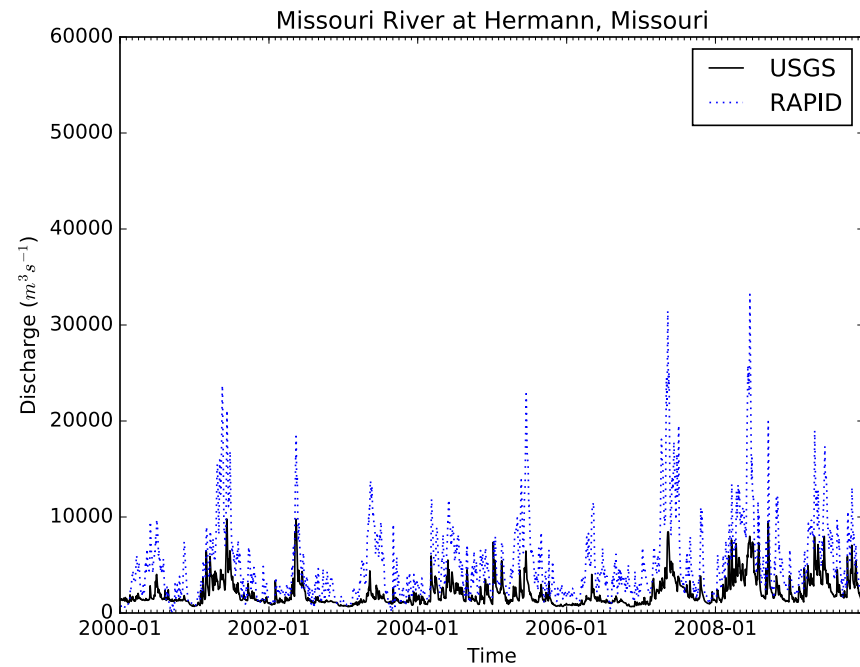
build passing

The Reproducible Routing Rituals (RRR) is a Python and bash shell toolbox that combines many repetitive pre and post-processing tasks that are common to studying the movements of water on and underneath the land surface. Such tasks include the preparation of files corresponding to:

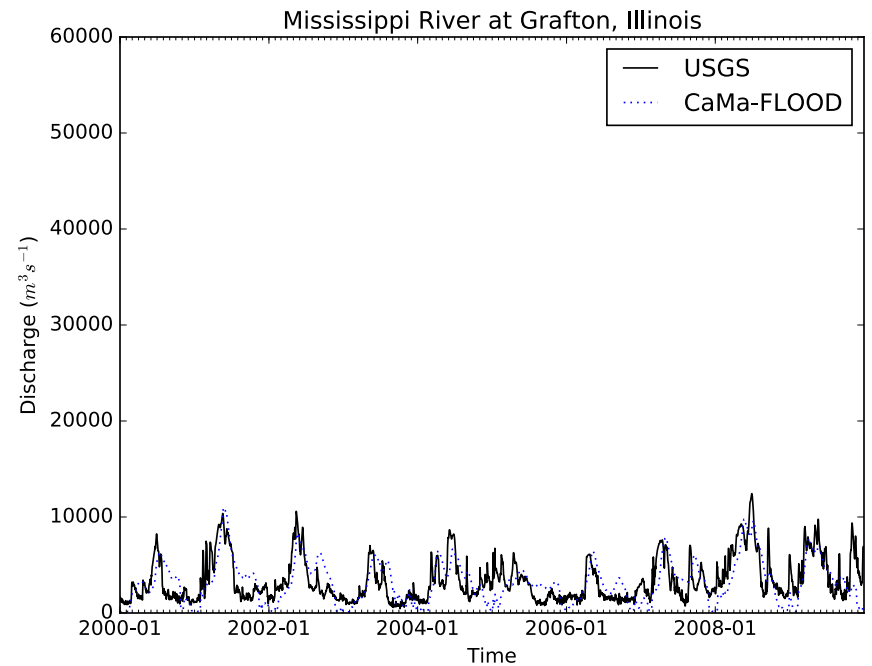
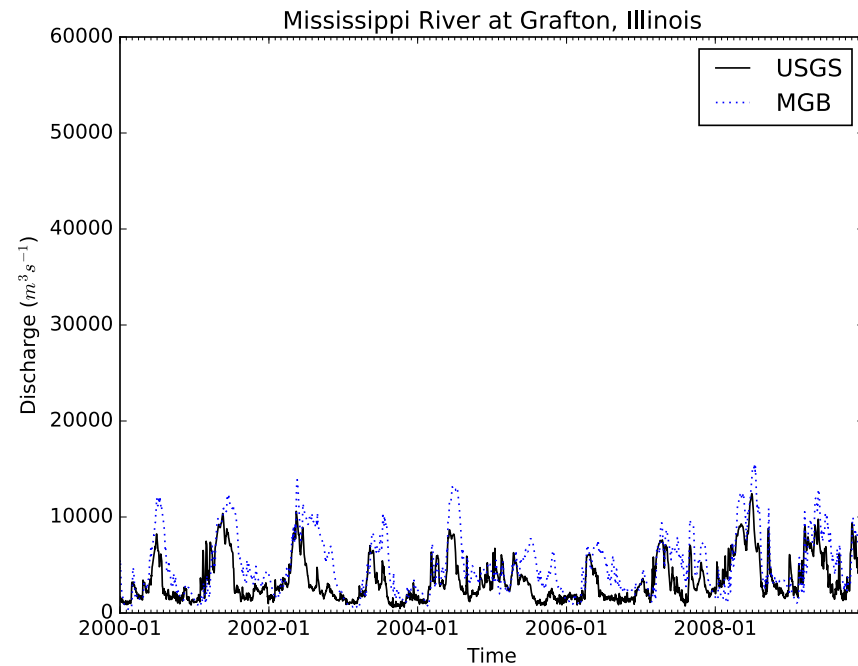
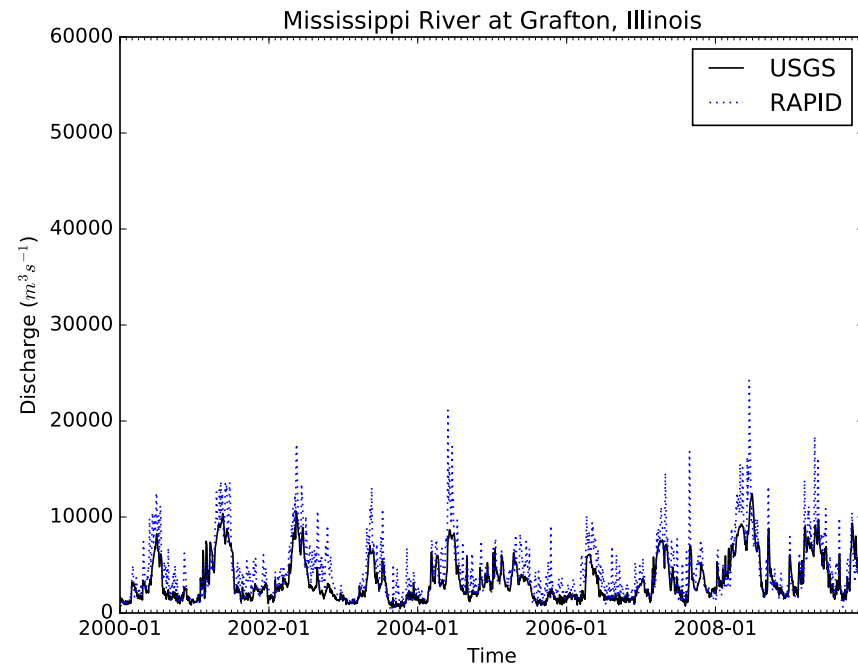
<https://github.com/c-h-david/rrr>

Currently being updated with the Python scripts for analysis

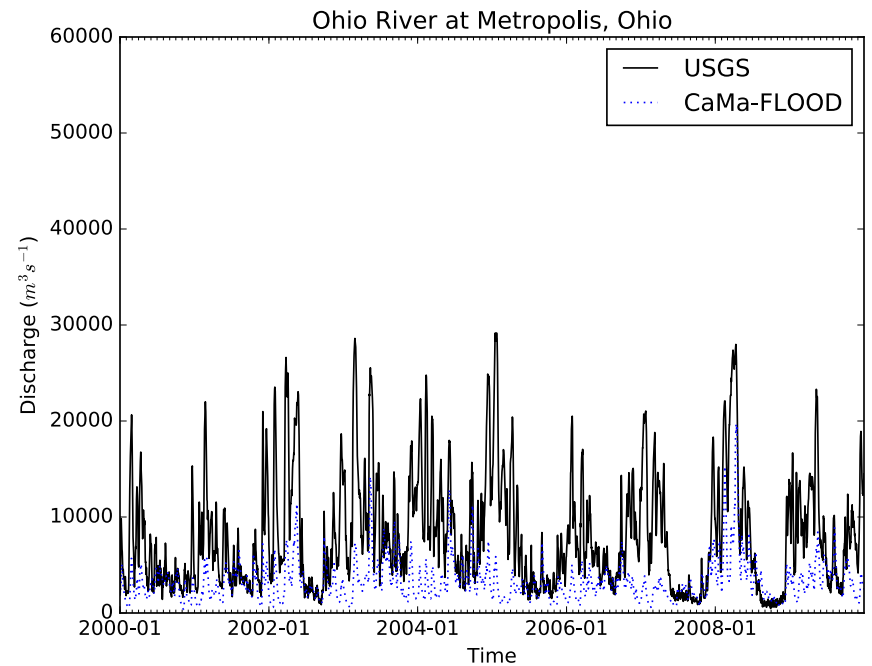
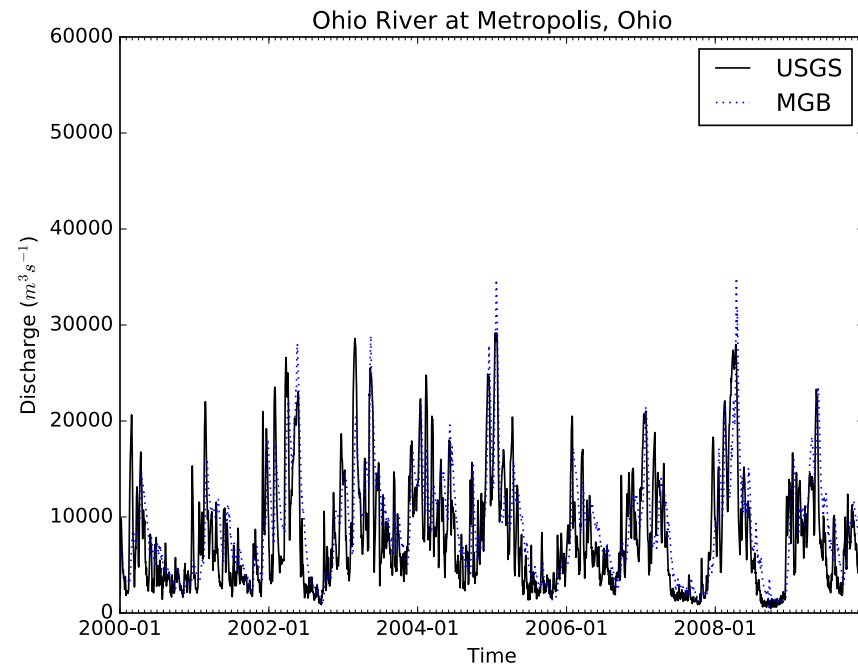
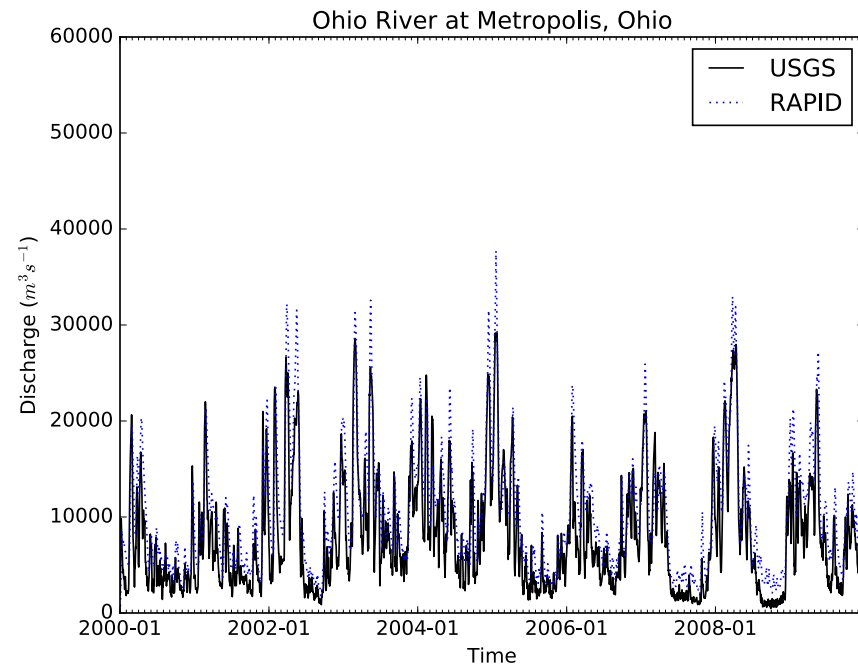
Outlet of Missouri River



Outlet of Upper Mississippi River

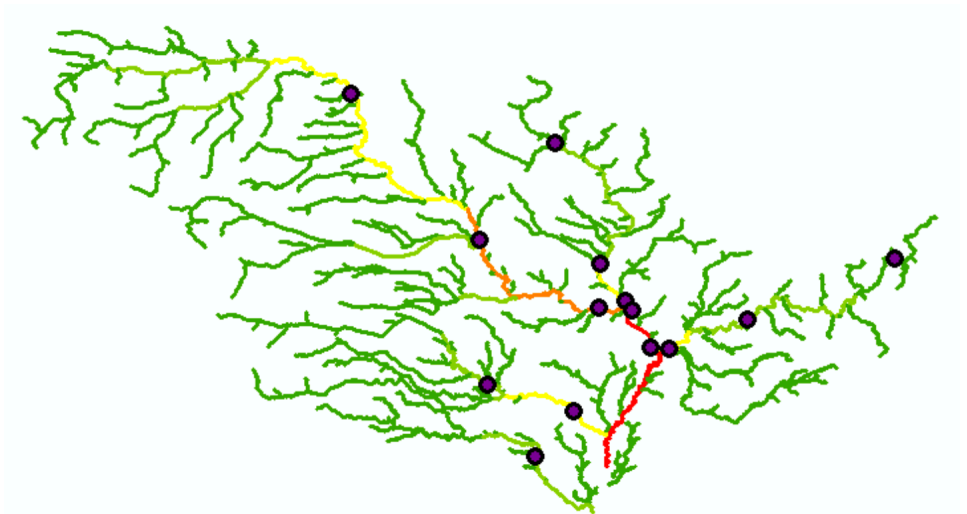


Outlet of Ohio River



Next steps

- Bias
- RMSE
- Nash Sutcliffe Efficiency
- Map of variability?
- Other models?



Thanks!
Questions?