**SWMPr for Non-Beginners**

**Workshop I: R Refresher and SWMPr Introduction**

**Process Agenda:** Sunday, November 13th, 2016

**Time:** 8:00 am – 12:00 pm

**Objectives:**

1. Review some R basics such as importing data and plotting
2. Demonstrate useful functions in the SWMPr package
3. Investigate how real data from your Reserve can be processed and visualized

**Who:** Morning Session Registrants

**Facilitators:** Kim Cressman (Grand Bay NERR) and Kari St.Laurent (Delaware NERR)

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| 7:30-8:00 | Software set-up help | optional |
| 8:00 – 8:15 | Introductions  -Who are we and who are you!  Data Check  -Make sure everyone has the materials needed for the morning session | Who: Kim Cressman, Kari St.Laurent, Marcus Beck, Dave Eslinger |
| 8:15 – 8:40 | Powerpoint Presentation  -Overview why it’s worth your effort to learn R. | Who: Kim Cressman, Kari St.Laurent |
| 8:40-9:15 | Part I: Refresher on reading in data and beginning to plot  -Brief overview of some R basics | Who: Kim Cressman |
| 9:15-10:00 | Part II: Using SWMPr to deal with difficult data  Case Study I: import\_local and QAQC  -Learn to import data downloaded from CDMO directly into RStudio as a swmpr object  -Learn to select which qaqc flags you want to plot | Who: Kim Cressman |
| 10:00-10:15 | **Break** |  |
| 10:15-11:00 | Part II: Using SWMPr to deal with difficult data  Case Study II: aggreswmp  -aggregate by time interval  -aggregate by function  -Try some different plotting types | Who: Kari St.Laurent |
| 11:00-11:30 | Part II: Using SWMPr to deal with difficult data  Case Study III: Overplotting ISCO and WQ data  -investigate multiple parameters on the same plot  -Bonus material on handling NAs | Who: Kim Cressman |
| 11:30-12:00 | Part III: Bring Your Own Data  -Try these codes on your own data! | Who: Everyone! |
| 12pm | **Adjourn:** See some of you in the afternoon! |  |