



Building R packages

ACWA TMDL Training

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Challenges to TMDL development

Announcements

Meeting Notifications
and Updates

Final TMDL Reports

Draft TMDL Reports

Groundwater Management
Section

Site-Specific TMDL
Prioritization

Priority Framework
Document

TMDL Tracker

All Water Quality
Evaluation and TMDL
Program Content

Waterbody Name(s)	Waterbody Identification Number (WBID)	Nutrient TMDL	Other TMDL	F.A.C. Rule No.
34th Street Basin, Clam Bayou Drain, Clam Bayou, (East Drainage), and Clam Bayou Drain (Tidal)	1716A, 1716B, 1716C, and 1716D		Fecal Coliform TMDL	62-304.645
Alachua Sink	2720A	Nutrient TMDL		62-304.500
Alafia River Above Hillsborough Bay - Tidal Segment	1621G	Nutrient TMDL		62-304.605
Allen Creek Tidal	1604		Fecal Coliform TMDL	62-304.600
Alligator Creek	123		Fecal Coliform TMDL	62-304.325



Tools of the trade





Things that code can build

Tools for coders

One-off analysis

Script

Function

Library

Tools for all users

ArcPro tools

Web application

Desktop graphical user Interface



What is an R package??

L > R Tools > R Package > lwrAdv3.4.2					▼	↻
Name	Date modified	Type	Size			
man	10/18/2019 12:37 PM	File folder				
R	3/4/2020 10:55 AM	File folder				
.gitignore	10/18/2019 12:34 PM	GITIGNORE File	1 KB			
.Rbuildignore	10/18/2019 12:34 PM	RBUILDIGNORE File	1 KB			
.Rhistory	10/18/2019 2:09 PM	RHISTORY File	2 KB			
DESCRIPTION	10/18/2019 12:37 PM	File	1 KB			
IWR_Data_Object_Seeker4	7/28/2021 11:45 AM	R File	7 KB			
lwrAdv3.4	10/18/2019 1:58 PM	R Project	1 KB			
NAMESPACE	10/18/2019 1:14 PM	File	1 KB			



Packages = Set of Functions

. > R Tools > R Package > IwrAdv3.4.2 > R				▼	↺
Name	Date modified	Type	Size		
.Rhistory	3/4/2020 10:55 AM	RHISTORY File	1 KB		
agm	5/17/2016 4:50 PM	R File	1 KB		
CombinedRegression	2/14/2019 4:21 PM	R File	3 KB		
datasummary	5/17/2016 4:50 PM	R File	1 KB		
geo_mean	5/19/2016 8:10 AM	R File	1 KB		
GrowingSeasonCheck	2/13/2019 9:57 PM	R File	2 KB		
GSC	10/17/2019 12:20 PM	R File	2 KB		
IWR_corrgram	5/17/2016 4:50 PM	R File	1 KB		
IWR_Data_Object_Seeker3	2/4/2021 9:47 AM	R File	7 KB		
IWR_plot_xy	2/13/2019 11:29 PM	R File	3 KB		
IWR_title1	2/14/2019 12:26 AM	R File	6 KB		
Imp	2/14/2019 4:21 PM	R File	1 KB		
NGSC	10/17/2019 11:51 AM	R File	2 KB		
rawdata	5/17/2016 5:07 PM	R File	1 KB		
rddate	7/12/2019 3:21 PM	R File	1 KB		
regression_TMDL	11/14/2019 12:31 PM	R File	5 KB		
return.contunuous.year	5/17/2016 4:48 PM	R File	2 KB		
Station_Count	10/18/2019 1:12 PM	R File	2 KB		
Station_Mean	6/15/2018 11:48 PM	R File	2 KB		
ts_plot	2/14/2019 4:28 PM	R File	4 KB		
YC	10/17/2019 1:43 PM	R File	1 KB		
YearlyCount	6/21/2018 6:18 PM	R File	1 KB		



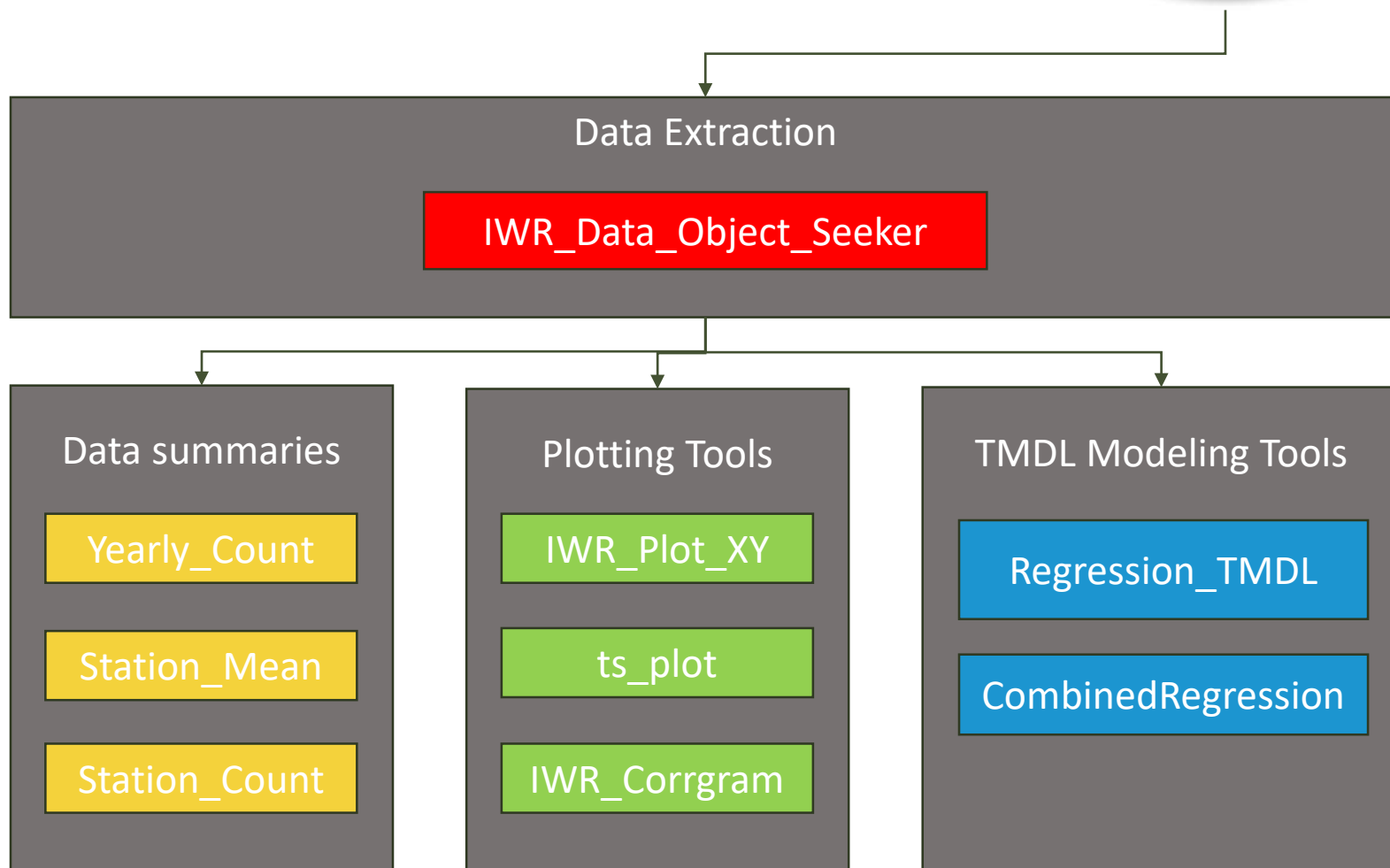
TMDL R package

- Installable set of R functions designed to automate common tasks
- Data importing from the Florida Impaired Waters database



R Package

IWR Database





Benefits

- Toolbar Phase 1: \$30k



Collaboration

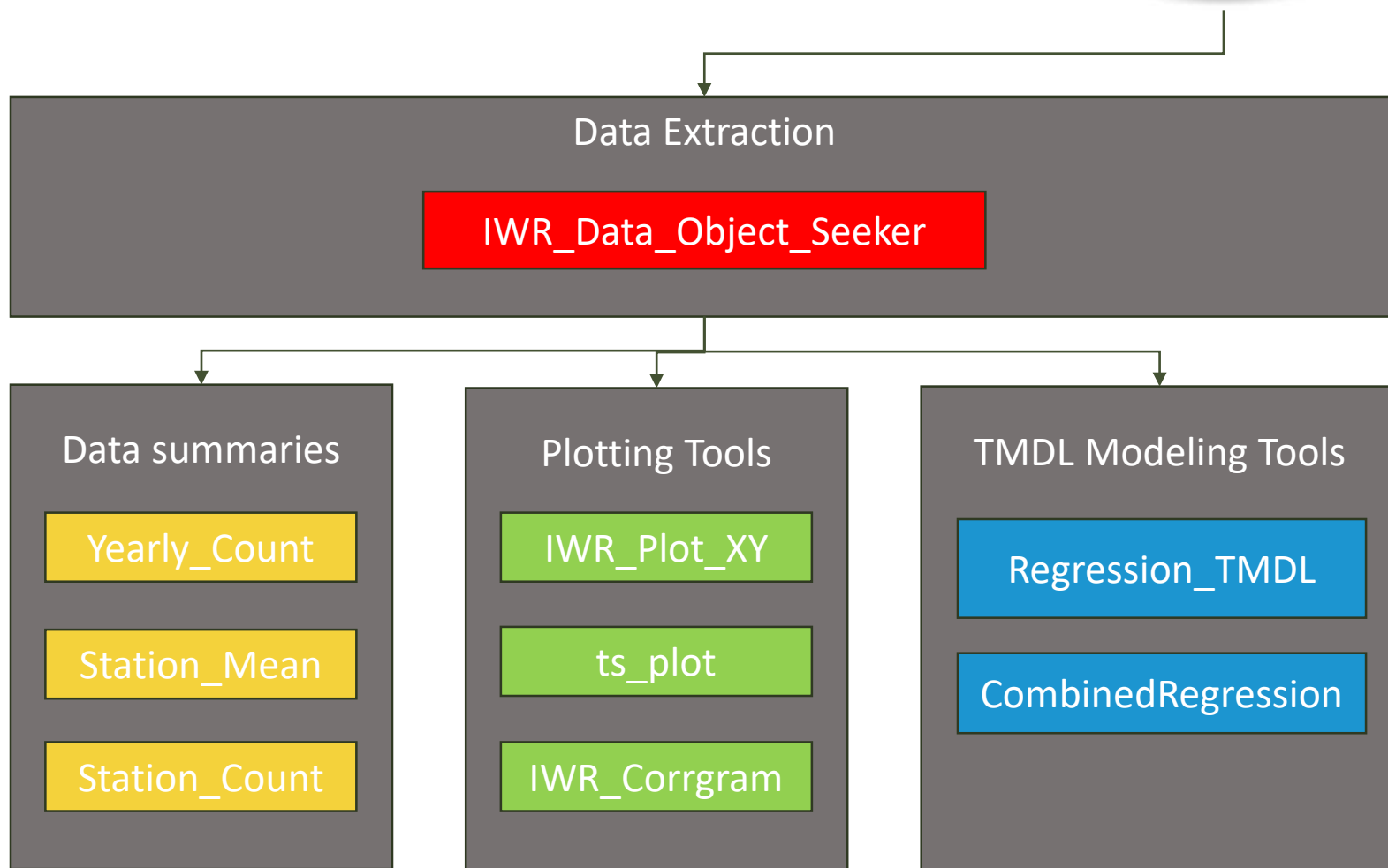
File Explorer window showing the path: This PC > DEAR (X:) > WQETP > TMDL > R Tools > R Package.

	Name	Date modified
★ Quick access	IWR Data	10/8/2020 7:57 AM
	lwrAdv3	6/7/2018 1:47 PM
	lwrAdv3.1	6/7/2018 1:47 PM
	lwrAdv3.2	6/22/2018 1:54 PM
	lwrAdv3.4	3/1/2019 3:42 PM
	lwrAdv3.4.1	3/22/2019 2:18 PM
	lwrAdv3.4.2	10/18/2019 1:58 PM
	lwrAdv3.5	10/13/2020 4:41 PM
	temp	7/26/2019 4:52 PM
WASH	4/21/2019 8:42 PM	



Questions

IWR Database





9/24/2021