



Republic of the Philippines
Department of Environment and Natural Resources
FOREST MANAGEMENT BUREAU
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FOREST MANAGEMENT BUREAU

MEMORANDUM

FOR : All Regional Executive Directors
CAR, NCR, Region 1-13

FROM : OIC Assistant Secretary for Field Operations - Western Mindanao
and Director in concurrent capacity

SUBJECT : **PREPARATION OF DATA REQUIREMENTS FOR THE
NATIONAL WORKSHOP ON WATER YIELD ASSESSMENT OF
WATERSHEDS SUPPORTING NATIONAL IRRIGATION
SYSTEMS**

DATE : **AUG 01 2024**



In preparation for the upcoming National Workshop on Water Yield Assessment of Watersheds Supporting National Irrigation System (NIS) on August 26-30, 2024, all participants from the DENR Regional Offices are hereby requested to select one (1) watershed within their priority watersheds supporting NIS that already has a Watershed Characterization cum Vulnerability Assessment Report. Furthermore, please compile and submit the necessary data as outlined in the attached document. This data is crucial for ensuring the effectiveness of the workshop and the accuracy of the assessments to be conducted. Please submit the compiled data to the FMB not later than 9 August 2024.

Should you have any inquiries, please contact Ms. Frelie D. Dimaculangan, RPF at 8928-2891 or email us at frcd.wems@fmb.denr.gov.ph.

FOR YOUR INFORMATION AND CONSIDERATION, PLEASE.


ARLEIGH J. ADORABLE, CESO III

Attachment: Data Preparation and Requirements

Data and Installer Requirements

Gather and download all operational documents, vector and raster data sets, and installers as follows:

Data Requirements	File Type	Source	Remarks
Watershed Boundary	.shp	DENR Forest Management Bureau (https://bit.ly/2TBnIYP .)	Updated shapefiles of 131 Priority Critical Watershed supporting National Irrigation System (DENR-FMB Memorandum dated June 24, 2021)
Digital Elevation Model	.tif	NAMRIA	Latest IFSAR data from NAMRIA by request
Landcover	.shp	NAMRIA	Latest Land Cover from NAMRIA (2020 Landcover) by request
FAO- Digital Soil Map of the World	.shp	https://data.apps.fao.org/map/catalog/srv/eng/catalog.search?id=14116#/metadata/446ed430-8383-11db-b9b2-000d939bc5d8	To be downloaded online
Climatic Data (Rainfall and Temperature Max and Min) from at least 4 nearest surrounding PAGASA weather stations	Ms Excel	DOST-PAGASA	At least latest 10 years of daily climatic data

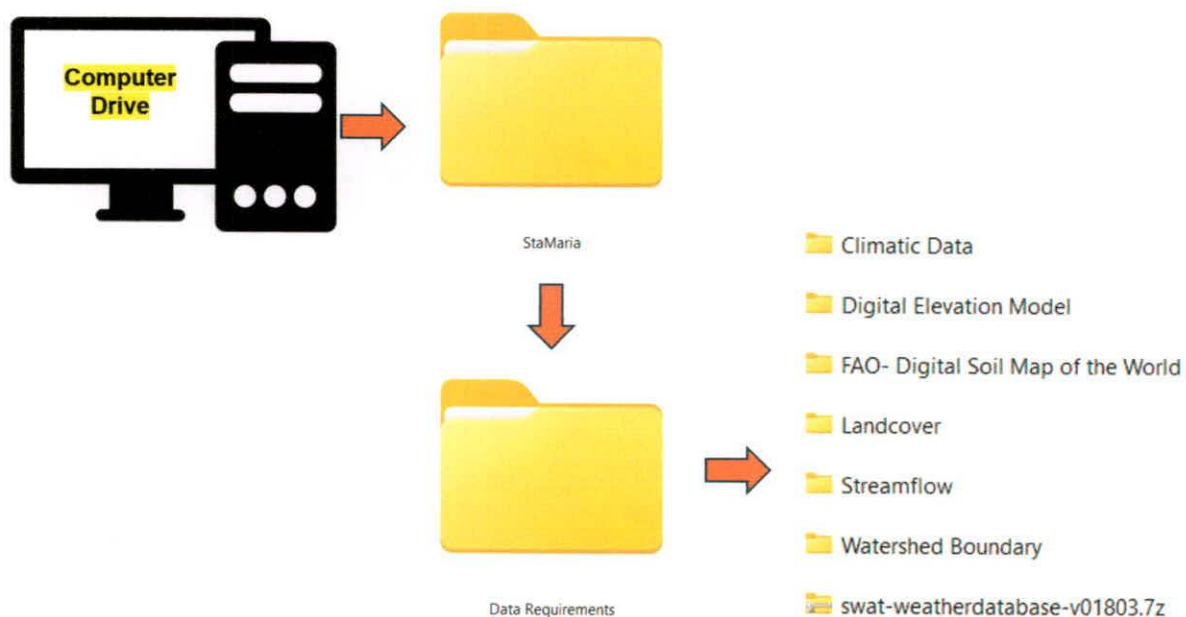
Data Requirements	File Type	Source	Remarks
Streamflow	Ms Excel	DPWH-Bureau of Design (https://apps.dpwh.gov.ph/streams_public/home.aspx)	At least latest 10 years of daily streamflow data in cubic meters per second, the same as the climatic years data
WGN Parameters Estimation Tool	Zip Folder	https://swat.tamu.edu/software/	Microsoft Access tool to store and process daily weather data

Installer Requirement	Source	Remarks
QGIS Software	https://download.qgis.org/downloads/QGIS-OSGeo4W-3.34.5-1.msi	Download the QGIS 3.34.5 'Prizren' version with Python version 3.9.18 or prior release version
Microsoft Access	https://www.microsoft.com/en-us/download/details.aspx?id=54920	Download the MS. Access 2016 version
SWAT+	https://swat.tamu.edu/software/plus/	Download the SWAT+ installer 2.3.4 released 30 August 2023

Gathered Data Compilation

Save compiled **Data Requirements** under a single directory/folder inside the StaMaria (***name of the watershed***) folder on your computer drive with the following recommended file names:

Data Requirements Folder	Recommended File Name	Example File Name
Watershed Boundary	watershedname_BD.shp	<i>Stamaria_BD.shp</i>
Digital Elevation Model	watershedname_DEM.tif	<i>Stamaria_DEM.tif</i>
Landcover	watershedname_LC2020.shp	<i>Stamaria_LC2020.shp</i>
FAO- Digital Soil Map of the World	watershedname_DSMW.shp	<i>Stamaria_DSMW.shp</i>
Climatic Data	watershedname_CD_years.xlsx	<i>Stamaria_CD_2007to2018.xlsx</i>
Streamflow	watershedname_SF_years.xlsx	<i>Stamaria_CD_2007to2018.xlsx</i>



Computer/Desktop Requirements

Components	Requirements	
	Minimum	Recommended
Central Processing Unit (CPU)	Core i3 2.7 Ghz	Core i7 3.5 Ghz or higher
Random access memory (RAM)	2 Gb	8 Gb or More
Hard Disk	500 Gb SATA	SSD de 128 Gb or 500 Gb SATA
Graphic Card	1 Gb RAM	2 Gb RAM or higher
Operating System	Windows 7-10	Windows 7-10
System	Microsoft Windows, Microsoft Access, Text editor (e.g. WordPad, NotePad, NotePad++), text files, WinZip that can uncompress.zip files	
Internet Connection	A stable internet connection	
Display Monitor	Higher resolutions (e.g., Full HD or higher)	