Groundwater Reserve

- What does this dashboard relate to: general description
 - Information on the types or level of Reserve determined (Desktop; Rapid; Intermediate; Comprehensive) nationally
 - Information on the types or level of Reserve determined (Desktop; Rapid; Intermediate; Comprehensive) locally (per quaternary catchment)
 - o Information on the number of Reserves determined per WMA
 - Information on the number of Reserves determined nationally
 - o Information on the groundwater Reserve Quality Class per Quaternary
- Person(s) who championed the dashboard
 - Mr Stanley Nzama
 - Resource Directed Measures
- Enquiries:
 - For all dashboard enquiries click **HERE** to go to the Contact Us page.
- What type/s of questions does the information product aim to answer:
 - How many groundwater Reserves completed per WMA?
 - At what level (Desktop; Rapid; Intermediate; Comprehensive) were those groundwater Reserves conducted?
 - Which quaternary catchments have available (determined) groundwater reserves?
 - What is the groundwater Reserve Quality Class determined per Quaternary catchment?

• Data / Information discussion:

- What data is used?
 - Recharge volumes of groundwater provided by Head Office, Groundwater Reserve Determination (GWRD)
 - Groundwater baseflow volumes provided by Head Office (GWRD)
 - Ecological Water Requirements for Maintenance Low Flows (EWR_MLF) volumes provided by Head Office (GWRD)
 - Groundwater Reserve volumes provided by Head Office (GWRD)
 - Groundwater Quality Reserve provided by Head Office (GWRD)
- How is extracted and from where?

Excel spreadsheets provided by the business unit is uploaded to N-drive. NIWIS is extracting data from the spreadsheet saved on the N-drive and then export it directly for display on the NIWIS.

• How often is it extracted?

Business unit (GWRD) provides Excel spreadsheets bi-annually

- o Business processes related to the data
 - N-Drive
 - Groundwater Tracking System (Spreadsheet)
 - NGIS/ NGA/WMS
 - WRPS
- The database is updated frequently as new groundwater Reserves get approved

• The algorithms / equations used to convert data into Information

- Reserve Level
- o Desktop Level
- Rapid Level
- Intermediate Level
- o Comprehensive Level
- Reserve Quality Class = Water Quality Reserve

- Class 0 (Ideal for domestic use complies with the standard limits of SANS 241:2011/2015)
- Class I (Acceptable for domestic use complies with the standard limits of SANS 241:2011/2015)
- Class II (Tolerable for domestic use does not comply with the standard limits of SANS 241:2011/2015)
- Class III (Unacceptable for domestic use does not comply with the standard limits of SANS 241:2011/2015)
- The reserve quality class and reserve levels are shown in the picture below :

Water Quality Class

Class 0 (Ideal)

Class I (Acceptable)

Class II (Tolerable)

Class III (Unacceptable)

No Water Quality Reserve Done

Reserve Level

Desktop

Rapid

Intermediate

Comprehensive

Key assumptions made

- o Map Legend
- o Shows quaternary catchments with Groundwater Reserve completed
- Summaries Groundwater Reserve completed nationally
- Summaries Groundwater Reserve completed per WMA and per quaternary catchment
- Shows Level of groundwater Reserve conduced in a quaternary catchment & nationally
- Shows groundwater Reserve Quality Class per quaternary catchment

Links to other sources of related information

- o DRD
- o NGIS CHART
- o NGA
- o NGIS
- o IWRP

• Are there any limitations / cautions related to using this information?

Yes, please refer to the below:

Only the Dashboard champions have access rights to the spreadsheets for updating of information.

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