**Last updated 8/21/23 @Mpedrazas**

**Steps to update GHB Package to 2023**

* Add most recent interpolated WL rasters: update for CY 2022 and CY 2023 (until Jul 2023).
  + S:\AUS\CHPRC.C003.HANOFF\Rel.044\045\_100AreaPT\d02\_CY2022\_datapack\100APT\_CY22\01\_Water\_Level\_Mapping\Output\v060623
* Extract water levels at GHB cells from raster files of interpolated water levels
  + Python script **"py03\_ras2ref\_4ghb.py"**
* After running "py03\_ras2ref\_4ghb.py", get output file **"GHB\_2014\_toJul2023\_good.csv"**
* Option 1: Use GW Vistas to import **"GHB\_2014\_toJul2023\_good.csv"** and generate an updated 2014-2023 GHB package
  + Import the new modflow project (with updated DIS package)
  + BCs> General Head Boundary
  + BCs > Delete > Clear All
  + BCs > Import > Text File
  + Model > MODFLOW > Packages > Create GHB
  + Model > MODFLOW > Create Datasets
* Option 2: Use script py03, gen\_ghb\_package = True (not working properly)

**Notes:**

* Note that data from 2023 was assigned 2022 data because the data for 2023 is not available. GHB data for 2022 has been updated to 2022 since it is available (instead of 2021 data).
* Script deletes a GHB cell if the GHB head at that cell < cell bottom elevation + 0.001 m
* Script will assign 120 m for the GHB heads below the river, where row is not equal to 433 (Line 156 and 157)
* Optimized GHB conductance:

|  |  |  |
| --- | --- | --- |
| GHB Conductance Hanford 100-N | 800 | [A map of a river  Description automatically generated](https://us-prod.asyncgw.teams.microsoft.com/v1/objects/0-cus-d10-e7355699a8f2232ca273dbb13b0990cb/views/imgo) |
| GHB Conductance Hanford West | 700 |
| GHB Conductance Hanford East | 800 |
| GHB Conductance Ringold 100-N | 500 |
| GHB Conductance Ringold East | 500 |
| *GHB Conductance Mud (Layer 5,6,7,8)* | *65 (OK)* |
| GHB Conductance RUM 100-N (Layer 9) | 70 (OK) |
| GHB Conductance RUM West (Layer 9) | 1,885 (OK) |
| GHB Conductance RUM East (Layer 9) | 580 (OK) |
| GHB Conductance RUM River (Layer 9) | 1,240 (OK) |