NOTE TO PEER-REVIEWER & INSTRUCTOR - I have not yet had time to flush out this section so the current draft content consists of quotes from relevant sources of which I will better summarize. Any feedback on current content is much appreciated].

Recommended Data Citation

> Groundwater depletion in the United States (1900-2008) (2014): U.S. Geological Survey, Digital data. Reston, VA. https://water.usgs.gov/lookup/getspatial?sir2013-5079_Groundwater_Depletion

Long-term preservation

There is a general guideline for the preservation of digital scientific data at USGS but nothing specific to this dataset in terms of digital preservation metadata.

I did find some information on the native dataset environment which used Microsoft Windows 7 Version 6.1 (Build 7600) ; Esri ArcGIS 10.2.0.3348.

The digital format for the dataset is a shapefile and the transfer size is 0.217.

I did locate information about GIS file formats available on the Water Resource NSDI Node [https://water.usgs.gov/GIS/metadata/usgswrd/guide.html] Since the USGS Water Resource NSDI Node contains thousands of compressed digital data files for use in GIS applications, a number of compression utilities can be downloaded like Winrar®, PKZIP®, PowerArchiver®, Winzip® to extract the compressed files.

Copyright License Statements

"USGS-authored or produced data and information are considered to be in the U.S. Public Domain." [https://www.usgs.gov/information-policies-and-instructions/copyrights-and-credits]

"Use Constraints: Acknowledgment of the U.S. Geological Survey would be appreciated in products derived from these data." [https://water.usgs.gov/GIS/metadata/usgswrd/XML/sir2013-5079_Groundwater_Depletion.xml#stdorder]

Ethical Issues

The dataset does not include personally identifiable data about people however there are ethical issues as the data collected is environmental in nature. Below is the Environmental Management Policy:

"Effective environmental management is critical to the U.S. Geological Survey (USGS) mission. We are committed to protecting the environment through complete compliance with environmental laws, regulations, and outstanding efficiency in the conduct of our operations. As part of our ongoing efforts, we will:

- *Comply with and strive to surpass Federal, State, and local environmental laws and regulations.*
- *Implement and maintain the Environmental Management System as the primary management practice for USGS operations and activities.*
- *Seek to minimize the environmental impact of our operations through regular evaluation, restoration, and efficient use of natural resources.*
- *Implement sustainable environmental practices, including the acquisition of bio-based, environmentally friendly, energy-efficient, water-efficient, and recycled-content products.*
- *Conduct audits to measure environmental performance and establish accountability to correct deficiencies.*
- *Continuously improve environmental performance through appropriate policies, procedures, training, and recognition of excellence.*
- *Prepare for emergencies in order to minimize environmental impacts.*
- *Emphasize pollution prevention, environmentally preferred products, and sustainable business practices with our building managers, contractors, and suppliers.*
- *Incorporate and enforce appropriate performance clause(s) in contracts with concessionaires and contractors that specify environmental protection and compliance.*
- *Serve as a role model and provide leadership for other organizations.*

These tasks reflect the USGS's commitment to excellence in environmental management. All managers and employees should strive to carry them out."
[https://www.usgs.gov/environmental-management-policy-statement]