After reviewing Appendix U, I strongly oppose SSD 30759158 Minarah College. The health and safety of the staff and students have not been taken into consideration. The wastewater management assessment report proposes that the effluent irrigation will be used on the sports field and admits that this generally increases soil moisture levels. This would be especially concerning after rain events when the school is recommended to implement a 'downtime' policy to restrict 'return to play' **to prevent damage to the sports field'**. There is no mention of protecting the students and staff health.

Under Sections 120–123 of the Protection of the Environment Operations Act 1997, it is an offence to pollute waters and there are severe penalties for doing so. Accordingly, a key environmental performance objective is to ensure that ground and surface waters do not become contaminated by any flow from irrigation areas, including effluent, stormwater runoff or contaminated subsurface flow. By leaving a small soil moisture deficit after each irrigation event, small rainfall events will not generate runoff and the runoff from large rainfall events is more likely to be of acceptable quality.

The extent of wastewater area on the plans doesn't appear to be adequate for a development with a school population of 980. Also, the location of the EMA where the fields are would prevent use of the fields due to waterlogging. The report mentions that the field would be closed during periods when there has been rain but with the amount of effluent that would be dispersed to this area its likely to be water logged without rainfall. The wastewater report also mentions an effluent treatment plant but the plans and other documents don't specify where this would be located.

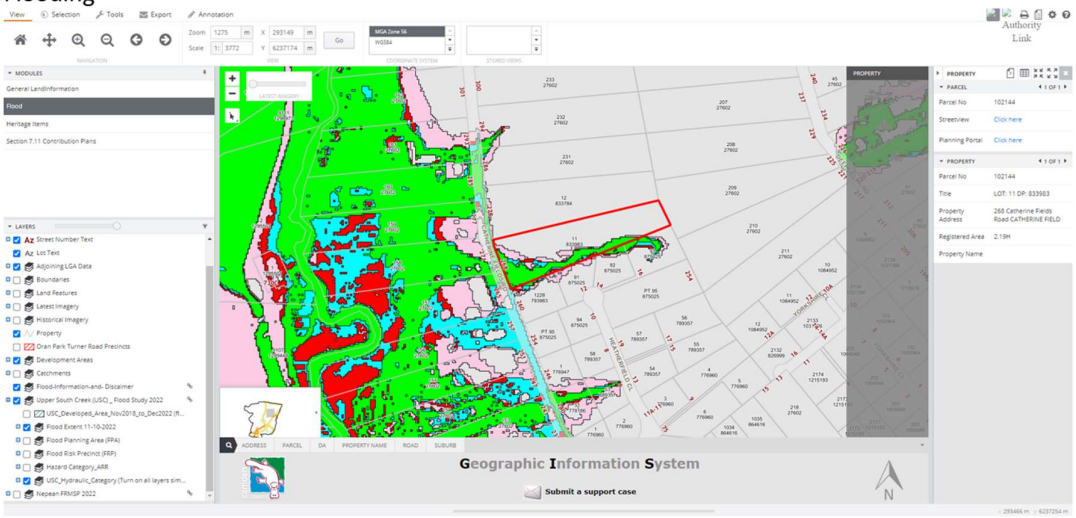
The primary constraint to any wastewater use project is public health. Wastewater, especially domestic wastewater, contains pathogens which can cause disease spread when not managed properly. The primary objective of any wastewater use project must therefore be to minimize or eliminate potential health risks.

A broad spectrum of pathogenic microorganisms including bacteria, viruses, helminths and protozoa is present in wastewater and they survive for days, weeks and at times months in the soil that come in contact with wastewater. Yet, Minarah College and Martens Consulting are satisfied to allow staff and students to play on the effluent management area.

Lastly, the updated flood maps clearly show that the site is subject to flooding within close proximity to where the proposed tanks will be installed. The community and surrounding homes have concerns that in the event of a major flood, there could be the possibility of effluent becoming a part of the flood waters and contaminating downstream which again could affect health and wellbeing.

It is understood that sites prone to flooding can be suitable for effluent irrigation, but only where effluent storage facilities and other equipment such as pumps are adequately protected. Any drainage lines constructed within the floodplain may need to be protected against pollution from the applied effluent. This might require the construction of diversion banks and channels. It is understood that approval must be obtained from the Department of Infrastructure, Planning and Natural Resources before constructing flood diversion structures. Further investigations should be carried out to determine if this is necessary.

# Flooding




Flood extents map