

Year 5: HASS, Geography and Mathematics

Activity: Monitoring The Lagoon of Islands



Name:	
Class:	
Date:	

Lagoon of Islands

Lagoon of Islands is a small, shallow wetland in central Tasmania.

In 1964 Lagoon of Islands was flooded to provide water to downstream irrigators along the Ouse River.

Fast forward to 2013...

After a lot of planning, the dam was removed.

Ongoing monitoring of water quality, vegetation, invertebrates, weeds and algae helps Hydro Tasmania track the progress of the lagoon's recovery.



Let's take a look at some of the data Hydro Tasmania records.

Turbidity (how cloudy the water is)

We measure turbidity (how cloudy the water is) regularly. This measurement is an important test and helps us understand the water quality (how clean the water is). The lower the number the better, or the clearer the water.



Year	Turbidity Reading
2005	18
2006	25
2007	100
2008	500
2009	87
2010	254
2011	219
2012	351
2013	39
2015	28
2016	14
2017	31

1. **Between 2006 and 2008 Tasmania experienced drought conditions. This means that there was very little to no rain recorded across Tasmania. What happened to the turbidity reading?**

2. **The dam and associated infrastructure was removed in 2013. What do you notice about the turbidity reading after that?**

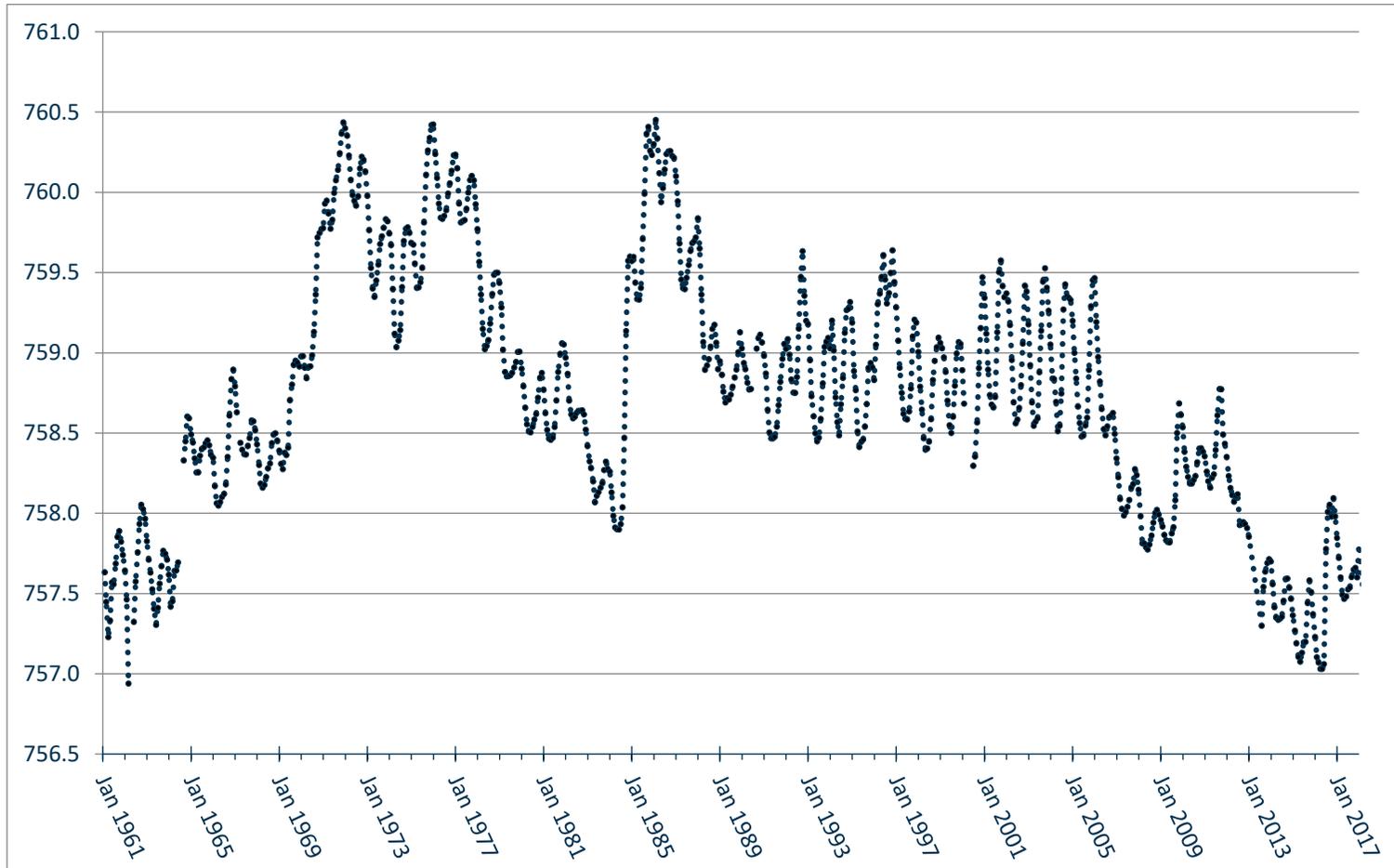
Turbidity (how cloudy the water is)

Create a column graph of the data of the year and turbidity reading data.



Water level (meters)

Each month Hydro Tasmania records the water level at Lagoon of Islands. The data is recorded in Hydro Tasmania's system so that it can create graphs like the one below. This graph shows the changes in water level from 1961 until January 2017.



Water level (metres) - continued

Hydro Tasmania records the water level because it is important to know how much water is in the lagoon and how this changes the vegetation community (which plants live or die there).

1. **The dam was built in 1964. What do you notice about the water level?**
2. **Which year (or years) had the highest water level?**
3. **What year was the water level at 756.94 metres?**
4. **What happened to the water level after the dam was removed?**
5. **How does this compare with before the dam was built?**



Water level (metres) - continued

Below is some of the data used to create the graph.

Date	Water level (m)
1/2/2018	757.67
1/2/2015	757.27
1/2/2012	758.23
1/2/2009	757.91
1/2/2006	759.19
1/2/2003	758.92
1/2/2000	758.68
1/2/1997	759.07
1/2/1994	759.20



1. Can you find any patterns in the table?

2. Create a number line of the water level. Choose at least five numbers to add to your number line.

Vegetation monitoring

Each month/year Hydro Tasmania take photos at the same GPS points to monitor vegetation. Hydro Tasmania look for changes in the vegetation community (which plants are living there) and how much of the surface of the lagoon is covered by plants



Lagoon of Islands image taken January 2013



Vegetation monitoring



Lagoon of Island image taken April 2017

Vegetation monitoring

Look at the photo from January 2012 and the one from April 2017. List any differences and similarities you observe in the photos.



Differences	Similarities