



Light Profile and Water Clarity Answer Key

1. Using Figure 1, in which month(s) is Flathead Lake the least clear (i.e. the shallowest Secchi depths)?
May and June
2. Using Figure 1, in which month(s) is Flathead Lake the most clear (i.e. the deepest Secchi depths)?
January and March
3. Take a look at the Kalispell Average Precipitation chart (Figure 2). What relationship do you see between precipitation values and Secchi depth measurements?
The months with lower Secchi depths tend to have more precipitation (April/May/June). More precipitation, especially in the form of rain, tends to wash more sediment into lakes and streams and reduce water clarity.
4. Examine the box and whisker plot with data from Mid-Lake Deep (Flathead Lake), the Flathead Lake Secchi Dip-in, and all the lakes that participate in the Secchi Dip-in across the United States (Figure 3). Which dataset has the deepest Secchi depth?
The all-time deepest is from the US Secchi Dip-in. The average deepest is at Mid-Lake Deep.
5. How does the water transparency of Flathead Lake compare to lakes across the United States?
On average, the transparency of Flathead Lake is greater than other lakes across the United States. In other words, Flathead Lake is a very clear lake compared to other lakes in the United States.





6. List three things you can do to keep Flathead Lake clear?

- *Limit the amount of fertilizer that you use on your lawn and garden. Fertilizer contains a lot of phosphorus and nitrogen which can contribute to algal blooms and reduce water transparency. Only apply the amount of fertilizer that your plants can use. Additionally, apply fertilizer when the ground can absorb it (when it's not frozen) and never right before rain.*
- *Maintain your septic system to prevent human waste from entering into the lake.*
- *Pick up your pet's waste.*
- *Clean up all trash from areas around lakes and streams.*
- *Capture water runoff on your property with a rain barrel or rain garden. Water flowing over hard surfaces like roads and driveways picks up more material that can wash into Flathead Lake.*

