

Different levels of pollution in streams assignment



**ASSIGN
BUSTER**

When pollution and heavy metals are added to the stream, many of these organisms die. Sensitivity levels determine what conditions the species can live in (Whitaker. Gobo. Nz , 2002). The level ranges from 1 to 10 (Whitaker. Gobo. Nz , 2002). Ten is the best score. Ten means the stream is clean and free from pollution. Organisms with scores of ten can only live in streams that are not polluted. One means the organisms are living in an unclean or polluted stream.

Some macro invertebrates are good indicators because they live in the water almost all their life, they stay in safe places , can tolerate pollution at different levels, can be recognized easily, can live over a year, and can determine what type of condition the environment is in(Biological Indicators Of Watershed Health , 2012). The streams are less slimy because the invertebrates eat the algae (Whitaker. Gobo. Nz, 2002). Invertebrates also keep the stream sanitary by eating the leaves and other plant materials that fall into the stream (Whitaker. Gobo. Nz, 2002).

The fish rely on invertebrates to for food (Whitaker. Gobo. Nz, 2002). A pond with few of these animals will result in the fish dying off. Factors that determine where invertebrates live include: tree removal, erosion, piping streams underground, straightening streams, flow reduction, ND water pollution. Tree removal can cause the water to get hot or warmer (Whitaker. Gobo. Nz, 2002). These animals can only live in cold water (Whitaker. Gobo. Nz, 2002). Removing the trees can also result in starvation because less leaves are around for the invertebrate to eat. Invertebrates only eat good algae (Whitaker.

Gobo. Nz, 2002). A bad alga starts to form because of the lack of shade from no trees and prevents good algae from growing (Whitaker. Gobo. Nz, 2002). In some cases the bad algae will cover the whole stream. Some of the organisms live in the trees. The trees being removed will cause some invertebrates to have no place to live (Whitaker. Gobo. Nz, 2002). Erosion causes sediment to form on the side of the streams (Whitaker. Gobo. Nz , 2002). The sediment falls into the water onto the plants living in the stream. This sediment covering the plant will cause the plant to die (Whitaker. Gobo. Nz , 2002). The reason for this is due to the lack of sunlight the plant is receiving because it is covered with dirt. If the plants in the stream die off, invertebrates will have less food to eat. The dirt can get stuck in the gills of the fish or some invertebrates that have gills which can result in death (Whitaker. Gobo. Nz , 2002). Piping the streams underground is another factor determining where invertebrates exist. Piping the stream is when the streams are piped underground to permit city expansion (Whitaker. Gobo. Nz , 2002). Piping the streams can cause the invertebrates to Starve.

The animals will starve because algae need light to survive (Whitaker. Gobo. Nz , 2002). In the pipes, algae are not receiving any light causing the plant to die . Launderettes can't eat leaves because there are no trees in the pipes. Straightening the streams is when the streams are smoothed out or straightened with concrete (Whitaker. Gobo. Nz , 2002). This can cause the stream to lack objects such as rocks. The invertebrates attach to these objects to prevent being washed down the stream(Whitaker. Gobo. Nz , 2002). If the stream lacks objects invertebrates will be washed down the stream.

The objects in the stream also used for protection from predators (Whitaker. Gobo. Nz , 2002). Fewer objects in the stream will result in less hiding places for invertebrates (Whitaker. Gobo. Nz , 2002). Therefore, predators will easily find them. Flow reduction is when some water from the stream is taken and sent elsewhere (Whitaker. Gobo. Nz 2002). This can happen in many ways. One way this can occur is when water is taken out of the stream for urban supplies and agriculture (Whitaker. Gobo. Nz , 2002). This can result in making the stream smaller or destroying the steam entirely (Whitaker.

Gobo. Nz , 2002). If the stream gets reduced in sized or destroyed most of the organisms the stream contained will become extinct. Sometimes wetlands can feed into the stream (Whitaker. Gobo. Nz , 2002). Draining the wetlands into the stream can cause the stream to die. Again, this will cause the organisms within the pond to become homeless and die off. Pine trees quire high amounts of water contained in the ground (Whitaker. Gobo. Nz , 2002). Pine trees that grow near streams can reduce ground water flow into the streams because they take so much water from the ground.

This is bad because less ground water will cause bad algae to grow (Whitaker. Gobo. Nz , 2002). The invertebrates will lack in things to eat and could starve. Extremely toxic chemicals enter through the storm drains and can pollute the water. Water pollution can kill off many of the organisms in the stream. The water in the storm drains carries heavy metals such as Mercury (Whitaker. Gobo. Nz , 2002). Mercury is very poisons.