

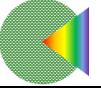
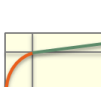
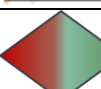
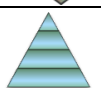

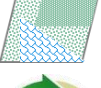





As before, consider the following ecological principles and rate the extent to which you have taken this principle into account in your new design, then provide an explanation.

Ecological principles		Check boxes					Explanation
		Minimum	-	Maximum			
	Continuity	X					The dam interrupts the continuity of water and sediment flows along the river and makes the land-water transitions more abrupt.
	No direct human disturbance	X					The construction of the dam had a huge impact on the existing ecosystems and habitats. Thus, the dam and its operation represent an ongoing human disturbance to the river ecosystem.
	Indigenoussness / Endogeneity		X				There is no information available whether invasive species might have been introduced during construction and operation of the dam.
	Viability of populations	X					Populations depending on the downstream continuity of water and sediment flows, or biotopes along the river, as well as populations originally living at the site of the reservoir will most likely suffer immensely.
	Opportunity for threatened species	X					There is no information if the dam aims to provide opportunities for threatened species but given the other negative effects, one can consider that there is no opportunity.
	Trophic web integrity	X					When the trophic web integrity of the river system is affected by the strong reduction in freshwater flows downstream of the dam, species dependent on base flows may become stressed. In contrast, algal and nuisance plant growth can increase in the dam waters.
	Opportunity for ecological succession	X					The dam is a man-made barrier working against opportunities for ecological succession.
	Zone integrity		X				Due to the massive construction, there is a dead zone near the reservoir's edge. Since the downstream river margins are inundated less frequently, the zone integrity of river ecosystem is affected as well. Hopefully, the newly created water body will develop its own zonal characteristics in future.
	Characteristic (in)organic cycles	X					The dam alters characteristic organic and inorganic cycles in the area by transforming a flowing water body into a rather steady one.
	Characteristic physical-chemical water quality		X				The dam also alters the physical-chemical water quality towards unnaturally occurring ranges, e.g. low water temperatures in the deep lake waters.
	Resilience	X					The downstream area is vulnerable to overtopping, dam failure, water pollution or other disturbances. As the system becomes accustomed to narrower, more stable conditions, its ability to cope with a sequence of disturbances is reduced.