Start with a negative externality

By overproducing, we lose surplus over the range of output
Where \( Q > Q_s \) (since \( MSC > MB \) over this range)

So subtracting the negative surplus from the positive yields the net surplus.
(Think about flipping the negative surplus over the social optimum and having it cancel out a portion of the positive surplus).
Implement the optimal tax to bring production to $Q_S$.

We now have the standard Consumer Surplus, and Producer Surplus below the producer price and above the MSC curve. However, we also have an area of negative producer surplus for quantities where the MSC is above the producer price.

As always, the tax generates revenue that counts positively toward surplus, since we assume the government uses it productively.

So in order to find the overall net surplus we add the consumer surplus, the producer surplus, and the tax revenue, and subtract the negative producer surplus, which yields a net surplus that looks just like the surplus in a situation without any externalities or other distortions. Thus, the optimal tax really is optimal, and gets us back to maximum net surplus.