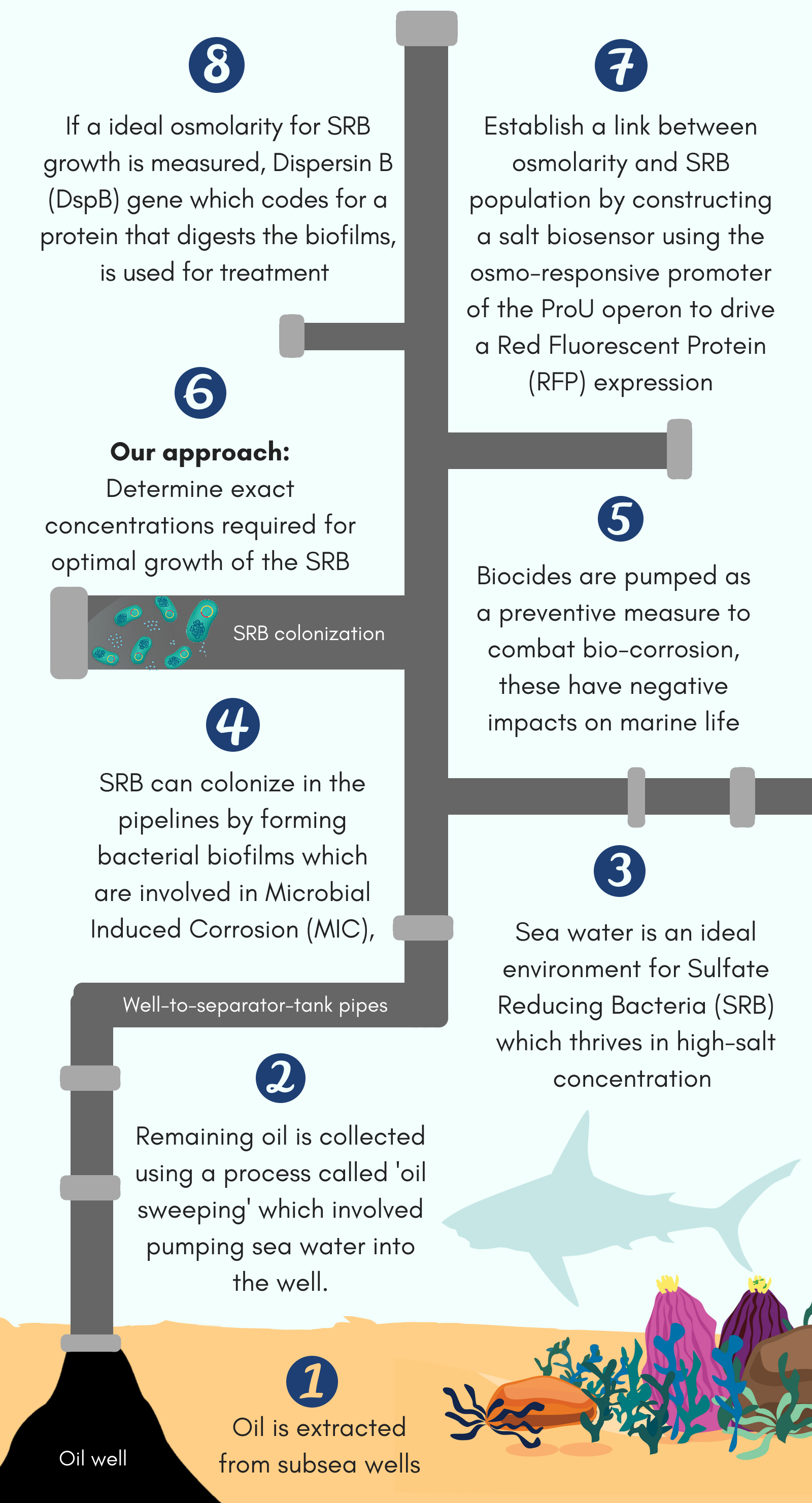


By regulating the frequency of adding biocides, and using non-invasive DspB, we plan to decrease the overall use of chemical biocides.



8

If a ideal osmolarity for SRB growth is measured, Dispersin B (DspB) gene which codes for a protein that digests the biofilms, is used for treatment

7

Establish a link between osmolarity and SRB population by constructing a salt biosensor using the osmo-responsive promoter of the ProU operon to drive a Red Fluorescent Protein (RFP) expression

6

Our approach:
Determine exact concentrations required for optimal growth of the SRB

5

Biocides are pumped as a preventive measure to combat bio-corrosion, these have negative impacts on marine life

4

SRB can colonize in the pipelines by forming bacterial biofilms which are involved in Microbial Induced Corrosion (MIC),

3

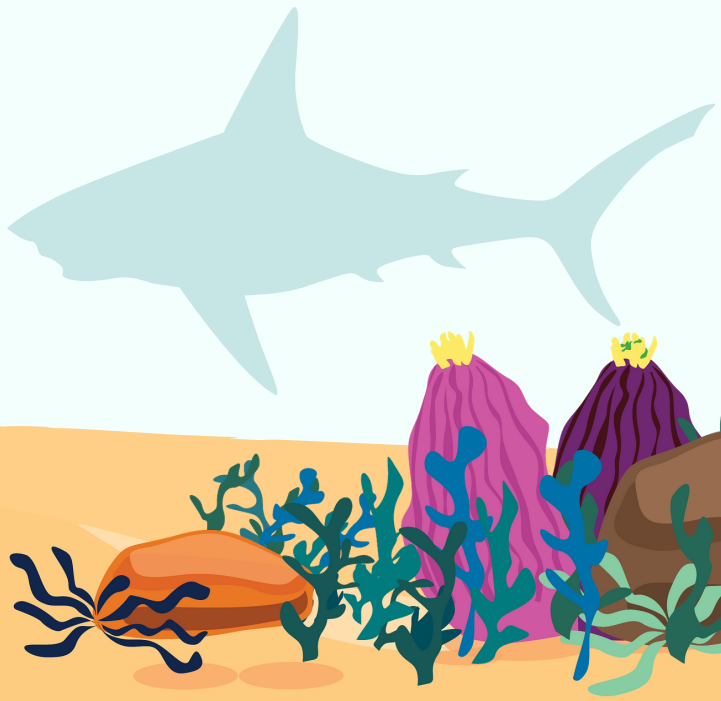
Sea water is an ideal environment for Sulfate Reducing Bacteria (SRB) which thrives in high-salt concentration

2

Remaining oil is collected using a process called 'oil sweeping' which involved pumping sea water into the well.

1

Oil is extracted from subsea wells



Oil well