



## **STOP HALITE ENERGY PUMPING OUT TOXIC BRINE AT ROSSALL, FLEETWOOD, & DESTROYING MARINE LIFE AND LIVELIHOODS IN AND AROUND MORECAMBE BAY**

Halite Energy Group has consent to pump out 19,000 tonnes of salt per day, 2.3km off the coast at Rossall, Fleetwood. Pumping will be continuous for several years, so Halite can build up to 19 underground caverns in neighbouring Preesall, to store gas. 19,000 tonnes of salt per day is a huge amount to be absorbed into a small and sensitive marine ecosystem. Local residents with expert knowledge of the sea, fisheries, marine life, and coastline have grave concerns that this will destroy our delicate marine ecology, and impact heavily on local livelihoods. Major concerns include:

**Fisheries and Conservation:** The area is of significant fisheries and conservation interest. The Fylde Coast is a nursery area for demersal fish species such as cod, plaice, and dover sole. Seasonally, thornback ray, brill, turbot dogfish, and tope are found feeding on small shoals of pelagic species such as sprat, herring and mackerel. Shrimps are abundant along the coastal strip, with lobster and whelk found in the northern part of the area. During the summer, seals and dolphin are a common sight, and it is a mecca for bird lovers. It is not known what effect the changes in salinity will have on the Migratory Species (Salmon & Sea Trout) that pass through Morecambe Bay in passage to our rivers.

**The Food Webs of the Coastal Waters and the Wyre Channel:** The toxic brine will be extremely dense, eight times the concentration of the receiving ambient waters. Halite recognise that there will be a significant area where no species could survive, this will be known as the dead zone, a benthic desert. Mobile species have the ability to move away from inclement conditions but all sedentary species will be lost. Without sufficient dilution and mixing the toxic lake will sit on the seabed, growing in size with time. Even with mixing the waters around the dead zone will be above ambient salinity affecting species that are not salt tolerant. Any change in species numbers at any trophic level will upset the well-established food webs of the area with potentially devastating affects probably best witnessed when considering the top predators such as birds and fish.

**Fishing industry:** The seas off the Fylde Coast are vital for commercial fishermen based at Fleetwood, and are valued by sea anglers both afloat and from the shore. Fisherman have said the toxic brine will be a 'disaster' for those who fish for cockles, mussels, bass and shrimp.

**Tourism:** The wildlife and seaside attract thousands of visitors each year on the Fylde Coast with several beaches used by bathers. It is unclear how far the brine will travel.

**Water from Fleetwood fish dock:** Water will be pumped from the dock area to wash out underground caverns to store the gas. There is oil and other pollutants in the water. The dock is currently not dredged to avoid polluting a wider area. The amount of water required is huge, and pumping it out will impact water levels nearby, such as in the Marina – a great asset to the area.

**Dispersal modelling versus reality:** Dispersal modelling has taken place. As part of the consent order for Halite Energy Group to discharge the brine, certain salinity and other limits have been specified to safeguard the area. Fishermen and other experts have concerns that the surveys being undertaken as a baseline measure are inadequate in terms of timing, duration, season, and weather. Halite Energy Group have admitted that a 'dead zone' will be created at the end of the discharge pipe. Local concerns are that this 'dead zone' will be



significantly bigger than the modelling suggests, and could reach other areas of Morecambe Bay – a major conservation area. It is also believed that the discharge pipe will be in too shallow water at certain tides, which will affect dispersal. In calm periods, brine will settle in sheltered patches on the sea bed and linger there for long periods. During neap tides, the ambient salinity of the coastal waters along the several areas of the coast will rise above acceptable levels. As salinity increases above acceptable levels, Halite Energy Group will have to cease pumping the brine, but it would be better if it never starts. We need to prevent significant and irreversible environmental damage, and the negative impact on the lives and livelihoods of many thousands of local people.

**We are calling for a parliamentary debate on the toxic brine discharge into the sea, and whether this project is really of such national significance that it outbalances the destruction of marine life, pollution of our oceans in a tourist, bathing and fishing area, and the huge negative impact that this will have on livelihoods around the Bay.**