

Water treatment and reuse for water management during shale gas recovery

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My group's expertise is primarily in water and wastewater treatment using membranes. We would like to contribute to developing and consulting on technologies that enable reuse of produced water and or development of marginal water sources such as wastewater using integrated membrane systems. Such systems utilize a combination of biological treatment with physical separation using membranes. An example is the use of membrane bioreactors (MBR) with reverse osmosis (RO) membranes. Further, as the volumes of treated water go the by products from these treatment technologies need to be looked at. In particular the appropriate disposal or reuse of treatment of reverse osmosis concentrate is critical in inland areas where permitting is increasingly difficult for such streams. Use of Electrochemical technologies for making usable products from these waste streams might be an excellent avenue for avoiding waste .