Through this work we propose one of the solutions that allow us to recycle dam sediments as a potential raw material for the development of stabilized soil blocks. For the stabilization of the prepared samples, different percentages of cement and lime were chosen respectively (0, 6, 8, 10 and 15%), (0, 5, 8 and 10%). Different compaction pressures 2, 5 and 7MPa are used. The tests carried out showed very interesting results on the mechanical strength for specimens stabilized with cement up to 8.32MPa for 15% and 5.67MPa for 10% of lime at 7MPa compaction. The obtained water absorption coefficient is about 2.6 for 15% cement and 4.04% for 10% lime; however a thermal conductivity of specimens with cement and lime is about 1.06 and 0.731W/m.k, respectively