

# INSURE

Innovative Sustainable Remediation



## Newsletter 3, August 2017

INSURE (*"Innovative Sustainable Remediation"*) is a 4 year Interreg Central Baltic project (September 2015 – August 2019), aimed at the improvement of sustainable remediation of contaminated sites in Central Baltic region, thus decreasing runoff of polluting substances into Baltic Sea.

Motala Municipality (MM) is one of the seven partners involved in project implementation. Project lead partner is County Administrative Board of Östergötland (CAB), other partners are Latvian Environment Geology and Meteorology Centre (LEGMC), University of Helsinki (UHEL), Populus Group Oy (POP), Vidzeme Planning Region (VPR) and Valmiera City Council (VAL). At the moment the project is at the 4<sup>th</sup> implementation period (01.03.2017 - 31.08.2017).

## Installation of in-situ test in Motala 07.06.2017

Motala pilot area Södra Stranden is a area with great location near the centre of Motala town and with a shoreline against lake Vättern and close to nature. The area has a long history of industries and activities like marina and shipyard. Motala is a growing city and Södra stranden has great potential in becoming an attractive area for housing mixed with enterprises, boardwalks along the shoreline and with a kept connection to boating and the water.

Because of the history of the area there was a need for investigations of

contaminants. Not only the history of industries can have caused contaminants, the shoreline has also been changed and there is a lot of filling material in the center of the pilot area. After the site investigations there was confirmed that the area was contaminated. In one part there are old oil depots that have an oil contaminant in ground water level. In that area there was an installation of in-situ test in the beginning of June 2017.



Present during the installation of the equipment where MM and UHEL, but also the Geological survey of Sweden because the state government are partly responsible for the contaminant at the oil depots.



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In September there will be a new sampling to check how the tests are going.

## Supervision at ongoing enterprises

According to the environmental laws in Sweden enterprises are responsible that their operations don't affect human health and the environment. Contaminated sites can affect both human health and the environment and that is why it is important that the enterprises know which contaminants they have on their properties and start to work with minimizing the risks with the contaminants. To improve the enterprises knowledge about contaminated sites and increase the number of contaminated sites remediated in Sweden the supervision authority will perform supervision at ongoing enterprises within the framework of INSURE. In Sweden both Count Administrative Board and the municipalities are supervision authority. CAB and MM will perform supervision at chosen enterprises. Focus will be self-monitoring, plans of action and sustainable remediation. The goal is that every enterprise will have an action plan for their contaminated site. To get the activity started both MM and CAB have arranged breakfast meetings for chosen enterprises.



After the breakfast meetings each enterprise will get a first meeting. In MM 8 enterprises have got a visit from the supervision authority and CAB has visited 9 enterprises so far. The plan is to keep on supervising the enterprises regularly and that all enterprises will have ready action plans during 2018.

CAB has also released a booklet about self-monitoring and plans of action with focus on sustainable remediation and in MM the work with the booklet are ongoing.

## Site investigations in Valmiera

During period 4 in the project there have been site investigations at oil storage in Valmiera. At the site geocological drilling was performed, a groundwater monitoring system installed, soil sampling in 3-4 depths and also groundwater sampling. Some of the samples were sent to laboratory for analysis.



At the moment it has been discovered, that there is an LNAPL (thickness ~2 cm) in one of the groundwater monitoring wells and intense soil pollution (over 5000 mg/kg) with oil products in two of the boreholes to



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a depth reaching 4 meters. Heavily polluted area is around 100-150 m<sup>2</sup> large.

Light pollution is discovered in some other samples taken close to infrastructure objects - such as underground tar tanks etc.



At the moment Valmiera are waiting for the last laboratory tests to be completed to do finalization of a report of site investigation.

## Site investigations in Vidzeme planning region

In spring 2017 Vidzeme Planning region (VPR) started investigations in pilot site "Krustmali", which was registered as the potentially contaminated site with possible primary contaminant – pesticides. As the previous studies on this site, made in 2011 showed the high presence of pesticides, INSURE team had high expectations towards the possibility to pilot their sustainable in-situ remediation methods.



However, the results of investigations revealed that there is no presence of heavy metals and the concentration of pesticides, which were found in some samples, is not even close to the limits of which remediation is needed. The result of "Krustmali" investigation shows that the real situation about the historically contaminated sites in Latvia can differ from the assumptions. Historical contamination during the last decades has decreased by the natural processes more as expected.



It opens new discussions and actions how to deal with these "potentially contaminated sites". But still, Vidzeme Planning region is opened and still for new challenges regarding the appropriate contaminated site where to test remediation methods. Although the previous research has not been successful (or, on the contrary, VPR is pleased that pollution of the sites has decreased), the Vidzeme planning region is continuing its research work to find the best solution to the nature, the project and the region as a whole, in cooperation with local people.

## Contacts:

INSURE home page: [www.insureproject.se](http://www.insureproject.se)

This newsletter was made by MM



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