



UNIVERSIDADE NOVA DE LISBOA
Instituto Superior de Estatística e Gestão da Informação

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GIS Application development for the Licensing of Residual Water Discharges

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Introduction

- This Application is part of a Geographic Information System for CCDR-Algarve (Comissão de Coordenação e Desenvolvimento Regional do Algarve)
 - SAL Visualização
 - SAL Captações
 - **SAL Águas Residuais**
 - SAL Pequenas Barragens
- This Application supports the licensing process through the identification and visualization of spatial constraints

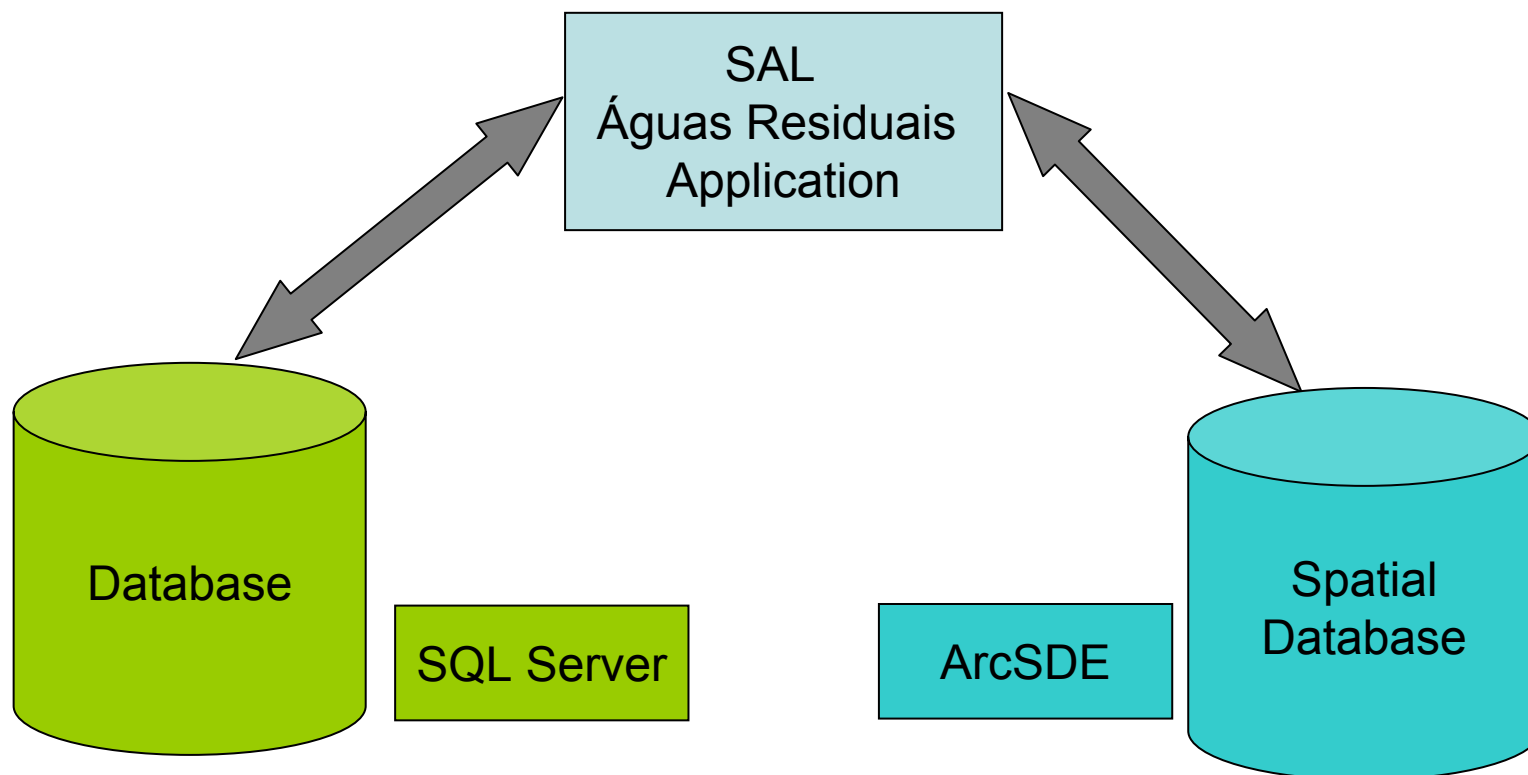


The Application was:

- Programmed in Visual Basic
- Uses ESRI MapObjects
- Connects to a Microsoft SQL Database
- The connection to the spatial data is made through ArcSDE



Information System Components





Functionalities similar to the other SAL applications:

- Basic GIS functionalities
- Cartography catalog
- Database connection
- ...



Sistema de Apoio ao Licenciamento (Sal) - Descargas de Águas Residuais

Ficheiro Temas Localizar Processos Mapa Cartografia Análise Ajuda

CONCELHOS

FREGUESIAS

ID Temporário: 2118

Nº de Processo:

Tipo de Captação:

Requerente:

Coord.M:

Coord.P:

Captação:
Concelho:

Freguesia:

Local:

Ver Processo Seleccionado

Escala: 1: 1034793 Modificar Escala Baixo

The Sal
Application:

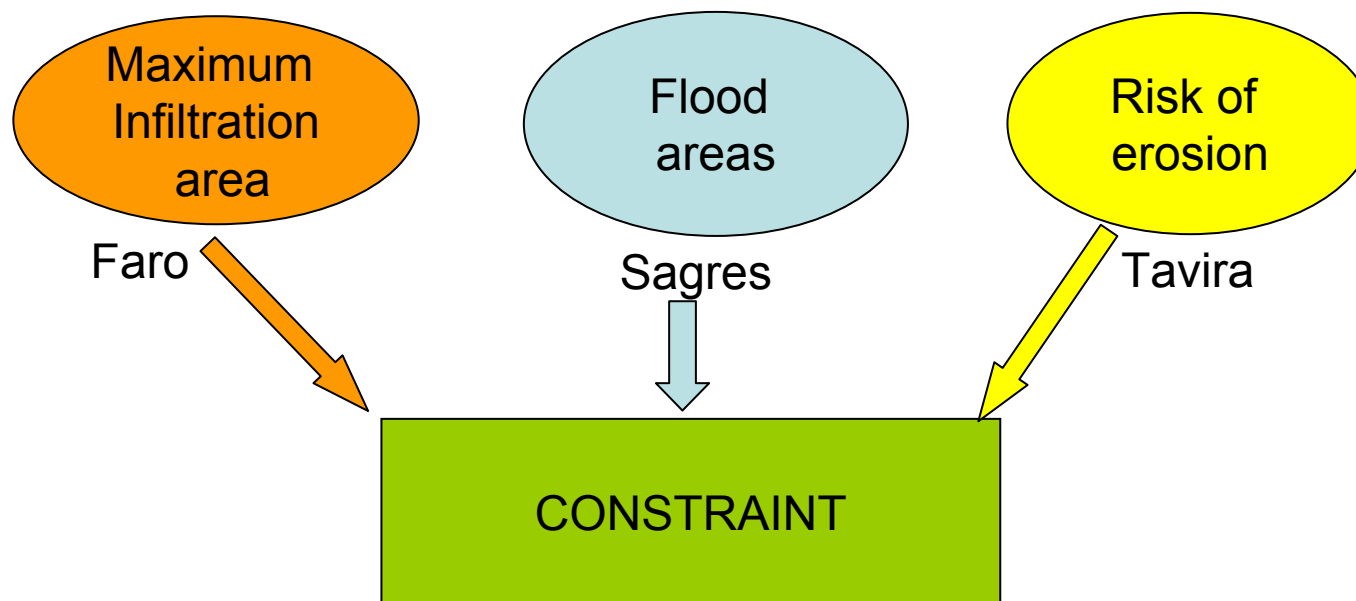
Sistema de
Apoio ao
Licenciamento
– Descargas de
Águas
Residuais



New functionalities in SAL Águas Residuais:

- Complex spatial constraint analysis

The land use constraints denomination identified in the *PDMs* may differ from each other since they were produced by municipalities (different interpretation of the law)





Solution: database of the constraints per municipality

In the database we have a list of spatial constraints that must be taken into consideration for the Licensing process of Residual Water Discharges:

- The land use constraints such as: Ecological National Reserve (REN), Sensitive and Protected Areas and other constraints identified in the PDM;
- We can see the spatial consequences of those constraints - ex: Zone protection of water catchments: 20, 50, 100...meters.
- 16 Municipalities
- 78 Constraint coverages (layers in ArcSDE)
- +300 different combinations of municipalities and constraint coverages



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Suggestions?

Thank you