The Integrated River Engineering Project on the Danube to the East of Vienna -

Requirements from the navigation side

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Abstract:

The Danube links Austria with future areas of economic growth in Southeastern Europe. Together with the Main-Danube Canal and the Rhine, Europe´s second largest river represents a transport axis extending from the North Sea to the Black Sea. Because of its strategic importance it was included in the trans-european transport network as the Pan-European Corridor VII.

The enlargement of the EU has led to an increase and strengthening of economic ties in the Danube Corridor in the last decade. Intensification of trade has gone hand in hand with a rapid rise in the amount of traffic. Commercial transport along the Danube corridor has soared by 124% (Source: Österreichisches Institut für Raumplanung – ÖIR) from 1994 to 2004. The largest increase was registered in road transit with a jump of 478% (Source: ÖIR) within this period. The traffic flows are expected to grow even more in next years. The integration and economic development of the Danube region depends on high-capacity transport infrastructure and transport systems. Coping with traffic volumes in a manner that is environmentally and socially-friendly, calls for a more intense use of the free capacities of the Danube waterway. This can be ensured by upgrading and improving the infrastructure and services for Danube navigation.

The Danube waterway has a large amount of spare capacity available and until now has only been able to take a small part of the enormous traffic-growth in the Danube corridor. A key reason for this, are the insufficient fairway conditions especially on the free-flowing sections of the Upper Danube. The upgrade of these parts is of high importance for the creation of a safe, reliable and competitive transport system on the Danube. To counteract the impacts of the enormous increase in traffic the improvement of the existing waterway connection to the emerging markets is essential, especially in order to reduce negative external effects of freight transport and to strengthen the efforts regarding an eco-social transport policy.

The section of the Danube between Vienna and the Slovak border represents the weakest link on Austrian territory. Fairway depths that are either not deep enough or subject to broad fluctuations over the course of the year greatly hinder navigation's reliability and competitiveness. The risk of accidents due to low water levels, in addition to extended waiting periods, lighterage and the necessity of other means of transport as a substitute limit the market potential of shipping on the Danube to certain kinds of goods and transport relations. Furthermore the continuous erosion of the Danube riverbed up to 3.5 cm per year essentially influences the ecological balance of the Danube Floodplains National Park. If appropriate measures are not taken there is a risk of extensive drying out of the wetlands.

Based on this situation, the Federal Austrian Ministry of Transport, Innovation and Technology together with via donau - the Austrian Waterways Authority has initiated the process of the Integrated River Engineering Project on the Danube to the East of Vienna in order to improve the nautical and ecological conditions on this section of the Danube.

The goal of the project is the creation of a balance between the interests of inland navigation and the environmental needs of the Danube Floodplains National Park. Therefore an interdisciplinary steering committee consisting of well-known experts from the fields of hydro-engineering, ecology, inland navigation and regional economy analysed in detail a total of 11 different options for developing the section of the Danube to the east of Vienna.

As a result in April 2004 the interdisciplinary steering committee defined a bundle of planning guidelines to reach the above mentioned balance. Based on these planning principles the Integrated River Engineering Project was drawn up. The intended improvement of the fairway conditions means increased capacity utilisation for shipping fleets and reduced cost fluctuations. Thus inland shipping´s reliability would be strengthened. At the same time the planned riverbank renaturation and waterway linkage ensure the sustainability of the Danube Floodplain National Park´s landscape. With this unique planning approach the project will create a win-win situation for both - inland navigation and nature protection.

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