



EAEMDR



Administrația Fluvială
a Dunării de Jos R.A. Galați

FAST DANUBE

*"Technical Assistance for Revising and Complementing the Feasibility Study
Regarding the Improvement of Navigation Conditions on the Romanian-Bulgarian
Common Sector of the Danube and Complementary Studies"*

10th meeting of the Joint Statement on Guiding Principles for the
Development of Inland Navigation and Environmental Protection in the
Danube Basin

11-12 September 2019, Budapest

Basic Project information



FAST DANUBE

*Technical Assistance for Revising and Complementing the Feasibility Study
Regarding the Improvement of Navigation Conditions on the Romanian-Bulgarian Common Sector of the Danube and
Complementary Studies*



- Project number: **2014-EU-TMC-0297-S**
- Budget: **5.252.000 euro**
- Period: **11.2014 – 12.2020**
- Partners: **RO – AFDJ (leader), BG – EAEMDR**
- Financing: **EU (Transport CEF Call 2014) – 85%,
National budget– 15%**

- 3 Critical Areas administrated by Romanian State (between km 845,5 and km 610) - Bogdan-Secian, Bechet, Corabia;
- 2 Critical Areas administrated by Bulgarian State (between km 610 and km 375) Belene-Vardim, Popina;
- In total 12 Critical Points for navigation.

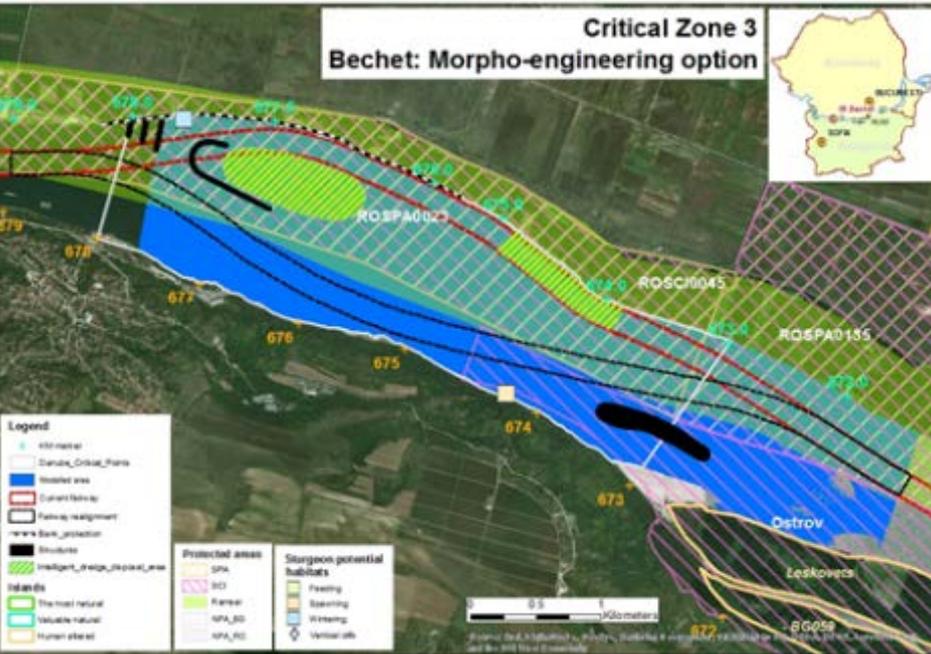
Critical Areas overview maps



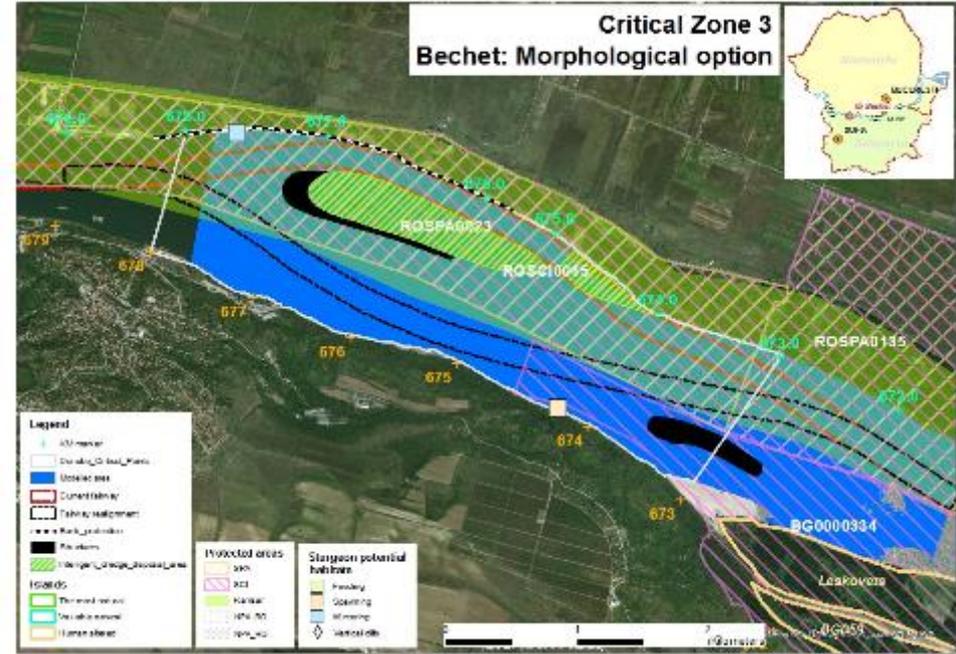
Danube section between Iron Gates II and Chiciu-Silistra (km 863 to km 375)



**Critical Zone 3
Bechet: Morpho-engineering option**



**Critical Zone 3
Bechet: Morphological option**

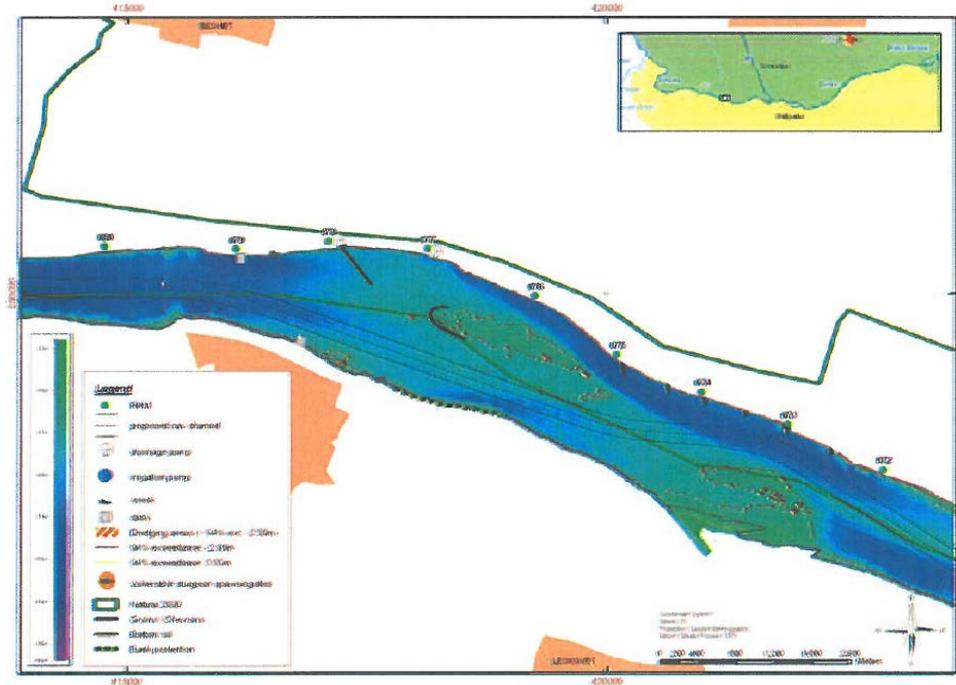


Bechet

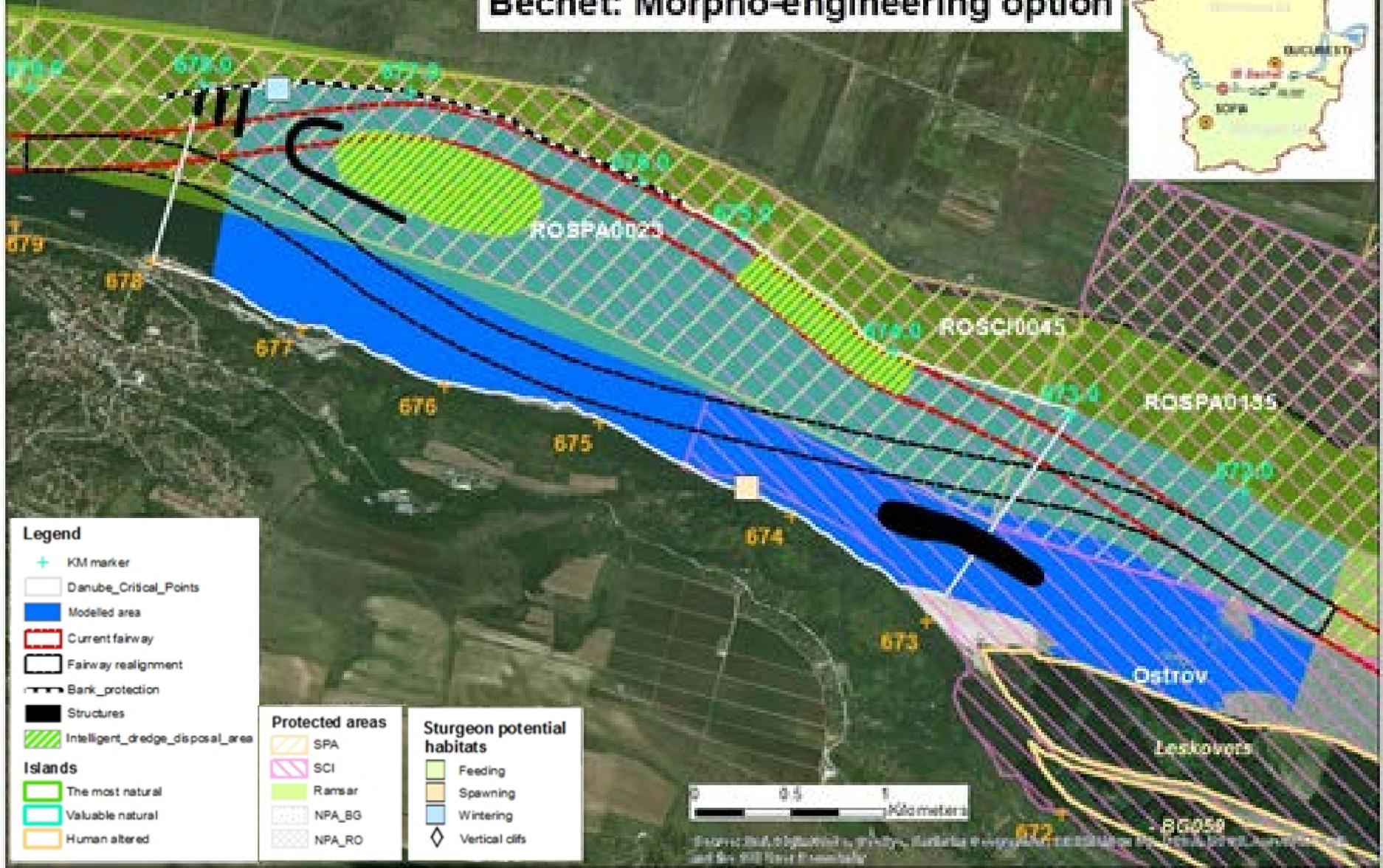
rkm 678-673

Preferred options

- MCA result, 1st / 2nd preferences
- 2011 FS Optimised Alternative



Critical Zone 3 Bechet: Morpho-engineering option



- Legend**
- + KM marker
 - Danube_Critical_Points
 - Modeled area
 - ▭ Current fairway
 - ▭ Fairway realignment
 - ▭ Bank_protection
 - ▭ Structures
 - ▨ Intelligent_dredge_disposal_area
- Islands**
- ▨ The most natural
 - ▨ Valuable natural
 - ▨ Human altered

- Protected areas**
- ▨ SPA
 - ▨ SCI
 - ▨ Ramsar
 - ▨ NPA_BG
 - ▨ NPA_RO
- Sturgeon potential habitats**
- ▨ Feeding
 - ▨ Spawning
 - ▨ Wintering
 - ▨ Vertical cliffs

SPUR DIKE. DIKE TO HAS EARTH CORE WITH RIP RAP COVER LAYER. 1 IN 3 SIDE SLOPES, 5m WIDE CREST. DIKES NOTCHED NEAR BANK TO ALLOW FISH PASSAGE AT LOW FLOWS. CREST OF DIKE 5m WIDE (1m ABOVE Q94 WATER LEVEL)

CHEVRON. CHEVRON TO HAS EARTH CORE WITH RIP RAP COVER LAYER. 1 IN 2 UPSTREAM SIDE SLOPE, 1 IN 3 DOWNSTREAM SIDE SLOPE, 5m WIDE CREST. CREST OF CHEVRON 5m WIDE (1m ABOVE Q94 WATER LEVEL)

0+000
0+250
0+500

0+750
1+000
1+250

1+500
1+750

2+000
2+250

2+500
2+750

3+000
3+250

3+500
3+750

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5+000
5+250

5+500
5+750

6+000
6+250

6+500
6+750

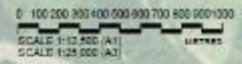
7+000
7+250

7+500
7+750

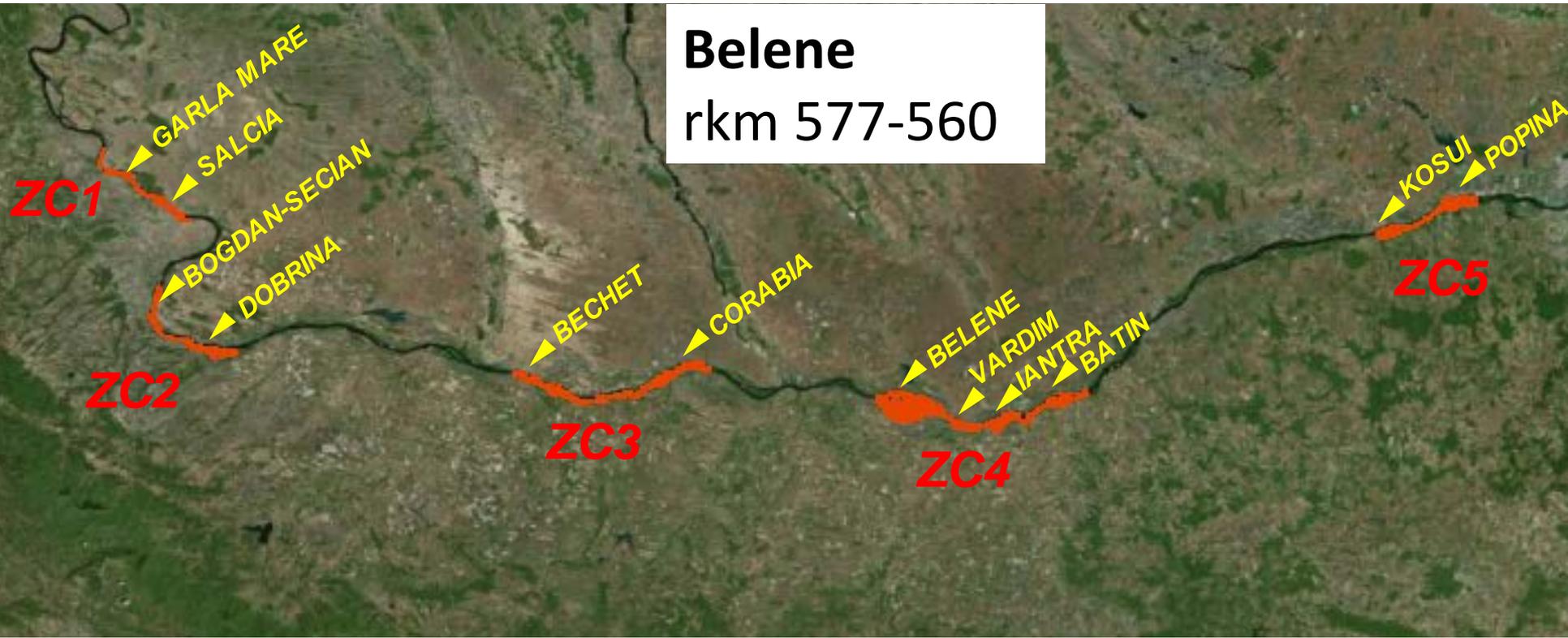
REALIGNED FAIRWAY

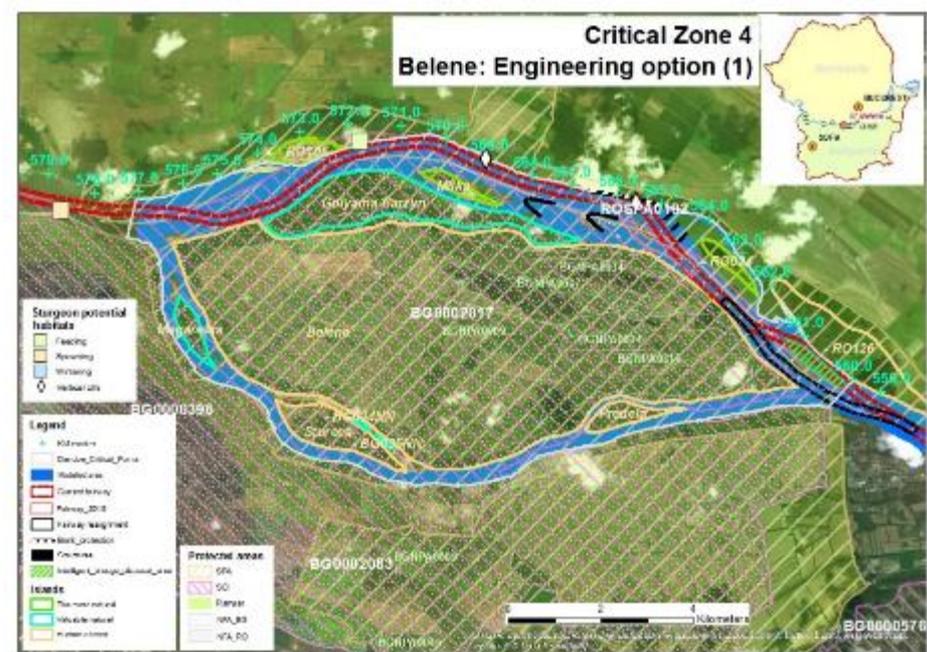
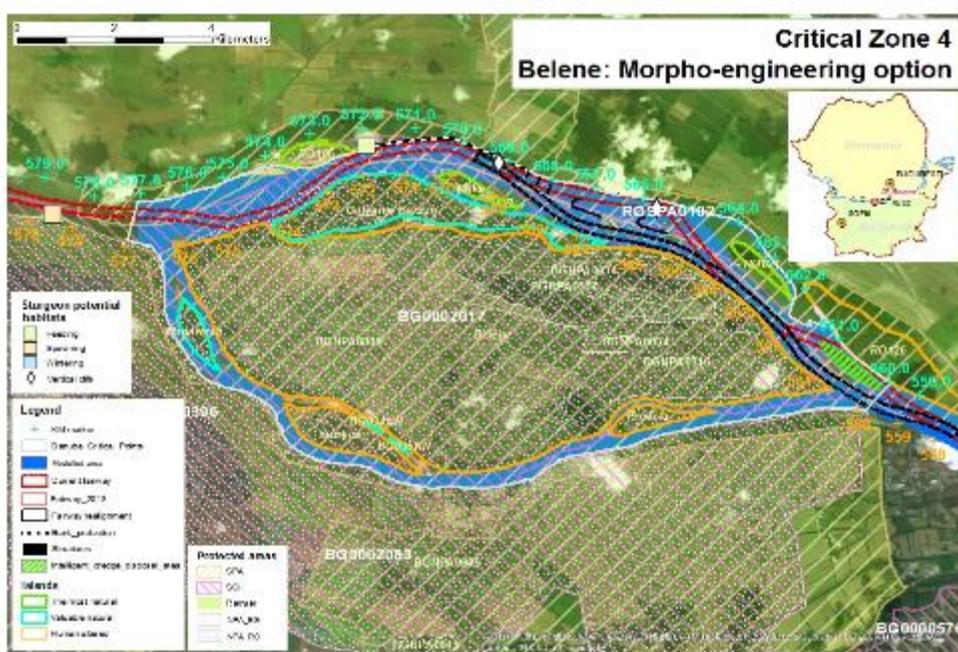
ISLAND FORMED FROM DREDGED MATERIAL. ISLAND SHAPED AND SIZED TO DIVERT AND CONCENTRATE FLOW IN THE FAIRWAY. UPSTREAM END OF ISLAND PROTECTED FROM EROSION BY RIP RAP. TREES AND VEGETATION STABILISE ISLAND CREST. CREST OF ISLAND 24 mAOD.

SPUR DIKES, CHEVRON, ISLAND CREATION AND FAIRWAY REALIGNMENT



Belene
rkm 577-560

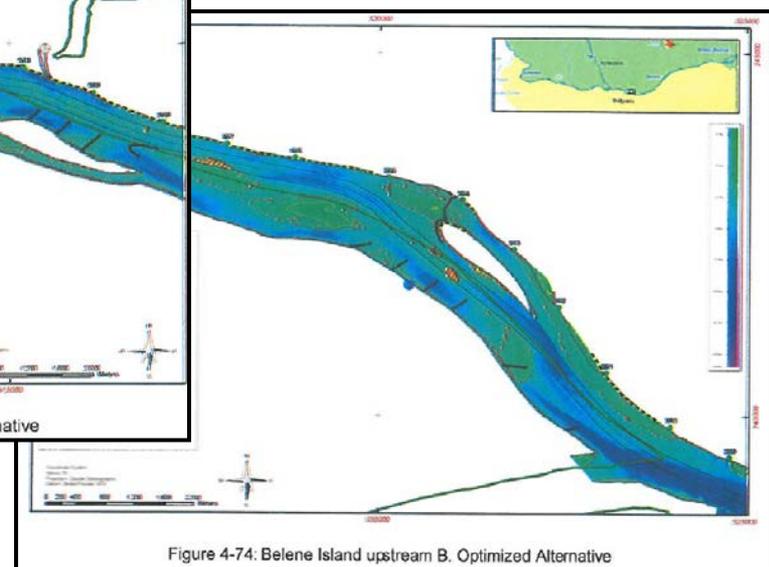
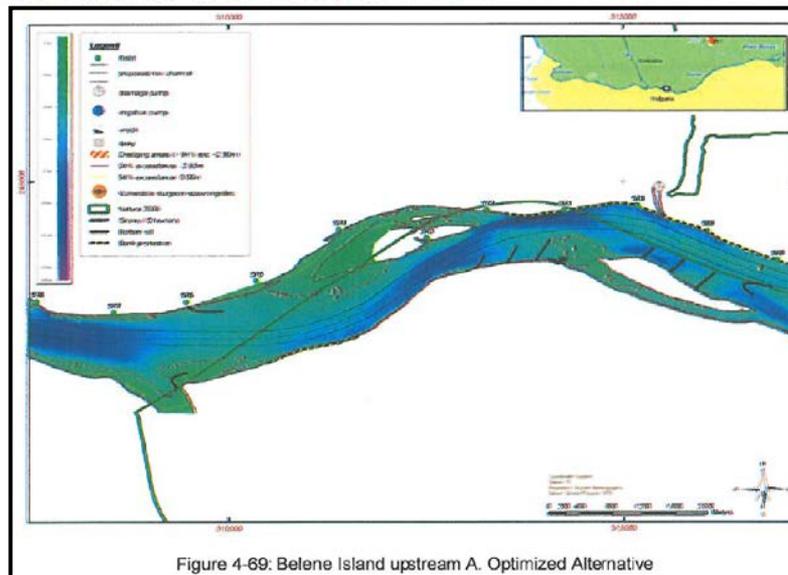




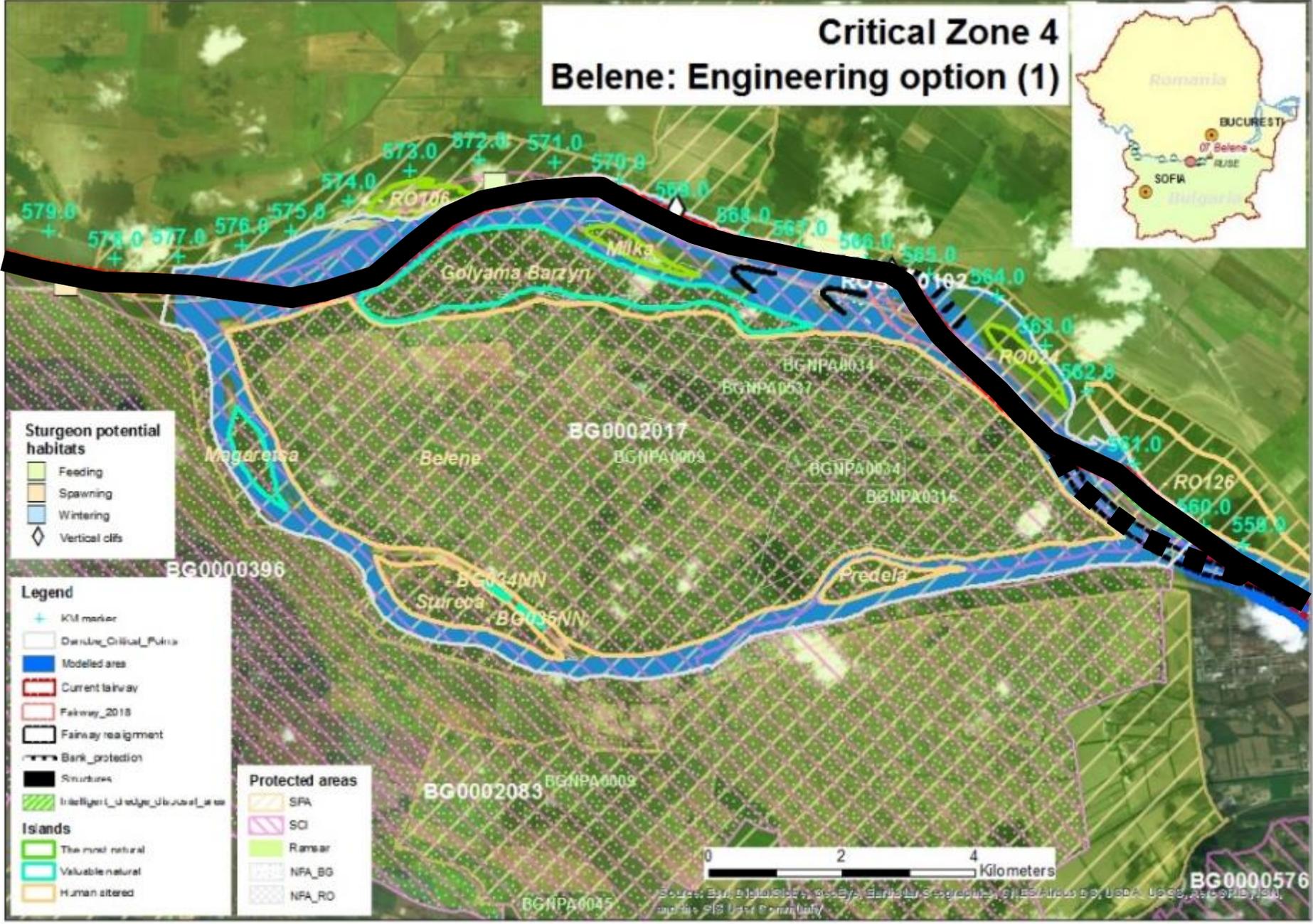
Belene

rkm 577-560

- Preferred options:
- MCA result, 1st / 2nd preferences
 - 2011 FS Optimised Alternative



Critical Zone 4 Belene: Engineering option (1)



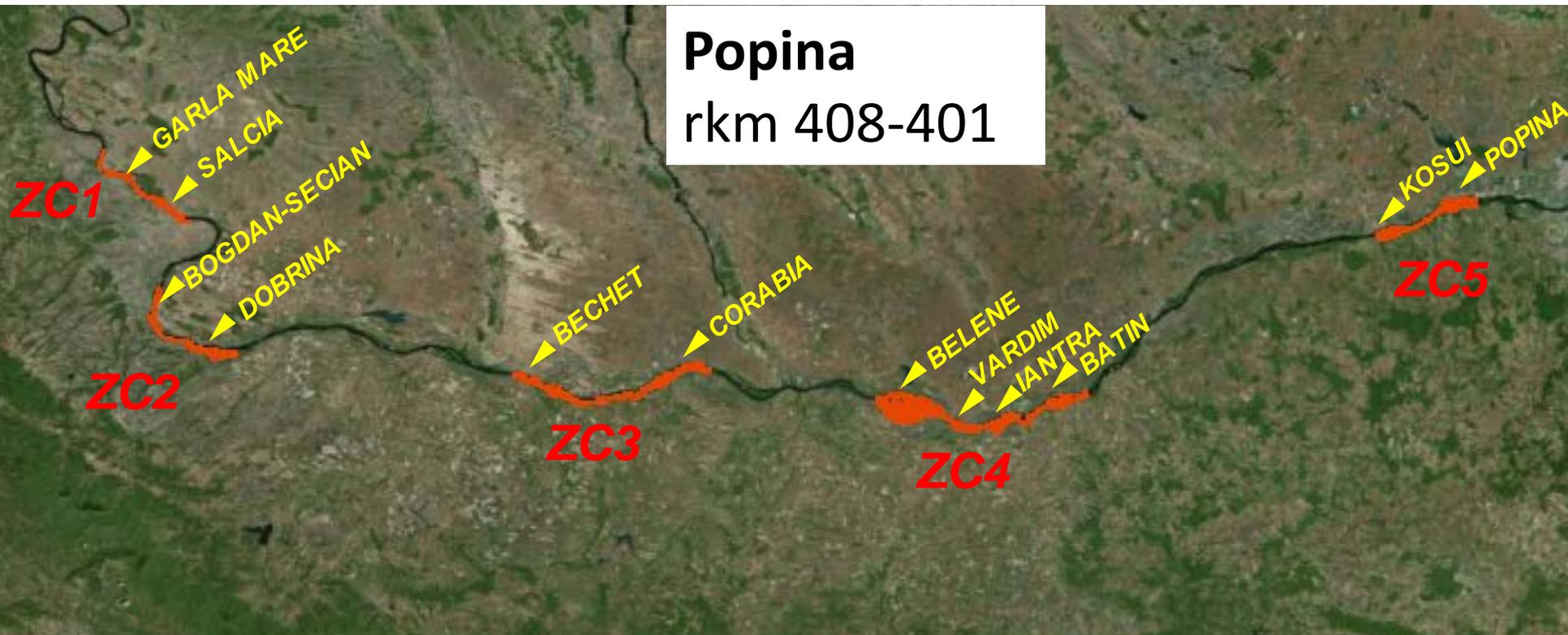
- Sturgeon potential habitats**
- Feeding
 - Spawning
 - Wintering
 - Vertical cliffs

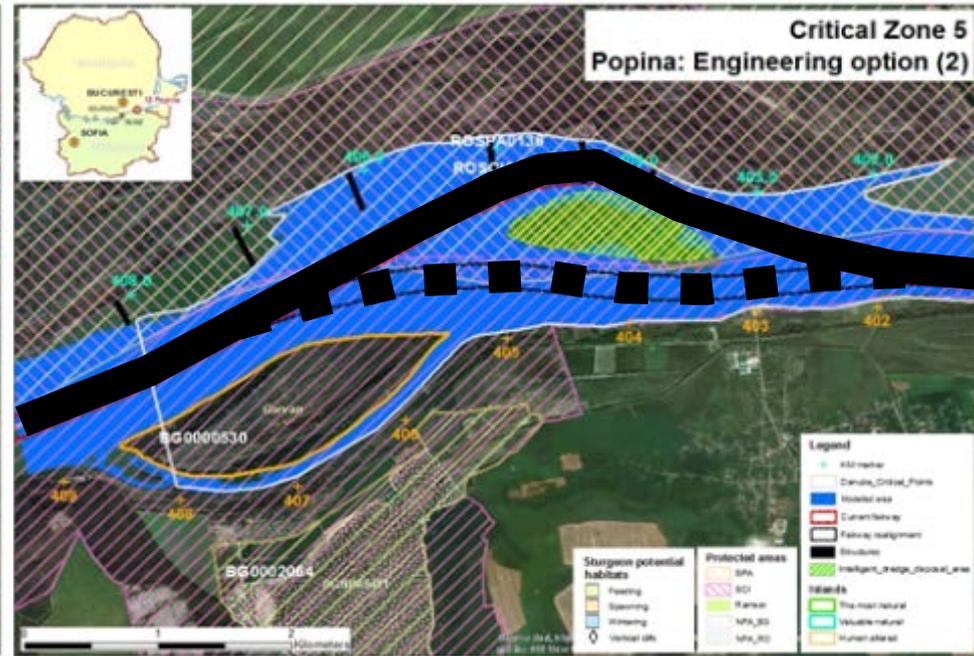
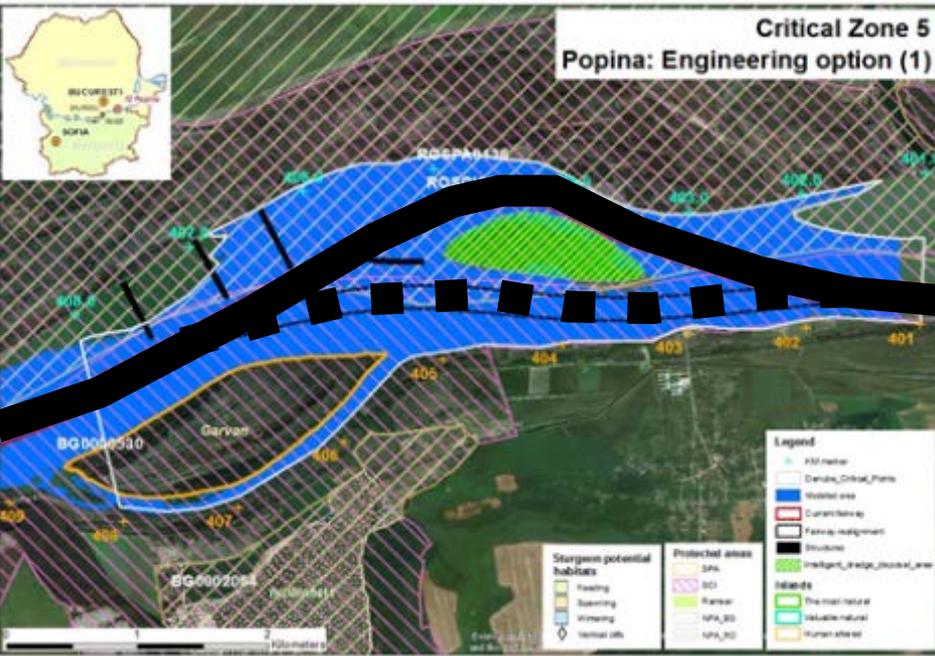
- Legend**
- KM marker
 - Danube_Critical_Putra
 - Modeled area
 - Current fairway
 - Fairway_2018
 - Fairway realignment
 - Bank_protection
 - Structures
 - Intelligent_ledge_structural_areas
- Islands**
- The most natural
 - Valuable natural
 - Human altered

- Protected areas**
- SPA
 - SCI
 - Ramsar
 - NFA_BG
 - NFA_RO



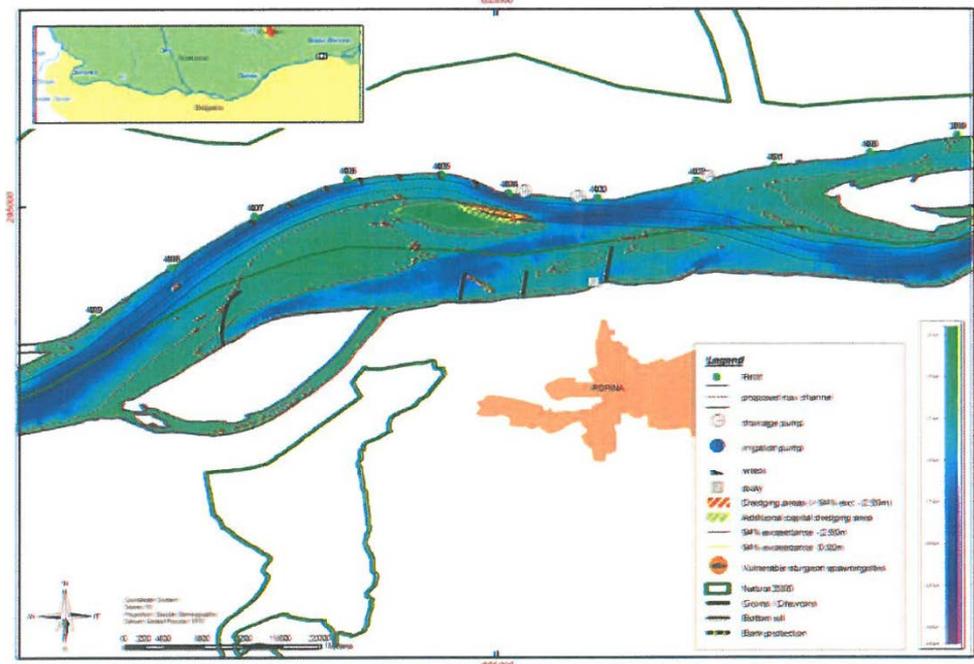
Source: Euro-Atlantic Gateway, GeoEye, Earthstar, GeoEye, IGN, AerGRID, NOAA, USGS, AeroGRID, IGN, and the GIS User Community





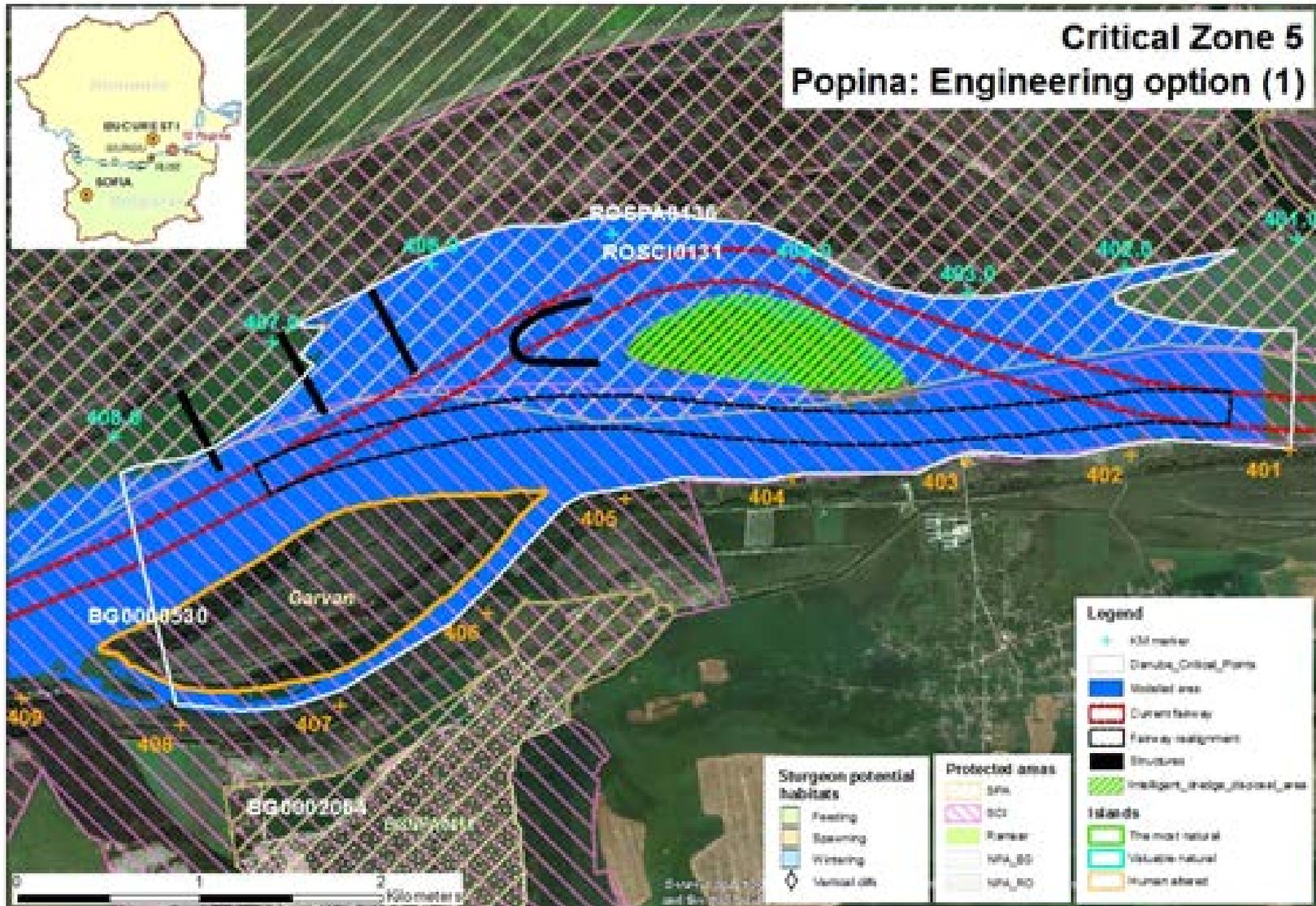
Preferred options:
 - MCA result, 1st / 2nd preferences
 - 2011 FS Optimised Alternative

Popina
 rkm 408-401



Preferred options

Work in progress: engineering / environmental assessment



**Staged construction:
installing second stage geotube to raise island during subsequent**



Use of geotubes to stabilise shoreline / provide
containment for artificial island (source: TENCATE)

**Split barge (scow) launching of geotube in deeper water:
size 100 to 600 cubic meters**



Geotube in split barge ready for placing



Geotube being launched





Main activities of the project

- Feasibility Study
- Environmental Impact Assessment
- Preparation of the procurement procedure for the final designs and the construction works
- Project management and communication

EIA procedure

- Romania – started in January 2019
- Bulgaria – started in April 2019
- Espoo notification – submitted in August 2019
- ToR for the EIA report – submitted in MOEW in September 2019
- Intensified cooperation between BG and RO authorities – crucial prerequisite for the successful implementation of the project.
- Bilateral interministerial meeting – June 2019, Bucharest.

Stakeholder meeting in Belene – May 2019

- Stakeholder meeting in one of the most critical for navigation sectors in Bulgaria – Belene
- Involvement of NGOs, Nature parks and local citizens
- Competent authorities and administrations



Future activities

- Next stakeholder meeting – end of September, involving NGOs, experts from competent authorities and stakeholders
- Keep on informing the public for the project activities
- Consultations for the scope and content of the Terms of Reference (ToR) for the implementation of the EIA report
- Public access to the ToR provided to the affected parties
- Time for comments and recommendations for the ToR
- Implementation of the EIA report

Critical issues

The main difficulties in this project come from several aspects:

- Covers a large section of the river – approximately 480 km
- It is one of the most critical for navigation stretches
- No engineering structures for improving the navigation have been built until now in this section of the river
- Transboundary project
- Differences in the legal procedures in developing the EIA Study in Romania and Bulgaria.
- Country of origin and affected country at the same time
- Cooperation between partners and authorities



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AFDJ and EAEMDR

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appd-bg.org

Thank you!



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