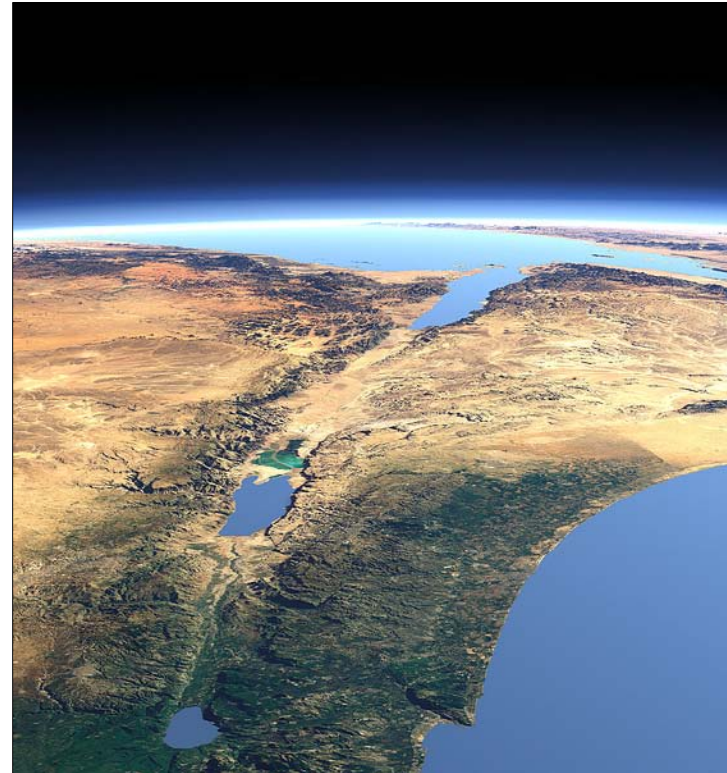


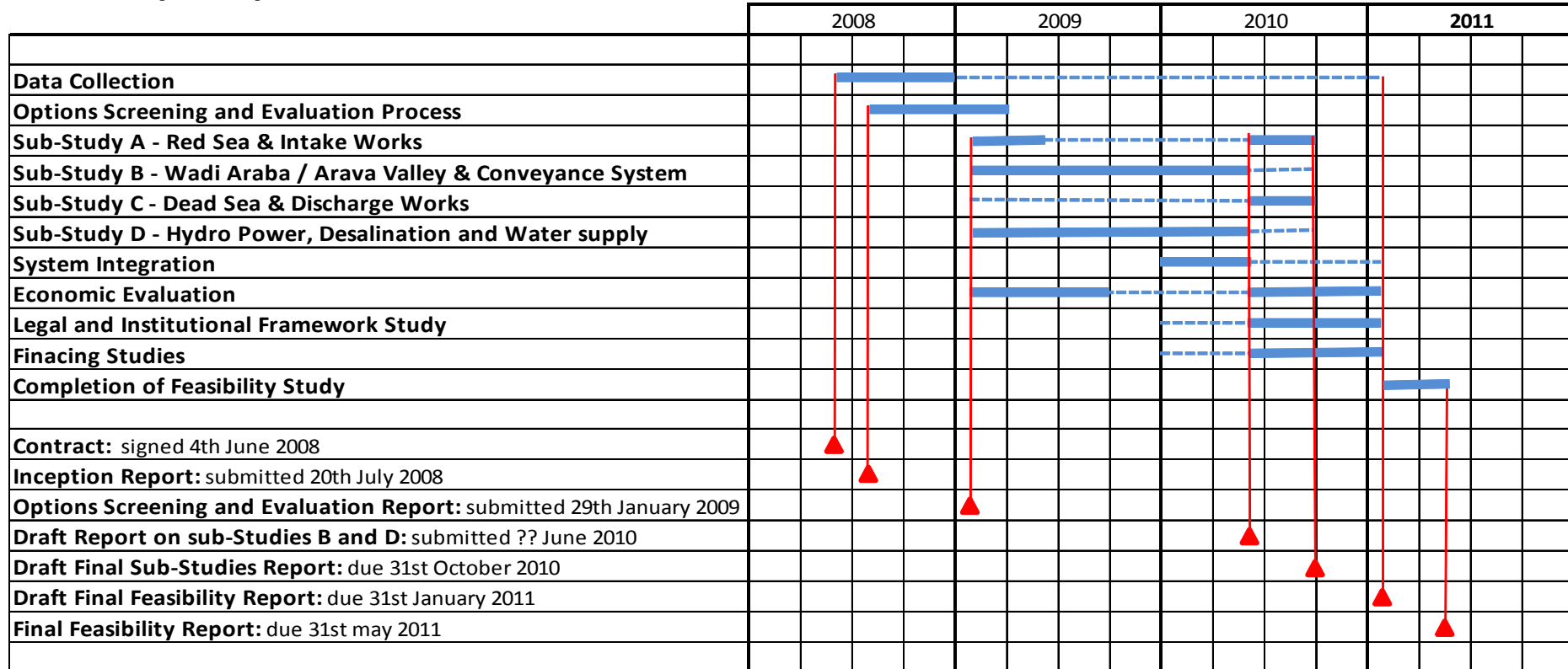
Red Sea – Dead Sea Water Conveyance Study Program

Current Status of the Feasibility Study



Public Consultation Meetings – June 2010

Feasibility Study - Time Frame



 **Time now**

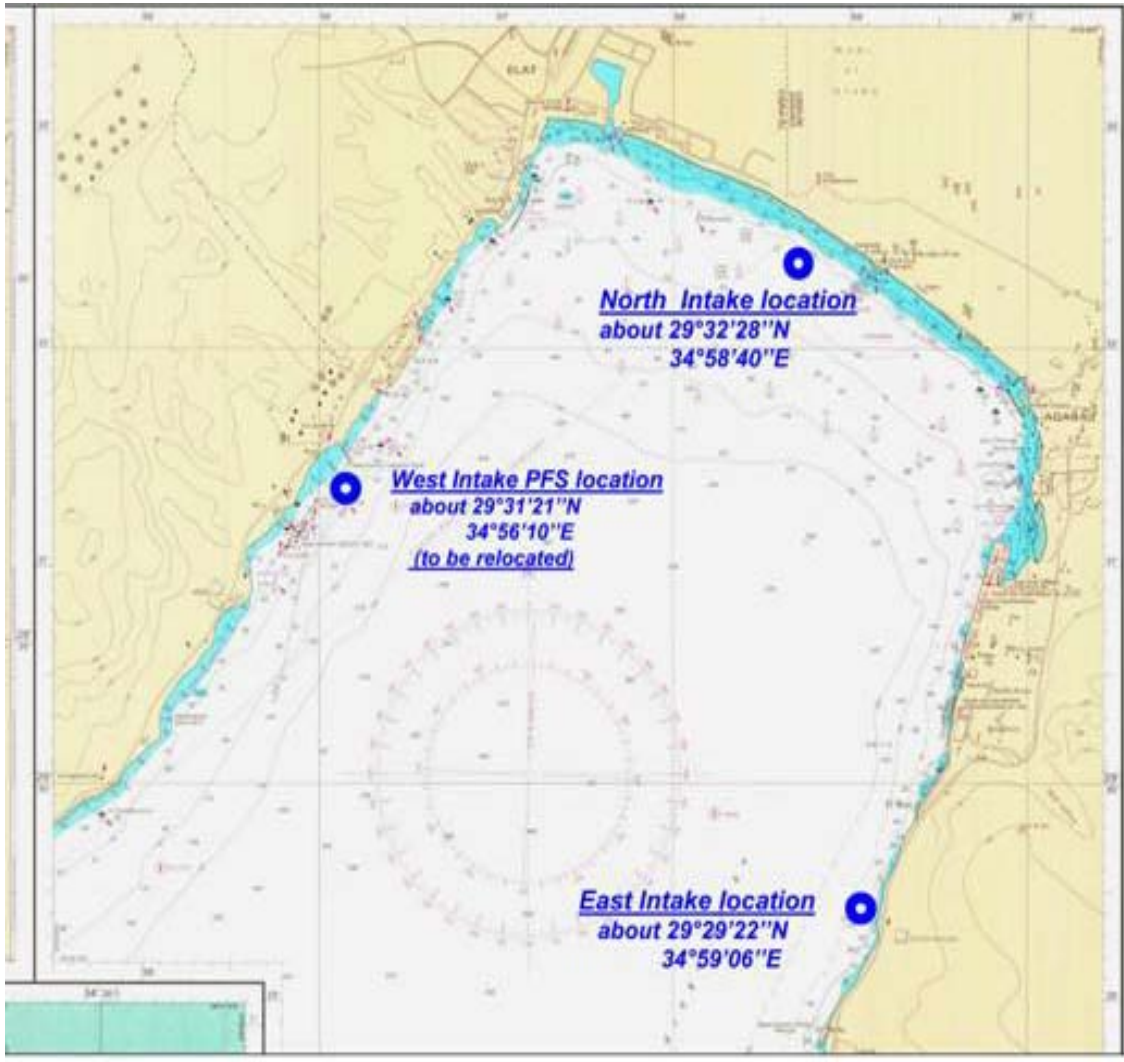
Notes:-

- 1) Definition and evaluation of the alternative configurations will be finalised during the next three months.
- 2) The feasibility, or otherwise, of the scheme will only be assessed after the definition and evaluation of the alternative configurations is complete; and after preliminary results are available from the Additional Studies of the Red Sea and Dead Sea.

Framework Resulting from the Options Screening and Evaluation Process:-

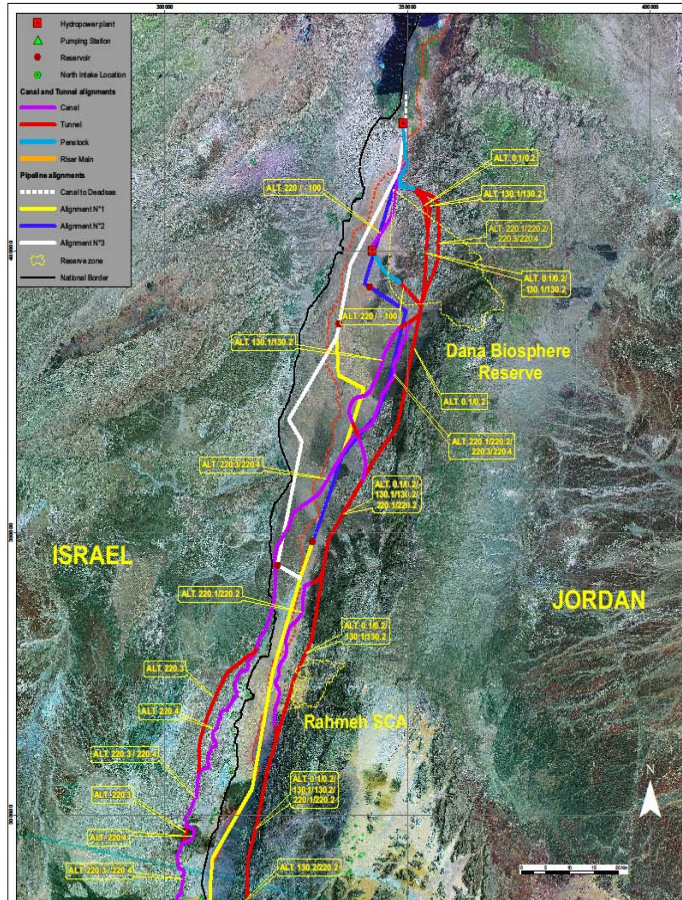
- Conveyance capacity** - Between 1,000 and 2,000 million m³/year of Red Sea water, but probably at the top end of this range.
- Desalination plant** - Will be developed in phases to match the growth in demand for desalinated water and will have an ultimate capacity of 850 million m³/year of desalinated water.
- Hydropower Plant** - The plant rating will be somewhere in the range of 150MW to 250MW
- Dead Sea Target Level** – Stabilised somewhere between -410m and -420m which will be achieved around about 2048, probably towards the lower end of this range.

Alternative Locations Considered for the Red Sea Intake on the Gulf of Aqaba / Eilat



- Initially three locations were considered.
- The western intake has been rejected early in the Options Screening and Evaluation process.
- The eastern intake currently appears to be the most favourable.
- A range of types and configurations for the intake are being considered.
- The configuration of the Red Sea intake works will be finalised based on input from the Additional Study of the Red Sea.

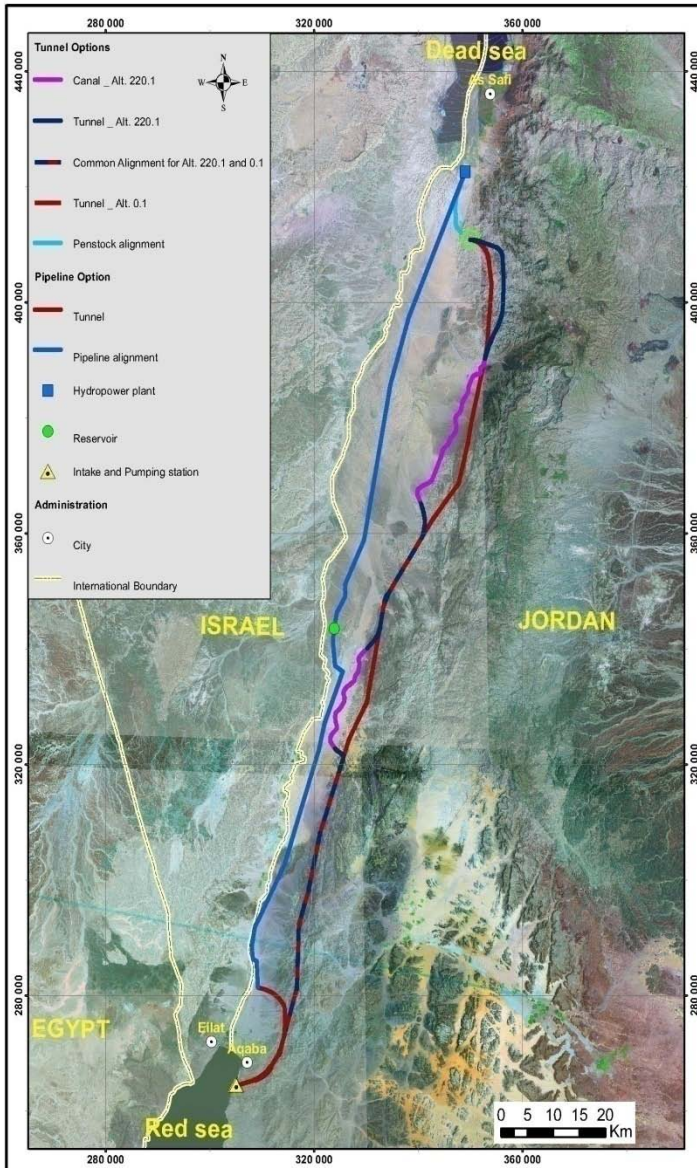
**Red Sea – Dead Sea Water Conveyance Study Program
Feasibility Study
Public Consultation Meetings - June 2010**



Conveyance Options:-

At the outset of the Options Screening and Evaluation process 15 potential conveyance configurations were identified:-

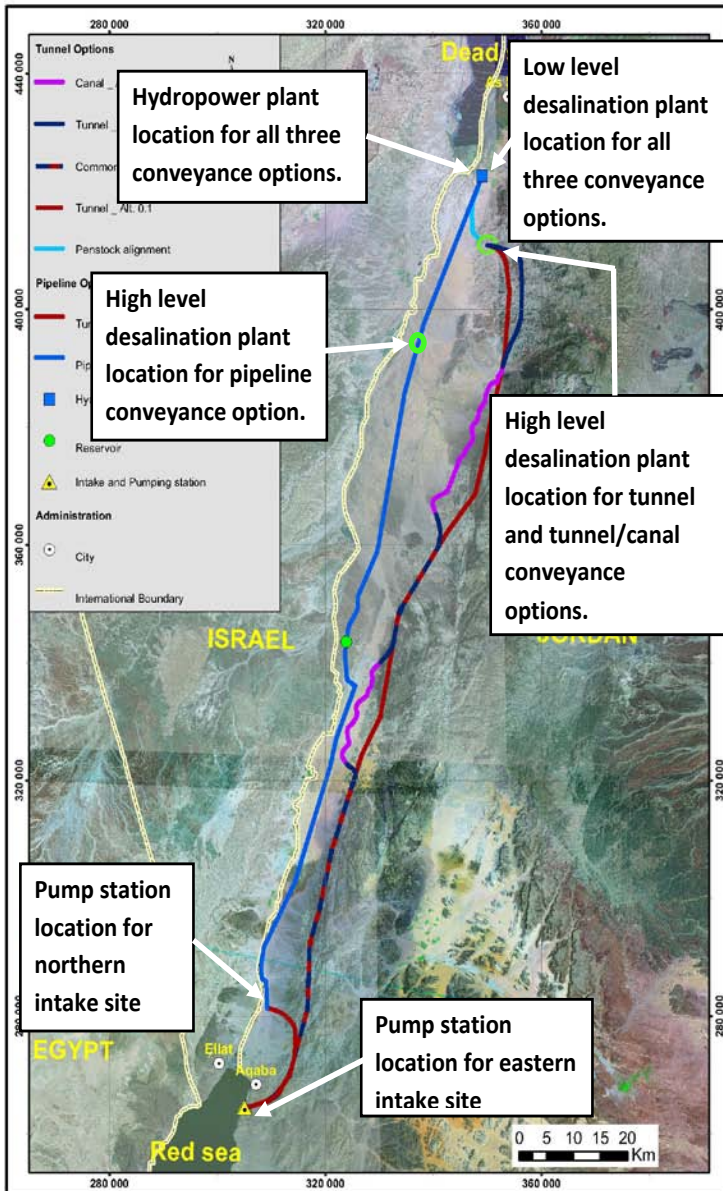
- 4 commencing from the eastern intake
- 11 commencing from the northern intake
- 2 all tunnel systems
- 3 all pipeline systems
- 6 combinations of tunnel and canal
- 4 combinations of tunnel, canal and pipeline



Conveyance Options:-

Following the conclusion of the Options Screening and Evaluation process three conveyance alignments were identified for more detailed evaluation:-

- **A low level gravity flow tunnel**
- **A high level pumped conveyance in a combination of tunnels and canals.**
- **A pumped pipeline conveyance (Note this would comprise up to six parallel pipelines).**



Hydro Power:

A single location has been identified for the hydro power plant close to the village of Fifa.

Desalination Plant:

Two alternative locations for the desalination plant have been identified for each of the three conveyance configurations :-

- Low level desalination configuration in which some of the available hydraulic pressure is used to assist the desalination process.
- High level desalination plant in which all of the available hydraulic pressure is used to generate hydro power.

A brief analysis of an alternative arrangement with desalination plant located at Aqaba is also being undertaken.

One of the major concerns raised consistently in previous consultations has been the risk of sea water leaking from the system and contaminating the groundwater aquifer. The engineering designs proposed for all the alternative conveyance configurations will incorporate the following safeguards against this risk:-

- **Rigorous material specifications and quality control during construction.**
- **Detailed systems and procedures for monitoring any leakage by both visual inspection and remote sensing.**
- **Provision for rapid shut down of the system in the event of leakage being detected including isolation of the leaking location.**
- **Double barriers (impervious membranes) surrounding the sea water conveyance to contain any leakage within the system should it occur.**
- **Provision for the removal and safe disposal of any leaked sea water contained by the membrane system.**