

The Swiss Sediment Management

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CONTROLLED SEDIMENT FLUSHING WITH 3 KIND OF GRANULOMETRY

1 - DEWATERING PLANT - HOPPER -
HYDROCYCLONE - SCREENING PLANT < 0,02 mm

2 - DRY GRAVEL SAND < 40 mm

3 - PIPELINE DIA 200 mm : SLUDGE AND FINE
SOLID < 0,02 mm

4 - INTAKE

5 - PIPELINE DIA 200-250 mm : PUMPED SLUDGE
AND SOLID < 40 mm

6 - ELECTRIC DREDGE PUMP - Discharge Diameter:
200/250 mm - Solid Handling: 60 mm

7 - HMS CODE 1 PONTOON

8 - CLAMSHELL BUCKET

9 - HMS SUBMERGED RESERVOIRE

10 - SHUTTLE PONTOON

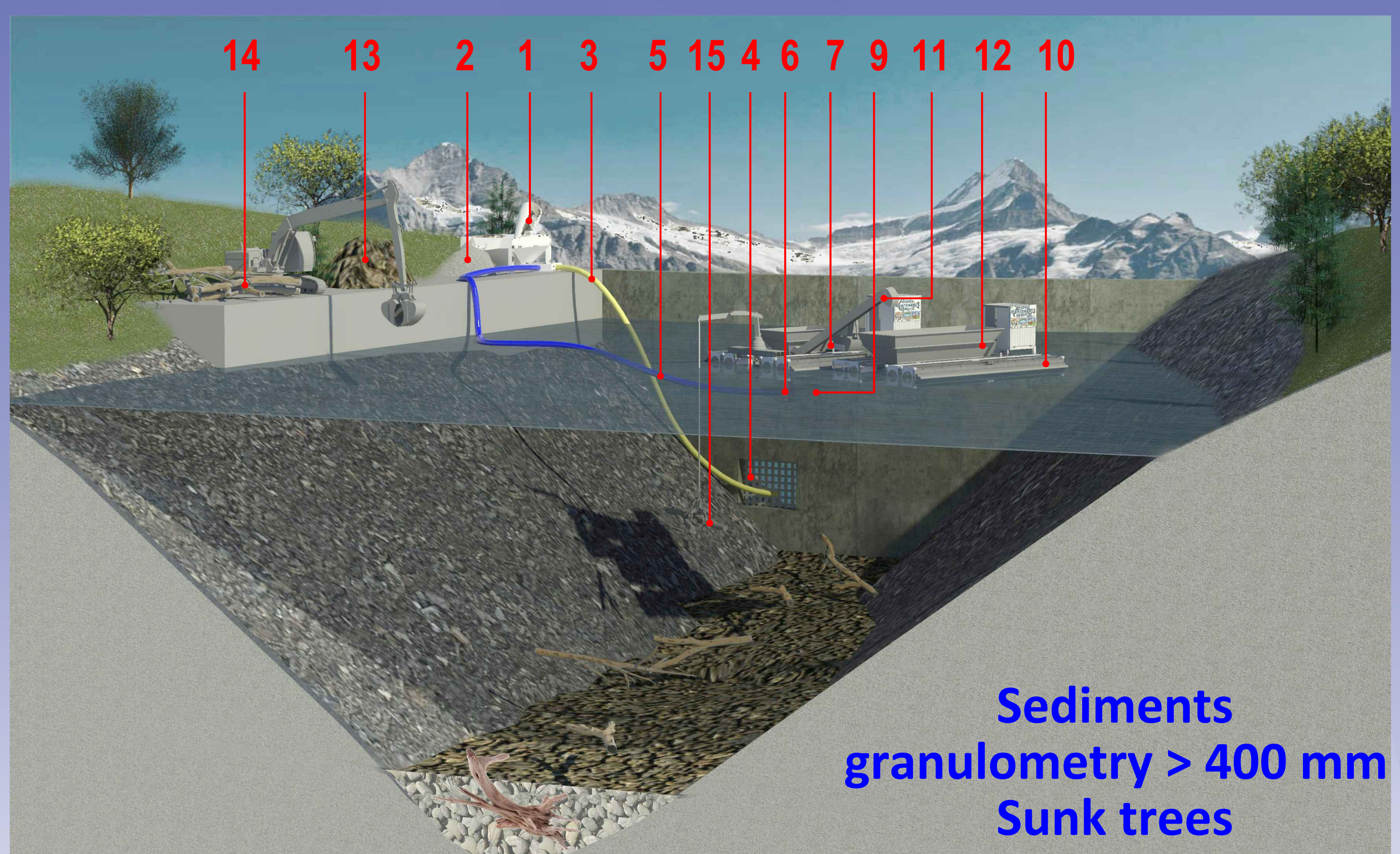
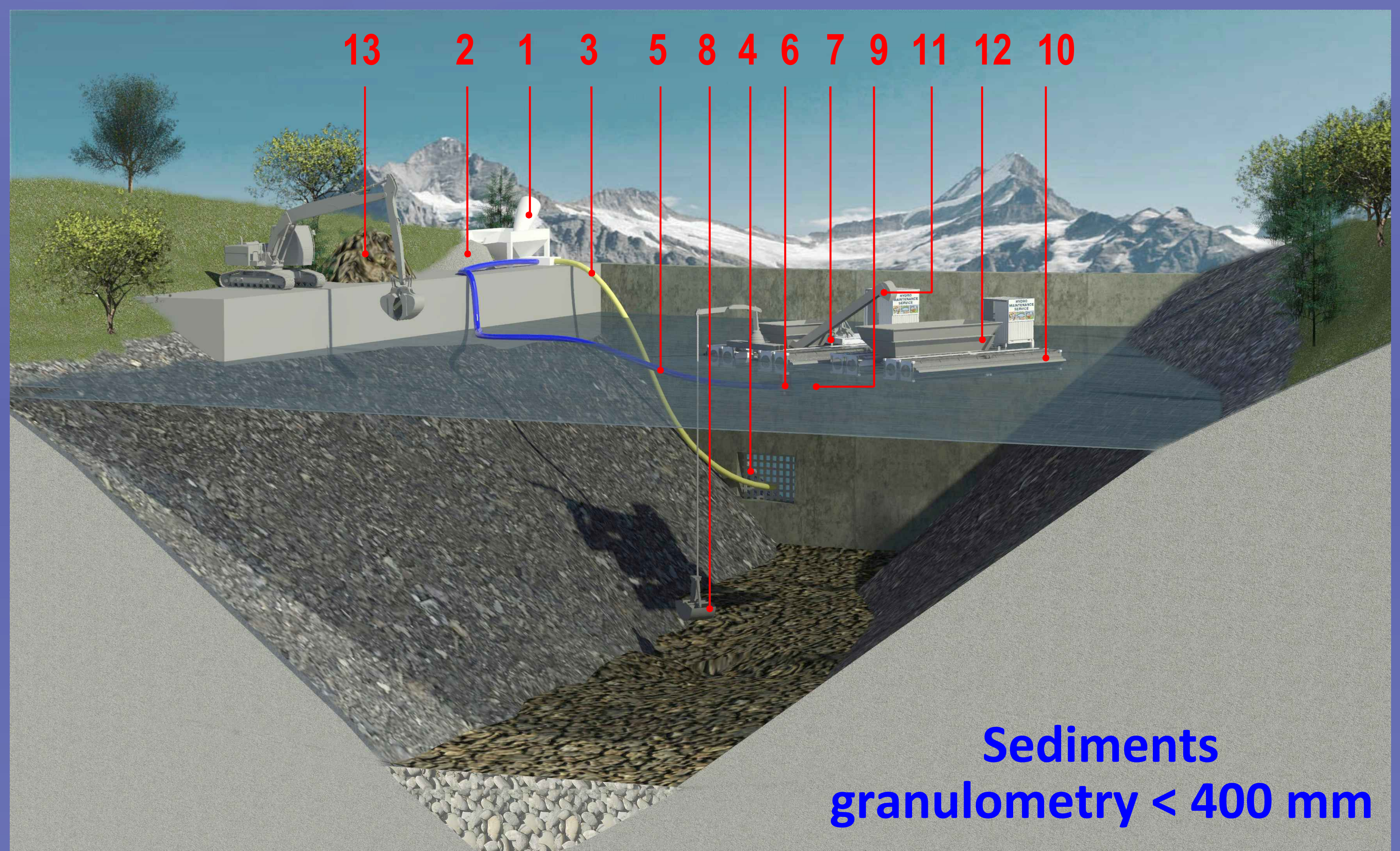
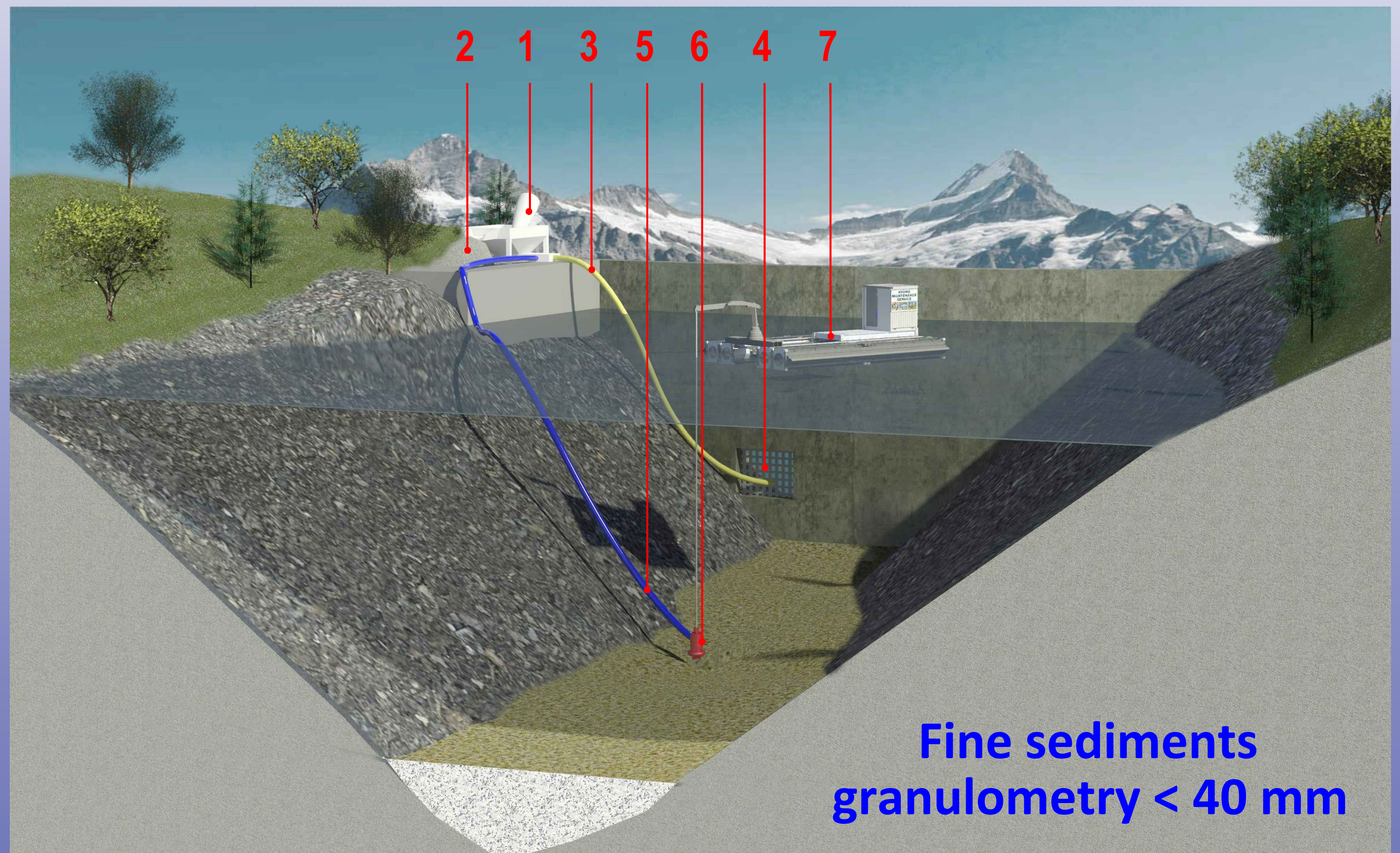
11 - HOPPER AND SCREENING PLANT < 40 mm

12 - HOPPER FOR SOLID AND BULK SEDIMENT >
40 mm

13 - DRY GRAVEL : 40 < SIZE < 400

14 - WOODS AND SUNKEN TREES

15 - GRAPPLE



EXAMPLE OF DREDGING & CONTROLLED FLUSHING

DREDGED MATERIAL BY SUBMERGED PUMP:
350 cm/h (SOLID 15%) SOLID 50 cm/h
GRANULOMETRY 100% < 0,02
DENSITY OF THE SEDIMENT : 1,8 t/cm
SOLID FLOW TO INTAKE 90 t/h
20h/day * 1 month = 600h 50cm/h*600h/month = 30.000
cm/month
INTAKE FLOW = 10 cm/sec = 36.0000 cm/h
TORBIDITY : 90 (t/h) / 36.000 (cm/h) = 2,5 g/l

HYDRO MAINTENANCE SERVICE



HYDRO MAINTENANCE SERVICE - Mühlegasse 18, 6340 Baar
SWITZERLAND P. +41 41 761 68 38 -
Bartolomeo Mongiardino M +39 340 9530233 - Fernando Binder M +41 79 6758984

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