

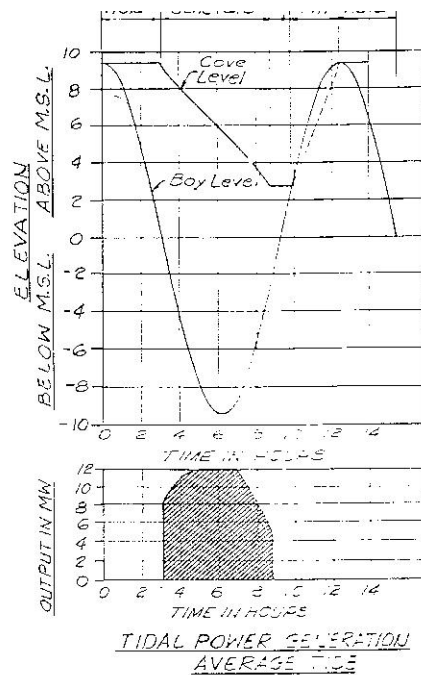
# HALF-MOON COVE TIDAL POWER PROJECT

TIDEWALKER ASSOCIATES

24.MARCH.2007

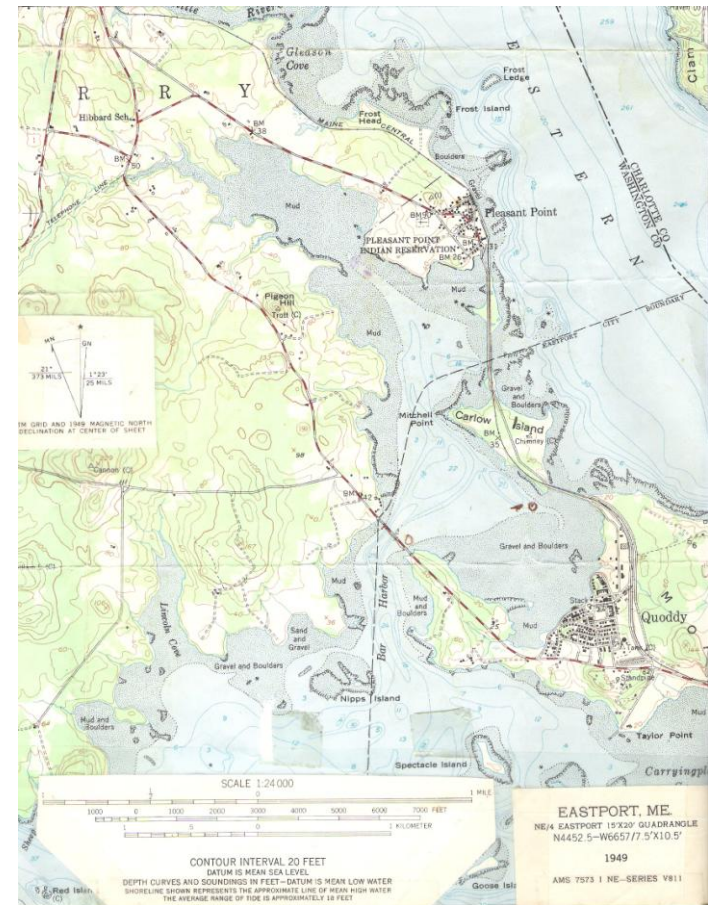
# TIDAL PLANT OPERATION

- SINGLE POOL / HIGH POOL
- PREDICTABLE POWER GENERATION



# SITE LOCATION

- PROJECT LOCATED BETWEEN PERRY AND EASTPORT
- BASIN AREA = 1.2 SQ. MILE AT HIGH T.
- BASIN AREA = 0.46 SQ. MILE AT LOW T.



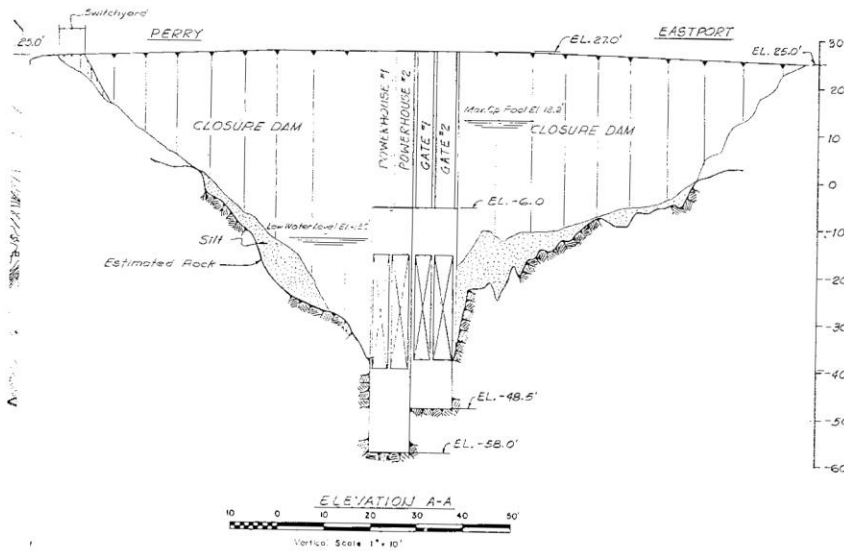
# EXISTING CONDITIONS



- FORMER SITE OF TOLL BRIDGE
- EXISTING ROADS TO SITE
- OVERHEAD POWER LINE
- ONLY ENTRANCE TO HALF-MOON COVE

# VIEW OF DAM FROM COBSCOOK BAY

- 1200 FEET  
ACROSS
- POWER HOUSE  
BELOW LOWEST  
LOW TIDE
- FILLING / EMPTYING  
GATES



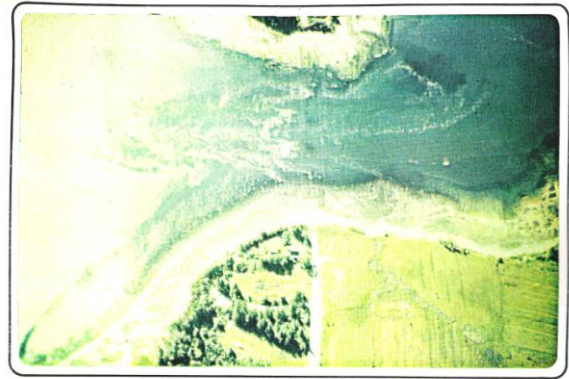
# TIDAL BASIN



- SCHEMATIC VIEW
- OPTIONAL SITE FOR POWER PLANT
- COMPATABILITY WITH LNG PROPOSAL

# OVERHEAD VIEW

- PROJECT AT MID TIDE
- STRONG TIDAL CURRENTS
- EXCELLENT LOCATION FOR DAM AND / OR TIDAL CURRENT DEVICES



# SCHEMATIC DRAWING OF POWER HOUSE

- TWO BULB TURBINES
- FLAP GATES FOR FILLING / EMPTYING
- ROAD WAY ON DAM SURFACE
- HIGH POOL OPERATION

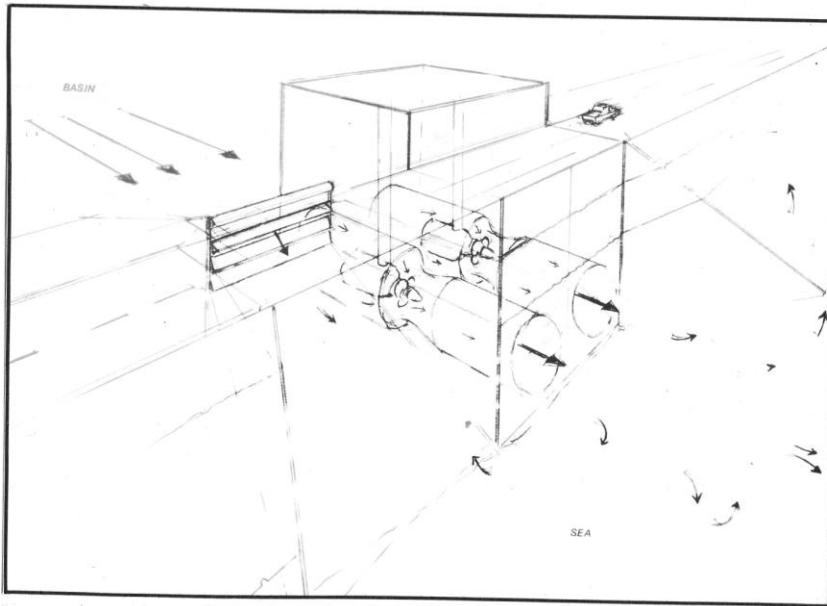


Fig. 1 | conceptual drawing of powerhouse and roadway



# CUT-OUT OF POWER HOUSE

- BULB TURBINE
- EASE OF MAINTENANCE
- ACCESS TO INFRASTRUCTURE

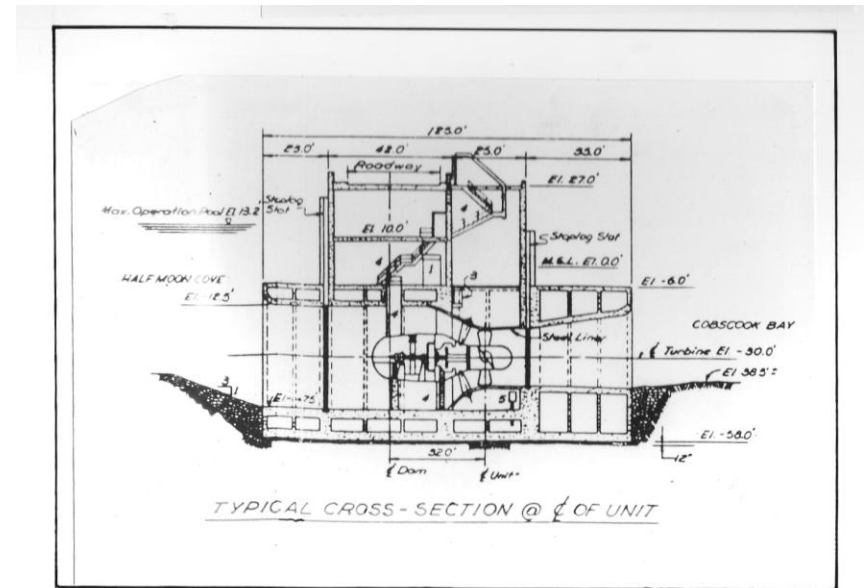


Fig. 17 / powerhouse cross-section (Chas. T. Main, engineers)

# HISTORICAL DAM

- CONSTRUCTION OF CARLOW ISLAND DAM
- PART OF 1930s QUODDY PROJECT
- LONG-TERM STABILITY



Fig. 3 | construction of existing causeway (1936)

# QUARRY SITE

- 1936 WORK
- AVAILABILITY OF LOCAL RESOURCES
- ACCESS TO SITE

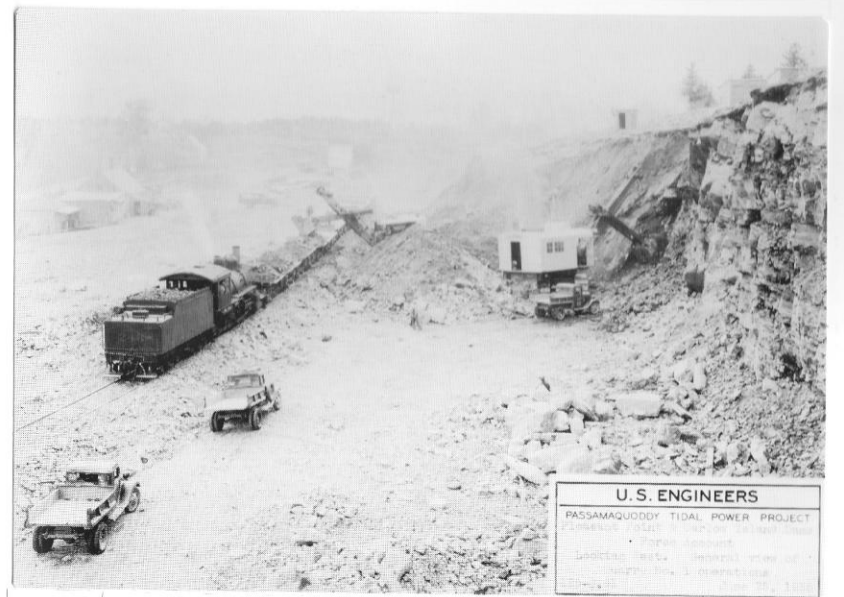


Fig. 11 | quarry operations for Grand Quoddy Tidal Project (1936)

# CURRENT DRIVEN DEVICE

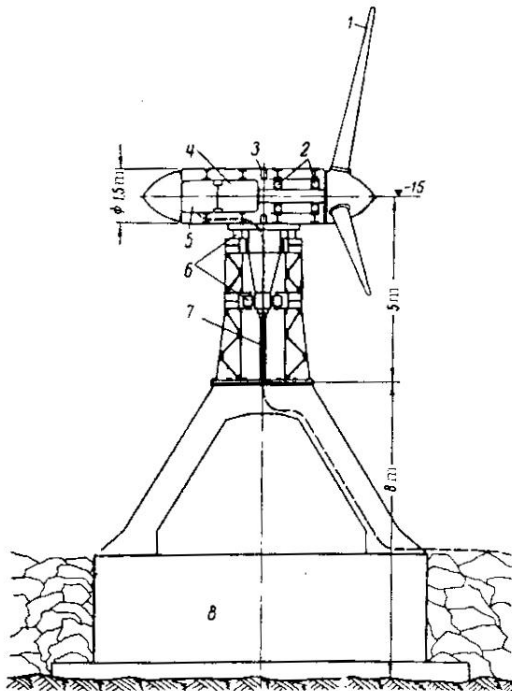


FIGURE 3-7. Hydro unit for sea-current energy utilization:

1—three-bladed screw;  $\phi = 10.5$  m,  $n = 27$  rpm; 2—bearings;  
3—braking device; 4—step-up transmission; 5—500 kw, 24/500  
inR generator; 6—rollers; 7—electric cable; 8—supporting base.

- MANY UNITS AVAILABLE OFF-SHELF
- INSTALLATION IN NORWAY FOR 35 HOMES
- OPEN HYDRO / VERDANT / OTHERS

*Toll Bridge, Chartered 1807, Eastport, Me.*

