Thayer Creek Hydro Plant



Thayer Creek Hydro is a PROPOSED plant for the Alaska Power Project. This is a "real" location and permits have been applied for the construction of this plant. For some unknown reason, the plant has not yet been built. There is a full impact study for it that you can read HERE.

This is a very small hydro plant, it's purpose to supply the community of Angoon, AK which now runs on diesel generators. The fuel must be barged to Angoon and the electrical operation is very expensive. At the time of the study, the cost per kilowatt hour for Angoon was 34 cents, at that time the cost of a kilowatt hour in Washington, DC was 07 cents.

Damming up a creek in Alaska can be a problem because of salmon runs. If salmon cannot find their natural birth habitat, they will die. Thayer Creek has a unique waterfall about 1 mile from the seashore. It is a high, rocky affair that salmon cannot (and never could) get up. So Thayer Lake, from which the stream runs, has no salmon. This, plus the fact that Thayer Creek is located only 6 miles north of Angoon, makes it a perfect location for a hydro plant.

The size of the plant is very small, it only needs to supply the community of Angoon and five small turbines can do the work. The turbine house is proposed to be built of wood or metal and has a proposed size of 150 by 150 feet.

The Turbine House will be BELOW the falls. The earthen breastwork dam will be about 2 miles ABOVE the falls ... this gives the turbines the proper head pressure they need to operate. A 42" PVC pipe will carry the water from the earthwork dam, down past the falls, and to the turbine house below where the electricity will be generated and the exhaust water from the plant will be put back into Thayer Creek running beside the plant.



The proposal plan calls for the local workmen to clear a trail beside the creek up to the dam construction site. The trail will be wide enough for a backhoe and ATVs to travel upon. One of the uses for the trail will be to haul out logs cleared by making the trail (which will help pay for the project).



A "small port" is proposed that will have a small dock for float planes and a place where the logs can be assembled and tugged to the local sawmill. "3D wood" (Down, Dead, Deteriorating" wood will be cleaned up and "fired" so there will be no forest fires later from downed trees.

Our depiction of this facility is what we think it will look like just before it is ready to be put online. We have run a power line from the facility to Angoon. There are two helipads and one float plane dock. The starting positions are these:

- Heli: Dam Construction Site: N57 35.3262 ... W134 37.2781
- Heli: Power Plant: N57° 34.9466' ... W134° 37.1703'
- Float Plane Dock: N57° 34.7299' ... W134° 37.5816' Heading: 1.7°

Author's Notes:

This was an interesting facility to create. Unlike most of ORBX scenery that is very accurate in terrain detail, for some reason the terrain in this area was going "up" from Thayer Lake to the Coast when it should be going "down." Therefore the creek was going up hillsides in places. I had to completely build a new basin for the creek, and while doing so, put in the elevations for the breastwork dam and the waterfall.

For simming, this one will be great for helicopters .. a little dangerous in that you are flying a canyon that turns to port as you are going up the creek. You will find an interesting Vimeo video that gives an artist's depiction of the plant placement ... and that is what I used to create this facility. You can find that <u>HERE</u>. If you are interested in the plant, this is a good video to watch as locals are discussing the proposed plant, its impact and the need for it.

Hope you enjoy this little facility.

Doug Linn