April 6, 1989

Mr. Earl Kimball, District Ranger
Big Creek Ranger District
Payette National Forest
Box 1026
McCall, ID 83638

Dear Earl:

Enclosed is information pertaining to our request to place an environmental monitoring station on Forest Service land near Taylor Ranch Field Station. The document has been developed by Jim and Holly Akenson in cooperation with Clem Pope.

It is my understanding that the best way to go on this is with a Cooperative Agreement. Would you like to add the appropriate signature page, or otherwise provide an official format? I will then obtain the necessary signature(s) here and return it to you.

Thanks for your help with this request.

Sincerely,

James R. Fazio
Acting Department Head

JRF:ps
Encl.

TAYLOR RANCH PORTABLE ATMOSPHERIC MONITORING AND METEOROLOGICAL (MET) STATION

Background:

The University of Idaho, Wilderness Research Center and the Idaho National Engineering Laboratory are establishing a long term atmospheric monitoring program at the Taylor Ranch Field Station. Essential to this program is a MET station having multiple factor sensing capability. This station will provide a complete climatological record. Air samples will be filtered and analyzed for heavy metal contamination.

The Taylor Ranch site has been selected because of its location in the middle of the Frank Church, River of No Return Wilderness, a relatively pristine airshed. INEL scientists consider that this area may contain the most pristine inland airshed in the continental United States due to its remoteness and lack of human development and activities in the vicinity. The atmospheric information acquired by this station will be used in comparison with other similar stations around the world, thus contributing to the global atmospheric data base. Information obtained from this station will also be utilized for a wide range of ecological research, conducted through the Wilderness Research Center at Taylor Ranch.

Site Selection:

After a reconnaissance of potential site locations, Idaho National Engineering Laboratory scientists identified an elevated bench in lower Rush Creek as being best suited for the MET station. This sagebrush covered flat lies immediately east of an extension of Taylor Ranch property up Rush Creek (see map). The optimal positioning of the MET station would be in the middle of the flat, approximately 180 feet from the property boundary, on Payette National Forest land, Krassel Ranger District.

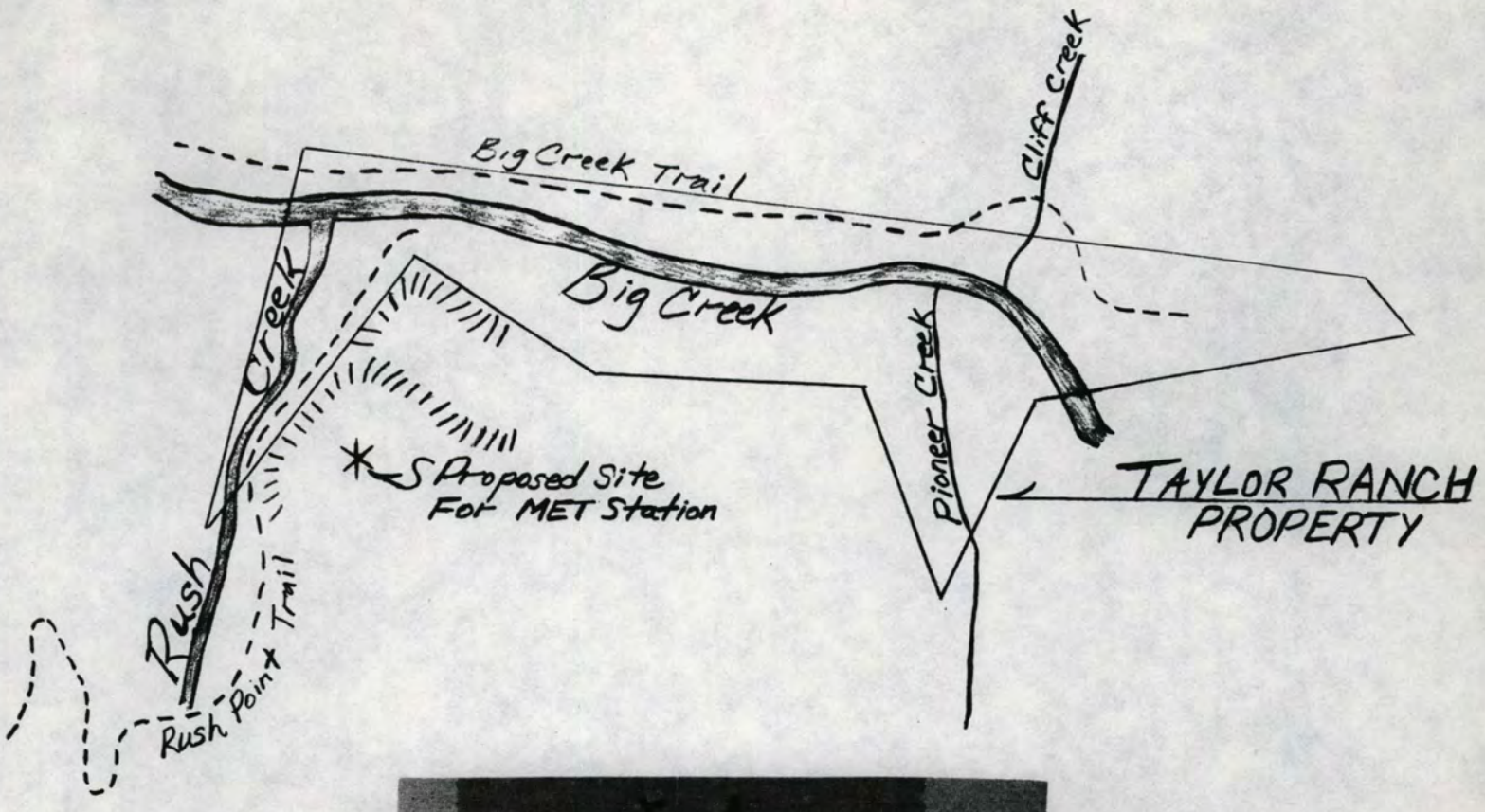
Placing the facility at the desired site will create limited visual impact to wilderness visitors in the area. The site is completely screened from view of the Big Creek Trail by both vegetation and topography. It is possible to see the site from a short section of the Rush Point Trail. This effect would be insignificant, as this trail receives minimal use in comparison to the main trail, and the station is over one-half mile away from the Rush Point Trail at the nearest segment.

Portable MET Station Description:

The MET station consists of a tripod base with a 12-15 foot pole supporting the sensory equipment (see photo). A microcomputer unit which temporarily stores the climatological data will be attached to the structure. The atmospheric monitoring instrument consists of a 24 x 18 x 8 inch metal suitcase containing an air filter and pump which is attached to two portable 18 x 18 inch solar panels. The pump is inaudible when standing more than 4 feet from the instrument. It will be nescessary to construct an unobtrusive fence around the station to protect this sensitive aparatus from disturbance by wild animals. This fence need only cover a 15 x 15 foot area.

Cooperative Agreement between University of Idaho, INEL, and Payette National Forest

The MET station will provide a valuable data base for U of I and INEL, plus this information will be available to the Forest Service upon request. The Wilderness Research Center has participated with the Payette National Forest in several cooperative activities and programs. The use of this site for atmospheric monitoring, through a cooperative agreement between the Payette National Forest and the University of Idaho will establish yet another arrangement of mutual benefit.


Big Creek Trail
Cliff Creek
Big Creek
Creek
Pioneer Creek
Proposed Site
For MET Station
TAYLOR RANCH
PROPERTY
Rush
Rush Point Trail