SMITHS LAKE FIELD STATION USERS' GUIDE

LOCATION

The UNSW Smiths Lake Field Station is located on the southwestern shore of Smiths Lake near the village of Bungwahl. It is about 35 km south of Forster, NSW.

DIRECTIONS

1. From Bulahdelah, take the Lakes Way, which leaves the Pacific Highway a few kilometres north of the town.
2. At Bungwahl, turn right into Seal Rocks Rd.
3. Proceed towards Seal Rocks for 2.3 km.
4. Turn left at Horse Point Rd, a dirt road opposite the Fish Co-op.
5. Proceed straight ahead for 1.6 km until you reach the field station.

Note: Ignore all signs and do not turn into Dogwood Rd. Leave the gate across the road as you find it.

CAPACITY

The field station can cater for a maximum of about 50-60 people.

BUILDINGS

There are nine buildings comprising:

Two dormitory blocks – 7 rooms in total – 6 to 12 beds in each.

One ablutions block – 3 showers (hot/cold water), 3 toilets and 3 basins in each of the male and female sections.

One lab/kitchen building – 4 fridges, 1 freezer, 1 gas stove/oven and a vermin-proof storeroom.

One cookhouse with open sides– 2 wood barbeques, 5 gas rings and 2 double sinks with hot/cold water.

One dormitory block (restricted use – DECC and UNSW staff only).

One communal building with open sides, and a storage room at one end.

One two-room storage building (restricted access).

One boatshed (restricted access).

ACCESS

One key, available from the field station manager, opens most buildings. Most users would require this key only. It does not open the boatshed, the storage building nor the DECC dormitory. Users of these buildings need to obtain appropriate keys from the field station manager.

SERVICES

1. Water

a. Drinking water. Drinking/cooking water is supplied by three tanks at the eastern end of the lab/kitchen building. It is important to conserve this water. In an emergency the water in the tank by the boatshed is also suitable for drinking.

b. Cookhouse/Kitchen water. This water is supplied from the cookhouse tank or from the tank beside the storage building, which is supplemented from the tank beside the old dormitory building (the one near the entrance to the field station).

For hot water, it is necessary to turn on the gas hot water system in the cookhouse. Please follow the instructions concerning operation of the gas heater.

For water pressure, the demand pump must be turned on. The switch is the one marked "Kitchen" on the double power point between the cookhouse and the cookhouse tank. If water pressure remains low, it can be improved by backwashing the filters located on the inlet side of the pipe leading to the gas hot water system. Instructions are located nearby. Note that more than one backwash might be necessary.

c. Ablutions block water. This water is supplied from two separate sources. The main source is the tank next to the communal building in combination with the tank beside the storage building (which also supplies the cookhouse). These tanks contain rainwater only. These two tanks can never be fully emptied because they are lower than the ablutions block. The second, or backup, source is the ablutions block tank, which contains creek water diluted by some rainwater from the two adjacent buildings.

Whenever possible, the two rainwater tanks should be used. To do so, the inlet valve to the ablutions block from the ablutions block tank must be in the closed position. The valve handle is hexagonal in shape, coloured green and is on the ground near that tank. If this inlet valve is in the fully open position, the only water entering the ablutions block comes from the ablutions block tank.

If the water in the communal building tank is too low, the ablutions block tank has to be used. If the water level in it is also low, it can be filled by pumping water to it from the creek. This is done by ensuring that the inlet valve to the ablutions block tank (located on the pipe on the side of the tank) is open, and then turning on the pump at the double power point between the cookhouse and the cookhouse

tank. The switch is the one marked “Ablutions”. If the inlet valve is not open when the pump is operating, the pipe from the creek will burst at some point. This usually happens at the southwestern corner of the ablutions block.

When the lake is very high, that is, above about 1.6 metres on the Tarbuck Creek gauge, the creek water is brackish. At such times, do not pump more water from the creek than you need. This request is made in order to minimise the amount of time the water in the tank remains salty.

For power and hot water in the ablutions block, it is necessary to turn on the switches in the female section and to turn on the gas hot water systems in both sections of the ablutions block. Instructions are on the wall near the hot water systems. Note that the switches are of the American type and the down position is Off and up is On. Please note also that a small group of users probably does not need to use both hot water systems.

For water pressure, turn on the switch for the yellow demand pump. As for the cookhouse hot water system, filter backwashing might be necessary.

2. Gas/Firewood

a. Gas. Gas for cooking and hot water is supplied from two 500Kg gas tanks. These are filled periodically by Elgas. If the gauge on top of either tank shows that the tank is less then 30% full, please inform the field station manager.

b. Firewood. Firewood is supplied by a local contractor. It is kept in a shed near the entrance to the field station. If the firewood supply is low, the field station manager should be informed. Please note that you need to supply your own axe.

3. Electricity

The field station has only single-phase power to supply a large amount of electrically powered equipment and appliances. It therefore has a mains circuit breaker. This circuit breaker, along with several others, is located in the fuse box at the eastern end of the communal building.

If there is a power failure, either total or partial, the above fuse box is the first place to look in order to restore power. Other fuse boxes are found at the eastern end of the lab/kitchen building, in the north-eastern room in the old dormitory block, at the western end of the far dormitory and in the DECC dormitory.

If the power blackout is not caused by an overloaded circuit, then the problem probably lies somewhere outside the field station. You then have to wait for Northpower to restore power. This might only take a few hours but it can be a lot longer after a major storm. At such times it might be necessary to use buckets of water from the creek to flush toilets. To provide light there is usually a supply of candles in the Rat Proof Room.

If power is not back on after 24 hours, check with Northpower. They might advise that a local electrician needs to be called.

Please note that, although there are several 15-amp appliances, there is only one 15-amp power point in the communal building. Do not under any circumstances modify a 15-amp appliance so that it plugs into a 10-amp power point.

4. Heating
In the communal building there are a wood heater and a potbelly stove. Please exercise care moving near them when they are in use. If it is cold and windy, the canvas sides of the building may be lowered to provide more warmth. The wooden screens can also be used for this purpose.

5. Ablutions Block/Cookhouse Waste Water
Waste water from the toilets and showers is piped to an Ecomax treatment system. It comprises three cells of specially treated soil that are housed in the mounds outside the ablutions block. Normally only two cells are in operation at any one time. Switching on and off of cells is the responsibility of the field station management.

If the red light on the instrument on top of the septic tank starts to flash, please immediately contact the phone number that is written on the instrument housing. If this number does not answer, inform the field station manager.

Waste from the sinks in the cookhouse enters a grease trap and is then pumped to the Ecomax system. The power point for the pump is located on a post near the grease trap. Do not switch off the power at this point.

6. Rubbish Removal
The field station has two rubbish bins, which are kept along Horse Point Rd near the intersection with Dogwood Rd. They are divided into recyclables and garbage sections. Please use the correct sections of the bins when putting rubbish or recyclables in them. The bins are emptied by Great Lakes Council on Thursdays.

While these bins are adequate for much of the year, this is not so during periods of heavy use. For such occasions there is a skip opposite the entrance to the field station. It is usually emptied once a month, on the second or third Monday. Sometimes, at the discretion of the field station manager, it is emptied more often.

Please note that there is no system for recycling or composting kitchen waste.

7. Cleaning/Maintenance
Cleaning of the field station and maintenance of the grounds is done by local casual staff of UNSW. Users of the field station are, however, expected to leave it in a clean and tidy condition when they depart, including removing rubbish and cleaning the ablutions block.

COOKING/FOOD STORAGE

As mentioned earlier, there are two wood barbeques and five gas rings in the cookhouse. In the lab/kitchen building there are four fridges, including one large commercial fridge, one freezer and a gas stove/oven. There is also a food storage room, which is labeled the "Rat Proof Room". It is advisable to store here all food which does not require refrigeration.

All cutlery, plates, mugs, and so on, are stored in the kitchen section of the building. A large selection of cooking/food preparation utensils is also stored in this room.

Users of the field station are asked not to leave food behind in the Rat Proof Room or in the fridges or freezer. Any food, condiments, or other material that is left there may be used by any visitor.

BEDS

Most beds are double bunk style. Most of them have a wire base but about ten have a wooden base. Most mattresses are made of foam. Visitors must supply pillows, sheets and blankets or sleeping bags.

TOILET PAPER/PAPER TOWEL

These are supplied by the field station. They are normally kept in the Rat Proof Room. If the supply is low, please inform the field station management.

FIRE FIGHTING EQUIPMENT

Fire extinguishers are provided at various points around the field station. There is also a fire blanket in the cookhouse and in the kitchen. There are also several taps, one near the cookhouse and others near the dormitories, to which a hose may be attached. To obtain sufficient pressure when using these taps, turn on the pump to the ablutions block tank and ensure that the inlet valve to that tank is closed.

There is also a tap at the entrance to the female section of the ablutions block. It uses the ablutions block water supply. The demand pump inside the ablutions block supplies the pressure.

TABLES/CHAIRS

There are about fifteen large tables at the field station. Some are collapsible and some are not. Normally they are stored in the storage area in the communal building. Plastic chairs are also stored in this storage area.

FIRST AID KIT

A first aid kit is kept in the kitchen/lab building near the big fridge. It is restocked from time to time. However, as this cannot be done frequently, users are advised to bring their own supply of first aid items.

LIBRARY

A selection of books on natural history and on biology generally is kept in the lab/kitchen building. Please replace any books that you use.

OTHER EQUIPMENT

In the various storerooms are microscopes, collecting equipment, and other scientific material. These are used by the various student groups from the School of BEES, UNSW, and are not available to other users of the field station.

BOATSHED

Four dinghies and four outboard motors are stored here along with boating equipment, some fuel, sampling gear, and other equipment. The boats are normally only available for use by members of the School of BEES. By special arrangement with the field station management, they may sometimes be available to other users of the field station.

SAFETY CONSIDERATIONS

1. Arboviruses

Mosquito-borne viruses, such as those causing Ross River Disease and Barmah Forest Disease, are prevalent in the area. While many people who are infected show no symptoms, a minority can be affected to various degrees by these diseases. A few people have become very ill.

The best protection is to avoid being bitten by mosquitoes – keep screen doors closed, wear suitable clothing, use insect repellent, and spend as little time as possible in the ablutions block. A supply of repellents and insecticides is usually kept in the Rat Proof Room for those people who have not brought their own supply.

2. Snakes

Snakes are occasionally seen in the vicinity of the field station and sometimes within the grounds. The most dangerous are the Brown Snake and Death Adder. All visitors to the field station are advised to wear appropriate clothing, including long pants and stout shoes, especially at night.

3. Ticks

Depending on weather conditions and the stage of their life cycle, ticks can be very common in the bush around the field station. Sometimes they can even be found in large numbers within the grounds. Many people who are bitten show only mild symptoms. A tick bite, however, especially if not detected early, can be serious for some. To minimise the risk of being bitten, wear appropriate clothing and use insect repellent. Occasionally check your clothing and body for ticks.

4. Camping Under Trees

The risk of being injured or killed by falling trees or branches is probably not as severe in the field station grounds as in some other areas of the Myall Lakes National Park. It

is, however, forbidden to camp near the larger paperbarks and swamp mahoganies. Signs in the grounds advise of areas where camping is not permitted.

5. Creek Depth

Even when the lake is low, there are some parts of the creek that runs beside the field station which are quite deep. This is especially true near the boatshed. The risk of drowning would be small for an adult but not so for a small child. Parents and other adults are advised not to allow young children to wander unaccompanied near the creek.

6. Fires

Great care should be exercised around bonfires and when using the barbecues and stoves. At times of total fire bans no fires may be lit.

In the event of a bushfire, the field station is thought to be reasonably safe. The lawn and the lake itself can act as a refuge for anyone trapped at the field station. The muster area during an emergency is at the lake edge near the boatshed. Signs on the lab/kitchen building and in the dormitories give advice regarding emergency procedures.

Instructions for Users of Smiths Lake Field Station

On Arrival

1. Switch on the demand pump and power in the ablutions block. The switches are located in the female section. Switch on the gas hot water in both sections of the ablutions block. The instructions are on the wall nearby.

2. Switch on the demand pump and gas hot water in the cookhouse. The demand pump switch is marked "Kitchen" and is one of the two on the double power point near the cookhouse tank. Make sure that either the valve from the cookhouse tank or the valve from the tank near the storage building is open.

3. Backwash the filters on the inlet pipes to the gas hot water systems in the cookhouse and the ablutions block. The instructions are mounted near each filter.

4. Turn on the fridges you need and make sure the freezer is turned on. Do not adjust the thermostat of the large fridge.

5. Make sure that the submersible pump in the grease trap is turned on. The switch is located on the pole beside the grease trap (near the cookhouse). It should never be turned off.

6. Choose which tank is to supply water to the ablutions block by checking the water level in each of the ablutions block tank and the communal building tank. To do this, gently tap the side of each tank. The approximate water level is indicated by a change in tone.

   The preferred water supply comes from the communal building tank. If the water level in it is too low, then the ablutions block tank must be used. If the height of water in that tank is also low, it can be filled by turning the inlet valve (on the pipe on the side of the tank) to the "on" position, and pumping water from the creek. The pump is located near the cookhouse. The switch is marked "Ablutions" and is the second of the two switches on the double power point beside the cookhouse tank. Remember to turn it off when the tank is sufficiently full.

   Note that, to use water from the ablutions block tank, the inlet valve to the ablutions block from the ablutions block tank must be in the fully open position. The valve handle is hexagonal in shape, coloured green and is on the ground beside the tank. When the valve in the closed position, only the communal building tank can supply water to the ablutions block.

On Departure

1. Turn off all switches in the ablutions block.

2. Turn off the gas and water supply to each of the hot water systems in the ablutions block

3. Turn off the demand pump in the cookhouse.

4. Switch off the gas and water supply to the cookhouse hot water system.

5. Clean all fridges used and also the freezer if it was used. Do not leave food in them or in the Rat Proof Room.

6. Turn off the fridges, but not the freezer, and leave the doors open.

7. Return all cooking utensils, cutlery, plates, cups and glasses to the racks and benches in the kitchen.

8. Put all chairs and tables into the storage area of the communal building.

9. Clean up around the field station, including sweeping out the rooms and cleaning the ablutions block.

10. Turn off all the lights.

11. Make sure all fires are extinguished.

12. Lock all the buildings, close all the windows, and replace the key.

13. Take all garbage and recyclables to the bins near Dogwood Rd or put them in the skip if there is too much for the bins.

Please note the following:

- In the event of a power failure, the main circuit breakers are at the eastern end of the dining area.
- Report any problems to Mr. David Hair, School of Biological, Earth and Environmental Sciences, UNSW. Tel. (02)93852192 or 0438269352.