

PRESCRIBED BURNING PLAN FOR FY 1988
PARKER RIVER NATIONAL WILDLIFE REFUGE

Submitted by: John L. Ellis

Date: Nov. 18, 1987

Reviewed by: _____

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MANAGEMENT PLAN

NWR

BURN PLAN FOR FY 88 PARKER RIVER NWR

To maintain consistency between Parker River's approved Fire Management Plan and this document, all areas will be referred to by their treatment area numbers.

Treatment #1 is the area consisting of the fresh water marsh inside the Stage Island Pool. This area is bounded by the pool dike and upland on the north; upland which is also the refuge boundary with the State on the west; upland which is refuge boundary with the State on the south; and the refuge-owned road on the east (See Maps #1 & #3).

Much of the aquatic vegetation in Stage Island Pool was treated with a herbicide in August, 1987. The purpose of the prescribed burn is to remove past years' accumulation of dead organic matter and the dead standing vegetation treated this past summer with herbicide, releasing the nutrients back into the soil and allowing the sun's light to stimulate early plant growth. This prescribed burn is an integral part of the lead shot reduction plan that started during summer, 1985 (See Parker River's Stage Island Lead Shot Availability Reduction Plan).

The primary fuels, approximately 95 percent, to be burned are Giant Reed (Phragmites communis), Purple Loosestrife (Lythrum salicaria), and Cattail (Typha latifolia). These fine to light fuels are found in pure species stands or in varying densities of combinations with one another.

BURN PLAN

In preparation for burning during the month of November, we will lower the water level in Stage Island Pool so there will be none standing in the phragmites or purple loosestrife. The water will be kept high enough though, so that there will be water in the ditches and the ground moisture will be at the saturation level. Allowing water to stand in the ditches will give us several natural fire breaks and an adequate supply of water to operate our fire pumps if necessary. A high ground moisture level will stop the fire from burning down into the peat.

Since the entire pool is to be burned, we will utilize manmade and natural fire breaks to control the fire. On the eastern boundary of Stage Island Pool, the refuge road will be close, to vehicular traffic and will act as a fireline on this side. On the southern and western edges of the pool, the refuge maintains a 30+ foot mowed strip (along our boundary) that will be used as a firebreak.

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On the northern edge, the dike and upland area will serve as a fire break. (Note: Along the northern edge only a very narrow band of vegetation will be burned (approximately 150 feet) so fire suppression will be accomplished by use of a fire pump (with 1 1/2 inch hose) and backpacks.

All the islands with vegetation in the center of the pool are surrounded by water which will act as a natural fire break.

Since back firing of the firelines will be an integral part of the ignition plan, it will be described in that section. The refuge presently has three employees who are qualified and outfitted to do prescribed burning. Another employee is available at nearby Great Meadows NWR. This will constitute one team and only one ignition area (five areas within Stage Island Pool) at a time will be burned. (See Map #2).

The fire equipment that will be needed at time of burn are 2 back pumps (Indian type), 3 shovels, 3 fire rakes, a Ford tractor with disk harrow attached, fire pump and 350 feet of 1 1/2 inch fire hose, 3 hand-held and 2 portable radios.

Notifications

Notification to the Massachusetts Department of Environmental Management (Weiscopk Kelly) of our burning plan will be accomplished the week prior to burning. Also a news release to local papers a week prior to burning will help alleviate calls to the local Fire Departments.

2. Ignition Plan

Burning will commence during the week of November 22nd. The pool will be inspected to note dryness of fuel and moisture content of the soil. Weather forecasts will be monitored for desirable conditions to burn. A high pressure system with winds out of the west - northwest at 5-15 mph will be necessary for smoke management. Burning will be conducted from 10 a.m. to 5 p.m.; this will allow time for the morning moisture to evaporate and for the sun's rays to prewarm the fuels. The Town of Ipswich and its Fire Department will be notified of the refuge's prescribed burning plans for the day.

Sequence

On the day before the burn is scheduled, after the refuge closes, refuge LE officers will close the road below Lot #5. The next morning, if weather conditions are not acceptable for burning, the road will be reopened. If weather conditions are acceptable, the road will remain closed until burning is complete.

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Just before commencement of burning, a last check of the area will be made and a man will be posted in the observation tower with a radio. The duties of this person will be to monitor the wind directions and any changes in weather conditions; they will maintain contact with refuge headquarters and the ground personnel working the fire line. They will also monitor the uplands around Stage Island Pool for spot fires. Lastly, a communications check with refuge headquarters and fire personnel will be accomplished before ignition of the fire.

Ignition of the fire will start in the southeast corner of Area #1 (See Map #2); firing will continue slowly north along the refuge road until we reach the Stage Island Pool dike. Once the backfire has been set we will then walk the water line firing the western edge of Area #1, allowing the wind to carry the fire.

After burning Area 1, Area 2 will be burned in a similar manner. The ignition area will be located in the southeast corner. Backfiring will start from this point and continue northerly along the fire break until contacting Area 1, then returning to the ignition point, backfiring will continue in a westerly direction until contacting the firebreak for Area 5. After backfiring is accomplished, we will continue along the water edge firing the western and northern edge of Area 2, allowing the wind to carry the fire.

After Area 2, Area 3 will be burned. Burning in this area will be a slow process because the vegetation is in a band varying in width from 4 to 150 feet. We will start the burning process in the northeast corner of Area 3 (along the dike) and continue westerly, burning small pockets of vegetation as we find them. Since water is easily available here, fire control will be accomplished with the 1 1/2 fire pump. Burning will stop when we reach the northerly fire break of Area 5.

Area 4 will be burned next. This area constitutes a number of small vegetative islands, surrounded by water, that will be burned individually. No backfiring will be necessary; all ignition will take place on the northwest side of the islands.

Area 5 will be the last area to be burned. The ignition point will be in the southeasterly corner adjacent to Area 2. Firing will be done slowly along the fire line in a northwesterly direction until contact is made with the burned area of #3. This will end the prescribed burn for this impoundment.

MANAGEMENT PLAN

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Mop-up

Mop-up of the fire areas will consist of hosing down hot spots with water and then the stationing of a fire watch for several hours after the burn is complete.

Weare Camp at the Knobbs

The original permit for this camp is now expired. The camp will be burned. Two of the refuge's qualified employees will accomplish this. Fire equipment needed will be two shovels, 2 fire rakes, the truck-mounted 200 gallon capacity fire pump with 350 feet of 1 1/2 inch hose, and two hand-held portable radios. This burn will be referred to as Treatment #2.

A burn permit will be obtained from the State DEQE. They will be notified one week prior to burning; adjacent towns will also be notified. The refuge will coordinate with the Town of Newbury to obtain a fire truck to assist us in coverage.

The camp will be burned during January, weather conditions permitting. Weather forecasts will be monitored for desirable conditions to burn. Conditions are winds calm to 5 mph from the west, northwest. A ground snow cover would be best. The refuge will not be closed for this burn. One employee will be stationed at the corner of the dike on the Bill Forward Pool where it intersects the Knobbs Road to keep the public away. Radio contact will be maintained with refuge headquarters during the burn.

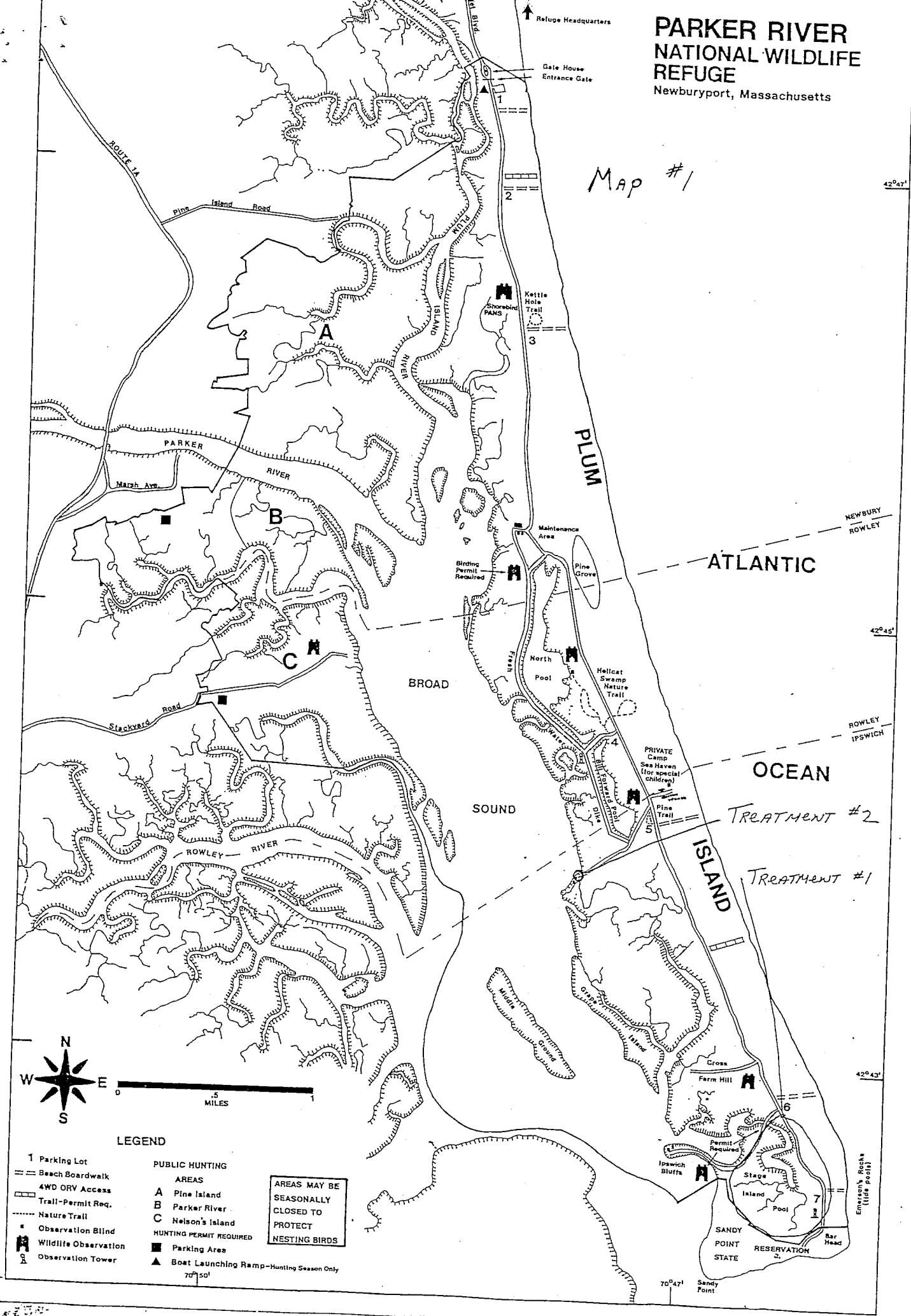
The camp will be ignited at the base with a flammable liquid. The burn will be monitored throughout. The fire will not be allowed to spread into the surrounding marsh vegetation. Personnel will ensure that the fire does not spread to the two remaining adjacent camps.

A mop-up of the fire will consist of hosing down hot spots all ash and remaining solids with water and then stationing of a fire watch for several hours after the burn is complete.

PARKER RIVER NATIONAL WILDLIFE REFUGE

Newburyport, Massachusetts

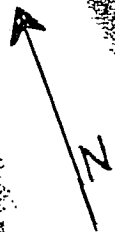
Map #1



LEGEND

- 1 Parking Lot
 - == Beach Boardwalk
 - 4WD ORV Access
 - Trail-Permit Req.
 - Nature Trail
 - Observation Blind
 - Wildlife Observation
 - Observation Tower
- PUBLIC HUNTING AREAS**
- A Pine Island
 - B Parker River
 - C Nelson's Island
- HUNTING PERMIT REQUIRED**
- Parking Area
 - ▲ Boat Launching Ramp—Hunting Season Only
- AREAS MAY BE SEASONALLY CLOSED TO PROTECT NESTING BIRDS**

Map # 12



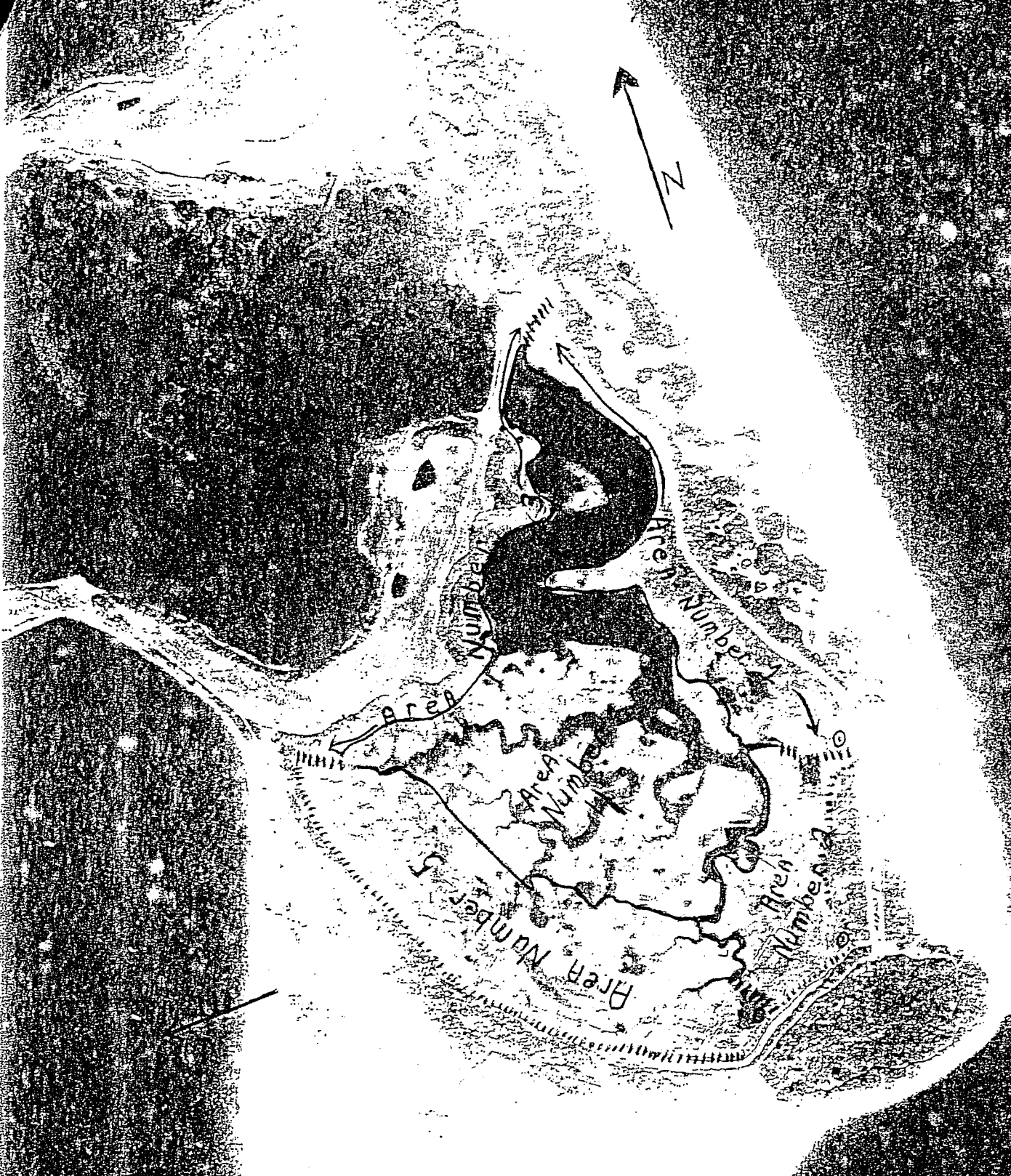
Stage Island
Pool
Treatment Area
3



State owned land

— Refuge Boundary
mmmm Stage Island Pool Boundary

MAP # 3



||||| Fire breaks (control lines)

⊙ Ignition point

Map # 4



Observation
Tower

5-15 mph

← Back fire line direction of flame spread

---→ Head fire line direction of flame spread