

Economic Development Feasibility  
Study for Marshall North Carolina  
2003

This is an economic development feasibility study funded by the New Horizons Grant Program through the Community Foundation of Western North Carolina. This study focuses on the viability of using a natural resource to help boost the economy in Marshall, North Carolina.

### The French Broad River



0 1000 2000 Feet

0 1000 2000 Feet

## Contents

Introduction

Section Eight

Redmon Dam

Portage' Options

Survey's

Hot Springs Businesses

Rafting Companies

River Users

Marshall Businesses

Conclusion

Marshall is located in Madison County, North Carolina on section eight of the French Broad River. This section of the river is used very little. The two main contributing factors for this are; the Capitola Dam and the Redmon Dam. The Capitola Dam is directly upstream of Marshall and Redmon Dam is two miles downstream.

The portion of the river between Marshall and Redmon Dam is a very scenic, totally undeveloped, portal through the mountains that gives us a slow moving glimpse of what our forefathers must have seen when first settling this land. It takes 45 minutes of constant gentle paddling to traverse the distance from Marshall's Island to the Dam.

This study gives several options for a means of egress over and around Redmon Dam. Some of them are more feasible than others.

This study also shows that there is public support for creating a way around the dam and making section eight of the French Broad River more accessible to river users.

Surveys were conducted and their data was compiled. They show that there is not only public support for opening this section of the river, but there is also interest on behalf of the rafting companies and visiting river users.

Special thanks to the Volunteers who helped conduct surveys.

Doug Mackenzie  
Project Leader



Marshall's section eight of the French broad River is a tranquil passage through undeveloped mountains. Because this section of the river is slow moving and has no rapids, it can be used for family float trips. This allows children as young as three years old to accompany their parents and enjoy an outing on the river.

Launching from the Island, the trip takes 45 minutes of gentle paddling to reach the dam. It would take substantially longer if drifting was the main means of propulsion.













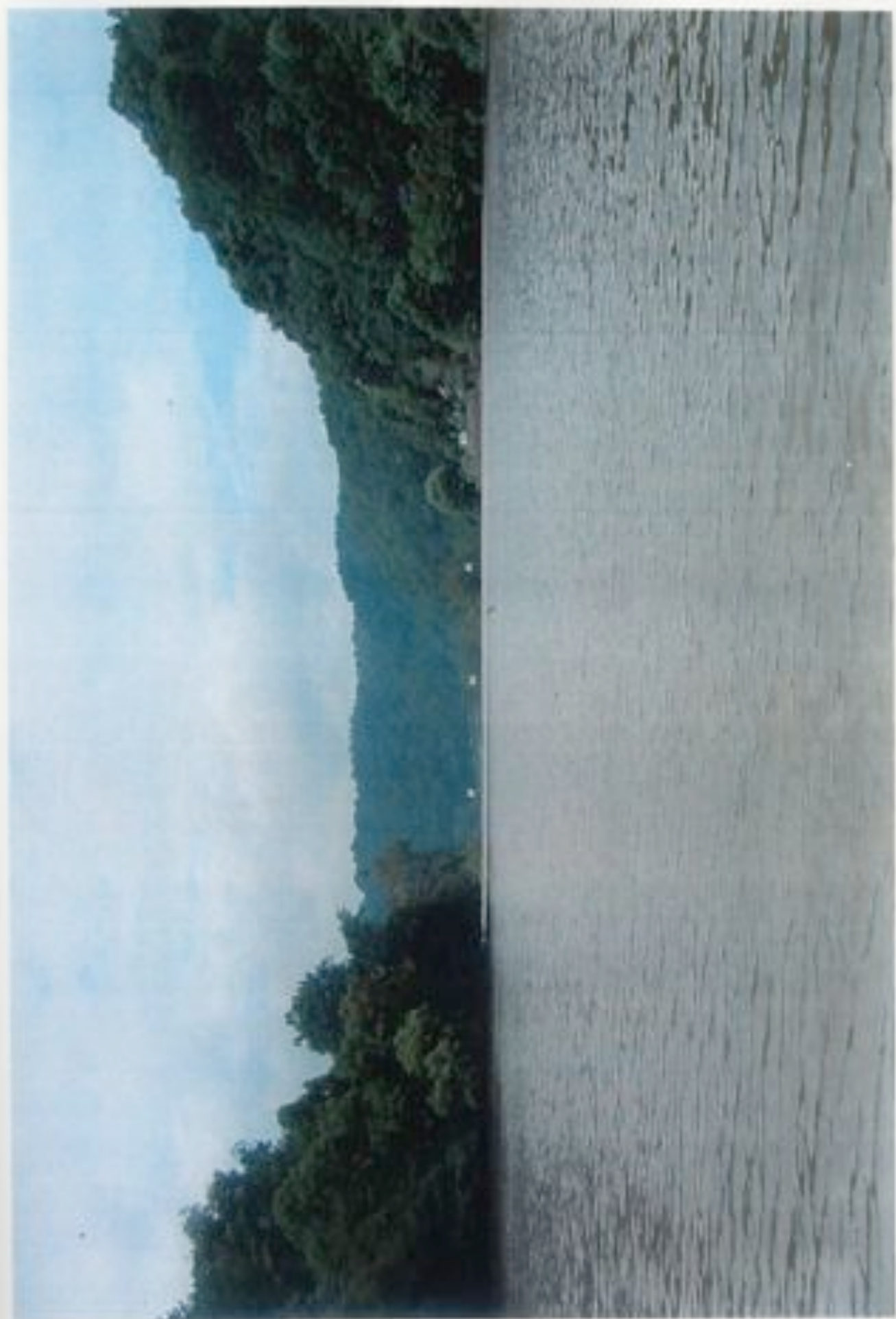


















## Redmon Dam

Redmon Dam is owned by Progress Energy. It is an operating power producing facility. They refer to it as the Marshall Plant.

Historically, Progress Energy has been very "river user" friendly. They have coordinated water releases at their Walters plant to supplement the flow in the Pigeon River for it's recreational use.

One option for a portage' around Redmon dam involves building a takeout, a trail, and a launch, all on Progress Energy property. At the time of this study Progress Energy is looking into what the ramifications of a portage' would mean to them. Some of the issues being discussed are; liability, security for the plant, and who will be responsible for the on going maintenance of the portage'.



A student who is required to take a course that is not a required course for their degree program may be required to take a course that is not a required course for their degree program.

Section 1

## Portage' Options

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Section 2

Students who are required to take a course that is not a required course for their degree program may be required to take a course that is not a required course for their degree program. This would be a course that is not a required course for their degree program. The student would be required to take a course that is not a required course for their degree program. This would be a course that is not a required course for their degree program.

Section 3

Section 4

Section 5

Section 6

Section 7

Several days were spent on site at Redmon Dam with a structural engineer discussing six possible portage' alternatives.

### **Option 1**

#### **Description**

Construct a slide on the river right side of the dam. The slide would run along the existing fish ladder with a left hand sweep at the bottom. There would be a series of pilings with pontoon floats between them as an exit lane leading to the slide. The slide would be constructed using a product called a double tee. You can find this product being used as floor members in parking garages. It is made out of pre stressed concrete and comes in lengths up to 96 feet. It would be mounted up side down to concrete columns, causing it to form a trough which would allow the spill water from the dam to flow down it.

#### **Concerns**

Liability, missing the off ramp, too easy an access for the general public without boats, construction access, maintenance, excavation needed at the bottom of slide and cost.

### **Option 2**

#### **Description**

Same as option 1, but with a much longer slide.

#### **Concerns**

Same as option 1.

### Option 3

#### Description

Fortify an existing take out on river right. Build and fence a path between the railroad tracks and the retaining wall. Build stairs from the tracks back down to the river.

#### Concerns

Liability, there is not enough space between the railroad tracks and the retaining wall to build a fence and carry a raft in the horizontal position, construction access would have to be from the tracks, maintenance, maintenance access, railroad cooperation, too accessible to the general public, and trash (see option 3a photo)

### Option 4

#### Description

Construct a fortified takeout on river left at the end of the field before the power plant. Doze a trail up the hill behind and around the plant. Create a launch site below the plant by reinforcing an existing drainage ditch. Use fencing to prevent unauthorized access of the power plant. There would be no drive up public access to the portage' in this option.

#### Concerns

Liability, security for the power plant, and maintenance.

## Option 5

### Description

Construct a fortified takeout on river left at the end of the field before the power plant. Build a bridge from the edge of the field to concrete pilings near the dam. Continue bridge downward as a ramp to the existing island below the dam. Use fencing to prevent unauthorized access of the power plant. As in option 4, there would be no drive up public access to the portage' in this option.

### Concerns

Liability, security for the power plant, construction access, people would be very close to the plant water intake and maintenance.

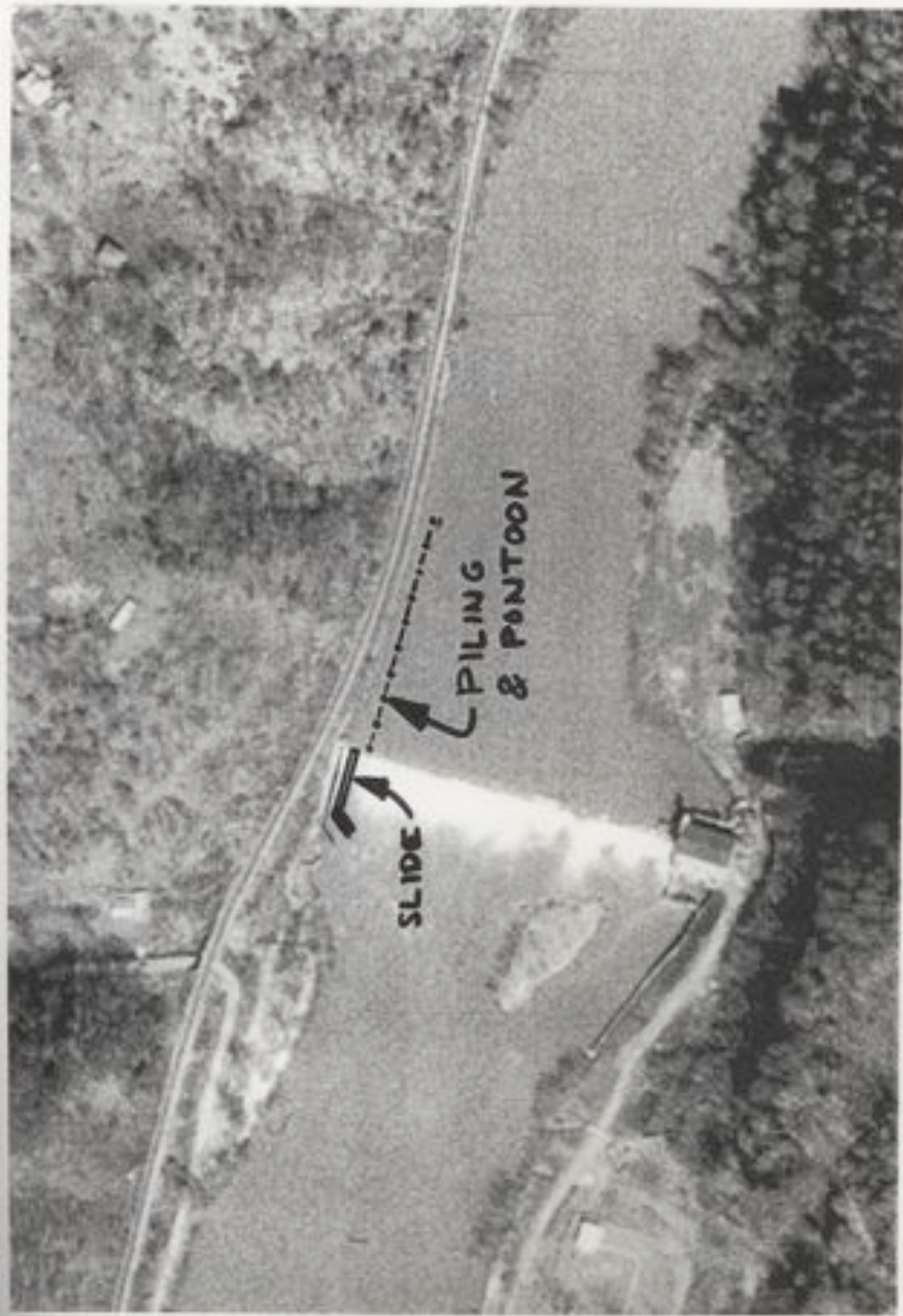
## Option 6

### Description

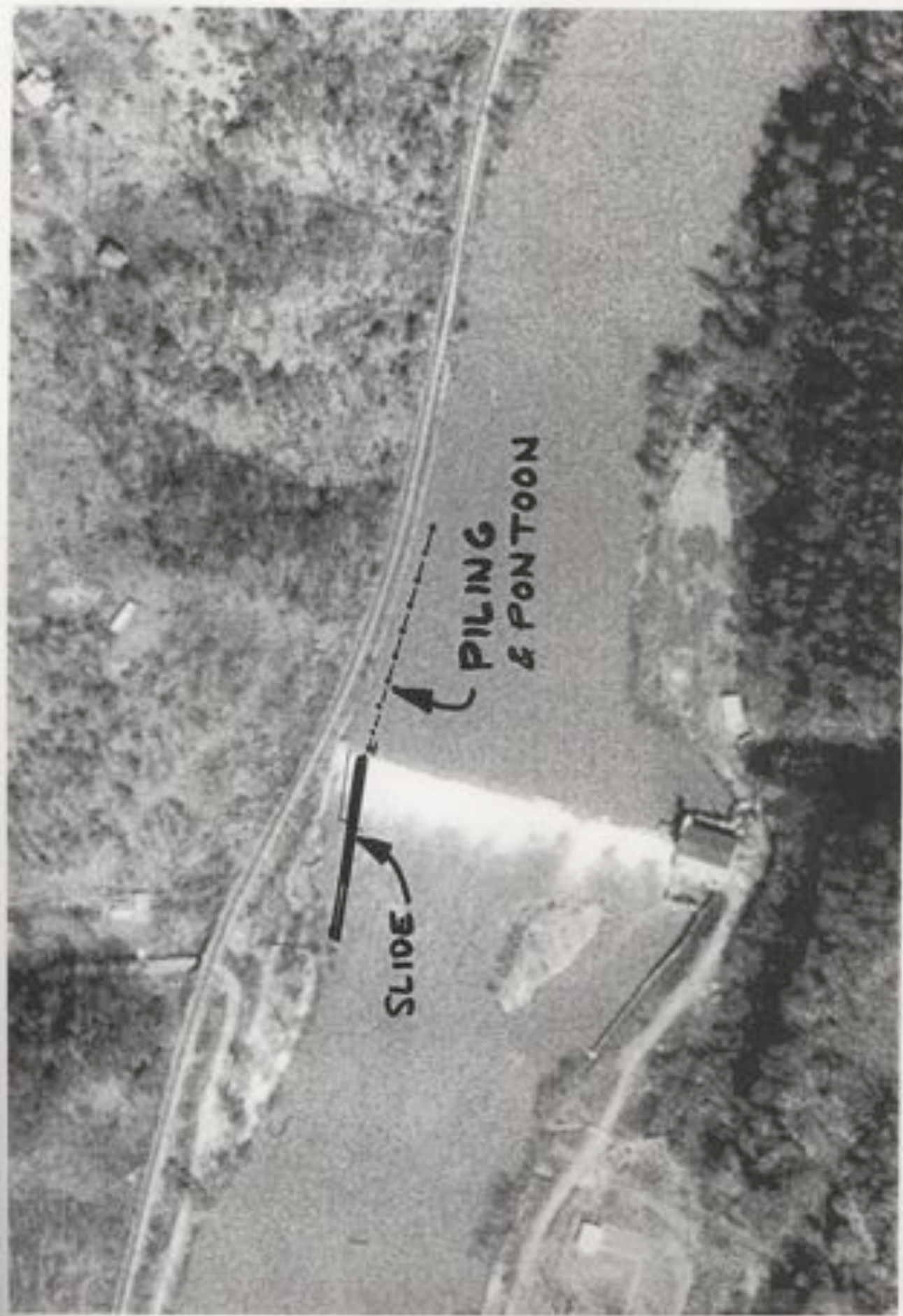
This is a partial solution to some of the concerns expressed in option 3. There would be a takeout ramp on river right leading to an elevated walkway that would crest the dam and have stairs descending along the fish ladder to the riverbank on the other side. The ramp and walkway would be constructed out of the double tee material and supported by concrete pilings. It would run along the retaining wall but not be attached to it. There would be a series of pilings with pontoon floats between them as an exit lane leading to the ramp.

### Concerns

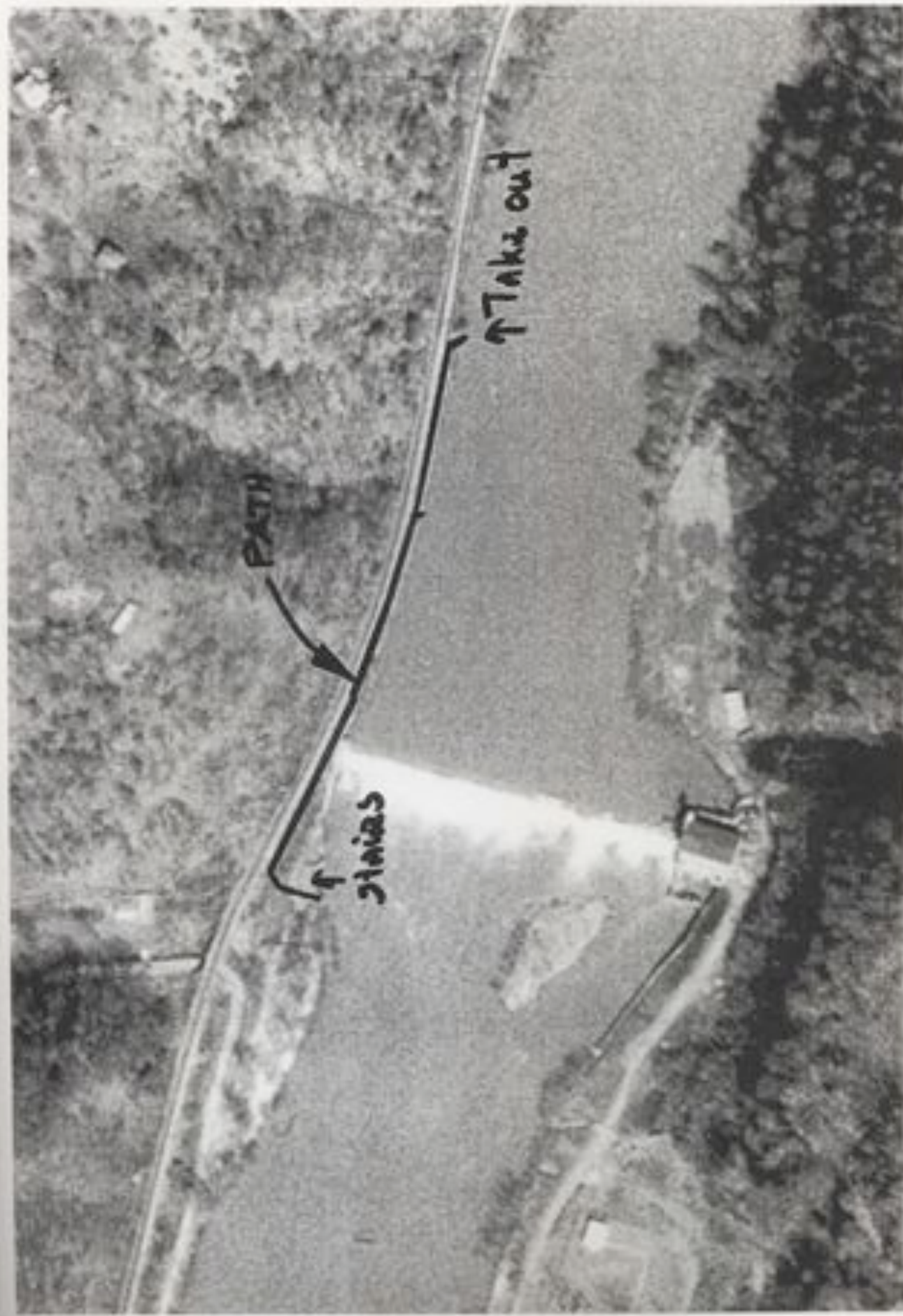
Liability, missing the off ramp, too easy an access for the general public without boats, construction access, and maintenance.



OPTION No. 1



OPTION No. 2

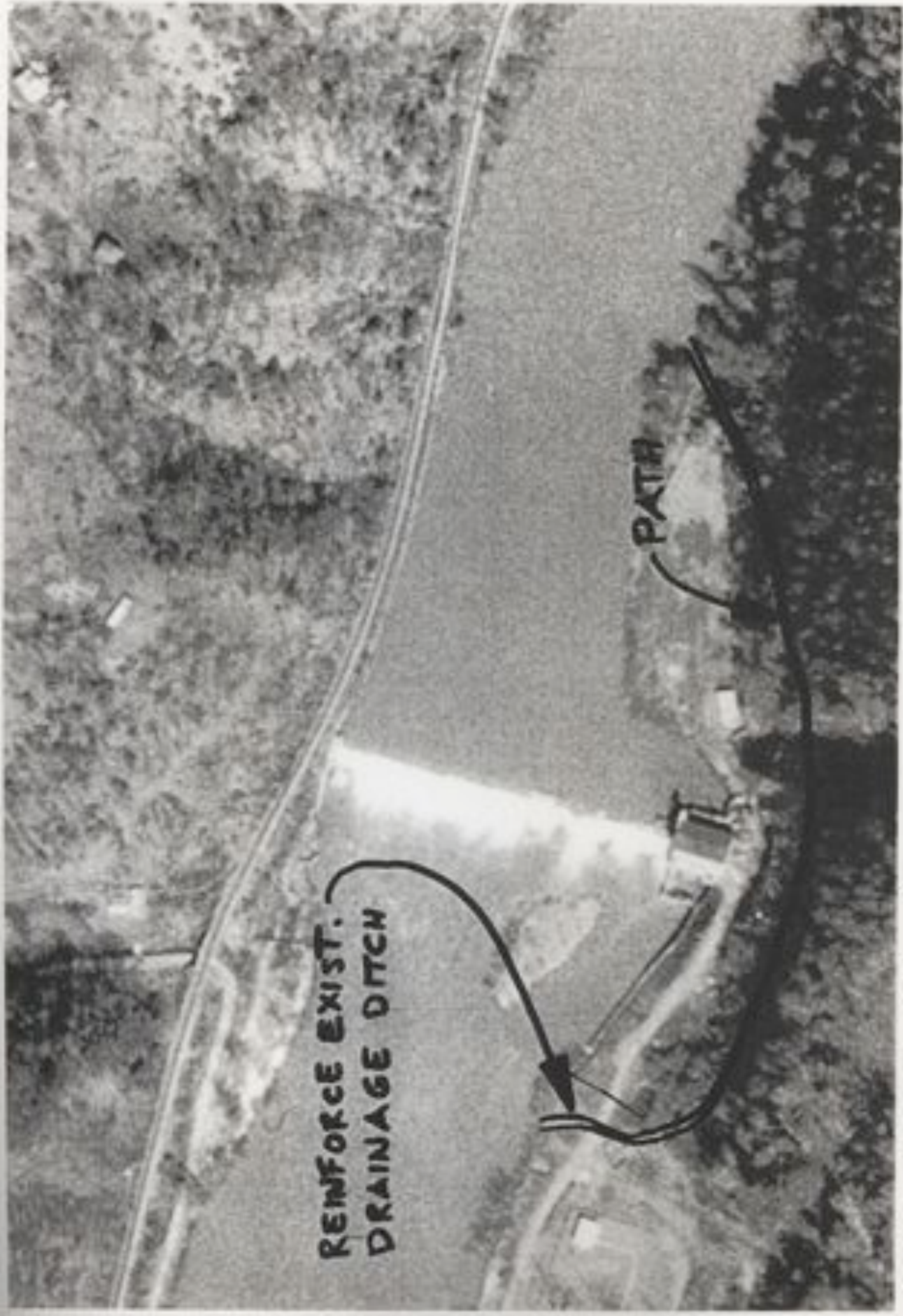


OPTION No. 3



OPTION No. 4

3A



REINFORCE EXIST.  
DRAINAGE DITCH

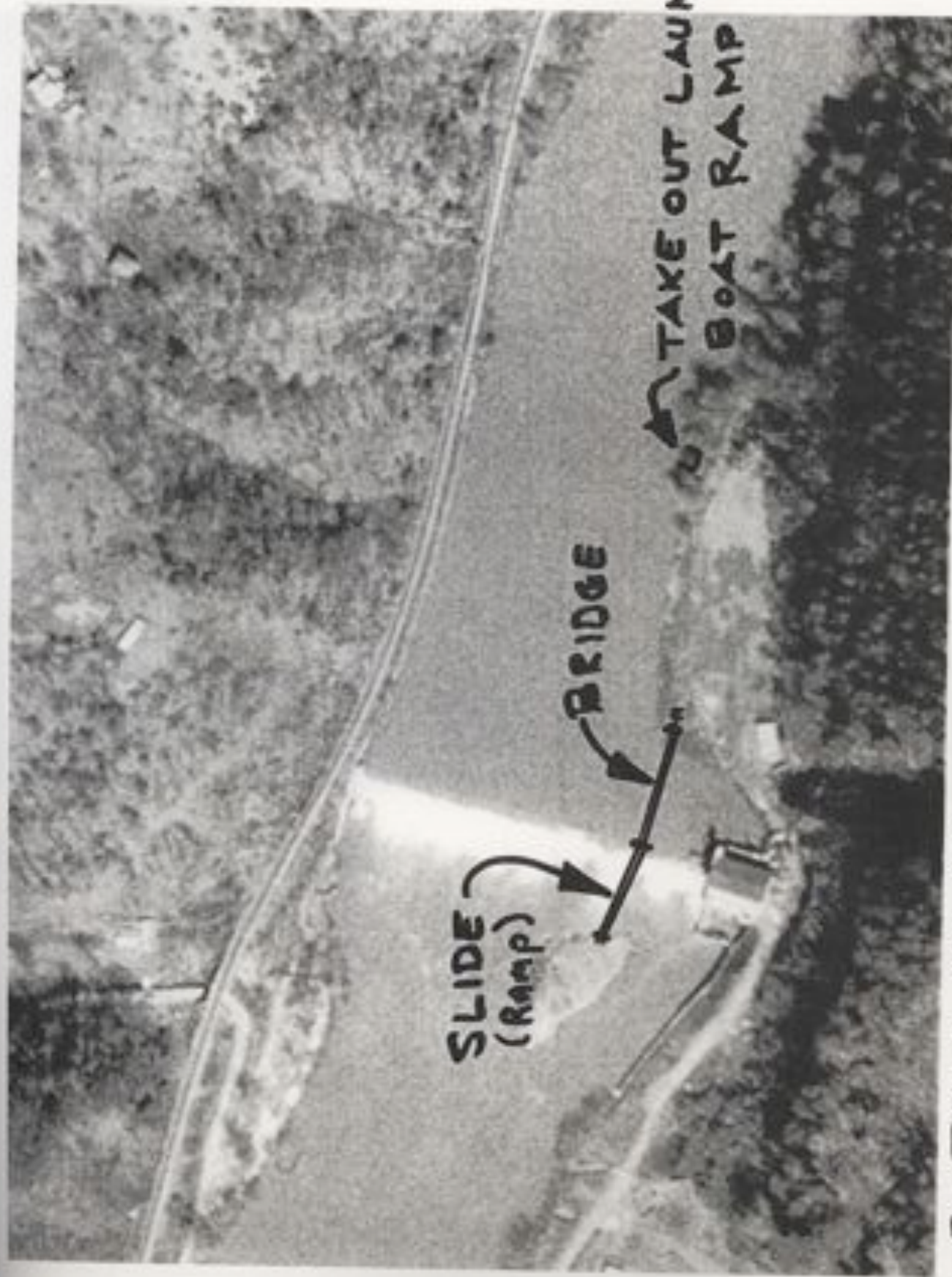
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OPTION No. 4

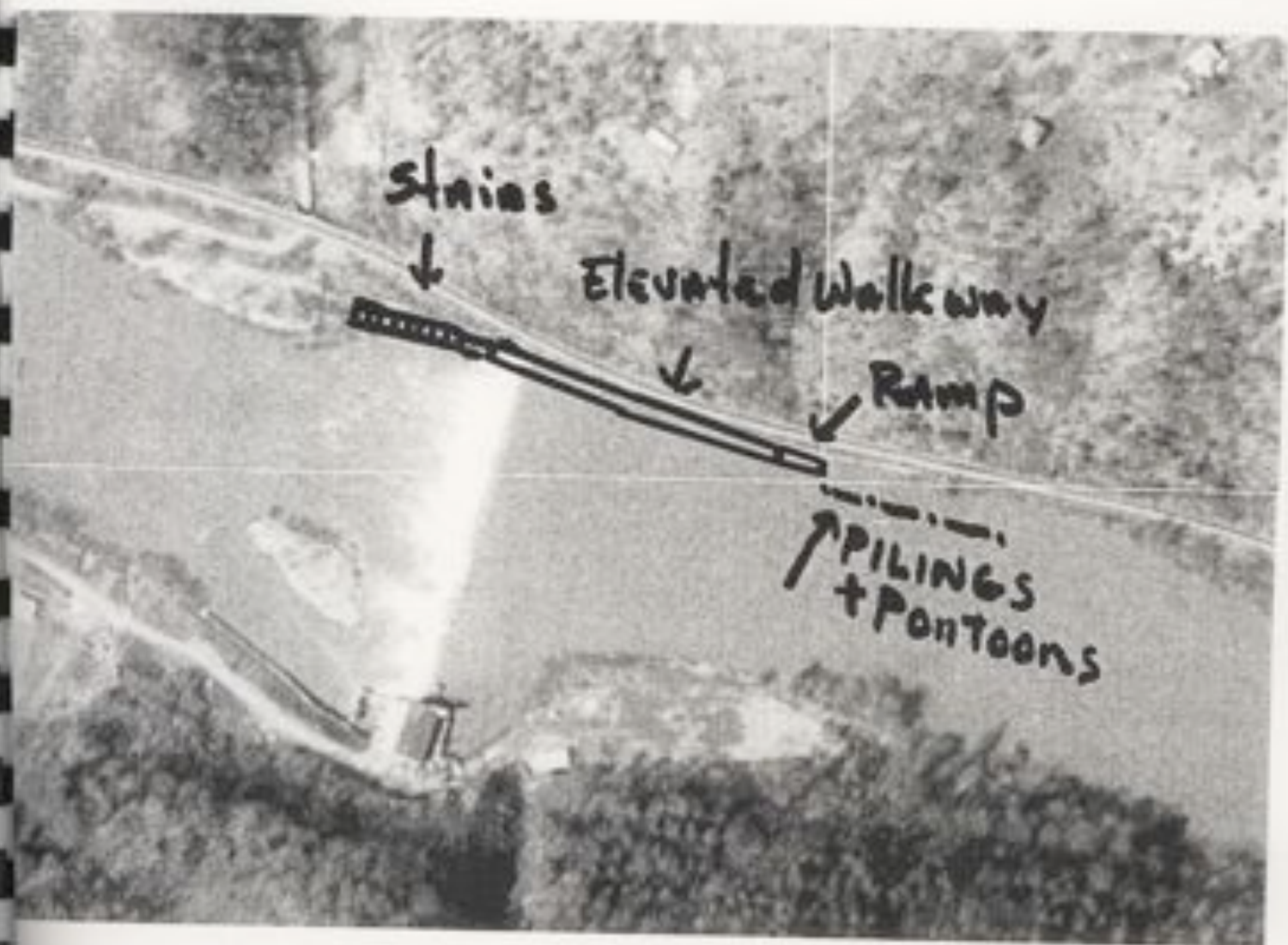
4A

OPTION No 5





OPTION No. 5



OPTION No. 6

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## Surveys

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... The following ...

... 20% increase

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... 20% increase

... 20% increase

... 20% increase

## Hot Springs Businesses

Eighteen Hot Springs businesses were surveyed. They consisted of; eating establishments, drinking establishment, retail businesses, mineral spa, camp ground, cottage rentals, motel, service stations, bait shop, bed and breakfasts, and a realtor.

During the months from March to September the following businesses see an increase in their revenues due to recreational river user traffic;

50% to 80% increase

Campground Store, Campground, Restaurants, and Mineral Spa.

40% increase

Bed and Breakfasts

10% to 20% increase

Drinking Establishment, Service Stations, and Retail.

5% though 10% increase

Cottage Rentals, Hiking Supplies, Bait Shop, and Auto Service.

The following businesses say they see no revenue increase due to recreational river user traffic;

Grocery, Home and Garden, Hardware, Motel, and Realtor.

According to the effected businesses, recreational river users tend to purchase the following items;

food, supplies, souvenirs, beer, firewood, cameras, phone cards, batteries, groceries, and tee shirts.

When asked if there was a drinking problem among river users, 100% of the businesses surveyed said no. They also said there was not a drinking problem with the locals and that there was no increase in crime during rafting season.

89% of the businesses in Hot Springs believe that having rafting companies located in their town is good for the Town's economy. " More people, more customers, more sales, more money, more employment".

## Rafting companies

Five Rafting companies were surveyed.

Through paying for, property tax, local employment, vehicle registration, insurance, fuel and maintenance, local advertising, utilities, food, rent, Forest Service charges, and sales tax, each rafting company puts an average of \$95,000.00 into the local economy every season. Combined they contribute close to one half million dollars, 97% of which is generated from river users that live outside of Madison County.

The rafting companies participate in several river cleanups a season. One company filled five rafts full of trash twice last season. The majority of the trash collected was; plastic bottles, bait containers, tires, soda cans, and other plastic containers.

Each company closely supervises their clients ( the rafters). They use certified safety gear and well maintained equipment. They give pre trip safety talks and paddling instructions, preach ecology, and avoid disturbing other river users.

Four of the five companies said they would consider starting trips in Marshall if there was a way around Redmon Dam. One company expressed interest in basing their company in Marshall.

A list of necessities in order for rafting trips to start in Marshall are:

Parking area, launch site, restrooms, changing rooms, and a water fountain.

## River users

100% of the river users surveyed said they would recommend section nine of the French Broad River and it's rafting company guides, as a recreational destination for others to come to and enjoy.

### River user statistics.

**Home:** Madison County ( 3% ), North Carolina ( 39% ), out of state ( 56% ), out of country ( 2% ).

**Average Age:** 35

**Traveling with:** Alone ( 0% ), Family ( 56% ), Group ( 22% )  
Friends ( 22% ).

### Learned about French Broad River rafting from:

Internet ( 90% ),

Friends ( 7% ), Brochures ( 3% ).

### Been planning river trip for:

1 to 4 days ( 20% ), 1 to 2 weeks ( 26% ),

1 to 6 months ( 48% ), 1 year ( 6% )

**First time rafting:** ( 47% )

81% of those surveyed, said that they would consider taking their families on a scenic float trip. 76% of the 81% said that a short portage would not stop them from making the trip.

The following are items river users said they are likely to purchase on a river outing: T-shirts, river shoes, food, disposable cameras, clothing, sunglasses, jackets, sweatshirts, sun screen, first aid supplies, camping supplies, pictures, water, caps, and lodging.

The establishments that river users say they are most likely to visit are;

Restaurants ( 83% ), Bars ( 42% ), Antique Store ( 42% ), Outfitter Store ( 38% ), General Store ( 38% ), Pottery Shop ( 33% ),

Hotel ( 33% ), Bed and Breakfast ( 29% ), Craft Store ( 29% ),

Clothing Store ( 29% ), Old Hardware Store ( 29% ), Spa ( 25% ),

Art Gallery ( 13% ), and Flower Shop ( 8% ).

## Marshall Businesses

Twenty Marshall businesses were surveyed. 80% see no increase in their revenues during rafting season. 95% believe that having river users begin and end their trips in Marshall would be good for Marshall's economy. 100% believe making this section more accessible is a good idea. 95% think that a rafting company would be a good business to have in Marshall. No one foresees having problems with out of town river users. Less than 50% use the river in any way. 100% say they would promote the use of this section of the French Broad.

When asked where a good location for a rafting company would be, the following suggestions were made: the Island, the Chevy building, Cody Motor Sales, the Glove factory, and the back lot of Bowman Hardware.

## Conclusion

Businesses in the neighboring Town of Hot Springs, have a substantial seasonal increase in their revenues due to the recreational use of the French Broad River in their town.

Each rafting company puts an average of \$95,000.00 into the local economy every season. Combined they contribute close to one half million dollars, 98% of which is generated from river users that live outside of Madison County.

Four of the five rafting companies surveyed are interested in starting river trips from Marshall.

Marshall business owners would like to see their section of the French Broad River become more accessible to river users.

Easy river access would lead to more river use which means more consumer traffic in the downtown area. More consumer traffic leads to more things being purchased, which has a favorable effect on the economy.