FINAL
ENVIRONMENTAL IMPACT STATEMENT
FOR
RUSSIAN FORT STATE PARK
Waimea, Kauai

June 1975
FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR

RUSSIAN FORT STATE PARK

To Prepare Archaeological Research Plans, Clear the Site and Construct Visitor Facilities

By

Department of Land and Natural Resources
Division of State Parks, Outdoor Recreation and Historic Sites

June, 1975
RUSSIAN FORT STATE PARK

FINAL ENVIRONMENTAL IMPACT STATEMENT

I. PROJECT DESCRIPTION AND BACKGROUND INFORMATION

A. Introduction

Russian Fort Elizabeth commands the mouth of the Waimea River on the Island of Kauai. The Fort was constructed of earth and stone in 1816-1817 by Dr. George Anton Scheffer, an agent of the Russian American Company at Sitka, Alaska. Dr. Scheffer had been sent to Kauai to retrieve a wrecked ship's cargo and while there made an agreement with the King of Kauai to cede part of the Island to Tsar Alexander I of Russia. The Fort was erected to protect Kauai's independent ruler Kaumualii against Kamehameha I. The Russian trading house was built at the entrance to the Fort and Russian crops of grapes, cotton and maize were laid out along the River banks. The ruins of the Fort illustrate the period of international rivalry for influence in the Hawaiian Islands, for American ship captains competing in the sandalwood trade joined with Kamehameha I in pressuring the Kauai king to expel the Russian and Aleut settlers in 1817.

This site has been recognized by the U. S. Department of the Interior as a National Historic Landmark and designated by the Hawaii Foundation for History and the Humanities as a registered state historic place. It has recently been acquired by the State of Hawaii for development as a major historical park.

On the opposite side of the River is another National Historic Landmark site, the location of the first landing in the islands by its Western discoverers. Men from Captain James Cook's ships came ashore there in January, 1778 to take on water and trade for fresh provisions. The two National Landmark sites, together, are being proposed for development as part of the continuing bicentennial in 1778. However, Cook Landing is a County Park and is not included in the Russian Fort project.

B. Environmental Impact Statement Needs

Unlike most development projects, the historic restoration and interpretation of Russian Fort requires planning-research which has its own environmental impact. Since this research must be done before
planning can be completed there is no way of knowing what the ultimate park development will include. Thus, a separate environmental impact statement is needed. Because the planning research is expected to take several years, we would also like to open the park to the public with an interim use program, installing facilities which will most likely be removed or significantly altered when the final plan is completed and permanent facilities constructed. Actually then a total of three statements are anticipated:

1. This present statement involving site clearing for the entire park and construction of the interim visitor facilities, including archaeological investigation of the construction sites.

2. A statement for the on-site research itself based on the plan to be prepared for this research.

3. A statement for the permanent park facilities based on the final park development plan.

C. Objectives

Purpose of the Park

The basic purpose of the park is to protect the physical remains of an important site in Hawaiian history and restore these remains to help Hawaii's residents and visitors understand and appreciate the historic roots of modern Hawaii. Restoration will strive to recreate the physical setting of 1817, when the Fort was at the peak of its historical importance and the surrounding area was an important settlement.

Purpose of the Project

The project has two interrelated purposes. First the historic-archaeologic information about the site is sketchy so much of the knowledge of the site must be deducted from historic-archaeologic evidence remaining at the site. Consequently, great care must be taken to thoroughly prepare historic-archaeologic excavation plans and any work done at the site which might disturb the historic-archaeologic features must be carefully supervised and recorded by qualified archaeologists. Thus, one purpose of this project is to provide this supervision and prepare historic-archaeologic investigation plans.
At the same time strict precautions are needed to protect the site; it is also desirable to invite the public to visit the site as soon as feasible so they can more readily understand the work involved in the park project as well as the significance of the Fort itself in Hawaiian history. The public is already visiting the site but the historic features are almost meaningless to the great majority of visitors so visitation is not being encouraged. The second purpose of this project is to provide for the interim public visitation to the site to the extent this visitation will not damage the site and visitors can have a worthwhile experience. It is, of course, an interim visitation plan because the final visitation plan must be based on the forthcoming historic-archeologic research.

D. Description of the Area

Physical Characteristics

The Fort is sited on the slope of a small hill, which drops steeply into the Waimea River but is otherwise, gently sloping. In contrast to the low Waimea town side of the Waimea River, the Fort stands well above the river's flood plain at an elevation of about 30 feet. This apparently is also high enough to escape tsunamis since the worst known tsunami wave, which only ran up 11 feet above sea level, would only affect a small portion of the park area.

The park enjoys the sunny, dry climate of this leeward coast so visitors are more likely to require shelter from the sun rather than from rain. Rainfall averages about 21 inches per year and the majority of this falls in the winter months. The Makaweke stony, silty clay loam is a good rich soil when irrigated and has low shrink-swell potential and corrosivity. Much of the park was used for growing sugar cane for many years. The park area includes a small amount of sandy beach soil along the ocean frontage and shallow soils and rock outcrops by the Fort and river embankment. There is no known flora or fauna of significance in the park except an endemic plant to Hawaii of the Cucurbitaceae Family, Sicyos spp. (Kūpala) is growing at the Russian Fort. This will be preserved.

Social Characteristics

The State purchased the 17.3 acres of land through
condemnation proceedings completed in 1972. It was condemned for park purposes because of its historic values. No other uses had been proposed for the park site although it is developable land well located between the main Belt road and the ocean at the Waimea River mouth. In addition to the main road, electricity and telephone utilities are available at the road and the public water supply system extends to the Waimea River bridge on the opposite side of the river.

Census information for the Waimea-Kekaha area indicates the population is fairly stable, totalling 4,159 in 1970. Russian Fort is expected to become a regular stop on tour bus itineraries. Tourism is now a major industry on Kauai with 40-45% of the State's 2.5 million visitors visiting the island. This percentage is expected to grow since the number of planned hotel units almost equals the 2,629 existing units as of February, 1973. The town of Waimea has expressed considerable interest in the Russian Fort project since it is viewed as a means of attracting tourists into the town's commercial area.

**Expected Potential Uses of Site**

No recreation activities are anticipated other than the continuation of existing shoreline fishing. The shoreline is not well suited for swimming or other water contact activities because of the surf and coral reefs immediately offshore. The water quality is also below average because of discoloration and wastes from Waimea River. All potential recreation activities will be reviewed as part of the final park plans.

Visitor facilities and the eventual gardens, restoration and stabilized historic remains are expected to require the full 17.3 acres. However, the final park plans must be based on the research now being initiated.

**E. Description of the Project**

**Clearing of Vegetation**

An archaeologist is to plan and supervise the clearing of koa haole and underbrush from the total site. Once the plan is made the portion of the area designated "Area A" on the project map that was formerly cultivated sugar cane land, will be cleared with the State
Parks bulldozer. The bulldozing will not go below plow depth. The remaining area is much more valuable for archaeological and historical research and will be cleared by hand by the archaeologist and a crew directly under his supervision. The kiawe will not be cleared, though pruning may take place.

Archaeological Research for Interim Use Area

An archaeological investigative plan will be made for the artifact recording, test trenching and sampling techniques required before the visitor facilities are constructed. Because the area was cultivated, little if any significant archaeological evidence is expected but the precaution is a necessary part of the thorough research required for a major historic site. Backhoe test trenches will be made in the area of the parking lot, comfort station and main irrigation water line through the park. The trenches will be dug and refilled by State Parks. The research will be done by an archaeologist.

Design a Stabilization and Archaeological Investigation Plan

This work is limited to planning only and does not involve any disturbance to the historic site. The only site work will be recording the historic-archaeologic features after the site is cleared. The recording involves mapping, photography and detailed drawings.

Design and Construction of Visitor Facilities

Construction of the visitor facilities will take place on "Area A", and can begin any time after the archaeological research is completed. The planned facilities are as follows:

- Paved parking for 3-4 busses and 18 cars.
- Comfort station and septic tank. The comfort station will probably be a building with a concrete floor.
- Interpretive shelter for orientation including an audiovisual structure for a rear screen projector. This will be a wooden structure designed so that it can be removed or relocated in the future.
- Wayside signs and exhibits designed so they can be relocated from time to time.
- Observation platform to see inside Fort. This will be a wooden frame structure.

- Paths - Most paths will be temporary unpaved paths of gravel or wood chips which may be relocated from time to time as work areas in the Fort shift. Some paved paths may be established in the parking lot area.

- Water line for comfort station and irrigation.

- Electric and telephone lines (underground).

- Grass and other landscaping.

The facilities will be located as shown on the project map. Structures have not been designed but sizes will be determined by the number of visitors expected and the function of the structure. This information has been included in Appendix A.

In order to provide a satisfactory visitor experience and properly protect the historic features, the park is not expected to be officially opened to the public until the archaeological research, stabilization and restoration of the Fort itself has begun and a full-time interpreter is available. Further details on the interpretive program are available in Appendix A.

Costs and Funding Sources

The following budget has been established. Some off-site work has already begun.

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No admission charge is anticipated at this time. The source of funding is the State Capitol Improvement appropriations from the following legislative acts:

187/70, B-53
68/71, 4-A-28
218/74, Sec. 6, H-2

II. ENVIRONMENTAL EFFECTS OF THE PROJECT

A. The Relationship of the Proposed Action to Land Use Plans, Policies and Controls for the Affected Area

Russian Fort has been recognized by the U. S. Department of the Interior as a National Historic Landmark along with Captain Cook's landing site located directly across the Waihee River. The land was purchased for park purposes through condemnation procedures. In recognition of the historic and shoreline values the Land Use Commission rezoned the fort site from Agriculture to Conservation as part of the 1969 boundary review. It is also recognized as a historic park in the Kauai County General Plan. Thus, there are no known proposals in conflict with the park and it is generally regarded as an important historic feature which can become a tourist destination.

B. Unavoidable Adverse Effects on the Environment and Measures Taken to Minimize this Impact

Three general types of adverse effects are of concern at Russian Fort; damage to the historic features, public safety and aesthetics. Specific concerns and the means of minimizing these concerns are listed within those three general categories.

1. Damage to Historic Features

- Clearing vegetation may disturb historic features, especially vegetation growing in Fort Walls. Chemicals used in poisoning some vegetation can affect some archaeologic dating methods.

Control method: The clearing of shrubs and vines will be carefully supervised by an archaeologist. Large trees will be left in
place to negate any disturbance to the Fort Walls. Poisoning of the vegetation will be controlled after cutting by localized application to plant stalks. The effects of this method is minimal, and will not disturb archaeological dating methods.

- Trenching through possible archaeological sites can destroy archaeological evidence and/or prevent accurate restoration.

Control method: Archaeological surveillance of trenching and accurate record-keeping minimizes this hazard.

- Vandalism and unintentional abuse by visitors can be a serious problem. It is difficult to control public access and the site is adjacent to the main highway. The Fort Walls are made of rocks which were merely set in place without mortar, so they are easily dislodged. This danger has been present for many years, of course, but visitation is increasing and is expected to continue to increase especially if the work itself attracts interest.

Control method: The park will be officially closed and visitation discouraged until the interpretive program is developed and service facilities provided. To discourage visitation the parking lot will be gated and a "Park Closed" sign posted when the park is closed. Until the interpretive program is ready to begin the HVS marker and other identifying signs will not be posted along the road to discourage cars from stopping. When the park is open to the public an interpreter will be available at all times to guard the area as well as help people to understand the significance of what they are seeing. Paths will route people away from sensitive areas and other barriers may be erected as needed. No other control methods are anticipated at this time but some may be required in response to unanticipated problems. Local fishermen are expected to continue to fish along the shoreline as they have in the past.
2. **Public Safety**

- Access to and from the park will be a hazard. The entrance is on a well-travelled main road at the edge of an agricultural area where cars normally travel at high rates of speed.

  Control method: Before the park is open to the public, road signs will be put up to warn drivers of the entrance and other traffic control measures required by the County or State Highways Division will be implemented.

- Water pollution will be prevented by using the County water supply system and disposing of human wastes through septic tanks. The soil survey indicates there are no problems for septic tank filter fields and there is ample room for these fields on the site. Department of Health approval will be obtained. Water erosion is not expected to be a significant problem in this climate and topography. Fortunately, most of the area to be bulldozed slopes away from the river, so if a heavy rain should occur little silt should reach the river or cross the beach area to the ocean. Note too, the bulldozed area is confined to Area A and, therefore, does not extend to the shoreline. Herbicides will only be used very sparingly on tree stumps only because of archaeology research concerns as well as environmental concerns.

- Visitor safety within the park can be controlled with the same methods used in controlling vandalism and unintentional abuse of historic features. Some special precautions may be necessary in connection with the archaeological work.

3. **Aesthetics**

- Clearing the site is expected to generate some dust and noise.

  Control method: The noise will be limited to working hours and will only be momentary for the public since their only exposure will be while travelling on the highway. Dust will be controlled as much as possible by rapidly reestablishing grass or other ground cover. The water line will be brought to the site prior to bulldozing to help establish this cover and control dust and wind erosion.
Trash resulting from the clearing work will create an eyesore until it is disposed of.

Control method: Days on which clearing is being undertaken, trash will be loaded, hauled away, and disposed of as often as necessary to eliminate problems.

Visitor facilities may clash with the natural appearance of the area and, to some degree, will impinge on the historic setting of the Fort.

Control method: The parking lot and restrooms are being located as far from the Fort as practical. By using natural materials and/or colors which blend into the area it is hoped the facilities intrusion will be reduced further. Archaeologic work will also impinge on the historic setting. The ultimate visitors' facilities may be relocated, partly because of this concern.

C. Any Irreversible and Irretrievable Commitments of Resources

Throughout this project the major concern is to avoid an irretrievable loss of historic and archaeologic evidence. This is of particular concern because typical archaeologic work does, in fact, destroy much of the evidence even though this destruction may be carefully recorded. In this case, however, the primary goal is restoration rather than research. Therefore, excavation work will be minimized to what is necessary for reasonably authentic restoration but inevitably compromises will have to be made between research and restoration. The only other known resources commitment is the usual one of labor and construction materials.

III. OTHER INTERESTS AND CONSIDERATIONS OF GOVERNMENT POLICIES THOUGHT TO OFFSET ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

The stabilization and restoration of Russian Fort is not by itself the ultimate objective of the park. As stated earlier, part of the purpose of the park is to help Hawaii's residents and visitors understand and appreciate the historic roots of modern Hawaii. The Kauai tourist
industry has indicated a willingness to incorporate the
Fort in their tour itineraries. Considering the impor-
tance of this industry to Hawaii's economy, visitor
attractions should be of high quality. The Russian Fort
project could help dispel recent concerns about the trends
in the quality of some tourist development. It can also
help demonstrate the value of historic features and the
added values to be gained in incorporating Hawaii's numer-
ous historic-archaeologic features into modern development
rather than ignoring them. For Hawaii's residents the
Fort offers a bit of tangible evidence to remind us of our
historic roots. It also offers an educational opportunity
for local schools and communities to periodically observe
the actual research and restoration. In our modern world
of rapidly changing technology it is all the more im-
portant that people do not lose sight of these historic
roots and the continuity of human development.

IV. ALTERNATIVES TO THE PROPOSED ACTION

A. Archaeological Research and Site Clearing

There is no known alternative to the research if the
site is to be authentically studied prior to develop-
ing stabilization-restoration plans. The clearing
will be necessary before research can begin and the
existing vegetation is of no historic value, except
for one plant species.

B. Interim Use Development

1. Allow no public visitation until the permanent
park development is completed.

This alternative would eliminate the need for an
interim interpretive program and is probably best
for the preservation of the historic feature.
From the State Park Division's point of view this
is the simplest alternative since the Division
has no existing interpretive programs and no per-
sonnel to develop and operate the programs.

On the other hand, the experience of an interim
interpretive program would be very valuable to
the Division and should benefit the ultimate
interpretive program for the Fort. It may take
years to develop the ultimate plan and the present
local interest in the project could become in-
creasingly frustrated. Public interest in seeing
the excavation, stabilization and restoration work should be encouraged and can also be of educational value.

2. Do not encourage visitation but continue to allow public visitation to the area, excluding buses, and develop a small, self-guided interim interpretive program.

This alternative would continue to allow the curious to come. The Division would build a parking lot, restrooms, pathways and signs, but would not have to obtain any interpretive staff. While this alternative does resolve the staffing problem, it does not meet interpretive needs. It is difficult to estimate the number of visitors this small scale program would attract but if many visitors came they would interrupt the archaeological work being done and possibly get in the way. To some degree this could be avoided by a self-guided tour. However, since the work will be constantly changing, the self-guided tour would lack the needed flexibility to interpret what will probably be the most interesting aspect of the program. Security of the area may be more of a problem with the visitors left on their own. Visitation would certainly have to be limited to the working hours of the archaeological work crew. This presumably means the park would be closed on weekends and holidays. It would also be difficult and undesirable to develop an interpretive program of any kind and then try to discourage the tourist industry from participating. In Hawaii, with its large tourist population visiting parks everyday of the week, tourists generally travel by bus, arriving in considerable numbers or else not coming at all. This could overwhelm a small self-guided interpretive program geared for 10-15 people at a time. The town of Waimea is particularly interest in encouraging tourists to visit their local businesses and look upon Russian Fort as the main means of getting tourists to stop. It is questionable whether the tourist who stops at the Fort can also be expected to stop in Waimea's commercial area, but nevertheless there is strong local feelings to have the Fort become a tourist attraction as soon as possible.
V. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

To date, the importance of the historic-archaeologic features have been recognized by the national register program and the site has been purchased by the State to protect these features and make the site available to the public. If nothing more is done the features will slowly continue to deteriorate from natural forces, and to an unknown degree, by public visitation. As these physical features erode so does the story which can be deducted from these remains.

While some further damage to the historic features is inevitable during the historic-archaeological research, stabilization and restoration process, once this process is completed nature's erosive processes should be considerably reduced. But more importantly, the maximum amount of information can be obtained from the existing features and this documentation can be preserved for posterity.

VI. ORGANIZATIONS AND PERSONS CONSULTED

- U. S. Department of the Interior, National Park Service
  - National Registrar
  - Marc Sagon, Manager, Harpers Ferry Center
- County of Kauai
  - Traffic Division
- Various Historic Groups
  - Kauai Museum
  - Kauai Community College
  - Anthropology Club
  - Hawaiian Civic Club
  - Waimea Betterment Association
  - Bishop Museum
- Tourist Industry Representative
- Grayline
APPENDIX A

Russian Fort

Conceptual Interim Plan for Visitors

The ultimate visitors program is not expected to be completed for a number of years. The process of archaeological research, stabilization and restoration is inevitably slow and funds are limited for any single project in the rapidly expanding State Park Program. Yet, there is strong public interest to begin a park program now, since the State has recently purchased the site and the site has always attracted interest because of its historical significance and proximity to the main highway. The National Park Service and other park agencies have developed interim programs for visitors in recognition of this public desire. This is particularly true of historic parks like Russian Fort where the archaeological work and restoration itself can become the main attraction until the ultimate historic story can be properly told. Special care must be taken so the historic features are fully protected but this care is richly rewarded by the experience and insight gained in working with the public.

The goal of the interim interpretive program is to allow maximum public visitation to the area while safeguarding the historic-archaeologic features. It is difficult to determine what "maximum" visitation might be but it will undoubtedly include tourists as well as residents of Hawaii. Visitation to Waimea Canyon was approximately 750,000 in fiscal year 1973-74 according to State Park visitation records. Assuming most of these visitors would also visit Russian Fort if they had the opportunity and a worthwhile program was presented, an average daily rate of 2,000+ visitors could be expected. In the future, judging by park visitation trends, the visitation can be expected to increase, especially if the number of hotel units on Kauai double as planned.

The Russian Fort site has limitations in handling visitors and holding their attention. The Fort itself is not large and cannot be fully appreciated if it is mobbed by visitors. Whereas Waimea Canyon only has to be seen to be appreciated as a natural feature, the significance of Russian Fort must be explained. Few visitors can be expected to understand and appreciate the significance of the Fort's remnants without an interpretive program. The interim interpretive program will of necessity concentrate on the site work going on and only provide a general background on the Fort and its significance. As research, stabilization and restoration progress, the interpretive story will change and be enriched. Work areas will also change so paths and viewing areas must be flexible. Experience in other parks indicate a satisfactory interpretive walk through the area can't be
done with more than 20-25 people in a group. Three or four main areas of interest are expected; an orientation area, the overall Fort itself, archaeological work going on at the Fort, and the river mouth area. With slides and a public address system the orientation area might handle 2 or 3 groups but each of the other areas of interest should be limited to one group of 20-25 people at a time. Given these general interpretive concepts the visitor capacity of the interpretive program is estimated to be no more than 150 people at one time. The program could be designed to last 20-30 minutes. In this way it seems possible to accommodate the current estimated maximum average daily visitation rate of 2,000+ people but only if they arrive at staggered times rather than in large bunches as frequently occurs with bus tours.

Interpretive facilities need to be flexible so visitor groups do not have to move sequentially to areas of interest and new areas of interest can be established to coincide with new work areas. Unfortunately, with the large numbers of visitors expected, the paths and viewing areas will have to be kept well back from the historic features and work areas. In fact, because of soil compaction problems created by thousands of human feet, visitors may not be allowed through future excavation areas unless a boardwalk can be constructed. A view platform is proposed to allow a visitor group to look into the Fort and get an overall view of it without actually going inside the Fort walls.

The main interpretive facility will be an orientation center for a maximum of 75 people. This will be a simple structure providing shelter from the wind and sun. The portion containing audio-visual aid equipment should be designed so it can be well secured when not in use but the viewing area can be an open pavilion type structure. To minimize its impact on the site the facility should blend into its surroundings and be of minimum size. Since the orientation talk should only last about 5 minutes, seating is not essential. The only other interpretive needs are a brief brochure about the history of the Fort and some wayside exhibits to explain physical features seen from exhibit locations. Initially, the program is intended to be run by one full-time interpreter plus whatever part-time aid is necessary to fill in when the regular interpreter is not on duty.

In keeping with the estimated interpretive program capacity of 150 people, a parking lot is being designed for 3-4 busses and 16 cars or about a 200-250 person capacity. This allows for some overlap in schedules and for visitor time not involved in the interpretive program, including loading and unloading busses and use of the comfort station. The comfort station will be adjacent to the parking area. Since this is an interim use plan there is a possibility that the ultimate plan will relocate the parking area and comfort station elsewhere. For this reason the parking lot will be designed to minimum acceptable standards and the comfort station and interpretive
center design will allow these structures to be easily dismantled or moved. The parking lot will be gated and the gate closed when the park is closed to the public. Some simple landscaping will be included around the parking lot and the general area will be grassed, where practical landscaping will be historically appropriate. Otherwise planting will be minimized to what is necessary to make the area reasonably attractive and hold the soil in place. Final development of the park will include proper landscaping.

The parking lot, comfort station complex and interpretive facilities are to be constructed by State Parks personnel. The interpretive program requires much additional work since none of the interpretive program has been developed in detail for such things as a slide talk, brochure or on-site exhibits. Fortunately, sufficient information is available, except, of course, where there is a need to explain ongoing research. At this point, the greatest need in establishing an interim visitor's program at Russian Fort is to establish and fill an interpretive position. Because of the continually changing program as the work develops and the need to effectively satisfy and control large numbers of visitors, a minimum of one full-time interpreter plus a part-time relief person, is essential. The interim program for visitors can begin any time after the actual research, stabilization and restoration of the Fort begins.
APPENDIX B

Comments Received and Responses to Significant Comments to the Draft Environmental Impact Statement
MEMORANDUM

TO: The Honorable Christopher Cobb, Chairman
   Department of Land and Natural Resources

ATTN: State Parks Division

FROM: Richard E. Marland, Director

SUBJECT: Draft Environmental Impact Statement for Russian Fort State Park

This Office has completed its review of the subject draft EIS. As of this date we have received a total of ten (10) comments.

Generally, we find the EIS an adequate document. However, provided below are few comments for your consideration.

Introduction

In the last paragraph, the National Historic Landmark site of the first landing by Western discoverers is discussed. The last sentence states: "The two National Landmark sites, together, are being proposed for development..." This could lead to the interpretation that the EIS is for both the development of the Russian Fort Elizabeth and the first landing site by Western discoverers. Clarification is needed.

Purpose of the Park

This Office is highly agreeable to the basic purpose of the Russian Fort Elizabeth as stated in the EIS.
Purpose of the Project

Please clarify what is meant by: "Future environmental impact statements are anticipated as later research and development stops clearly unfold". Are separate EISs being prepared for various "phases" of the development for the Russian Fort Elizabeth? If this is so, please refer to the proposed Rules and Regulations (Part II, section 1.12) of Chapter 343, HRS:

A group of proposed actions shall be treated as a single action when: (1) the component actions are phases or increments of a larger total undertaking; (2) an individual project is a necessary precedent for a larger project; (3) an individual project represents a commitment to a larger project; or (4) the actions in question are essentially the same and a single statement will adequately address the impacts of any single action.

In essence, EISs should evaluate total actions in their entirety and not by each phase, to better foresee the total environmental impact.

Public Safety

Please coordinate your efforts with the County of Kauai and the State Highways Division to provide the proper traffic control measures.

Other comments

The cost of the project and the source of funds should be mentioned in the EIS. What is the estimated construction schedule?

Will there be an admission charge? School students and local community members should be encouraged to view the project from the beginning. Will special programs be planned for school students?
Recommendations

For brevity, we have not summarized each agency's comments. We recommend that they each be given individual concern with written responses sent to them indicating how specific comments were considered, evaluated, and disposed. This Office would appreciate a copy of these responses.

For the final EIS, we recommend that: 1) all comments and your responses be appended to the final EIS and 2) a copy of the final EIS be sent to those individuals who provided substantive comments to the draft EIS.

Thank you for the opportunity to review the draft environmental impact statement.

Attachments
# LIST OF COMMENTORS FOR DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR RUSSIAN FORT STATE PARK

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<tr>
<td>Environmental Center</td>
<td>May 6, 1975</td>
</tr>
</tbody>
</table>

*No comments*
June 16, 1975

Honorable Richard E. Marland, Director
Office of Environmental Quality Control
Office of the Governor
550 Halekauwila Street
Room 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

SUBJECT: Draft Environmental Impact Statement
Russian Fort State Park

Reference is made to your letter of May 9, 1975 regarding
the above subject.

We hope your concerns are now adequately covered in the
Final EIS.

Item I.B. Environmental Impact Statement Needs was added
to clarify our expectations for future environmental impact
statement requirements. We appreciate the intent of your
regulations to foresee the total environmental impact but
can see no way to avoid the extra statements when we are
involved in an interim development and the planning itself
involves research which has its own environmental impacts.
Unfortunately, the planning-development process can have
its complications and in this case, has complicated the
environmental impact statement process as well. Before
writing further statements for this project, we will
certainly discuss this again with your office.

The question of special programs for students will be
dealt with in the interim interpretive program design. It
was not spelled out in the EIS since it did not seem to us to
be an environmental concern. Emphasis was given to the
potential tourist visitation in the EIS because this is the
major source for the volume of visits we expect. We will prepare programs for local interests but unlike a beach park, local people can not be expected to return frequently to a historic park. Therefore, in planning facility capacities, local visitation is considered minor.

Responses to the other comments and recommendations in your letter may be found in the Final EIS but, for brevity, are not repeated here. Thirty copies of the Final EIS are being sent to you under separate cover.

Your review and comments are appreciated.

Very truly yours,

[Signature]

CHRISTOPHER COBB
Chairman of the Board
MEMORANDUM

TO:   Richard E. Marland

FROM: Doak C. Cox

RE:   Environmental Center review of Draft Environmental Impact Statement for Russian Fort State Park on Kauai

The Environmental Center review of the above cited draft EIS has been prepared with the assistance of Mary Beth Carnac, Kauai Community College, H. David Tuggle, Anthropology Department, Jerry Johnson, Jacquelin Miller and Richard Scudder, Environmental Center.

The Russian Fort State Park project appears to have a two-fold purpose: first to conduct a generalized archaeological reconnaissance and restoration of the area, and second to develop the site to accommodate visitors. A statement clearly stating this two-fold purpose would be helpful at the beginning of the DEIS. The present draft environmental impact statement for this project is primarily concerned with the development of the research and restoration programs and contains few specifics about the actual work to be conducted on the site. Presumably once the program of research, stabilization and restoration of the archaeological features is completed, another impact statement will be prepared to describe the structural development needed for visitor usage of the site.

The following points have been raised in our review of this DEIS.

Page 4

The only projected immediate work is the vegetation clearing and the establishment of an interim use area which we assume is area A. The Russian Fort State Park map referred to in Appendix A indicates the boundary of area A. It would appear that King Kaumualii’s enclosure is contained in area A. Will this
archaeological site be subject to clearing by bulldozers as suggested on pg. 4? It would be well to include the definition of a "qualified" archaeologist. Similarly what is the State's definition of an archaeologist "consultant" and how does this differ from a "qualified" archaeologist? It appears that all adequate caution is being taken for the protection of archaeological remains. We find the general statement regarding impact of the program on the archaeological research to be adequate. There appears to be one major deficiency in the section on the various trenching and sampling techniques to be employed. There is no reference to the work of the Bishop Museum in this area. The Museum conducted a study involving mapping and test excavation for the State of Hawaii which was published as a Department of Anthropology report Bishop Museum No. 72-7. Why is there no mention of this study? The first phase of work suggested in the DEIS to be undertaken by the State involves "mapping, photography and detailed drawings." Will this duplicate the work already completed by the Bishop Museum for the State? It is our understanding that the Museum research work also located an important subsurface archaeological deposit along the shore in an area that is adjacent to the border of area A. Special attention should be given to this area.

Pg. 5

Mention is made that the design and construction of the visitor facilities will be located as shown on the project map. Unfortunately our copy of the DEIS does not contain a "project map." Certainly such a map of facilities is essential for proper evaluation of their impact. In general the facilities to be provided should be more thoroughly described. For example, where are the paths and will they have a paved surface? How will they effect the drainage and erosion in the area. What are the dimensions of the observation platforms, the "shelter for orientation," and the comfort station? The parking lots were satisfactorily explained and based on estimated park use. Similar explanations should be provided for the other facilities.

Pg. 6

We note that the site is adjacent to the main highway. Will the park be fenced so as to reduce the potential vandalism and unintentional abuse by visitors?

Pg. 7

We are particularly concerned with the traffic hazard which is acknowledged in the DEIS. We note that traffic is quite heavy on this main road and cars travelling west to Waimea town frequently travel at high rates of speed and often do not slow down until they cross the bridge and are in town. Attention should be given to this hazard possibly through the installation of flashing caution lights. The driveway from the parking lot should be sufficiently wide to allow the buses to initiate a partial turn before entering the highway.

Reference is made to water pollution control through the use of septic tanks. Have these been approved by the Department of Health?
There seems to be no mention of erosion problems particularly during the clearing operation of the site. We are concerned with the potential increase in sediments and herbicides into the Waimea River and the ocean.

The potential educational aspects of this whole project to the local people as well as the tourists could perhaps be stressed more fully in the EIS. It is our opinion that the DEIS perhaps underestimates the interest that the residents of Hawaii will have in this project. It would be a great loss to visitors (local and tourists) to be restricted from the opportunity to observe the actual research and restoration of this site. This project, especially for the Kauai residents, offers a unique opportunity to see and be involved in an archaeological restoration project from the very beginning. Emphasis on this historic restoration project in the schools and the community through school tours and public notices could do much to promote awareness of the historical legacy of this site to the people of Kauai thus generating greater respect for the area and possibly reducing future vandalism. The educational aspects of this project would be enhanced by the suggested interim interpretive program.

We note that the Bishop Museum has not been consulted? Why?

Appendix A

We are in basic agreement with the discussion regarding visitors to the site; however, we do question the derivation of some of the figures. For example, how does one arrive at a figure of 750,000 visitors to Waimea Canyon in fiscal year 1973-74? The graphs or charts indicating the cited trends of park visitation should be included in the DEIS. Are the present hotel units experiencing 100% occupancy?

It would be helpful if the scale was included in the Russian Fort State Park map included in Appendix A.
June 16, 1975

Mr. Doak C. Cox, Director
Environmental Center
University of Hawaii
Maile Bldg. 10
2540 Maile Way
Honolulu, Hawaii 96822

Dear Mr. Cox:

SUBJECT: Draft Environmental Impact Statement
Russian Fort State Park

Reference is made to your letter of May 5, 1975 regarding the above subject.

We have tried to cover your concerns in the following comments or in the enclosed Final EIS. Item IB. Environmental Impact Statement Needs was added to the statement to clarify our expectations for future environmental impact statement requirements. This indicates a need for a total of three statements, including one for research and restoration work to be conducted on the site. This should also satisfy requirements of the National Historic Preservation Act of 1966.

In answer to your specific points on page four of the draft statement, we have the following comments. The area being cleared by bulldozer is being limited to previous sugar cane land. This does include portions of King Kaumualii's enclosure but the archaeological evidence has already been destroyed by years of cultivation and field shaping for irrigation. The Final EIS has omitted the term "qualified" or "consultant" archaeologist since there seems to be no generally recognized definition of these terms. Our intent was to indicate the work would be of an acceptable professional standard. Your
memo states that the omission of previous Bishop Museum's work is a major deficiency in the trenching and sampling technique section of the Draft EIS. We fail to see that an omission in reporting previous work has any significant environmental impact on the project and have therefore not addressed this concern in the Final EIS. The archaeological work now being undertaken will use earlier work from previous sources where possible, provide additional, new work and redo work which has been found to be insufficient or which was undocumented in the materials made available to the State.

Regarding your comments pertaining to page five, anytime a map or any other information is omitted from your copy of an environmental impact statement prepared by us, we would be glad to supply the missing information. We are revising the "project map" in an attempt to make it more legible and have included it in the enclosed Final EIS. This map includes a scale and indicates the general location of the visitor facilities. A very limited amount of information was added to the facility descriptions. Structure sizes will be determined by the number of visitors expected and the function of the structure. This information has been included in Appendix A. Further details will not be determined until the interim interpretive plan and construction design plan are completed. It is our understanding that an environmental impact statement is desired early in the planning process before basic planning decisions are made. This objective can not be reached if facility information is required at the level of detail you are requesting.

The possibility of fencing the park has been considered. A rock wall has been built along the property line between the park and the cane field. This wall also extends part way along the boundary line fronting the highway to a point where the hill overlooking Waimea River steepens and a road cut begins. We hope further fencing will not be required. It would be especially difficult to control access from the extensive shoreline boundaries.

Traffic concerns will have to be worked out as part of the detailed construction planning for the park. The solutions to this problem will be made by Kauai County and State Highway
Division personnel, working in conjunction with the State Parks Division. Similarly approval for the use of septic tanks is part of the construction plan approval process.

The section on erosion problems has been strengthened in the Final EIS. The bulldozing operation will not involve land immediately adjacent to the shoreline and we plan to bring water to the site prior to bulldozing, which can help control wind erosion and get a new ground cover established. Your concern about educational programs is appreciated but was not spelled out in the EIS since it was not considered an environmental concern. We have added a sentence to Section III and will certainly be giving the educational aspects of the project greater emphasis in the interim interpretive program.

The source for the visitation statistics for Waimea Canyon was our State Park visitation records. Frankly these statistics are rather crude and for this reason we purposely did not attempt to cite trends or use the figures to any great degree. But they are the only statistics available to us and give us a vague guideline.

Your review and comments are appreciated.

Very truly yours,

CHRISTOPHER COBB
Chairman of the Board

Encl.
2 May 1975

Dr. Richard E. Marland, Director
Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, RM 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

We have reviewed the draft environmental impact statement for Russian Fort State Park and offer the following comment.

The project consists of a series of actions to be taken over an extended period of time. The inclusion of an estimated schedule of completion for the various phases, including the research program, site clearing, and construction of facilities, would present a clearer picture of the time frame within which individual and cumulative impacts would take place. In addition, the estimated costs for the various phases of development as well as the alternative action of an interim use plan should be included.

Sincerely yours,

[Signature]

KISUK CHEUNG
Chief, Engineering Division
June 12, 1975

Mr. Kisuk Cheung, Chief
Engineering Division
Department of the Army
U.S. Army Engineer District, Honolulu
Bldg. 230, Fort Shafter
APO San Francisco 96558

Dear Mr. Cheung:

SUBJECT: Draft Environmental Impact Statement
Russian Fort State Park

Reference is made to your letter of May 2, 1975 to the
Office of Environmental Quality Control on the above subject.

We hope your concerns are now adequately covered in the
enclosed Final EIS. A table has been added giving the cost
estimates and estimated completion dates for the various
phases. An attempt was made to estimate costs of the two
alternatives to the interim use development but it is difficult
to assign costs since we have no previous experience in this
type of interpretive program. Assigning monetary values to
the benefits of the project would be even more subjective for
this recreation experience and so neither cost benefit nor
cost effectiveness analysis was used in selecting alternatives.

Your review and comments are appreciated.

Very truly yours,

CHRISTOPHER COBB
Chairman of the Board

Encl.
MEMORANDUM

April 18, 1975

MEMO TO: Richard E. Marland
         Director, OEQC

FROM: Reginald H. F. Young
       Asst. Director, WRRC

SUBJECT: Draft EIS for Russian Fort State Park, by DLNR, State Park Division
         March 1975

We have reviewed the EIS and have the following comment. Measures or procedures for
limiting soil erosion, with subsequent degradation of the adjacent waters, during park
development is not addressed. Specifically, the EIS has not considered the impact of
clearing the site of undisturbed ground on the surrounding waters. The site itself is located
on high ground surrounded by Waimea River on one side and the ocean on another side. Any
runoff will carry sediments and chemicals used for herbicides into the waters during
times of storms. To minimize these effects, preventive measures for sediment erosion
and use of fast biodegradable herbicides should be addressed in the EIS.

REPLY:jmm

cc: H. Gee
    E. Murohayashi
    Env. Ctr.
June 12, 1975

Dr. Stephen Lau, Director
Water Resources Research Center
University of Hawaii
2540 Dole Street
Honolulu, Hawaii 96822

Dear Dr. Lau:

SUBJECT: Draft Environmental Impact Statement
Russian Fort State Park

Reference is made to your letter of April 18, 1975 to the Office of Environmental Quality Control on the above subject.

We hope your concerns are now adequately covered in the enclosed Final EIS. Since the site has been cleared of underbrush in the past and the portion to be bulldozed was planted to sugar cane for many years until it was purchased for the park in 1972, we did not place much emphasis on soil erosion and degradation of adjacent waters.

Your review and comments are appreciated.

Very truly yours,

[Signature]

Chairman of the Board

Encl.
May 2, 1975

Dr. Richard E. Marland
Interim Director
Office of Environmental
Quality Control
550 Halokauila St., Rm. 301
Honolulu, Hawaii 96813

Subject: Draft EIS, Russian Fort State Park

In reference to the subject environmental statement, we recommend the following change on page 7 of the report:

Item 2, second paragraph, change "the speed limit will be lowered..." to read, "other traffic control measures required by the County or the State will be implemented."

Sincerely,

[Signature]

For E. Alvey Wright
Director
June 16, 1975

Honorable E. Alvey Wright, Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Wright:

SUBJECT: Draft Environmental Impact Statement
Russian Fort State Park

Reference is made to your letter of May 2, 1975 to the Office of Environmental Quality Control on the above subject.

Your suggested change regarding traffic control measures has been incorporated into the Final EIS, a copy of which is enclosed.

Your comments and recommendation are appreciated.

Very truly yours,

CHRISTOPHER COBB
Chairman of the Board

Encl.
MEMORANDUM

To: Dr. Richard E. Marland, Interim Director
   Office of Environmental Quality Control

From: Deputy Director for Environmental Health

Subject: Draft Environmental Impact Statement (EIS) for Russian Fort State Park

Thank you for allowing us to review and comment on the subject EIS.

Please be informed that we have no objections to this project.

Specific staff comments are:

(1) During the clearing of the site and development of that area for park, every means should be taken to control the dust nuisance since the area is in a dry climate section of the island.

(2) We have no objection to the proposed location of the comfort station and means of waste disposal. The area has no waterline at present. As suggested in the impact statement, since there is no potable water available for this area, potable water should be brought over from the County Waimea water supply system.

JAMES S. KUMAGAI, Ph.D.

cc: DHO, Kauai
Mr. James S. Kumagai, Ph. D.
Deputy Director of Health
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Kumagai:

SUBJECT: Draft Environmental Impact Statement
Russian Fort State Park

Reference is made to your letter of May 2, 1975 to the Office of Environmental Quality Control on the above subject.

We hope your concerns are now adequately covered in the enclosed Final EIS. A waterline will be brought into the park before any soil is disturbed except for the waterline trenches. This should control the dust and enable us to establish grassed areas.

Your review and comments are appreciated.

Very truly yours,

[Signature]

Chairman of the Board

Encl.
The Honorable Richard Marland, Director
State of Hawaii
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
550 Halaleauila Street, Room 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR RUSSIAN FORT STATE PARK

Thank you for the opportunity to comment on the subject EIS.

We wish to offer the following comments:

1. Page 3 - Expected Potential Uses of Site

   No mention is made about shoreline fishing. Local fishermen frequently fish from the shoreline and riverbank located within the project site.

2. Page 7 - Public Safety

   Mention is made that road signs will be put up to warn drivers of the entrance and the speed limit will be lowered. Speed limits and parking restrictions are under the control of the County Council and must get its approval.

   Also, warning signs must be coordinated with the State Highways Division when placed along Kaumualii Highway.

We do not believe the above comments will have any effect on the project; however, we believe these should be covered in the final EIS.

Very truly yours,

/AKIRA FUJITA
County Engineer

FY:ca
June 12, 1975

Mr. Akira Fujita  
County Engineer  
County of Kauai  
Department of Public Works  
P. O. Box 111  
Lihue, Kauai, Hawaii  96766

Dear Mr. Fujita:

SUBJECT: Draft Environmental Impact Statement  
Russian Fort State Park

Reference is made to your letter of April 28, 1975 to the  
Office of Environmental Quality Control on the above subject.

We have tried to cover your two concerns in the enclosed  
Final EIS. At least during the interim interpretive program  
no conflict is foreseen with local fishing interests. Vehicles  
will be prohibited when the park is closed but fishermen are  
expected to continue to enter the park along the shoreline.  
All means of reducing traffic hazards will be coordinated  
with your office and the State Highways Division. The State  
Highways Division recommended the change in the EIS covering  
this concern.

Your review and comments are appreciated.

Very truly yours,

CHRISTOPHER COBB
Chairman of the Board

Encl.
MEMORANDUM

TO: The Honorable Christopher Cobb, Chairman
Department of Land and Natural Resources

ATTN: State Parks Division

FROM: Richard E. Marland, Director

SUBJECT: Draft Environmental Impact Statement for Russian Fort State Park

May 20, 1975

We have received a late comment from the Department of Planning and Economic Development dated May 16, 1975. Please append their correspondence to our May 9, 1975 memorandum to you.

Thank you for your cooperation on this matter.

Attachment
MEMORANDUM

TO: Dr. Richard E. Marland, Director
   Office of Environmental Quality Control

FROM: Hideto Kono, Director

SUBJECT: Draft EIS for Russian Fort State Park

May 16, 1975

Ref. No. 3735

We have reviewed the subject draft and find that it has adequately assessed the environmental concerns that can be anticipated from the proposed project.

The State Comprehensive Outdoor Recreation Plan (SCORP) supports the concept that some historic and archaeological features having statewide significance could also be incorporated into larger recreation areas so that they may be included as part of the cultural and recreational attraction of the area. In this respect, since planning and preservation functions are appropriately assigned to the Department of Land and Natural Resources, we would like to indicate our concurrence with the development of this project.

We have no further comments to offer at this time but appreciate the opportunity to review the subject statement.
TO: Richard Morland, Interim Director, Office of Environmental Quality Control

RE: EIS for Russian Fort State Park

☐ We have no comments to offer.
☐ EIS returned: project does not pertain to SCS activities and/or responsibilities.
☐ EIS received: undergoing review.

4/9/75
Date

Francis C. H. Lum
State Conservationist
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS USAF WING (PACAF)
AND SAN FRANCISCO WING

REPLY TO: DEEE (Mr Kimura, 4492758)

SUBJECT: Draft Environmental Impact Statement

TO: Office of Environmental Quality Control
    Office of the Governor
    550 Halekauwila Street
    Tani Office Building, Third Floor
    Honolulu, Hawaii 96813

24 APR 1975

We have no comments to render relative to the draft environmental impact statements for the following projects:

1. Alohilani Housing for the Elderly, Kailua, Oahu.

✓ 2. Russian Fort State Park.

3. Lilipuna Road Ka-Hanahou Circle Relief Drain.

Allan M. Yamaoka
Asst Dep Comdr for Civil Engng
April 29, 1975

MEMORANDUM

TO: Dr. Richard E. Marland, Director
   Office of Environmental Quality Control

SUBJECT: Russian Fort State Park

The Department of Agriculture has reviewed this draft statement and
finds no significant agricultural impact.

Preservation by proper development of this historic site appears to be
the best choice.

[Signature]

John Farias, Jr.
Chairman, Board of Agriculture

JF:d:c
DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY SUPPORT COMMAND, HAWAII
APO SAN FRANCISCO 96583

AFZV-SG-EC

Richard E. Marland, PhD
Director
Office of Environmental Quality Control
State of Hawaii
Room 301, 550 Halekauwila Street
Honolulu, Hawaii 96813

Dear Dr. Marland:

The Draft Environmental Impact Statement for the Russian Fort State Park was reviewed by our office.

We have no comments to offer at this time.

Thank you for the opportunity to review this statement.

Sincerely,

LEE C. HERNIG, JR.
Colonel, MSC
Environmental Consultant to Commander,
U.S. Army Support Command, Hawaii