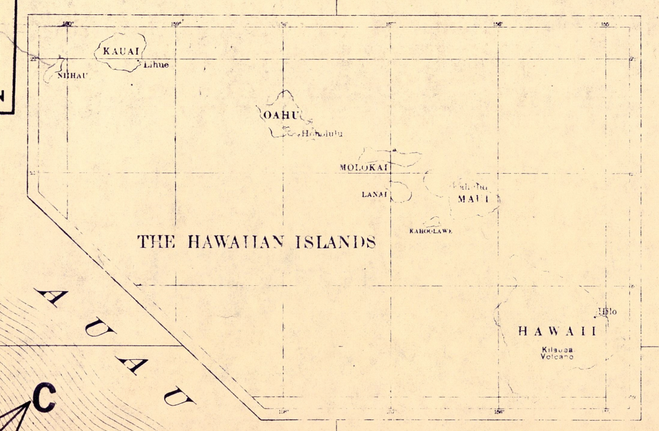
Hrng Span
Feb 15 — Apr 16

A74-383 - DEXTER D. DEL ROSARIO etal (Lanai)

BOUNDARY AMENDMENTS	
DOCKET NO.	DATE
A72-349	5 MAY 1973

LAND USE DISTRICT BOUNDARIES		
DISTRICT MAP	STATE OF HAWAII LAND USE COMMISSION DEPT. OF PLANNING & ECONOMIC DEVELOPMENT EFFECTIVE DATE: Aug. 4, 1969	DISTRICTS U = URBAN R = RURAL A = AGRICULTURAL C = CONSERVATION
LANAI		



KALOHI CHANNEL

AUAU CHANNEL

PACIFIC OCEAN

KEALAIKAHIKI CHANNEL

LAHAINA DISTRICT

MAHANA

KAMOOKU

KAMALUNPUUAAUPPAA

KAOHA

Kaena Pt
Kaenaiki
Keanapapa Pt
Kalaeahole
Kaapahu
Palahinu Pt
Polihua
Haleolono
Lae Paloio
Puumaiakahe
Awalua
Honowai
Kaena
Pohakulepo Pt
Konaele
Pohakulaie
Lapaiki
Paopao Pt
Honuaula Pt
Lae Wahie
Kahua
Kukui Pt
Poaiwa
Kaholokua Bay
Hauola
Kahokunui
Kapaele
Lae Hi
Waiakapuaa
Kalakala
Iamo
Kaikena
Nahoko
Lae Fishpond
Keaa
Waiopae
Kahea
Halepalaoa Landing
Makaiwa
Puu Nene
Kikoa Pt
Awehi
Mauna o Umi
Kahemano
Kapue
Nahe
Kapoho
Kamaiki Pt
Makole
Kalaeokahano
Leinohauhau Pt
Puupehe
Moku Naio
Kalokolo Cave
Kaneapua
Mamaki
Pelaea Pt
Anapuka
Manawai Bay
Poopoo
Kapalaoa Bay
Halepuiwa Bay
Keawanui Bay
Naupaka
Anapuka
Keone Bay
Kiai Bay
Honopu Bay
Nanahoa Pt
Kaumalapau Harbor
Kapukaloa
Ranepuu
Keonehechee
Puu Kawelo
Puu Mahana
Maleu
Kaakalani
Leinukalahua
Puulaalaea
Puulala
Puupula
Puu Kilea
Keomuku PO
Hoopapalani Hill
Mininiwaiuli Hill
Lanai City
Puu Nana
Puu Alii
Lalakea
Kapana
Hulupuupiu
Puu Koa
Kanaenae
Hii Flats
Puu-Nana-Hawaii
Kaluanui Flats
Lanaipala
Haalelepaakai
Puhielelu Ridge
Puu Kole
Kaa Ridge
Kaiholena Ridge
Kaiakahinalii Ridge
Kaiakamalo Ridge
Kaiakahinaia Ridge
Kaiakamilo Ridge
Kaiakapapa Ridge
Kaiakapuaa Ridge
Kaiakamanu Ridge
Kaiakapuhi Ridge
Kaiakahaka Ridge
Kaiakaiwa Ridge
Kaiakaiwa Gulch
Kaiakapuhi Gulch
Kaiakahaka Gulch
Kaiakaiwa Gulch
Kaiakapuaa Gulch
Kaiakapapa Gulch
Kaiakamilo Gulch
Kaiakahinaia Gulch
Kaiakamalo Gulch
Kaiakahinalii Gulch
Kaiakamanu

A74-383 DEL ROSARIO, ET AL

POLIHUA

KAENA PT

SHIPWRECK BEACH

KANEPUU

KOELE

LANAI CITY

LANAI AIRPORT

KEOMUKU

MAKAIWA

LOPA

NAHA

MANELE BAY

KAUNOLU BAY

HULOPOE BAY

KAUMALAPAU HARBOR

LAND USE DISTRICT BOUNDARIES		
DISTRICT MAP: LANAI	STATE OF HAWAII LAND USE COMMISSION DEPT. OF PLANNING & ECONOMIC DEVELOPMENT EFFECTIVE DATE: DEC. 20, 1974	DISTRICTS U = URBAN R = RURAL A = AGRICULTURAL C = CONSERVATION

EXISTING DISTRICTS NOT SUBJECT OF THIS PETITION

- URBAN
- CONSERVATION
- AGRICULTURE

EXISTING DISTRICTS SUBJECT OF THIS PETITION

URBAN (DELETE)	1,620 Ac
RURAL (DELETE)	2,720 Ac
AGRICULTURE (DELETE)	18,000 Ac

TO BE ADDED TO CONSERVATION: 22,340 Ac

ISLAND OF

lanai

STATE OF HAWAII

NORTH

SCALE 2000 0 2000 4000 6000 IN FEET

7648

DEPARTMENT OF PLANNING
AND ECONOMIC DEVELOPMENT
* * *

LAND USE COMMISSION

250 South King St. / Honolulu, Hawaii 96813 / P. O. Box 2359 / Honolulu, Hawaii 96804

George R. Ariyoshi
JOHN A. BURNS
Governor

EDDIE TANGEN
Chairman

STANLEY SAKAHASHI
Vice Chairman

COMMISSION MEMBERS
James R. Carras
Sunao Kido
Shelley M. Mark
Alexander J. Napier
Mitsuo Oura
Tanji Yamamura
Edward Yanai

TATSUO FUJIMOTO
Executive Officer

September 18, 1975

Mr. Dexter D. Del Rosario
1238 Aha Street
Lanai City, Lanai 96763

Dear Mr. Del Rosario:

This is in reference to boundary amendment petition A74-383 which you filed with our office on December 17, 1974.

The following developments have occurred which significantly affect the status of your petition.

During the past legislative session, the State Legislature passed a bill which became Act 193, on June 2, 1975. Act 193 provided that:

a. The term of the existing members of the Land Use Commission expire with approval of Act 193 (June 2, 1975).

b. The Land Use Commission conduct quasi-judicial type hearings and to adopt rules governing the intervention of agencies and persons in boundary amendment proceedings.

c. The Land Use Commission observe and comply with the interim statewide land use guidance policies contained in Act 193 pending adoption of the State Plan.

d. The Land Use Commission publish notice of boundary amendment hearings at least 30 days prior to such hearings.

As a result of Act 193, the District Regulations of the Commission will be amended to incorporate the new provisions of Act 193 and to establish new rules of practice and procedure. Public hearings have been scheduled to consider proposed amendments to the District Regulations and Rules of Practice and Procedure on October 7, 8 and 9, 1975. Following these statewide public hearings, it is anticipated

that adoption of the amended District Regulations and Rules of Practice and Procedure may be accomplished in late October and would become effective ten days after filing with the Lt. Governor's Office. It is estimated that this will occur sometime in mid-November of this year.

In view of the above, the newly constituted Land Use Commission, at its initial meeting on September 9, 1975, decided that all boundary amendment petitions now pending before the Commission which cannot be heard prior to the adoption of the amended District Regulations and Rules of Practice and Procedure be refiled by the petitioner. For the pending petitions, the fifty dollars ($50.00) will be waived.

Since the petition you filed is affected by the situation described above, we await your decision to refile the petition as previously submitted or to refile an amended petition.

Enclosed for your information is a set of the proposed Rules and Regulations to be considered in accordance with the public hearing schedule which is also enclosed.

Very truly yours,

for EDDIE TANGEN
Chairman

ET/cbk

Encl: Prop. Rules & Regs.
Rules and Regulations Hearing Schedule

May 23,1975

Mr. Edward C. Brown
Attorney for Petitioners
Suite 209, 404 Piikoi Street
Honolulu, Hawaii 96814

Dear Mr. Cooper:

In reference to your letters of May 14, 1975, please be advised that the Land Use Commission has not determined the contested case hearing dates for Docket No. A74-383 (Dexter D. Del Rosario, et al), and Docket No. A74-384 (Samuel M. Peters, Sr., et al).

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

cc: Land Use Commissioners
Harry Kim

7088

LAW OFFICES
OF
E. COOPER BROWN

533-3987
AREA CODE 808

SUITE 209
404 PIIKOI STREET
HONOLULU, HAWAII
96814

May 14, 1975

RECEIVED
MAY 19 1975
State of Hawaii
LAND USE COMMISSION

Mr. Tatsuo Fujimoto
Executive Director
Land Use Commission
1010 Richards St.
Honolulu, HI

RE: Petition for boundary amendment A74-383,
Dexter D. Del Rosario, et al.

Dear Sir:

Has a date been established for the contested case hearing in the above designated matter?

May I remind the Commission that it has been almost one month since the first public hearing and that they have but three months from that date, April 16, in which to render a final decision.

Thanking you in advance, I am

Sincerely yours,

Edward Cooper Brown
Attorney for Petitioners

cc. D. Del Rosario

ADDITIONAL LOAN /

SIGNATURES

20

RECEIVED
MAY 5 1975
State of Hawaii
LAND USE COMMISSION

Only Manele Beach

WHEREAS: HULOPOE BAY, BETTER KNOWN BY LANAIANS AS MANELE BEACH, IS THE MOST BEAUTIFUL BEACH ON THE ISLAND AND THE ONLY ONE OF ITS KIND.

WHEREAS: MANELE BEACH IS THE CLEANEST, SAFEST, MOST ACCESSIBLE BEACH ON THE ISLAND FOR SWIMMING, SURFING, FISHING, PICKNICKING, AND CAMPING.

WHEREAS: MANELE BEACH IS UTILIZED EVERYDAY AS THE RECREATION AREA FOR ALL LANAI PEOPLE.

WHEREAS: REZONING THIS BEACH AND SURROUNDING AREA TO CONSERVATION WILL PRESERVE AND PROTECT THIS IMPORTANT FACET OF OUR LIVES.

WHEREAS: RESORT AND SECOND-HOME DEVELOPMENT IN THIS AREA WILL ONLY DESTROY THIS CONDITION AND MAKE OUR MOST POPULAR BEACH A COMMODITY FOR TOURISTS AND LAND SPECULATIONS TO EXPLOIT.

THEREFORE, WE, THE PEOPLE OF LANAI, REQUESTS THE STATE LAND USE COMMISSION TO DOWNZONE THE MANELE-HULOPOE AREA, PRESENTLY ZONED URBAN, RURAL, AND AGRICULTURE, TO CONSERVATION.

Anthony Parinas - Anthony Parinas
Mildred Lui - Mildred Lui
Claudette Huerta - Claudette Huerta
ALICE KEANINI - Celia Keanini
Elizabeth Spitalsky - Elizabeth Spitalsky
Wallace Hanog - Wallace Hanog
Bernadette Hanog - Bernadette Hanog
ISABELITA ALBORO - Isabelita Alboro
Eulalia Giron - Eulalia Giron
STANLEY TURQUEZA - Stanley Turqueza
KERRY HONDA - Kerry Honda
WALTER TAM ~~SAME~~ - WALTER Tam
Anita Haban - ANITA HABAN
EVA KWON - Eva Kwon
Leilani Manuel - Leilani Manuel
MARINO BARSATAN - Marino Barsatan
VICTOR DEGAMO - Victor Degamo
[redacted]
SANDY DINONG - Sandy Dinong
REMY PASCUA Remy Pascua

RECEIVED
MAY 5 1975
State of Hawaii
LAND USE COMMISSION

WHEREAS: HULOPOE BAY, BETTER KNOWN BY LANAIANS AS MANELE BEACH, IS THE MOST BEAUTIFUL BEACH ON THE ISLAND AND THE ONLY ONE OF ITS KIND.

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WHEREAS: RESORT AND SECOND-HOME DEVELOPMENT IN THIS AREA WILL ONLY DESTROY THIS CONDITION AND MAKE OUR MOST POPULAR BEACH A COMMODITY FOR TOURISTS AND LAND SPECULATIONS TO EXPLOIT.

THEREFORE, WE, THE PEOPLE OF LANAI, REQUESTS THE STATE LAND USE COMMISSION TO DOWNZONE THE MANELE-HULOPOE AREA, PRESENTLY ZONED URBAN, RURAL, AND AGRICULTURE, TO CONSERVATION.

Randall Lee Amoncio RANDALL LEE AMONCIO

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State of Hawaii
LAND USE COMMISSION

RECEIVED
MAY 5 1975
State of Hawaii
LAND COMMISSION

(81) Petition: To Save Manele Beach on (Lanai)

C. Whipple	1	A. Kaai	28	H. Hato Jr.	56
M. Mullertner	2	Carl Brodeve	29	D. Ichikawa	57
D. Mullertner	3	Bernard K. Nunes	30	Do Ala	58
Geo Cahoohalahala	4	[illegible]	31	Elaine Akau	59
Chas Mullertner	5	Robert T Nakamura	32	Masao Kazunaga	60
Nani Willing	6	Marro Monge	33	Eldora Kahau	61
Louise Gaifi	7	Christina Farada	34	William Kahau	62
Orion Palahiko Jr	8	Kay Matsuura	35	Rodney Alama	63
Lucrecia Maldonado	9	F. Copelan	36	Williamal Alama	64
W. Kahahawa	10	Susan Yamakawa	37	Nina Asing	65
L. Jones	11	Donna Ching	38	Patrick Asing	66
J.B. Souza	12	A.H. Brito	39	Maureen Kahau	67
L. Lewis	13	Kahalewai A. R.K.	40	Dayne Kahau	68
D. Flazer	14	Mildred Shinde	41	Marie Miyashiro	69
Patrick K. Kalua	15	Daniel J. Dunlop	42	Elsie Kurosaki	70
Emory C. Tai	16	Michael A. Balles	44	Valorie Shibuya	71
Simon J. Ain Jr.	17	Albert J. Kane Jr.	45	W. Medeiros	72
Ray Bunley	18	Dean Fukuda	46	S. Maulice	73
Kaai Tatao Jr	19	Henry B. Hub	47	Barbara Kiyabu	74
Isaac Takuenza	20	John A. Young	48	Scott Akau	75
M. R. Carlos	21	H. Hondo	49	Linda Jones	76
Wm Gaud	22	S. Souza	50	Timothy Nakamura	77
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R. J. S. Yuen	24	Paulette Ramos	52	Marie Mishima	79
C. Kahalehau	25	Lorena Ray	53	Jack Matsumura	80
C. Wahinehookae	26	Benjamin D. Vargas	54	Charles Kaneshiro	81
Rudy Barcan	27	Marian S. S. Sutton	55	Sol Rafanan	82

Lawson Y. Kato	83	Ronald Earl Lee	103	BRYAN Souza	(90)		
Faye Furukawa	84	Ronald K. Shea	104	Eddie Arruda			
Shelley Irvine	85	Betty Shea	105	Sandy Kapsalis			
Raymond Sali	86	David & Jane Reis	106	Betty Sallas			
Georgeanne Kyriakos	87	Kathleen Lau	107	Stephen Chang			
Glenn Kuyo	88	Raynelle Kawa	108	Bobby Manaachi			
Darnell Maketa	89	Desiree Pulawa	109	Sherry Arruda			
B. Rocha Jr	90	Marjorie Villanueva	120	Edwina Arruda			
E. Ochis	91	Wesley Pulawa	121	BRYAN HIGA			
Stephen Fe	92	Philip Carriaga	122	Jr. Salva			
Frank Kalaniwai	93	Earl F. Dean	123	Joyce Gloria			
M. Rabita	94	Raymond Rache	124	Pat Chang			
Wayne Ane	95	A. Angel Hayan	125	Marian Tenzer			
Samuel Gow	96	J.L. Yoka	126	Sheridan Sanford			
Magusa A. Snowden	97	Jackie Drake	127	Lita Lekapati			
Glenn Nelson	98	Beverly Regis	128	Rel Layton			
Frank K. Portanz	99	Eileen Simms	129	Carol Nakamura			
Edmund K. Goo	100	A. Bayud	130	Debbie Lakapati			
Larry DeSoto	101	Santa Ana	131	Laurie Akuna			
Alfred Lee	102	Rupert J. Randolph	132	Jaylin Chung			
J. Naiche Sr.	103	Kent Padlo	133	Yolanda Tenorio			
Angeth K. McKeague	104	Mary Jacquel	134	Bobbie Jon			
John L. Cano	105	Gary Corby	135	Stanley Wong			
Nelson M. Ortiz	106	Michael Hoyt	136	Kathy Bodac			
Keola Barnett	107	Charlie Avila	137	Cathy Ramelb			
Rusty Labado	108	Steven Silva	138	Diana Larsen			
E.P. Evans	109	Jill Fewell	139	Joseph Poonani			
Frank Fuyuma	110	Arlene WHITE	140	Jaime Aupala			
Joe Akina	111	CHARLOTTE WHITE	141	Stanley Kam			
[illegible]	112	SCARLET WHITE	142	Eugene Applegate			

Roscoe K. Swain 173
Billy C. Dias 174
Wilden Jamile 175
Dallas Swain 176
Keith Vierra 177
Billy Beater 178
Rodger Watson 179
Butai OFISA 180
Ted Hopkins 181
Fred Ladao 182
Diane Cadiz 183
Marica Jr. 184
Kirk Pulau 185
Becky Pulau 186
Edgar Ecrna 187
Taylor, D. 188
Feliz man 189
Stephanie Jr. 190
Jackie McMillan 191
Jr. Imposi 192
Cheryl Kekuewa 193
Fred Edwards 194
Edith Nawelo 195
Jacob Nawelo 196
Dorothy L. Kekuewa 197
Donna Kapobalahala 198
Jon Yoy 199
Wilbur Saucedo 200
Benny Pauli 201
Charles Matayoshi 202
Catalino Tello 203

Glenn K. Kapaana 204
Leonard Sanger 205
B. Magar 206
R. Olivera 207
Hulani Kalauli 208
Wayne Jones 209
Lawrence Jose 210
Albert Rapoza Jr. 211
Vernon D. Lopez 212
Andrew Kakuya 213
Stuart E. Boone 214
John Kapulan 216
Marion Kapulan 217
Jameson Paco 218
Ben K. Kaniapio 219
Joseph A. Tate 220
Ramon A. Ava 221
Gerry Samanaka 223
Lloyd Y. Saito 224
Dennis Nelson 225
Brian Higa 226
Dan Mallorca 227
Beatrice Edwards 228
Jr. Waterman 229
William Powell 230
Johnny Navarro 231
Jacob B. Singh 232
Gladys Findley 233
Kenneth Lim 234
A. L. Smith 235

R K Matsumoto 236
Helene Kahoaka 237
Gerard Noa 238
Patrick Santos 239
Robert Santos 240
241
Martin Kaniman 242
Alecia Santos 243
Helen K Kanenaka 244
Eleanor Maki 245
Deborah Yamamoto 246
Marcelo Molina 247
Nelson Gutierrez 249
Theodore H. T. Kim 250
Pua 251
Valerie Roxburgh 252
Lydia Fragas 253
Urban H. Kaaua 254
Lula 255
Roy Young 256
Daniel Martinez 257
Stanley K Salima 258
Mapu Camara 259
Mahoe. 260
Flores 261
Richard Cummings 262
Dianne Cummings 263
Rodney Edwards 264
Valerie Luis 265
Milton Hagino 266
Charles Martin 267

Michael Higa 268
Donovan Bemecio 269
Belinda Long 270
Cesar Cadabes 271
Raymond Betas 272
John Nanelis 273
Ben K. Lono 274
Francis W. Kim 275
Lovelle Hale 276
Isaac Nabe 277
Selena Kobayashi 278
Kurt Hada 279
Alexander Wood 280
Stan J. White 281
Monte Mendonca 282
Gary See 283
Nate Valdez 284
Jim Matsunaga 285
Nelson Soares 286
Sherwood Conant 287
Ronald K. Shinde 288
Reipo Enpitan 289
Thomas Nakamura 290
Wayne Shimabukuro 291
Leland Lau 292
Keith A. Miyashiro 293
Blair I. Tabara 294
Kyle K. Miyashiro 295
Franklin H. Lau 296
James A. Young 297
Jack W. Dysalo 298
Robert L. Dunlap 299
Ruth K. Loveless 300

Dawn T. Uchima 301
Lola Inazuki 302
J. A. Ligado 303
John Ching 304
Madeline Tam 305
Jenny Lee 306
Danny Fung 307
Rex T. Matsumura 308
Linda Lee 309
Jim Kanemaka 310
Dwight Mau 311
Brian Bliss 312
Inez Inasco 313
Melba S. Kesteman 314
L. Matsumura 315
T. Kuroda 316
Rose Nagama 317
Lisa Inadomi 318
Shannon Doi 319
Jay Onishi 320
Peggy Chang 321
Kenneth Ma 322
Kevin Chang 323
Nancy Montoya 324
Sandra Tadaki 325
Yong Shin Kim 326
Lisa Chi 327
Maurice K. Kim 328
Sam Yun 329
Gina Pak 330
Kwang Suyi 331
Annette P. Sacramento 334
Manuel Sacramento 335

Milan D. Dietz 336
Kathleen S. Dietz 337
Anthony Domondon 338
Melvin Cabanos 339
Roger Nakina 340
Edna C. Nakaya 341
Liberato Nakaya Sr. 342
Rosita V. Nacua 343
Bob K. Nacua 344
Harry Higa 345
Rodney Lovell 346
Mark L. Ogata 347
Ralph Perez Jr. 348
Margie Perez 349
Nicholas Medeiros 350
Lorene G. Medeiros 351
Juliana N. Soon 352
Geraldine Candido 353
Felix Pascual 354
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D Ward 356
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Douglas Obado	369	Sonny Gomes	401	Apelita A. Masaki	433
Priscilla Obado	370	Tennie Mey	402	Henry M. Villafuerte	434
Antone Candido Jr	371	Raymond Bacus	403	Gail Hamosaki	435
Edison Ching	372	Carol K. Josiah	404	Calvin L. Laqua	436
Joseph F. Kelly	373	Leilah K. Naike	405	Jeff Ching	437
Russell M. Duarte	374	[illegible]	406	Emory K. Wood	438
Sixto Valeho	375	Vance T. K. Smith	407	Richard D. Barona	439
Anna Smith	376	Hayden Woodward	408	Charles Yamashiro	440
John Ahoi	377	Henry Ong	409	[illegible]	441
[illegible]	378	Donald K. Kalaiwa	410	Robert Salendon	442
George Iaukea	379	George K. Nakamura	411	Ernest H. Glidden	443
Barbara J. Badayoe	380	Clifford R. Laboy	412	[illegible]	444
Paul Villanueva	381	John Hinkley	413	Leroy H. Cuaheim	445
Judy Furtado	382	Robert K. [illegible]	414	[illegible] Stringert	446
L. Minaudik	383	Yalaman Eddie	415	[illegible]	447
William Reed	384	Clarence Spellman	416	[illegible]	448
R. Kaboya	385	Judy M. Bailo	417	Francis Minakami	449
J. Bennett	386	Leila H. Geronimo	418	Paul Snow	450
F. R. Rodrigues	387	Linda M. Kauwe	419	Cheryl H. Bepuna	451
Louis Rocha	388	Gary [illegible]	420	Stanley Y. Nakamoto	452
T. Kekahio	389	Anthony C. [illegible]	421	Isaac Afoa	453
[illegible]	390	Rudy Orlando	422	Tanlagia Soule	454
G. Tuellas	391	Leo Taira	423	Samuel U. Makanani	455
D. Kanakanui	392	Francis Tokakaa	424	Charmaine N. Delima	456
E. Awong	393	Sadato Yoshimura	425	Sarah Kalua	457
C. Hong	394	[illegible]	426	Toma Rabo	458
C. W. Haco	395	Dale Tamaao	427	Vainte Pimentel	459
R. Pualoa	396	Peter Shoji	428	[illegible]	460
F. Castillo	397	Regan Fiji	429	Robert Kaulaupky	461
Rose K. Angales	398	[illegible]	430	Wallace Kimura	462
P. Cuillen	399	[illegible] McMillan	431	Beatrice Marn	463
A. Cruz	400	W. Awai	432	Sandy Imai	464

Susan Hanada	465	Robert A. Agpaoa	499	James E. Bendiel	533
Megumi K. Hanada	466	Henry R. Lorenzo	500	M. Morgan	534
Yan C. Tsui	467	David Kekuhelewa	501	H. Ohar	535
Pak Nak Chinen	468	Mona D. Romano	502	Dawn K. McKague	536
Myong C. Ui	469	Rodney W. Alonzo	503	Tracy McKague	537
Doreen N. Hiraoka	470	L. Ogata	504	Susan Kekuewa	538
Ruben Cuenco	471	Raymond Lum	505	Mercedes L. McKague	539
Boyd F. Numan	472	Yisrael H. Alsop.	506		
Louis Vagi	473	Laverne Gabriel	507		
Metta E. Lowe	474	Jeanne Sasahara	508		
Gary Balena	475	Charlotte Kainuma	509		
William Ahan	476	Laura K. Aldo	510		
Wilbur Moyer	477	Chris Andres	511		
Jacob Heilig	478	Luis Asmeron	512		
Lyn F. Hee	479	Richard Tom	513		
Lorna K. Kahelona	480	Janis Simpson	514		
Edward Tomiyasu	481	Kenneth Hong	515		
Ray Yee Andrew	482	Jackson Lee	516		
Gabriel Hong	483	Lowell Tom	517		
[illegible]	484	Brennan W. Tom	518		
J. Kepaa	485	Frances L. H. Tyau	519		
H. K. Kealoha	486	Roxanne Lono	520		
David Alvarez	487	Marianne N. Harada	521		
[illegible]	488	[illegible]	522		
Clifford K. Hayashi	489	Lynne S. Ohira	523		
Herbert C. Lum	490	Linda Chun	524		
[illegible]	491	Jane Komeiji	526		
Edward P. Babasa	492	Clare Ancheta	526		
Ruben C. Argueza	493	Michele Ogadamari	527		
K. Nakashima	494	Craig Matsuura	528		
[illegible]	495	G. Keith Ware	529		
Wade C. Toi	496	Phelip Alvarez	530		
Noah K. Kalama III	497	Sharon Ramos	531		
Jerrold K. Lono	498	A. Akana	532		

RECEIVED
MAY 5 1975
State of Hawaii
LAND USE COMMISSION

RECEIVED
MAY 5 1975
State of Hawaii
LAND USE COMMISSION

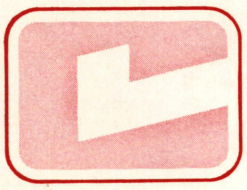
RANDY FUJIMORI · K.T.

HONOLULU SIGNATURES

Red Marks - Former Canadians

Petition for Lanai - Manele Beach

(Uncle) Richardson



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MAY 5 1975
State of Hawaii
LAND USE COMMISSION

1) Vivien Ululani Richardson
2) John A. Richardson Sr.
3) Hannah Richardson
4) Alyce Richardson
5) Alma Puanani Richardson
6) John A. Richardson Jr.
7) Charlene M. Richardson
8) Lew Richardson
9) Arnold Richardson
10) Randolph Pruitt Lau
11) Clarence Richardson
12) Leslie Keaweehu
13) DUKE HUFFMAN
14) Richard F. Ching Jr.
15) Edwin O. Mayfair
16) Harry Park
17) Henry M. Mikasobe Sr.
18) Ronald J. Keaweehu
19) Charles Kwan
20) Aaron C. Swofford
21) David Ueu
22) Michael Nishimaya
23) A. Hisatake
24) William Kaehn
25) Alfred Kitt, Mgr.
26) Howard Ishini

(Uncle) Richardson

27) Paul A. Fuchigami
28) Samuel L. H. Malama
29) Timothy Malama
30) Samuel L. Malama
31) Yresell A. Louis
32) Radine L. Kealamakea
33) [illegible]
34) Whitney Luke
35) Gaylord Kaonohi
36) Maurice Umebura
37) Fred Brown
38) Joe Pokakaa, III
39) Robert Cockett
40) Jay F. Jar
41) Gilbert Gould
42) Adrian Choy
43) Ray Hookano
44) Paul Dunlap
45) Domingo Barbieto
46) C. KELLY
47) J. Crates
48) [illegible]
49) Douglas [illegible]
50) G. KAWELO
51) Jack Cambra
52) George Tsui

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53) Leon Camara
54) Milton Eng Lick
55) Harold M. T. Chock
56) Jean Shikara
57) John A. Shaw
58) Louis Brissette
59) Richard T. Ohno
60) William Davis
61) Bernard Chun
62) Jesus Nelius
63) ~~Po~~ Dennis Rivera
64) Jerry Lalai Pori
65) Philip K. Bahakeleburaq
66) Gehrig L. Sone
67) Jane Ohio
68) Charles Ciacci
69) Lane Ciacci
70) P. Bishigayan
71) Paul Kuahube
72) Clifford Kipoa
73) Michael Segoma
74) Norman Tajiri
75) William Keaweamahi
76) John C. S. Kim
77) John Kaulupali
78) Joyce Chun

Petition for La[illegible]i - Manele Beach (Aunty) Richardson

79) Mildred Nakanish.
80) Bessie Lsew
81) Jean Kong
82) Bertha Young
83) Stella Hecht
84) Pearl Nancy
85) Tamotsu Inoue
86) Estrella Sparg
87) Agnes Gaughan
88) Angela Disteli
89) Theresa a Marino
90) Lalla Ordenstein
91) Freda S. Himelfarb
92) E. Behrens.
93) Frank F. Fernandez
94) Francis Chan
95) Clifford Young.
96) Freda Ross
97) Annie Grance.
98) Edith N. Holler
99) Pat Sowerby
100) Margaret M. Gray
101) Mary-Rene Brooks
102) Vi Neumann.
103) Mrs. C Wilson
104) ~~Abraham Kauila~~
105) Kamali Kauila

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106) Mary Kaui[illegible]

107) Robert Kauila Sr.

108) Robert KAUILA JR.

109) Abraham K. Kauila

200) Akino Ulong

201) Crayton Wong

202) Howard Tyau

203) Edith M. Tyau

204) Alice Hong

205) Hattie Sun

206) Joseph K. Sunton

207) Edwina Sun

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Petition for Lanai - Manele Beach

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1) Glenna Tello
2) Jaime Llanes
3) John Kekahuna
4) Peter K. Kekahuna Jr.
5) Peter K. Kekahuna Sr.
6) Adeline K. Kekahuna
7) Sandra K. Kekahuna
8) Tina Llanes
9) Mary Brackeen
10) Marie Hoopii — Marie Hoopii
11) Tina Hoopii — Tina Hoopii
12) Michael R. Luke — Michael R. Luke
13) Catherine Narvaez
14) Lei W. DeLeon
15) Elder Pearson
16) Elder Robert L. Allen
17) Warren M. Kimura
18) Warren L. Coltes
19) Kyung Hee Son — Kyung Hee Son
20) Mr. Mrs Santiago
21) Doreen Young
22) Linda Martin — Linda Martin
23) Larry Maramba
24) Carol Evaimalo
25) Paloma Unabia
26) Violeta Evaimalo

— Petition for Lanai —

27) Mr & Mrs. Feliciano Salvador
28) Ruth E. Theodore
29) Mr. & Mrs. Leonard Yai
30) Jesse Arai
31) Lucita Arai
32) Tammy Arai
33) Joseph Kimlink
34) Gary L. Truitt
35) Bruce A. Bates
36) Mrs. Whittley
37) Caroline Ortiz
38) James Correa
39) Darlene Chaviera
40) Matilda K. Velasquez
41) Victoria Mauka
42) Bonifacio M. Maresma
43) Junoregina. Pomele
44) Alias Pomele
45) Mildred Kawamata
46) Robert Kawamata
47) Bok Soon Moon
48) You Sun Kwon
49) Sandie Kwon
50) Jerry Kwon
51) Anna Kwon
52) Soon Au Au

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— Petition for Lanai —

53) Mafi Au Au
54) Talalua Au Au
55) Seoali Au Au
56) Sang Chul Chang
57) Blanch ~~Freitas~~ Blanch Freitas
58) Margaret Ann K. Coleman
59) Claudia Garcia
60) Apatimu Tautua.
61) Darlene Balgas
62) Meleana Aetonu
63) Mary Jane Henry
64) Madeline G. Henry
65) Sandy Macloves
66) Linda L. Darden
67) Winifred P. Jim
68) Clyde L. Abella
69) Jonathan Abella
70) Pong Pae King
71) Yo Sung Hwang
72) Janet Bosconcillo
73) Irving R Mendez
74) Sagaia Tago. Vaoita I Calio.
75) Pearl S. Oliva
76) Venus Magso
77) Louis Silva
78) Tong S Hong

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79) Charlene L. Finch
80) Gladys P. Mamala
81) Edward Finch
82) Ernesto Lozano
83) Michael Kahalewa
84) Troy Milton Haviland
85) Debra L. Haviland
86) Doradean Kalua
87) Nora Kalaiwaa
88) Henry Kalaiwaa
89) Adelina Cukuhuna
90) Calvin T. Werner
91) Rebecca Werner
92) Shirley M. Paras
93) William [illegible]
94) James J. Costa
95) Evelia Orossi Orossi
96) Eleana Brown
97) Emmanuel William
98) Christine Sanico
99) Gwendolyn Beach
100) Lorna Daniels
101) R. Gonzales
102) S. Keith
103) Rosalie Palana
104) Thelma Zablan

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Petition for Lanai

105) Tony Balgo
106) Eric Bermudez
107) Colleen Bermudez
108) Val Keller [redacted] Val Keller
109) Mary Ann J. Botelho
110) Maximo Asuncion Jr.
111) Raymond R. Narvaez Sr.
112) Hattie D. Kahawai
113) John Dysart
114) Philip Kekahuna
115) B. W. Souza
116) Paula Kiilehua
117) Harold Brant
118) Adam Kekahuna
119) Philip Kekahuna Jr
120) Gordon Kekahuna
121) Abbey M. Newcomb
122) Laverne Yu
123) Irene Hall
124) Walter Powell
125) Elsie Hall
126) Jennie Kahiwat
127) Laverne Hall
128) Susan Ahui
129) Anna M. Marcaba
130) Leatrice L. Johnson

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Petition for Lanai

131) Eva Davis
132) Naga Tupaa
133) Frances Mahoe
134) Barbara Ah Nee
135) Judith Rodrigues
136) Nina White
137) Danette Daniels
138) Cecilia Gante
139) Evon Kahele
140) Cynthia Doffron
141) Carolyn Parrish
142) Susan Macadoo.
143) Patricia C. Bailey
144) William Hampton
145) Bernice Nakaneole
146) Cheryl Russell
147) Murphy Maiava
148) Darryl Amyway
149) LoAnn Sequancia
150) Gloria Strong
151) Sharon Manini
152) Tom Naone
153) Rose J. Naone
154) Lillian Tuua
155) Felila Moononu
156) S. Kalima

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Petition for Lanai —

157) Sheila Kekanabea
158) Melissa Maulupe
159) Antoinette Rodrigues
160) Cathy Kauhini
162) Marian Morris
163) Yvonne Kim Choy
164) Marion P. Davis
165) Gillian L. Davis
166) Marion N. Davis
167) Marie A. Coleman
168) Sonia M. Chu
169) Beverly Perrault
170) Iluminada B. Arfienda
171) Clydie R. Fernandez
172) Diana Malii
173) Mrs. Mary W. Kipilii
174) Juanita Oliveros
175) Judy Hookuli
177) Pearl Gonzalez
178) Mr. & Mrs. Moses J. Kupukaa
179) S. Tofasimalo
180) Clifford Velasco
181) John W. R. Creem
182) Joyce Clark
183) Tina Yafoo
184) Alistair Sedes

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— Petition for Lanai —

185) Jama Tabag
186) Jerry R Perrault
187) Helen Sakurai
188) William Jones
189) Tayona Noneza
190) Irene Hadaran
191) Roger Kenny
192) Anne Kenny
193) Hansen Kenny
194) Roger Kenny Jr.
195) Robert P Jenkins
196) Sang Ho Chin
197) Yun Lee Chang
198) Jasmine M. Chang
199) Dannelle Howell
200) A.K. Medeiros
201) Guapapa
202) Antometer Fernandez
203) Beatrice Pagan
204) Sandra Sampaio
205) Rosemary Vidal
206) Nattie K. Kuresa
207) Lotwalia Kuresa
208) Bernice Cardines
209) Jenny Wilson
210) Allen Cardines

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— Petition for Lanai —

211) Esther. Kaopuiki
212) Gordon & Janice Titcomb
213) Mary Martinez
214) Manuel Martinez
215) Mari Wilson
216) Rodney Baptiste
217) Josephine Hyde
218) Pamela Viernes
219) Emma Balalona
220) Andrew Kuresa
221) Manuel Kaehuaea
222) Monii Kaehuaea
223) Anna Kaiapoepoe
224) David Kaiapoepoe
225) Kenneth Stone
226) Sari Stone
227) Marilyn D.K. Crawford
228) Mark A Anderson
229) Mrs. Mary A. Anderson
230) Won Ha Park
231) Gailyn N. Ares
232) Ramona A. Rapozas
233) Adolfo O. Ares
234) Richarlyne Santillo
235) Denise Kaeo
236) Charlyn Costa

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— Petition for Lanai —

237) Karen Devone
238) Edward Acosta
239) Yvonne Acosta
240) Buster Kellum
241) Nicky Kellum
242) Richard Johnson
243) Rose Johnson
244) Harvey Fernandez
245) Gloria Davies
246) Robt. Davies
247) Ginger Leong
248) Mirian Yamamoto
249) Ralph Yamamoto
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— Petition for Lanai —

1) Louella Nabriga
2) LaDonna Safao
3) Noanii Adkins
4) Darrolene Harris
5) Joseph Fraticelli
6) LARRY FRATICELLI
7) Mary Cunningham
8) Noreen Takeuchi
9) Siilagi Evans
10) Pirie Pyrs
11) Boyd Renken
12) J. Simmons
13) Kateo Kana
14) Hauoli Toquette
15) Mualeilani R. Emerson
16) Mina T. Tatupu
17) Felizia A. Pelayan
18) Vicky Artienda
19) Mr & Mrs. Alfonso Reyes
20) Mrs Dolores F Lee
21) L. Kaainoa
22) Leona L. Laa
23) Margaret Barona
24) Mr. and Mrs. B. Pedro
25) Lester Kim
26) Murphy M Meesburg

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Petition for Lanai —

27) Donna L. Mersberg P. Piho
28) Malinaai Samuelu
29) ~~Josetta Pollard~~
30) T. Noa
31) Kaui Sinistra
32) Randolph Fernandez
33) Caridad Kobylanski
34) Donna Avilla
35) Davey Avelle
36) William Stanche
37) Naomi Adkins
38) Enid Corniel
39) Glenn Corniel
40) Ruby A. Corniel
41) Eleanor Martinez
42) Helen Kealoha
43) Francine Pacheco
44) Mary Kanehailua
45) Doreen Tynan
46) Rose Kawewehi
47) Geraldine Piho
48) Sally Crum
49) Seth K. Cleveland
50) Ernestine Piho
51) Darlene Piho
52) Katherine Piho

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233
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53) Harrison Furtado
54) Francis Cling
55) Buster Lopez
56) Terrence M. Cerido
57) Mr + Mrs Brenda Anaina
58) Clarence Cling
59) Terry Rodrigues
60) Rayrame M. Ramuo
61) Eleanor L. Kahuli
62) Richard Kahuli
63) Rose Okina
64) Charles Okina
65) Edward F. Elderts
66) Barbara K. Ferreira
67) Ron Brown
68) Adam Brown
69) John Brown
70) Earl Kawewehi
71) Kenneth Elderts
72) Richard Kahuli
73) Sam Kawewehi
74) Bernie Kawewehi
75)
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233
7.4
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8
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(Uncle) Richardson

1) Thomas Komari
2) Jappy Fukushima
3) Ron Sait
4) Lawrence Maramato
5) Clinton Yoshikawa
6) J. Cutes
7) [illegible]
8) G. Dantsuka
9) Stacey A Batalona
10) Walter Chinen
11) Robert Zane
12) Elroy Victorine
13) Robert E West
14) Calvin H Kamon
15) Thomas Sawyer
16) Kyle L. Bosa

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BE IT RESOLVED THAT

We the people of Lanai request for a downzoning of the Manele/Hulopoe area from urban to conservational purposes,

Whereas, it is the most beautiful beach on the island,

Whereas, it is the most accessible beach for the Lanai people,

Whereas, it is one of the only beaches that provides recreation,

THEREFORE, by rezoning it to conservation, we would preserve this area for the reasons stated above.

Name	Address
1) Michael Aghani	1130 Hassinger St. #2G
2) Mark Alboro	1130 Hassinger St #2G
3) Waldo Fujie	1130 HASSINGER ST #2G
4) William Alboro	1130 HASSINGER ST. #2G
5) Cindy Hokama	2734 So. King St.
6) Gayle M. Sakuma	1148 Wilder Avenue, Apt. #19
7) John Evans	1641 South Beretania Street
8) Terence Aoki	1641 South Beretania Street
9) Marcel M. Sagawa	636 NALANUI ST APT. 11
10) Laura L. Ocalada	636 Nalanui St. Apt. #20
11) Linda M. Parinas	636 Nalanui St Apt. #22
12) Susana Parinas	636 Nalanui ST APT #22
13) Rose Reyes	636-2 Nalanui St. Apt. 2
14) Gail Tamashiro	1643-A Liliha St Apt #1
15) Leslie B Tamashiro	1643-A Liliha St Apt #1
16) Kent K Tamashiro	2606 Kapiolani Blvd #1
17) Nelson K Tamashiro	" " " "
18) Cynthia Evans	780 Amana St. #1102
19) Abreea Villamor	" " " "
20) Idna Janodra	" " " "
21) Ginny Hokama	2569 Dole Street
22)	
23)	

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Petition to down-zone
Manele-Hulopoe Area on Lanai
To be ATTACHED TO FORMAL Petition

1- Myles Hokama
3056 Felix St.
Hon. 96816

2- Joy Kato
1448 Kuahaka St.
Pearl City, Hawaii 96782

3- Clifford Higa
1711 Dole St.
Hon. HI. 96822

FORMER LANAIANS AND FRIENDS
SUPPORTING PETITION TO DEZONE

114 signatures

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LAND USE COMMISSION

WHEREAS: HULOPOE BAY, BETTER KNOWN BY LANAIANS AS MANELE BEACH, IS THE MOST BEAUTIFUL BEACH ON THE ISLAND AND THE ONLY ONE OF ITS KIND.

WHEREAS: MANELE BEACH IS THE CLEANEST, SAFEST, MOST ACCESSIBLE BEACH ON THE ISLAND FOR SWIMMING, SURFING, FISHING, PICKNICKING, AND CAMPING.

WHEREAS: MANELE BEACH IS UTILIZED EVERYDAY AS THE RECREATION AREA FOR ALL LANAI PEOPLE.

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of Hawaii
AND USE COMMISSION

WHEREAS: REZONING THIS BEACH AND SURROUNDING AREA TO CONSERVATION WILL PRESERVE AND PROTECT THIS IMPORTANT FACET OF OUR LIVES.

WHEREAS: RESORT AND SECOND-HOME DEVELOPMENT IN THIS AREA WILL ONLY DESTROY THIS CONDITION AND MAKE OUR MOST POPULAR BEACH A COMMODITY FOR TOURISTS AND LAND SPECULATIONS TO EXPLOIT.

THEREFORE, WE, THE undersigned, REQUESTS THE STATE LAND USE COMMISSION TO DOWNZONE THE MANELE-HULOPOE AREA, PRESENTLY ZONED URBAN, RURAL, AND AGRICULTURE, TO CONSERVATION.

Signature	PRINT
Benjamin A. Piring	BENJAMIN A. PIRING
David E. Terry	DAVID E. TERRY
Diane Burgeson	DIANE BURGESON
Michael C. Cruz	Michael C Cruz
Darby Zink	Darby Zink
Marjorie Cruz	MARJORIE CRUZ
Colleen Piring	Colleen Piring
John Cruz	John Cruz
Paul Freitas	Paul. Freitas
Margaret A. Freitas	MARGARET A. FREITAS
Erna Cotton	Len-Erna Hoakalei Woo Cotton
Jeff Cotton	JEFFREY COTTON
Danny Leon DANNY LEDS	DANNY LEDS

WHEREAS: HULOPOE BAY, BETTER KNOWN BY LANAIANS AS MANELE BEACH, IS THE MOST BEAUTIFUL BEACH ON THE ISLAND AND THE ONLY ONE OF ITS KIND.

WHEREAS: MANELE BEACH IS THE CLEANEST, SAFEST, MOST ACCESSIBLE BEACH ON THE ISLAND FOR SWIMMING, SURFING, FISHING, PICKNICKING, AND CAMPING.

WHEREAS: MANELE BEACH IS UTILIZED EVERYDAY AS THE RECREATION AREA FOR ALL LANAI PEOPLE.

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Signature	PRINT
Kathryn Judkins	Kathryn Judkins
Stan Christ	Stan Christ
Ingrid Landis	Ingrid Landis
Jane B. Randle	Jane B. Randle
Tom Templeton	Tom Templeton
Jan Key	JAN KEY
Richard Linehan	RICHARD LINEHAN
Flower Key	Flower Key
Nancy Potter	NANCY POTTER
Jan Linehan	JAN LINEHAN
Roy W. Lear	ROY W. LEAR
Marcelle Lear	MARCELLE LEAR

1-	Josephine Joseph	Josephine Joseph
2-	Christy Self	Christy Self
3-	Ginger Coonrod	GINGER COONROD
4-	Darla Gomes	DARLA GOMES
5-	Madie Thomas	Madie Thomas
6-	Mary Haswell	Mary Haswell
7-	James Orion	James Orion
8-	Vanessa Hunter	VANESSA HUNTER
9-	Mary Tregaskis	MARY TREGASKIS
10-	Janice Schilling	JANICE Schilling
11-	Mrs Terry Lee Punihaole	Terry Lee Punihaole
12-	Lena M. Tolbertson	Lena M. Tolbertson
13-	Colleen M Miller	Colleen M. Miller
14-	Sheila Franco	SHEILA FRANCO
15-	Barbara J Borom	Barbara J Borom
16-	Rhyll O'Keefe	RHYLL O'KEEFE
17-	Helen Clark	HELEN CLARK
18-	Joe Dee Deel	Joe DEEL
19-	Rose Buan	ROSE BUAN
20-	Bud Dicky	BUD DICKEY
21-	Carmen Jimenez	CARMEN Jimenez
22-	Rayma Estrella	Rayma Estrella
23-	Lita Tavares	Lita Tavares
24-	Fualupe Tuihalafatai	Fualupe Tuihalafatai
25-	Evan Lou Ah Quin	Evan Lou Ah Quin
26-	Willie Nazareth	WILLIE NAZARETH
27-	Ann Harris	ANN HARRIS
28-	Cynthia J Rosebrough	Cynthia J. Rosebrough
29-	Cindy DePonte	Cindy DEPONTE
30-	Mark Potter	MARK Potter

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31.	Marsha Kogge	MARSHA Kogge
32.	Sam Lina	Sam Lina
33	Sylvia Suchocki	Sylvia Suchocki
34	Janice Martin	JANICE Martin
35	Sachiko Galek	SACHIKO Galek
36	Ann M. Kusuhara	ANN M. KUSUHARA
37	Kevii Larratti	Kevii Larratti
38	Del W. Green	Del Green
39	R.D. Black	R.D. BLACK
40	Leoni Sugahara	LEONI SUGAHARA
41	Gregory Anthony Sangregorio	Gregory SANGREGORIO
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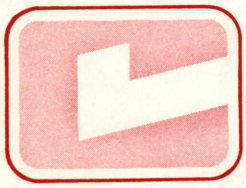
Petition for Lanai - Manele Beach



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Emily K. Thomas	3215 Pahoa Ave Hon. Hawaii	96816
Maukaa Aiu	2001-C Puaala Ave. Hon. Hi	96819
Hannah Fonseca	1465 Aala St. #504 Hon. H.	96817
Caroline K. Bishop	3627-McCorriston	7345340
Hattie N. Toshi	1117C-2nd Ave	7375416
Mrs Ella K Laa	1036 Noble Lane	8412548
* Abraham Kaaila	4038 Kaimuki ave	7371597
Beatrice A. Kaloa	4002 Maunaloa Ave	
Guildford W. Rodenhurst, SR.	3138-A-Esther St.	732-5809
Gabriel Malone	1916 Hanis Lane	8456898
Manase Purdy	1578-C Linapuni St	841-1942
Rose Kaneapuna	2421 Ala Wai Blvd.	9232457
Judy K Condon	730-615 Capt Cook ave	5217221
Frances K. Camacho	3138A-Esther St.	732-5809
Louis Asing	3474 Leahi Ave. Hon. H. I.	96815
Mary Ling	3114 Kaimuki Ave. Hon. Hi	96816
Benjamin Sumera	1907-C Demonat St. Hon Hi	96819
Victoria Ah Yat	1644 Alameo St Honolulu	96817
Agnes Machado	412-#101 N. Beretania Hon.	96817
Dyanna V. Purdy	1578C Linapuni St Hon.	96819
Nadine L. Castillo	555 W. Hind Dr. Hon	96825
Jacob Kafeikini	3144 Esther St "	96815
George Choy	4156 Sierra Drive "	96816
Sam Kaanepu	2909 A-1 Winam Ave.	96816
Louise N. Chan	89-134 Haleakala Ave	96792
David C Picanco	923 Green St.	96822

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Margaret R. Maele 827 Paahana St. 737-1589
Mary K. Woodward 3238 Pahoa Ave
Mrs. Louis Kohanei P.O. Box 112 Kaaawa Hi 96730
Mary K. Petersen 45-236 Ka Hanahou circle Kaneohe
Frederick Kailihou 1465 Aala St
Elizabeth Josiah 1351 Aala St #208
Thelma Eaton 2416 Coyne St.
Rose Miyashiro 1436 Liliha St.
Nani M. Chock 1738 Nanea St.
Jenny M. Kau 95-268 Kailiula Lp.
Annie Palakiko 1101 Kokea #3
Clarence Ahakuelo 3877 Claudine St
Nora Y. Borges 357 Awini Pl. 96825
James J Borges 357 Awini Place 96825
Via Hart M. Tong 1011 Hao St.
Alicia W. Au 3315 Brokaw St.
Eleanor Fern 3128 Hayden St
Raymond K Fern 3128 Hayden St.
Meulana Sumera 1907 C. Democrat St
Louisa Kaeule 2455 Wela
Abigail K. Wong 3265 Salt Lake Blvd.
Mary K. Kua 923 Green St. 96822

LANAI RESIDENTS

600+ signatures

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MAY 1 1973
State of Hawaii
LAND USE COMMISSION

Whereas: Hulopoe Bay, better known by Lanaians as Manele Beach, is the most beautiful beach on the Island and the only one of its kind.

Whereas: Manele Beach is the cleanest, safest, most accessible beach on the Island for swimming, surfing fishing, picknicking and camping.

Whereas: Manele Beach is utilized everyday as the recreation area for all Lanai People.

Whereas: Rezoning this beach and surrounding area to conservation will preserve and protect this important facet of our lives.

Whereas: Resort and Second-Home development in this area will only destroy this condition and make our most popular beach a commodity for tourists and land speculations to exploit.

Therefore, We, the people of Lanai, requests the State Land Use Commission to downzone the Manele-Hulopoe area, presently zoned urban, rural, and agriculture, to conservation.

1. Maria Albano	MARIE ALBORO
2. Antonia Pagay	Antonia Pagay
3. Estrella Raping	ESTRELLA RAPING
4. Leonora Ballesteros	LEONORA BALLESTEROS
5. Felix Ballesteros	FELIX BALLESTEROS
6. Jerry Pagay	Jerry Pagay
7. Morris Ohashi	Morris Ohashi
8. Francisca S. Racadio	FRANCISCA S. RACADIO
9. Roman R. Racadio	ROMAN R. RACADIO
10. Geriberth B. Pascua	Geriberth B. PASCUA
11. Dionisio F. Pascua	Dionicio F. Pascua
12. Orlando B. Pascua	ORLANDO PASCUA
13. Jeri Pagay	Jeri Pagay
14. Leona M Pagay	Leona M Pagay
15. John Basques	John BASQUES
16. Sadako Hirayama	Sadako Hirayama
17. Annie Enfield	ANNIE ENFIELD

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18. Francisco Tadios — FRANCISCO TADIOS
19. Roseline Dimaya — ROSELINE DIMAYA
20. Victoria Del Rosario — Victoria Del Rosario
21. Ricky Del Rosario — Ricky Del Rosario
22. Katsumu Yahiro — KATSUMU YAHIRO
23. Isamu Yahiro — ISAMU YAHIRO
24. Ninona M. Morita — Ninona M. Morita
25. Chanako Oshiro — CHANAKO OSHIRO
26. Yutaka Morita — Yutatsa Morita
27. Lakey Kawasaki — LAKEY KAWASAKI
28. Ryan Sanches — RYAN SANCHES
29. Robbie Sanches — Robbie Sanches
30. Gelacio Sanches — GELACIO SANCHES
31. Verna Del Rosario — VERNA DEL ROSARIO
32. Valerie Del Rosario — VALERIE DEL ROSARIO
33. Aaron T. Yanagawa — Aaron T. Yanagawa
34. Kameyo Fujiyoshi — KAMEYO FUJIYOSHI
35. Kiyoshi Fujiyoshi — KIYOSHI FUJIYOSHI
36. Martin C. Caberto — MARTIN C. CABERTO
37. Gene Pua — GENE PUA
38. Josue B. Calilao — [redacted] JOSUE B. CALILAO
39. Amelia E. Calilao — (Mitchell Felipe) Amelia E. Calilao
40. Margarita Caballero — Margarita Caballero
41. Anita Caballero — Anita Caballero
42. Florencio Caballero — Florencio Caballero
43. Mr. & Mrs. Segundo Asuncion — Mr. & Mrs. Segundo Asuncion
44. Kiyoshi Kawakami — Kiyoshi Kawakami
45. Bonifacio Arruiza — Bonifacio Arruiza
46. Cecilia Arruiza — Cecilia Arruiza
47. Isidoro Cabalar — Isidoro Cabalar
48. Louis Ohashi — Louis Ohashi
49. Ramona Ohashi — Ramona Ohashi
50. Guilhermo Alboro Jr. — Guilhermo Alboro Jr.
51. Pete Felipe & Mrs. — Mr. & Mrs. Pete Felipe
52. Benita G. Coloma — Benita G. Coloma
53. Jorge Coloma — Jorge Coloma
54. Leticia T. Bueno — Leticia T. Bueno
55. Elpidio Barsatan — Elpidio Barsatan

WHEREAS: HULOPOE BAY, BETTER KNOWN BY LANAIANS AS MANELE BEACH, IS THE MOST BEAUTIFUL BEACH ON THE ISLAND AND THE ONLY ONE OF ITS KIND.

WHEREAS: MANELE BEACH IS THE CLEANEST, SAFEST, MOST ACCESSIBLE BEACH ON THE ISLAND FOR SWIMMING, SURFING, FISHING, PICKNICKING, AND CAMPING.

WHEREAS: MANELE BEACH IS UTILIZED EVERYDAY AS THE RECREATION AREA FOR ALL LANAI PEOPLE.

WHEREAS: REZONING THIS BEACH AND SURROUNDING AREA TO CONSERVATION WILL PRESERVE AND PROTECT THIS IMPORTANT FACET OF OUR LIVES.

WHEREAS: RESORT AND SECOND-HOME DEVELOPMENT IN THIS AREA WILL ONLY DESTROY THIS CONDITION AND MAKE OUR MOST POPULAR BEACH A COMMODITY FOR TOURISTS AND LAND SPECULATIONS TO EXPLOIT.

THEREFORE, WE, THE PEOPLE OF LANAI, REQUESTS THE STATE LAND USE COMMISSION TO DOWNZONE THE MANELE-HULOPOE AREA, PRESENTLY ZONED URBAN, RURAL, AND AGRICULTURE, TO CONSERVATION.

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1. Barbara Hotta — Barbara Hotta
2. Sol P. Kahoohalahala — SOL P. KAHOOHALAHALA
3. Lynn Kahoohalahala — Lynn Kahoohalahala
4. Victoriano Comamo — Victoriano Comamo
5. Rosario Comamo — ROSARIO COMAMO
6. Richard G. Petronave — RICHARD G PETRONAVE
7. Mary K. Petronave — Mary K. PETRONAVE
8. Namiyo Ayama — Namiyo Ayama
9. Honorato Espelita — Honorato Espelita
10. Angela S. Espelita — Angela S. Espelita
11. Marieta C. Espeleta — Marieta C Espeleta
12. Guillermo B. Cabiles — GUILLERMO B. CABILES
13. Victoria Cabiles — VICTORIA CABILES
14. Nelinia Cabiles — Nelinia Cabiles
15. William Cabiles — Cl WILLIAM Cabiles
16. Fred Bandalan — FRED BANDALAN
17. Doris Bandalan — DORIS BANDALAN
18. Lawrence Blanko — LAWRENCE BLANKO
19. Eulogia Romero — EULOGIA Romero
20. D. Romero
21. Sufronio Alvarado — SUFRONIO ALBIADO
22. Bernard Bandalan — BERNARD BANDALAN
23. 24.

(22)

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	SIGNATURE	PRINT
1	Bryant Mock Chew	Bryant Mock Chew
2	[illegible]	George Cummings
3	Jaime Cabalo	Jaime Cabalo
4	Julieann Calvag	Julieann Calvag
5	William Sakuma	William SAKUMA
6	Yuku Sakuma	Yuku SAKUMA
7	Tamio Shinki	Tamio Shinki
8	Ruth Shinki	Ruth Shinki
9	Kameko Hokama	kameko Hokama
10	Lauro Garcia	Lauro Garcia
11	Marian L. Kanipae	Marian L kanipae
12	Samuel Kanipae Jr.	Samuel kanipae
13	X. Sarah Kaopuiki	Sarah Kaopuiki
14	Dennis Eskaran	Dennis Eskaran
15	Edmund Eskaran	Edmund Eskaran
16.	Dean Eskaran	Dean Eskaran
17	Stanford Eskaran	Stanford Eskaran
18.	Julian Ruidas	Julian Ruidas
19.	Ludy Salocam	Ludy Salocam
20.		

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Signature	PRINT
Jesse [illegible] Spitalsky	JESSE [illegible] SPITALSKY
Lynda Spitalsky	Lynda Spitalsky
Guillermo Saracam	GUILLERMO SARACAM
Jonath Mano	JONATHAN MANO
William Kwon Jr.	WILLIAM KWAN JR.
Ciriaco Pascua	CIRIACO PASCUA
Esther Pascua	ESTHER PASCUA
Nina Cockett	NINA COCKETT
Tim CATIEL	Tim Catiel
Antonio Martia	ANTONIO MARTIA
[illegible] SR.	[illegible] SR.
Sesario Parinas	SESARIO PARINAS SR.
Vincent Blanko	VINCENT BLANKO

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Walter Kekiwi	WALTER Kekiwi
June Joy Ribucan	June Joy Ribucan
Ruby J. Tamashiro	
Maria Dombrigues	MARIA DOMBRIGUES
NARCISA G. ALCONCEL	Narcisa G. Alconcel
VALERIANO B. ALCONCEL	Valeriano Alconcel
Constante Baldeiros	CONSTANTE BALDEIROS
Pedro Tesoro	PEDRO TESORO
Nora TESORO	NORA TESORO
Ursula C. Cabuslay	URSULA C. CABUSLAY
Aniceto Cabuslay	ANICETO CABUS
Catalino Ellorine	CATALINO ELLORINE
Estabon Sugu	ESTABON SUGU
Josie A. Malacas	JOSIE A. MALACAS
Pacifico Sonico	PACIFICO SONICO
Melvin Kubota	MELVIN KUBOTA
x Doreen Kubota	TEOFILO DRAPEZA
Pablo Alconcel	PABLO ALCONCEL
x	DOREEN KUBOTA
Hilario Quidarga	~~Colle Y. Tamashiro~~ HILARIO DUIDARGA
34. Patricio Tuken	~~NICOLAS OB~~ PATRICIO TUKEN
COLLEN TAMASHIRO	COLLEN TAMASHIRO
Elias Sarme	ELIAS SARME
	NICOLAS OBRA
Foy O. King	Foy O. King
Masako Yanagawa	MASAKO YANAGAWA
B. B. Alvior	B. B. ALVIOR
F. G. Alvior	F. G. ALVIOR
Felisisimo Visconde	FELISISIMO VISCONDE
x P	PETRCIO CALAWAGAN

Natalia G. Manuel
Blas G. Manuel
X
Quevasio Guillermo
Jacinto Jucar
Juan Nejalar
Catalino Rivera
Corazon B. Baron
Fermin Baron
E. Tabura
Margarita Cabalo
Cirilo Sequi
Josefina Sequi
W. S. Ozoa
J. Gerriacio
L. Locquiao
Avelino Locquiao
Leonara Locquiao

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Natalia G. Manuel
~~Bo~~ Blas G. Manuel
Mariano Dugay
Quevasio Gillermo
(Selwyn Huerta
Claudio Huerta)
Catalino Rivera
Corazon B. Baron
Fermin Baron

Margarita Cabalo
Cirilo Sequi
Josefina Sequi
William S. Ozoa
J. Gerriacio
L. Locquiao
Avelino ~~Locquiao~~ Locquiao
Leonara Locquiao

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	SIGNATURES	PRINT NAME
1	Marjorie Neves	MARJORIE NEVES
2	Paulina Lolita Marietta Racadio	PAULINA LOLITA MARIETTA RACADIO
3	Marcelino Caberto	MARCELINO CABERTO
4	Vicente R. Galinato	VICENTE R. GALINATO
5	Concepcion L. Sabuco	CONCEPCION L. SABUCO
6	Erlinda Aibara	Erlinda AIBARA
7	Gary C. Angelo	GARY C. ANGELO CALIF.
8	Frank Anselmo	FRANK ANSELMO
9	Lynette Higaki	Lynette Higaki
10	Presentacion B. Zarsoza	Presentacion B. Zarsoza
11	Sharlene Rabang	SHARLENE RABANG
12	Saturnino Timbreza	SATURNINO TIMBREZA
13	Presentacion Pacada	Presentacion Pacada
14	Juana L. Cabradilla	Juana L. Cabradilla
15	Pacita L. Racadio	PACITA L. RACADIO
[redacted]	[redacted]	[redacted]
16	Jose R. Racadio	JOSE R. RACADIO
17	Plutaro Dagnay	Plutaro Dagnay
18	Mariano Batoon	MARIANO BATOON
19	Placido Malunay	PLACIDO MALUNAY
20	Mr. & Mrs. Charles Olney	MR. & MRS. CHARLES OLNEY
21	Mariano Zarsoza	MARIANO ZARSOZA

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22.	Esteban Veloria	ESTEBAN Veloria
23	Leonor R. Galinato	LEONOR GALINATO
24	John Jade Bulaon	John Jade Bularon
25	Charlotte A. Baba	Charlotte A. Baba
26	Consorcia A. Riel	Consorcia A. Riel
27	Rosalino Mamaclay	Rosalino Mamaclay
28	Fortunata D. Mamaclay	Fortunata D. Mamaclay
29	Mr.+ Mrs. Florencio Oliva	Mr.+ Mrs. Florencio Oliva
30	Mr & Mrs Remy Pascua	Mr.+ Mrs. Remy Pascua
31	Rosalinda Degamo	Rosalinda Degamo
32	Helinda Degamo	Helinda Degamo
33	Calvin Degamo	
34	Teresa Ayonayon	~~Teresa~~ Ayonayon

Only Manele Beach

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① Mr. & Mrs. Alfred Lopez	Mr & Mrs. Alfred Lopez
② Mrs. Lydia M. Akana	Mrs. Lydia M. Akana
③ Mrs. Nora N. Rabor	Mrs. Nora N Rabors
④ Phyllis L. Cayan	Phyllis L. Cayan
⑤	
⑥ A.E. Miranda	A.E. miranda
⑦ P. Dela Calsada	P. Dela Calsada
⑧ Mr & Mrs. Andres Miranda	Mr + Mrs. Andres Miranda
⑨ S. Masicampo	S. Masicampo
⑩ G. Bagamano	G. Bagamano
⑪ D. Bruker	D. Bruker
⑫ Mrs. Winifred K. Basques Jr.	Mrs. Winifred K. Basques Jr.
⑬ Wanda Basques	Wanda Basques
⑭ John Keawe	John Keawe
⑮ Ethel Keawe	Ja Vern Benanua
⑯ LaVern Benanua	Robert Benanua
⑰ Robert Benanua	Ethel Keawe
⑱ Rebecca Benanua	Rebecca Benanua
⑲ Ralph K Sakamura	Rolph K. Sakamura

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	Signature	PRINT
1	Alice H. Niibu	ALICE H. NIIBU
2	Mr & Mrs. Takeo Ambe	Mr & Mrs Takeo Ambe
3	Mr. and Mrs. S. Ito	mr + mrs. S. ITO
4	Mr. + Mrs. Zacarias Dacayan	mr + mrs Z. Dacayan
5	Susan C. Oshiro	Susan C. Oshiro
6	Fuki Endo	Fuki Endo
7	Mr. & Mrs Fernando Ragasa	mr + mrs Fernando Ragasa
8	Setsuko Mendes	Setsuko Mendes
9	Susumu Nishimura	Susumu Nishimura
10	Emilio Balaron	Emilio Balaron
11	Juanita Alvarez	Juanita Alvarez
12	Victor Degama	victor Degama

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1) Ron McOmber — RON McOMBER
2) Felipa C. Cabatu — FELIPA C. CABATU
3) Florence Cabatu — Florena Cabatu
4) Severo Balanza — SEVERO BALANZA
5) Gregorio Quiocho — Gregorio Quiocho
6) Magdalena B. Quiocho — Magdalena B. Quiocho
7) Sumiko Ige — Sumiko Ige
8) Santiago Somera — SANTIAGO SOMERA
9) (wife doesn't know how to write marking) — LUCENA SOMERA (husband's printing)
10) Herminia C. Lastimosa — HERMINIA C. LASTIMOSA
Flora C. Hernandez — FLORA C HERNANDEZ
11) Gloria B. Ganitano — Gloria B Ganitano
12) Gina Ganitano — GINA GANITANO
Frank Burgos
13) Chiyoko Goshi — Chiyoko Goshi
14) Beatrice Burgos — Beatrice Burgas

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1)	Irene L. Galdones	IRENE L. GALDONES	
2)	Theresa Pajo	Theresa Pajo	
3)	FAUSTO PAJO	Fausto Pajo	
4)	Minnie Pacada	MINNIE PACADA	
5)	agnes Dizon	Agnes Dizon	
6)	Grant Hill	Alta Loma, Ca.	GRANT HILL
7)	John A. Evans	CLAREMONT CALIF.	JOHN A. EVANS
8)	Leonora Nobleza		LEONORA NOBLEZA
9)	Rod Sanchez		ROD SANCHES
10)	Aileen Ige		Aileen Ige.
11)	Daniel Castro		DANIEL CASTRO
12)	Fortunato Quinagon		Fortunato Quinzgon

non-residents

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	SIGNATURE	PRINT
1.	Phyllis Cole	PHYLLIS COLE
2.	Jo F. Cole	JO F. COLE
3.	Harald Schmid	HARALD SCHMID
4.	Hilde Schmid	HILDE SCHMID
5.	Roman J. Dombrigues	ROMAN JR. DOMBRIGUES
6.	Carol Dombrigues	Carol Dombrigues
7.	Carl Herolaga Jr.	CARL HEROLAGA
8.	Nancy Heroldas	Nancy Heroldas HEROLAGA
9.	Helen Alonzo	Helen Alonzo
10.	Allison Bularon	ALLISON BULARON
11.	Lorena Bularon	LORENA BULARON
12.	Alberta Sipe	ALBERTA SIPE
13.	Carol L. Nowak	CAROL L. NOWAK
14.	Joe Barbadillo	JOE BARBADILLO
15.	Blue Tanodra	BLUE TANODRA
16.	Valda Tanodra	Valda Tanodra
17.		

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WHEREAS: REZONING THIS BEACH AND SURROUNDING AREA TO CONSERVATION WILL PRESERVE AND PROTECT THIS IMPORTANT FACET OF OUR LIVES.

WHEREAS: RESORT AND SECOND-HOME DEVELOPMENT IN THIS AREA WILL ONLY DESTROY THIS CONDITION AND MAKE OUR MOST POPULAR BEACH A COMMODITY FOR TOURISTS AND LAND SPECULATIONS TO EXPLOIT.

THEREFORE, WE, THE PEOPLE OF LANAI, REQUESTS THE STATE LAND USE COMMISSION TO DOWNZONE THE MANELE-HULOPOE AREA, PRESENTLY ZONED URBAN, RURAL, AND AGRICULTURE, TO CONSERVATION.

	SIGNATURE	PRINT
17	Lola L. Tanodra	LOLA L. TANODRA
18	Gary L. Steuer	GARY L. STEUER
19	Clifford A. Shin	CLIFFORD A. SHIN
20	Andrea de la Cruz	Andrea de la Cruz
21	Brad Shin	BRAD SHIN
22	Bones Vescuino	BONES VESCUINO
23	James E. Coon	James E. Coon
24	Donald Loesch	Donald Loesch
25	Donna K. Loesch	Donna Loesch
26	Alfred K. Metzner	ALFRED K. METZNER
27	Edith Metzner	EDITH METZNER
28	Beverly Brady	Beverly Brady
29	Dr. James W. Daskalos	D. James W. Daskalos
30	Mary Ellen Daskalos	MARY ELLEN DASKALAS
31	James Kling	JAMES KLING
32	Christine J. Gray	christine l. gray
33	John Basques Jr.	JOHN BASQUES JR.
34	Robert T. Brendia	ROBERT T. BRENDIA
35	Pamela Smith	PAMELA SMITH former resident
36	Rebecca Rubey	Rebecca Rubey

	SIGNATURE	PRINT
37	Anne Musselman	Anne Musselman
38	Mrs Joaquina Ohashi	JOAQUINA OHASHI
39	Pablo Liberos	PABLO LIBEROS
40	Mary Spencer	MARY SPENCER
41	Fred Laporga	FRED LAPORGA
42	Pauline Espanto	PAULINE ESPANTO
43	Felix Espanto	FELIX ESPANTO
44	Placido Malunay	PLACIDO MALUNAY
45	Lester Malunay	LESTER MALUNAY
46	Prudencio Castillo	PRUDENCIO CASTILLO
47	Zanaida D. Castillo	ZANAIDA D. CASTILLO
48	Frankie Pagay Jr.	FRANKIE PAGAY JR.
49	Desiree O. Pagay	DESIREE O. PAGAY
50	Alferina Espanto	ALFERINA ESPANTO
51	Adrian Agaran	ADRIAN AGARAN
52	Leandra A. Agaran	LEANDRA AGARAN
53	Alfred Ganer	ALFRED GANER
54	Roy T. Ifo	ROY T. IFO
55	Toshiko Endo	TOSHIKO ENDO
56	Dolores Bueno	DOLORES BUENO
57	Fausto Dumling	FAUSTO DUMLING
58	Elizabeth Dumling	ELIZABETH DUMLING
59	Peter W. Griffiths	PETER W. GRIFFITHS
60		
61		
62		
63		
64		
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66		

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	Script	Print
78	Emmanuel Dugay	Emmanuel Dugay
79	Flautano Ramil	Flautano Ramil
80	Clive CABiles	Clive Cabiles
81	ARTHUR VILLAMOR	ARTHUR Villamor
82	Benjamin Kaaikala	Benjamin Kaaikala
83	Edmund Oyama	Edmund Oyama
84	Alfred Ganer	Alfred Ganer
85	Mavis Honda	Mavis Honda
86	Josie Coloma	Josie Coloma
87	Miles Barbadello	Miles Barbadillo
88	Patrick Alboro	Patrick Alboro
89	Abel Ganer	Abel Ganer
90	Naomi Tamashiro	Naomi Tamashiro
91	Michael Caballero	Michael Caballero
92	Fusae Nobui	FUSAE NOBUI
93	Veronica Alboro	Veronica Alboro
94	Victoriano Tombaga	Victoriano Tombaga
95	Eligia C. Tombaga	Eligia Tombaga
96	Meriu Taguchi	MERIU TAGUCHI
97	Elizabeth Bergano	ELIZABETH BERGANIO
98	Teresita Miguel	TERESITA MIGUEL
99	Frances Burgos	FRANCES BURGOS
100	Mary Spencer	MARY SPENCER
101	Rosalinda Cabatbat	ROSALINDA CABATBAT
102	James Wong	JAMES WONG
103	Julian Sequerra	JULIAN SEQUERRA
104	Leonard Westcott	Leonard Westcott
105	Charles Gomph	Charles Gomph
106	Connie C. Ocalada	CONNIE OCALADA
107	Randal Costales	RANDAL COSTALES

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48	Percival Dugay	Percival Dugay
49	John Ganer	John Ganer
50	Annette Catiel	Annette Catiel
51	Glenn K. Kondo	Glenn K. Kondo
52	Belma Baptista	Belma Baptista
53	Daryle Tanigawa	Daryle Tanigawa
54	William Griffiths	William Griffiths
55	Myrna Castillo	Myrna Castillo
56	Mary Manuel	Mary Manuel
57	Florence Cabatu	Florence Cabatu
58	Myrna D. Alagano	Myrna D. Alagano
59	Robert Entield	Robert Enfield
60	John Schaumburg	John Schaumburg
61	Harriet C. Minami	HARRIET C. MINAMI
62	Patricia M. Cho	PATRICIA M. CHO
63	Mary Shin	MARY SHIN
64	Frankie Oneada	Frankie Oneada
65	Andrew D. Miranda	Andrew D. Miranda
66	Tony Magaoay	Tony Magaoay
67	Ernie Wilkinson	ERNIE WILKINSON
68	Diane del Rosario	Diane del Rosario
69	Darren Lopez	DARREN LOPEZ
70	Patrick Tracy	Patrick Tracy
71	Cinson Kwon	Cinson Kwon
72	Wesley Takamoto	Wesley Takamoto
73	Dante Pescado	Dante Pescado
74	HARM KOSTER	Harm Koster
75	LEA MIZUTA	Lea M. Mizuta
76	Harold Daugherty	H. DAUGHERTY
77	G. Daugherty	G. Daugherty

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108. Rose E. Ohashi		ROSE E. OHASHI
109 Lucy Cayan		LUCY CAYAN
110 Roseline Asuncion		ROSELINE ASUNCION
111 David Wong		DAVID WONG
112 Bruce Mitsunaga		BRUCE mitsunaga
113 Jerry Wakabayashi		Jerry Wakabayashi
114 Filemon Asuncion		Filemon Asuncion
115 Charles Palumbo		CHARLES PALUMBO
116 Janet Rose Dockham		Janet Rose Dockham
117 Darlene N. Batalona		Darlene N. Batalona
118 Alan Bronniola		
~~119 Bill Bronniola~~	119	Bill Bronniola, Sr
~~120 Ronn Bronniola~~	120	Trinidad B. Broniola
~~121 Byce Bronniola~~	121	Wallace J. Duzon
~~122 Byce Bronniola~~	122	Byce Bronniola
123 RONNI BRONNIOLA	123.	Ronn Bronniola
124 RIKKI BONO	124.	Rikki Bono
125 PACO Aicudia	125.	Paco Aiudia
126 John H Lewis	126.	John H Lewis
127 Maxo Baudalan	127.	Maxo Baudalan
128 Harold Nakamura	128.	Harold Nakamura
129 Lydia Mock Chew	129.	Lydia Mock Chew
130 Joseph Park	150	Joseph Park
131 Mrs. N. Mizomi	131	Mrs. N. Mizomi
132 Shirley Oshiro	132	Shirley Oshiro
133 Robert Amaral	133	Robert Amaral
134 Mr + Mrs M. Fuchigami	134	Mr + Mrs. Fuchigami
135 Mr + Mrs C. Nakama	135	Mr + Mrs C. Nakama
136 Warren Sakuma	136	Warren Sakuma
137		

WHEREAS: HULOPOE BAY, BETTER KNOWN BY LANAIANS AS MANELE BEACH, IS THE MOST BEAUTIFUL BEACH ON THE ISLAND AND THE ONLY ONE OF ITS KIND.

WHEREAS: MANELE BEACH IS THE CLEANEST, SAFEST, MOST ACCESSIBLE BEACH ON THE ISLAND FOR SWIMMING, SURFING, FISHING, PICKNICKING, AND CAMPING.

WHEREAS: MANELE BEACH IS UTILIZED EVERYDAY AS THE RECREATION AREA FOR ALL LANAI PEOPLE.

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1. M. Laporga - M. Laporga
2. P. Sanchez - P. SANCHES
3. Bin Lim Chun — Bin Jim Chun
+ Natsuko Tenebro — Natsuko Tenebro

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(Script)	(print)
1 Karen Kawasaki	Karen Kawasaki
2 Claire Kawasaki	Claire Kawasaki
3 Vernon Davis	VERNON DAVIS
4 Victor Ranis Jr.	VICTOR RANIS JR.
5 Abraham Bularon	ABRAHAM BULARON
6. Alejandro Y. Dinong	Jose Dinong Jr.
7 JOSE Dinong Jr.	
8 Hideko Saruwatari	Hideko Saruwatari
9 Robert Hirayama	Robert HIRAYAMA
10 Ramona Akahashi	Ramona Akahashi
11 Harue Akahoshi	Harue Akahoshi
12 Itsuki Taguchi	ITSUKI TAGUCHI
13. Mona Ito	Mona Ito
14. Corliss Nefalar	CORUSS NEFALAR

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1. Stepheny Palolo
2. Wayne alonzo
3. Davy Tamashiro
4. Georgina Gaspar
5. Lionel Mano
6. Ben Kahaleanu Jr.
7. Anna Batoon
8. Tanya Esteban
9. Giralda Magaoay
10. Aida Bergonio
11. Jeffrey Cabiles
12. [signature]
13. [signature]
14. Joyce Cabiles
15. Gloria Riel
16. [illegible]
17. Wallace Morita
18. Guillermo Spitalsky

STEPHENY PALOLO

WAYNE ALONZO

Davy TAMASHIRO

Georgina Gaspar

Lionel Mano Lionel Mano

Ben Kahaleanu Jr.

Anna Batoon

TANYA ESTEBAN

Giralda Magaoay

Aida Bergonio

JEFFREY A. CABILES

WAYNE MORTON

DAVID IGE

Joyce Cabiles

Gloria A. Riel

ALEJO ATACADOR

WALLACE MORITA

Guillermo Spitalsky

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MAY 1 1975
STATE OF HAWAII
LAND USE COMMISSION

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47

1	Jesse Parinas	Jesse Parinas
2	Michael Baltazar	Michael Baltazar
3	Darren Lopez	DARREN LOPEZ
4	Dave Donald Ohashi	Dave Donald Ohashi
5	Vernon Ranis	VERNON RANIS
6	Elias Sarme Jr.	Elias Sarme Jr.
7	BERNABE CABANBAN	Bernabe Cabanban
8	BEN CABERTO	B. Caberto
9		Charles Lima
10	HOWARD HUBIN	Howard Hubin
11	Elena Pagay	Elena Pagay
12	ANACITA GANER	Anacita Ganer
13	Leimomi Ann Alonzo	Leimomi Ann Alonzo
14	Wanette Eskavan	Wanette Eskavan
15	Bettina Nakasone	Bettina Nakasone
16	Marisa Ballesteros	Marisa Ballesteros
17	Vera Kawamura	Vera Kawamura

18	[redacted] WILLIAM [redacted]	[redacted] William Tracy
19	John Magaoay	John Magaway
20	Darlene M. Mondo — DARLENE MONDO	Darlene M. Mondo
21	Eddie Magaoay	Eddie Magaoay
22	Rowena Prera	Rowena Prera
23	Roberta Burgos	Roberta Burgos
24	Richard AGARAN	Richard Agaran
25	Myron Honda	Myron Honda
26	Johnny Laporga	Johnny Laporga
27	Chester Ohashi	Chester Ohashi
28	Henry Eharan	Henry Eharan
29	Lani Aki	Lani Aki
30	Tom Hurdis	Tom Hurdis
31	Jodi Ohashi	Jodi Ohashi
32	JOHN DEGAMO	John Degamo
33	Jolayne Sarme	Jolayne Sarme
34	Michelle Kawasaki	Michelle Kawasaki
35	Greg Cabotaje Jr.	Greg Cabotaje Jr.
36	Patricia L. Alconcel	Patricia L. Alconcel
37	DARIO BERGANIO	Dario Berganio
38	Bruno Amby	Bruno Amby
39	ROLAND KEALOHA	Roland Kealoha
40	Joseph Esteban	Joseph Esteban
41	Manuel Loquiao	Manuel Loquiao
42	Raymond Garalde	Raymond Garalde — 75 -
43	ROGER BERGANIO	Roger Berganio
44	ROMEO MIGUEL	Romeo Miguel
45	FRANK LAPORGA	Frank Laporga
46	WAYNE WAKABAYASHI	Wayne Wakabayashi
47	Alan Amoncio	Alan Amoncio

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RECEIVED
JUN 1 1975
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L. Ginoza
Leona Perry
Mr & Mrs F. Silva
Felix Alonzo
Mr. & Mrs. Charles Kealoha
Mr. & Mrs Julio Bayez
Marcelo Nobleza
Elizabeth Ranis
Mr. & Mrs Angel Cainguitan
Mr. & Mrs C. Pagampao
Mr & Mrs A. Ardonez
Gregorio Domingo
Simplicio Cainguitan
Midori Oda
Yoshie Oda
Richard Ajirogi
Gengi Kimura

81
Masaichi Mankawa
Jae Lee
Felix Alonzo
Mr & Mrs Charles ~~Kealoha~~ Kealoha
Mr & Mrs Julio Bayez
Marcelo Nobleza
Elizabeth Ranis
Mr & Mrs Angel Cainguitan
Mr & Mrs C ~~Pagampao~~ Pagampao
Mr & Mrs. Ardonez
Gregorio Domingo
Simpticio Cainguitan
Midori ODA
Yoshie Oda
Richard Ajirogi
Gengi Kimura

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(Script)	(Print)
* Marcom C. Leonillo *	Marcom C. Leonillo
Regina D. abafo	Regina D. abafo
Dodie n. abafo.	Dodie n. abafo
~~Lisa M. Ranis~~	Lisa m. ~~Ranis~~ Ranis
Lori A. Lopez	Lori A. Lopez
Sonia R. Esteban.	Sonia R. Esteban
Dotty T. Ayonayon	Dotty T. Ayon Ayon
Cindy K. Burgos	Cindy K. Burgos

Macaria Barsatan
Fred K. Shimomura
George Matsuo

Macaria Barsatan
Fred K. Shimomura
George MATSUO

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Tanebo Onuma

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78	Claudette M. CARMINE	Claudette M. Carmine
79	DR. H. KARL IHRIG	H. Karl Ihrig
80	JANET S. IHRIG	Janet S. Ihrig
81	DOUGLAS T. LORING	Douglas T. Loring
82	Laura Jackson	LAURA JACKSON
83	Bob Gottesman	Bob Gottesman
84	DAVID SEABORG	David Seaborg
85	MARTIN FARRAND	M.C. Farrand.
86	HELEN BOOTHBY	H Boothby
87	Ian Kiernan	IAN KIERNAN.
88	Mark Fraser	MARK FRASER
89	B. Kristofferson	Bill KRISTOFFERSON
90	Ruth Kristofferson	Ruth Kristofferson
91	Lenny Ross	Lenny Ross
92	Dana Hooker	Dana Hooker
93	Leland C. Hooker	Leland C. Hooker
94	Regina J. Heffner	Regina J. HEFFNER
95	James W. LUTHER	James W. Luther
96	Mary E. Luther	Mary E. Luther
97	Captain Bill Mutter	Captain Bill Mutter
98	Steven Barnes	STEVEN BARNES
99	Jane Higgins	Jane Higgins
100	Helen Murphy	HELEN MURPHY
101	Donald Murphy	DONALD B MURPHY
002		
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	Script	Print
19	Rolando B. Miguel	ROLANDO B. MIGUEL
20	Rogelio U. Collado	Rogelio U. Collado
21	Ricky A Sanches	Ricky A Sanches
22	lu-ann ocalada	lu-ann ocalada
23	John Magaway	John Magaway
24	Charles Park	CHARLES PARK
25	Cheryl Whittington	CHERYL WHITTINGTON
26	Marilyn Magaoay	MARILYN MAGAOAY
27	Leonor Amby	LEONOR AMBY
28	Sharon Kimokeo	SHARON KIMOKEO
29	Dale Kaiaokamalie	Dale Kaiaokamalie
30	Helene Ozoa	~~Renee Kah~~ HELENE OZOA
31	Ernestine Kealoha	ERNESTINE KEALOHA
32	Sandra Ige	SANDRA IGE
33	Cynthia Agaran	CYNTHIA AGARAN
34	Alex McLean	ALEX McLEAN
35	Randy Kuhaiki	RANDY KUHAIKI
36	Boni Esteban	BONI ESTEBAN
37	Charlene Kaaikala	CHARLENE KAAIKALA
38	Arlene Antonio	ARLENE ANTONIO
39	Jody Ribucan	JODY RIBUCAN
40	Ernie Wilkinson	ERNIE WILKINSON
41	Cathy Oniuma	CATHY ONIUMA
42	Ann Taguchi	ANN TAGUCHI
43	Fema Caberto	FEMA CABERTO
44	Renee Kahoohalahala	RENEE KAHOOHALA HALA
45	Susan Ozoa	SUSAN OZOA
46	Lori Sarme	LORI SARME
47	Peddy Laporga	PEDDY LAPORGA

48	Darren Cambel	DARREN CAMBEL
49	Lorena Bularon	LORENA BULARON
50	Kay Frost Palumbo	KAY FROST PALUMBO
51	Sandi Laporga	SANDI LAPORGA
52	~~Paul~~ Paul Pagay	PAUL PAGAY
53	Resty Kahaleanu	RESTY KAHALEANU
54	Wendell Kahoohalahala	WENDELL KAHOOHALAHALA
55	Heidi Teshima	HEIDI TESHIMA
56	Denise Hera	DENISE HERA
57	Kathleen Amoncio	KATHLEEN AMONCIO
58	Roxanne Sarne	ROXANNE SARNE
59	Eugenia Pua	EUGENIA PUA
60	Eric Ozoa	ERIC OZOA
61	Robert Eharis	ROBERT EHARIS
62	Willynn Ozoa	~~Ozoa~~ ~~Eric~~ WillynnOzoa
63	Valerie Hubin	Valerie Hubin
64	Nadine Haban	Nadine Haban
65	June Dombrigues	June Dombrigues
66	Ada Oshiro	Ada Oshiro
67	Pamela alconcel	Pamela Alconcel
68	Sam Dimaya	Sam Dimaya
69	Verna Del Rosario	Verna Del Rosario
70	Tracy Burgos	Tracy Burgos
71	Nanette Kimokeo	Nanette Kimokeo
72	Sarah Plunkett	Sarah Plunkett
73	Nerlito Bumanglag	Nerlito Bumanglug
74	Agustin Figuerres	Agustin Figuerres
75	Robert Baptista	Robert Baptista
76	Ernesto Magaoay	Ernesto Magaoay
77	Morris Ohashi	~~Morris Ohashi~~ signed previously

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	Signature	Print
1.	Aurelio Del Rosario	Aurelio Del Rosario
2.	Mary Del Rosario	Mary Del Rosario
3.	Carl Herolaga	CARL HEROLAGA (signed previously)
4.	Sally Herolaga	SALLY HEROLAGA (signed previously)
5.	Leticia Castillo	Leticia Castillo
6.	Loreto Castillo	LORETO CASTILLO
7.	Mr. & Mrs. Harry K. Osako	MR. & MRS. HARRY K. OSAKO
8.	Alma Ballesteros	ALMA BALLESTEROS
9.	Miguel Rapera	MIGUEL RAPERA
10.	Hogoro Oshiro	Hogoro Oshiro
11.	Chitose Oshiro	Chitose Oshiro
12.	Mr. & Mrs. Shinji Yamato	MR. & MRS. SHINJI YAMATO
13.	Shizue Kuwada	Shizue Kuwada
14.	Conrado Pescado	CONRADO PESCADO
15.	Francisca Pescado	Francisca Pescado
16.	Mildred Trimmer	Mildred Trimmer
17.	Salvador Eskaron	Salvador Eskaron
18.	Elsie J. Wong	Elsie J. Wong
19.	Mr. & Mrs. Eusebio Talamia	Mr. & Mrs. Eusebio Talamia
20.	Mr. & Mrs. A. Amoncio	Mr. & Mrs. A. Amoncio
21.	Eleanor T. Hasbrouck	Eleanor T. Hasbrouck
22.	Helen Shibuya	Helen Shibuya
23.		
24.		
25.		
26.		
27.		
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29.		
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23	Ramirez Fernandez	FRANCISCO FERNANDEZ
24	Catalina Fernandez	CATALINA FERNANDEZ
25	Brigida Velasco	~~Brigid~~ Brigida Velasco
26	Andres Velasco Jr	Andres Velasco Jr
27	Cirilo Segui	Cirilo Segui
28	Josephine V. Allas	Josephine V. ALLAS
29	Edwin ayudan	Edwin Ayudan
30	Felisa Ayudan	FELISA Ayudan
31	Pablo D Allas	Pablo D. ALLAS
32	Juan Anciano	Juan Anciano
33	Roger Ayudan	Roger Ayudan
34	Jason Fabar	JASON Fabar
35	Anthony Dual	Anthony Dual
36	Angelita Maltezo	Angelita Maltezo
37	Jerry Maltezo	Jerry Maltezo
38	Jose Garalde	JOSE GARALDE
39	Damiana Garalde	DAMIANA GARALDE.
40	Hisako Mitsunaga	Hisako Mitsunaga
41	Robin Saiki	~~Robo~~ Robin Saiki
42	Shane Saiki	Shane Saiki
43	Helen Fujie	Helen Fujie
44	Roy Fujie	ROY FUJIE
45	Tadashi Kodama	TADASHI KODAMA
46	Kiyomi Kodama	Kiyomi. KODAMA
47	Elen Kaopuiki	ELEN KAOPUIKI
48	Junior Kaopuiki	JUNIOR KAOPUIKI
49	Larry Patten	LARRY PATTEN
50	Katherine E Patten	Katherine E. Patten.
51	Peregrino Dugay	Peregrino Dugay
52	Juanita A. Dugay	JUANITA A. DUGAY
53	Emmanuel A. Dagay	EMMANUELA DUGAY

54. Tom A. Urpani, Sr. Tom A. Urpani, Sr.
55. Terence P. Urpanil TERENCE P. URPANIL
56. Heather K. Romero Heather K. Romero
57. Lydia Kaopuiki Lydia Kaopuiki
58. George Kahoohalahala George Kahoohalahala Sr.
59. Geraldine Kahoohalahala Geraldine Kahoohalahala
60. Kurt Matsumoto Kurt Matsumoto

RECEIVED
MAY 1 1990
State of Hawaii
LAND USE COMMISSION

7064

LAW OFFICES
OKUMURA AND TAKUSHI

SUYEKI OKUMURA
ROY E. TAKUSHI
JAMES T. FUNAKI
JOSEPH K. WEE
TON SEEK PAI
SHUICHI MIYASAKI
ALFRED M. K. WONG
ROBERT M. EHRHORN, JR.

SUITE 400
INTERNATIONAL SAVINGS BUILDING
1022 BETHEL STREET
HONOLULU, HAWAII 96813
TELEPHONE 5361791
CABLE ADDRESS: COUNSELLOR

FILE NO.:

May 1, 1975

RECEIVED
MAY 1 1975
State of Hawaii
LAND USE COMMISSION

Land Use Commission
P. O. Box 2359
Honolulu, Hawaii 96804

Gentlemen:

Lanai Company, Inc. is the holder of right to purchase and develop those certain lands owned by Castle & Cooke, Inc. on the Island of Lanai, the land use boundaries of which are sought to be amended by petition of Dexter D. Del Rosario, et al. under Docket A74-383 before the Land Use Commission, hereinafter referred to as "LUC". Lanai Company, Inc. submits this statement within 15 days of date of the public hearing for said Docket A74-383 held on April 16, 1975, at Lanai City, Island of Lanai. It is requested that this written statement be made part of the record of the testimony received by the LUC in connection with the said docket.

Lanai Company, Inc. is against the petition which seeks to amend the land use district boundaries of certain lands on the Island of Lanai (portion of Tax Map Key 4-9); more

particularly, approximately 1,620 acres of Urban District, 2,720 acres of Rural District and 18,000 acres of Agricultural District from their existing districts to Conservation District.

Argument against the petition:

1. The petitioners do not have standing to file the petition. Section 205-4, Hawaii Revised Statutes, reads in part as follows:

> "any department or agency of the State or County or any property owner or lessee may petition the land use commission for a change in the boundary of any district."

It is plain that the "owner or lessee" referred to in the said section is the owner or lessee of the property, the boundaries of which are sought to be changed. Any other construction would render the matter of standing nugatory if not an absurdity. The petitioners are neither owners or lessees of the lands which are the subject of the petition nor owners or lessees of lands adjacent thereto. To allow petitioners standing in this matter would allow a landowner or lessee of property in Kauai to petition for an amendment to change the land use boundaries of another's land on the Island of Hawaii. The LUC should dismiss this petition for lack of standing.

2. Petitioners have not submitted proof (1) that the subject lands are needed for use other than those for which the districts in which they are situate are classified, and (2) that the lands are useable and adaptable for the use they are proposed to be classified.

Moreover, conditions and trends of development have not materially changed since the adoption of the present classification so that the proposed classification sought by petitioners is unreasonable. In August of 1974, as part of the 1974 Periodic Boundary Review, the LUC proposed new land use boundaries for the Island of Lanai which included those lands which are the subject of this petition. Hearing on the matter was heard at Lanai City, Lanai, on October 2, 1974. On February 28, 1975, the LUC rendered its decision which affected all the lands concerned in the petition. There has been no change in conditions and trends of development in this short a time to warrant a review for another amendment to the land use boundaries. The facts which the LUC relied upon to arrive at its decision on February 28, 1975 are as relevant today and are applicable to this petition. The findings of fact in Docket No. L74-3 as they relate to the lands which are the subject of this petition

are herein restated, to be incorporated as part of the record of Docket No. A74-383, as follows:

"5. The 1,620 acres of land described above is presently classified for urban use. The 1,620 acres are adjacent to Lanai City (140 acres), in the Manele-Hulopoe area (500 acres), and along the east shore of the Island of Lanai (980 acres).

(a) The land adjacent to Lanai City is the area at Koele. There are no conservation district standards that is applicable to this land. It is not suitable for intensive cultivation, nor has it been so used for many years. It is land contiguous with the existing Urban area of Lanai City and is therefore a natural extension of Lanai City, as well as an appropriate location for new urban concentration and growth. It is within a mile of the business center and facilities such as sewers, water, sanitation, school, park, and police and fire protection. The land is relatively flat, soil conditions are stable, and drainage is excellent. There has been no history of floods in the area. The area at Koele is the proposed future site of a hotel, an expanded golf course, a golf course clubhouse, riding stables, and similar "ranch type" activities. At present, Lanai City has but one hotel and that with only twelve rooms. Adequate accommodations and attendant recreational amenities should be provided so that more people of the State of Hawaii would be able to visit and enjoy the beauty of Lanai.

(b) In the Manele-Hulopoe area, the 500 acres is an appropriate location for new urban concentration. Under the plan, the Manele-Hulopoe area will be the site for hotels and associated resort employee housing. The hotels will be located so that the beach and park at Hulopoe will always remain openly accessible to the

public and not be dominated by the hotels. There is an existing State small boat harbor and the beach park, which together with the development of the Manele-Hulopoe area, would generate a new center of urban activity and employment. The area is only eight miles from Lanai City and about a twenty minute drive by automobile, so that the basic services of Lanai City, such as school and police and fire protection, are reasonable proximate. Other services of sewerage, water and sanitation are intended to be provided under the plan. The area has a general slope of less than 20% with satisfactory drainage and is reasonably free from the danger of floods, tsunamis, and unstable soil conditions. The land is presently badly overgrown with kiawe trees and is not fit for intensive cultivation. The area is scarred with the effects of soil erosion.

(c) The third major area proposed for a development that would generate a new center of business and employment is the east coast shoreline where some 980 acres are classified Urban. Under the plan, this area is considered to be a logical area for urban concentration because of its geographic potential. It is only nine miles from Lahaina, Maui, and could reasonably serve as the hub of traffic between Lanai and Lahaina. Eventual sophisticated water carrier systems could provide a vital link between the east coast shoreline and Lahaina. Under the plan, the east coast shoreline area will include urban-type uses, including housing, and the future establishment of several resort facilities. All basic services will either be provided under the plan or will be readily available at Lanai City. The area has a general slope of less than 20% with satisfactory drainage and is reasonably free from the danger of floods, tsunamis, and unstable soil conditions. Presently, the area is undeveloped and is not fit for intensive cultivation. Kiawe trees dominate a landscape which shows the scars of soil erosion.

The Maui County General Plan designates the lands described in (a), (b) and (c) above for the various uses intended under the owner's plan as above set forth.

6. The 18,000 acres of land described above is presently classified for agricultural use. Under the owner's plan, two distinctive uses are planned in these areas: The first is agricultural (diversified agriculture and irrigated horse pasture), and the second is what can be termed agricultural-residential. The lands set aside for diversified agricultural purposes have been identified by the U. S. Department of Agriculture, Soil Conservation Service, as good agricultural land. This land is to be set aside under an agricultural "land-bank" concept where it can be available today and in the future for this use. The remaining areas do not lend themselves to commercial agriculture. Some of these lands may have other non-commercial agricultural uses, however, such as private farming, while some lands are contiguous to agricultural lands but are not suited to agricultural and ancillary activities by reason of topography, soil, and other related characteristics. The plan calls for establishing lot sizes ranging from 2 to 20 acres (averaging 7 acres) in these areas. This "agricultural-residential" concept will allow individuals to enjoy the open space concept. In general, the "large lot concept" found in both the rural and agricultural-residential area is critical for maintaining the present rural charm of the island as well as the concept of population control. The Maui County General Plan designates the land for agriculture-residential and diversified agriculture.

7. The 2,700 acres of land is presently classified for rural use and situated along the west, south and northeast coastlines, with the exception of an area immediately north of Lanai City (400 acres). Under the plan, these areas are designed to provide low density residential lots of not less than one-half acre with not more than one single-family dwelling per one-half acre. The Maui County General Plan designates these lands as rural residential."

It is submitted that the aforesaid findings of fact have not been rebutted by petitioners.

LAW OFFICES
OKUMURA AND TAKUSHI

3. The fact that one's "life-style" or "way of life" will be affected is not in itself a proper reason or ground for reclassification under the statute. Any development on Lanai will perforce affect the life-style of a Lanai resident to some degree. Whether the resident's welfare shall be improved or prejudiced thereby is a matter of differing opinions and conjecture. Recognizing this, much thought and planning have been done by Lanai Company, Inc. to develop a plan which shall respect that life-style and the rural charm of Lanai. Lanai Company, Inc.'s plan seeks to maintain the rural charm and at the same time expand economic opportunity at a controlled level and expand the opportunity for the enjoyment of the natural amenities of this island by controlled development.

For the reasons aforesaid, Lanai Company, Inc. respectfully requests that the petition be denied.

Yours very truly,

James T. Funaki

James T. Funaki
Attorney for Lanai Company, Inc.

JTF:dn

April 29, 1975

Mr. Robin Kaye
P. O. Box 925
Lanai, Hawaii 96763

Dear Mr. Kaye:

This is in response to your letter of April 18, 1975 requesting a copy of the testimony given by Mr. Dexter Del Rosario during the public hearing that was held on April 16, 1975 on Lanai on the Land Use Commission petition A74-383. Please be informed that presently we do not have a copy of the written testimony that was presented by Mr. Del Rosario. However, he has indicated that he will be submitting one in writing.

Inasmuch as we won't be able to transcribe our proceedings quickly, we suggest that you contact Mr. Del Rosario to obtain a copy, if time is a factor.

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

7043

RECEIVED
APR 28 1975
State of Hawaii
LAND USE COMMISSION

P.O. Box 925
Lanai, Hawaii 96763
April 18, 1975

State Land Use Commission
Kamamalu Building
250 So. King Street
Honolulu, Hawaii 96813

Dear Land Use Commission:

On the evening of April 16th, 1975, a public hearing was held in the Lanai Cafetorium regarding a petition for down-zoning. I believe it is officially refered to as A74-383 Del Rosario.

I would greatly appreciate a copy of the testimony given by Mr. Dexter Del Rosario. I am in the process of preparing a photographic documentary on the life of Lanai, and this testimony would be quite useful.

If there is any fee involved for copying, please let me know. Thank you for your cooperation.

Respectfully,

Robin Kaye

(Mr.)Robin Kaye

7030

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

Audrey W. Mertz, M.D., M.P.H.
Deputy Director of Health

Henry N. Thompson, M.A.
Deputy Director of Health

James S. Kumagai, Ph.D., P.E.
Deputy Director of Health

April 15, 1975

In reply, please refer to:
File: EPHS - SS

RECEIVED
APR 16 1975
State of Hawaii
LAND USE COMMISSION

MEMORANDUM

To: Mr. Tatsuo Fujimoto, Executive Officer
Land Use Commission, State of Hawaii

From: Chief, Environmental Protection & Health Services Division

Subject: Application for Boundary Amendments
File No: A74-383

Our staff has reviewed this request and foresee no major adverse environmental effects arising from this project.

SHINJI SONEDA

LAW OFFICES
OF
E. COOPER BROWN

533-3987
AREA CODE 808

SUITE 209
404 PIIKOI STREET
HONOLULU, HAWAII
96814

April 16, 1975. received at public hearing

TO: Land Use Commission

RE: Legal Effect of "Downzoning" of Lands from Urban or Residential Use to Conservational Use

Considerable concern has been expressed over the past year about the legality of a "downzoning" of one's property. The question that has been raised is whether a reclassification of lands from one use to a "lesser" use-- ie. from Urban to Conservation-- constitutes a "taking" of property without due process of law which requires monetary compensation. In light of this present petition to reclassify Lanai lands to Conservation, a brief summary of the law in this area would seem most relevant:

SUMMARY OF LAW:

Basically, the Courts have held that as long as there is a reasonable relationship to the public welfare, a zoning ordinance or land classification amendment will be upheld. The property owner does not have a vested right in the zoning of his lands. In addition, he has no right to the "highest and best use" of his land, but only to some reasonable beneficial use. As long as some use of the land is left, there is no "taking" in violation of the 14th Amendment.

Moreover, expenditures incurred by the landowner in reliance on existing zoning does not amount to a vested right-- as long as no construction has begun (and even then, Courts have held that such construction must be substantial). Planning and survey work has not been deemed sufficient reliance to establish vested rights in the zoning.

SYNOPSIS OF CASES:

In 1926 the Supreme Court of the United States declared that the zoning of privately owned land was a legitimate exercise of the police power of the state. The case was Village of Euclid v. Ambler Reality Co., 272 U.S. 365, 47 Sup.Ct. 114, 71 LEd 303 (1926), and was the first test of the constitutionality of downzoning. The Court was there faced with Ambler Realty Co. holding sixty-eight acres of land with the intent of developing them for industrial use. The Village of Euclid passed a zoning ordinance which jprecluded this desired use of the sixty-eight acres. The market value of the land for industrial use would have been $10,000 per acre. The market value for the residential use allowed by the new zoning was merely $2500 per acre. Ambler Realty argued that the downzoning was a deprivation of property without due process as provided for by the 14th Amendment and that it was a denial of the equal protections of the law. The Supreme Court held that the ordinance did not violate the 14th Amendment but was in fact a legitimate exercise of the police power.

Subsequent case law has followed this reasoning, holding that the zoning ordinances and amendments thereto are presumed to be valid. The burden is upon the property owner to prove that the ordinance bears no reasonable relationship to the public welfare. See Board of County Commissioners v. Thompson, 493 P2d 1358.

-- In Price v. Schwafel, 206 P2d 683 (1949), the Supreme Court of California denied a writ of mandamus to compel the issuance of a building permit for a shopping center which had been permitted under interim zoning but was precluded after rezoning. "Damage," the Court stated, " to petitioners' property by reason of being in a residential zone adjoining business property in no way affects the validity of the ordinance . . . the best interests of the entire district is the controlling factor."

-- In O'Rourke v. Teeters, 146 P2d 983 (1944), the Supreme Court of California held that the fact that a party made a large investment in a city lot which was

free of restrictions with the intent ot use it for business did not invalidate a zoning ordinance restricting the lot to residential use. To be invalid the property owner would have had to prove that the ordinance was clearly arbitrary and unreasonable with no substantial relation to public welfare.

-- And in Salyer v. McLaughlin, 240 F2d 841 (1957), the Circuit Court of the District of Columbia upheld a zoning ordinance which precluded the type of subdivision purchaser had relied upon in making his original purchase of that property.

The fundamental concept that the property owner does not have a vested right in the zoning of his land was established in Eggebeen v. Sonneburg, 1 NW2d 84. The Court there pointed out that "property is always held subject to the police power" of the state.

-- In Crecca v. Nucera, 145 A2d 477 (1958), the New Jersey Supreme Court denied a writ to compel issuance of a building permit for a bowling alley despite the fact that the owner had purchased the site in reliance on the zoning then in effect. "Changed or changing conditions call for changed plans, and owners of property in a particular zone or use district enjoy no indefeasibly vested right to that classification if public interest demands otherwise." 145 A2d at 480.

It is also well established that a land owner has no right to the "highest and best use" of his land but only to some reasonable beneficial use. In upholding flood plain legislation which did not permit any building at all upon the land the Court in Turnpike Realty Co. v. Town of Dedham, 284 NE2d 891, held that since grazing was still permitted the owners were not denied some reasonable use. The Court specifically held that a substantial diminuation in value does not constitute a taking under the 14th Amendment as long as some use is left. See also Stevens v. Town of Hunington, 260 NYS2d 96, for a similar holding; where land valued at $250,000 under commercial designation was rezoned to residential use with an attendant value of only $20,000.

Any expenditures which the owner incurrs in reliance on existing zoning does not amount to vested rights unless

less actual construction has commenced. Price v. Schwafel, 206 P2d 683.

-- In Crecca v. Nucera, supra, the owner had paid for architect plans and had had the land surveyed. The Court held that substantial reliance required the actual commencement of construction.

-- In County of Saunders v. Moore, 155 NW2d 317 (1967), the Court held that even the construction must be substantial.

In any event, the interest which would vest upon construction would be in the nature of a non-conforming use and not a requirement that the zoning be maintained in its original state.

-- In C.F.Lyttle Co. v. Clark, 491 F2d 834, the 10th Circuit Court of Appeals held that a landowner was not entitled to complete a seven acre condominium development which he had started since his building permit had lapsed and in the interim the zoning had been changed. This was true even though he had dedicated his land for condominium use and had argued that he was now being deprived of any use. The Court held that the deprivation was due to his own acts-- not those of the City and County.

-- In City of Lansing v. Dawley, 225 NW 500 (1924), the Supreme Court of Michigan held that in order to proceed under a building permit which was revoked by a subsequent zoning change the owner had to show reliance amounting to actual construction. Planning and survey work were not enough. The test is not how much was spent but whether the land itself was changed. See also Trever v. City of Sterling Hts. for a similar Michigan holding.

LUC HEARING

✓ 1. MANO

✓ 2. DEAN DEL ROSARIO

✓ 3. MAX KINCAID

absent 4. CURT MASTUMOTO

✓ 5. JESSE PARINAS

✓ 6. GLENN KONDO

✓ 7. ~~WILLIAM TOLENTINO~~ SOLOMON KAHOO HALAHALA

✓ 8. DENNIS HOKAMA

✓ 9. JERALD HAYASHIDA

✓ 10. RODNEY YADAO

✓ 11. SETSU OKUBO

✓ 12. aED YONAMINE

✓ 13. EDWARD BROWN

✓ 14. RAMON DOMBRIGUES

Ron McComber = $9^{34} - 9^{38}$

Pro-6 children Name? = $9^{38} - 9^{41}$

Phil Gardner = $9^{42} - 9^{47}$
Undersea park - manele
Ground camping

Honolulu Charlie Palama = $9^{48} - 9^{50}$

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

#1

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 4/16

Subject: LANAI DOWNZONING

Your Name: MANO

Organization:

Mailing Address: LANAI CITY

Phone Number:

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF REQUEST

Testimony in music

(For Commission Use Only)

738-148

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

#2

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 9/16

Subject: LANAI DOWNZONING

Your Name: DEAN DEL ROSARIO

Organization:

Mailing Address: LANAI CITY

Phone Number:

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF REQUEST

(For Commission Use Only)

743 - 758

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

#3

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 4/16

Subject: LANAI DOWNZONING

Your Name: MAX KINCAID

Organization:

Mailing Address: LANAI CITY

Phone Number:

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF REQUEST

8:00 - 8:08

(For Commission Use Only)

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

mat lee

#4

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 4/16

Subject: LANAI DOWNZONING

Your Name: CLINT MATSUMOTO

Organization:

Mailing Address: LANAI CITY

Phone Number:

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF REQUEST

(For Commission Use Only)

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

TESTIMONY FORM #5

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 4/16

Subject: LANAI REZONING

Your Name: JESSE PARINAS

Organization:

Mailing Address: LANAI CITY

Phone Number:

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF REQUEST

(For Commission Use Only)

809 - 812

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

#6

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 4/16

Subject: LANAI DOWNZONING

Your Name: GLENN KONDO

Organization: _____

Mailing Address: LANAI CITY

Phone Number: _____

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF REQUEST

(For Commission Use Only)

813 - 815

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

TESTIMONY FORM #7

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16

Subject: Lanai Downzoning

Your Name: Solomon Kahookahaka

Organization:

Mailing Address: Lanai City

Phone Number:

Briefly summarize your reasons for submitting testimony:

Petitioner

(For Commission Use Only)

8 15 - 814

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

TESTIMONY FORM #8

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: Apr 16

Subject: Lanai Downzoning

Your Name: Dennis Hokama

Organization:

Mailing Address: Oahu

Phone Number:

Briefly summarize your reasons for submitting testimony:

In favor of Downzoning

(For Commission Use Only)

8'17 – 827

Oahu
but born Lanai

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

L

TESTIMONY FORM #9

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Lanai Petition

Your Name: Jerald Hayashida

Organization: _____

Mailing Address: _____

Phone Number: _____

Briefly summarize your reasons for submitting testimony:

In favor of downzoning request

(For Commission Use Only)

827 - 832

Molokai

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

TESTIMONY FORM

#10

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Lanai Downzoning

Your Name: Rodney Yadao

Organization: Kilauea Ag Assoc

Mailing Address: Kauai

Phone Number: _____

Briefly summarize your reasons for submitting testimony:

(For Commission Use Only)

Kauai

832 - 837

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

11

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Lanai petition

Your Name: Setsu Okubo

Organization:

Mailing Address: Oahu

Phone Number:

Briefly summarize your reasons for submitting testimony:

In favor of Downzoning petition

837 - 843

(For Commission Use Only)

Oahu

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

V

#12

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Lanai Downzoning petition

Your Name: Ed Yonamine

Organization: ~~Labor~~

Mailing Address: Waianae, Oahu

Phone Number:

Briefly summarize your reasons for submitting testimony:

In favor of downzoning petition

(For Commission Use Only)

844 - 851

never lived Lanai
Oahu

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

TESTIMONY FORM #13

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Lanai Downzoning Petition

Your Name: Edward Brown

Organization: — Attorney for Petitioners

Mailing Address: Suite 209, 404 Piikoi ST, Honolulu

Phone Number: 533-3989

Briefly summarize your reasons for submitting testimony:

(For Commission Use Only) Oahu

852 - 910

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

#14

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: Apr 16, 1975

Subject: Lanai Downzoning Petition

Your Name: Ramon Dombriguez

Organization: —

Mailing Address: ~~Waianae, Oahu~~ Lanai

Phone Number:

Briefly summarize your reasons for submitting testimony:

In favor of downzoning request

(For Commission Use Only)

9" - 9"

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

Not here

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Lanai

Your Name: Belinda Nakoa

Organization: Lanai High School

Mailing Address: P.O Box 1053

Phone Number: 565-3841

Briefly summarize your reasons for submitting testimony:

In favor of petition

(For Commission Use Only)

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

L

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: APRIL 16, 1975

Subject: _____

Your Name: STEPHENY PALOLO

Organization: HIGH SCHOOL

Mailing Address: P.O. BOX 1004

Phone Number: 565-2285

Briefly summarize your reasons for submitting testimony:

IN FAVOR OF THE PETITION.

(For Commission Use Only)

9[12]-9[13]

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: 4/16/75

Subject: Petition for Amendment to Lanai District Boundries

Your Name: Hideo Niibu

Organization: Lanai ~~Hyatt~~ Advisory Committee (Planning).

Mailing Address: P.O. Box 547

Phone Number: 565-7461

Briefly summarize your reasons for submitting testimony:

I am in favor of Lanai Company's development for economic reasons.

(For Commission Use Only)

913 - 922

LAND USE COMMISSION
STATE OF HAWAII
P. O. BOX 2359
HONOLULU, HAWAII 96804

V

TESTIMONY FORM

To be filled out by all persons wishing to give testimony at this meeting.

These forms will be collected prior to this meeting in order to aid the Commission in the conduct of this meeting.

Date: April 16, 1975

Subject: Petition for Amendment to Lanai District Boundaries

Your Name: Goro Hokama

Organization: ILWU

Mailing Address: P.O. Box H, Lanai City, Hawaii 96763

Phone Number: 565 5055

Briefly summarize your reasons for submitting testimony:

The need for an orderly development of Lanai to insure job opportunities and choice of employment for our people and their children.

(For Commission Use Only)

q23 — q33

7028

LAW OFFICES
OF
E. COOPER BROWN

533-3987
AREA CODE 808

SUITE 209
404 PIIKOI STREET
HONOLULU, HAWAII
96814

April 15, 1975

Mr. Mr. Tatsuo Fujimoto
Executive Officer
Land Use Commission
1010 Richards St.
Honolulu, HI

RECEIVED
APR 15 1975
State of Hawaii
LAND USE COMMISSION

Dear Mr. Fujimoto:

The following petitioners and persons speaking on behalf of petitioners request that they be allowed to testify first on the matter of the petition for reclassification of lands on Lanai brought by D. Del Rosario and others:

Dean Del Rosario
Dennis Hokama
Max Kincaid, Jr.
Kurt Matsumoto
Sets Okuba
Gloria Sakamoto
Randy Kalahiki
Edward C. Brown

Thanking you in advance, I am

Sincerely yours,

Edward Brown

Edward Cooper Brown
Attorney for Petitioners

STATE OF HAWAII
LAND USE COMMISSION

Lanai High & Elementary School
Cafetorium
Lanai City, Lanai

April 16, 1975
7:00 p.m.

DOCKET A74-383 - DEXTER D. DEL ROSARIO, ETAL - Petition for Amendment to Lanai District Boundaries

Mr. Dexter D. Del Rosario, together with 31 other Lanai residents petitioned the Land Use Commission on December 17, 1974, to amend the land use district boundaries for certain portions of Tax Map Key 4-9 situated on the island of Lanai. Specifically, approximately 1,620 acres from the Urban District, 2,720 acres from the Rural District and 18,000 acres from the Agricultural District are being requested to be reclassified to the Conservation District. The 22,340 acres in question are the same lands that were reclassified from the Conservation District to the Urban, Rural, and Agricultural Districts respectively under docket number A72-349 which was submitted by Lanai Company in 1972. The petitioners are essentially requesting a reversal of this reclassification.

Mr. Del Rosario, etal, state that they are property owners, lessees, and persons with distinct property, economic, personal and environmental interests and concerns in the subject property and the proposed redistricting.

The petitioners' submittal essentially states the following:

1. The petitioners state that the subject lands of Castle & Cooke, Inc. must be redistricted to secure and protect their welfare and life styles and to insure needed and orderly development of their choice for Lanai. Further, the proposed tourism and second-home developments will jeopardize their way of life by tremendously increasing land values and creating higher property tax and housing costs, thereby placing a heavy burden on the already low income residents of Lanai. The influx of visitors and outside residents to Lanai will create keen competition and lessen the quality of

recreational opportunities for Lanai residents and thus lower the quality and character of the local people's way of life.

The petitioners additionally cite that the impact of resort industry and second-home developments can create tremendous social strains for local families of rural communities including increasing divorce rates, separations, desertions, runaway children and increased crime rates.

The best jobs in the tourist industry will not go to the local people, but to outsiders instead. The most menial, low paying, and non-personal jobs will go to the local people.

The proposed resort and second-home developments will inflate the already high cost of living and place further economic strain on the residents.

The urban growth and physical developments will harm and destroy the natural beauty, open spaces, and charm of the rural Lanai community.

2. The subject lands are clearly useable and adaptable for the proposed uses in that the petitioners advocate the continuance of the present use of the land.

3. In regard to the requirement concerning changing conditions and development funds, the petitioners state that: "Today's rising population, energy problem, high interest rates, runaway inflation, both national and international shortages of food and mineral resources and the increasing importance of the State's diversified agriculture program, make the proposed redistricting reasonable and rational". The petitioners further allege that "It becomes an academic exercise to label land agriculture if the resources are not available to utilize its agricultural potential".

4. The proposed hotels, second homes and population increase as allowed under the present land use districting, threaten the welfare, health and quality of life that Lanai people now enjoy. The proposed redistricting will

protect residents from this adverse and threatening change.

5. The present land use districting of Lanai together with development proposals that call for the establishment of country homes, ranchettes, and second homes are for land speculation and not for the benefit of the local residents. The proposed redistricting will stop speculative development and would provide an opportunity for better planning of Lanai.

COUNTY RECOMMENDATION

By letter dated February 7, 1975, Maui Deputy Planning Director, Tosh Ishikawa advised that "The Maui Planning Commission at its meeting of February 5, 1975, voted unanimously to recommend that the subject petition be considered in light of the Maui County Planning Commission's previous recommendation submitted in conjunction with the 5 year land use district boundary review.

In short, the Maui Planning Commission's recommendation is to deny the petitioners' request for an amendment to the existing Lanai district boundaries. The Maui Planning Commission's recommendations to the State Land Use Commission second five year district boundaries and regulations review recommended that the district classifications then existing on Lanai be retained, since they conformed to the Lanai General Plan.

April 11, 1975

Mr. Edward Cooper Brown
Suite 209, 404 Piikoi Street
Honolulu, Hawaii 96814

Dear Mr. Brown:

In response to your April 8, 1975 letter, this is to inform you that the subpoenas should be sent to the Land Use Commission office (P. O. Box 2359, Kamamalu Building, Honolulu, Hawaii, 96804) for the signature of the Chairman of the Land Use Commission before they are served upon witnesses. However, please be informed that the April 16, 1975 meeting in Lanai on Docket No. A74-383, Dexter D. Del Rosario, etal is a public hearing in accordance with Chapter 205-3 and 205-4 of the Hawaii Revised Statutes.

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

cc: Land Use Commissioners
H. Kim, Att. Gen.'s Off.
bcc: B. Matsubara

7070

LAW OFFICES
OF
E. COOPER BROWN

533-3987
AREA CODE 808

SUITE 209
404 PIIKOI STREET
HONOLULU, HAWAII
96814

April 8, 1975

RECEIVED
APR 8 1975
State of Hawaii
LAND USE COMMISSION

Mr. Tatsuo Fujimoto
Executive Director
Land Use Commission
1010 Richards St.
Honolulu, Hawaii

RE: Petition for boundary amendment A74-383,
Dexter D. Del Rosario, et al.

Dear Sir:

By way of introduction, I have been retained as counsel by Dexter D. Del Rosario and others, petitioners in the above-captioned matter, to represent them before the Land Use Commission.

Petitioners plan to subpoena certain individuals, pursuant to Section 91-12, Hawaii Revised Statutes, to appear before the Land Use Commission hearing scheduled for April 16, 1975, on Lanai. I write to ascertain to whom subpoenas should be sent for signature before they are served upon witnesses.

A prompt response would be greatly appreciated.

Sincerely,

E Cooper Brown

Edward Cooper Brown

DB:eb

RECEIVED
APR 11 1975
State of Hawaii
LAND USE COMMISSION

IN THE MATTER OF

Notice of Public Hearings

AFFIDAVIT OF PUBLICATION

NOTICE OF PUBLIC HEARINGS

TO CONSIDER PETITIONS FOR CHANGE OF DISTRICT BOUNDARY WITHIN THE COUNTRY OF MAUI BEFORE THE LAND USE COMMISSION OF THE STATE OF HAWAII

NOTICE IS HEREBY GIVEN of the public hearings to be held in the County of Maui by the Land Use Commission of the State of Hawaii to consider petitions for change of district boundary as provided for in Section 205-4, Hawaii Revised Statutes.

DATES, TIMES AND PLACES

LANAI—

April 16, 1975—7:00 p.m.
Lanai High & Elementary School Cafetorium
Lanai City, Lanai

MOLOKAI—

April 22, 1975—7:00 p.m.
Kaunakakai School Cafetorium
Kaunakakai, Molokai

Docket Number and Petitioner:

LANAI
A74-383
Dexter D. Del Rosario etal

Tax Map Key: 4-9: portions

Change Requested:

To delete approximately 1620 acres from the Urban District;
To delete approximately 2,720 acres from the Rural District;
To delete approximately 18,000 acres from the Agricultural District;
To add approximately 22,340 acres to the Conservation District;
on the Island of Lanai

Docket Number and Petitioner:

MOLOKAI
A74-384
Samuel M. Peters, Sr.

Tax Map Key: 5-1-02: portion of 1

Change Requested:

To incorporate approximately 1,625 acres presently in the Urban District into the Agricultural District at Kaluakoi, Molokai

Maps showing the areas under consideration for change of district boundaries and copies of the Rules and Regulations governing the petitions above are on file in the office of the Maui Planning Department, County of Maui; and the Land Use Commission; and are open to the public during office hours, Monday through Friday.

At the hearings, interested owners, lessees, officials, agencies, and individuals may appear and be heard and shall further be allowed to submit with the Land Use Commission their written objections or other comments or recommendations.

All written protests or comments regarding the above petitions may be submitted with the Land Use Commission, Kamamalu Building, P. O. Box 2359, Honolulu, Hawaii, 96804, before or during the public hearings, or up to fifteen (15) days following the public hearings.

LAND USE COMMISSION
EDDIE TANGEN, Chairman
TATSUO FUJIMOTO, Executive Officer

(Hon. Adv.: Mar. 27, 1975) **(A-03978)**

STATE OF HAWAII,
CITY AND COUNTY OF HONOLULU. } ss.

Nancy Kira *being*

duly sworn, deposes and says, that She is Clerk of the HAWAII NEWSPAPER AGENCY, INC., agent for HONOLULU ADVERTISER, INC., publishers of THE HONOLULU ADVERTISER and SUNDAY STAR-BULLETIN and ADVERTISER, a daily newspaper published in the City and County of Honolulu, State of Hawaii, that the ordered publication in the above entitled matter of which the annexed is a true and correct printed notice, was published one *times in said daily newspaper, commencing on the* 27th *day of* March, *19*75, *and ending on the* 27th *day of* March, *19*75 *(both days inclusive), to wit, on* March 27, 1975

and that affiant is not a party to or in any way interested in the above entitled matter.

Nancy Kira

Subscribed and sworn to before me this 27th *day of* March, *A. D. 19*75.

Gilda S. Inamine

Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires

MY COMMISSION EXPIRES AUGUST 30, 1977

IN THE MATTER OF

.....

.....

Affidavit of Publication

Filed at.....*o'clock*, ...*M.*

on....., *19*.....

.....

Clerk.

RECEIVED
APR 7 1975
State of Hawaii
LAND USE COMMISSION

AFFIDAVIT OF PUBLICATION

STATE OF HAWAII, County of Maui. } ss.

Barbara Y. Iwaishi ..... being duly sworn deposes and says, that he is Advertising Clerk ..... of the Maui Publishing Co., Ltd., publishers of the MAUI NEWS, a newspaper published in Wailuku, County of Maui, State of Hawaii; that the ordered publication as to NOTICE OF PUBLIC HEARINGS

of which the annexed is a true and corrected printed notice, was published 1 times in the MAUI NEWS, aforesaid, commencing on the 29th day of March, 19 75, and ending on the .....day of....., 19....., (both days inclusive), to-wit: on March 29, 1975

and that affiant is not a party to or in any way interested in the above entitled matter.

Barbara Y. Iwaishi

Subscribed and sworn to before me this 2nd day of April A. D. 19 75

Notary Public, Second Judicial Circuit, State of Hawaii.

My commission expires August 31, 1975.

NOTICE OF PUBLIC HEARINGS

TO CONSIDER PETITIONS FOR CHANGE OF DISTRICT BOUNDARY WITHIN THE COUNTY OF MAUI BEFORE THE LAND USE COMMISSION OF THE STATE OF HAWAII

NOTICE IS HEREBY GIVEN of the public hearings to be held in the County of Maui by the Land Use Commission of the State of Hawaii to consider petitions for change of district boundary as provided for in Section 205-4, Hawaii Revised Statutes.

DATES, TIMES AND PLACES

LANAI — April 16, 1975 — 7:00 p.m.
Lanai High & Elementary School Cafetorium
Lanai City, Lanai

MOLOKAI — April 22, 1975 — 7:00 p.m.
Kaunakakai School Cafetorium
Kaunakakai, Molokai

Docket Number and Petitioner:	Tax Map Key:	Change Requested:
LANAI		
A74-383 Dexter D. Del Rosario etal	4-9: portions	To delete approximately 1,620 acres from the Urban District; To delete approximately 2,720 acres from the Rural District; To delete approximately 18,000 acres from the Agricultural District; To add approximately 22,340 acres to the Conservation District; on the Island of Lanai
MOLOKAI		
A74-384 Samuel M. Peters, Sr.	5-1-02: portion of 1	To incorporate approximately 1,625 acres presently in the Urban District into the Agricultural District at Kaluakoi, Molokai

Maps showing the areas under consideration for change of district boundaries and copies of the Rules and Regulations governing the petitions above are on file in the office of the Maui Planning Department, County of Maui; and the Land Use Commission; and are open to the public during office hours, Monday through Friday.

At the hearings, interested owners, lessees, officials, agencies, and individuals may appear and be heard and shall further be allowed to submit with the Land Use Commission their written objections or other comments or recommendations.

All written protests or comments regarding the above petitions may be submitted with the Land Use Commission, Kamamalu Building, P. O. Box 2359, Honolulu, Hawaii 96804, before or during the public hearings, or up to fifteen (15) days following the public hearings.

LAND USE COMMISSION

EDDIE TANGEN, Chairman
TATSUO FUJIMOTO, Executive Officer

(MN: March 29, 1975)

LANAI PETITIONERS

(1) Dexter D. Del Rosario
(2) Sol P. Kahoohalahala
(3) Jas Capall
(4) Jo Cole
(5) Phyllis Cole
(6) Margarita Cabalo
(7) Joe Barbadillo
(8) Beatrice Barbadillo
(9) Mary Schusav
(10) Timothy Catiel
(11) Eleanor Hasbrouck
(12) Adalfo Sanches
(13) Lacinita Pagampao
(14) Josephine Cayan
(15) Florence Tabura
(16) Mrs. T. Ayonayon
(17) Remegio Pascua
(18) Cynthia Arruiza
(19) Francisco Tadios
(20) Pilajia Sanches
(21) Patricia Urpanil
(22) Cynthia Spilalsky
(23) Roman Dombrigues
(24) Dre De la Cruz
(25) William Kwon, Jr.
(26) Martin Mano
(27) Eddington Tolentino
(28) Warren Sakuma
(29) Clifford Shin
(30) Lawrence Plano
(31) Max Kincaid, Jr.
(32) Lynn Kahoohalahala

April 2, 1975

WE WOULD APPRECIATE YOUR POSTING THE ENCLOSED PUBLIC HEARING NOTICE ON YOUR BULLETIN BOARD FOR THE INFORMATION OF LANAI RESIDENTS. THANK YOU.

State of Hawaii
LAND USE COMMISSION
P. O. Box 2359
Honolulu, Hawaii 96804

Sent the April 16, 1975 meeting agenda, together with the above note to the following:

Post Office
731 Lanai Avenue
Lanai City, Lanai 96763

Police Station
312 Eighth
Lanai City, Lanai

ILWU Local 142-2301
840 Ilima Avenue
Lanai City, Lanai 96763

Mr. Larry Leong, Manager
First Hawaiian Bank
Lanai City, Lanai 96763

Mrs. Jane L. Gabriel
Lanai Comm. School Library
P. O. Box A-149
Lanai City, Lanai 96763

STATE OF HAWAII
LAND USE COMMISSION
P. O. BOX 2359
HONOLULU, HAWAII 96804

March 31, 1975

Mr. Dexter D. Del Rosario
1238 Aha Street
Lanai City, Lanai 96763

Dear Mr. Del Rosario:

The Land Use Commission next meets on April 16, 1975, at 7:00 p.m., in the Lanai High and Elementary School Cafetorium, Lanai City, Lanai.

At that time the petition by Dexter D. Del Rosario, etal (A74-383) to amend the land use district boundaries from the _____ District to the _____ District at (see attached agenda) will be heard.

Should you have any questions regarding this matter, please feel free to contact us.

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

Enclosure - Agenda
cc: Dennis Hokama

March 27, 1975

Mrs. Jane L. Gabriel
Lanai Community School Library
P. O. Box A-149
Lanai City, Lanai 96763

Dear Mrs. Gabriel:

Transmitted for your information and public use is an application from Dexter D. Del Rosario, etal, Docket No. A74-383 to the Land Use Commission for change of district boundary as outlined within the petition. A public hearing on this matter will be taken up on April 16, 1975 at 7:00 p.m., in the Lanai High and Elementary School Cafetorium, Lanai City, Lanai. (See attached copy of public hearing notice.)

We would appreciate your cooperation in making this file available to the public upon request. Thank you for your continued cooperation.

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

Enclosures

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petit[illegible] and Fee received by LUC_____

Date forwarded to County for recommendation_____

Date Petition, and County recommendation received by LUC_____

A74-383

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Dexter D. Del Hosario

Interest in subject: Lessee

Address: 1238 AHA ST.

Telephone: 565-5802

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9 (with exceptions-see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Sol P. Kahookalahala

_____

Interest in subject: Renting

Address: P.O. Box 44

Telephone: _____

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) [signature]

Interest in subject: LESSEE

Address: 253 Gay St.

Telephone: 565-5935

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9 (with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) O. I. Cole

_____

Interest in subject: Lessee

Address: 1163 Palawai Lanai City

Telephone: 565 5132

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC_____

Date forwarded to County for recommendation_____

Date Petition, and County recommendation received by LUC_____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Phyllis Cole

Interest in subject: Lessee

Address: 1163 Takamori

Telephone: 565-5137

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Margarita Cabalo

_____

Interest in subject: Lessee

Address: 537 Fifth St.

Telephone: 565-3291

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC_____

Date forwarded to County for recommendation_____

Date Petition, and County recommendation received by LUC_____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions-see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Joe Barbad Jr.

/

Interest in subject: Land Owner

Address: Box 10B

Telephone: 565-6226

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions-see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Beatrice Rabaideau

Interest in subject: Landowner

Address: Box 1013

Telephone: 565-6226

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

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LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

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Petitioner's reason(s) for requesting boundary change:

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(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Margaret Schulson

Interest in subject: Lessee

Address: 633 Seventh

Telephone: 565-6371

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

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(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Timothy K. Cattell

_____

Interest in subject: Landowner

Address: P.O. Box 852 Lanai City, Hi.

Telephone: 565-3293

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

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PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

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RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

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See attached explanations.

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(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Eleanor L. Hackwell

Interest in subject: Landowner

Address: 420 Lanai Ave

Telephone: 565 7375

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

THIS SPACE FOR USE ONLY

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions-see attachments) to change the district designation of the following described

[redacted] district into a(n) _____ district.

RECEIVED
DEC. 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

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(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Adolfo Sanchez

_____

Interest in subject: Land Owner

Address: Lanai

Telephone: 565-2412

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Lucinita Pagampoo

Interest in subject: Home Owner for finance grounds for facilities

Address: P.O. Box 921

Telephone: 565-3611

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Josephine Cayan

Interest in subject: Renting

Address: P.O. Box 940

Telephone: 565-3632

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Florence Fabera

Interest in subject: Home Owner

Address: P.O. Box 1954

Telephone: 565-2373

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Mrs. L. Aynaynn

Interest in subject: Home Owner.

Address: 1212 Jasmine Dr.

Telephone: 565-5101

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

Signature: Remegio Pascua

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Interest in subject: Home Owner

Address: P.O. Box 857

Telephone: 565-6672

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

Signature: Cynthia S. Arruiza

Interest in subject: Renting

Address: P.O. Box 84

Telephone: 565-3711

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Francisco Tadia

Interest in subject: Home Owner

Address: P.O. Box 1058

Telephone: _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Pilagia Sanchez

Interest in subject: Land owner

Address: 537 Iliima Ave.

Telephone: 565-2412

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Patricia Urpani

Interest in subject: Lessee

Address: P.O. Box 999

Telephone: 565-5262

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Cynthia Spalding

Interest in subject: Interested Party

Address: P.O. Box 493

Telephone: 565-5945

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Roman A. Rodrigues

Interest in subject: Interested Party

Address: ~~P.O.~~ P.O. Box 717 Lanai City

Telephone: 565-3912

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: _____

_____

Interest in subject: _____

Address: _____

Telephone: _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: William Kwon Jr.

Interest in subject: Interested party

Address: Akahi Pl.

Telephone: 565-7405

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Martin K Mano

Interest in subject: Interested Party

Address: 508 Lanai Ave

Telephone: 565-7631

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Aldrington B. Solomon

Interest in subject: Resident Party

Address: 260 Ilima Pl.

Telephone: 565-3325

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Warren Sakuma

Interest in subject: Resident party

Address: P.O. Box 173

Telephone: 565-3282

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Clifford A Shin

Interest in subject: Resident

Address: Box 992

Telephone: 565-5201

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Laura L. T. Mano

Interest in subject: Interested party resident

Address: P.O. 112

Telephone: 565-7031

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: _____

_____

Interest in subject: Registered

Address: 1012 Ohaa St.

Telephone: 565-2782

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Lynn H. Kahookahakahala

Interest in subject: lessee

Address: P.O. Box 44 Lanai City, Hi. 96763

Telephone: _____

Dean Del Rosario
P.O. Box 1023
Lanai City, HI
96763

Land Use Commission
1010 Richards Street
Honolulu, Hawaii
96813

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AUG 29 1974
State of Hawaii
LAND USE COMMISSION

Members of the Land Use Commission,

Your acceptance of our petition to redistrict lands on the island of Lanai is greatly appreciated. We feel that we have provided valid and sufficient evidence to support our request.

The redistricting petition is for amending the land use boundaries on portions of Tax Map Key 4-9, section map, island of Lanai. We request the Commission to:

1) delete approximately 1,620 acres from the Urban district, and
2) delete approximately 2,720 acres from the Rural district, and
3) delete approximately 18,000 acres from the agriculture district,
4) add approximately 22,340 acres to the Conservation district.

In essence, petitioners ask for a reversal of the decision granted to the Lanai Company as related in file A72-349 and as decided by the Commission on May 5, 1973.

Dennis Hokama, a former resident of Lanai, now living on Oahu, has agreed to submit our petition for us. The time and expense involved in sending a member of our group to personally submit the petition would be a great hardship on our part.

Please forward all correspondences to Dean Del Rosario whose address is written above and to Dennis Hokama whose address is 2029 Leiloke Drive, Honolulu, Hawaii 96822.

Yours Sincerely,

LANAI PETITIONERS

LANAI REDISTRICTING PETITION

Petitioners request the State Land Use Commission for a district boundary amendment as provided for in section four, Chapter 205, Hawaii Revised Statutes, and in Rule 1.21, Sub-Part C, Part One, Rules of Practice and Procedure, State Land Use Commission. Section 205-4 states that "...any property owner or lessee may petition the land use commission for a change in the boundary of any district." (emphasis added). Rule 1.21(a) states that "...any owner and lessee and any interested person... may petition the Commission for the amendment of established district boundaries..." (emphasis added).

Petitioners meet the conditions of section 205-4 and Rule 1.21 for petitioning the Land Use Commission to amend certain district boundaries on the island of Lanai.. Petitioners are: property owners, satisfying section 205-4 and Rule 1.21(a); lessees, satisfying section 205-4 and Rule 1.21(a); and an interested person, satisfying Rule 1.21(a). Furthermore, petioners have an extraordinary interest and concern in this boundary amendment petition above and beyond that required by section 205-4 and Rule 1.21(a). Petitioners are property owners and lessees who reside near the property sought to be changed and will be affected and benefited by the proposed use of the property. Furthermore, petitioners note the recent Hawaii Loa ridge case decided by Judge Norito Kawakami in which "The Court is of the view that...any property owner or lessee who resides near the property sought to be changed and who could be affected by the use of the property has a right under the statute to petition for change of designation."

Lastly, petitioners note that the Lanai Company was granted its request for redistricting as an interested person provided for in Rule 1.21. Lanai Company did not own or lease the subject property ~~and~~ nor do we know that Lanai Company owns or leases any land.

Petitioners feel fully entitled to petition the Commission for an amendment to the land use district boundaries on Lanai island.

PETITION FOR AMENDMENT OF CERTAIN DISTRICT BOUNDARIES ON LANAI ISLAND

The purpose of this petition is to request changes in district boundaries on land owned by Castle and Cooke, island of Lanai, Tax Map Key 4-9 . This land is currently districted as urban, rural, and agriculture. We, the petitioners, herewith request the Land Use Commission to district this land agriculture and conservation. In essence, we request a rollback on the districting granted to Lanai Company in May 1973 (file number).

We the petitioners, who are landowners, lessees, and interested persons of Lanai, have distinct property, economic personal and environmental interests and concerns in the subject property and the proposed redistricting. Our interests and concerns are affected by the subject property and the proposed redistricting will affect those interests and concerns. These interests and concerns are manifold and extensive.

Most of us were born and raised on Lanai or have spent the greater part of our lives on Lanai. We have been privileged to live a rural lifestyle that only Lanai could provide. Through the proposed redistricting, we will secure and protect that lifestyle for ourselves, our children and their children.

The subject property is for a resort-residential development. It is our belief, and past experiences have shown, that the prices of land will be driven up because of that kind of development, thus raising the price of land and homes that we desire to buy, and in the process raising property taxes and rental fees. Our property interest will be adversely affected because of the Lanai Company development on the subject property. Additionally, the proposed redistricting will benefit our property interests by preventing the rising prices and property taxes, thus enabling us to continue the rural lifestyle living so characteristic of Lanai and so valuable to us.

Our interests and concerns extend to Hulopoe beach, the most accessible, the safest for camping and water sports, and the most beautiful beach on Lanai. This beach is a family beach. It is the only beach safe enough for our children to swim in and it is our only surfing spot on the island. Hulopoe beach is the weekend recreation area for all Lanai people. Many local people enjoy this beach every day. Redistricting this beach and surrounding area to conservation will preserve and protect this important facet of our lives. Resort and second-home development in this area will only destroy this condition and make our most popular beach a commodity for tourists and land speculators to exploit.

Another example is the beach between Naha and Keomoku. This stretch of beach is the most popular for fishing and camping because of its relative accessibility, excellent fishing, the safeness of the area, and very importantly, the quiet and peacefulness of the area. Resorts and residential developments will destroy the fishing and camping oppurtunities this area provides to local residents.

We now outline arguments satisfying requirements of section four, chapter 205, Hawaii Revised Statutes and Rules State Land Use Commission. Within the coming week and within coming days we will submit mor arguments and evidence supporting this petition. Petitioners ask the Land Use Commission to consider this petition with the supporting evidence and arguments. We argue, in compliance with Rule 2-31, State Land Use District Regulations, that:

A) The subject property is needed for a use other than that for which the district in which it is located,
B) The land is usable and adaptable for the proposed use,
C) Conditions and trends of development have so changed since adoption of the present classification, that the proposed redistricting is reasonable.

A) This land must be redistricted to secure and protect our welfare and lifestyles, and to insure needed and orderly development of our choices for Lanai island. This land is needed to prevent the devastation of our welfare and lifestyle, to insure needed and orderly development for the people of Lanai, and to protect our open spaces and recreational uses of the land.

Presentlly Lanai is a plantation community of approximately 2,200 people with an average annual family income of about $8,000. We may not be financially wealthy, but we are immensely rich in a rural lifestyle and an unspoiled environment.

Tourism and second-home developments will only jeopardize our way of life by tremendously increasing land values and consequently creating higher property taxes and housing costs thus placing a heavier burden on already low income families.

The resort industry and the people it brings will compete with local residents for recreational oppurtunities such as hunting, fishing, camping, hiking, and swimming and picnicking-recreational activities local people have always enjoyed and which are integral parts of our lifestyle. The influx of visitors and outside residents will lessen the quality of these recreational oppurtunities, thus lowering the quality and character of the local peoples' way of life.

Past experiences with the impact of large masses of outsiders associated with the resort industry and second-home developments show that local families of rural communities are put under tremendous social strains. Increasing divorce rates, separations, desertions, runaway children and an increased crime rate occur. This can be seen in Kailua-Kona, Lahaina and Kaanapali. Can the prospects for Lanai be much different if the Lanai Company development scheme is left to be implemented? Local families will be further burdened with the social ills attributed to urban growth.

Further, past experience has shown that the best jobs in the tourist industry go to outsiders, not local people. Generally, the jobs local people do get are the most menial, low paying, require the least amount of training, and are non-personal because the local people may lack communication skills required by the industry.

The resort and second-home development will inflate the already high cost of living. Second homes bring little to the

local economy. Tourists will be agreeable to higher prices because of their short term demand and owners of second homes will have higher incomes to support the higher costs while local people will remain relatively constant in their purchasing power.

In addition, urban growth will harm and destroy the natural beauty, the open spaces, the quiet and gentle charm of our rural community. No price can be put on these precious resources that can never be replaced once taken away.

B) Clearly the land is usable and adaptable for the proposed uses we are advocating. The uses we propose are merely the present uses of the land. During recent times this land has been used for recreation and left as open space.

C) Conditions and trends of development have so changed since the adoption of the existing classification that the proposed conservation and agriculture classification is reasonable. Todays rising population, energy problem, high interest rates, runaway inflation, both national and international shortages of food and mineral resources, and the increasing importance of the State's diversified agriculture program, make the proposed redistricting reasonable and rational.

Proper planning requires the consideration of these situations for they constitute constraints on planning where we are to go regarding the construction of a viable future for Lanai and its people. The argument to be presented here will maintain that the Lanai Company's plan and the development of a viable agricultural base (alternative to pineaple) are mutually exclusive.

The argument for agriculture is basic. There is an ever increasing demand for food worldwide. This demand has approached crisis proportions in the light of the fact that millions are dying of malnutrition every year, the droughts in the grain-producing American Mid-west and Sub- Saharan Africa, the ever-increasing cost of food. It is common knowledge that our energy importation is being paid for in food exportation. Our energy needs are increasing at an exponential rate requiring greater dependence on fuel importation, while food production has nearly peaked, if it hasn't already. What then is the answer to this predicament? Rather than addressing itself to participating in the alleviation of this problem the plan will intensify the problem. Not only will the development require massive commitment of energy and resources in the constructing and the maintenance of the resort and second-home commuter transportation needs but there will be no additional increase in food production.

Lip-service can be given to the increase in agricultural lands and the maintenance of lands currently under pineapple cultivation. Agriculture is also energy intensive in its transportation, mechanization and fertilizer needs. Agriculture is the manifestation of a particular potential of land. It becomes an academic exercise to label land agriculture if the resources are not available to utilize its agricultural potential.

Lanai's water supply should be looked at in this context. Of all the constraints to development water is probably the most obvious. According to the Lanai Company Plan water appears

to be a critical resource. Pineapple presently requires one-half to one billion gallons a year. The development will require an additional one billion gallons a year. The total requirement for pineapple and the developments call for a water supply of 1½-2 billion gallons a year. Their studies as submitted to the Land Use Commission show a total potential of only 1.3 billion gallons a year, a significant deficit of 200-700 million gallons per year. This tends to put a careful balance between pineapple and the developments in their competition for water. If pineapple phases out, and since pineapple requires a relatively small water supply in comparison to other crops, won't the water commitment to the other developments rule out the possibility of finding an agricultural alternative for the 15,000 acres of cultivable pineapple lands?

Furthermore, return of this land to its past districting, agriculture and conservation, will not adversely affect the surrounding area.

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LAND USE COMMISSION

Supporting evidence to "Petition for Amendment Of Certain District Boundaries On Lanai Island"

LANAI REDISTRICTING PETITION

The preservation and conservation of recreational and open space areas on Lanai are essential to the welfare, health, and quality of life that Lanai people enjoy. These natural resources, of great benefit to the people of Lanai, are threatened by hotels, second homes, and a rapidly increasing population.

With the hotels and second homes planned by the Lanai Company will come tourists and new residents - more people to use and experience the natural resources of Lanai such as Hulopoe beach and Naha. These people will overcrowd Lanai. Over twelve thousand new residents will be added to Lanai's present population of about two thousand-five hundred. Already, Lanai residents experience discomfort from the numbers of people at Hulopoe beach.

Several State plans have recognized the problem of too many visitors and new residents. The Udall Open Space Plan says "Hawaii should be first and foremost a homeland for its permanent residents; their environmental needs must be paramount in all decisions about the future. Conversely, the needs of the tourism industry in Hawaii must be adapted to -- and not detract from -- the indigenous amenities of Hawaii." (from page nine). The needs of Lanai people must come before the proposed hotels for Lanai. A primary environmental need is the protection of Manele and especially Hulopoe beach. The resort planned for Manele will bring new people crowding Hulopoe beach and all of Manele. Additionally, the Open Space Study says that "Since spaciousness, cleanliness, and natural beauty are among Hawaii's prime assets, the government should give highest priority to enhancing these amenities." (from page ten). Manele and other similar places need protection from an onslaught of tourists and second home residents. Furthermore, the Hawaii Tourism Impact Plan has found need to protect shoreline areas (page 151).

The State Comprehensive Outdoor Recreation Plan (SCORP) recommends "...mechanisms which will protect recreation areas from encroachment by incompatible uses which limit access or diminish user enjoyment." (page 133). And the SCORP recognizes

that State and County goals and objectives indicate a need for "...conservation of the State's natural historic, and scenic resources." (page xii). Yet, Lanai's prime beach, swimming, and camping resource - Manele - is planned for development for the benefit of tourism at the expense of local people. Lanai has a great need for conserving its natural, recreational, scenic, and historic resources.

The proposed redistricting will protect the recreational oppurtunites and open space Lanai people enjoy. These State plans help express and reinforce the need for spacious and clean recreation and open space areas.

LANAI REDISTRICTING PETITION

The present districting of Lanai offers a large land speculation development of dubious benefit to the people of Lanai. The present Lanai plan calls for thousands of acres to be sold as country homes, ranchettes, and second homes. Petitioners feel that the rising land prices, increasing housing costs, and social-environmental impact due to the land speculation will harm the quality of life Lanai people now enjoy.

The State Tourism Impact Plan recognizes that the large numbers of lots in a development indicate a second home and retirement home market primarily directed to non-residents (from page 31). Additionally, the Plan sees:

> One important characteristic of the residential development planned is that many developers will be selling lots rather than housing units. This will especially be true of the detached second home residential uses projected on large acreages in many of the projects. Such sale of improved land on a large scale is indicative of the role that speculation will play in the development of many projects. (from page 32)

Furthermore, the Plan implies that resort projects like the Lanai Company's plan are for speculation (from page 32). The magnitude of the development offers an excellent speculation setting. Lastly, Chinn Ho has said (in an interview with "Hawaii Business" magazine, April, 1974), when talking about neighbor island investment oppurtunities:

> It would take a situation where we could get enough land around the actual resort site to take advantage of the appreciation realized by surrounding land when someone puts in a hotel and other facilities.

The petitioner clearly sees the Lanai plan to be a land speculation scheme not for the benefit of Lanai people. The vast acreages for low density residences to be sold as undeveloped lots plainly show the speculative nature of the development. Petitioners see no reason for the land to be speculated upon. The proposed redistricting will remove those immense acreages from that speculation-development not needed by Lanai people.

Several State plans recognize that speculation raises the price of land and housing thus intensifying the State's housing problems. The Open Space Study notes that:

> The speculative nature of these land sale developments will create serious problems for the future housing market on the Neighbor Islands. The sale and resale of land on a speculative basis will cause the price of land to escalate rapidly. Thus, when homes are actually constructed in response to the needs of the local populace, the inflated price of the land will have the effect of pushing up the total cost of housing. (from page 39)

And, The State Tourism Impact Plan sees that large land sales are intended for the second home and retirment home markets, primarily for people rich enough to build a home (page 31). It seems clear that the cost of housing will increase on Lanai (as well as the cost of land) and thus Lanai people will suffer from the increased prices. The proposed redistricting will stop the speculation-development and would provide the oppurtunity for better planning of Lanai island.

Water has always been scarce on the Island of Lanai. In H. T. Stearn's classic 1940 survey of the island's water resources, the dryness of the island is stressed throughout. He notes that the 3000 plus natives , " prior to 1778 according to Emory , depended chiefly on dew collected on oiled tapas or whipped from heavy shrubbery. Water that accumulated in natural depressions was husbanded carefully."

Rainfall, like on most of the subtropical islands of the Hawaiian chain, is very uneven and is sparser than on most other islands, because Lanai lies on the orographic rain shadow of West Maui & East Molokai. Annual rainfall ranges from a dry (7 inches) 17 cm on the coast to a moderate (38 inches) 96 cm. at the summit of Lanaihale. From the standpoint of water management, the paucity of water is complicated by the fact that, as Thomas Gray first put it, it never rains, but it pours. As Stearns points out, "Heavy downpours during a single kona storm commonly account for a considerable part of the annual rainfall, and in some of the arid sections, a single rain may contribute as much as 80 percent of the annual total." (emphasis mine) Needless to say, this aggravates the already difficult problem of water supply. In addition, rainfall exhibits severe seasonal and annual fluctuations. Annual rainfall at Keomuku varied between (1.7 & 33. inches) 4.4 * 83 cm over a 17 year period.

Shallow dug wells exist along the coast topping the shallow brackish basal lens of low level ground water. The geomorphology of the island requires that they be placed so close to the ocean

that the chloride content of the water is too high for human consumption because of tidal mixing effects in the basal lens. Estimates of the chloride count range from 600 to 2100 ppm. (The State Health Dept. places an oxygen limit of 250 ppm of chloride for drinking water, though several local families have grown up with well water rated above this.)

Basal ground water resources are neither plentiful nor of particularly good quality on Lanai. The water table is shallow and according to Stearn's resistivity survey, it only rises 2.04 meters in 7.2 kilometers (6.7 feet in 4.5 miles.)

High level acquifer ground water accounts for the bast bulk of Lanai's currently developed potable resources. A series of collection tunnels, top shafts, and collections at natural seeps provide Lanai City and Dole Company with an adequate, if not a plentiful, supply of quality water. Currently developed water for the entire island was estimated by R. A. Moore Associates recently to be 850 million gallons/year (3.22 million kiloliters.) They also cite a figure of 1324 MG/year (5.02 M. kiloliters) as the "total potential on a sustained basis." The size of this figure and the ambiguity of the phrase "sustained annual yield" suggests that Moore & Associates are referring to the sum total volume of potentially recoverable water on a sustaining yield basis for the period of one calendar year. By this accounting, the winter downpours balance the summer droughts with the net result of a deceptively large figure for available sustained yield water. For planning purposes a figure of 365 x the year's minimum daily sustained yield flow should be used.

Towill Corporation, Moore's engineering consultants were contacted in order to clarify this situation. In the twenty-four hours available they failed to provide such clarification, and we are forced to assume, in the light of Stearn's data, that the potential sustained yield water figure of 1324 MG/year is deceptively large. Furthermore to quote annual figures on a "sustained basis" is a little absurd, given the extreme seasonal fluctuations of Lanai's rainfall. Gallons per week on a sustained basis throughout the seasonal cycle should be recorded and the lowest week's sustained yield (probably in July) should be the basis for planning.

The Molokai Water Resources Feasibility Study by Parsons Brinekerhoff estimates water usage for hotel purposes at 600 gallons per room per day. For example, a 1000 unit hotel would require approximately 220 MG/year. This is nearly 50% of the undeveloped water on the island.

Attempts to coat this development pill with diversified agriculture are absurd. Pineapple is one of the few crops that requires no irrigation in the dry Lanai fields. There simply isn't the water for both diversified agriculture and development.

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EXHIBIT A

Magazine articles in reference to food shortage and energy problem.

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Food Production and the Energy Crisis

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energy inputs in U.S. and green revolution style crop production techniques. Our approach is to select a single crop, corn (maize), which typifies the energy inputs for crops in general, and to make a detailed analysis of its production energy inputs. With the data on input and output for corn as a model, an examination is then made of energy needs for a world food supply that depends on modern energy intensive agriculture. Using corn as an example, we consider alternatives in crop production technology which might reduce energy inputs in food production. Other than recognizing the high costs of U.S. energy intensive agriculture, we make no effort to examine any of the projected economic, sociological, or political "trade-offs" in the United States or other countries when the energy crisis upsets the world community (8).

By 1975 the world population is expected to reach 4 billion humans (*1*). As it continues to grow, there is increasing concern about ways to prevent wholesale starvation (*2*). Concurrently, an energy crisis (due to shortages and high prices) is expected as finite reserves of fossil fuels are rapidly depleted (*3*, *4*). The energy crisis is expected to have a significant impact on food production technology in the United States and the "green revolution," because both systems of crop production depend upon large energy inputs.

Both the U.S. type of agriculture and the "green revolution" type of agriculture have been eminently successful in increasing crop yields through improved technology. The ratio of persons not on farms to each farm worker in the United States increased from 10 in 1930 to 48 persons in 1971 (*5*, *6*). This has lead to great social change as numbers of unemployed, untrained farm laborers migrated to our cities (*7*). In addition, the costs to the natural environment have been great, as is reflected in depleted soils, pollution, disruption of natural plant and animal populations, and natural resource shortages. One nonrenewable resource fast being depleted is fossil fuel—the most important element in the impressive yields and quality of agriculture in the United States. Energy is used in mechanized agricultural production for machinery, transport, irrigation, fertlizers, pesticides, and other management tools. Fossil fuel inputs have, in fact, become so integral and indispensable to modern agriculture that the anticipated energy crisis will have a significant impact upon food production in all parts of the world which have adopted or are adopting the Western system.

As agriculturalists, we feel that a careful analysis is needed to measure

Energy Resources

As fossil fuel resources decline, the costs of obtaining fuels both from domestic and foreign sources will rapidly increase. If current use patterns continue, fuel costs are expected to double or triple in a decade (*4*) and to increase nearly fivefold by the turn of the century (*9*, *10*). When energy resources become expensive, significant changes in agriculture will take place.

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High energy use correlates closely with high gross national product (GNP) (*11*). In 1970, the United States consumed a total of 1.6×10^{16} kilocalories, or more than one-third of the total world energy consumption (*3*) and 35 percent of the world's petroleum (*12*)—for only one-seventeenth of the world population. This country's energy use has doubled during the past 20 years. In some types of agricultural production, the rate of energy use has increased more than threefold during the same period.

Hammond (*3*) reported that about 96 percent of the United States' energy "comes from fossil fuels: petroleum, 43 percent, mostly for transportation; natural gas, 33 percent; and coal, 20 percent. Hydroelectric energy accounts for about 3 percent of present production, and nuclear energy for about 1 percent." Peak petroleum consumption is expected to occur by the end of the century (*13*). Hammond (*3*) estimated that, if the United States were to use petroleum exclusively to provide all of its energy needs at present rates of consumption, the known, recoverable U.S. reserves would be depleted in only 5 years.

As was mentioned, crop production depends heavily on energy inputs just to produce the raw product. In addition, large amounts of energy are consumed as the raw products are transported to centers to be processed, frozen, canned, dehydrated, ground, baked, and so forth. Farmers process little of their own food, being dependent themselves upon the food processing, wholesaling, and retailing industries. They also depend on a multitude of other industries to supply machinery, fertilizers, pesticides, improved crop varieties, and other supplies. For every farm worker, it is estimated there are two farm support workers (*14*). Thus, about 20 percent of the nation's work force and industries are involved in supplying food (*14*). The farm-support and food processing industries may use more energy than farming itself, further emphasizing the dependence of our food system upon energy. The oft-quoted statistic that one farm worker feeds 48 persons (*5*) is misleading because the farmer depends on a complex of support industries.

Table 1. Average energy inputs in corn production during different years (all figures per acre).

Inputs	1945	1950	1954	1959	1964	1970
Labor*	23	18	17	14	11	9
Machinery (kcal × 10^6)†	180	250	300	350	420	420
Gasoline (gallons)‡	15	17	19	20	21	22
Nitrogen (pounds)§	7	15	27	41	58	112
Phosphorus (pounds)§	7	10	12	16	18	31
Potassium (pounds)§	5	10	18	30	29	60
Seeds for planting (bushels)‖	0.17	0.20	0.25	0.30	0.33	0.33
Irrigation (kcal × 10^6)¶	19	23	27	31	34	34
Insecticides (pounds)#	0	0.10	0.30	0.70	1.00	1.00
Herbicides (pounds)**	0	0.05	0.10	0.25	0.38	1.00
Drying (kcal × 10^6)††	10	30	60	100	120	120
Electricity (kcal × 10^6)‡‡	32	54	100	140	203	310
Transportation (kcal × 10^6)§§	20	30	45	60	70	70
Corn yields (bushel) ‖‖	34	38	41	54	68	81

* Mean hours of labor per crop acre in United States (*6*, *25*). † An estimate of the energy inputs for the construction and repair of tractors, trucks, and other farm machinery was obtained from the data of Berry and Fels (*63*), who calculated that about 31,968,000 kcal of energy was necessary to construct an average automobile weighing about 3400 pounds. In our calculations we assumed that 244,555,000 kcal (an equivalent of 13 tons of machinery) were used for the production of all machinery (tractors, trucks, and miscellaneous) to farm 62 acres of corn. This machinery was assumed to function for 10 years. Repairs were assumed to be 6 percent of total machinery production or about 15,000,000 kcal. Hence, a conservative estimate for the production and repair of farm machinery per corn acre per year for 1970 was 420,000 kcal. A high for the number of tractors and other farm machinery on farms was reached in 1964 and continues (*64*, *65*). The number of tractors and other types of machinery in 1945 were about half what they are now. ‡ DeGraff and Washbon (*66*) reported that corn production required about 15 gallons of fuel per acre for tractor use—intermediate between fruit and small grain production. Because corn appeared to be intermediate, the estimated mean fuel (gallons) burned in farm machinery per harvested acre was based on U.S. Department of Agriculture (*22*, *64*) and U.S. Bureau of the Census (*65*) data. § Fertilizers (N, P, K) applied to corn are based on USDA (*25*, *26*, *61*, *62*) estimates. ‖ During 1970, relatively dense corn planting required about one-third of a bushel of corn (25,000 kernels or 34,000 kcal) per acre; the less dense plantings in 1945 were estimated to use about one-sixth of a bushel of seed. Because hybrid seed has to be produced with special care, the input for 1970 was estimated to be 68,000 kcal. ¶ Only about 3.8 percent of the corn grain acres in the United States were irrigated in 1964 (*67*), and this is not expected to change much in the near future (*68*). Although a small percentage, irrigation is costly in terms of energy demand. On the basis of the data of Epp (*69*) and Theoflinnan *et al.* (*70*), an estimated 905,600 kcal is required to irrigate an acre of corn with an acre-foot of water for one season. Higher energy costs for irrigation water are given by *The Report on the World Food Problem* (*2*). Since only 3.8 percent of the corn acres are irrigated (1964–1970), it was estimated that only 34,000 kcal were used per acre for corn irrigation. The percentage of acres irrigated in 1945 was based on trends in irrigated acres in agriculture (*55*, *67*). # Estimates of insecticides applied per acre of corn are based on the fact that little or no insecticide was used on corn in 1945, and this reached a high in 1964 (*28*, *51*). ** Estimates of herbicides applied per acre of corn are based on the fact that little or no herbicides were used on corn in 1945 and that this use continues to increase (*28*, *51*). †† When it is dried for storage to reduce the moisture from about 26 percent to 13 percent, about 408,204 kcal are needed to dry bushels (*71*). About 30 percent of the corn was estimated to have been dried in 1970 as compared to an estimated 10 percent in 1945. ‡‡ Agriculture consumed about 2.5 percent of all electricity produced in 1970 (*24*) and an estimated 424.2 trillion British thermal units of fossil fuel were used to produce this power (*72*); on croplands this divides to 310,000 kcal per acre for 1970 (*6*, *51*). The fuel used to produce the electrical energy for earlier periods was estimated from data reported in *Statistical Abstracts* (*73*). §§ Estimates of the number of calories burned to transport machinery and supplies to corn acres and to transport corn to the site of use is based on data from U.S. Department of Commerce (*74*), U.S. Bureau of the Census (*65*, *67*, *72*), Interstate Commerce Commission (*75*), and U.S. Department of Transportation (*76*). For 1964 and 1970 this was estimated to be about 70,000 kcal per acre, it was about 20,000 kcal per acre in 1945. ‖‖ Corn yield is expressed as a mean of 3 years, 1 year previous and 1 year past (*55*, *59*, *60*).

Corn Production and Energy Inputs

To investigate the relationship of energy inputs to crop production, we selected corn for the following reasons. (i) Corn generally typifies the energy inputs in U.S. crop production for it is intermediate in energy inputs between the extremes of high energy-demand fruit production and low energy-demand tame hay and small grain production. (ii) Corn is one of the leading grain crops in the United States and the world. (iii) More data are available on corn than on other crops. Concerning corn data, we have had to rely heavily on Department of Agriculture survey data and estimates provided by various other studies. Although the best available, some of these data have inherent limitations. Despite these shortcomings, this analysis provides a valuable perspective concerning the large energy inputs in U.S. agriculture.

Corn, the most important grain crop grown in the United States, ranks third in world production of food crops (*15*). In terms of world cereal grains, it ranks second to wheat. During 1971, world corn production on 279 million acres was 308 million metric tons (*16*).

Corn yield per acre (1 acre = 0.405 hectare) in the United States has increased significantly from 1909 to 1971 (Fig. 1). During 1909, the corn yield averaged 26 bushels per acre, and during 1971 it averaged 87 bushels per acre. A sharp rise in production per acre started about 1950—a time when many changes, including the planting of hybrid corn, were taking place in corn culture (*17–19*). The planting of hybrid corn probably accounts for

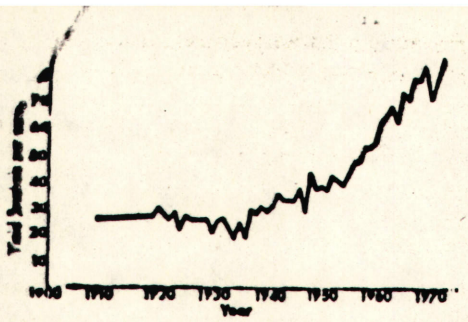

Fig. 1. Corn production (bushels per acre) in the United States from 1909 to 1971 (*55, 59, 60*).

20 to 40 percent of the increased corn yields since the 1940's with energy resource inputs accounting for 60 to 80 percent (*17, 20, 21*). Hybrid corn and energy inputs toward increased yields overlap because corn plants are often selected for characteristics that make the plant perform well under specific environmental conditions as, for example, with high fertilizer inputs. Without the appropriate genetic background, the corn plant will not respond to the fertilizer inputs and, of course, the corn plant cannot respond if fertilizer is absent.

While corn yields increased about 240 percent from 1945 to 1970, the labor input per acre decreased more than 60 percent (Table 1). Intense mechanization reduced the labor input and, in part, made possible the increased corn yield.

Machinery in agriculture has increased significantly during the past 20 years; the mean rate of horsepower per farm worker has increased from 10 in 1950 to 47 in 1971 (*5*). The number of tractors increased (88 percent) from 2.4 million in 1945 to 4.5 million in 1972 (*6, 22*). Concurrently, the rated horsepower of these tractors increased 2.6-fold from 18.0 to 46.6 horsepower (*6, 22*). The mean number of acres farmed per tractor was 62 in 1963 (*22*). In our estimates we assumed that tractors and other machinery were used to farm 62 acres and assumed to function for 10 years (Table 1).

Fuel consumption for all farm machinery rose from slightly more than 3.3 billion gallons (1 gallon = 3.8 liters) in 1940 to about 7.6 billion gallons in 1969 (*22, 65*). For total U.S. corn production, fuel consumption for all machinery rose from an estimated 15 gallons per acre in 1945 to about 22 gallons per acre in 1970 (Table 1). Indeed, farming uses more petroleum than any other single industry (*24*).

The use of fertilizer in corn production has been rising steadily since 1945 (Fig. 2). An estimated 7 pounds (1 pound = 0.4 kilogram) of nitrogen, 7 pounds of phosphorus, and 5 pounds of potassium were applied per acre to the acres fertilized in 1945 (*25*). By 1970 the application of fertilizers had risen to 112 pounds of nitrogen, 31 pounds of phosphorus, and 60 pounds of potassium per acre (*26*). The increase in nitrogen alone has been about 16-fold.

Other inputs in corn production include seeds, irrigation, and pesticides (Table 1). The use of pesticides in corn has been increasing rapidly during the past 20 years and this parallels the general increase in pesticide use in the United States (*27*) (Table 1).

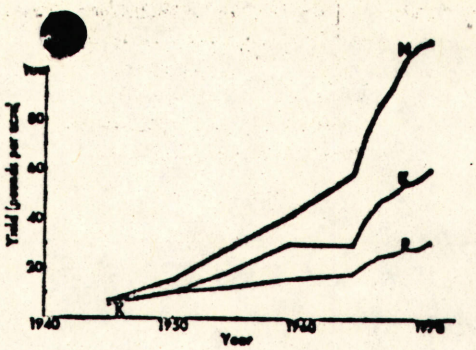

Fig. 2. Fertilizer (nitrogen, phosphorus, and potassium) applied per acre in corn production (*25, 26, 61, 62*).

About 41 percent of all herbicides and 17 percent of all insecticides used in agriculture are applied to corn (*28*).

Hybrid corn that is currently harvested has a higher moisture content because the newer varieties have growing seasons which extend further into the fall when drying conditions are poor (*19*). Moisture content above 13 percent (the maximum suitable for long-term storage) causes spoilage, and a drying process is used to reduce moisture (Table 1).

Agriculture consumed about 2.5 percent of all electricity produced (Table 1). The energy input for transportation is an important feature of modern intensive agriculture (Table 1). Machinery, pesticides, seeds, gasoline, and other supplies must be transported to the farm. Then the corn harvest must be transported to the place of use for animal feed or processing.

To gain an idea of the changes occurring over a period of time in corn production energy inputs, the years

Table 2. Energy inputs (kilocalories) in corn production.

Input	1945	1950	1954	1959	1964	1970
Labor*	12,500	9,800	9,300	7,600	6,000	4,900
Machinery†	180,000	250,000	300,000	350,000	420,000	420,000
Gasoline‡	543,400	615,800	688,300	724,500	760,700	797,000
Nitrogen§	58,800	126,000	226,800	344,400	487,200	940,800
Phosphorus‖	10,600	15,200	18,200	24,300	27,400	47,100
Potassium¶	5,200	10,500	50,400	60,400	68,000	68,000
Seeds for planting#	34,000	40,400	18,900	36,500	30,400	
Irrigation†	19,000	23,000	27,000	31,000	34,000	34,000
Insecticides**	0	1,100	3,300	7,700	11,000	11,000
Herbicides††	0	600	1,100	2,800	4,200	11,000
Drying†	10,000	30,000	60,000	100,000	120,000	120,000
Electricity†	32,000	54,000	100,000	140,000	203,000	310,000
Transportation†	20,000	30,000	45,000	60,000	70,000	70,000
Total inputs	925,500	1,206,400	1,548,300	1,889,200	2,241,900	2,896,800
Corn yield (output)‡‡	3,427,200	3,830,400	4,132,800	5,443,200	6,854,400	8,164,800
Kcal return/input kcal	3.70	3.18	2.67	2.88	3.06	2.82

* It is assumed that a farm laborer consumes 21,770 kcal per week and works a 40-hour week. For 1970: (9 hours/40 hours) × 21,770 kcal = 4,900 kcal. † See Table 1. ‡ Gasoline, 1 gallon = 36,225 kcal (*77*). § Nitrogen, 1 pound = 8,400 kcal, including production and processing (*78*). ‖ Phosphorus, 1 pound = 1,920 kcal, including mining and processing (*79*). ¶ Potassium, 1 pound = 1,050 kcal, including mining and processing (*79*). # Corn seed, 1 pound = 1,800 kcal (*11*). This energy input was doubled because of the effort employed in producing hybrid seed corn. ** Insecticides, 1 pound = 11,000 kcal including production and processing (similar to herbicide; see ††). †† Herbicides, 1 pound = 11,000 kcal including production and processing (*77*). ‡‡ Each pound of corn was assumed to contain 1,800 kcal (*33*) and a bushel of corn was considered to be 56 pounds.

[illegible], 1954, 1959, 1964, and 1970 were selected for a detailed analysis (Tables 1 and 2). Exact 5-year intervals were not selected because more complete data were available on these specific years than on others.

In 1970 about 2.9 million kcal was used by farmers to raise an acre of corn (equivalent to 80 gallons of gasoline) (Table 2). From 1945 to 1970, mean corn yields increased from about 34 bushels per acre to 81 bushels per acre (2.4-fold); however, mean energy inputs increased from 0.9 million kcal to 2.9 million kcal (3.1-fold) (Table 2). Hence, the yield in corn calories decreased from 3.7 kcal per one fuel kilocalorie input in 1945 to a yield of about 2.8 kcal from the period of 1954 to 1970, a 24 percent decrease.

The 2.9 million kcal input of fossil fuel represents a small portion of the energy input when compared with the solar energy input. During the growing season, about 2043 million kcal reaches a 1-acre cornfield; about 1.26 percent of this is converted into corn and about 0.4 percent in corn grain (at 100 bushels per acre) itself (*29*). The 1.26 percent represents about 26.6 million kcal. Hence, when solar energy input is included, man's 2.9-million-kcal fossil fuel input represents about 11 percent of the total energy input in corn production. The important point is that the supply of solar energy is unlimited in time, whereas fossil fuel supply is finite.

The trends in energy inputs and corn yields confirm several agricultural evaluations which conclude that the impressive agricultural production in the United States has been gained through large inputs of fossil energy (*8*, *30*).

Alternatives

Some alternatives may be needed to reduce energy inputs in agricultural food production when conventional energy resources become in short supply and costs soar. Some of the practical alternatives which might be employed in corn and other crop production are reviewed below.

The energy input from farm labor in corn production is the smallest of all inputs, only 4,900 kcal (Table 2). Increasing some labor inputs can significantly reduce some energy inputs. For example, one application of herbicide to corn requires about 18,000 kcal/acre if applied by tractor and sprayer (*31*) but less than 300 kcal if applied by hand sprayer. Although 1/60 as much energy is used, the labor cost of hand application today is about four times that of the tractor application. Hand application might become economically profitable when fuel costs increase and if herbicides are used in spot treatment only.

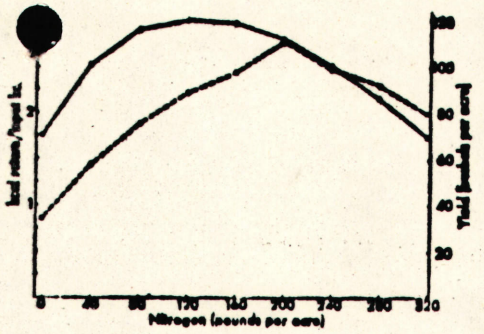

Fig. 3. Corn yields (bushels per acre, dashed line) with varying amounts of nitrogen (phosphorus = 34 pounds per acre) applied per acre (*45*). The kilocalorie return per kilocalorie of input (solid line) was calculated from the data of Munson and Doll (*45*) and from the 1970 input data in Tables 1 and 2.

Machinery and gasoline comprise a large energy input in corn production (Table 2). A viable alternative for reducing this fuel use would be to use machinery precisely scaled for its job and operate it at efficient speeds (*32*). Some of the extremely large tractors and other machinery will do more work per unit time, but this efficiency is offset by greater fuel requirements during operation. In addition, increasing the number of acres tended by a tractor or other machinery (currently about 62 acres per tractor) would help reduce this input. Horses and mules are not satisfactory substitutes for machinery because of the large quantity of energy they consume in feed (*33*).

The single largest input in corn production is fertilizer; nitrogen requires the largest quantity of energy to produce (Tables 1 and 2). A potential fertilizer source is the small percentage of livestock manure that is not now being used in crop production.

We mentioned that chemical fertilizer is applied to corn at a rate of 112 pounds of nitrogen, 31 pounds of phosphorus, and 60 pounds of potassium (Table 1). A like amount of nitrogen is available from manure produced during one year by either 1 dairy cow, 2 young fattening beef cattle, 9 hogs, or 84 chickens (*34*). In addition to the nutrients manure adds to the soil, it adds organic matter which increases the number of beneficial bacteria and fungi in the soil, makes plowing easier, improves the waterholding and percolation capacity of soil, reduces soil erosion, and improves the ratio of carbon to nitrogen in the soil (*35*).

The major costs of using manure for crop production are hauling and spreading. Hauling and spreading manure within a radius of ½ to 1 mile (1 mile = 1.6 kilometers) is estimated to require 1.1 gallons of gasoline per ton [calculated from data of Linton (*36*)]. If the average manure application is 10 tons (production by 1 cow for 1 year) per acre, an estimated 398,475 kcal (11 gallons of gasoline) per acre is necessary to apply the manure and hence to fertilize corn with manure. Producing chemical fertilizer (112 pounds of nitrogen, 31 pounds of phosphorus, 60 pounds of potassium) for 1 acre requires a total of 1,415,200 kcal (Table 2). One gallon of gasoline is used for tractor application, therefore a total of 1,451,425 kcal for chemical fertilizer application is used. Hence, if manure were substituted for chemical fertilizer, the savings in energy would be a substantial 1.1 million kcal per acre.

Current U.S. livestock manure production is estimated to be 1.7 billion tons per year, over 50 percent of which is produced in feedlots and confinement rearing situations (*37*). If 20 percent of the manure produced in feedlots and confinement rearing situations (0.17 billion tons) were available for use in corn production, 17.0 million acres of corn could be fertilized at an average manure application rate of 10 tons per acre. The above acreage would be 30 percent of the 1970 harvested grain corn acreage (*38*). In addition to saving valuable fuel energy, applying this manure to crop land would effectively recycle these animal wastes (*39*).

If some of the livestock manure from feedlots and confinement rearing situations is to be used, then these livestock production facilities would have to be moved closer to cropland where the manure is to be used. Redistributing livestock facilities would itself require a careful analysis of associated costs.

Nitrogen fertilizer inputs can also be reduced by planting legumes or other alternate crops in rotation with corn. For example, planting sweet clover in the fall and plowing it under 1 year later will add about 150 pounds of nitrogen per acre to the soil (*40*). Rotating corn with a legume would also effectively control the corn rootworm (*41*), would reduce corn disease

lems (*42*), and would reduce weed problems (*43*).

When rotations are not feasible, it is possible to plant legumes between corn rows in late August and to plow this green manure under in early spring. In the northeast, Sprague (*44*) reports that seeding corn acreage to winter vetch in late August and plowing the vetch under in late April yielded about 133 pounds of nitrogen per acre. A cover crop also protects the soil from wind and water erosion during the winter and has the same advantages as manure in adding organic matter to the soil.

The energy cost of seeding a legume, we estimate, would require about 90,000 kcal/acre (fuel and seeds). For the commercial production of 133 pounds of nitrogen, 1.53 million kcal are needed; thus the energy saved by planting a legume for green manure would be substantial or 1.5 million kcal/acre. Hence, green manure offers a greater saving than livestock manure.

With fertilizer and other alternative inputs, a measure should be made to determine the maximum benefit per input in combination with all other inputs. In an investigation of fertilizer inputs in Iowa, Munson and Doll (*45*) reported that with 34 pounds of phosphorus per acre and 200 pounds of nitrogen per acre, they calculated mean corn yields of about 101 bushels per acre with all other inputs held constant (Fig. 3). Combining most of the 1970 energy input data from Tables 1 and 2 with the nitrogen, phosphorus, and corn yield data of Munson and Doll, we calculated the kilocalorie return per kilocalories input (Fig. 3). Maximum return was 3.0 kcal for 1 kcal input at 120 pounds of nitrogen per acre. A return of 2.8 for 1 was estimated for 1970 with the use of 112 pounds of nitrogen and 31 pounds of phosphorus per acre (Table 2). On the basis of only nitrogen inputs combined with the other inputs listed for 1970, it would appear that 112 pounds of nitrogen per acre provide nearly a maximum kilocalorie return per input kilocalorie.

Weeds can be controlled effectively and economically by either mechanical cultivation, herbicides, or a combination (*46*). On the basis of the energy expenditure, herbicidal weed control requires more energy than mechanical cultivation. For example, using 2 pounds of preemergence and 2 pounds of postemergence herbicides per acre requires a total energy input of about 80,225 kcal/acre (11,000 kcal per pound of herbicide plus 1 gallon gasoline for two applications) (*31*). The use of three cultivations (rotary hoe twice) would require an estimated 2 gallons of gasoline or 72,450 kcal/acre. Although the saving is not as large as some, alternatives do exist for reducing energy inputs for weed control.

With postemergence herbicides under certain conditions, it might be possible to spot-treat and therefore reduce the total quantity of herbicide used. To be done effectively, more labor would be necessary. In general, today's high labor and low energy costs would prohibit this, but with high energy costs, spot treatments could become economically feasible.

Rotating corn with other crops such as legumes and small grains may significantly reduce weed problems (*47*) and, therefore, reduce energy inputs for weed control.

Minimum tillage may also offer some opportunity to reduce energy inputs in plowing and disking, but this must be balanced against increased pest problems. A more complete analysis would be necessary to determine the precise costs and benefits of this alternative.

The protein content of corn has changed little since 1910, averaging about 9 percent (*48, 49*). However, the protein content of corn could be increased by selection to 12 to 15 percent (*50*). The value of increasing the quantity of protein in corn by even 1 percent is clear when it is calculated that this would reduce the need for 2 million tons of soybean meal in U.S. mixed feeds (*48*). Some increased energy inputs, such as nitrogen, would be necessary for cultivars of high protein corn, but the benefits would more than offset the costs.

Breeding corn for insect, disease, and bird resistance would in itself reduce the energy inputs of pesticides. At the same time this would reduce problems from pesticide pollution. Also, less energy would be needed for corn production if new corn varieties could be developed for faster maturity, reduced moisture content, greater water efficiency, and improved fertilizer response.

While only a small percentage (3.8 percent) of corn acres is irrigated, transporting water is an operation that demands lots of energy. The only alternative to reduce irrigation costs is to raise corn in regions where irrigation is seldom necessary. In the future, high energy costs may automatically reduce the percentage of corn acres irrigated.

The energy input for transportation of equipment and supplies to and from the farm is considerable. A real opportunity to reduce this input would be to move more of the materials and goods by train than by truck, because trains are significantly more efficient for transport (*8*).

Most of the alternatives mentioned would probably not fit easily into current corn management programs; however, when energy becomes costly, some or all of the alternatives may become practical and necessary. Furthermore, it should be emphasized that in some cases the partial use of one or more alternatives may prove to be the most economical procedure. By employing combinations of several of these alternatives, we estimate that it would be possible to reduce energy inputs by about a half and still maintain present yields. The economic feasibility of this depends of course upon many factors—including future energy costs.

World Food Supply

The shortages of food supplies in some nations (*2*) have prompted the United States to develop various international agricultural programs to aid in the "green revolution." Green revolution agricultural technology requires high energy inputs especially in fertilizers, pesticides, and hybrid seeds. Obviously, as energy shortages occur and costs increase, the success of the green revolution will be affected. For this reason, the problems of food production and energy demand on a worldwide basis are briefly examined.

In estimating the fuel energy needs to feed 4 billion humans, modern production technology similar to U.S. and green revolution agriculture is assumed. Energy data on U.S. corn will be used since it approximates average inputs and outputs in modern crop production. Our analysis indicated that about 2.9 million kilocalories of energy was used to raise an acre of corn in 1970—the equivalent of 80 gallons (2.5 barrels) of gasoline per acre (Table 2).

An estimated 330 million acres were planted in crops in 1970 (excluding cotton and tobacco) (*6, 51*). With about 200 million people in the United States, this averages about 1.7 acres per capita; but since about 20 percent of our crops is exported, the estimated acreage is about 1.4 acres per capita. In terms of fuel per person for food, employing modern intensive agricul-

this is the equivalent of 112 gallons of gasoline per person (80 gallons per acre × 1.4 acres per person = 112 gallons). Using U.S. agricultural technology to feed a world population of 4 billion on an average U.S. diet for 1 year would require the energy equivalent of 488 billion gallons of fuel.

To gain some idea about what the energy needs would be for different diets if U.S. agricultural technology were employed, an estimate is made of how long it would take to deplete the known and potential world reserves of petroleum. The known reserves have been estimated to be 546 billion barrels (*52*). If we assume that 76 percent of raw petroleum can be converted into fuel (*52*), this would equal a usable reserve of 415 billion barrels. *If petroleum* were the only source of energy and if we used *all* petroleum reserves solely to feed the world population, the 415-billion-barrel reserve would last a mere 29 years [(415 billion barrels/448 billion gallons)/(31.5 gallons per barrel = 29 years)]. The estimate would be 107 years if all potential reserves (2000 billion barrels) (*53*) of petroleum were used for food production. However, if the world population were willing to eat nothing but corn grain, potential petroleum reserves could feed a projected 10 billion humans for 448 years.

Contrary to popular belief, U.S. food production costs are high (*54*). Although only 16.6 percent of a person's total disposable mean income of $3595 in the United States was spent for food in 1970 (*5, 23*), the percentage is small only because U.S. per capita earnings are high. The 16.6 percent of U.S. per capita income of $3595 for food is $597. Since a third of food retail prices is production costs (*55*), it costs about $199 to produce $597 worth of food or 3110 kcal per person per day per year [including 66 g of animal protein and 18 g of animal fat (*2, 56*)]. This is the equivalent of 5280 plant kcal per person per day per year (assuming that 7 kcal of plant product is needed to produce 1 kcal of animal protein and fat with 1 g of animal protein = 4 kcal and 1 g of fat = 9 kcal). Thus, the cost for 1000 kcal of plant product is about $38.

In India about 77 percent of a person's income is spent for food with expenditures per capita averaging about $23 (includes marketing costs) per year (*2*). The calorie intake per person per day averages 2000 kcal, with animal protein being about 7 g per day animal fats assumed to be 2 g (*2*). This is the equivalent of 2280 plant kcal per person per day per year. Thus the cost for 1000 plant kcal is about $10. Hence, the cost of producing 1000 plant kcal per day per year in India is significantly less than the $38 costs in the United States. This is in part due to the difference between nations in the plant crops used for food.

Conclusions

The principal raw material of modern U.S. agriculture is fossil fuel, whereas the labor input is relatively small (about 9 hours per crop acre). As agriculture is dependent upon fossil energy, crop production costs will also soar when fuel costs increase two- to fivefold. A return of 2.8 kcal of corn per 1 kcal of fuel input may then be uneconomical.

Green revolution agriculture also uses high energy crop production technology, especially with respect to fertilizers and pesticides. While one may not doubt the sincerity of the U.S. effort to share its agricultural technology so that the rest of the world can live and eat as it does, one must be realistic about the resources available to accomplish this mission. In the United States we are currently using an equivalent of 80 gallons of gasoline to produce an acre of corn. With fuel shortages and high prices to come, we wonder if many developing nations will be able to afford the technology of U.S. agriculture.

Problems have already occurred with green revolution crops, particularly problems related to pests (*57*). More critical problems are expected when there is a world energy crisis. A careful assessment should be made of the benefits, costs, and risks of high energy-demand green revolution agriculture in order to be certain that this program will not aggravate the already serious world food situation (*58*).

To reduce energy inputs, green revolution and U.S. agriculture might employ such alternatives as rotations and green manures to reduce the high energy demand of chemical fertilizers and pesticides. U.S. agriculture might also reduce energy expenditures by substituting some manpower currently displaced by mechanization.

While no one knows for certain what changes will have to be made, we can be sure that when conventional energy resources become scarce and expensive, the impact on agriculture as an industry and as a way of life will be significant. This analysis is but a preliminary investigation of a significant agricultural problem that deserves careful attention and greater study before the energy situation becomes more critical.

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Energy Use in the U.S. Food System

John S. Steinhart and Carol E. Steinhart

In a modern industrial society, only a tiny fraction of the population is in frequent contact with the soil, and an even smaller fraction of the population raises food on the soil. The proportion of the population engaged in farming halved between 1920 and 1950 and then halved again by 1962. Now it has almost halved again, and more than half of these remaining farmers hold other jobs off the farm (*1*). At the same time the number of work animals has declined from a peak of more than 22×10^6 in 1920 to a very small number at present (*2*). By comparison with earlier times, fewer farmers are producing more agricultural products and the value of food in terms of the total goods and services of society now amounts to a smaller fraction of the economy than it once did.

Energy inputs to farming have increased enormously during the past 50 years (*3*), and the apparent decrease in farm labor is offset in part by the growth of support industries for the farmer. With these changes on the farm have come a variety of other changes in the U.S. food system, many of which are now deeply embedded in the fabric of daily life. In the past 50 years, canned, frozen, and other processed foods have become the principal items of our diet. At present, the food processing industry is the fourth largest energy consumer of the Standard Industrial Classification groupings (*4*). The extent of transportation engaged in the food system has grown apace, and the proliferation of appliances in both numbers and complexity still continues in homes, institutions, and stores. Hardly any food is eaten as it comes from the fields. Even farmers purchase most of their food from markets in town.

Present energy supply problems make the growth of energy use in the food system worth investigating. It is our purpose in this article to do so. But there are larger matters at stake. Georgescu-Roegen notes that "the evidence now before us—of a world which can produce automobiles, television sets, etc., at a greater speed than the increase in population, but is simultaneously menaced by mass starvation—is disturbing" (*5*). In the search for a solution to the world's food problems, the common attempt to transplant a small piece of a highly industrialized food system to the hungry nations of the world is plausible enough, but so far the outcome is unclear. Perhaps an examination of the energy flow in the U.S. food system as it has developed can provide some insights that are not available from the usual economic measures.

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Measures of Food Systems

Agricultural systems are most often described in economic terms. A wealth of statistics is collected in the United States and in most other technically advanced countries indicating production amounts, shipments, income, labor, expenses, and dollar flow in the agricultural sector of the economy. But, when we wish to know something about the food we actually eat, the statistics of farms are only a tiny fraction of the story.

Energy flow is another measure available to gauge societies and nations. It would have made no sense to measure societies in terms of energy flow in the 18th century when economics began. As recently as 1940, four-fifths of the world's population were still on farms and in small villages, most of them engaged in subsistence farming.

Only after some nations shifted large portions of the population to manufacturing, specialized tasks, and mechanized food production, and shifted the prime sources of energy to move society to fuels that were transportable and usable for a wide variety of alternative activities, could energy flow be used as a measure of societies' activities. Today is only in one-fifth of the world where these conditions are far advanced. Yet we can now make comparisons of energy flows even with primitive societies. For even if the primitives, or the euphemistically named "underdeveloped" countries, cannot shift freely among their energy expenditures, we *can* measure them and they constitute a different and potentially useful comparison with the now traditional economic measures.

What we would like to know is: How does our present food supply system compare, in energy measures, with those of other societies and with our own past? Perhaps then we can estimate the value of energy flow measures as an adjunct to, but different from, economic measures.

Energy in the U.S. Food System

A typical breakfast includes orange juice from Florida by way of the Minute Maid factory, bacon from a midwestern meat packer, cereal from Nebraska and General Mills, eggs and milk from not *too* far away, and coffee from Colombia. All of these things are available at the local supermarket (several miles each way in a 300-horsepower automobile), stored in a refrigerator-freezer, and cooked on an instant-on stove.

The present food system in the United States is complex, and the attempt to analyze it in terms of energy use will introduce complexities and questions far more perplexing than the same analysis carried out on simpler societies. Such an analysis is worthwhile, however, if only to find out where we stand. We have a food system, and most people get enough to eat from it. If, in addition, one considers the food supply problems present and future in societies where a smaller fraction of the people get enough to eat, then our experience with an industrialized food system is even more important. There is simply no gainsaying that many nations of the world are presently attempting to acquire industrialized food systems of their own.

Food in the United States is expensive by world standards. In 1970 the average annual per capita expenditure for food was about $600 (*1*). This amount is larger than the per capita gross domestic product of more than 30 nations of the world which contain the majority of the world's people and a vast majority of those who are under-

Courtesy U.S. Department of Agriculture, Washington, D.C.

fed. Even if we consider the diet of a poor resident of India, the annual cost of his food at U.S. prices would be about $200—more than twice his annual income (*3*). It is crucial to know whether a piece of our industrialized food system can be exported to help poor nations, or whether they must become as industrialized as the United States to operate an industrialized food system.

Our analysis of energy use in the food system begins with an omission. We will neglect that crucial input of energy provided by the sun to the plants upon which the entire food supply depends. Photosynthesis has an efficiency of about 1 percent; thus the maximum solar radiation captured by plants is about 5×10^5 kilocalories per square meter per year (*3*).

Seven categories of energy use on the farm are considered here. The amounts of energy used are shown in Table 1. The values given for farm machinery and tractors are for the manufacture of new units only and do not include parts and maintenance for units that already exist. The amounts shown for direct fuel use and electricity consumption are a bit too high because they include some residential uses of the farmer and his family. On the other hand, some uses in these categories are not reported in the summaries used to obtain the values for direct fuel and electricity usage. These and similar problems are discussed in the references. Not [illegible] relatively high energy cost associated with irrigation. In the United States less than 5 percent of the cropland is irrigated (*1*). In some countries where the "green revolution" is being attempted, the new high-yield varieties of plants require irrigation where native crops did not. If that were the case in the United States, irrigation would be the largest single use of energy on the farm.

Little food makes its way directly from field and farm to the table. The vast complex of processing, packaging, and transport has been grouped together in a second major subdivision of the food system. The seven categories of the processing industry are listed in Table 1. Energy use for the transport of food should be charged to the farm in part, but we have not done so here because the calculation of the energy values is easiest (and we believe most accurate) if they are taken for the whole system.

After the processing of food there is further energy expenditure. Transportation enters the picture again, and some fraction of the energy used for transportation should be assigned here. But there are also the distributors, wholesalers, and retailers, whose freezers, refrigerators, and very establishments are an integral part of the food system. There are also the restaurants, schools, universities, prisons, and a host of other institutions engaged in the procurement, preparation, storage, and supply of food. We have chosen to examine only three categories: the energy required for refrigeration and cooking, and for the manufacture of the heating and refrigeration equipment (Table 1). We have made no attempt to include the energy used in trips to the store or restaurant. Garbage disposal has also been omitted, although it is a persistent and growing feature of our food system; 12 percent of the nation's trucks are engaged in the activity of waste disposal (*1*), of which a substantial part is related to food. If there is any lingering doubt that these activities—both the ones included and the ones left out—are an essential feature of our present food system, one need only ask what would happen if everyone should attempt to get on without a refrigerator or freezer or stove? Certainly the food system would change.

Table 1 and the related references summarize the numerical values for energy use in the U.S. food system, from 1940 to 1970. As for many activities in the past few decades, the story is one of continuing increase. The totals are displayed in Fig. 1 along with the energy value of the food consumed by the public. The food values were obtained by multiplying the daily caloric intake by the population. The differences in caloric intake per capita over this 30-year period are small (*1*), and the curve is primarily an indication of the increase in population in this period.

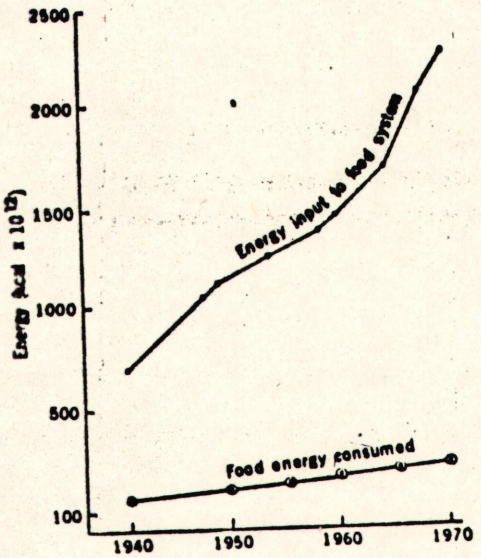


Fig. 1. Energy use in the food system, 1940 through 1970, compared to the caloric content of food consumed.

Omissions and Duplications for Food System Energy Values

Several omissions, duplications, and overlaps have been mentioned. We will now examine the values in Table 1 for completeness and try to obtain a crude estimate of their numerical accuracy.

The direct fuel and electricity usage on the farm may be overstated by some amounts used in the farmer's household, which, by our approach, would not all be chargeable to the food system. But about 10 percent of the total acreage farmed is held by corporate farms for which the electrical and direct fuel use is not included in our data. Other estimates of these two categories are much higher [see Table 1 (*15*, *16*)].

No allowance has been made for food exported, which has the effect of overstating the energy used in our own food system. For the years prior to 1960 the United States was at times a net importer of food, at times an exporter, and at times there was a near balance in this activity. But during this period the net flow of trade was never more than a few percent of the total farm output. Since 1960 net exports have increased to about 20 percent of the gross farm product (*1*, *3*). The items comprising the vast majority of the exports have been rough grains, flour, and other plant products with very little processing. Imports include more processed food than exports and represent energy expenditure outside the United States. Thus the overestimate of energy input to the food system might be 5 percent with an upper limit of 15 percent.

The items omitted are more numerous. Fuel losses from the wellhead or mineshaft to end use total 10 to 12 percent (*6*). This would represent a flat addition of 10 percent or more to the totals, but we have not included this item because it is not customarily charged to end uses.

We have computed transport energy

for trucks only. Considerable food is transported by train and ship, but these items were omitted because the energy use is small relative to the consumption of truck fuel. Small amounts of food are shipped by air, and, although air shipment is energy intensive, the amount of energy consumed appears small. We have traced support materials until they could no longer be assigned to the food system. Some transportation energy consumption is not charged in the transport of these support materials. These omissions are numerous and hard to estimate, but they would not be likely to increase the totals by more than 1 or 2 percent.

A more serious understatement of energy usage occurs with respect to vehicle usage (other than freight transport) on farm business, food-related business in industry and commercial establishments, and in the supporting industries. A special attempt to estimate this category of energy usage for 1968 suggests that it amounts to about 5 percent of the energy totals for the food system. This estimate would be subject to an uncertainty of nearly 100 percent. We must be satisfied to suggest that 1 to 10 percent should be added to the totals on this account.

Waste disposal is related to the food system, at least in part. We have chosen not to charge this energy to the food system, but, if one-half of the waste disposal activity is taken as food-related, about 2 percent must be added to the food system energy totals.

We have not included energy for parts and maintenance of machinery, vehicles, buildings, and the like, or lumber for farm, industry, or packaging uses. These miscellaneous activities would not constitute a large addition in any case. We have also excluded construction. Building and replacement of farm structures, food industry structures, and commercial establishments are all directly part of the food system. Construction of roads is in some measure related to the food system, since nearly half of all trucks transport food and agricultural items [see Table 1 (*27*)]. Even home construction could be charged in part to the food system since space, appliances, and plumbing are, in part, a consequence of the food system. If 10 percent of housing, 10 percent of institutional construction (for institutions with food service), and 10 percent of highway construction is included, about 10 percent of the total construction was food-related in 1970. Assuming that the total energy consumption divides in the same way that the Gross National Product does (which overstates energy use in construction), the addition to the total in Table 1 would be about 10 percent or 200×10^{12} kcal. This is a crude and highly simplified calculation, but it does provide an estimate of the amounts of energy involved.

The energy used to generate the highly specialized seed and animal stock has been excluded because there is no easy way to estimate it. Pimentel *et al.* (*3*) estimate that 1800 kcal are required to produce 1 pound (450 grams) of hybrid corn seed. But in addition to this amount, some energy use should be included for all the schools of agriculture, agricultural experiment stations, the far-flung network of county agricultural agents [one local agent said he traveled over 50,000 automobile miles (80,000 kilometers) per year in his car], the U.S. Department of Agriculture, and the wide-ranging agricultural research program that enables man to stay ahead of the new pest and disease threats to our highly specialized food crops. These are extensive activities but we cannot see how they could add more than a few percent to the totals in Table 1.

Finally, we have made no attempt to include the amount of private automobile usage involved in the delivery system from retailer to home, or other food-related uses of private autos. Rice (*7*) reports 4.25×10^{15} kcal for the energy cost of autos in 1970, and shopping constitutes 15.2 percent of all automobile usage (*8*). If only half of the shopping is food-related, 320×10^{12} kcal of energy use is at stake here.

Table 1. Energy use in the United States food system. All values are multiplied by 10^{12} kcal.

Component	1940	1947	1950	1954	1958	1960	1964	1968	1970	References
					On farm					
Fuel (direct use)	70.0	136.0	158.0	172.8	179.0	188.0	213.9	226.0	232.0	(*13*, *15*)
Electricity	0.7	32.0	32.9	40.0	44.0	46.1	50.0	57.3	63.8	(*14*, *16*)
Fertilizer	12.4	19.5	24.0	30.6	32.2	41.0	60.0	87.0	94.0	(*14*, *17*)
Agricultural steel	1.6	2.0	2.7	2.5	2.0	1.7	2.5	2.4	2.0	(*14*, *18*)
Farm machinery	9.0	34.7	30.0	29.5	50.2	52.0	60.0	75.0	80.0	(*14*, *19*)
Tractors	12.8	25.0	30.8	23.6	16.4	11.8	20.0	20.5	19.3	(*20*)
Irrigation	18.0	22.8	25.0	29.6	32.5	33.3	34.1	34.8	35.0	(*21*)
Subtotal	124.5	272.0	303.4	328.6	356.3	373.9	440.5	503.0	526.1	
					Processing industry					
Food processing industry	147.0	177.5	192.0	211.5	212.6	224.0	249.0	295.0	308.0	(*13*, *14*, *22*)
Food processing machinery	0.7	5.7	5.0	4.9	4.9	5.0	6.0	6.0	6.0	(*23*)
Paper packaging	8.5	14.8	17.0	20.0	26.0	28.0	31.0	35.7	38.0	(*24*)
Glass containers	14.0	25.7	26.0	27.0	30.2	31.0	34.0	41.9	47.0	(*25*)
Steel cans and aluminum	38.0	55.8	62.0	73.7	85.4	86.0	91.0	112.2	122.0	(*26*)
Transport (fuel)	49.6	86.1	102.0	122.3	140.2	153.3	184.0	226.6	246.9	(*27*)
Trucks and trailers (manufacture)	28.0	42.0	49.5	47.0	43.0	44.2	61.0	70.2	74.0	(*28*)
Subtotal	285.8	407.6	453.5	506.4	542.3	571.5	656.0	787.6	841.9	
					Commercial and home					
Commercial refrigeration and cooking	121.0	141.0	150.0	161.0	176.0	186.2	209.0	241.0	263.0	(*13*, *29*)
Refrigeration machinery (home and commercial)	10.0	24.0	25.0	27.5	29.4	32.0	40.0	56.0	61.0	(*14*, *30*)
Home refrigeration and cooking	144.2	184.0	202.3	228.0	257.0	276.6	345.0	433.9	480.0	(*13*, *29*)
Subtotal	275.2	349.0	377.3	416.5	462.4	494.8	594.0	730.9	804.0	
Grand total	685.5	1028.6	1134.2	1251.5	1361.0	1440.2	1690.5	2021.5	2172.0	

Between 8 and 15 percent should be added to the totals of Table 1, depending on just how one wishes to apportion this item.

It is hard to take an approach that might calculate smaller totals but, depending upon point of view, the totals could be much larger. If we accumulate the larger estimates from the above paragraphs as well as the reductions, the total could be enlarged by 30 to 35 percent, especially for recent years. As it is, the values for energy use in the food system from Table 1 account for 12.8 percent of the total U.S. energy use in 1970.

Performance of an Industrialized Food System

The difficulty with history as a guide for the future or even the present lies not so much in the fact that conditions change—we are continually reminded of that fact—but that history is only one experiment of the many that might have occurred. The U.S. food system developed as it did for a variety of reasons, many of them not understood. We would do well to examine some of the dimensions of this development before attempting to theorize about how it might have been different, or how parts of this food system can be transplanted elsewhere.

Energy and Food Production

Figure 2 displays features of our food system not easily seen from economic data. The curve shown has no theoretical basis but is suggested by the data as a smoothed recounting of our own history of increasing food production. It is, however, similar to most growth curves and suggests that, to the extent that the increasing energy subsidies to the food system have increased food production, we are near the end of an era. Like the logistic growth curve, there is an exponential phase which lasted from 1920 or earlier until 1950 or 1955. Since then, the increments in production have been smaller despite the continuing growth in energy use. It is likely that further increases in food production from increasing energy inputs will be harder and harder to come by. Of course, a major change in the food system could change things, but the argument advanced by the technological optimist is that we can always get more if we

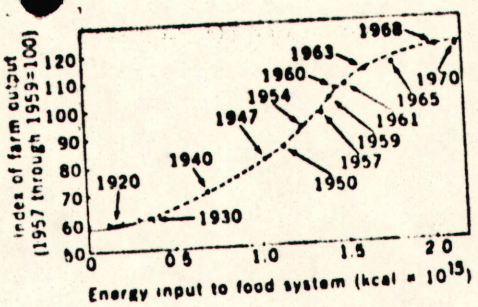


Fig. 2. Farm output as a function of energy input to the U.S. food system, 1920 through 1970.

have enough energy, and that no other major changes are required. Our own history—the only one we have to examine—does not support that view.

Energy and Labor in the Food System

One farmer now feeds 50 people, and the common expectation is that the labor input to farming will continue to decrease in the future. Behind this expectation is the assumption that the continued application of technology—and energy—to farming will substitute for labor. Figure 3 shows this historic decline in labor as a function of the energy supplied to the food system, again the familiar S-shaped curve. What it implies is that increasing the energy input to the food system is unlikely to bring further reduction in farm labor unless some other, major change is made.

The food system that has grown in this period has provided much employment that did not exist 20, 30, or 40 years ago. Perhaps even the idea of a reduction of labor input is a myth when the food system is viewed as a whole, instead of from the point of view of the farm worker only. When discussing

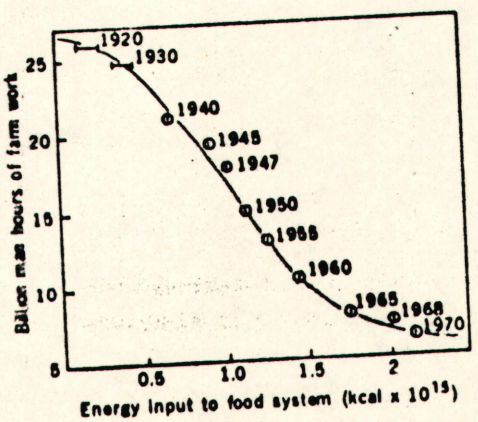


Fig. 3. Labor use on farms as a function of energy use in the food system.

ir[illegible] the farm, Pimentel *et al.* (3) ci[illegible] an estimate of two farm support workers for each person actually on the farm. To this must be added employment in food-processing industries, in food wholesaling and retailing, as well as in a variety of manufacturing enterprises that support the food system. Yesterday's farmer is today's canner, tractor mechanic, and fast food carhop. The process of change has been painful to many ordinary people. The rural poor, who could not quite compete in the growing industrialization of farming, migrated to the cities. Eventually they found other employment, but one must ask if the change was worthwhile. The answer to that question cannot be provided by energy analysis anymore than by economic data, because it raises fundamental questions about how individuals would prefer to spend their lives. But if there is a stark choice between long hours as a farmer or shorter hours on the assembly line of a meat-packing plant, it seems clear that the choice would not be universally in favor of the meat-packing plant. Thomas Jefferson dreamed of a nation of independent small farmers. It was a good dream, but society did not develop in that way. Nor can we turn back the clock to recover his dream. But, in planning and preparing for our future, we had better look honestly at our collective history, and then each of us should closely examine his dreams.

The Energy Subsidy to the Food System

The data in Fig. 1 can be combined to show the energy subsidy provided to the food system for the recent past. We take as a measure of the food supplied the caloric content of the food actually consumed. This is not the only measure of the food supplied, as the condition of many protein-poor peoples of the world clearly shows. Nevertheless, the comparison between caloric input and output is a convenient way to compare our present situation with the past, and to compare our food system with others. Figure 4 shows the history of the U.S. food system in terms of the number of calories of energy supplied to produce 1 calorie of food for actual consumption. It is interesting and possibly threatening to note that there is no real suggestion that this curve is leveling off. We appear to be increasing the energy input even more. Fragmentary data for 1972 suggest that the increase continued unabated. A graph

4 could approach zero. A natural system has no fuel input at all, those primitive people who live by hunting and gathering have only the energy of their own work to count as input.

Some Economic Features of the U.S. Food System

The markets for farm commodities in the United States come closer than most to the economist's ideal of a "free market." There are many small sellers and many buyers, and thus no individual is able to affect the price by his own actions in the marketplace. But government intervention can drastically alter any free market, and government intervention in the prices of agricultural products (and hence of food) has been a prominent feature of the U.S. food system for at least 30 years. Between 1940 and 1970, total farm income has ranged from $4.5 to $16.5 billion, and the National Income originating in agriculture (which includes indirect income from agriculture) has ranged from $14.5 to $22.5 billion (*1*). Meanwhile, government subsidy programs, primarily farm price supports and soil bank payments, have grown from $1.5 billion in 1940 to $6.2 billion in 1970. In 1972 these subsidy programs had grown to $7.3 billion, despite foreign demand of agricultural products. Viewed in a slightly different way, direct government subsidies have accounted for 30 to 40 percent of the farm income and 15 to 30 percent of the National Income attributable to agriculture for the years since 1955. This point emphasizes once again the striking gap between the economic description of society and the economic models used to account for that society's behavior.

This excursion into farm price supports and economics is related to energy questions in this way: first, so far as we know, government intervention in the food system is a feature of all highly industrialized countries (and, despite the intervention, farm incomes still tend to lag behind national averages); and, second, reduction of the energy subsidy to agriculture (even if we could manage it) might decrease the farmer's income. One reason for this state of affairs is that the demand for food quantity has definite limits, and the only way to increase farm income is then to increase the unit price of agricultural products. Consumer boycotts and protests in the early 1970's suggest that there is considerable resistance to this outcome.

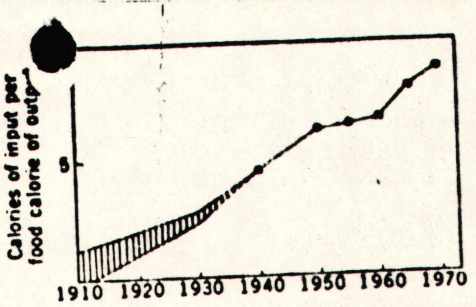


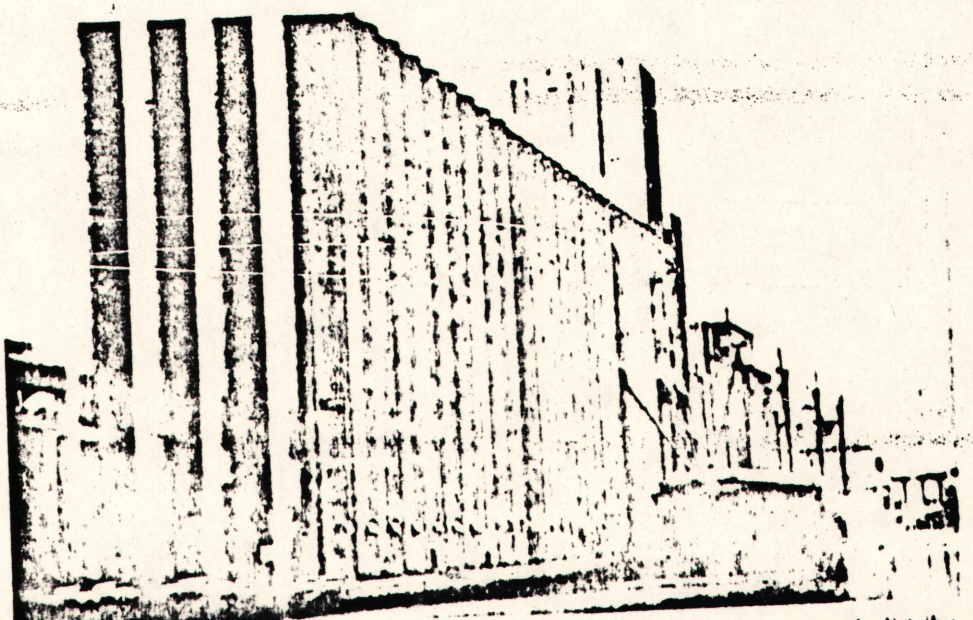
Fig. 4. Energy subsidy to the food system needed to obtain 1 food calorie.

Government intervention in the functioning of the market in agricultural products has accompanied the rise in the use of energy in agriculture and the food supply system, and we have nothing but theoretical suppositions to suggest that any of the present system can be deleted.

Some Energy Implications for the World Food Supply

The food supply system of the United States is complex and interwoven into a highly industrialized economy. We have tried to analyze this system on account of its implications for future energy use. But the world is short of food. A few years ago it was widely predicted that the world would suffer widespread famine in the 1970's. The adoption of new high-yield varieties of rice, wheat, and other grains has caused some experts to predict that the threat of the expected famines can now be averted, perhaps indefinitely. Yet, despite increases in grain production in some areas, the world still seems to be headed toward famine. The adoption of these new varieties of grain—dubbed hopefully the "green revolution"—is an attempt to export a part of the energy-intensive food system of the highly industrialized countries to nonindustrialized countries. It is an experiment, because, although the whole food system is not being transplanted to new areas, a small part of it is. The green revolution requires a great deal of energy. Many of the new varieties of grain require irrigation where traditional crops did not, and almost all the new crops require extensive fertilization.

Meanwhile, the agricultural surpluses of the 1950's have largely disappeared. Grain shortages in China and Russia have attracted attention because they have brought foreign trade across ideological barriers. There are other countries that would probably import considerable grain, if they could afford it. But only four countries may be expected to have any substantial excess agricultural production in the next decade. These are Canada, New Zealand, Australia, and the United States. None of these is in a position to give grain away, because each of them needs the foreign trade to avert ruinous balance of payments deficits. Can we then export energy-intensive agricultural methods instead?


Giant grain elevators are only a first step in the storage, processing, and distribution portions of the food system. [Source: Marine Studies Center, University of Wisconsin]

Energy-Intensive Agriculture Abroad

It is quite clear that the U.S. food system cannot be exported intact at present. For example, India has a population of 550×10^6 persons. To feed the people of India at the U.S. level of about 3000 food calories per day (instead of their present 2000) would require more energy than India now uses for all purposes. To feed the entire world with a U.S. type food system, almost 80 percent of the world's annual energy expenditure would be required just for the food system.

The recourse most often suggested to remedy this difficulty is to export methods of increasing crop yield and hope for the best. We must repeat as plainly as possible that this is an experiment. We know that our food system works (albeit with some difficulties and warnings for the future). But we cannot know what will happen if we take a piece of that system and transplant it to a poor country, without our industrial base of supply, transport system, processing industry, appliances for home storage, and preparation, and, most important of all, a level of industrialization that permits higher costs for food.

Fertilizers, herbicides, pesticides, and in many cases machinery and irrigation are needed for success with the green revolution. Where is this energy to come from? Many of the nations with the most serious food problems are those nations with scant supplies of fossil fuels. In the industrialized nations, solutions to the energy supply problems are being sought in nuclear energy. This technology-intensive solution, even if successful in advanced countries, poses additional problems for underdeveloped nations. To create the bases of industry and technologically sophisticated people within their own countries will be beyond the capability of many of them. Here again, these countries face the prospect of depending upon the goodwill and policies of industrialized nations. Since the alternative could be famine, their choices are not pleasant and their irritation at their benefactors—ourselves among them—could grow to threatening proportions. It would be comfortable to rely on our own good intentions, but our good intentions have often been unresponsive to the needs of others. The matter cannot be glossed over lightly. World peace may depend upon the outcome.

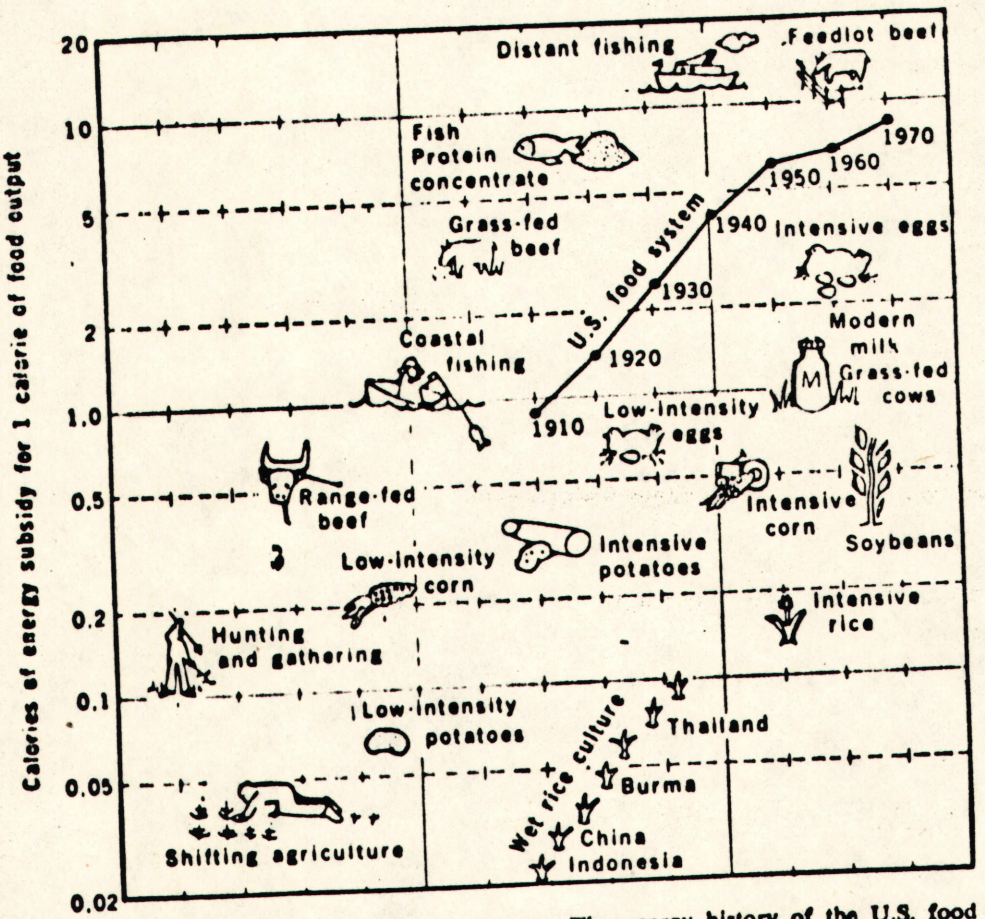


Fig. 5. Energy subsidies for various food crops. The energy history of the U.S. food system is shown for comparison. [Source of data: (*31*)]

Changes for the Future

The total amount of energy used on U.S. farms for the production of corn is now near 10^8 kcal per square meter per year (*3*), and this is more or less typical of intensive agriculture in the United States. With this application of energy we have achieved yields of 2×10^3 kcal per square meter per year of usable grain—bringing us to almost half of the photosynthetic limit of production. Further applications of energy are likely to yield little or no increase in this level of productivity. In any case, no amount of research is likely to improve the efficiency of the photosynthetic process itself. There is a further limitation on the improvement of yield. Faith in technology and research has at times blinded us to the basic limitations of the plant and animal materials with which we work. We have been able to emphasize desirable features already present in the gene pool and to suppress others that were undesirable. At times the cost of the increased yield has been the loss of desirable characteristics—hardiness, resistance to disease and adverse weather, and the like. The farther we get from characteristics of the original plant and animal strains, the more care and energy is required. Choices need to be made in the directions of plant breeding. And the limits of the plants and animals we use must be kept in mind. We have not been able to alter the photosynthetic process or to change the gestation period of animals. In order to amplify or change an existing characteristic, we will probably have to sacrifice something in the overall performance of the plant or animal. If the change requires more energy, we could end with a solution that is too expensive for the people who need it most. These problems are intensified by the degree to which energy becomes more expensive in the world market.

Where Next to Look for Food?

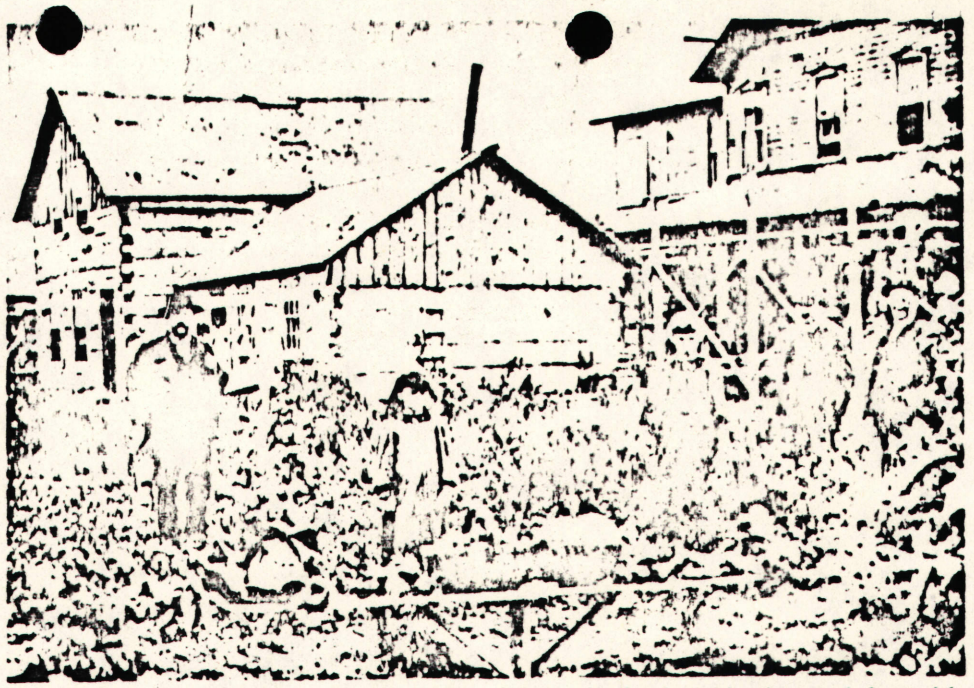
Our examination in the foregoing pages of the U.S. food system, the limitations on the manipulation of ecosystems and their components, and the risks of the green revolution as a solution to the world food supply problem suggests a bleak prospect for the future. This complex of problems should not be underestimated, but there are possible ways of avoiding disaster and of mitigating the severest difficulties

...ggestions are not very dramat... may be difficult of common ...ptance.

Figure 5 shows the ratio of the energy subsidy to the energy output for a number of widely used foods in a variety of times and cultures. For comparison, the overall pattern for the U.S. food system is shown, but the comparison is only approximate because, for most of the specific crops, the energy input ends at the farm. As has been pointed out, it is a long way from the farm to the table in industrialized societies. Several things are immediately apparent and coincide with expectations. High-protein foods such as milk, eggs, and especially meat, have a far poorer energy return than plant foods. Because protein is essential for human diets and the amino acid balance necessary for good nutrition is not found in most of the cereal grains, we cannot take the step of abandoning meat sources altogether. Figure 5 does show how unlikely it is that increased fishing or fish protein concentrate will solve the world's food problems. Even if we leave aside the question of whether the fish are available—a point on which expert opinions differ somewhat—it would be hard to imagine, with rising energy prices, that fish protein concentrate will be anything more than a by-product of the fishing industry, because it requires more than twice the energy of production of grass-fed beef or eggs (9). Distant fishing is still less likely to solve food problems. On the other hand, coastal fishing is relatively low in energy cost. Unfortunately, without the benefit of scholarly analysis fisherman and housewives have long known this, and coastal fisheries are threatened with overfishing as well as pollution.

The position of soybeans in Fig. 5 may be crucial. Soybeans possess the best amino acid balance and protein content of any widely grown crop. This has long been known to the Japanese who have made soybeans a staple of their diet. [illegible] here other plants, possibly better suited for local climates, that have adequate proportions of amino acids in their proteins? There are about 80,000 edible species of plants, of which only about 50 are actively cultivated on a large scale (and 90 percent of the world's crops come from only 12 species). We may yet be able to find species that can contribute to the world's food supply.

The message of Fig. 5 is simple. In "primitive" cultures, 5 to 50 food calories were obtained for each calorie of energy invested. Some highly civilized cultures have done as well and occasionally better. In sharp contrast, industrialized food systems require 5 to 10 calories of fuel to obtain 1 food calorie. We must pay attention to this difference—especially if energy costs increase. If some of the energy subsidy for food production could be supplied by on-site, renewable sources—primarily sun and wind—we might be able to continue an energy-intensive food system. Otherwise, the choices appear to be either less energy-intensive food production or famine for many areas of the world.



A Wisconsin farm about 1910. Extensive changes in food production and farm life are part of the food system. [Source: Wisconsin Historical Society]

Energy Reduction in Agriculture

It is possible to reduce the energy required for agriculture and the food system. A series of thoughtful proposals by Pimentel and his associates (*3*) deserves wide attention. Many of these proposals would help ameliorate environmental problems, and any reductions in energy use would provide a direct reduction in the pollutants due to fuel consumption as well as more time to solve our energy supply problems.

First, we should make more use of natural manures. The United States has a pollution problem from runoff from animal feedlots, even with the application of large amounts of manufactured fertilizer to fields. More than 10^6 kcal per acre (4×10^5 kcal per hectare) could be saved by substituting manure for manufactured fertilizer (*3*) (and, as a side benefit, the soil's condition would be improved). Extensive expansion in the use of natural manure will require decentralization of feedlot operations so that manure is generated closer to the point of application. Decentralization might increase feedlot costs, but, as energy prices rise, feedlot operations will rapidly become more expensive in any case. Although the use of manures can help reduce energy use, there is far too little to replace all commercial fertilizers at present (*10*). Crop rotation is less widely practiced than it was even 20 years ago. Increased use of crop rotation or interplanting winter cover crops of legumes (which fix nitrogen as a green manure) would [illegible] 1.5×10^6 kcal per acre by comparison with the use of commercial fertilizer.

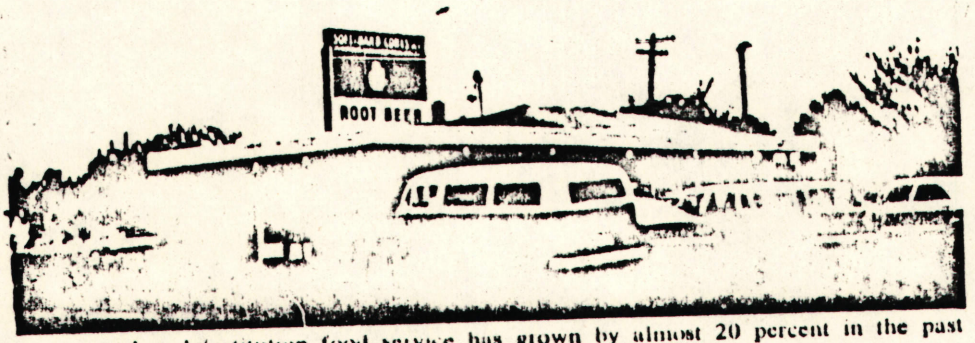
Second, weed and pest control could be accomplished at a much smaller cost in energy. A 10 percent saving in energy in weed control could be obtained by the use of the rotary hoe twice in cultivation instead of herbicide application (again with pollution abatement as a side benefit). Biologic pest control—that is, the use of sterile males, introduced predators, and the like—requires only a tiny fraction of the energy of pesticide manufacture and application. A change to a policy of "treat when and where necessary" pesticide application would bring a 35 to 50 percent reduction in pesticide use. Hand application of pesticides requires

more labor than machine or aircraft application, but the energy for application is reduced from 18,000 to 300 kcal per acre (9). Changed cosmetic standards, which in no way affect the taste or the edibility of foodstuffs, could also bring about a substantial reduction in pesticide use.

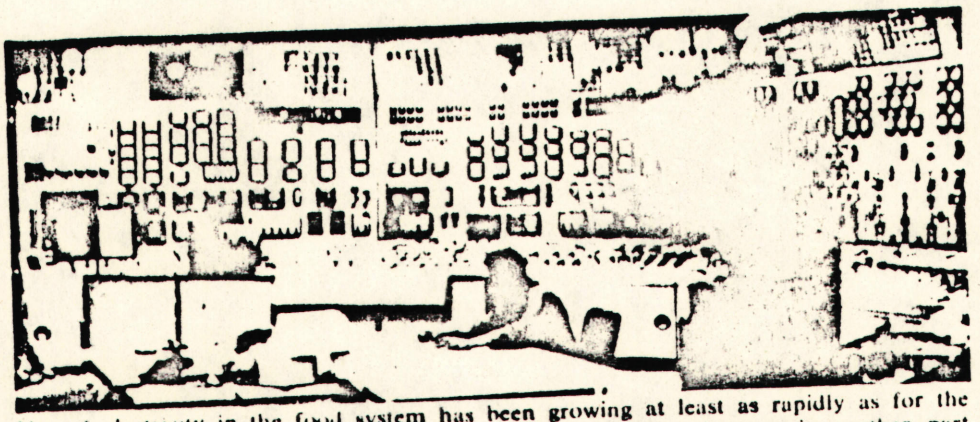
Third, plant breeders might pay more attention to hardiness, disease and pest resistance, reduced moisture content (to end the wasteful use of natural gas in drying crops), reduced water requirements, and increased protein content, even if it should mean some reduction in overall yield. In the longer run, plants not now widely cultivated might receive some serious attention and breeding efforts. It seems unlikely that the crops that have been most useful in temperate climates will be the most suitable ones for the tropics where a large portion of the undernourished peoples of the world now live.

A dramatic suggestion, to abandon chemical farming altogether, has been made by Chapman (*11*). His analysis shows that, were chemical farming to be ended, there would be much reduced yields per acre, so that most land in the soil bank would need to be put back into farming. Nevertheless, output would fall only 5 percent and prices for farm products would increase 16 percent. Most dramatically, farm income would rise 25 percent, and nearly all subsidy programs would end. A similar set of propositions treated with linear programming techniques at Iowa State University resulted in an essentially similar set of conclusions (*12*).

The direct use of solar energy farms, a return to wind power (modern windmills are now in use in Australia), and the production of methane from manure are all possibilities. These methods require some engineering to become economically attractive, but it should be emphasized that these technologies are now better understood than the technology of breeder reactors. If energy prices rise, these methods of energy generation would be attractive alternatives, even at their present costs of implementation.



Commercial and institution food service has grown by almost 20 percent in the past decade. [Source: Marine Studies Center, University of Wisconsin]



Use of electricity in the food system has been growing at least as rapidly as for the United States as a whole. This nuclear power plant control room is another part of the food system. [Source: Marine Studies Center, University of Wisconsin]



Behind the food system at every stage is the fuel production, refining, and distribution system. [Source: Marine Studies Center, University of Wisconsin]

Energy Reduction in the U.S. Food System

Beyond the farm, but still far from the table, more energy savings could be introduced. The most effective way to reduce the large energy requirements of food processing would be a change in eating habits toward less highly processed foods. The current aversion of young people to spongy, additive-laden white bread, hydrogenated peanut butter, and some other processed foods could presage such a change if it is more than just a fad. Technological changes could reduce energy consumption, but the adoption of lower energy methods would be hastened most by an increase in energy prices, which would make it more profitable to reduce fuel use.

Packaging has long since passed the stage of simply holding a convenient amount of food together and providing it with some minimal protection. Legislative controls may be needed to reduce

the manufacturer's competition in the amount and expense of packaging. In any case, recycling of metal containers and wider use of returnable bottles could reduce this large item of energy use.

The trend toward the use of trucks in food transport, to the virtual exclusion of trains, should be reversed. By reducing the direct and indirect subsidies to trucks we might go a long way toward enabling trains to compete.

Finally, we may have to ask whether the ever-larger frostless refrigerators are needed, and whether the host of kitchen appliances really means less work or only the same amount of work to a different standard.

Store delivery routes, even by truck, would require only a fraction of the energy used by autos for food shopping. Rapid transit, giving some attention to the problems with shoppers with parcels, would be even more energy-efficient. If we insist on a high-energy food system, we should consider starting with coal, oil, garbage—or any other source of hydrocarbons—and producing in factories bacteria, fungi, and yeasts. These products could then be flavored and colored appropriately for cultural tastes. Such a system would be more efficient in the use of energy, would solve waste problems, and would permit much or all of the agricultural land to be returned to its natural state.

Energy, Prices, and Hunger

If energy prices rise, as they have already begun to do, the rise in the price of food in societies with industrialized agriculture can be expected to be even larger than the energy price increases. Slesser, in examining the case for England, suggests that a quadrupling of energy prices in the next 40 years would bring about a sixfold increase in food prices (9). Even small increases in energy costs may make it profitable to increase labor input to food production. Such a reversal of a 50-year trend toward energy-intensive agriculture would present environmental benefits as a bonus.

We have tried to show how analysis of the energy flow in the food system illustrates features of the food system that are not easily deduced from the usual economic analysis. Despite some suggestions for lower intensity food supply and some frankly speculative suggestions, it would be hard to conclude on a note of optimism. The world drawdown in grain stocks which began in the mid-1960's continues, and some food shortages are likely all through the 1970's and early 1980's. Even if population control measures begin to limit world population, the rising tide of hungry people will be with us for some time.

Food is basically a net product of an ecosystem, however simplified. Food production starts with a natural material, however modified later. Injections of energy (and even brains) will carry us only so far. If the population cannot adjust its wants to the world in which it lives, there is little hope of solving the food problem for mankind. In that case the food shortage will solve our population problem.

References and Notes

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4. A description of the system may be found in: *Patterns of Energy Consumption in the United States* (report prepared for the Office of Science and Technology, Executive Office of the President, by Stanford Research Institute, Stanford, California, Jan. 1972), appendix C. The three groupings larger than food processing are: primary metals, chemicals, and petroleum refining.
5. N. Georgescu-Roegen, *The Entropy Law and the Economic Process* (Harvard Univ. Press, Cambridge, 1971), p. 301.
6. *Patterns of Energy Consumption in the United States* (report prepared for the Office of Science and Technology, Executive Office of the President, by Stanford Research Institute, Stanford, Calif., Jan. 1972).
7. R. A. Rice, *Technol. Rev.* **75**, 32 (Jan. 1972).
8. Federal Highway Administration, Nationwide Personal Transportation Study Report No. 1 (1971) [as reported in Energy Research and Development, hearings before the Congressional Committee on Science and Astronautics, May 1972, p. 151].
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10. J. F. Gerber, personal communication (we are indebted to Dr. Gerber for pointing out that manures, even if used fully, will not provide all the needed agricultural fertilizers).
11. D. Chapman, *Environment (St. Louis)* **15** (No. 2), 12 (1973).
12. L. U. Mayer and S. H. Hargrove [*CAED Rep. No. 38* (1972)] as quoted in Slesser (9).
13. We have converted all figures for the use of electricity to fuel input values, using the average efficiency values for power plants given by C. M. Summers [*Sci. Am.* **224** (No. 3), 148 (1971)]. Self-generated electricity was converted to fuel inputs at an efficiency of 25 percent after 1945 and 20 percent before that year.
14. Purchased material in this analysis was converted to energy of manufacture according to the following values derived from the literature or calculated. In doubtful cases we have made what we believe to be conservative estimates: steel (including fabricated and castings), 1.7×10^7 kcal/ton (1.9×10^4 kcal/kg); aluminum (including castings and forgings), 6.0×10^7 kcal/ton; copper and brass (alloys, millings, castings, and forgings), 1.7×10^6 kcal/ton; paper, 5.5×10^6 kcal/ton; plastics, 1.25×10^8 kcal/ton; coal, 6.6×10^6 kcal/ton; oil and gasoline, 1.5×10^6 kcal/barrel (9.5×10^3 kcal/liter); natural gas, 0.26×10^6 kcal/cubic foot (9.2×10^6 kcal/m^3); petroleum wax, 2.2×10^6 kcal/ton; gasoline and diesel engines, 3.4×10^6 kcal/engine; electric motors over 1 horsepower, 45×10^6 kcal/motor; ammonia, 2.7×10^7 kcal/ton; ammonia compounds, 2.2×10^6 kcal/ton; sulfuric acid and sulfur, 3×10^6 kcal/ton; sodium carbonate, 4×10^6 kcal/ton; and other inorganic chemicals, 2.2×10^6 kcal/ton.
15. Direct fuel use on farms: Expenditures for petroleum and other fuels consumed on farms were obtained from *Statistical Abstracts* (*1*) and the *Census of Agriculture* (Bureau of the Census, Government Printing Office, Washington, D.C., various recent editions) data. A special survey of fuel use on farms in the 1964 *Census of Agriculture* was used for that year and to determine the mix of fuel products used. By comparing expenditures for fuel in 1964 with actual fuel use, the apparent unit price for this fuel mix was calculated. Using actual retail prices and price indices from *Statistical Abstracts* and the ratio of the actual prices paid to the retail prices in 1964, we derived the fuel quantities used in other years. Changes in the fuel mix used (primarily the recent trend toward more diesel tractors) may understate the energy in this category slightly in the years since 1964 and overstate it slightly in years before 1964. S. H. Schurr and B. C. Netschert [*Energy in the American Economy, 1850–1975* (Johns Hopkins Press, Baltimore, 1960), p. 774], for example, using different methods, estimate a figure 10 percent less for 1955 than that given here. On the other hand, some retail fuel purchases appear to be omitted from all these data for all years. M. J. Perelman [*Environment (St. Louis)* **14** (No. 8), 10 (1972)] from different data, calculates 270×10^{12} kcal of energy usage for tractors alone.
16. Electricity use on farms: Data on monthly usage on farms were obtained from the "Report of the Administrator, Rural Electrification Administration" (U.S. Department of Agriculture, Government Printing Office, Washington, D.C., various annual editions). Totals were calculated from the annual farm usage multiplied by the number of farms multiplied by the fraction electrified. Some nonagricultural uses are included which may overstate the totals slightly for the years before 1955. Nevertheless, the totals are on the conservative side. A survey of on-farm electricity usage published by the Holt Investment Corporation, New York, 18 May 1973, reports values for per farm usage 30 to 40 percent higher than those used here, suggesting that the totals may be much too small. The discrepancy is probably the result of the fact that the largest farm users are included in the business and commercial categories (and excluded from the U.S. Department of Agriculture tabulations used).
17. Fertilizer: Direct fuel use by fertilizer manufacturers was added to the energy required for the manufacture of raw materials purchased as inputs for fertilizer manufacture. There is allowance for the following: ammonia and related compounds, phosphatic compounds, phosphoric acid, muriate of potash, sulfuric acid, and sulfur. We made no allowance for other inputs (of which phosphate rock, potash, and "fillers" are the largest), packaging, or capital equipment. Source: *Census of Manufactures* (Government Printing Office, Washington, D.C., various recent editions).
18. Agricultural steel: Source, *Statistical Abstracts* for various years (*1*). Converted to energy values according to (*14*).
19. Farm machinery (except tractors): Source, *Census of Manufactures*. Totals include direct energy use and the energy used in the manufacture of steel, aluminum, copper, brass, alloys, and engines converted according to (*14*).
20. Tractors: numbers of new tractors were derived from *Statistical Abstracts* and the *Census of Agriculture* data. Direct data on energy and materials use for farm tractor manufacture was collected in the *Census of Manufactures* data for 1954 and 1947 (in later years these data were merged with other data). For 1954 and 1947 energy consumption was calculated in the same way as for farm machinery. For more recent years a figure of 2.65×10^6 kcal per tractor horsepower was calculated as the energy of manufacture from 1954 data (the 1954 energy of tractor manufacture, 23.6×10^{12} kcal, divided by sales of 115,000 units divided by 28.7 average tractor horsepower in 1954). This figure was used to calculate energy use in tractor manufacture in more recent years to take some account of the continuing increase in tractor size and power. It probably slightly understates the energy in tractor manufacture in more recent years.

7. Irrigation energy: Values are derived from the acres irrigated from *Statistical Abstracts* for various years; converted to energy use at 10^6 kcal per acre irrigated. This is an intermediate value of two cited by Pimentel *et al.* (9).

8. Food processing industry: Source, *Census of Manufacturers*, direct fuel inputs only. No account taken for raw materials other than agricultural products, except for those items (packaging, processing machinery) accounted for in separate categories.

9. Food processing machinery: Source, *Census of Manufactures* for various years. Items included are the same as for farm machinery [see (*11*)].

10. Paper packaging: Source, *Census of Manufactures* for various years. In addition to direct energy use by the industry, energy values were calculated for purchased paper, plastics, and petroleum wax, according to (*14*). Proportions of paper products having direct food usage were obtained from *Containers and Packaging* (U.S. Department of Commerce, Washington, D.C., various recent editions). [The values given include only proportional values from Standard Industrial Classifications 2651 (half), 2651 (half), 2654 (all).]

11. Glass containers: Source, *Census of Manufactures* for various years. Direct energy use and sodium carbonate [converted according to (*14*)] were the only inputs considered. Proportions of containers assignable to food are from *Containers and Packaging*. Understatement of totals may be more than 20 percent in this category.

12. Steel and aluminum cans: Source, *Census of Manufactures* for various years. Direct energy use and energy used in the manufacture of steel and aluminum inputs were included. The proportion of cans used for food has been nearly constant, at 82 percent of total production (*Containers and Packaging*).

13. Transportation fuel usage: Trucks only are included in the totals given. After subtracting trucks used solely for personal transport (all of which are small trucks), 45 percent of all remaining trucks and 38 percent of trucks larger than pickup and panel trucks were engaged in hauling food or agricultural products, or both, in 1967. These proportions were assumed to hold for earlier years as well. Comparison with ICC analyses of class I motor carrier cargos suggests that this is a reasonable assumption. The total fuel usage for trucks was apportioned according to these values. Direct calculations from average mileage per truck and average number of miles per gallon of gasoline produces agreement to within ± 10 percent for 1967, 1963, and 1955. There is some possible duplication with the direct fuel use on farms, but it cannot be more than 20 percent considering on-farm truck inventories. On the other hand, inclusion of transport by rail, water, air, and energy involved in the transport of fertilizer, machinery, packaging, and other inputs of transportation energy could raise these figures by 30 to 40 percent if ICC commodity proportions apply to all transportation. Sources: *Census of Transportation* (Government Printing Office, Washington, D.C., 1963, 1967); *Statistical Abstracts* (*1*); *Freight Commodity Statistics of Class I Motor Carriers* (Interstate Commerce Commission, Government Printing Office, Washington, D.C., various annual editions).

28. Trucks and trailers: Using truck sales numbers and the proportions of trucks engaged in food and agriculture obtained in (*27*) above, we calculated the energy values at 75×10^6 kcal per trucks for manufacturing and delivery energy [A. H. Makhijani and A. J. Lichtenberg, *Univ. Calif. Berkeley Mem. No. ERL-M310* (revised) (1971)]. The results were checked against the *Census of Manufactures* data for 1967, 1963, 1958, and 1919 by proportioning motor vehicles categories between automobiles and trucks. These checks suggest that our estimates are too small by a small amount. Trailer manufacture was estimated by the proportional dollar value to truck sales (7 percent). Since a larger fraction of aluminum is used in trailers than in trucks, these energy amounts are also probably a little conservative. Automobiles and trucks used for personal transport in the food system are omitted. Totals here are probably significant, but we know of no way to estimate them at present. Sources: *Statistical Abstracts*, *Census of Manufactures*, and *Census of Transportation* for various years.

29. Commercial and home refrigeration and cooking: Data from 1960 through 1968 (1970 extrapolated) from *Patterns of Energy Consumption in the United States* (*6*). For earlier years sales and inventory in use data for stoves and refrigerators were compiled by fuel and converted to energy from average annual use figures from the Edison Electric Institute [*Statistical Year Book* (Edison Electric Institute, New York, various annual editions)] and American Gas Association values [*Gas Facts and Yearbook* (American Gas Association, Inc., Arlington, Virginia, various annual editions)] for various years.

30. Refrigeration machinery: Source, *Census of Manufactures*. Direct energy use was included and also energy involved in the manufacture of steel, aluminum, copper, and brass. A few items produced under this SIC category for some years perhaps should be excluded for years prior to 1958, but other inputs, notably electric motors, compressors, and other purchased materials should be included.

31. There are many studies of energy budgets in primitive societies. See, for example, H. T. Odum [*Environment, Power, and Society* (Wiley, Interscience, New York, 1970)] and R. A. Rappaport [*Sci. Am.* 224 (No. 1), 104 (1971)]. The remaining values of energy subsidies in Fig. 3 were calculated from data presented by Slesser (*9*), Table 1.

32. This article is modified from C. B. Steinhart and J. S. Steinhart, *Energy: Sources, Use, and Role in Human Affairs* (Duxbury Press, North Scituate, Mass., in press) (used with permission). Some of this research was supported by the U.S. Geological Survey, Department of the Interior, under grant No. 14-08-0001-G-63. Contribution 18 of the Marine Studies Center, University of Wisconsin Madison. Since this article was completed, the analysis of energy use in the food system of E. Hirst has come to our attention ["Energy Use for Food in the United States," *ONRL-NSF-EP-57* (Oct. 1973)]. Using different methods, he assigns 12 percent of total energy use to the food system for 1963. This compares with our result of about 13 percent in 1964.

Economic Strategy for Import-Export Controls on Energy Materials

Helmut J. Frank

Lifting the embargo, against the United States by the oil-producing Arab countries may alter the nature of the energy question from a temporary crisis to a long-run problem. With this shift, attention is likely to focus once again on fundamental issues such as the role of imported energy sources in total U.S. supplies, the feasibility and cost of pursuing domestic self-sufficiency, the use of agricultural and industrial exports for bargaining or retaliatory purposes, and the policy instruments most suitable for attaining desirable policy objectives. The choice of appropriate foreign trade policies affecting energy can go far toward assuring the country adequate supplies at reasonable costs; the failure to do so could be disastrous for the country's security, its economic strength, or both.

Determining the role of imported energy sources in the total supply stream would not be a problem if normal economic forces could be allowed to govern trade in energy: Trade would follow the law of comparative advantage. The United States would import those goods in which foreign countries have relatively the lowest costs (say, oil) and pay for them by exporting goods in which the U.S. cost advantage is greatest (say, foodstuffs). This trade need not, indeed it should not, be limited to direct bilateral exchange. To obtain maximum benefit from the uneven distribution of natural and human resources, goods and capital should be permitted to move freely across national frontiers in response to normal economic incentives.

The recent oil embargo has brought home to every American the fact that the conditions under which free exchange can function effectively have not been allowed to govern trade in energy materials. During the past few years, the Organization of Petroleum-Exporting Countries (OPEC) has become powerful enough to control production and raise short-run prices to

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Hawaii
LAND USE COMMISSION

EXHIBIT B

Testimonies presented in February 1973 before the Land Use Commission in opposition to the Lanai Company rezoning petition.

EXHIBIT B

Testimonies presented in February 1973 before the Land Use Commission in opposition to the Lanai Company rezoning petition.

Februnry 28,1973
San Francisco, CA

Hawaii State Land Use Commision
Honolulu, Hawaii

Testimony on Lanai Company's petition to rezone land on the island of Lanai:

Chairman and members of the State Land Use Commission:

I, Colbert Matsumoto am a resident of the island of Lanai, born and raised there and presently attending school on the mainland. I have followed the developments concerning the Lanai Company proposal for Lanai from the initial announcement of the plan in late 1971 until the hearing which your body conducted on Lanai on February 16, 1973. I have read the proposal and would like to express some of my sentiments about it.

Lanai Company's proposal for island-wide planning is a unique and commendable concept I feel since it can provide for the most orderly development of an island like Lanai. However, any such island-wide planning requires painstaking study and diverse participation in order to be drawn up in such a manner as to benefit the largest number of residents of that island. This need for more input appears to be one of the plan's most major shortcoming.

Lanai Company has given much lip service to community participation in development of the island yet not one ounce of community participation and input can be found in the proposal which was drawn up by people who have lived on Lanai for but a few years and only because their task has been to come up with a development plan.

The people on Lanai are presently in a desperate situation since all indications point to termination of pineapple operations on the island in a few years. Their lives depend on income from pineapple and with no other industry on the island to turn to, one can realize their floundering position in a sea of uncertainty. I am no casual observer commenting on their situation for my life too is bound up in the future of Lanai. My parents both work for Dole, and without the income they receive from Dole I could not continue to attend school. Yet, I cannot see supporting the proposal merely to insure their economic security in the future since the plan in no manner does insure any such security for the people of Lanai. This was the point I was able to hear Mr. Eddie Tangen of the ILWU eloquently put forward in behalf of the ILWU and it's Lanai members at the Lanai Advisory Committee hearing in 1972.

Resort construction on Lanai is no guarantee that pineapple workers will be able to find jobs in the hotels. Some may, but no one can honestly expect to have hotels provide a panacea for unemployed pineapple workers. Don Rietow of Lanai Company in response to Mr. Tangen's concerns, replied in an open letter to the people of Lanai that they would have first preference in resort job oppor-

tunities. He also made numerous assurances that development costs would be borne by the developing company and not the county or state. However, in my reading of his statement, none of it appeared in any way legally binding or not easily subject to revision. Lanai Company's petition is vague in too many areas.

At your Lanai hearing, some people spoke of how an increasing population would mean more jobs and increasing cultural opportunities. However, an increase in population to 12,500 need not necessarily entail the creation of as many jobs as such a population typically would require because the proposed population is not a "typical" one. Examination of the proposal would show that a large number of this population would be "transient". That is, tourists and "second home residents" who would spend a couple of months of the year on the island. Such a resident population would not require more tailors as was suggested at the hearing since they will more likely get their tailoring needs fulfilled in their permanent residence. They would not be interested in cultural activities since the primary reason for their coming to Lanai would be for what Lanai residents now have and enjoy, that is, the openness of the land, the hunting, fishing and quiet rural life. The presence of these "transients" though, and the agricultural-residential zoning to accomodate their "country homes" on a large portion of land now used for recreation, will eliminate much of now so beautiful about Lanai, and leave it subdivided into private property for the exclusive use of an elite.

The people of Lanai are in a difficult position and need something to pull them out of it. In their desperation they grasp for the nearest thing available to keep their heads above water and what they reach for may pull them under in the long run.

The answer to Lanai's plight will inevitably demand changes on the island. Resorts may be the only feasible answer to the economic problem. Population increase can bring benefits. But, wise development, wise planning requires time, patience, caution and input by not just a few professional planners. The residents of Kohala may be at least a little more fortunate than those of Lanai since they can participate in planning for thier future. The residents of Lanai will be denied this opportunity if this plan passes your body.

The people of Lanai are beautiful. They are an easy-going, friendly people. The lifestyle there is one of cooperation and sharing. They are a hardworking lot of people having struggled for many years on the pineapple plantation. Their paychecks have never been much but the joy of living on Lanai has offset this. They have good hunting, good fishing, beautiful land, clean air, sweet water and wonderful neighbors. Their lives are beautiful.

You hold in your hands the power to determine the future of these people. Radical change, I know will destroy them. May your decision on Lanai Company's petition reflect your responsibility to these gentle people.

Sincerely yours,

Colbert M. Matsumoto

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LIFE OF THE LAND — A GROUP FOR ECOLOGICAL RESEARCH AND ACTION

Submitted by Sophie Ann Aoki

State of Hawaii
LAND USE COMMISSION

Testimony before the State Land Use Commission

February 16, 1973

Re: Petition by Lanai Co. for Rezoning

Life of the Land applauds the findings and recommendations of the Land Use Commission staff, taking exception to the agreement that tourism and some commercial form of second home development offer the best way of diversifying Lanai's economy. We believe the company unfairly justifies its plan in terms of the people here and reflects a continuation of certain trends that state officials have warned against.

The most widely accepted claim of the plan is of more jobs, mostly projected for the hotel industry. From the State's 1972 Tourism Impact Planning Study (TIPS) we know that:

1. Workers in the hotel industry are among the lowest paid compared to those in other sectors of the economy -- and rank close to the bottom of the list in terms of the home pay. Because of the wage-scale, the average education level of the workers is 10th grade, the average employee age is over 40 years, and half of the employees are women.
2. Earnings in the industry have increased less than those in other areas of the economy.
3. There is little job advancement in the hotel industry
4. The industry relies heavily on immigrant workers which increases social and economic costs to the State, thereby lowering the benefit-cost ratio of the industry.. The State must provide basic public service like schools, housing, police, fire protection, and hospitals for the newcomers and their dependents.
5. In view of the low wages offered bya the industry, it is doubtful whether young people who have a choice will be willing to remain on their home islands to work in thoela. At the same time, the hotel industry will be unwilling to hire workers that have to compete with manpower demands of other sectors of the economy -- expected to grow and offer higher paying jobs.
6. Absorbing agricultural workers may also have its limitations with many workers being incapable of making the transition. The occupational structure of plantation workers is different from those in the visitor industry so many workers are overskilled for hotel employment. If there is the possibility of other forms of agriculture besides pineapple and sugar, workers will probably remain in agriculture because of previous experience and higher agriculture wages.

In short, tourist development adds up to an industry that raises the economic expectations of many workers without generating the kinds of opportunities to meet those expectations.

7. Tourism increases the cost of certain goods and services within a community, most notably housing and shoreline recreation. In an agricultural community, these rising costs are not offset by a higher price in income. Tourists are generally willing to pay a higher price for a short period of time -- and this willingness drives prices up for everyone. Tourists are here only a short time, residents must pay high prices everyday.

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LIFE OF THE LAND

The State study also clearly defines how resort development aggravates the increasing statewide housing shortage, skyrocketing land values and pressures for higher densities in resort development and increasing the need for low cost employee housing.

Lanai Company's contribution to the housing crunch throughout the state is for a bedroom community consisting primarily of vacation homes, resorts and condominiums.

The company discusses increases local landownership in terms of "opportunity" and consistently has refused to identify even estimated price ranges.

So long as the company is unable to publicly provide some idea of future al land and housing costs that will be within the reach of local residents— that part of the plan is a hoax.

The promise in the plan of controls of development densities through deed and lease agreements remains a legal ra pretense until backed up by an actual deed or lease agreement for your consideration.

The Study merits your compliance with its recommendations, in particular:
1. the reordering of priorities for middle and low cost housing, and open space and recreational areas;
2. a moratorium be declared on additional zoning for resort development because of the danger of overbuilding beyond tourism demand. We note that the Lanai Company plans for resort development were not included in the TIPS projections for future resort facilities and the warning of overbuilding; and
3. the Land Use Commission policy of granting zoning only on an incremental b basis for large projects. We believe this to be the largest land rezoning application before your Commission.

It is unquestionable that change will come to Lanai. The question is what kind of change, when, and how. What has been proposed is an optimum development plan for Lanai representing such a drastic change in present rural lifestyles.

We therefore request in addition to the recommendations of the State Land Use Commission staff the following:
1. The Land Use Commission's compliance with the Governor's Executive Order requiring an Environmental Impact Statement on "all major state actions that significantly affect the quality of the physical and human environment." This means that before a Land Use Commission decision on this application is made, a full-blown EIS be done and reviewed.
2. Life of the land questions the legality of three of the commissioners present and requests a legal ruling on those whose terms we understand to be expired.
3. The plan be made available to the residents of Lanai in a public building like the courthouse buildings as is done in Honolulu and the inlnd of Maui.

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State of Hawaii

TESTIMONY IN OPPOSITION TO LANAI COMPANY'S REQUEST FOR THE REZONING OF 22,340 ACRES OF CONSERVATION LANDS

My name is Dexter Del Rosario, a resident of Lanai, and presently a student at the University of Hawaii. This testimony is based on the possible implications the Lanai Company land development plan may have on the residents of Lanai.

One proposal plans to provide broader opportunities for land and home ownership. These plans call for, in the area to be zoned urban, rural residential, and agricultural residential, ½ acre to 22 acre lots, with an average of 7 acre lots.

A survey by the office of Economic Opportunity on low income population on Lanai report in March 1972 that "... occupations which paid the least in the State were the most plentiful on Lanai; laborers - median income $5,122 and operatives, $6,445. These median figure meant that half of those employed as laborers received less than $5,122 and half of those working as operatives were paid less than $6,445". The survey further points out the 21 percent of all households had annual income of less than $4,000. At the other end were 9 per cent, who made $15,000 or more. We are all aware of the severe land and housing crises facing Hawaii. Today the cost of a home averages $40,000 and higher. Also, if one considered financing to buy a home, today to make a $25,000 loan, one has to be making more than $15,000 a year.

Now as an example of the kind of land and home ownership opportunities offered by the plan in the first year of development, there will be available at Koele, 98 lots, with the average lot size at approximately 1.22 acres per lot. If the lots are sold at a minimum of 50¢ per square foot, as the previous Lalakoa subdivision were sold two years ago, the cost of one average size lot would be approximately $26,000. This is just the raw land cost! All this means that a minimum of 91 per cent of Lanai residents will be priced right out of the housing market, and consequently out of the plan's proposal to "improve the quality of life" for the Lanai Island residents by providing broader home ownership opportunities.

Another proposal of the plan would be to expand recreational opportunities and facilities. Being that the more popular recreational pastime of the residents is that which involve nature's resources such as hunting, fishing, camping, use of beaches and so forth, the mere occupation of the areas that provide these types of recreational shoreline resources are major assets of the Tourist industry and local residents also value highly shoreline resources consequently, the plan will create competition for these resources. For example, one of the more popular recreational areas is the Manele-Hulopoe area. The Lanai Company plan proposes a development of a population, at any given time, at 2,300 people. Another area is the Keomoku to Naha area, where the plan proposes a population of 3,500 people. It becomes questionable as to how the presence of Resorts, Country homes and supporting facilities of 2,300 people in the Manele-Hulopoe area and 3,500 people at the

Kaneohe-Naha area will broaden or expand the kind of recreational opportunities popular with the local residents. The plan proposal to bring in tourists and new "residents" of the proposed country homes also brings the possibility of added undue inflationary pressures on the local economy. The Hawaii Tourism Impact Plan from the Department of Planning and Economic Development put out in 1972 stated:

> "Tourism increases the cost of certain goods and services within a community, most notably housing and shoreline recreation. In an agricultural community which is increasing in tourism, these rising costs are not offset by increases in income. Tourists are generally willing to pay a higher price than local residents for goods or services, since their demand is short-term. This willingness drives up prices. For example residents unhappy with crowded recreational areas may travel further to enjoy similar amenities, thus added costs."

The new residents, being able to afford the proposed country homes will have incomes considerably greater than local residents. Also they will be generally more willing to pay higher prices for goods and services.

According to the OEO's survey, Lanai is one of the most impoverished communities in Hawaii, but the peoples' attitudes do not totally reflect what the statistics show. Perhaps it is because we possess living conditions that prices cannot be placed on, such as uncrowded beaches, good fishing and hunting, low crime rate, and so forth, the kind of conditions others must go to great expense and inconvenience to experience, the rural quality and charm, Lahai Company hopes to retain but is only endangering.

The Lanai Company plan provides for "country home-sites" that will be priced out of the reach of the great

majority of local residents, contributing to the already severe housing crisis. It will provide for the development of resorts which encroach upon the resident's recreational area; where the kind of outdoor pastime popular with local residents are not mere recreation, but something inherent in the life style of the residents and to endanger these things is to endanger a part of the island's lifestyle and culture.

Lanai Company's plans will undoubtedly provide broader employment opportunities and a stronger, multifaceted economy, both of which are needed on Lanai and essential to Lanai's continued existence. But Lanai Company's venture into resorts, and high priced "country homes" is not the only alternative to obtaining "Job Security". Neither does Lanai Company's plan, being the only plan at this time, make it the best plan. Country living cannot be commercialized. Country living cannot be made into a commodity to be bought and sold and any attempt to do so will ultimately destroy that country life style.

Lanai Company's plan simply raises too many critical questions as to exactly how the local residents will benefit or suffer as a result of the plan. If as much time and expense as Mr. Donald Rietow, President of Lanai Company, has said were expanded to provide for the needs of the local people then these questions should have been and must be answered before this plan is implemented.

Lanai Company's development plan is indeed a good plan, but the basic question is, GOOD FOR WHO? It is highly ques-

tionable whether it is good for the local residents on Lanai and on these grounds, I urge you to reject Lanai Company's plan for rezoning until further studies can be made to obtain more detailed information as to how the drastic changes required by the Lanai Company development will affect the local residents.

[illegible] D. DeLillesaur
[illegible]

RECEIVE

TESTIMONY IN OPPOSITION TO THE LANAI COMPANY'S REQUEST
TO RECLASSIFY 22,000 ACRES OF CONSERVATION LAND

State of Hawaii
LAND USE COMMIS

My name is Dennis Hokama, a former resident of Lanai, not a member of a "Honolulu based organization" as some would have you believe, but one who after having lived in this community for over 18 years can not help but feel himself a Lanaian. I am presently a teacher on leave of absence working for a masters degree. I am here tonight speaking in opposition to the Lanai Company's petition to have over 22,000 acres of conservation lands rezoned.

I am speaking in opposition to the petitioners request because I feel that the rezoning will lead to a poor public and social investment in what is to be a massive resort and second home type development project. The Hawaii Tourism Impact Plan from the Dept. of Planning and Economic Development(from here on referred to as TIP) which was released in 1972 shows quite clearly the poor investment in resort and tourist related developments due to rising public costs because of the rapidly increasing visitor market of lower spending tourists who are also heavy users of State recreational facilities. Another high public cost will be the cost of settling and servicing what the TIP anticipates as a labor market from the outside. "Young workers tend to move to Oahu because of more employment opportunities. In view of the low wages offered by the industry, it is doubtful whether young people who have a choice will be willing to remain on their home islands to work in hotels. At the same time, the hotel industry will have to compete with manpower demands of other sectors of the economy, which are expected to grow and offer higher paying jobs." TIP pg. 81

"Absorbing workers from agriculture may also have limitations. Many workers may be incapable of making the transition. More important, ~~the occupational structure of plantation workers~~ is different from those in the visitor industry. Some workers are overskilled for hotel employment. There is also the possibility that other forms of agriculture will slowly replace pineapple and sugar. If so, workers will probably remain in agricul-

Because of previous experience and higher agricultural wages." TIP pg.81

"The remaining source of manpower is workers from the mainland and foreign countries. Housing shortages on the Neighbor Islands will limit the numbers of Mainland persons who can be accomodated to work in the hotels. Immigrant labor also will face housing problems and the State will incur added costs of providing basic public services for the newcomers and their dependents." TIP pg. 81 If Lanai does not have a housing crisis now, how will it be with 2,000 additional workers and their families?

"Foremost among the social costs," as indicated by the TIP pg. 18, "are the added population produced by the visitor industry and the changes involved in rapid transition from a rural to a high-cost, urban-oriented society."

Most important of my concerns is whether the Lanai Company's Plan for development, rather than conservation as they indicate, will really benefit the residents or is it just another venture in profit maximization? I tend to think that the case is the latter instance. The petitioner states that there will be "broader oppurtunities for land ownership." The smallest lots available for sale according to the land sales schedule is approximately a half acre. These are lots located in the beach areas therefore the assessed valuation will undoubtedly be high. At the going price 2 years ago , lots were selling at $.50 a sq. ft. in Lanai City. The half acre lot then would have sold for $11,000. The most important factor in determining who the buyer is going to be in any marketable commodity is the cost of that commodity. I do believe the residents have been priced out even before official figures have been released.

So it seems, then, that Lanai residents will be surrounded by a wealthy group of people on high priced lands. What kinds of effects will this have on the cost of living schedule for residents? The HOEO study released in 1972 Lanai Survey of Low Income Population points out very clearly the socio-economic

status of the Lanai community as being below average in the county of Maui and decidedly below state-wide averages. Of course poverty guidelines are relative and depends to a great extent on the cost of living in the community. Implications of the Lanai Company Plan points conclusively to higher costs for residents. Along with these higher costs the TIP pg. 78 state: "In general earnings of wage workers in the hotel industry are low compared to those in other sectors of the economy."

"Low weekly earnings in the hotel industry can be explained in terms of two factors: low average hourly earnings and fewer hours worked per week. Surprisingly, the number of hours worked per week do not noticeably vary according to fluctuations in occupancy rates." TIP pg. 80

"Hotel employment is also often characterized by a lack of advancement opportunities. In many instances on-the-job career trainings through which personnel could gain upward orientation and the skills for further advancements are unavailable. According to a recent report, inattention to the non-management employee, coupled with the historical tendency of the industry to offer low renumeration, has often attracted the disadvantaged and marginal employee to food service jobs with little prospect for upward mobility." TIP pg.80

It can then be easily concluded that the average income of the resident who decides to work in a tourist related capacity will not many more, more probably less, than what he is currently making now, which is about $6,500 to about $4,500 for tourist related work, and yet his chances of advancement will be decidedly less. He will also be faced with a significantly higher cost of living. Poverty, then, may not only be a statistic but also an experience for Lanai residents.

I question whether the Lanai Company Plan will benefit the residents in the area of recreation. How much more fishing areas and how many more fishes will there be with the developments along the southeastern coastline, the primary fishing area?

How much more hunting for Lanai residents will there be when hunting becomes a greater marketable commodity with an increased population of 15,000? How often will the residents be going to the beaches with more people? Projected population for the Manele-Hulopoe area alone is 2,300.

The Lanai Company Plan calls for a 30% increase in agricultural lands and for the lands under pineapple cultivation to remain agriculture. How much of these additional lands are cultivable and what would be the cost of developing these marginal agricultural lands for cultivation?

According to the Lanai Company Plan water appears to be a very valuable resource. Pineapple presently requires one-half to one billion gallons a year. The development will require an additional one billion gallons a year. The total requirement for pineapple and the developments call for a water supply of 1½-2 billion gals. a year. Their studies as submitted to the Land Use Commission show a total potential of only 1.3 billion gals. per year, a deficit of 200-700 million gallons per year. This tends to put a careful balance between pineapple and the developments in their competition for water. If pineapple phases out, and since pineapple requires a relatively small water supply in comparison to other crops, won't the other developments rule out the possibility of finding an agricultural alternative for the 15,000 acres of pineapple lands?

In conclusion I would like to reiterate my position that I am in opposition to the rezoning request, since what it will lead to are: (1)higher public costs, as resort development trends already indicate, (2)the social costs are to high: workers will be earning less and the cost of living will increase significantly causing a disparity situation, and there will be a drastic increase in population and all its attributable ills, (3)a greater restriction of resident recreational opportunities and (4) the probable greater difficulty of finding agricultural alternatives due to the competition for water.

There seems to be influential people in support of the Lanai Company Plan who are attempting to discredit opposition efforts by questioning our intentions, rather than the merits of data supported evidence of the opposition. I guess red-baiting and witch hunting is still very much with us. It seems strange that proponents of the Plan keep referring to the future of Lanai but when those who are the true future of Lanai, the youthful residents here and those who have recently left the community, speak of the kind of future they do not want to experience, they are treated as exiled members of their homeland to be banished forever. Maybe this is what the author of the statement, "You can never go back home again.", meant because the home we once experienced and still fully remember and cherish will be bulldozed forever out of existence.

How can a future be constructed without utilizing input of those whose future it is all about? No wonderthere are such things as credibility and generation gaps!

Dennis S. Hokama

Feb. 16, 1973

RECEIVED

TESTIMONY IN OPPOSITION TO LANAI COMPANY'S PETITION TO REZONE 22,000 ACRES OF LAND FOR THE DEVELOPMENT OF LANAI

State of Hawaii
LAND USE Commission

My name is Harriet C. Minami. I am a long-time resident of Lanai and presently a teacher here at Lanai High School. I am speaking tonight not only as a resident, but as a social studies teacher who cannot but wonder what sociological impact Lanai Company's development plan will have on the people of Lanai.

On the surface, the plan sounds beautiful, very appealing - more jobs, more services, more stores, more recreational facilities, more cultural activities, more opportunities to buy land and to become homeowners. But, as far as I know, the sociological problems that may arise from this very growth and expansion have never been brought to the attention of the public.

Here, I would like to speculate on these problems. The Lanai Company's plan calls for the sale of land in huge lots - anywhere from half an acre to twenty acres. Half an acre is 21,780 square feet. Most of our lots, I believe, are in the neighborhood of six to seven thousand square feet. Lanai Company has never quoted prices for the lands that will be up for sale. Mr. Riotow explained this evening that the company cannot quote prices because prices depend upon many factors. So, let me use the figure 50¢ per square foot since that was the price we residents at Akahi Place, the new sub-division, paid for our land. Now, if you want to buy land in the Ranch area, at 50¢ a square foot, you would have to have at least $22,000 because the average size of the lots there, according to the plan Lanai Company submitted to the State Land Use Commission, will be 1.22 acres in the first development stage and 1.10 acres in the second development stage. If you have that kind of money, I suppose you could buy 2, 3, or even 4 lots, build apartments for rental, and make fabulous profit in time. But who among us have that kind of money? Now, I'm not too sure that

2

anyone will be allowed to build apartments on these lots because I'm not aware of the legalities of the deed. But regardless of how you intend to use the land, the fact remains that you will have to be quite wealthy in order to be able to buy in, in the first place. And chances are, people who are that wealthy will think nothing about building $50, $60, or even $75 thousand homes. The end result of this, I'm afraid, is that the present city will eventually become the inner city - the ghettoes or the slums of Lanai. Most of the houses people live in now are about 30 or 40 years old, maybe older. Right now, people living in these homes do not feel like "slum dwellers" because they're all in the same boat, so to speak. But, in 1992, these houses will be 50, 60 years old. And as more and more new and expensive homes begin to sprout all around them, people who will still be living in these old homes may begin to resent the contrast. They may begin to feel like impoverished "slum dwellers". It makes me wonder what kinds of problems and conflicts a situation such as this might create between the people of the "slums" and the people of the more affluent suburbia, not to mention the people of the exclusive country residences all along the coast from Naha to Keomuku. So this is one of the possible sociological problems I am very much concerned about.

I would like to touch upon another sociological problem I foresee. This is the conflict that may arise between the local residents and the tourists, especially the hotel guests at Manele. Lanai Company has assured us residents that we will still be able to use Manele Beach, but Lanaians, I am sure, do not want an over-crowded "Waikiki" beach on this island. Now as the residents continue to be crowded out by the tourists, their (residents') rising resentment and frustrations, I'm afraid, will eventually reach a breaking point. And when

that happens, heaven knows what might follow. Please understand that I am not trying to create or invite problems. But the truth is, whenever a large number of "outsiders" take over a place local residents previously had almost exclusive use of, conflicts do and have occurred. This is a sociological and psychological fact. It would not be so bad if there were another good swimming and surfing area here for the local residents. But, as far as I know, there isn't any.

Of course, it may well be that these conflicts and problems will never arise, that the fears I expressed here tonight are exaggerated, unfounded fears. I am not a sociologist so I cannot with certainty say that these problems will arise. Nonetheless, as a social studies teacher, I felt it to be my responsibility to call the public's attention to the possibilities of these problems and conflicts arising if the Lanai Company's development plan, as proposed, does go through.

As I stated earlier in my testimony, on the surface, the plan is very attractive. But a closer study seems to reveal that the Lanai Company's claim that this plan will improve the quality of life for the residents of Lanai applies not to all of the residents - certainly not to the low-income residents - but to the wealthier, more affluent residents here and elsewhere.

I urge the members of the State Land Use Commission, therefore, to reject Lanai Company's request for rezoning until such a time that a thorough sociological impact study of its plan has been made. Mr. Rietow himself stated tonight that this is a total plan; thus a consideration of the plan must take into account all aspects of the plan.

I agree. But it seems to me that Lanai Company has not included the sociological impact of the plan in its definition of total aspects.

Respectfully submitted,

Harriet C. Minami

February 16, 1973 (Miss) Harriet C. Minami

20

6962

PLANNING COMMISSION
Yoshikazu Matsui, Chairman
G. Alan Freeland, Vice-Chairman
Louis Hao
Shiro Hokama
Kazuo Kage
George Murashige
Leo Polo, Jr.
Stanley Goshi, Ex-Officio
Carl Kaiama, Ex-Officio

COUNTY OF MAUI
PLANNING DEPARTMENT
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

Elmer F. Cravalho
Mayor

BOARD OF ADJUSTMENT
& APPEALS
Young Whee Chun, Chairman
George Tamura, Vice-Chairman
William Hong
Norman Muranaka
Herbert Vierra

Howard K. Nakamura
Planning Director

Tosh Ishikawa
Deputy Planning Director

February 7, 1975

RECEIVED
FEB 11 1975
State of Hawaii
LAND USE COMMISSION

Mr. Tatsuo Fujimoto
Executive Officer
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii

Dear Mr. Fujimoto:

Re: Petition by Dexter D. Del Rosario for amendment to the Land Use District Boundaries at Lanai Island, County of Maui.

The Maui Planning Commission at its meeting of February 5, 1975, voted unanimously to recommend that the subject petition be considered in light of the Maui Planning Commission's previous recommendation submitted in conjunction with the 5 year land use district boundary review.

The Commission indicated that the matter of the LUC boundary amendments were considered at the Special Meeting of October 9, 1974, and that no significant changes have taken place since then to warrant a change in the Planning Commission's recommendation.

Please contact our office should you have any questions.

Yours very truly,

TOSH ISHIKAWA
Deputy Planning Director

January 14, 1975
6922

Dexter D. Del Rosario
1238 Aha Street
Lanai City, Hawaii
96763

state of Hawaii
Land Use Commission
P.O BOX 2359
Honolulu, Hawaii 96804

RECEIVED
JAN 15 1975
State of Hawaii
LAND USE COMMISSION

Dear Sir:

I would like to request that the supporting evidence of our previous redistricting petition, submitted in August, be submitted with our latest petition.

Very truly yours,

Dexter D. Del Rosario

1-20-75. Xerox - T. Ishikawa, Maui

Form B-24

STATE OF HAWAII

OFFICIAL RECEIPT **No. 0923**

Land Use Commission
Department, Bureau or Commission

December 18, 19 74

RECEIVED from Dennis Hakamura

Fifty and no/100 DOLLARS

Fee for boundary amendment

$ 50.00

L. Moon
for Public Accountant

STATE OF HAWAII
LAND USE COMMISSION
P. O. BOX 2359
HONOLULU, HAWAII 96804

December 18, 1974

Planning Commission
County of Maui
200 South High Street
Wailuku, Maui 96793

Attention: Mr. Howard Nakamura
Planning Director

Subject: A74-383 - Dexter D. Del Rosario

Gentlemen:

Pursuant to Section 205-4, Hawaii Revised Statutes, we are enclosing a copy of petition for amendment to the land use district boundaries submitted by Dexter D. Del Rosario.

Act 32 provides that within 45 days after receipt of the petition, the Commission of the County wherein the land is located shall forward its comments and recommendations to the Land Use Commission. It also provides that upon written request by the Planning Commission, the Land Use Commission may grant an extension of not more than 15 days for the receipt of such comments and recommendations.

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

Encls.

STATE OF HAWAII
LAND USE COMMISSION
P. O. BOX 2359
HONOLULU, HAWAII 96804

December 18, 1974

Mr. Dexter D. Del Rosario
1238 Aha Street
Lanai City, Lanai 96763

Dear Mr. Del Rosario:

This will acknowledge the receipt of your check in the amount of $50.00 and your application to amend the land use district boundaries at Lanai, Hawaii.

In accordance with Section 205-4, Hawaii Revised Statutes, this Commission must schedule a public hearing on your petition no sooner than 60 days and no more than 120 days. After 45 but within 90 days following the public hearing, the Land Use Commission is obliged to render a decision on your petition.

A hearing schedule will be determined at a later date to consider the several pending petitions, including yours, in the County of Maui. We will inform you of the hearing date as soon as it is determined.

Should any questions develop in the meantime, we will contact you. If you should have any questions, please feel free to contact us.

Very truly yours,

TATSUO FUJIMOTO
Executive Officer

Encl.
cc: Maui Planning Commission

Form B-24

STATE OF HAWAII

OFFICIAL RECEIPT **No. 0320**

Department of Planning and Economic Development

Department, Bureau or Commission

December 20, 19 74

RECEIVED from Dennis S. Hokama

Fifty and 100 DOLLARS

LUC - Petitioners' Fee

$ 50.00

Ck # 262

Caroline Okuda

Public Accountant

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

A74-383

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Dexter D. DeHoog

Interest in subject: Lessee

Address: 1238 AHA ST.

Telephone: 565-5802

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

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Signature(s) Sol P. Kahoohalahala

_____

Interest in subject: Renting

Address: P. O. Box 44

Telephone: _____

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

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Signature(s) [signature]

Interest in subject: LESSEE

Address: 253 Gay St.

Telephone: 565-5935

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

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Signature(s) Jo-Ann T. Cole

_____

Interest in subject: Lessee

Address: 1163 Pakawai Lanai City

Telephone: 565 5132

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

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Signature(s) Phyllis Cole

Interest in subject: Lessee

Address: 1163 Palawai

Telephone: 565-5137

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

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Signature(s) Margarita Cabalo

_____

Interest in subject: Lessee

Address: 537 Fifth St.

Telephone: 565-3291

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

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(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Joe Barbadillo

Interest in subject: Land Owner

Address: Box 1013

Telephone: 565-6226

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

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See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Beatrice Barbadillo

Interest in subject: Landowner

Address: Box 1013

Telephone: 565-6226

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC_____

Date forwarded to County for recommendation_____

Date Petition, and County recommendation received by LUC_____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Margaret Schulson

_____

Interest in subject: Lessee

Address: 633 Seventh

Telephone: 565-6371

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

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RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

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Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

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(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Timothy K. Cattel

Cattel

Interest in subject: Landowner

Address: P.O. Box 852 Lanai City, Hi.

Telephone: 565-3293

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions-see attachments) to change the district designation of the following described property from its present classification in a(n) _____ district into a(n) _____ district.

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

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Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

(2) The petitioner will attach evidence in support of either of the following statements (cross out one):

(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Eleanor L. Hachrouch

Interest in subject: Landowner

Address: 420 Lanai Ave

Telephone: 565 7375

STATE OF HAWAII
LAND USE COMMISSION

P. O. Box 2359
Honolulu, Hawaii 96804

This space for LUC use

Date Petition and Fee received by LUC _____

Date forwarded to County for recommendation _____

Date Petition, and County recommendation received by LUC _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY

(I) (We) hereby request an amendment to the Land Use Commission District Boundary respecting the County of Maui, Island of Lanai, map number and/or name TMK 4-9(with exceptions--see attachments) to change the district designation of the following described

[redacted] district into a(n) _____ district.

RECEIVED
DEC. 17 1974
State of Hawaii
LAND USE COMMISSION

Description of property:

See attached explanation.

Petitioner's interest in subject property:

The petitioners are landowners, lessees and residents of Lanai.

Petitioner's reason(s) for requesting boundary change:

See attached explanations.

(1) The petitioner will attach evidence in support of the following statement:

The subject property is needed for a use other than that for which the district in which it is located is classified.

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(a) The land is usable and adaptable for the use it is proposed to be classified.

(b) Conditions and trends of development have so changed since adoption of the present classification, that the proposed classification is reasonable.

Signature(s) Adolfo Sanchez

_____

Interest in subject: Land Owner

Address: Lanai

Telephone: 565-7412

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Lucinda Pagampan

Interest in subject: Home Owner

Address: P.O. Box 931

Telephone: 565-3611

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Josephine Cayan

Interest in subject: ~~Fee~~ Renting

Address: P.O. Box 940

Telephone: 565-3632

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Florence Gabura

Interest in subject: Home Owner

Address: P.O. Box 454

Telephone: 565-2373

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Mrs. L. Ayonayon

Interest in subject: Home Owner at Manele Beach

Address: 1212 Jasmine Dr.

Telephone: 565-5101

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

Signature: Remegio Parcua

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Interest in subject: Home Owner Picnic Grounds

Address: P.O. Box 857

Telephone: 565-5672

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

Signature: Cynthia S. Arruiza

Interest in subject: Rentings at Manele & Fishing grounds at Kaumoku

Address: P.O. Box 84

Telephone: 565-3711

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LAND USE COMMISSION

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Francisco Tadios

Interest in subject: Home Owners at Manele Beach

Address: P.O. Box 1058

Telephone: _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Pilajia Sanchez

Interest in subject: Landowner

Address: 537 Ilima Ave.

Telephone: 565-2412

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Patricia Urpani

Interest in subject: Lessee

Address: P.O. Box 999

Telephone: 565-5262

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Cynthia Spalding

Interest in subject: Interested Party

Address: P.O. Box 493

Telephone: 565-5945

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Roman Jr. Dombrigues

Interest in subject: Interested Party

Address: ~~125~~ P.O. 817 LANAI CITY

Telephone: 565-3912

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: [signature]

Interest in subject: Intrusted Party

Address: Lanai

Telephone: _____

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

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DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: William Kwon Jr.

Interest in subject: Interested party

Address: 527 Akahi Pl.

Telephone: 565-7405

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Martin J K Mano

Interest in subject: Interested Party

Address: 508 Lanai Ave

Telephone: 565-7631

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Addington B. Solomons

Interest in subject: Resident Party

Address: 260 Ilima Pl.

Telephone: 565-3325

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Warren Sakuma

Interest in subject: Resident party.

Address: P.O. Box 173

Telephone: 565-3282

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Clifford A. Shinn

Interest in subject: Resident

Address: Box 992

Telephone: 565-5201

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Lawrence L. T. Mano

Interest in subject: Interested party resident

Address: P.O. 112

Telephone: 565-7631

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Maye Kincaid

Interest in subject: Resident

Address: 1014 Obapaa St.

Telephone: 5652782

PETITION FOR AMENDMENT TO THE LAND USE COMMISSION DISTRICT BOUNDARY:

re: County of Maui, Island of Lanai, TMK 4-9 (excluding Lanai City and other areas specified in attachment).

RECEIVED
DEC 17 1974
State of Hawaii
LAND USE COMMISSION

Signature: Lynn H. Kahookalahala

Interest in subject: lessee

Address: P.O. Box 44 Lanai City, Hi. 96763

Telephone: _____