



Territory of Guam
Territorio de Guam

REFER TO
LEGISLATIVE SECRETARY

OFFICE OF THE GOVERNOR
UESINAN I MANGALAH
AGANA GUAM 96910

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OFFICE OF THE SPEAKER
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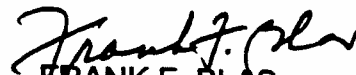
DEC 02 1993

The Honorable Joe T. San Agustin
Speaker, Twenty-Second Guam Legislature
155 Hesler Street
Agana, Guam 96910

Dear Mr. Speaker:

Transmitted herewith is Bill No. 539 which I have signed into law this date as
Public Law 22-47.

Sincerely yours,


FRANK F. BLAS
Governor of Guam,
Acting

220428

Attachment

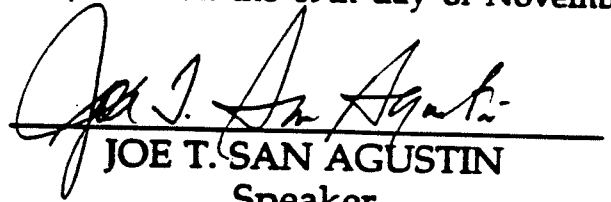


Commonwealth Now!

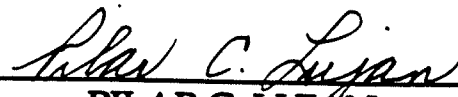
TWENTY-SECOND GUAM LEGISLATURE
1993 (FIRST) Regular Session

CERTIFICATION OF PASSAGE OF AN ACT TO THE GOVERNOR

This is to certify that Substitute Bill No. 539 (LS), "AN ACT TO ADD §12015.3 TO TITLE 12, GUAM CODE ANNOTATED, TO ADD §46116 TO TITLE 10 OF SAID CODE, TO AMEND §21206 OF THE GOVERNMENT CODE, TO AMEND §46114 OF TITLE 10, GUAM CODE ANNOTATED, AND TO ADD SUBPARAGRAPH (e) TO §46105 OF SAID CODE, TO AUTHORIZE THE PUBLIC UTILITY AGENCY OF GUAM TO ESTABLISH AND COLLECT CHARGES FOR THE BENEFICIAL USE OF PUBLICLY-OWNED WATER WITHDRAWN BY PRIVATE WATER OPERATORS, TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND AND A COMMITTEE TO ADMINISTER THE FUND, AND TO REQUIRE THE CONCURRENCE OF THE PUBLIC UTILITY AGENCY OF GUAM FOR THE ISSUANCE OF ALL WATER WELL OPERATING PERMITS," was on the 19th day of November, 1993, duly and regularly passed.


JOE T. SAN AGUSTIN
Speaker

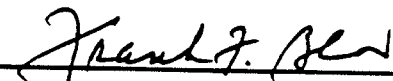
Attested:


PILAR C. LUJAN
Senator and Legislative Secretary

This Act was received by the Governor this 24th day of November, 1993, at
10:09 o'clock A.M.


Assistant Staff Officer
Governor's Office

APPROVED:


FRANK F. BLAS
Governor of Guam

Date: DEC 02 1993
Acting

Public Law No. 22-47

**TWENTY-SECOND GUAM LEGISLATURE
1993 (FIRST) Regular Session**

Bill No. 539 (LS)

**As amended by the Committee on
Water Utilities and Electronic
Communications and as substituted
by the Committee on Rules**

Introduced by:

**T. C. Ada
V. C. Pangelinan
M. D. A. Manibusan
T. S. Nelson
A. C. Blaz
J. P. Aguon
E. P. Arriola
M. Z. Bordallo
H. D. Dierking
C. T. C. Gutierrez
P. C. Lujan
D. Parkinson
E. D. Reyes
J. T. San Agustin
F. E. Santos
D. L. G. Shimizu
D. F. Brooks
T. V. C. Tanaka
A. R. Unpingco**

AN ACT TO ADD §12015.3 TO TITLE 12, GUAM CODE ANNOTATED, TO ADD §46116 TO TITLE 10 OF SAID CODE, TO AMEND §21206 OF THE GOVERNMENT CODE, TO AMEND §46114 OF TITLE 10, GUAM CODE ANNOTATED, AND TO ADD SUBPARAGRAPH (e) TO §46105 OF SAID CODE, TO AUTHORIZE THE PUBLIC UTILITY AGENCY OF GUAM TO ESTABLISH AND COLLECT CHARGES FOR THE BENEFICIAL USE OF PUBLICLY-OWNED WATER WITHDRAWN BY PRIVATE WATER OPERATORS, TO ESTABLISH A WATER RESEARCH AND

DEVELOPMENT FUND AND A COMMITTEE TO ADMINISTER THE FUND, AND TO REQUIRE THE CONCURRENCE OF THE PUBLIC UTILITY AGENCY OF GUAM FOR THE ISSUANCE OF ALL WATER WELL OPERATING PERMITS.

BE IT ENACTED BY THE PEOPLE OF THE TERRITORY OF GUAM:

Section 1. Legislative finding and intent. (a) In addition to the

approximately 10 billion gallons per year of water drawn from wells operated by the Public Utility Agency of Guam ("PUAG"), permitted private water well operators are currently authorized to draw ground water at a rate of approximately 2.4 billion gallons per year. Although the actual draw rate is only about 567 million gallons per year, increased demands can be reasonably anticipated, proportional to the rate of development. The publicly-owned water pumped by PUAG is sold to consumers in the community. In effect, consumers pay the government of Guam for the water received and consumed. Private water operators who pump a public resource (water) for their consumption, i.e. as a production input, should similarly be charged, at a discounted rate, for the publicly-owned water which they pump.

(b) The Legislature finds that the government of Guam has a duty to conserve and develop Guam's limited water resources for all the inhabitants of Guam. In order to effectively accomplish this, an active research and development program must be maintained by the government of Guam to provide planners the information necessary for accurately projecting sustainable yields, determining and managing the impact of development and various human activities which may jeopardize Guam's sole source aquifer and surface water sources.

(c) Chapter 46, (Water Resources Conservation Act) of Title 10, Guam Code Annotated, declared all of the water resources of Guam to be the

1 property of the people of Guam, and therefore the Legislature finds it
2 appropriate that charges be established to compensate the people for the
3 public resource extracted by private water well operators.

4 (d) The Legislature reaffirms the public policy declaration of Public
5 Law 20-06:7 which reserves in 'trust' and prioritizes the utilization of Guam's
6 fresh water resources by its people, and strengthens this intent by requiring
7 the concurrence of PUAG, Guam's sole public water purveyor, before the
8 final approval of all water well operating permits.

9 Section 2. §12015.3 is hereby added to Title 12, Guam Code Annotated,
10 to read:

11 **"§12015.3. Monetary charges for the beneficial use of water**
12 **obtained by private water well operators. Rates shall be established**
13 **for water obtained by private water well operators as follows:**

14 (a) The Public Utility Agency of Guam ("PUAG") shall
15 establish separate classes of monetary charges for water, potable
16 and non-potable water (brackish water for irrigation use), drawn by
17 private water well operators.

18 (b) Said rates shall reflect the cost of activities required to be
19 performed by PUAG and the Guam Environmental Protection
20 Agency with respect to such private water well operators as required
21 by law, plus a monetary charge to compensate the people of Guam
22 for the extraction of water, a public resource.

23 (c) In arriving at an appropriate rate for water withdrawn by
24 private water well operators, PUAG shall take into account the
25 average capital investment and recurring operational costs to the
26 operators of such private water wells.

1 (d) PUAG shall, within sixty (60) days of enactment of this
2 section, submit to the Legislature the schedule of monetary charges
3 made pursuant thereto. The Legislature shall, within seven (7)
4 legislative days of receipt, act upon such proposed schedule of
5 monetary charges. In the event no action is taken within such seven
6 (7) legislative days, the schedule of monetary charges as proposed by
7 PUAG shall go into effect. In the event rate setting authority for
8 service rates of PUAG is placed under the Public Utilities
9 Commission (the "Commission"), PUAG shall submit the proposed
10 schedule of monetary charges to the Commission for review and
11 disposition, and such schedule of monetary charges shall become
12 effective upon its approval by the Commission."

13 Section 3. §46116 is added to Title 10, Guam Code Annotated, to read:

14 "§46116. Water Research and Development Fund. There is
15 hereby created within the government of Guam a special fund, to be
16 known as the "Water Research and Development Fund" (the
17 "Fund"). The Fund shall be available to fund the conduct of water
18 resource research which will contribute (i) to the effective planning
19 and management of Guam's underground and surface water, and
20 (ii) to the development of programs which promote the best use of
21 these resources. No monies may be withdrawn from the Fund except
22 upon specific statutory appropriation by the Legislature. The Fund
23 shall be administered by a committee, to be known as the Water
24 Research and Development Fund Committee, comprised of four (4)
25 members, including a representative of the University of Guam
26 Water & Energy Research Institute, the Guam Environmental
27 Protection Agency ("GEPA"), the Public Utility Agency of Guam

1 ("PUAG"), and a business representative who shall be appointed by
2 the Governor. The Chairman of the Water Research and
3 Development Fund Committee shall be elected by its members who
4 shall meet at a minimum, quarterly, to execute the provisions of this
5 §46116. The procurement of services and resources by the Water
6 Research and Development Fund Committee shall be subject to the
7 procurement procedures set out in Chapter 5, Title 5, Guam Code
8 Annotated. The Water Research and Development Fund Committee
9 shall report to the Legislature, annually, as to the status of the
10 Fund."

11 Section 4. §21206 of the Government Code is amended to read:

12 "§21206. Powers. The agency shall have the power as is
13 necessary for the administration and operation of all water and
14 sewage services furnished by the agency, except electric power which
15 has been transferred to exclusive control and operation of the Guam
16 Power Authority and telephone services. Such power shall include
17 the authority to establish (1) monetary charges to all persons, firms,
18 corporations and governments, including the government of Guam,
19 to whom public utility services are furnished by the agency or to
20 whoever is permitted to withdraw water from underground and
21 surface water sources, and (2) water meter installation and metering
22 and revenue collection therefrom."

23 Section 5. §46114 of Chapter 46, Title 10, Guam Code Annotated, is
24 amended to read:

25 "§46114. Fees. (a) All fees and monetary charges under this
26 Chapter and §12015.3 of Title 12, Guam Code Annotated, shall be
27 deposited in the Water Research and Development Fund."

1 Section 6. Subparagraph (e) is hereby added to §46105 of Title 10,
2 Guam Code Annotated, to read:

3 “(e) The concurrence of the Public Utility Agency of Guam shall
4 be required before issuance of any well operating permit.”



RECEIVED
OFFICE OF THE SPEAKER
DATE: 11/1/93
TIME: 8:51 AM
RECD BY: [Signature]

SENATOR THOMAS C. ADA
COMMITTEE ON WATER UTILITIES & ELECTRONIC COMMUNICATIONS

October 29, 1993

Hon. Joe T. San Agustin
Speaker
Twenty-Second Guam Legislature
155 Hesler Street
Agana, Guam 96910

Re: Bill No. 539, as amended.

Dear Mr. Speaker:

The Committee on Water Utilities & Electronic Communications wishes to report out Bill No. 539, as amended to the Twenty-Second Legislature with the recommendation TO DO PASS.

Committee Voting Record:

TO DO PASS	-8-
TO NOT PASS	-0-
ABSTENTIONS	-0-
IN INACTIVE FILE	-0-

Copies of the Committee Report, including all pertinent information, are attached for your consideration.

Senseramente,

Thomas C. Ada
Chairman



SENATOR THOMAS C. ADA
COMMITTEE ON WATER UTILITIES & ELECTRONIC COMMUNICATIONS

September 29, 1993

TO: Members, Committee on Water Utilities & Electronic Communications.

FROM: Chairman

SUBJECT: Committee Report on Bill No. 539, as amended.

Transmitted herewith for your consideration is the Committee on Water Utilities & Electronic Communications Report on the subject bill, as amended.

The Committee Report is accompanied by the following:

1. Bill No. 539, as amended.
2. Bill No. 539.
3. Committee on Water Utilities & Electronic Communications Voting Sheet.
4. Testimony and Sign-in Sheet.

Should you have any questions, concerns or suggestions, please do not hesitate to bring them to my immediate attention.

Your prompt action on this matter is greatly appreciated.

THOMAS C. ADA

Attachments



SENATOR THOMAS C. ADA
COMMITTEE ON WATER UTILITIES & ELECTRONIC COMMUNICATIONS

VOTING SHEET

October 20, 1993

BILL NO. 539

AN ACT TO AUTHORIZE THE PUBLIC UTILITY AGENCY OF GUAM TO ESTABLISH AND COLLECT MONETARY CHARGES FOR THE BENEFICIAL USE OF PUBLICLY OWNED WATER WITHDRAWN BY PRIVATE WATER OPERATORS, TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND AND A COMMITTEE TO ADMINISTER THE FUND, AND TO REQUIRE THE CONCURRING APPROVAL OF PUAG FOR THE ISSUANCE OF ALL WATER WELL OPERATING PERMITS.

COMMITTEE MEMBERS:	TO PASS	NOT TO PASS	ABSTAIN	TO PLACE IN INACTIVE FILE	SIGNATURE
Sen. Thomas C. Ada, Chairman	✓				<i>Thomas C. Ada</i>
Sen. David L.G. Shimizu, Vice-Chairman	NOT AVAILABLE				
Sen. Joe T. San Agustin, Speaker	✓				<i>Joe T. San Agustin</i>
Sen. Madeleine Z. Bordallo, Member	OFF ISLAND				
Sen. Ted S. Nelson, Member	✓				<i>Ted S. Nelson</i>
Sen. Don Parkinson, Member	✓				<i>Don Parkinson</i>
Sen. Edward D. Reyes, Member	✓				<i>Edward D. Reyes</i>
Sen. Anthony Blaz, Member	✓				<i>Anthony Blaz</i>
Sen. Felix P. Camacho, Member	✓				<i>Felix P. Camacho</i>
Sen. Marilyn D.A. Manibusan, Member	✓				<i>Marilyn Manibusan</i>

good bill!


TWENTY-SECOND GUAM LEGISLATURE
1993 (SECOND) Regular Session

Bill No. 539

as amended by the Committee
on Water Utilities & Electronic
Communications

Introduced by:

T.C. Ada 

V.C. Pangelinan 

M.D.A. Manibusan 

AN ACT TO AUTHORIZE THE PUBLIC UTILITY
AGENCY OF GUAM TO ESTABLISH AND COLLECT
MONETARY CHARGES FOR THE BENEFICIAL USE
OF PUBLICLY OWNED WATER WITHDRAWN BY
PRIVATE WATER OPERATORS, TO ESTABLISH A
WATER RESEARCH AND DEVELOPMENT FUND
AND A COMMITTEE TO ADMINISTER THE FUND,
AND TO REQUIRE THE CONCURRING APPROVAL
OF PUAG FOR THE ISSUANCE OF ALL WATER
WELL OPERATING PERMITS.


ACBUAZ

1 BE IT ENACTED BY THE PEOPLE OF THE TERRITORY OF GUAM:

2 Section 1. Legislative Finding and Intent.

3 (a) In addition to the approximately 10 Billion gallons per
4 year of water drawn from wells operated by the Public Utility
5 Agency of Guam (PUAG), permitted private water well operators are
6 currently authorized to draw ground water at a rate of
7 approximately 2.4 Billion gallons per year. Although the actual draw
8 rate is only about 567 million gallons per year, increased demands
9 can be reasonably anticipated, proportional to the rate of
10 development.

11 The publicly owned water pumped by PUAG is sold to
12 consumers in the community. In effect, consumers pay the
13 Government of Guam for the water received and consumed. Private
14 water operators who pump a public resource (water) for its
15 consumption, i.e. as a production input, should similarly be charged,
16 at a discounted rate, for the water which they pump.

1 (b) The Legislature finds that the Government of Guam has a
2 duty to conserve and develop Guam's limited water resources for all
3 the inhabitants of Guam. In order to effectively accomplish this, an
4 active research and development program must be maintained by
5 the Government of Guam, to provide planners information necessary
6 for accurately projecting sustainable yields, determining and
7 managing the impacts of development and various human activities
8 which may jeopardize Guam's sole source aquifer and surface water
9 sources.

10 (c) Whereas, Title 10 Guam Code Annotated, Chapter 46,
11 (Water Resources Conservation Act) declared all of the water
12 resources of Guam to be the property of the people of Guam, the
13 Legislature finds it appropriate that monetary charges be established
14 to compensate for the public resources extracted by private water
15 operators.

16 (d) The Legislature reaffirms the public policy declaration of
17 P.L. 20-06:7 which reserves in 'trust' and prioritizes the utilization of
18 Guam's fresh water resources by its people, and furthers this intent
19 by requiring the concurrent approval of Guam's sole public water
20 purveyor, the Public Utility Agency of Guam, for the final approval of
21 all water well operating permits.

22 **Section 2.** A new Section 12015.3 is added to Title 12, Guam
23 Code Annotated, Chapter 12, to read:

24 **Section 12015.3. Monetary Charges for the Beneficial**
25 **Use of Water Obtained By Private Water Operators.** Rates
26 shall be established for water obtained by private water operators.

27 (a) The Public Utility Agency of Guam shall establish
28 separate classes of monetary charges for water, potable and non-
29 potable water (brackish water for irrigation use), drawn by private
30 water operators.

31 (b) Said rates shall reflect the cost of activities, relative to
32 operations, required to be performed by PUAG and the Guam
33 Environmental Protection Agency as required by law, plus a
34 monetary charge as compensation to the people of Guam for the
35 extraction of water, a Territorial resource.

1 In arriving at an appropriate rate for water withdrawn by
2 private water operators, the Public Utility Agency of Guam shall take
3 into account the average capital investment and recurring
4 operational costs to the operators.

5 **Section 3.** A new Section 46116 is added to Chapter 46, Title
6 10, Guam Code Annotated to read:

7 "**§46116. WATER RESEARCH AND DEVELOPMENT FUND.**
8 There is created, within the Government of Guam, a special fund,
9 hereinafter known as the "Water Research and Development Fund"
10 (Fund). The Fund shall be available for the purpose of funding the
11 conduct of water resource related research which will contribute to
12 the effective planning and management of Guam's underground and
13 surface water resources, and the development of programs which
14 promote the best use of these resources.

15 The Fund shall be administered by a committee, to be known
16 as the Water Research and Development Fund Committee, comprised
17 of four (4) members to include a representative of the University of
18 Guam Water & Energy Research Institute (WERI), the Guam
19 Environmental Protection Agency (GEPA), the Public Utility Agency
20 of Guam (PUAG), and a community representative who shall be
21 appointed by the Governor. The Chairman of the Water Research and
22 Development Fund Committee shall be chosen by the members of the
23 Committee and shall meet, at a minimum, quarterly, for the purpose
24 of executing the objectives of this §46116.

25 The procurement of services and resources by the Water
26 Research and Development Fund Committee shall be subject to the
27 procurement procedures provided for in Title 5, Guam Code
28 Annotated, Chapter 5.

29 The Water Research and Development Fund Committee shall
30 report to the Legislature, annually, as to the status of the Fund."

31 **Section 4.** Section 21206, Government Code (as amended by
32 P.L. 16-59:4), is amended to read:

33 "**§21206.** The Public Utility Agency of Guam shall have the
34 power as is necessary for the administration and operation of all
35 water and sewage [~~other utility~~] services furnished by the agency,
36 except electric power which has been transferred to exclusive control

1 and operation of the Guam Power Authority and telephone service.
2 Such power shall include the authority to (1) establish [make a]
3 monetary charges to all persons, firms, corporations and
4 governments, including the government of Guam, to whom public
5 utility services are furnished by the agency or whoever is permitted
6 to withdraw water from underground and surface water sources, and
7 (2) metering and revenue collection therefrom."

8 **Section 5** Section 46114 (Fees) of Chapter 46, Title 10, Guam
9 Code Annotated is amended to read:

10 **"§46114. Fees.**

11 (a) All fees and monetary charges under this Chapter and
12 Section 12015.3. of Title 12 Guam Code Annotated, Chapter 12, shall
13 be deposited in the [General] Water Research and Development
14 Fund."

15 **Section 6. Implementation of this Act.** The Public Utility
16 Agency of Guam shall, within sixty days (60) of enactment, submit to
17 the Legislature the schedule of monetary charges pursuant to Section
18 2, of this Act.

19 (a) The Legislature shall act, within forty-five days (45) of
20 receipt, upon the proposed schedule of monetary charges developed
21 by the Public Utility Agency of Guam. In the event no action is taken
22 within forty-five days (45), the schedule of monetary charges shall
23 become effective as proposed by the Public Utility Agency of Guam.

24 (b) In the event regulatory rate setting authority for service
25 rates for Public Utility Agency of Guam services is placed under the
26 Public Utilities Commission, the Public Utility Agency of Guam shall
27 submit the proposed schedule of monetary charges to the Public
28 Utilities Commission for review and disposition. The schedule of
29 monetary charges shall become effective upon approval by the
30 Public Utilities Commission.

31 **Section 7.** A new Sub-Section (e) is added to §46105 of Title
32 10, Chapter 46, to read:

33 "(e) The concurring approval of the Public Utility Agency of
34 Guam shall be required for the issuance of all water Well Operators
35 Permits."



SENATOR THOMAS C. ADA
COMMITTEE ON WATER UTILITIES & ELECTRONIC COMMUNICATIONS

COMMITTEE REPORT

BILL NO. 539

AN ACT TO AUTHORIZE THE PUBLIC UTILITY AGENCY OF GUAM TO ESTABLISH AND COLLECT MONETARY CHARGES FOR THE BENEFICIAL USE OF PUBLICLY OWNED WATER WITHDRAWN BY PRIVATE WATER OPERATORS, TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND AND A COMMITTEE TO ADMINISTER THE FUND, AND TO REQUIRE THE CONCURRING APPROVAL OF PUAG FOR THE ISSUANCE OF ALL WATER WELL OPERATING PERMITS.

I. BACKGROUND

Bill No. 539 addresses the Committee's concern that an active research and development program must be maintained by the Government of Guam in order to provide planners the information necessary to mitigate any negative impacts resulting from development and various human activities and insure the continued availability of potable water from Guam's underground and surface water sources.

The Bill authorizes the establishment of two schedules of monetary charges for potable and non-potable water drawn by private water operators, consistent with the intent of the Water Resources Conservation Act (Title 10, GCA, Ch. 46) which declared water to be a publicly owned resource.

The Fund established shall be available for the purpose of funding the conduct of water resource related research which will contribute to the effective planning and management of Guam's underground and surface water resources, and the development of programs which promote the best use of these resources.

A public hearing was held on July 19, 1993, at 9:30 A.M. in the Public Hearing Room of the Guam Legislature, Temporary Building.

Committee Members Present:

Thomas C. Ada, Chairman
Felix Camacho
Tony Blaz
Ted Nelson
Marilyn Manibusan
Elizabeth Arriola
Ed Reyes

Testifying; Private Sector:

Barry Barber, General Manager
Foremost Foods, Guam
Karen M. Storts, Business Manager
Guam Contractors Association
Jere Johnson, President
Hawaiian Rock Products
Jaten Sahni, Chief Engineer
TH Corporation
Tom Perez, President
Perez Bros., Inc.
Harold Stempel, V.P./General Manager
Island Equipment Company

Government of Guam

Joseph F. Mesa, Chief Officer
Public Utility Agency of Guam
Dr. S. Khosrowpanah, Director
Water & Energy Research Institute, UOG
Fred Castro, Administrator
Guam Environmental Protection Agency

II. SUMMARY OF TESTIMONY

Joseph F. Mesa (Written/Oral statement)

Chief Officer, Public Utility Agency of Guam: Testified in support of Bill 539 with the recommendations that the "Water Research and Development Fund" committee be amended to include (1) a representative from the business community (appointed by the Governor), and (2) to have the chairman be selected by the members of the committee to ensure a sharing of responsibilities.

Further noted the high costs of water well development and operation. He stated that private well owners should be compensated, within the fee schedule, for their investment which in fact is a savings realized by PUAG.

Dr. S. Khosrowpanah (Written/Oral statement)

Director, WERI: supported Bill No. 539 noting the serious need for research, and thereby the acquisition of current data for use in the planning and development of water resources. The maximum draw on the Northern Groundwater Lens (NGL) is estimated at 59 million gallons per day (mgpd). While noting the actual draw rate to be currently about 28 mgpd, of grave concern is that future demand, as projected against development and population growth estimates, will exceed the NGL sustainable yield by the year 2010.

Careful study of the dynamics of the NGL is critical, due to the fact that development can adversely affect the recharge zones. Though considerable, available data is neither adequate nor necessarily reflective of the current status of the NGL. Updated information is a necessary tool for proper water resource protection and management.

Adequate funding has historically been the primary factor inhibiting the conduct of needed analysis and the completion of projects pending.

Fred Castro (Written/Oral statement)

Director, GEPA: testified in favor of Bill No. 539, and sees no major flaws, as drafted. The Bill could facilitate GEPA's priority

of drilling monitoring wells which are essential to resource development. Expressed his concern regarding the:

- (1) assignment of responsibility for determination of appropriate fees, and the establishment of a suitable fee schedule,
- (2) economic impact upon private well operators and consumers, and

Mr. Castro clarified the issue of permitted volume, versus actual volume, collectively drawn from the NGL by private well operators. Although a *permitted* volume of 2.4 billion gallons per year is authorized, the actual volume drawn is currently 567 million gallons per year. Mr. Castro stated that the layout of the GEPA report was misleading and would be revised for purposes of clarity.

Noted that 70% - 80% percent of water drawn from the NGL is non-potable, the primary usage being golf course irrigation (no estimate given for construction related industries). Only the Hatsuo Golf Course and Foremost wells produce potable water.

Tom Perez (Written/Oral statement)
President, Perez Brothers Construction testified that their rock crushing process uses water from their own well, not PUAG, and absorbs all costs for drilling, maintenance, and regulatory reporting. Stated the company takes added care in protecting the aquifer and absorbs those costs as well. It was requested that these costs and considerations be taken into account within any rate structure contemplated.

Although 15.6 million gallons per year are drawn from their well, the company attempts to store and recycle a large percentage, thereby reducing source demands. Waters utilized are returned to the aquifer via run off and percolation.

Emphasized that the cost of owning and operating a well is substantial, and fees charged should reflect those expenses. Savings realized by PUAG should be incorporated into the fee schedule. According to Perez, the fee to be charged is "essentially an aquifer protection and royalty fee"; anything above that would adversely affect the economy, and the costs of goods and services throughout Guam's varying markets.

Pat Burke (Oral Testimony)

Golf Management International, stated he was testifying against Bill No. 539 as a private citizen. Testimony centered around the importance of the golf industry on Guam. Stated GVB has determined that 12% of our visitors come to Guam primarily for golf. While other tourists surveyed say they come for other reasons than golf they still play golf, according to Burke. Roughly estimates 25% of tourists play golf. Golf is an important aspect of tourism on Guam and Bill 539 would "kick tourism in the belly, again". Burke requested another public hearing to allow local golfers a chance to give their input because they will be the ones to absorb this proposed fee (as well as the tourists).

Feels the golf industry can be the strength of tourism on Guam, however, it remains a low priority. Demonstrates this point by noting that GVB was absent from a conference in Hawaii to examine the improvement of golf in the Pacific Rim. Alabama, Florida and South Carolina have selected golf as their centerpiece for tourism. As a result, Alabama has developed 12 municipal courses.

Barry Barber (Written/Oral Testimony)

General Manager, Foremost Foods testified against Bill No. 539. Stated that the language in the Bill's title, 'and for other purposes' was "quite suspect".

Mr. Barber first acknowledged the need for research, development and conservation, then stated his belief that existing information, if updated on a regular basis, would adequately address R&D requirements. "

Stated that Foremost uses approximately 1.4% of the total amount of water permitted by GEPA. Questioned the figure of 2.4 billion gallons cited in the bill (*See GEPA statement, above*) and wonders why only private well operators would be charged. Believes the Navy & Air Force should be charged as well.

Barber further stated that the cost of maintaining a well costs at least \$4,160.00 per year, for testing fees, not including the costs of chlorine, maintenance, parts and supplies. This cost is paid by Foremost. The water extracted is used in all their products.

Anticipates an increased cost for milk, directly attributable to the proposed fee(s).

Karen Storts (Written/Oral Testimony)

Business Manager, Guam Association of Contractors: testified against Bill No. 539; anticipates an adverse effect upon the economy. Private well owners will increase the price of construction supplies (such as concrete blocks and poured concrete). Concurred with earlier statements by Tom Perez to the effect that the water used by contractors is, for the most part, recharged to the aquifer. In essence, contractors will be asked to pay for the same water over and over. Additionally commented that an increase in costs for utilities may discourage general investments in Guam.

Jere Johnson (Written/Oral Testimony)

President, Hawaiian Rock Products testified against Bill No. 539. The costs of licenses and current regulatory requirements (testing and monitor wells) adequately serve the intent of the bill. GEPA strictly monitors the effect their pumping has on the acquirer.

Hawaiian Rock has invested in a \$400,000.00 recycling system in order to cope with the daily limit imposed by GEPA. The current structure provides the government with revenue and protection of the island's acquirer.

The fees proposed will be passed on to the consumer; to include private citizens, the Government of Guam and the Federal government. This will mean more expensive roads, and increased difficulty in providing affordable housing.

Jaten Sahni (Written/Oral Testimony)

Chief Engineer, TH Corporation

Mangilao Golf Course testified against Bill No. 539, stating it would result in prohibitive costs for private well operators, thereby affecting the golf industry as a whole. Golf courses may be punished for being a good corporate citizens. In the long run, golfers will absorb the fee.

Costs for owning/operating private wells are approximately \$100,000.00 per well per year, not including costs for permitting,

monitoring and compliance with regulatory requirements. The Mangilao Golf Course has already contributed generously to the sewer development fund.

Mangilao Golf Course has implemented numerous water conservation measures, i.e., recycling the water back into the ground. Only brackish water is pumped.

Mr. Sahni feels that there must be some sort of value for value exchange in this matter; some sort of special consideration for their investments.

Mr. Arthur B. Clark (Written Testimony)
Calvo & Clark, Attorneys at Law, for,
Country Club of the Pacific testified against Bill No. 539 and expressed concern with the viability of the golf industry as a whole. A fee for water drawn from privately owned wells will increase costs to play golf, and thereby undermine (1) the level of service and quality of the courses, and (2) the tourism industry as a whole.

Mr. Seinosuke Yamamoto (Written Testimony)
General Manager
Guam Takayama Golf Club, LTD. testified against Bill No. 539; stated that a fee for water will cause the price of golf to become so expensive it will be unreasonable. Stated that it is not unusual for a course to use 500,000 gpd for irrigation. At \$0.01 per gallon, distributed among 100 rounds of golf daily, the cost to the golfer for water alone will be \$50.00 (not including current costs for play).

Suggests that the bill be tabled. Requested that revenues be obtained from other sources of water, other than privately owned wells. Wants a community based panel to examine the bill and its ramifications upon the golf industry. Committee should consider purchasing the privately owned wells (at a fair market value) for operation and management by PUAG.

Harold Stempel (Written statement)
Vice-President, General Manager,

Island Equipment Company testified against the Bill because of the "possible adverse impact to our investment" and that it would "unreasonably burden the private sector by requiring payment for additional equipment and resources.

IV. FINDINGS

The Committee found that the testimonies of private water operators essentially focused upon:

(1) Fee would be significantly inflationary within the industry impacted by the new fees.

Given the data the Committee was able to obtain on Foremost Inc. products and golf course data, the Committee found this concern to be minor.

It is estimated, for example, that the production cost for each unit of Foremost's sale, e.g. each ten pound bag of ice, each gallon of bottled water, or each quart of milk would, at the high end, increase by about \$0.0035.

This added cost would be the consequence of Foremost, Inc. having to pay for the water extracted from their wells at a rate of \$1.17 per 1,000 gallons. It is reasonable to speculate however that rates to be charged to the private well operators would be discounted to compensate the operator for their capital investment and recurring cost of operations which PUAG avoids.

Similarly, golf courses would be affected by the new charges by increasing, at the high end, the cost per round of golf by about \$6.00. Again, it is reasonable to speculate that rates to be charged for the water extracted will be much lower than \$1.17 per 1,000 gallons. Testimonies from golf course operators estimated the impact to be about \$50 additional per round of golf. The Committee has concluded that the latter estimate was due to an error in decimal point placement.

The Committee finds that any decision to raise the retail cost of affected construction materials, milk, or golf, above and beyond the actual increase in production costs realized, is solely a matter of management's

prerogative. The negligible projected increase in production costs, as estimated by the Committee, can be distributed among units of production and service at a nominal retail cost increase to end consumers.

(2) **Water used (by golf courses and rock product manufacturers) is non-potable and recycled to the aquifer.**

The above mentioned consumers argue that because the water they extract is "brackish" and because at least 90% of the extracted water is recycled into the aquifer (because the water is allowed to percolate) their use of this public resource is negligible.

The Committee finds that despite the quality of the water or the recycling process, the water extracted had a utility value. That the water is of brackish quality or is recycled into the ground is irrelevant. Furthermore, testimony presented during the PUAG Oversight Hearing on February 18, 1993 noted that any extraction from the water lens will have an effect upon the lens.

(3) **Private well ownership is not free of charge.** The costs for permitting, development, compliance, operation and maintenance, are considerable. The various well owners believe their investment and operating costs should not go uncompensated.

This was duly noted by the Committee which found it appropriate to amend the Bill to include a mechanism for compensatory consideration for operating costs and investments made by private well operators.

(5) **The need for public participation within the proposed Water Research and Development Fund Committee.** This was found to be a reasonable consideration. Section 3 of the Bill was amended by adding an additional member to the Committee, from the private sector, who shall be appointed by the Governor.

IV. RECOMMENDATIONS

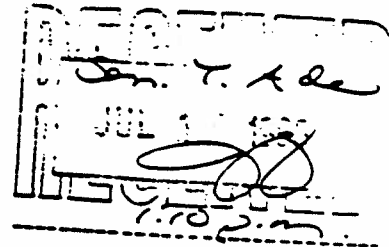
The Committee on Water Utilities & Electronic Communications hereby recommends to the Twenty-Second Guam Legislature TO DO PASS Bill No. 539, as amended.



P.O.Box 24371
GMF, Guam 969
Phone: 632-1111
Fax: 632-0361

July 19, 1993

Honorable Senator Thomas C. Ada, Chairman, and members of the
committee on utilities and electronic communications
22nd Guam Legislature
155 Bessler Street
Agana, Guam 96910



Re: Bill no. 539

Honorable Chairman and member of the committee:

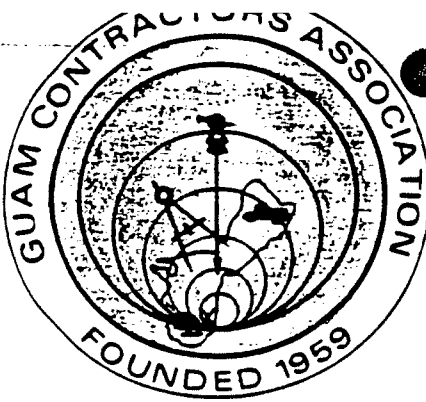
My name is Toshiaki Koshibuchi, General Manager of HICC (Hatsuho International Country Club) and I want to thank the committee for this opportunity to comment on Bill no. 539. I also wish to commend you Mr. Chairman for having the foresight to address a possibly long overdue and certainly critical matter.

We are concerned however, that the golf course establishments are singled out to finance the expense required to fund those purposes under bill no. 539.

The decline in our visitor industry carries the same negative financial impact on the golf course operations as these with our local hotels. We cannot expect the local trade (local golfers) to pick up the slack inasmuch as we are currently subsidizing the local golf fee by more than 60% (this was requested by current administration). We hope that you can reconsider the funding provision of Bill no. 539. We will be more than willing to participate in a more proportionate and equitable arrangement which we hope will include a much broader based fee sharing apportionment.

Respectfully Yours,


Toshiaki Koshibuchi



GUAM CONTRACTORS' ASSOCIATION

July 19, 1993

Sen. Tom Ada, Chairman
Committee on Water Utilities and Electronic Communications
Twenty-Second Guam Legislature
Agana, Guam 96910

RE: BILL NO. 539 - AN ACT TO PROVIDE FOR MONETARY CHARGES FOR THE BENEFICIAL USE OF PUBLICLY OWNED GROUNDWATER WITHDRAWN BY PRIVATELY OWNED WELLS, TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND FOR OTHER PURPOSES.

Dear Senator Ada and Members of the Committee:

Thank you for giving us this opportunity to comment on Bill 539, which addresses the issue of payment to be made to the Government of Guam for water drawn by privately-owned wells. Several members of the Guam Contractors' Association are owners of wells that would be affected by this legislation. For the following reasons we feel this bill would adversely affect the economy of Guam.

First, it is important to remember that the companies that own wells have invested heavily in those wells and continue to maintain them on a day-to-day basis. The reason they installed their own wells in the first place was that they felt a need to supplement the Public Utility Agency of Guam's ability to supply water to their operation, either due to inadequate pipes or poor water pressure. In any case, they felt so dependent on reliable water service that they spent large sums of money to ensure that their water supply would be uninterrupted. For the most part, these consumers use this water supply in a way that returns the water to the ground, so the argument could be presented that they shouldn't have to pay for the use of the same water over and over again.

The Guam Contractors' Association believes that this charge for water will be directly passed on to the consumer in the form of higher prices for services provided by owners of water wells. If poured concrete or concrete block prices go up, the cost of affordable housing does likewise.

We also expect that developers from off-island will see this as a discouraging sign and will often look elsewhere when faced by rising costs for basic utilities.

In closing, the Guam Contractors' Association is not in favor of this proposed legislation. Thank you.

Sincerely,

GUAM CONTRACTORS' ASSOCIATION

Karen M. Storts

Karen M. Storts
Business Manager



FOREMOST FOOD

490 N. Marine Drive, Upper Tumon, Guam USA 96911
Tel: (671) 649-9782 • Fax: (671) 646-9059

Senator Thomas C. Ada and Committee Members:

Good morning! I am Barry Barber, President of Foremost Foods. Foremost Foods is opposed to Bill No. 539. We are opposed to this bill for the following reasons:

In the introduction of the bill, you state that the bill is to establish a water research and development fund "and for other purposes". We can only guess what other purposes means.

In Paragraph B of the proposed Bill 539, you state ..."that the Government of Guam has a duty to conserve and control Guam's limited water resource for all the inhabitants of Guam. In order to effectively accomplish this, an active research and development program must be maintained by the Government of Guam. This will provide planners information necessary for accurately projecting sustainable yields determining the impact of development and basically, understanding the impact of man's activities upon Guam's sole aquifer resource". At present, there exists on Guam, ample information on the aquifer of Guam. First, I would like to show the Guam Environmental Protection Agency Water Resources Management Program Annual Report 1991, all 238 pages. In addition to the EPA, there is also the information supplied by PUAG

and the Water and Energy Resource Institute of the University of Guam. These three organizations supply more information than can be adequately interpreted.

In the proposed Bill 539, it is stated that 2.4 billion gallons per year is drawn from private water wells. I seriously question the figure of 2.4 billion gallons. As an example, Foremost Foods used 32,393,500 gallons during the past 12 months. If I accept that there are 2.4 billion gallons of water taken from privately owned deep wells, Foremost Foods accounts for only 1.394% of this total, a truly insignificant amount. On page 194 of the Guam Environmental Protection Agency Report, mentioned earlier, it is shown that there are only 15 private wells in the civilian community. Of these 15, 6 wells are not in operation. Therefore, only 9 private wells are shown to be in operation in the 1991 report, which is the last report issued by EPA. If there are other wells which are not reported to the EPA, I do not know about them, so I cannot comment on them. It is my understanding that any charges for the use of private wells will only be for the civilian users and not for the military. This of course, is discriminatory. Why should Foremost Foods be charged for its deep well water and the Air Force and Navy not charged?

On line 10 of the Proposed Bill 539, it is stated, ... "at no cost to private well operators". It is possible that you do not know that we have our private well water tested twice monthly by

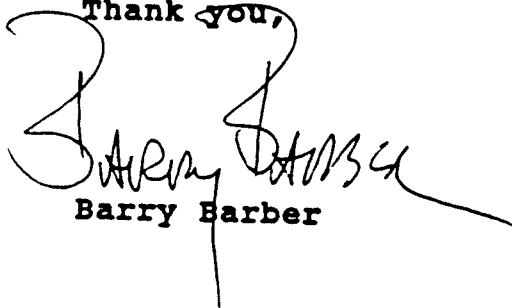
EPA at a cost of \$280 per month and that we are now required to have our water tested for lead and copper once a year a cost of \$300 per year. In addition, we are required to test our source water for all metal components for another \$500 per year. Obviously this does not take into account the cost of maintenance to our well, the use of chlorine, new pumps and equipment when they must be replaced, etc. We have also installed a reservoir and our own fire hydrants and fire-fighting support equipment. All of this, at our cost, and not to PUAG. su, 1/11

As you know, our product is for human consumption. If we did not have our own deep well and were required to use water supplied to us by PUAG, we could be faced with the same dilemma that 37% of the households on Guam are faced with. That is an unacceptably high level of lead in the water due to the age of the water delivery system on Guam. We would be required to purify this water before using it for our products, which are consumed primarily by children, as the lead content would be unacceptably high if we used PUAG water. To substantiate this, I show you a document supplied by the EPA to the majority of the water users on Guam and an article published in the PDN.

I believe that the Internal Revenue Service of the United States was first established around 1932 as a temporary measure to raise funds and that the rate of taxation was 1%. The reason I mention this is that once a tax or fee or charge is instituted,

it has a tendency to grow as the bureaucratic needs increase. It is Foremost Foods' point of view that this is an unneeded cost which will not serve its purpose as the aquifers of Guam are already being studied by EPA, PUAG, and the Water and Energy Resource Institute of UOG. That this bill will be just like the salary increase of \$5,440 or the tariff rate increase of the Port Authority. Both of these instances have been inflationary and it is the people of Guam who are paying for these increases. An additional cost to Foremost Foods will simply be passed on to the consumer. When and if this Bill is passed and if the charges are significant, the public will know that the reason they are paying more for their milk can be traced directly to Bill 539.

Thank you,

A handwritten signature in cursive script, appearing to read 'Barry Barber', with a long horizontal flourish extending to the right. The signature is written in dark ink on a white background.

Barry Barber

Lead In Your Drinking Water

A Publication of the Public Utility Agency of Guam

To Our Customers:

The Public Utility Agency of Guam (PUAG), the Guam Environmental Protection Agency (GEPA), the United States Environmental Protection Agency (USEPA), and the Department of Public Health and Social Services are concerned about lead in your drinking water.

Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the USEPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/l).

Under Federal law, we are required to have a program in place to minimize lead in your drinking water by January 1, 1997. This program includes corrosion control treatment,

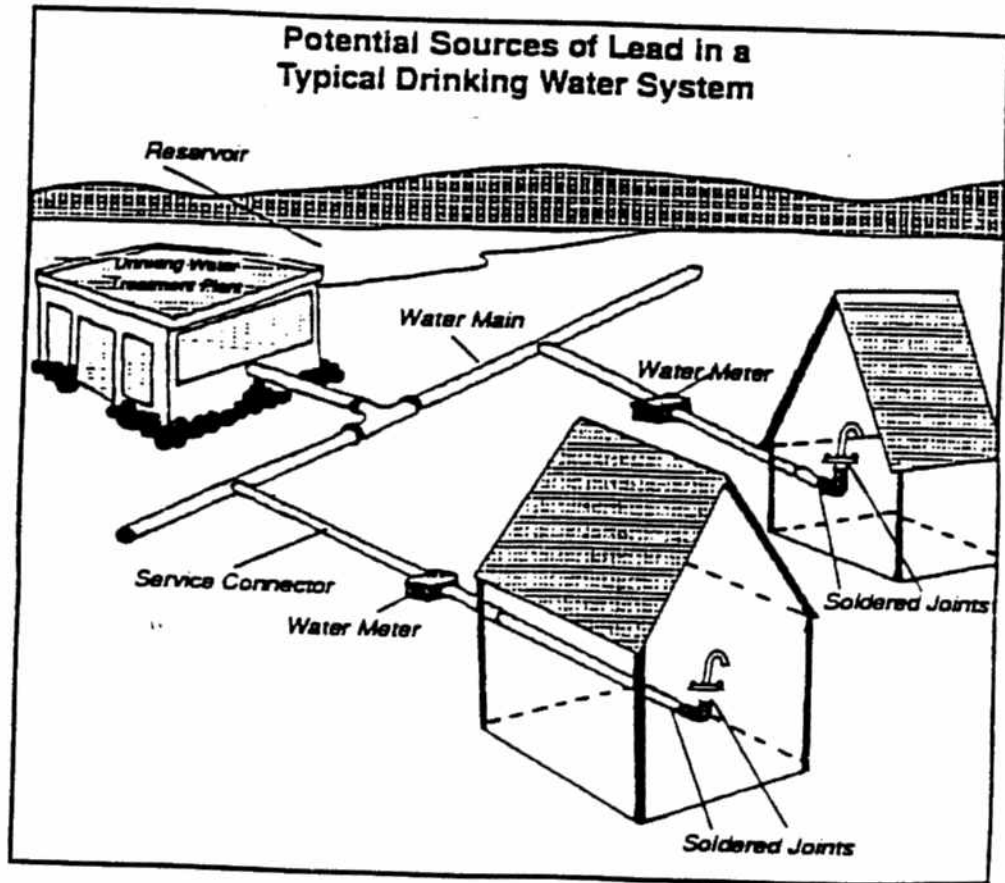
source water treatment, and public education.

We are also required to replace each service line that we connect to your home if the line contains lead. This program contributes to the reduction of lead concentration of 15 ppb or more after we have completed the comprehensive lead replacement program.

If you have any questions about how to protect your family, call our office at 646-8111. Our brochure explains the simple steps

you can take to protect you and your family by reducing your exposure to lead in drinking water.

Joseph F. M.
Chief Officer
Public Utility Agency of Guam



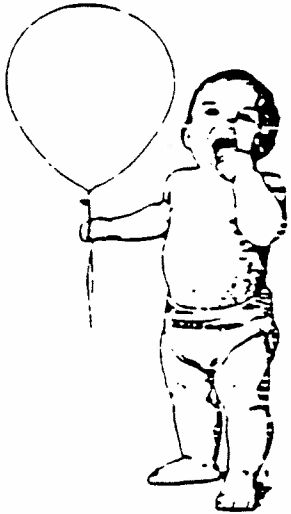
Health Effects of Lead

Lead is a common, natural and often useful metal found throughout the environment in

lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water.

Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes in contact with sources

of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and try to make sure they only put food in their mouths.



Lead in Drinking Water

Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrates juices that are mixed with water. The USEPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead contents of faucets, pipes, and other plumbing materials to 8.0%.

When water stands in lead pipes or plumbing systems

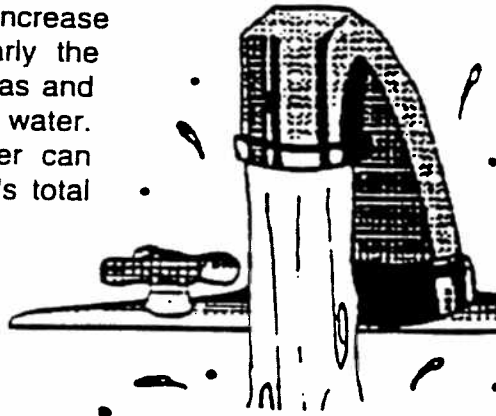
containing lead for several hours or more, it may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or the afternoon after returning from work or school, contain fairly high levels of lead.

Steps You Can Take in the Home to Reduce Exposure to Lead in Drinking Water

Despite our best efforts mentioned earlier to reduce water corrosivity and remove lead from the supply, lead levels in some homes or buildings can be high. To find out whether you need to take action at your home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call 646-8891 through 6.

If a water test indicates that the drinking water drawn from the tap in your home contains lead above 15 ppb, then you should take the following precautions:

1. **Flush your system.** Run the water from the tap before using it for drinking or cooking any time the water faucet has gone unused for more than six hours. The longer water resides in your home's plumbing system, the more lead it may contain. Flushing the tap means running the water faucet until the water



gets noticeably colder, usually about 15-30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than 20 cents.



Navy boosts power supply

— Page 4

Jays rally from 6 deficit

— Page 56



Pacific Daily News

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A Guaman Newspaper

OL. 23 NO. 255 AGANA, GUAM, OCTOBER 13, 1982

Hafa Adai, it's Tuesday

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Guam taps need to get the lead out

By LINDA AUSTIN
Daily News Staff

Guam's first Clean Water Week opened yesterday with a surprise — about 37 percent of local households drink water containing dangerous levels of lead.

"It is a concern," said Angel Marquez, director of Guam Environmental Protection Agency's safe drinking water program.

A new study, conducted by GEPA and Guam's public utilities agency during the past six months, tested water from 100 households throughout the island, Marquez said. A second six-month study is now underway.

Results found 37 homes with 15 parts per billion or more of lead in their tap water. That equates to .015 milligrams or more of lead per liter of water.

Federal drinking-water standards for lead are now .050 mg/liter but might soon drop to .020 mg/liter, according to documents. Lead levels of .015 mg/liter, the "action" level, require local governments to begin warning consumers about pending dangers.

The other 63 households in Guam's study had tap water containing between .005-.014 mg/liter of lead.

Lead is a common but dangerous metal which occurs naturally in soil, air and dust but rarely in water sources such as lakes and aquifers. Lead poisoning can stunt mental and physical growth. Young chil-

Water numbers	
U.S. safe drinking water standards for various agents in parts per billion (one ppb = .001 mg/liter)	Metals in water samples from southern Guam rivers:
MERCURY 2 parts per billion	MERCURY less than .03 ppb
CADMIUM 5 ppb	CADMIUM less than .03 ppb
COPPER NA	COPPER .11-6.71 ppb
LEAD 50 ppb	LEAD less than .32-3.1 ppb
NICKEL 100 ppb	NICKEL .75-6.75 ppb
CHROMIUM 100 ppb	CHROMIUM .13-2.25 ppb
SILVER 100 ppb	SILVER all .07 ppb
ZINC 5,000 ppb	ZINC less than .02-9.48 ppb
MANGANESE 50 ppb	MANGANESE .11-7.53 ppb

dren, infants and pregnant women are especially vulnerable to its damaging effects.

Lead typically enters a water system through a home's plumbing. Particularly susceptible are new homes less than five years old or homes with copper or other piping which uses lead solder.

Pipes in older homes, especially with Guam's mineral-laden water, usually have a mineral coating within the pipe which seals in the lead. For unprotected pipes, the longer water remains in contact with lead connections — such as overnight — the more likely it is to dissolve the lead.

Consumers can protect themselves in many ways:

- Flush each tap until it runs cold water, especially if the tap has not been used for six or more hours as is usually the case first thing in the morning

and in late afternoons when people return home from school and work.

- Always drink and cook with cold tap water, never hot water from the tap. This is especially important for those mixing infant formula.

- Look at your home's plumbing. Remove loose solder and other debris. Replace leaden fixtures with lead-free ones. Learn if the service line connecting your home or apartment to the water main is made of lead. Government help may be available to replace it if it is.

- Have an electrician check your home's wiring since electrified wires running near water pipes increase the likelihood of lead entering the water.

- Use a home water-treatment device, such as a distiller or reverse-osmosis system, or drink bottled water.

River studies uncover puzzle

■ Clues: High manganese, low zinc could be linked to lytico-bodig

By LINDA AUSTIN
Daily News Staff

New tests on four rivers in southern Guam have scientists puzzled about an abundance of manganese in the water, a metal linked to neurological disorders and possibly lytico-bodig disease.

Preliminary results from the University of Guam's Water and Energy Research Institute indicate water from four rivers — the Taelayag, Umatac, Goss and Inarajaa — registered astronomically high in manganese and surprisingly low in zinc.

The university's research findings were among the displays for Clean Water Week now featured at Micronesia Mall through Saturday.

Manganese samples from the Taelayag River near Agat, for example, topped out at 7,530 parts per billion, compared with national drinking-water standards of 30 ppb, said professor H. Galt Segrist Jr., who is conducting the research with colleague Gary Denton.

An oversupply of manganese in the human body has been linked with certain neurological disorders such as Parkinson's disease. But Segrist said the new studies were too incomplete to draw any connection with lytico-bodig, the mysterious Parkinson's-like ailment which has its highest concentration per capita worldwide among southern Guam residents.

The water tests also showed another metal, zinc, in serious imbalance. Zinc is needed in the body for such things as proper protein digestion and to prevent dwarfism.

Local tests showed the four rivers running no more than 9.5 ppb of zinc while national stan-





PUBLIC UTILITY AGENCY OF GUAM

Government of Guam

Post Office Box 3010, Agana, Guam 96910

Phone: (671) 646-8891-6 / 649-7824

Fax: (671) 649-0158

BILL 539

AN ACT TO PROVIDE FOR MONETARY CHARGES FOR THE BENEFICIAL USE OF PUBLICLY-OWNED GROUND WATER WITHDRAWN BY PRIVATELY-OWNED WELLS, TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND, AND FOR OTHER PURPOSES

TWENTY-SECOND GUAM LEGISLATURE
COMMITTEE ON WATER UTILITIES & ELECTRONIC COMMUNICATIONS

TESTIMONY

Submitted By

Joseph F. Mesa, Chief Officer
Public Utility Agency of Guam

July 19, 1993



Commonwealth of Guam



PUBLIC UTILITY AGENCY OF GUAM

Government of Guam

Post Office Box 3010, Agana, Guam 96910

Phone: (671) 646-8891-6 / 649-7824

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TESTIMONY

Submitted By

Joseph F. Mesa, Chief Officer
Public Utility Agency of Guam

July 19, 1993

GOOD MORNING MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE ON WATER UTILITIES & ELECTRONIC COMMUNICATIONS. FOR THE RECORD, MY NAME IS JOSEPH F. MESA AND I AM THE CHIEF OFFICER OF THE PUBLIC UTILITY AGENCY OF GUAM. I AM HERE TO TESTIFY ON BILL 539: AN ACT TO PROVIDE FOR MONETARY CHARGES FOR THE BENEFICIAL USE OF PUBLICLY-OWNED GROUND WATER WITHDRAWN BY PRIVATELY-OWNED WELLS, TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND, AND FOR OTHER PURPOSES. I WOULD LIKE TO THANK THE COMMITTEE CHAIRMAN FOR INVITING PUAG TO SUBMIT TESTIMONY.



Commonwealth N

Testimony - Bill 539
July 19, 1993
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BILL 539 SEEKS TO ACCOMPLISH TWO GOALS, THE IMPLEMENTATION OF A FEE SCHEDULE FOR PUBLIC WATER DRAWN BY PRIVATELY-OWNED WELLS AND THE ESTABLISHMENT OF A WATER RESEARCH AND DEVELOPMENT FUND. BOTH ARE COMMENDABLE GOALS AND, FOR THE BENEFIT OF THIS COMMITTEE, I HAVE CHOSEN TO DISCUSS EACH GOAL SEPARATELY.

THE IMPLEMENTATION OF A FEE SCHEDULE FOR PUBLIC WATER DRAWN BY PRIVATELY-OWNED WELLS

BILL 539 SEEKS TO INITIATE MONETARY CHARGES FOR THE BENEFICIAL USE OF WATER OBTAINED FROM PRIVATELY OWNED WATER WELLS, AND TO AUTHORIZE PUAG TO ESTABLISH A SCHEDULE OF SUCH CHARGES. IN LINE WITH THE WATER RESOURCES CONSERVATION ACT AND PUBLIC LAW 20-6 DECLARING ALL WATER RESOURCES OF GUAM TO BE A PUBLIC ASSET, PUAG SUPPORTS THE IMPLEMENTATION OF FEES ON THE USE OF GROUND WATER WITHDRAWN BY PRIVATELY-OWNED WELLS.

FOR YEARS, GROUND WATER DRAWN BY PRIVATE WELLS HAS BEEN USED FOR THE INDUSTRIAL PRODUCTION --- BEVERAGES, CONCRETE PRODUCTS, AND OTHER INDUSTRIAL COMMODITIES. IN RECENT YEARS, HOWEVER, WE HAVE SEEN A SIGNIFICANT INCREASE IN THE NUMBER OF PRIVATELY OWNED WELLS AND THE AMOUNT OF GROUND WATER BEING PUMPED BY PRIVATE WELLS FOR AQUACULTURE AND FOR THE IRRIGATION OF GOLF COURSES.

ONE OF THE REASON FOR THE RECENT INCREASE IN OWNERSHIP OF PRIVATELY OWNED WELLS IS THE GOVERNMENT OF GUAM'S POSITION THAT WATER FROM GUAM'S MUNICIPAL WATER SYSTEM, TAKING INTO CONSIDERATION THE GOVERNMENT'S WATER PRODUCTION CAPABILITY AND THE COSTS INVOLVED IN TREATMENT AND TRANSMISSION, SHOULD BE RESERVED TO MEET THE

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INCREASING DEMAND FOR POTABLE WATER CONSUMPTION. THEREFORE, IT SHOULD NOT BE USED AS A SOURCE OF IRRIGATION FOR LARGE DEVELOPMENTS. AS A RESULT, PRIVATE DEVELOPERS HAVE BEEN FORCED TO SEEK ALTERNATIVE SOURCES OF WATER TO SATISFY THEIR IRRIGATION REQUIREMENTS.

WHILE THE OWNERS OF THESE WELLS HAVE INVESTED THOUSANDS OF DOLLARS IN THE DEVELOPMENT, OPERATION, AND MAINTENANCE OF THESE WELLS, THEY DO NOT PAY A FEE TO THE GOVERNMENT OF GUAM FOR THE USE OF THE WATER --- WATER WHICH PUBLIC LAW 20-6 DECLARED A PUBLIC ASSET. IN ACCORDANCE WITH PUBLIC LAW 20-6, IT IS ONLY APPROPRIATE TO CHARGE PRIVATE WELL OWNERS AND OPERATORS FOR WATER BEING PUMPED AND USED FOR NON-PUBLIC PURPOSE.

THE ESTABLISHMENT OF A WATER RESEARCH AND DEVELOPMENT FUND

AS VITAL AS THE NORTHERN GUAM AQUIFER IS TO EVERYONE RESIDING ON GUAM, IT IS SURPRISING THAT, WHILE WE HAVE A GENERAL UNDERSTANDING OF GUAM'S AQUIFER, THERE REMAINS A GREAT DEAL TO BE LEARNED ABOUT THE UNIQUE CHARACTERISTICS OF THE LENS AND THE WAY IT REACTS TO NATURAL AND MAN-MADE ACTIVITY. PROPER MANAGEMENT OF GUAM'S WATER RESOURCES REQUIRES AN ACCURATE UNDERSTANDING ON WHICH TO BASE DECISIONS OF NOT ONLY THE AQUIFER, BUT OF OUR SURFACE WATERS, OUR WATER USE HABITS, THE DIFFERENT WATER DISTRIBUTION SYSTEMS ON ISLAND, LOCALLY VIABLE CONSERVATION MEASURES, AND OUR ALTERNATIVE SOURCES OF WATER.

BILL 539 SEEKS TO ESTABLISH A WATER RESEARCH AND DEVELOPMENT FUND TO FINANCE WATER-RELATED RESEARCH FROM FEES COLLECTED FROM

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PRIVATE WELLS. PUAG SUPPORTS THE NEED TO PROVIDE A SOURCE OF FUNDING TO KEEP CURRENT AVAILABLE DATA ON OUR WATER RESOURCES.

INITIALLY WE SUGGEST THAT THE FUND SEEK TO PREPARE A COMPREHENSIVE MAPPING OF THE GEOLOGIC STRUCTURE OF GUAM'S NORTHERN LIMESTONE PLATEAU --- INFORMATION THAT IS VITALLY NEEDED TO PROPERLY MANAGE OUR VALUED AQUIFER RESOURCE. ADDITIONAL PROJECTS WORTH CONSIDERING ARE THE DEVELOPMENT OF A COMPUTERIZED HYDRAULIC MODEL OF GUAM'S WATER DISTRIBUTION SYSTEMS, THE EXAMINATION OF THE VIABILITY OF ALTERNATIVE WASTEWATER RECLAMATION METHODS, AND A STUDY ON WATERSHED PROTECTION FOR THE UGUM RIVER AND OTHER VIABLE SURFACE WATER SOURCES.

AS THE BILL IS WRITTEN, THE FUND IS TO BE ADMINISTERED BY A COMMITTEE CHAIRED BY THE GUAM ENVIRONMENTAL PROTECTION AGENCY (GEPA) WITH REPRESENTATIVES FROM THE UNIVERSITY OF GUAM WATER & ENERGY RESEARCH INSTITUTE (WERI) AND PUAG. WE SUGGEST THAT THE LEGISLATURE CONSIDER EXPANDING THE MEMBERSHIP OF THE COMMITTEE TO INCLUDE A REPRESENTATIVE FROM THE BUREAU OF PLANNING AND A REPRESENTATIVE FROM THE PRIVATE SECTOR CHOSEN BY THE GOVERNOR. RATHER THAN LEGISLATE THE APPOINTMENT OF A COMMITTEE CHAIR, WE SUGGEST THAT THE COMMITTEE CHAIR BE SELECTED BY THE COMMITTEE TO ALLOW FOR AN EQUITABLE SHARING OF THE CHAIR'S RESPONSIBILITIES.

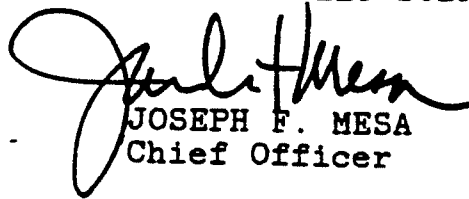
WE APPRECIATE THIS COMMITTEE'S UNDERSTANDING OF THE NEED FOR THIS LEGISLATION AND WE THANK YOU FOR ALLOWING US THIS OPPORTUNITY TO EXPRESS OUR VIEWS. WE SEEK YOUR CONSIDERATION OF THE CONCERNS

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WE HAVE EXPRESSED ON BILL 539, AS WRITTEN, AND WITH THESE CHANGES,
YOUR FAVORABLE PASSAGE.

I WOULD BE PLEASED TO RESPOND TO ANY QUESTIONS THAT THE
CHAIRMAN OR THE MEMBERS OF THIS COMMITTEE MIGHT HAVE.

RESPECTFULLY SUBMITTED,


JOSEPH F. MESA
Chief Officer

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**PRESENTATION FOR
LEGISLATIVE TESTIMONY
JULY 19, 1993
BY
UNIVERSITY OF GUAM
WATER AND ENERGY RESEARCH INSTITUTE (WERI)**

I would like to thank you for the opportunity to be here today to testify on Bill 539. My name is Shahram Khosrowpanah, I am the Director of the University of Guam, Water and Energy Research Institute called (WERI). The University of Guam, Water and Energy Research Institute is the only research Institute in the Western Pacific Islands that does research on freshwater related issues, such as groundwater, surface water, hydrogeology, water quality, and environmental issues.

Since the Northern Guam Aquifer is our major source of drinking water supply, I would like to briefly review the works (studies) that have been done in the past.

Before I go through this review, there are a couple of terms that often are confused:

One is Geology: The study of rock formations, history of deposition, and what happens after deposition. By using various techniques and equipment rock's porosity and surface fracture can be determined.

Hydrogeology: Study of the occurrence of water and movement of water below surface. Study of the dynamics of lens.

Hydrology: Study of surface water. Some times it is referred to as Groundwater hydrology and surface hydrology.

In 1963 Tracy did a field study of the Guam's surface geology. In this study, no drilling was done to get information about sub-surface geology.

According to this study, the island is sharply divided into two major geologic formations. A lime stone plateau in the North and dissected volcanic upland in the South.

In 1976, John Mink summarized and combined the information that was collected until that time into a report and that was submitted to PUAG as WERI technical report.

In that report, the sustainable yield (how much water we can pump without damaging the lens) was estimated to be 50 mgd. Due to inadequate hydrogeological data and aquifer geometry, it was a highly judgmental estimate as he reported.

In April 1978 NGL was officially designated as a soul source aquifer.

The first comprehensive study of the NGL was conducted in 1982. The primary goals of this study were to identify the extent and dynamics of the Northern aquifer and to determine sustainable yields and to devise a management plan for protecting the Northern aquifer. Due to lack of information such as down-hole geology, long term water well elevation, and salinity depth relation, they use various techniques such as topographic, geophysical, and exploratory drilling for coring. As a result of this study the Northern Guam lens was divided into six hydrological sub-basins with 47 management zones. Through this study, they estimated a sustainable yield of 59 mgd. However, because of the lack of long terms data this estimate was a conservative number.

In 1992, in an unpublished study by John Mink, did a brief review of the Northern Guam groundwater and he recommended that a similar study of the NGLS in 1982 should be done.

Now lets look at a number of the facts:

In 1982: Number of wells in the northern part 86
 Population 105,900
 Production 20 mgd

In 1992 Number of wells 117 (101 in North and 16 at the south)
 Population 132,726
 Production 28 mgd