HOMESTEAD CREATION FOR NATIVE HAWAIIANS:

Prudent Management of the Home Lands Trust

(Part One)

PREPARED FOR:

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The firm of Fisher, Sheehan & Colton, Public Finance and General Economics (FSC) has been asked to review the methodology used by Dr. Thomas Loudat in his preparation of an evaluation of the Hawaiian Home Lands Trust (hereafter *Loudat Report* or *Report*). The purpose of the FSC review is to determine whether Dr. Loudat applied reasonably adequate principles of trust management in his evaluation. FSC has undertaken that evaluation and has concluded that, with the exception of the methodological issues identified regarding the conversion of additional funds to present value dollars,[1] the *Loudat Report* was reasonable in its theory, application and approach.

The discussion below is laid out in three parts. *Part 1* looks at whether the *Loudat Report* used reasonable principles of trust evaluation in its review of the Home Lands Trust. *Part 2* looks at the introduction of conservatism into the *Report* by setting aside certain issues that would potentially have generated substantial sums of additional revenues for the Trust. *Part 3* sets forth a summary and conclusions.

PART 1: THE PRINCIPLES WERE REASONABLE

Several principles stand out as to the evaluation of prudent management of a trust such as the Hawaiian Home Lands Trust. The *Loudat Report* engaged in a reasonable review based on these principles.

The Principle of "Solely in the Interest" and Exclusive Benefits

The general legal rule is that the Trust be operated solely in the interests of the Trust beneficiaries. This duty is alternatively stated in the proposition that the exclusive benefits of the Trust are to accrue to the Trust's beneficiaries. The review of lease rents by DLNR and DHHL, for example, appropriately considered the differing missions of the two agencies and how those missions might fit within the Trust administration limitations created by the duty of "loyalty." While DHHL has as its sole mission the generation of benefits for native Hawaiians, DLNR has a larger "public interest" as its institutional mission. This larger mission does not fulfill the "solely in the interest" test.

Duty of "Loyalty": Conflicts of Interest are to Be Strictly Reviewed

Transactions in which there is a "conflict of interest" present are presumed to be invalid. The belief is that it is almost impossible for the same person to act fairly in two capacities and on behalf of two interests in the same transaction. Arms length transactions are to be expected. Loudat's review of interdepartmental land transfers by state government agencies is one example of this type of conflict. These interdepartmental transfers include the transfer of Trust lands to

[1] These are set forth in Part Two of the FSC review.

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other government agencies for, amongst other things, roads, airports and the like. One reason such transfers are made is precisely *because* they are not at arms length. Accordingly, several results arise. First, transactions occur even though alternatives, albeit alternatives with more "strings attached," exist. Second, transactions occur so that the purchasing party may obtain below market sales prices. In my experience, the party obtaining the benefit of the "insider status" has been the purchasing party (with land being undervalued *vis a vis* sales price) rather than the selling party (with land being overvalued *vis a vis* sales price). The constraints on non-arms-length transactions are aimed specifically at preventing these violation of trust principles.

Returns should be Reasonable but Need Not be Maximum

In reviewing Trust administration, the rule is that the end-in-view is to generate "reasonable" returns, not necessarily "maximum" returns. Merely because one decision might have generated greater funds than an alternative decision, in other words, does not mean that the first decision is to be preferred.

At first glance, the *Loudat Report* adopts the principle that there is a need for Trust management to "maximize" returns. However, when placed within the context of the actual analysis, this principle is not what it might facially appear to be. Instead, the "maximizing" principle articulated in the *Loudat Report* appears simply to be a restatement of the duty to operate the Trust "solely in the interests" of the Trust beneficiaries and that reduced returns are not to be accepted in furtherance of other public goals. Again, this notion is set forth in the discussion of the differences in the agency goals of DLNR and DHHL as well as in the review of the transfer of land to other uses yielding public benefits (*e.g.*, roads, airports).

The fact that the *Loudat Report* does not insist on maximum returns can be gleaned from the observation that the *Report* does not consider whether market rents were obtained, does not consider whether the investment portfolio was optimal so as to generate maximum return, does not consider whether land sales prices were sufficient to provide maximum returns, and the like.

Moreover, while the *Loudat Report* notes that sugar cane lands command rents ranging from 2.5 to 6 percent of gross revenues on the sale of sugar cane, the *Report* uses the *average* return of 3.5 percent as the benchmark for revenues to be received by the Trust. (*Loudat Report*, at 76).

The Appropriate Standard is the Prudent Person

The appropriate standard to be applied to trust administration is the "prudent person" rule. By far the most conservative application of the "prudent person" rule is the standard based on the prudence of a person seeking the "preservation of the estate." This is the standard generally applied in the *Loudat Report*. Under this standard, the primary responsibility of the trustee is to safeguard the principal and produce a reasonable amount of interest.

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An alternative standard that the *Loudat Report* could have applied is a standard based on the prudence of a person seeking "permanent disposition of their funds." This standard requires a more concerted review of the active management of the estate directed toward both reasonable current return in addition to a reasonable growth in the principal. Loudat could have considered, for example, whether rentals of Trust lands properly mixed commercial, residential and industrial properties. He could have considered whether the portfolio of investments was appropriate. He could have considered whether leases were properly managed to obtain other than average returns. He did not undertake to review these "active management" decisions.

Reviews are to Evaluate Decisionmaking "Processes," not End Results

The *Loudat Report* appropriately applies a "process" rule to the review of the management of the Trust. This principal calls for a review of the decisionmaking rather than a review of the end result of the decision. An evaluation, in other words, should not engage in perfect hindsight. Instead, the evaluation should determine whether the Trustee's decision was appropriate at the time it was made. The *Loudat Report* appropriately applies this principle of review.

Thus, for example, the *Loudat Report* does not simply consider the fact that there were substantial appropriation lapses for DHHL in 1980 and 1982. Rather, the *Report* looks at whether DHHL reasonably made itself aware of the results of the 1978 Constitutional amendment regarding lapses and reasonably adjusted its program management in response to that amendment. (*Loudat Report*, at 52 - 53).

Prudence Involves an Ongoing Review of Activities

Notwithstanding the limitations of the preceding paragraphs, "prudent management" involves a review of the *ongoing* process of decisionmaking. A prudent decision once made, in other words, is not insulated from a future finding of *im*prudence should circumstances change. Under this principle, there is an obligation on the Trustee not only to make prudent decisions, but to engage in ongoing reviews of past decisions to determine whether the course of conduct by the Trust *continues* to be reasonable.

If anything, the *Loudat Report* does not engage in this continuing review. Once a review of a year is completed, the decisions of that year were closed out and not revisited. One example of a failure to engage in an evaluation of the need for the Trust's management to engage in continuing prudence was the acceptance by the *Loudat Report* of the prudence of long-term water leases. Those leases were not reviewed to determine whether it was reasonable for DHHL to continue to enter into such long-term leases.

PART 2: THE INTRODUCTION OF CONSERVATISM BY SETTING ASIDE ISSUES

The *Loudat Report* introduces a significant element of conservatism into the review process by

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accepting certain decisions and circumstances and declining to review them for prudence. Amongst the issues that were set aside, that may have generated substantial additional dollars for the Trust had they been reviewed, were:

1. Revenues for non-homestead encumbered lands *not* generated by general lease and revocable permit encumbered land use categories were set aside, even though they represented eight percent (8%) of all non-homestead encumbered land uses. (*Loudat Report*, at 22).

2. Revenues from the highest and best use of "other" non-homestead encumbered lands were set aside as being "beyond the scope of the analysis." (*Loudat Report*, at 25).

3. Revenues from contested lands on which agreement had not been reached as to title claims were set aside. (*Loudat Report*, at 29).

4. Estimated rents from trust lands used by the military were set aside. (*Loudat Report*, at 30).

5. Whether back rents paid by DOT were adequate to compensate the Trust for the lost use of those lands was set aside. (*Loudat Report*, at 32).

6. Potential revenues from more than 2,307 acres of contested land on which DHHL's claim to title has been verified were set aside. (*Loudat Report*, at 34).

7. The potential revenues had DLNR received *market rents* under its leases was set aside. (*Loudat Report*, at 40 - 41).

8. The potential revenues had DHHL better managed its industrial and commercial leases was set aside. (*Loudat Report*, at 42).

9. The potential revenues had DHHL received *market rents* under its leases was set aside. (*Loudat Report*, 45, 48)

10. The potential revenues from an optimal level of loan portfolio balances was set aside and actual loan portfolio balances used instead. (*Loudat Report*, at 70).

11. The potential revenues from an optimal level of cash balances was set aside. (*Loudat Report*, at 71). Cash balances maintained for day-to-day operations were assumed to be 25 percent of available cash, even though that figure is a "liberal estimate" for what would likely have been needed. (*Loudat Report*, at 72).

12. Whether the Trust received its statutory share of water fees under revocable permits,

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particularly from 1979 to 1988, was set aside. (*Loudat Report*, at 77). This issue was set aside despite the fact that water license fees comprised about 23 percent of total sugar lease rents and water license fees collected by DLNR from 1962 through 1978. The reversion of water licenses to short-term revocable permits apparently resulted in a decrease in revenues after 1979, which decrease in revenues was simply not studied. (*Loudat Report*, at 77).

13. Potential water license fees were not estimated. (*Loudat Report*, at 82 - 83).

PART 3: SUMMARY AND CONCLUSIONS

The overall approach and methodology used by Loudat in his evaluation of the Home Lands Trust is reasonable. Specific principles exist which govern the prudence of the operation of trusts. The *Loudat Report* reasonably articulates those principles. Where not expressly articulated, the application of the principles is evident from an operational review of the evaluation. Where choices exist as between competing principles of trust management, the *Loudat Report* tends to rely upon the more conservative requirements. Reliance upon the alternative choices likely would have yielded an identification of greater dollars of additional revenues to be available to the Trust through the evaluation period.

In addition to the reasonable and conservative application of principles of trust management, the *Loudat Report* in numerous instances simply set aside issues that, had they been resolved, would have resulted in the identification of additional revenues to the Trust.

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This paper presents an evaluation of the report prepared by Dr. Thomas Loudat (*Loudat Report*) regarding the Native Hawaiians Home Lands Trust. The analysis seeks to determine whether Dr. Loudat reasonably assessed the dollars that would be available to the Trust given his findings of specific areas of the lack of optimal Trust management.

The evaluation below does not seek to review the data presented in the *Loudat Report*. Rather, this evaluation focuses on the methodology employed. The analysis below is set forth in five parts. *Part 1* draws the distinction between "constant dollars" and "present value." This part posits that the *Loudat Report*'s presentation of additional Trust funds in constant dollars is unduly conservative. Instead, the *Report* should have calculated the present value of the additional funds. *Part 2* discusses the need to include a continuous compounding of return in the calculation of present value. *Part 3* applies the lessons of the first two sections and determines the impact of using these calculations rather than the constant dollar analysis presented in the *Loudat Report*. *Part 4* offers as a separate matter the observation that rather than using the composite CPI-U for "all items" as the basis for calculating constant dollars, the *Loudat Report* should instead have used the CPI-U for shelter. *Part 5* sets forth a summary and conclusions.

PART 1: USING PRESENT VALUE AS OPPOSED TO CONSTANT DOLLARS

The calculation of the dollars available to the Trust Fund in 1988 should have been calculated as "present value" rather than as the "constant dollars" presented in the *Loudat Report*. The methodology employed in the *Loudat Report* is unduly conservative. A constant dollar analysis takes into account only inflation, while a present value analysis takes into account both inflation and a reasonable return. This conclusion is explained in greater detail below.

The purpose of the methodology used in the *Report* is to show what monies would have been available in 1988 had the Home Lands Trust been prudently managed as defined in the *Report*. The *Loudat Report* adopts an extremely conservative approach in its calculation of constant dollars available as a result of the additional revenues arising through prudent management of the Trust Fund. The *Report* presents the additional revenues which it has identified in 1988 dollars, having converted current year dollars to 1988 dollars by use of the Consumer Price Index for all urban consumers (CPI-U).

The assumption implicit within the *Report*'s conversion of current annual dollar amounts to constant 1988 dollars through use of the CPI-U is that, while there would have been additional principal in the Trust created by prudent management of the Trust Fund, only that principal would have been available in 1988. That implicit assumption is not likely correct. Instead, if there would have been additional dollars of principal generated in previous years for the Trust, that principal would have been put to use so as to generate a return on investment as well.[\2\] While a

[\2\] An analysis arguing that the additional funds would have been spent on the creation of additional homesteads and would not be available for investment is in error. The purpose of the *Loudat*

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present value analysis catches this return, the constant dollar analysis used in the *Loudat Report* does not. The discussion below considers the growth in the funds that would be available in 1988 not merely by updating the dollars to account for inflation, but rather by investing and managing the dollars for reasonable and prudent growth.

A. The Conceptual Framework

Conceptually, the purpose of the calculation today is to place the beneficiaries of the Trust in the same position in which they would have been had the mismanagement not occurred. There are two ways to approach this calculation, and the *Loudat Report* has taken the most conservative approach.

The approach implicit in the *Loudat Report* is called the restitution method. This method seeks merely to restore the harmed party to the status quo *ex ante* had the mismanagement not occurred. An example illustrates: I wrongly take (or, conversely, fail to provide you with) $100 in 1960 (with the $100 being in 1960 dollars). In 1988, I am directed to give you the $100 back in dollars adjusted for inflation. Adjusted for inflation, by giving you $389, I have restored your $100 in 1988 dollars, nothing more and nothing less. This is the restitution method.

The more common approach, however, is called the "benefit of the bargain" approach. To truly place you in the same position that you would have been in had I not denied you the $100 in 1960, I must not only restore your $100 adjusted for inflation, but I must *also* give you the economic loss of having withheld your $100. To restore your economic loss, I must give you the benefits that the $100 would have provided in the meantime. By giving you only the $100 (*i.e.*, $389 in 1988 dollars), in other words, I have restored the principal but denied the benefits that would have arisen had the principal been prudently managed.[3]

The basic principle is that the amount of the loss is determined by weighing the actual value of the Trust principal against what the value would have been had it been prudently managed. One method of doing that is what the *Loudat Report* did, to assume a growth in principal equal to the rate of inflation. That method, however, is not commonly accepted. The more common method of determining the growth in principal is to apply a fiscally sound, conservative, active management of the Trust estate.

(..continued)

Report is to determine the present value of the Trust given the fact that this expenditure did *not* occur.

[3] Substantial debate can occur as to what interest rate should be assumed to result from fiscally sound, conservative (*i.e.*, non-speculative) active management. The analysis below seeks to preempt that issue by accepting the Trust Fund's weighted interest rate as satisfying that test. This should not be construed as a review and approval of the investment structure. The prudence of the interest rates, and the investment structure, have simply not been reviewed.

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The goal of this latter method is to calculate the differences in the principal values of the prudently and imprudently managed estates and *the income earned on each estate*. The prudent management of the Trust, in other words, should have *two* components, not just one as set forth in the *Loudat Report*: (1) a principal value (found by the *Loudat Report*); *and* (2) the earned income. In establishing the earned income, the rate and amount of interest should, at a minimum, restore to the beneficiaries the income they otherwise would have received had the Trust not been mismanaged. It is this second step which the *Loudat Report* has not done.

In sum, the most common means of calculating how to restore a mismanaged trust is not simply to restore the principal as done in the *Loudat Report*. The most common, and most appropriate, means of restoring the Trust is to restore lost principal *and return*. The beneficiaries of the Trust should, in other words, receive not only restitution of the wrongfully denied principal, but should realize the benefit of the bargain as well.

B. The Conversion of Dollars

The conversion of current dollars to constant 1988 dollars in the *Loudat Report* is to allow for a uniformity in comparison as between years. As the *Report*, itself, states:

> Current dollar amounts are generally converted to 1988 dollar values to remove the effects of inflation. If this was not done, comparing 1960 and 1988 general lease rents, for example, would be akin to comparing apples and oranges because a dollar in 1960 had much greater purchasing power than a dollar in 1988. Once the effects of inflation are removed, dollar values are expressed in equivalent purchasing power terms. Thus, meaningful comparisons (*i.e.*, comparing apples and apples) between different points in time such as 1960 and 1988, can be made.

(*Loudat Report*, at 5). In sum, the formula used to present dollars in constant 1988 dollars takes into account the fact that, due to inflation, a dollar had greater purchasing power in 1960 than it did in 1988. The purpose of the presentation in constant dollars is to provide for uniformity in comparison as between years. Stated another way, the numbers presented through the conversion of dollars to constant 1988 dollars are functionally the same. In terms of purchasing power, $100 in 1960 is functionally the equivalent of $389 in 1988.

The methodology used to make the conversion is simple:

> 1988 dollar value = current dollar value x 1988 CPI/current year CPI
>
> where CPI is the Honolulu Consumer Price Index for All Urban Consumers.

The *Loudat Report* presented the example of 1960 general lease rents, where application of the formula would work as follows:

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1988 dollar value = 1960 lease rent amount x 1988 CPI/1960 CPI
= $226,000 x 121.7/31.3
= $879,000

(*Loudat Report*, at 5).

C. The Problem with Using CPI-U

The conversion of current dollars to constant 1988 dollars through application of the CPI-U is perhaps reasonable for the purpose of making uniform comparisons between years. The purpose of the *Loudat Report*, however, was more than to make a uniform comparison as between years. The purpose of the *Report* was to assess how much financing would have been available in 1988 had the Trust Fund been prudently managed in each of the years 1959 though 1988.

If prudent management would have generated $x in additional funds in each of those years, the Fund would not simply have that $x in 1988. The funds instead would have been invested by the prudent manager and allowed to grow. This growth would have compensated for inflation as well as provided a return on investment. The CPI-U accounts for the inflation, but provides no return.

The return would have been generated in one of two ways. On the one hand, the presence of additional revenue presumably could have displaced certain Trust Fund borrowing. In this fashion, the funds would have generated a rate of return equal to the Trust Fund's marginal cost of borrowing.

On the other hand, if not used to displace marginal borrowing, the funds could have been invested with the investment providing a rate of return. Factored over the full range of Trust investments, assuming a *pro rata* share of the additional dollars would have gone into each, would result in a rate of return equal to the Trust Fund's weighted interest rate. It is this latter methodology -- assuming investment rather than displaced borrowing-- which is used in the analysis below.

Whether affirmatively invested or used to displace borrowing, the additional funds identified in the *Report* should not be presented merely in constant value dollars as functional equivalents. They instead should have been evaluated to determine how the funds would have grown to present value with an accompanying rate of return.

The difference will be dramatic. Using the same example presented in the *Loudat Report* regarding 1960 general lease rents, and assuming a weighted rate of return of six percent (6%),[4]

[4] This six percent is used simply for illustration. It is not intended to portray any determination of the weighted interest rate for the Trust Fund. The actual weighted interest is set forth in discussions below.

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the $226,000 additional general lease rent revenues identified for 1960 would have grown to $1.225 million by 1988. Using this hypothetical six percent, and considering the investment of the additional dollars, in other words, would have increased the value of the additional funds identified in the *Loudat Report* by nearly 40 percent ($1.225 million vs. $879,000).

PART 2: COMPOUNDING THE RATE OF RETURN

A second adjustment to make to the analysis presented in the *Loudat Report* is not simply to grow the funds by an investment with a calculated rate of return, but rather to compound that rate of return on a periodic basis as well.

The $1.225 million figure set forth above presents the additional dollars as though the effective annual yield on the investment was equal to the *annual* weighted interest rate. The return, in other words, is assumed to be compounded on an annual basis.

A prudent manager of investment funds, however, would not accept simply an annual compounding. Instead, there would be continuous compounding. The effect of this is to permit the investor to receive a *greater* effective yield on the investment. Part of the total annual return, in other words, would represent a return on the return. Obviously, the effective annual yield on a six percent (6%) interest compounded daily is greater than the effective annual yield on a six percent (6%) interest compounded annually or monthly. In sum, prudent and efficient management will reinvest daily earnings, thus compounding the growth in the investment, *i.e.*, book value, and increasing the long-term growth in the investment.

Implicit in a failure to use continuous compounding is the erroneous assumption that earnings are not received by the Trust Fund until the end of the year. Instead, earnings are received continuously[\5\] and reinvested earnings should be allowed the opportunity to earn the same return as all other capital of the Trust Fund. This return should be accounted for using a continuous compounding.

Implementing the continuous compounding of reinvested earnings will result in a somewhat higher value arising from the reinvestment of the additional funds identified by the *Loudat Report*. Assuming a continuous compounding of interest for the 1960 lease rental income discussed above, and the same six percent (6%) annual interest rate, would result in a 1988 value of $1.287 million. Using this hypothetical six percent, and considering the investment of the additional dollars with continuous compounding, in other words, would have increased the value of the additional funds identified in the *Loudat Report* by 46 percent ($1.287 million vs. $879,000).

[\5\] Even if *payments* are made monthly or quarterly, the earnings implicit in each payment reflect a continuous compounding.

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PART 3: APPLYING THE TWO ADJUSTMENTS

Time, resources and data do not permit a detailed explanation of the recommended adjustments to each line item of additional revenue identified in the *Loudat Report*. It is possible, however, to explain the adjustments to a single line item to illustrate the impact which the adjustments would generate. The line item chosen for explanation involves the "additional lease receipts" identified by the *Report*.

In making the adjustment, this analysis recognizes that the *Report* indicates that the fund structure does not allow for all additional revenues to be made available for homestead production. Hence, this analysis limits itself to the additional receipts that the *Loudat Report* identified as being available for homestead production in Table D of Apendix I.

Looking at the entire analysis period, not simply 1960 as above, in current dollars (*i.e.*, before adjusting to "1988 dollars"), the *Loudat Report* identified $13,277,887 in additional lease receipts that would be available for homestead production.[6] The *Report* states that, adjusting for inflation, this $13.277 million represents $31,691,369 million in 1988 dollars. (*Loudat Report*, at 107). This, in turn, represents the difference between the $92,432,962 estimated revenues and the $60,741,595 actual revenues. (*Loudat Report*, at 48).

If one assumes that the additional revenues identified in the *Loudat Report* were prudently invested and managed, obtaining a rate of return equal to the weighted interest generated on existing revenues, the additional revenues identified by the *Report* would have reached $41,828,626 by 1988. As can be seen, if one begins with the money that the *Report* finds should have been available in the various years, the true functional equivalent of making those funds available retrospectively in 1988 would necessitate an increase of 32 percent over the final figure presented by the *Report* ((41.828 - 31.691) / 31.691 = .32).

Applying this adjustment to each line item of additional revenues set forth in Table D of Appendix I (revenues available for homestead production) results in the following total revenues available to the Trust for homestead production under the adjusted method:

Dollars Available from Homestead Production Present Value vs. Constant Dollars			
Item	Loudat	Colton	Difference
Additional lease rents	$31,691,369	$41,828,626	$10,137,257
Interest on loans and investments	$18,958,080	$28,687,678	$9,729,598

[6] The amount of current dollars can be calculated from Appendix I, Table B.

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General Fund/GO Bond Appropriations	$55,904,678	$71,189,330	$15,284,652
Lapsed Appropriations	$10,494,595	$14,680,641	$4,186,046
Sugar Leases & Water Rents	$1,437,353	$1,041,868	$-395,485
Total	$118,486,075	$157,428,143	$38,942,068

PART 4: COMPOSITE CPI-U AS MEASURE OF INFLATION

A. The Conceptual Framework

As a separate matter, the *Loudat Report* adopts an extremely conservative approach, using the Honolulu CPI-U for "all items" as its basis for adjusting current dollars to constant dollars. In the alternative to the "benefit of the bargain" discussion above, an adjustment should be made to the formula through which the *Loudat Report* converts current dollars into 1988 dollars. This adjustment is merited because the use of a composite CPI-U for "all items" to convert dollars to 1988 dollars is unduly conservative. Instead, the Honolulu CPI-U for shelter costs should have been used.

In reaching this conclusion, it is again important to remember the purpose of the conversion of funds into 1988 dollars. The purpose of presenting the additional funds identified by the *Report* in 1988 dollars is to reflect the difference in purchasing power represented by the funds. In the words of the *Loudat Report*, itself:

> Current dollar amounts are generally converted to 1988 dollar values to remove the effects of inflation. If this was not done, comparing 1960 and 1988 general lease rents, for example would be akin to comparing apples and oranges because a dollar in 1960 had much *greater purchasing power* than a dollar in 1988. Once the effects of inflation are removed, dollar values are expressed in *equivalent purchasing power terms*.

(*Loudat Report*, at 5). (emphasis added). The *Report* states: "all dollar amounts in the report have been converted to 1988 dollars unless otherwise stated. This conversion [compensates for] the effects of inflation, since a dollar in 1960 had greater purchasing power than a dollar in 1988." (*Loudat Report*, at xii).

The purchasing power of the Trust Fund would have been determined by the market-driven rate of return that the Trust Fund received on its invested funds. This rate of return would have three components: (a) a component to reflect inflation; (b) a component to reflect a real growth rate; and (c) a risk component. The risk component is set aside for purposes of this discussion.

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Recognizing these three components, the appropriate inflation rate to be used for purposes of determining equivalent purchasing power is the inflation rate implicit in the rate of return earned by the invested funds of the Trust. If the fund has a general diversified portfolio, in other words, the appropriate inflation rate would be a U.S. national CPI-U for "all items." Only if the Trust invests in a general diversified portfolio limited to local Hawaiian investments, however, would use of the Hawaii CPI-U for "all items" be appropriate.

In fact, the Trust Fund investments are not in a general diversified portfolio, local or otherwise. As the calculation of the weighted interest rates for the Trust found, the majority (80 percent) of Trust Fund dollars are in local shelter funds. The inflation rate implicit in the rates of return earned on these investments, therefore, would be the inflation rate applicable to local shelter costs.

If, indeed, the *Loudat Report* is to set forth dollars in equivalent purchasing power (*i.e.* constant dollars), the inflation rate to be used in the conversion should be the inflation rate implicit in the rate of return earned on Trust Fund dollars during the analysis period. Given the unique nature of the investment portfolio of the Trust, a Honolulu CPI-U for shelter rather than a composite CPI-U for "all items" is most appropriate.

B. The Methodology

Again, the methodology used to make the conversion from current dollars to 1988 dollars is simple:

> 1988 dollar value = current dollar value x 1988 CPI/current year CPI
> where CPI is the Honolulu Consumer Price Index for All Urban Consumers.

The recommendation made in this section is to substitute the Honolulu Consumer Price Index for All Urban Consumers for shelter costs in particular for the more generalized CPI-U used in the *Loudat Report* equation. The equation otherwise remains the same.

C. The Results

The results of using the Honolulu CPI-U for shelter, rather than for "all items," are set forth in below.[\7\] As this Table shows, rather than having $118.5 million in 1988 dollars available for

[\7\] Since a shelter CPI-U has only been calculated for Honolulu since 1963, two numbers are imputed for this calculation. First, the CPI-U for "all items" (31.3) as reported by Loudat was used for 1960. Since the Bureau of Labor Statistics says a Honolulu CPI-U for "all items" was not calculated prior to 1963, the source of this number is not known. Second, it is assumed that the CPI-U for "shelter" increased in equal increments for 1961 and 1962 to reach the first reported CPI-U reported for shelter in Honolulu (33.1 in 1963).

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additional homesteads, the Trust Fund would have available $123.7 million, an increase of roughly five percent over what the *Loudat Report* sets forth.

Dollars Available for Homestead Production CPI-U "All items" vs.CPI-U "Shelter"			
Item	Loudat	Colton	Difference
Additional lease rents	$31,691,369	$33,393,649	$1,702,280
Interest on loans and investments	$18,958,080	$20,150,662	$1,192,582
General Fund/GO Bond Appropriations	$55,904,678	$58,886,729	$2,982,051
Lapsed Appropriations	$10,494,595	$10,391,727	$-102,868
Sugar Leases & Water Rents	$1,437,353	$846,727	$-590,626
Total	$118,486,075	$123,669,494	$5,183,419

PART 5: SUMMARY AND CONCLUSIONS

The method incorporated into the *Loudat Report* for presenting constant dollars substantially understates the funds that should be available in 1988 as a result of the mismanagement of the Trust Fund. Two alternative adjustment can be made to the results presented in the *Report*.

On the one hand, the *Loudat Report* adopts an analytic approach called the restitution method for calculating constant dollars. This method restores the principal to the Trust that should have been available had the Trust not been mismanaged. The approach, however, inappropriately does not consider the return that should have been earned on that principal in the ensuing years. The more common, and more appropriate, approach would be the "benefit of the bargain" approach. Applying this "benefit of the bargain" approach to each line item of additional revenue aidentified by Loudat shows that the approach would yield an increase in benefits of more than 30 percent.

On the other hand, as a separate matter, irrespective of the "benefit of the bargain" approach, even within the *Loudat Report*'s restitution method, there must be an adjustment made to the mechanism for converting current year dollars to constant 1988 dollars. The *Loudat Report* utilizes a composite Honolulu CPI-U for "all items" in its conversion equation. Since the purpose of the conversion is to reflect the change in purchasing power as between years, and since the implicit inflation rate in Trust investments would be the inflation in local shelter costs, the more appropriate CPI-U to use is the Honolulu CPI-U for shelter costs. Applying this shelter CPI-U to each line item of additional revenue identified by Loudat shows that the approach would yield an

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increase in benefits of roughly 15 percent.

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